Table of Contents

As filed with the U.S. Securities and Exchange Commission on September 14, 2018.

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Allogene Therapeutics, Inc.
(Exact Name of Registrant as Specified in Its Charter)

Delaware	2836	82-3562771
(State or Other Jurisdiction of Incorporation or Organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

210 East Grand Avenue
South San Francisco, California 94080
(415) 640-5325
(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

David Chang, M.D., Ph.D.
President and Chief Executive Officer
Allogene Therapeutics, Inc.
210 East Grand Avenue
South San Francisco, California 94080
(415) 640-5325
(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies to:

Charles J. Bair, Esq. Charles S. Kim, Esq. Cooley LLP 4401 Eastgate Mall San Diego, California 92121 (858) 550-6000	Brian J. Cuneo, Esq. B. Shayne Kennedy, Esq. Latham & Watkins LLP 140 Scott Drive Menlo Park, California 94025 (650) 328-4600

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒ (Do not check if a smaller reporting company)	Smaller reporting company	☐
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has not elected to use the extended transition period for complying with any new or revised financial accounting standards provided in Section 7(a)(2)(B) of the Securities Act. ☐

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Proposed maximum aggregate offering price(1)	Amount of registration fee(2)
Common Stock, $0.001 par value per share	$100,000,000	$12,450

(1) Estimated solely for the purpose of calculating the amount of the registration fee in accordance with Rule 457(o) under the Securities Act. Includes the offering price of shares that the underwriters have the option to purchase.
(2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum offering price.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

Table of Contents

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED SEPTEMBER 14, 2018

PRELIMINARY PROSPECTUS

Shares

Common Stock

This is an initial public offering of shares of common stock of Allogene Therapeutics, Inc. We are offering shares of our common stock. We currently expect the initial public offering price to be between $ and $ per share of common stock.

Prior to this offering, there has been no public market for our common stock. We have applied to list our common stock on the Nasdaq Global Select Market under the symbol "ALLO."

We are an "emerging growth company" as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements.

	Per Share	Total
Initial public offering price	$	$
Underwriting discounts and commissions(1)	$	$
Proceeds to Allogene, before expenses	$	$

(1) See the section entitled "Underwriting" for a description of the compensation payable to the underwriters.

Investing in our common stock involves risks. See "Risk Factors" beginning on page 11 to read about factors you should consider before buying shares of our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities nor passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

We have granted the underwriters the option for a period of 30 days to purchase up to an additional shares from us at the initial price to the public less the underwriting discounts and commissions.

The underwriters expect to deliver the shares against payment in New York, New York on , 2018.

Goldman Sachs & Co. LLC **J.P. Morgan** **Cowen** **Jefferies**

Prospectus dated , 2018.

TABLE OF CONTENTS

We have not, and the underwriters have not, authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information.

For investors outside the United States: We have not, and the underwriters have not, done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States.

PROSPECTUS SUMMARY

This summary highlights information contained in other parts of this prospectus. Because it is only a summary, it does not contain all of the information that you should consider before investing in shares of our common stock and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere in this prospectus. You should read the entire prospectus carefully, especially "Risk Factors" and our financial statements and the related notes, before deciding to buy shares of our common stock. The discussion of existing autologous therapies in the summary below and elsewhere in this prospectus, including the section entitled "Business," is not intended to imply that our product candidates are more likely than others to receive regulatory approval from any regulatory authority. Unless the context requires otherwise, references in this prospectus to "Allogene," "we," "us" and "our" refer to Allogene Therapeutics, Inc., and references in this prospectus to "Servier" collectively refer to Les Laboratoires Servier SAS and Institut de Recherches Internationales Servier SAS.

Allogene Therapeutics

Overview

We are a clinical stage immuno-oncology company pioneering the development and commercialization of genetically engineered allogeneic T cell therapies for the treatment of cancer. We are developing a pipeline of off-the-shelf T cell product candidates that are designed to target and kill cancer cells. Our engineered T cells are allogeneic, meaning they are derived from healthy donors for intended use in any patient, rather than from an individual patient for that patient's use, as in the case of autologous T cells. We believe this key difference will enable us to deliver readily available treatments faster, more reliably, at greater scale, and to more patients. In addition, we believe our management team's experience in immuno-oncology and specifically in chimeric antigen receptor (CAR) T cell therapy will help drive the rapid development and, if approved, the commercialization of these potentially curative therapies for patients with aggressive cancer.

In collaboration with Servier, we are developing UCART19, a CAR T cell product candidate targeting CD19. UCART19 is being studied in clinical trials in patients with relapsed or refractory (R/R) B-cell precursor acute lymphoblastic leukemia (ALL), and we expect UCART19 to be advanced to potential registrational trials in the second half of 2019. We also plan to submit an investigational new drug application (IND) in the first half of 2019 for our second allogeneic anti-CD19 CAR T cell product candidate, ALLO-501, for the treatment of R/R non-Hodgkin lymphoma (NHL). In addition, we have a deep pipeline of allogeneic CAR T cell product candidates targeting multiple promising antigens in a host of hematological malignancies and solid tumors.

CAR T cell therapy, a form of cancer immunotherapy, has recently emerged as a revolutionary and potentially curative therapy for patients with hematologic cancers, including refractory cancers. In 2017, two autologous anti-CD19 CAR T cell therapies, Kymriah, developed by Novartis International AG (Novartis), and Yescarta, developed by Kite Pharma, Inc. (Kite), were approved by the FDA for the treatment of R/R B-cell precursor ALL (Kymriah) and R/R large B-cell lymphoma (Yescarta) based on unprecedented efficacy data. Autologous CAR T cell therapies are manufactured individually for the patient's use by modifying the patient's own T cells to express CARs. The entire manufacturing process is dependent on the viability of each patient's T cells and takes approximately two to four weeks. As seen in the registrational trials for Kymriah and Yescarta, up to 31% of intended patients ultimately did not receive treatment primarily due to interval complications from the underlying disease during manufacturing or manufacturing failures.

We believe our allogeneic platform has the potential to be the next revolution in cancer treatment. The below chart highlights some of the potential key benefits of allogeneic CAR T cell therapy.

Supply	• Off-the-shelf product enables creation of inventory • Potential to treat more patients than autologous cell therapies • Readily available supply for retreatment
Delivery Time	• On demand product delivery from inventory • Faster time to treatment may improve patient outcomes
Potency	• More uniform starting materials sourced from healthy donors • Potential for more predictable safety and efficacy
Cost	• Potential for ~100 doses from a single manufacturing run • Ability to scale production to further reduce cost

Our Pipeline

We are currently developing a pipeline of multiple allogeneic CAR T cell product candidates utilizing protein engineering, gene editing, gene insertion and advanced proprietary T cell manufacturing technologies. Our most advanced product candidate, UCART19, is an engineered allogeneic CAR T cell therapy that targets CD19, a protein expressed on the cell surface of B cells and a validated target for B cell driven hematological malignancies. We are also developing engineered allogeneic CAR T cell product candidates for multiple myeloma, other blood cancers and solid tumors. Our pipeline is represented in the diagram below.

1 *May not be required if Phase 2 is a registrational clinical trial.*
2 *Servier holds ex-US commercial rights.*
3 *To enable expansion and persistence of allogeneic CAR T product candidates.*

Our lead product candidates include:

- *UCART19.* In 2016, our collaboration partner, Servier, initiated two clinical trials of UCART19: the CALM trial and the PALL trial. The CALM trial is a Phase 1, open-label, dose-escalation clinical trial in adult patients with R/R ALL. The PALL trial is a Phase 1, open-label, clinical trial in pediatric patients with R/R ALL. In June 2018, interim results from 18 patients in the CALM and PALL clinical trials were presented at the 23rd European Hematology Association Annual Congress. As of April 2018, 13 out of 16 evaluable patients, or 81%, achieved a complete response (CR), defined as the absence of any evidence of cancer, and 12 of those patients, or 92%, achieved a minimum residual disease negative CR (MRD- CR), which occurs when a patient achieves a CR and there is no evidence

of ALL cells in the marrow when using sensitive tests such as polymerase chain reaction or flow cytometry. The most common adverse events were related to cytokine release syndrome (CRS) and were generally manageable. Two mild graft-versus-host disease (GvHD) cases in the skin were observed and resolved. See the discussion under the heading "—Business—Product Pipeline and Development Strategy—UCART19—Clinical Data—Interim Safety" on page 98 of this prospectus for more information regarding adverse events. We expect UCART19 to be advanced to potential registrational trials in the second half of 2019.

- *ALLO-501*. We plan to submit an IND in the first half of 2019 for our second allogeneic anti-CD19 CAR T cell product candidate, ALLO-501, for the treatment of patients with R/R NHL. The manufacturing process for ALLO-501 is different than the one employed for UCART19, but the two product candidates are identical in molecular design.
- *ALLO-715*. We plan to submit an IND in 2019 for an allogeneic CAR T cell product candidate, ALLO-715, targeting BCMA for the treatment of patients with R/R multiple myeloma. Several clinical studies of third-party autologous CAR T cell therapies targeting BCMA have produced promising results in this indication.
- *ALLO-647*. We are developing an anti-CD52 monoclonal antibody, ALLO-647, which is designed to be used prior to infusing our other product candidates as part of the lymphodepletion regimen. We believe ALLO-647 can reduce the likelihood of a patient's immune system rejecting the engineered allogeneic T cells, and may create a window of persistence during which the engineered allogeneic T cells can actively target and destroy cancer cells.

Our Approach

Our allogeneic T cell development strategy has four key pillars:

- ***Limit risk of GvHD.*** GvHD is a condition where allogeneic T cells can recognize the patient's normal tissue as foreign and cause damage. We use a gene editing technology, TALEN, which we license from Cellectis, S.A. (Cellectis), to limit the risk of GvHD by engineering T cells to lack functional T cell receptors (TCRs) so the engineered T cells are no longer capable of recognizing a patient's normal tissue as foreign.
- ***Create a window of persistence by allowing allogeneic T cells to expand in patients.*** To enhance the expansion and persistence of our engineered allogeneic T cells, we use TALEN to inactivate the CD52 gene in donor T cells and an anti-CD52 monoclonal antibody to deplete CD52 expressing T cells in patients while sparing the therapeutic allogeneic T cells. We believe this enables a window of persistence for the infused allogeneic T cells to expand and actively target and destroy cancer cells. We are also developing ALLO-647, our own anti-CD52 monoclonal antibody.
- ***Build a leading manufacturing platform.*** Our off-the-shelf approach is dependent on state-of-the-art manufacturing processes, and we are building a technical operations organization with fully integrated in-house expertise in clinical and commercial engineered T cell manufacturing.
- ***Leverage next generation technologies to improve the functionality of allogeneic CAR T cells.*** We plan to leverage next generation technologies to develop more potent allogeneic CAR T cells and to improve the characteristics of our product candidates. We believe next generation technologies will also allow us to develop allogeneic T cell therapies for the treatment of solid tumors, which to date have been difficult to treat in part due to tumor microenvironments that can impair the activity of T cells.

Our History and Team

We believe we have established a leadership position in allogeneic T cell therapy. In April 2018, we acquired certain assets from Pfizer Inc. (Pfizer), including strategic license and collaboration agreements and

other intellectual property related to the development and administration of allogeneic CAR T cells for the treatment of cancer. We have an exclusive collaboration with Servier to develop and commercialize UCART19 and ALLO-501, and we hold the commercial rights to these product candidates in the United States. We also have an exclusive worldwide license from Cellectis to use its TALEN gene-editing technology for the development of allogeneic T cell product candidates directed against 15 different cancer antigens.

Our world-class management team has significant experience in immuno-oncology and in progressing products from early stage research to clinical trials, and ultimately to regulatory approval and commercialization. In particular, our Executive Chairman, Arie Belldegrun, M.D., FACS, has experience in T cell therapy that dates back to his time at the National Cancer Institute as a research fellow in surgical oncology and immunotherapy with Steven Rosenberg, M.D., Ph.D, a recognized pioneer in immuno-oncology. Our President and Chief Executive Officer, David Chang, M.D., Ph.D., served as Executive Vice President of Kite and held senior leadership roles at Amgen, Inc. (Amgen). Moreover, both Dr. Belldegrun and Dr. Chang led the development and approval of Yescarta at Kite. Additionally, our Chief Technical Officer, Alison Moore, Ph.D., was previously Senior Vice President, Process Development at Amgen, where she led the development, deployment and oversight of manufacturing for approximately 80 multi-modality assets.

Our Strategy

Our goal is to maintain and build upon our leadership position in allogeneic T cell therapy. We plan to rapidly develop and, if approved, commercialize allogeneic T cell products for the treatment of cancer that can be delivered faster, more reliably and at greater scale than autologous T cell therapies. We believe achieving this goal could result in allogeneic T cell therapy becoming a standard of care in cancer treatment and enable us to make potentially lifesaving therapies more readily accessible to more patients throughout the world. Key elements of our strategy include:

- ***Capitalize on a validated target and our first mover advantage in engineered allogeneic anti-CD19 CAR T cell product candidates.*** Autologous anti-CD19 CAR T cell therapies, such as Kymriah and Yescarta, have emerged as potentially curative therapies for B-cell lymphomas and leukemias. We believe developing allogeneic CAR T cell product candidates targeting CD19, such as UCART19 and ALLO-501, is the next frontier in delivering potentially curative therapies against B-cell lymphomas and leukemias, including NHL and ALL.
- ***Expand our leadership position within hematologic indications.*** In addition to UCART19, we plan to advance our near-term pipeline against additional hematological targets where there remains a high unmet need, including ALLO-715, an allogeneic CAR T cell product candidate targeting BCMA for the treatment of R/R multiple myeloma.
- ***Build state-of-the-art gene engineering and cell manufacturing capabilities.*** Manufacturing allogeneic T cell product candidates involves a series of complex and precise steps. We believe a critical component to our success will be to leverage and expand our proprietary manufacturing know-how, expertise and capacity. Accordingly, we plan to invest in cutting edge manufacturing systems and facilities.
- ***Leverage next generation technologies to advance our platform and expand into solid tumor indications with high unmet need.*** We have a broad portfolio of solid tumor targets, including CD70 for the treatment of renal cell cancer and DLL3 for the treatment of small cell lung cancer and other aggressive neuroendocrine tumors. We plan to leverage next generation technologies to make more potent allogeneic CAR T cells and improve the characteristics of our product candidates.

Recent Private Financings

In April 2018, we initiated a $300.0 million Series A and A-1 preferred stock financing, with the first $150.0 million received in April and the second $150.0 million received in July and August, with investments from BellCo Capital, Gilead, Pfizer, Regents of the University of California, funds affiliated with TPG Capital, L.P., partners of Two River, and Vida Ventures, LLC.

In September 2018, we sold and issued $120.2 million aggregate principal amount of convertible promissory notes (2018 Notes) in a private placement transaction. The 2018 Notes do not accrue interest and will automatically settle into shares of our common stock in connection with the closing of this offering at a settlement price equal to 85% of the initial public offering price per share set forth on the cover page of this prospectus.

Risks Associated with Our Business

Our ability to implement our business strategy is subject to numerous risks that you should be aware of before making an investment decision. These risks are described more fully in the section entitled ‘‘Risk Factors,’’ immediately following this prospectus summary. These risks include the following, among others:

- We have a limited operating history and face significant challenges and expense as we build our capabilities.
- We have incurred net losses in every period since our inception and anticipate that we will incur substantial net losses in the future.
- Our engineered allogeneic T cell product candidates represent a novel approach to cancer treatment that creates significant challenges for us.
- We are heavily reliant on our partners for access to key gene-editing technology for manufacturing our product candidates and for the development of UCART19 and ALLO-501.
- Our product candidates are based on novel technologies, which makes it difficult to predict the time and cost of product candidate development and obtaining regulatory approval.
- Our business is highly dependent on the success of UCART19. If we or Servier are unable to obtain approval for UCART19 and effectively commercialize UCART19 for the treatment of patients in its approved indications, our business would be significantly harmed.
- Our product candidates may cause undesirable side effects or have other properties, our clinical trials may fail to demonstrate the safety and efficacy of any of our product candidates, and we may encounter substantial delays in our clinical trials, or may not be able to conduct our trials on the timelines we expect.
- We rely and will continue to rely on third parties, including Servier, to conduct our clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval of or commercialize our product candidates.
- We face significant competition from other biotechnology and pharmaceutical companies, and our operating results will suffer if we fail to compete effectively.
- We are highly dependent on our key personnel, and if we are not successful in attracting and retaining highly qualified personnel, we may not be able to successfully implement our business strategy.
- We will need substantial additional financing to develop our products and implement our operating plans. If we fail to obtain additional financing, we may be unable to complete the development and commercialization of our product candidates.
- We depend on intellectual property licensed from third parties and termination of any of these licenses could result in the loss of significant rights, which would harm our business.
- If our efforts to protect the proprietary nature of the intellectual property related to our technologies are not adequate, we may not be able to compete effectively in our market.

- Third-party claims of intellectual property infringement may prevent or delay our product discovery and development efforts.

Corporate and Other Information

We were incorporated in Delaware in November 2017. Our principal executive offices are located at 210 East Grand Avenue, South San Francisco, California 94080, and our telephone number is (415) 640-5325. Our corporate website address is www.allogene.com. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

This prospectus contains references to our trademarks and to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

Implications of Being an Emerging Growth Company

As a company with less than $1.07 billion in revenue during our last fiscal year, we qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act (JOBS Act), enacted in April 2012. An "emerging growth company" may take advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include, but are not limited to:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended (Sarbanes-Oxley Act);
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved.

We may use these provisions until, at latest, the last day of our fiscal year following the fifth anniversary of the completion of this offering. If certain events occur prior to the end of such five-year period, including if we become a "large accelerated filer," our annual gross revenues exceed $1.07 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period.

We have elected to take advantage of certain of the reduced disclosure obligations in the registration statement of which this prospectus is a part and may elect to take advantage of other reduced reporting requirements in future filings. As a result, the information that we provide to our stockholders may be different than you might receive from other public reporting companies in which you hold equity interests.

The JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. We have elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

The Offering

Common stock offered by us	shares
Option to purchase additional shares	The underwriters have a 30-day option to purchase up to a total of additional shares of common stock.
Common stock to be outstanding immediately after this offering	shares (or shares if the underwriters exercise their option to purchase additional shares in full).
Use of proceeds	We intend to use the net proceeds from this offering to fund research and development of our product candidates and development programs, including our ongoing and planned clinical trials of UCART19, ALLO-501 and ALLO-715, as well as the expansion of our facilities, and for working capital and other general corporate purposes, including costs and expenses associated with being a public company. See "Use of Proceeds."
Risk factors	You should read the section entitled "Risk Factors" for a discussion of certain of the factors to consider carefully before deciding to purchase any shares of our common stock.
Proposed Nasdaq Global Select Market symbol	"ALLO"
Directed share program	At our request, the underwriters have reserved up to shares of our common stock offered by this prospectus for sale, at the initial public offering price, to our directors and officers and certain other parties related to us. Shares purchased by our directors and officers will be subject to the 180-day lock-up restriction described in the "Underwriting" section of this prospectus. The number of shares of common stock available for sale to the general public will be reduced to the extent these individuals purchase such reserved shares. Any reserved shares that are not so purchased will be offered by the underwriters to the general public on the same basis as the other shares offered by this prospectus.

The number of shares of our common stock to be outstanding after this offering is based on 5,279,000 shares of common stock outstanding as of June 30, 2018, and excludes:

- 1,398,900 shares of common stock issuable upon the exercise of outstanding stock options as of June 30, 2018, at a weighted-average exercise price of $11.89 per share;
- 352,200 shares of common stock issuable upon the exercise of outstanding stock options granted after June 30, 2018, at a weighted-average exercise price of $25.06 per share;
- shares of common stock reserved for future issuance under our amended and restated 2018 equity incentive plan (2018 Plan), as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective upon the execution and delivery of the underwriting agreement for this offering (including shares of common stock reserved for issuance under our prior amended and restated 2018 equity incentive plan (Prior Plan), which shares will be added to the 2018 Plan upon its effectiveness); and

- shares of common stock reserved for future issuance under our 2018 employee stock purchase plan (ESPP), as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective upon the execution and delivery of the underwriting agreement for this offering.

Unless otherwise indicated, all information contained in this prospectus assumes or gives effect to:

- the conversion of all our outstanding shares of convertible preferred stock as of June 30, 2018, into an aggregate of 11,743,987 shares of common stock in connection with the completion of this offering;
- the issuance of shares of common stock upon the automatic share settlement of the 2018 Notes, assuming an initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), in connection with the completion of this offering;
- no exercise by the underwriters of their option to purchase up to a total of additional shares of our common stock;
- no exercise of the outstanding options described above;
- the filing and effectiveness of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws immediately prior to the completion of this offering; and
- a one-for- forward stock split of our common stock to be effected prior to the completion of this offering.

Summary Financial Data

The following tables set forth a summary of our financial data as of, and for the periods ended on, the dates indicated. We have derived the summary statement of operations and comprehensive loss data for the period from November 30, 2017 (inception) to December 31, 2017 from our audited financial statements included elsewhere in this prospectus. We have derived the summary statement of operations and comprehensive loss data for the six months ended June 30, 2018 and the summary balance sheet data as of June 30, 2018 from our unaudited interim financial statements included elsewhere in this prospectus. Our unaudited interim financial statements were prepared on the same basis as our audited financial statements and, in our opinion, reflect all adjustments, consisting only of normal recurring adjustments, that are necessary for the fair presentation of the financial information in those statements. The summary financial data included in this section is not intended to replace the financial statements and related notes included elsewhere in this prospectus. You should read the following summary financial data in conjunction with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results to be expected for any other period in the future, and our interim results are not necessarily indicative of the results to be expected for the full year or any other period.

	Period from November 30, 2017 (Inception) to December 31, 2017	Six Months Ended June 30, 2018 (Unaudited)
	(In thousands, except share and per share data)	
Statements of Operations and Comprehensive Loss Data:		
Operating expenses:		
Research and development	$ —	$ 122,486
General and administrative	2	15,123
Total operating expenses	2	137,609
Loss from operations	(2)	(137,609)
Interest and other income, net	—	110
Net and comprehensive loss	$ (2)	$ (137,499)
Net loss per share, basic and diluted(1)	$ 0.00	$ (49.44)
Weighted-average number of shares used in computing net loss per share, basic and diluted(1)	5,000,000	2,781,025
Pro forma net loss per share, basic and diluted (unaudited)(1)		$ (16.40)
Weighted-average number of shares used in computing pro forma net loss per share, basic and diluted (unaudited)(1)		8,383,101

(1) See Notes 2 and 11 to our financial statements included elsewhere in this prospectus for a description of how we compute basic and diluted net loss per share and basic and diluted unaudited pro forma net loss per share, and the weighted-average number of shares used in the computation of these per share amounts.

	As of June 30, 2018		
	Actual	Pro Forma(2)	Pro Forma as Adjusted(3) (4)
		(Unaudited) (In thousands)	
Balance Sheet Data:			
Cash and cash equivalents	$ 143,927	$ 410,827	$
Total assets	148,845	415,745	
Working capital(1)	129,519	396,419	
Total liabilities	17,233	17,233	
Convertible preferred stock	411,052	—	
Subscriptions receivable from preferred stockholders	(150,000)	—	
Accumulated deficit	(137,501)	(137,501)	
Total stockholders' (deficit) equity	(129,440)	398,512	

(1) We define working capital as current assets less current liabilities. See our financial statements and related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities.

(2) The pro forma balance sheet data gives effect to (i) the filing and effectiveness of our amended and restated certificate of incorporation immediately prior to the completion of this offering, (ii) the conversion of all outstanding shares of our convertible preferred stock into 11,743,987 shares of our common stock immediately upon the closing of this offering, (iii) the receipt of $150.0 million in cash proceeds from our convertible preferred stockholders in July and August 2018 related to subscriptions receivable, (iv) the receipt of $116.9 million in net cash proceeds from the sale of the 2018 Notes in September 2018 (which is currently reflected in cash and cash equivalents and additional paid-in capital) and (v) the settlement of the 2018 Notes into shares of our common stock and a charge to accumulated deficit of $ million related to the settlement of the 2018 Notes' embedded redemption features, assuming an initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), in connection with the closing of this offering.

(3) The pro forma as adjusted balance sheet data gives effect to (i) the pro forma adjustments set forth in footnote (2) above and (ii) our receipt of net proceeds from the sale of shares of our common stock at the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(4) Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), would increase (decrease) each of cash and cash equivalents, total assets, working capital and total stockholders' equity by $, assuming the number of shares offered by us as stated on the cover page of this prospectus remain unchanged and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) each of cash and cash equivalents, total assets, and working capital, and total stockholders' equity by $, assuming the assumed initial public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this prospectus, including our financial statements and the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations," before deciding whether to invest in our common stock. The occurrence of any of the events or developments described below could harm our business, financial condition, results of operations and growth prospects. In such an event, the market price of our common stock could decline and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations.

Risks Related to Our Business and Industry

We have a limited operating history and face significant challenges and expense as we build our capabilities.

We were incorporated in 2017 and acquired certain rights to UCART19 and other allogeneic CAR T cell therapy assets from Pfizer in April 2018. We have a limited operating history and are subject to the risks inherent in any newly-formed organization, including, among other things, risks that we may not be able to hire sufficient qualified personnel and establish operating controls and procedures. We currently do not have complete in-house resources to enable our allogeneic CAR T platform. We are heavily reliant on several support services from Pfizer through a Transition Services Agreement (TSA), including certain research and development and general and administrative services. As we build our own capabilities, we expect to encounter risks and uncertainties frequently experienced by growing companies in new and rapidly evolving fields, including the risks and uncertainties described herein. Our ability to rely on services from Pfizer is limited for a period of time, and if we are unable to build our own capabilities, our operating and financial results could differ materially from our expectations, and our business could suffer.

As a company, we have not progressed any product candidates through clinical development to commercialization. Our collaboration partner, Servier, conducts the CALM and PALL clinical trials of UCART19, and we cannot be certain that our planned clinical trials of our other product candidates will begin or be completed on time, if at all.

We have incurred net losses in every period since our inception and anticipate that we will incur substantial net losses in the future.

We are a clinical-stage biopharmaceutical company and investment in biopharmaceutical product development is highly speculative because it entails substantial upfront capital expenditures and significant risk that any potential product candidate will fail to demonstrate adequate effect or an acceptable safety profile, gain regulatory approval and become commercially viable. We have only recently acquired rights to an allogeneic CAR T platform of primarily early-stage product candidates and have no products approved for commercial sale and have not generated any revenue from product sales to date, and we will continue to incur significant research and development and other expenses related to our ongoing operations. As a result, we are not profitable and have incurred net losses in each period since our inception. For the six months ended June 30, 2018, we reported a net loss of $137.5 million. As of June 30, 2018, we had an accumulated deficit of $137.5 million.

We expect to incur significant expenditures for the foreseeable future, and we expect these expenditures to increase as we continue our research and development of, and seek regulatory approvals for, product candidates based on our engineered allogeneic T cell platform, including UCART19, ALLO-501 and ALLO-715. Even if we succeed in commercializing one or more of our product candidates, we will continue to incur substantial research and development and other expenditures to develop and market additional product candidates. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue. Our prior losses and expected future losses have had and will continue to have an adverse effect on our stockholders' equity and working capital.

Our engineered allogeneic T cell product candidates represent a novel approach to cancer treatment that creates significant challenges for us.

We are developing a pipeline of allogeneic T cell product candidates that are engineered from healthy donor T cells to express CARs and are intended for use in any patient with certain cancers. Advancing these novel product candidates creates significant challenges for us, including:

- manufacturing our product candidates to our specifications and in a timely manner to support our clinical trials, and, if approved, commercialization;
- sourcing clinical and, if approved, commercial supplies for the raw materials used to manufacture our product candidates;
- understanding and addressing variability in the quality of a donor's T cells, which could ultimately affect our ability to produce product in a reliable and consistent manner;
- educating medical personnel regarding the potential side effect profile of our product candidates, if approved, such as the potential adverse side effects related to CRS, neurotoxicity, GvHD, prolonged cytopenia and neutropenic sepsis;
- using medicines to manage adverse side effects of our product candidates which may not adequately control the side effects and/or may have a detrimental impact on the efficacy of the treatment;
- conditioning patients with chemotherapy and ALLO-647 or other lymphodepletion agents in advance of administering our product candidates, which may increase the risk of adverse side effects;
- obtaining regulatory approval, as the FDA and other regulatory authorities have limited experience with development of allogeneic T cell therapies for cancer; and
- establishing sales and marketing capabilities upon obtaining any regulatory approval to gain market acceptance of a novel therapy.

We are heavily reliant on our partners for access to key gene editing technology for manufacturing our product candidates and for the development of UCART19 and ALLO-501.

A critical aspect to manufacturing allogeneic T cell product candidates involves gene editing the healthy donor T cells in an effort to avoid GvHD and to limit the patient's immune system from attacking the allogeneic T cells. GvHD results when allogeneic T cells start recognizing the patient's normal tissue as foreign. We use Cellectis's TALEN gene-editing technology to inactivate a gene coding for TCRα, a key component of the natural antigen receptor of T cells, to cause the engineered T cells to be incapable of recognizing foreign antigens. Accordingly, when injected into a patient, the intent is for the engineered T cell not to recognize the tissue of the patient as foreign and thus avoid attacking the patient's tissue. In addition, we use TALEN gene editing to inactivate the CD52 gene in donor T cells, which codes for the target of an anti-CD52 monoclonal antibody. Anti-CD52 monoclonal antibodies deplete CD52 expressing T cells in patients while sparing therapeutic allogeneic T cells lacking CD52. By administering an anti-CD52 antibody prior to infusing our product candidates, we believe we have the potential to reduce a patient's immune system from destroying the engineered allogeneic T cells.

We rely on an agreement with Cellectis for rights to use TALEN and electroporation technology for 15 select targets, including BCMA, Flt3, CD70, DLL3 and other targets included in our pipeline. We also rely on Cellectis, through our agreement with Servier, for rights to UCART19, ALLO-501 and potentially one additional target. We would need an additional license from Cellectis or access to other gene-editing technology to research and develop product candidates directed at targets not covered by our existing agreements with Cellectis and Servier. In addition, the Cellectis gene-editing technology may fail to produce viable product candidates. Moreover, both Servier and Cellectis may terminate our respective agreements in the event of a material breach of the agreements, or upon certain insolvency events. If our agreements were terminated or we required other gene editing technology, such a license or technology may not be available to us on reasonable terms, or at all, particularly given the limited number of alternative gene-editing technologies in the market.

In addition, under the Servier Agreement, Servier is responsible for conducting the two clinical trials of UCART19, CALM and PALL. We plan to support Servier in advancing the CALM and PALL trials, and we expect Servier to support us in submitting an IND in the first half of 2019 for our second anti-CD19 allogeneic T cell product candidate, ALLO-501, for the treatment of patients with NHL. Other than the agreed-upon global research and development plan for UCART19, we have limited control over the nature or timing of Servier's clinical trials and limited visibility into their day-to-day activities. Additionally, other clinical trials being conducted by Servier may at times receive higher priority than research on our programs. If UCART19 encounters safety or efficacy problems, manufacturing problems, developmental delays, regulatory issues or other problems, our development plans and business would be significantly harmed. Moreover, if Servier does not provide its share of support for the UCART19 and ALLO-501 clinical trials, or does not agree with our global development plan and budget for ALLO-501, our expenses may be greater than we currently expect and we may have difficulty progressing ALLO-501 in a timely manner.

The gene-editing technology we use is relatively new, and if we are unable to use this technology in our intended product candidates, our revenue opportunities will be materially limited.

Cellectis's TALEN technology involves a relatively new approach to gene editing, using sequence-specific DNA-cutting enzymes, or nucleases, to perform precise and stable modifications in the DNA of living-cells and organisms. Although Cellectis has generated nucleases for many specific gene sequences, it has not created nucleases for all gene sequences that we may seek to target, and we may not be able do so, which could limit the usefulness of this technology. This technology may also not be shown to be effective in clinical studies that Cellectis, we or other licensees of Cellectis technology may conduct, or may be associated with safety issues that may negatively affect our development programs.

In addition, the gene-editing industry is rapidly developing, and our competitors may introduce new technologies that render our technology obsolete or less attractive. New technology could emerge at any point in the development cycle of our product candidates. As competitors use or develop new technologies, any failures of such technology could adversely impact our program. We also may be placed at a competitive disadvantage, and competitive pressures may force us to implement new technologies at a substantial cost. In addition, our competitors may have greater financial, technical and personnel resources that allow them to enjoy technological advantages and may in the future allow them to implement new technologies before we can. We cannot be certain that we will be able to implement technologies on a timely basis or at a cost that is acceptable to us. If we are unable to maintain technological advancements consistent with industry standards, our operations and financial condition may be adversely affected.

Our product candidates are based on novel technologies, which makes it difficult to predict the time and cost of product candidate development and obtaining regulatory approval.

We have concentrated our research and development efforts on our engineered allogeneic T cell therapy and our future success depends on the successful development of this therapeutic approach. We are in the early stages of developing our platform and there can be no assurance that any development problems we experience in the future will not cause significant delays or unanticipated costs, or that such development problems can be overcome. We may also experience delays in developing a sustainable, reproducible and scalable manufacturing process or transferring that process to commercial partners, which may prevent us from completing our clinical studies or commercializing our products on a timely or profitable basis, if at all. In addition, since we are in the early stages of clinical development, we do not know the doses to be evaluated in pivotal trials or, if approved, commercially. Finding a suitable dose may delay our anticipated clinical development timelines. In addition, our expectations with regard to our scalability and costs of manufacturing may vary significantly as we develop our product candidates and understand these critical factors.

In addition, the clinical study requirements of the FDA, EMA and other regulatory agencies and the criteria these regulators use to determine the safety and efficacy of a product candidate are determined according to the type, complexity, novelty and intended use and market of the potential products. The regulatory approval process

for novel product candidates such as ours can be more complex and consequently more expensive and take longer than for other, better known or extensively studied pharmaceutical or other product candidates. Approvals by the EMA and FDA for existing autologous CAR T therapies, such as Kymriah and Yescarta, may not be indicative of what these regulators may require for approval of our therapies. Also, while we expect reduced variability in our products candidates compared to autologous products, we do not have significant clinical data supporting any benefit of lower variability. More generally, approvals by any regulatory agency may not be indicative of what any other regulatory agency may require for approval or what such regulatory agencies may require for approval in connection with new product candidates. Moreover, our product candidates may not perform successfully in clinical trials or may be associated with adverse events that distinguish them from the autologous CAR T therapies that have previously been approved. For instance, allogeneic product candidates may result in GvHD not experienced with autologous products. Unexpected clinical outcomes would significantly impact our business.

Our business is highly dependent on the success of UCART19. If we or Servier are unable to obtain approval for UCART19 and effectively commercialize UCART19 for the treatment of patients in its approved indications, our business would be significantly harmed.

Our business and future success depends on our ability to obtain regulatory approval of, and then successfully commercialize, our most advanced product candidate, UCART19. UCART19 is in the early stages of development and has only been administered in a limited number of patients in Phase 1 clinical trials. The results to date may not predict results for our planned trial or any future studies of UCART19 or any other allogeneic CAR T product candidate. Because UCART19 is the first allogeneic product to be evaluated in the clinic, its failure, or the failure of other allogeneic T cell therapies, may significantly influence physicians' and regulators' opinions in regards to the viability of our entire pipeline of allogeneic T cell therapies, particularly if high or uncontrolled rates of GvHD are observed. If significant GvHD events are observed with the administration of UCART19, or if it is viewed as less safe or effective than autologous therapies, our ability to develop other allogeneic therapies may be significantly harmed. We are also dependent on Servier to conduct the UCART19 trials in a timely and appropriate manner. If Servier does not conduct the trials on the timeline we expect or otherwise fails to support the trials, our leadership position in the allogeneic CAR T industry and ability to progress additional product candidates may be significantly harmed.

All of our product candidates, including UCART19, will require additional clinical and non-clinical development, regulatory review and approval in multiple jurisdictions, substantial investment, access to sufficient commercial manufacturing capacity and significant marketing efforts before we can generate any revenue from product sales. In addition, because UCART19 is our most advanced product candidate, and because our other product candidates are based on similar technology, if UCART19 encounters safety or efficacy problems, manufacturing problems, developmental delays, regulatory issues or other problems, our development plans and business would be significantly harmed.

Our product candidates may cause undesirable side effects or have other properties that could halt their clinical development, prevent their regulatory approval, limit their commercial potential or result in significant negative consequences.

Undesirable or unacceptable side effects caused by our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign regulatory authorities. Results of our clinical trials could reveal a high and unacceptable severity and prevalence of side effects or unexpected characteristics. Approved autologous CAR T therapies and those under development have shown frequent rates of CRS and neurotoxicity, and adverse events have resulted in the death of patients. We expect similar adverse events for allogeneic CAR T product candidates. Our allogeneic CAR T cell product candidates undergo gene engineering by using lentivirus and TALEN nucleases that can cause insertion, deletion, or chromosomal translocation. These changes can cause allogeneic CAR T cells to proliferate uncontrollably and may cause

adverse events. In addition, our allogeneic CAR T cell product candidates may cause unique adverse events related to the differences between the donor and patients, such as GvHD, infusion reaction, or prolong persistence of donor cells in the patients.

In the PALL and CALM clinical trials, the most common severe or life threatening adverse events resulted from CRS, neurotoxicity, skin GvHD, prolonged cytopenia and neutropenic sepsis. Multiple patients have also died in these trials, including two deaths that were attributed to UCART19, as further described under "Business—Product Pipeline and Development Strategy—UCART19—Clinical Data". In the future, patients may experience additional adverse events related to the lymphodepletion regimen as well as UCART19, some of which may result in death. As we treat more patients with UCART19 in our clinical trials, new less common side effects may also emerge.

As an anti-CD19 CAR T cell therapy, we expect ALLO-501 to cause similar toxicities as UCART19. Other of our allogeneic CAR T product candidates may also cause similar or worse toxicities. For instance, because ALLO-715 may require a higher dose than UCART19 and could be used in a more elderly patient population, it is possible that the risk of GvHD or other adverse events for ALLO-715 could be greater than UCART19.

If unacceptable toxicities arise in the development of our product candidates, we or Servier could suspend or terminate our trials or the FDA or comparable foreign regulatory authorities could order us to cease clinical trials or deny approval of our product candidates for any or all targeted indications. The data safety monitoring board may also suspend or terminate a clinical trial at any time on various grounds, including a finding that the research patients are being exposed to an unacceptable health risk, including risks inferred from other unrelated immunotherapy trials. Treatment-related side effects could also affect patient recruitment or the ability of enrolled subjects to complete the trial or result in potential product liability claims. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff, as toxicities resulting from T cell therapy are not normally encountered in the general patient population and by medical personnel. We have trained and expect to have to train medical personnel using CAR T cell product candidates to understand the side effect profile of our product candidates for both our clinical trials and upon any commercialization of any of our product candidates. Inadequate training in recognizing or managing the potential side effects of our product candidates could result in patient deaths. Any of these occurrences may harm our business, financial condition and prospects significantly.

Our clinical trials may fail to demonstrate the safety and efficacy of any of our product candidates, which would prevent or delay regulatory approval and commercialization.

Before obtaining regulatory approvals for the commercial sale of our product candidates, including UCART19, we must demonstrate through lengthy, complex and expensive preclinical testing and clinical trials that our product candidates are both safe and effective for use in each target indication. Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. The results of preclinical studies and early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials, including in any post-approval studies of UCART19.

There is typically an extremely high rate of attrition from the failure of product candidates proceeding through clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy profile despite having progressed through preclinical studies and initial clinical trials. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy, insufficient durability of efficacy or unacceptable safety issues, notwithstanding promising results in earlier trials. Most product candidates that commence clinical trials are never approved as products.

In addition, for UCART19 and any future trials that may be completed, we cannot guarantee that the FDA or foreign regulatory authorities will interpret the results as we do, and more trials could be required before we submit our product candidates for approval. To the extent that the results of the trials are not satisfactory to the

FDA or foreign regulatory authorities for support of a marketing application, approval of our product candidates may be significantly delayed, or we may be required to expend significant additional resources, which may not be available to us, to conduct additional trials in support of potential approval of our product candidates.

Interim "top line" and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publish interim "top line" or preliminary data from our clinical studies. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. For instance, we and Servier have published preliminary data from the CALM and PALL clinical trials, however such results are preliminary in nature, do not bear statistical significance and should not be viewed as predictive of ultimate success. It is possible that such results will not continue or may not be repeated in ongoing or future clinical trials of UCART19 or our other product candidates.

Preliminary or "top line" data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Adverse differences between preliminary or interim data and final data could significantly harm our business prospects.

We may not be able to file INDs to commence additional clinical trials on the timelines we expect, and even if we are able to, the FDA may not permit us to proceed.

We plan to submit an IND to the FDA to initiate a clinical trial of ALLO-715 targeting BCMA for the treatment of patients with R/R multiple myeloma in 2019, and an IND in the first half of 2019 for ALLO-501 in the treatment of patients with R/R NHL. However, our timing of filing on these product candidates is dependent on further pre-clinical and manufacturing success. We cannot be sure that submission of an IND or IND amendment will result in the FDA allowing testing and clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate such clinical trials. Additionally, even if such regulatory authorities agree with the design and implementation of the clinical trials set forth in an IND or clinical trial application, we cannot guarantee that such regulatory authorities will not change their requirements in the future.

We may encounter substantial delays in our clinical trials, or may not be able to conduct our trials on the timelines we expect.

Clinical testing is expensive, time consuming and subject to uncertainty. We cannot guarantee that any clinical studies will be conducted as planned or completed on schedule, if at all. Even if these trials begin as planned, issues may arise that could suspend or terminate such clinical trials. A failure of one or more clinical studies can occur at any stage of testing, and our future clinical studies may not be successful. Events that may prevent successful or timely completion of clinical development include:

- inability to generate sufficient preclinical, toxicology or other in vivo or in vitro data to support the initiation of clinical studies;
- delays in sufficiently developing, characterizing or controlling a manufacturing process suitable for advanced clinical trials;
- delays in developing suitable assays for screening patients for eligibility for trials with respect to certain product candidates;
- delays in reaching a consensus with regulatory agencies on study design;
- delays in reaching agreement on acceptable terms with prospective CROs and clinical study sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical study sites;

- delays in obtaining required institutional review board (IRB) approval at each clinical study site;
- imposition of a temporary or permanent clinical hold by regulatory agencies for a number of reasons, including after review of an IND application or amendment, or equivalent application or amendment; as a result of a new safety finding that presents unreasonable risk to clinical trial participants; a negative finding from an inspection of our clinical study operations or study sites; developments on trials conducted by competitors for related technology that raises FDA concerns about risk to patients of the technology broadly; or if FDA finds that the investigational protocol or plan is clearly deficient to meet its stated objectives;
- delays in recruiting suitable patients to participate in our clinical studies;
- difficulty collaborating with patient groups and investigators;
- failure by our CROs, other third parties or us to adhere to clinical study requirements;
- failure to perform in accordance with the FDA's good clinical practice (GCP) requirements or applicable regulatory guidelines in other countries;
- transfer of manufacturing processes to any new CMO or our own manufacturing facilities or any other development or commercialization partner for the manufacture of product candidates;
- delays in having patients complete participation in a study or return for post-treatment follow-up;
- patients dropping out of a study;
- occurrence of adverse events associated with the product candidate that are viewed to outweigh its potential benefits;
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols;
- changes in the standard of care on which a clinical development plan was based, which may require new or additional trials;
- the cost of clinical studies of our product candidates being greater than we anticipate;
- clinical studies of our product candidates producing negative or inconclusive results, which may result in our deciding, or regulators requiring us, to conduct additional clinical studies or abandon product development programs;
- delays or failure to secure supply agreements with suitable raw material suppliers, or any failures by suppliers to meet our quantity or quality requirements for necessary raw materials; and
- delays in manufacturing, testing, releasing, validating, or importing/exporting sufficient stable quantities of our product candidates for use in clinical studies or the inability to do any of the foregoing.

Any inability to successfully complete preclinical and clinical development could result in additional costs to us or impair our ability to generate revenue. In addition, if we make manufacturing or formulation changes to our product candidates, we may be required to or we may elect to conduct additional studies to bridge our modified product candidates to earlier versions. Clinical study delays could also shorten any periods during which our products have patent protection and may allow our competitors to bring products to market before we do, which could impair our ability to successfully commercialize our product candidates and may harm our business and results of operations.

Monitoring safety of patients receiving our product candidates is challenging, which could adversely affect our ability to obtain regulatory approval and commercialize.

For our ongoing clinical trials of UCART19 and in our planned clinical trials of other product candidates, Servier has contracted with and is expected to continue to contract with academic medical centers and hospitals

experienced in the assessment and management of toxicities arising during clinical trials. Nonetheless, these centers and hospitals may have difficulty observing patients and treating toxicities, which may be more challenging due to personnel changes, inexperience, shift changes, house staff coverage or related issues. This could lead to more severe or prolonged toxicities or even patient deaths, which could result in us or the FDA delaying, suspending or terminating one or more of our clinical trials, and which could jeopardize regulatory approval. We also expect the centers using UCART19, if approved, on a commercial basis could have similar difficulty in managing adverse events. Medicines used at centers to help manage adverse side effects of UCART19 may not adequately control the side effects and/or may have a detrimental impact on the efficacy of the treatment. Use of these medicines may increase with new physicians and centers administering our product candidates.

If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.

We may experience difficulties in patient enrollment in our clinical trials for a variety of reasons. The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the study until its conclusion. The enrollment of patients depends on many factors, including:

- the patient eligibility criteria defined in the protocol;
- the size of the patient population required for analysis of the trial's primary endpoints;
- the proximity of patients to study sites;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- our ability to obtain and maintain patient consents; and
- the risk that patients enrolled in clinical trials will drop out of the trials before the infusion of our product candidates or trial completion.

In addition, our clinical trials will compete with other clinical trials for product candidates that are in the same therapeutic areas as our product candidates, and this competition will reduce the number and types of patients available to us because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial being conducted by one of our competitors. Since the number of qualified clinical investigators is limited, some of our clinical trial sites are also being used by some of our competitors, which may reduce the number of patients who are available for our clinical trials in that clinical trial site.

Moreover, because our product candidates represent a departure from more commonly used methods for cancer treatment, potential patients and their doctors may be inclined to use conventional therapies, such as chemotherapy and hematopoietic cell transplantation or autologous CAR T cell therapies, rather than enroll patients in our clinical trial. Patients eligible for allogeneic CAR T cell therapies but ineligible for autologous CAR T cell therapies due to aggressive cancer and inability to wait for autologous CAR T cell therapies may be at greater risk for complications and death from therapy.

Delays in patient enrollment may result in increased costs or may affect the timing or outcome of our ongoing clinical trial and planned clinical trials, which could prevent completion of these trials and adversely affect our ability to advance the development of our product candidates.

Clinical trials are expensive, time-consuming and difficult to design and implement.

Human clinical trials are expensive and difficult to design and implement, in part because they are subject to rigorous regulatory requirements. Because our allogeneic T cell product candidates are based on new

technologies and will require the creation of inventory of mass-produced, off-the-shelf product, we expect that they will require extensive research and development and have substantial manufacturing and processing costs. In addition, costs to treat patients with R/R cancer and to treat potential side effects that may result from our product candidates can be significant. We also have less control of costs incurred by our development partner, Servier, for the clinical trials of UCART19. Accordingly, our clinical trial costs are likely to be significantly higher than for more conventional therapeutic technologies or drug products.

The market opportunities for our product candidates may be limited to those patients who are ineligible for or have failed prior treatments and may be small.

The FDA often approves new therapies initially only for use in patients with R/R metastatic disease. We expect to initially seek approval of UCART19, with Servier, and our other product candidates in this setting. Subsequently, for those products that prove to be sufficiently beneficial, if any, we would expect to seek approval in earlier lines of treatment and potentially as a first line therapy. There is no guarantee that our product candidates, even if approved, would be approved for earlier lines of therapy, and, prior to any such approvals, we will have to conduct additional clinical trials, including potentially comparative trials against approved therapies. We are also targeting a similar patient population as autologous CAR T product candidates, including approved autologous CAR T products. Our therapies may not be as safe and effective as autologous CAR T therapies and may only be approved for patients who are ineligible for autologous CAR T therapy.

Our projections of both the number of people who have the cancers we are targeting, as well as the subset of people with these cancers in a position to receive second or later lines of therapy and who have the potential to benefit from treatment with our product candidates, are based on our beliefs and estimates. These estimates have been derived from a variety of sources, including scientific literature, surveys of clinics, patient foundations, or market research and may prove to be incorrect. Further, new studies may change the estimated incidence or prevalence of these cancers. The number of patients may turn out to be lower than expected. Additionally, the potentially addressable patient population for our product candidates may be limited or may not be amenable to treatment with our product candidates. For instance, we expect our most advanced product candidate, UCART19, to initially target a small patient population that suffers from R/R ALL. Even if we obtain significant market share for our product candidates, because the potential target populations are small, we may never achieve profitability without obtaining regulatory approval for additional indications.

If we fail to develop additional product candidates, our commercial opportunity will be limited.

One of our core strategies is to pursue clinical development of additional product candidates beyond UCART19, including ALLO-501 and ALLO-715. Developing, obtaining regulatory approval and commercializing additional CAR T cell product candidates will require substantial additional funding beyond the net proceeds of this offering and is prone to the risks of failure inherent in medical product development. We cannot provide you any assurance that we will be able to successfully advance any of these additional product candidates through the development process.

Even if we receive FDA approval to market additional product candidates for the treatment of cancer, we cannot assure you that any such product candidates will be successfully commercialized, widely accepted in the marketplace or more effective than other commercially available alternatives. If we are unable to successfully develop and commercialize additional product candidates, our commercial opportunity will be limited. Moreover, a failure in obtaining regulatory approval of additional product candidates may have a negative effect on the approval process of any other, or result in losing approval of any approved, product candidate.

Our development strategy relies on incorporating an anti-CD52 monoclonal antibody as part of the lymphodepletion preconditioning regimen prior to infusing allogeneic CAR T cell product candidates.

We plan to utilize an anti-CD52 monoclonal antibody as part of a preconditioning regimen to be infused prior to infusing our product candidates, such as UCART19, ALLO-501 and ALLO-715. While we believe an

anti-CD52 antibody can reduce the likelihood of a patient's immune system from rejecting engineered allogeneic T cells, and thereby may enable a window of persistence during which such engineered allogeneic T cells can actively target and destroy cancer cells, the antibody may not have the benefits that we anticipate and could have other adverse effects. For instance, our lymphodepletion regimen, including using an anti-CD52 antibody, will cause a transient and sometimes prolonged immune suppression.

In the ongoing CALM and PALL trials, we use a commercially available monoclonal antibody, alemtuzumab, that binds CD52. To secure our own readily available source of anti-CD52 antibody, we are developing our own monoclonal anti-CD52 antibody, ALLO-647. We submitted a drug master file (DMF) to the FDA in August 2018 for ALLO-647. If the FDA activates the DMF, Servier will be authorized to reference the DMF in its IND proposing use of ALLO-647 in combination with UCART19 in clinical trials. There can be no assurance that the FDA will activate our DMF in a timely manner or at all. We initially plan to use ALLO-647 in the safety dose-expansion phase of the ongoing CALM clinical trial to further evaluate and optimize its use as a lymphodepleting agent. We plan to utilize the results from the CALM trial to progress ALLO-647 in our planned clinical trials of ALLO-501 and ALLO-715. However, we may be unable to agree with Servier an appropriate arrangement for the use of ALLO-647 in the CALM trial, and we are dependent on Servier's ability to progress the CALM trial. In addition, we may have to license certain rights relating to ALLO-647 from third parties. If we are unable to secure such rights, we may not be able to progress the commercialization of ALLO-647.

If we are unable to successfully develop ALLO-647 in the timeframe we anticipate, or at all, or if the FDA does not approve the use of ALLO-647 in combination with our allogeneic T cell product candidates, we may be unable to source alemtuzumab and our engineered allogeneic T cell product candidates may be less effective, which could result in delays in our product development efforts and/or the commercial potential of our product candidates.

We intend to operate our own manufacturing facility, which will require significant resources and we may fail to successfully operate our facility, which could adversely affect our clinical trials and the commercial viability of our product candidates.

We may not be able to achieve clinical or commercial manufacturing and cell processing on our own or at our CMO, including mass-producing off-the-shelf product to satisfy demands for any of our product candidates. While we believe the manufacturing and processing approaches are appropriate to support our clinical product development, we have limited experience in managing the allogeneic T cell engineering process, and our allogeneic processes may be more difficult or more expensive than the approaches taken by our competitors. We cannot be sure that the manufacturing processes employed by us will result in T cells that will be safe and effective.

We plan to build a separate manufacturing facility with clinical and commercial supply manufacturing capabilities, but we have not identified a location for these activities or secured any space for these activities.

Our operations remain subject to review and oversight by the FDA and the FDA could object to our use of our manufacturing facility. We must first receive approval from the FDA prior to licensure to manufacture our product candidates, which we may never obtain. Even if approved, we would be subject to ongoing periodic unannounced inspection by the FDA and corresponding state agencies to ensure strict compliance with current good manufacturing practices (cGMPs) and other government regulations. Our license to manufacture product candidates will be subject to continued regulatory review.

Our cost of goods development is at an early stage. The actual cost to manufacture and process our product candidates could be greater than we expect and could materially and adversely affect the commercial viability of our product candidates.

The manufacture of biopharmaceutical products is complex and requires significant expertise, including the development of advanced manufacturing techniques and process controls. Manufacturers of cell therapy products often encounter difficulties in production, particularly in scaling out and validating initial production and ensuring the absence of contamination. These problems include difficulties with production costs and yields, quality control, including stability of the product, quality assurance testing, operator error, shortages of qualified personnel, as well as compliance with strictly enforced federal, state and foreign regulations. Furthermore, if contaminants are discovered in our supply of product candidates or in the manufacturing facilities, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination. We cannot assure you that any stability or other issues relating to the manufacture of our product candidates will not occur in the future.

We may fail to manage the logistics of storing and shipping our product candidates. Storage failures and shipment delays and problems caused by us, our vendors or other factors not in our control, such as weather, could result in loss of usable product or prevent or delay the delivery of product candidates to patients.

We may also experience manufacturing difficulties due to resource constraints or as a result of labor disputes. If we were to encounter any of these difficulties, our ability to provide our product candidates to patients would be jeopardized.

We currently have no marketing and sales organization and as a company have no experience in marketing products. If we are unable to establish marketing and sales capabilities or enter into agreements with third parties to market and sell our product candidates, we may not be able to generate product revenue.

We currently have no sales, marketing or distribution capabilities and as a company have no experience in marketing products. We intend to develop an in-house marketing organization and sales force, which will require significant capital expenditures, management resources and time. We will have to compete with other pharmaceutical and biotechnology companies to recruit, hire, train and retain marketing and sales personnel.

If we are unable or decide not to establish internal sales, marketing and distribution capabilities, we will pursue collaborative arrangements regarding the sales and marketing of our products; however, there can be no assurance that we will be able to establish or maintain such collaborative arrangements, or if we are able to do so, that they will have effective sales forces. Any revenue we receive will depend upon the efforts of such third parties, which may not be successful. We may have little or no control over the marketing and sales efforts of such third parties and our revenue from product sales may be lower than if we had commercialized our product candidates ourselves. We also face competition in our search for third parties to assist us with the sales and marketing efforts of our product candidates.

There can be no assurance that we will be able to develop in-house sales and distribution capabilities or establish or maintain relationships with third-party collaborators to commercialize any product that receives regulatory approval in the United States or overseas.

A variety of risks associated with conducting research and clinical trials abroad and marketing our product candidates internationally could materially adversely affect our business.

The CALM trial is currently being conducted in the United States, the United Kingdom and France, while the PALL clinical trial is currently being conducted in the United Kingdom, Belgium and France, and we plan to globally develop our future product candidates. Accordingly, we expect that we will be subject to additional risks related to operating in foreign countries, including:

- differing regulatory requirements in foreign countries;
- unexpected changes in tariffs, trade barriers, price and exchange controls and other regulatory requirements;
- increased difficulties in managing the logistics and transportation of storing and shipping product candidates produced in the United States and shipping the product candidate to the patient abroad;

- import and export requirements and restrictions;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country;
- difficulties staffing and managing foreign operations;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- differing payor reimbursement regimes, governmental payors or patient self-pay systems, and price controls;
- potential liability under the Foreign Corrupt Practices Act of 1977 or comparable foreign regulations;
- challenges enforcing our contractual and intellectual property rights, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the United States;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war and terrorism.

These and other risks associated with our international operations and our collaborations with Servier and Cellectis, each based in France, may materially adversely affect our ability to attain or maintain profitable operations.

We face significant competition from other biotechnology and pharmaceutical companies, and our operating results will suffer if we fail to compete effectively.

The biopharmaceutical industry, and the immuno-oncology industry specifically, is characterized by intense competition and rapid innovation. Our competitors may be able to develop other compounds or drugs that are able to achieve similar or better results. Our potential competitors include major multinational pharmaceutical companies, established biotechnology companies, specialty pharmaceutical companies and universities and other research institutions. Many of our competitors have substantially greater financial, technical and other resources, such as larger research and development staff and experienced marketing and manufacturing organizations and well-established sales forces. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large, established companies. Mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated in our competitors. Competition may increase further as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries. Our competitors, either alone or with collaborative partners, may succeed in developing, acquiring or licensing on an exclusive basis drug or biologic products that are more effective, safer, more easily commercialized or less costly than our product candidates or may develop proprietary technologies or secure patent protection that we may need for the development of our technologies and products.

Specifically, engineered T cells face significant competition in both the CAR and TCR technology space from multiple companies. Even if we obtain regulatory approval of our product candidates, the availability and price of our competitors' products could limit the demand and the price we are able to charge for our product candidates. We may not be able to implement our business plan if the acceptance of our product candidates is inhibited by price competition or the reluctance of physicians to switch from existing methods of treatment to our product candidates, or if physicians switch to other new drug or biologic products or choose to reserve our product candidates for use in limited circumstances.

We are highly dependent on our key personnel, and if we are not successful in attracting and retaining highly qualified personnel, we may not be able to successfully implement our business strategy.

Our ability to compete in the highly competitive biotechnology and pharmaceutical industries depends upon our ability to attract and retain highly qualified managerial, scientific and medical personnel. We are highly dependent on our management, scientific and medical personnel, including our Executive Chairman, our President and Chief Executive Officer, our Chief Technical Officer and our Chief Financial Officer. In addition, we are currently dependent on our TSA with Pfizer for personnel support. The loss of the services of any of our executive officers, other key employees, and other scientific and medical advisors, and our inability to find suitable replacements could result in delays in product development and harm our business.

We conduct substantially all of our operations at our facilities in South San Francisco. This region is headquarters to many other biopharmaceutical companies and many academic and research institutions. Competition for skilled personnel in our market is intense and may limit our ability to hire and retain highly qualified personnel on acceptable terms or at all.

To induce valuable employees to remain at our company, in addition to salary and cash incentives, we have provided stock options that vest over time. The value to employees of stock options that vest over time may be significantly affected by movements in our stock price that are beyond our control and may at any time be insufficient to counteract more lucrative offers from other companies. Despite our efforts to retain valuable employees, members of our management, scientific and development teams may terminate their employment with us on short notice. Although we have employment agreements with our key employees, these employment agreements provide for at-will employment, which means that any of our employees could leave our employment at any time, with or without notice. We do not maintain “key person” insurance policies on the lives of these individuals or the lives of any of our other employees. Our success also depends on our ability to continue to attract, retain and motivate highly skilled junior, mid-level and senior managers as well as junior, mid-level and senior scientific and medical personnel.

We have grown rapidly and will need to continue to grow the size of our organization, and we may experience difficulties in managing this growth.

As our development and commercialization plans and strategies develop, and as we continue to transition into operating as a public company, we have rapidly expanded our employee base and expect to continue to add managerial, operational, sales, research and development, marketing, financial and other personnel. Current and future growth imposes significant added responsibilities on members of management, including:

- identifying, recruiting, integrating, maintaining and motivating additional employees;
- managing our internal development efforts effectively, including the clinical and FDA review process for our product candidates, while complying with our contractual obligations to contractors and other third parties; and
- improving our operational, financial and management controls, reporting systems and procedures.

Our future financial performance and our ability to commercialize our product candidates will depend, in part, on our ability to effectively manage our growth, and our management may also have to divert a disproportionate amount of its attention away from day-to-day activities in order to devote a substantial amount of time to managing these growth activities.

We currently rely, and for the foreseeable future will continue to rely, in substantial part on certain independent organizations, advisors and consultants, including Pfizer through the TSA, which expires after a certain period of time, to provide certain services, including certain research and development as well as general and administrative support. There can be no assurance that the services of independent organizations, advisors and consultants will continue to be available to us on a timely basis when needed, or that we can find qualified

replacements. In addition, if we are unable to effectively manage our outsourced activities or if the quality or accuracy of the services provided by consultants is compromised for any reason, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval of our product candidates or otherwise advance our business. There can be no assurance that we will be able to manage our existing consultants or find other competent outside contractors and consultants on economically reasonable terms, or at all.

If we are not able to effectively expand our organization by hiring new employees and expanding our groups of consultants and contractors, we may not be able to successfully implement the tasks necessary to further develop and commercialize our product candidates and, accordingly, may not achieve our research, development and commercialization goals.

We may form or seek strategic alliances or enter into additional licensing arrangements in the future, and we may not realize the benefits of such alliances or licensing arrangements.

We may form or seek strategic alliances, create joint ventures or collaborations or enter into additional licensing arrangements with third parties that we believe will complement or augment our development and commercialization efforts with respect to our product candidates and any future product candidates that we may develop. Any of these relationships may require us to incur non-recurring and other charges, increase our near and long-term expenditures, issue securities that dilute our existing stockholders or disrupt our management and business. In addition, we face significant competition in seeking appropriate strategic partners and the negotiation process is time-consuming and complex. Moreover, we may not be successful in our efforts to establish a strategic partnership or other alternative arrangements for our product candidates because they may be deemed to be at too early of a stage of development for collaborative effort and third parties may not view our product candidates as having the requisite potential to demonstrate safety and efficacy. Any delays in entering into new strategic partnership agreements related to our product candidates could delay the development and commercialization of our product candidates in certain geographies for certain indications, which would harm our business prospects, financial condition and results of operations.

If we license products or businesses, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture. For instance, our Exclusive License and Collaboration Agreement with Servier requires significant research and development commitments that may not result in the development and commercialization of product candidates, including UCART19 and ALLO-501. We cannot be certain that, following a strategic transaction or license, we will achieve the results, revenue or specific net income that justifies such transaction.

We may not realize the benefits of acquired assets or other strategic transactions.

In April 2018, we entered into an Asset Contribution Agreement with Pfizer pursuant to which we acquired certain assets and assumed certain liabilities from Pfizer, including the Collaboration and License Agreement with Cellectis and the Exclusive License and Collaboration Agreement with Servier and other intellectual property for the development and administration of CAR T cells for the treatment of cancer. We also agreed to offer employment to certain Pfizer employees on terms no less favorable than the terms such employees enjoyed while being employed by Pfizer. We also entered into a TSA with Pfizer pursuant to which Pfizer provides us with certain services, including the services of their personnel, with respect to the assets that we purchased from Pfizer. Under the TSA, Pfizer also provides us with certain facilities and facility management services.

We actively evaluate various strategic transactions on an ongoing basis. We may acquire other businesses, products or technologies as well as pursue joint ventures or investments in complementary businesses. The success of our strategic transactions, including our acquisition of CAR T cell assets from Pfizer and licenses with Cellectis and Servier, and any future strategic transactions depends on the risks and uncertainties involved including:

- unanticipated liabilities related to acquired companies or joint ventures;

- difficulties integrating acquired personnel, technologies and operations into our existing business;
- retention of key employees;
- diversion of management time and focus from operating our business to management of strategic alliances or joint ventures or acquisition integration challenges;
- increases in our expenses and reductions in our cash available for operations and other uses;
- disruption in our relationships with collaborators or suppliers as a result of such a transaction; and
- possible write-offs or impairment charges relating to acquired businesses or joint ventures.

If any of these risks or uncertainties occur, we may not realize the anticipated benefit of any acquisition or strategic transaction. Additionally, foreign acquisitions and joint ventures are subject to additional risks, including those related to integration of operations across different cultures and languages, currency risks, potentially adverse tax consequences of overseas operations and the particular economic, political and regulatory risks associated with specific countries.

Future acquisitions or dispositions could result in potentially dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities or amortization expenses or write-offs of goodwill, any of which could harm our financial condition.

We will need substantial additional financing to develop our products and implement our operating plans. If we fail to obtain additional financing, we may be unable to complete the development and commercialization of our product candidates.

We expect to spend a substantial amount of capital in the clinical development of our product candidates, including the planned clinical trials for UCART19, ALLO-501 and ALLO-715. We will need substantial additional financing to develop our products and implement our operating plans. In particular, we will require substantial additional financing to enable commercial production of our products and initiate and complete registration trials for multiple products. Further, if approved, we will require significant additional amounts in order to launch and commercialize our product candidates.

We estimate that our net proceeds from this offering will be approximately $ million, based on an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. We believe that such proceeds together with our existing cash and cash equivalents will be sufficient to fund our operations for at least the next months. However, changing circumstances may cause us to consume capital significantly faster than we currently anticipate, and we may need to spend more money than currently expected because of circumstances beyond our control. We may require additional capital for the further development and commercialization of our product candidates, including funding our internal manufacturing capabilities and may need to raise additional funds sooner if we choose to expand more rapidly than we presently anticipate.

We cannot be certain that additional funding will be available on acceptable terms, or at all. We have no committed source of additional capital and if we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development or commercialization of our product candidates or other research and development initiatives. Our license agreements may also be terminated if we are unable to meet the payment obligations under the agreements. We could be required to seek collaborators for our product candidates at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available or relinquish or license on unfavorable terms our rights to our product candidates in markets where we otherwise would seek to pursue development or commercialization ourselves.

Any of the above events could significantly harm our business, prospects, financial condition and results of operations and cause the price of our common stock to decline.

Our internal computer systems, or those used by our CROs or other contractors or consultants, may fail or suffer security breaches.

Despite the implementation of security measures, our internal computer systems and the systems of our CROs, contractors and consultants are vulnerable to damage from computer viruses and unauthorized access. While we have not experienced any such material system failure or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our development programs and our business operations. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the further development and commercialization of our product candidates could be delayed.

Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.

Our operations, and those of our CMO, CROs and other contractors and consultants, could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or man-made disasters or business interruptions, for which we are predominantly self-insured. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses.

Our ability to manufacture our product candidates could be disrupted if our operations or those of our suppliers are affected by a man-made or natural disaster or other business interruption. Our corporate headquarters are located in California near major earthquake faults and fire zones. The ultimate impact on us, our significant suppliers and our general infrastructure of being located near major earthquake faults and fire zones and being consolidated in certain geographical areas is unknown, but our operations and financial condition could suffer in the event of a major earthquake, fire or other natural disaster.

Our relationships with customers, physicians, and third-party payors are subject, directly or indirectly, to federal and state healthcare fraud and abuse laws, false claims laws, health information privacy and security laws, and other healthcare laws and regulations. If we or our employees, independent contractors, consultants, commercial partners and vendors violate these laws, we could face substantial penalties.

These laws may impact, among other things, our clinical research program, as well as our proposed and future sales, marketing and education programs. In particular, the promotion, sales and marketing of healthcare items and services is subject to extensive laws and regulations designed to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive and other business arrangements. We may also be subject to federal, state and foreign laws governing the privacy and security of identifiable patient information. The U.S. healthcare laws and regulations that may affect our ability to operate include, but are not limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, any person or entity from knowingly and willfully, offering, paying, soliciting or receiving any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, the purchasing, leasing, ordering or arranging for the purchase, lease, or order of any item or service reimbursable under Medicare, Medicaid or other federal healthcare programs. The term “remuneration” has been broadly

interpreted to include anything of value. Although there are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, the exceptions and safe harbors are drawn narrowly. Practices that may be alleged to be intended to induce prescribing, purchases or recommendations, include any payments of more than fair market value, and may be subject to scrutiny if they do not qualify for an exception or safe harbor. In addition, a person or entity does not need to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act and the civil monetary penalties statute;

- federal civil and criminal false claims laws and civil monetary penalty laws, including the federal civil False Claims Act, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment or approval from Medicare, Medicaid, or other federal government programs that are false or fraudulent or knowingly making a false statement to improperly avoid, decrease or conceal an obligation to pay money to the federal government, including federal healthcare programs;
- the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA), which created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, including private third-party payors and knowingly and willfully falsifying, concealing or covering up by any trick, scheme or device, a material fact or making any materially false, fictitious or fraudulent statements in connection with the delivery of, or payment for, healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (HITECH) and their respective implementing regulations, which impose requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses as well as their respective business associates that perform services for them that involve the use, or disclosure of, individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information;
- the federal Physician Payments Sunshine Act, which requires certain manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the United States Department of Health and Human Services' Centers for Medicare & Medicaid Services (CMS) information related to payments or other transfers of value made to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members; and
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers.

Additionally, we may be subject to state and foreign equivalents of each of the healthcare laws described above, among others, some of which may be broader in scope. For example, we may be subject to the following: state anti-kickback and false claims laws that may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third party payors, including private insurers, or that apply regardless of payor; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government; state laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; state and

local laws requiring the registration of pharmaceutical sales and medical representatives; and state and foreign laws governing the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors available, it is possible that some of our business activities, or our arrangements with physicians, some of who receive stock options as compensation, could be subject to challenge under one or more of such laws. If we or our employees, independent contractors, consultants, commercial partners and vendors violate these laws, we may be subject to investigations, enforcement actions and/or significant penalties. We have adopted a code of business conduct and ethics, but it is not always possible to identify and deter employee misconduct or business noncompliance, and the precautions we take to detect and prevent inappropriate conduct may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. Efforts to ensure that our business arrangements will comply with applicable healthcare laws may involve substantial costs. It is possible that governmental and enforcement authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of civil, criminal and administrative penalties, damages, disgorgement, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, additional reporting requirements and/or oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations. In addition, the approval and commercialization of any of our product candidates outside the United States will also likely subject us to foreign equivalents of the healthcare laws mentioned above, among other foreign laws.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our product candidates.

We face an inherent risk of product liability as a result of the clinical testing of our product candidates and will face an even greater risk if we commercialize any products. For example, we may be sued if our product candidates cause or are perceived to cause injury or are found to be otherwise unsuitable during clinical testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability or a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our product candidates. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our product candidates;
- injury to our reputation;
- withdrawal of clinical trial participants;
- initiation of investigations by regulators;
- costs to defend the related litigation;
- a diversion of management’s time and our resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;

- exhaustion of any available insurance and our capital resources;
- the inability to commercialize any product candidate; and
- a decline in our share price.

Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of products we develop, alone or with corporate collaborators. Our insurance policies may also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. Assuming we obtained clinical trial insurance for our clinical trials, we may have to pay amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts. Even if our agreements with any future corporate collaborators entitle us to indemnification against losses, such indemnification may not be available or adequate should any claim arise.

Unstable market and economic conditions may have serious adverse consequences on our business, financial condition and stock price.

The global credit and financial markets have experienced extreme volatility and disruptions in the past several years, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. There can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions will not occur. Our general business strategy may be adversely affected by any such economic downturn, volatile business environment or continued unpredictable and unstable market conditions. If the current equity and credit markets deteriorate, it may make any necessary debt or equity financing more difficult, more costly and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans. In addition, there is a risk that one or more of our current service providers, manufacturers and other partners may not survive an economic downturn, which could directly affect our ability to attain our operating goals on schedule and on budget.

Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be limited.

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an “ownership change” (generally defined as a greater than 50 percentage point change (by value) in the equity ownership of certain stockholders over a rolling three-year period), the corporation’s ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes to offset its post-change income and taxes may be limited. As a result of our most recent private placements and other transactions that have occurred in 2018, we may have experienced, and, upon completion of this offering, may experience, an “ownership change.” We may also experience ownership changes in the future as a result of subsequent shifts in our stock ownership. As of June 30, 2018, we had U.S. net operating loss carryforwards of approximately $21.4 million and federal and state research and development credits of $0.3 million and $0.3 million, respectively, which could be limited if we experience an “ownership change.” We anticipate incurring significant additional net losses for the foreseeable future, and our ability to utilize net operating loss carryforwards associated with any such losses to offset future taxable income may be limited to the extent we incur future ownership changes.

Risks Related to Our Reliance on Third Parties

We rely and will continue to rely on third parties, including Servier, to conduct our clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval of or commercialize our product candidates.

We depend and will continue to depend upon independent investigators and collaborators, such as universities, medical institutions, CROs and strategic partners to conduct our preclinical and clinical trials under

agreements with us. In addition, we depend on our collaborator, Servier, to sponsor and lead the conduct of the CALM and PALL clinical trials.

We negotiate budgets and contracts with CROs and study sites, which may result in delays to our development timelines and increased costs. We will rely heavily on these third parties over the course of our clinical trials, and we control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with applicable protocol, legal, regulatory and scientific standards, and our reliance on third parties does not relieve us of our regulatory responsibilities. We and these third parties are required to comply with good clinical practices (GCPs), which are regulations and guidelines enforced by the FDA and comparable foreign regulatory authorities for product candidates in clinical development. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of these third parties fail to comply with applicable GCP regulations, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that, upon inspection, such regulatory authorities will determine that any of our clinical trials comply with the GCP regulations. In addition, our clinical trials must be conducted with biologic product produced under cGMPs and will require a large number of test patients. Our failure or any failure by these third parties to comply with these regulations or to recruit a sufficient number of patients may require us to repeat clinical trials, which would delay the regulatory approval process. Moreover, our business may be implicated if any of these third parties violates federal or state fraud and abuse or false claims laws and regulations or healthcare privacy and security laws.

Any third parties conducting our clinical trials are and will not be our employees and, except for remedies available to us under our agreements with such third parties, we cannot control whether or not they devote sufficient time and resources to our ongoing preclinical, clinical and nonclinical programs. These third parties may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical studies or other drug development activities, which could affect their performance on our behalf. If these third parties do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to complete development of, obtain regulatory approval of or successfully commercialize our product candidates. As a result, our financial results and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenue could be delayed.

If any of our relationships with trial sites, or any CRO that we may use in the future, terminates, we may not be able to enter into arrangements with alternative trial sites or CROs or do so on commercially reasonable terms. Switching or adding third parties to conduct our clinical trials involves substantial cost and requires extensive management time and focus. In addition, there is a natural transition period when a new third party commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines.

We may rely on third parties to manufacture our clinical product supplies, and we may have to rely on third parties to produce and process our product candidates, if approved.

Servier is responsible for UCART19 manufacturing and is working with a CMO in Europe to provide clinical supply for the CALM and PALL clinical trials. ALLO-501 has the same molecular design as UCART19, but is produced by a different CMO using a different manufacturing process. ALLO-501 and ALLO-715 will be manufactured in the United States, at least initially, by a CMO, and we will manage all other aspects of the supply, including planning, CMO oversight, disposition and distribution logistics.

Although we expect to secure our own clinical manufacturing facility, we must currently rely on outside vendors to manufacture supplies and process our product candidates. We have not yet caused our product

candidates to be manufactured or processed on a commercial scale and may not be able to achieve manufacturing and processing and may be unable to create an inventory of mass-produced, off-the-shelf product to satisfy demands for any of our product candidates.

We do not yet have sufficient information to reliably estimate the cost of the commercial manufacturing and processing of our product candidates, and the actual cost to manufacture and process our product candidates could materially and adversely affect the commercial viability of our product candidates. As a result, we may never be able to develop a commercially viable product.

In addition, our anticipated reliance on a limited number of third-party manufacturers exposes us to the following risks:

- We may be unable to identify manufacturers on acceptable terms or at all because the number of potential manufacturers is limited and the FDA may have questions regarding any replacement contractor. This may require new testing and regulatory interactions. In addition, a new manufacturer would have to be educated in, or develop substantially equivalent processes for, production of our products after receipt of FDA questions, if any.
- Our third-party manufacturers might be unable to timely formulate and manufacture our product or produce the quantity and quality required to meet our clinical and commercial needs, if any.
- Contract manufacturers may not be able to execute our manufacturing procedures appropriately.
- Our future contract manufacturers may not perform as agreed or may not remain in the contract manufacturing business for the time required to supply our clinical trials or to successfully produce, store and distribute our products.
- Manufacturers are subject to ongoing periodic unannounced inspection by the FDA, the Drug Enforcement Administration and corresponding state agencies to ensure strict compliance with cGMP and other government regulations and corresponding foreign standards. We do not have control over third-party manufacturers' compliance with these regulations and standards.
- We may not own, or may have to share, the intellectual property rights to any improvements made by our third-party manufacturers in the manufacturing process for our products.
- Our third-party manufacturers could breach or terminate their agreement with us.

Our contract manufacturers would also be subject to the same risks we face in developing our own manufacturing capabilities, as described above. Each of these risks could delay our clinical trials, the approval, if any of our product candidates by the FDA or the commercialization of our product candidates or result in higher costs or deprive us of potential product revenue. In addition, we will rely on third parties to perform release tests on our product candidates prior to delivery to patients. If these tests are not appropriately done and test data are not reliable, patients could be put at risk of serious harm.

Cell-based therapies rely on the availability of specialty raw materials, which may not be available to us on acceptable terms or at all.

Our product candidates require many specialty raw materials, including viral vectors that deliver the CAR sequence and electroporation technology that we currently obtain through Cellectis, some of which are manufactured by small companies with limited resources and experience to support a commercial product, and the suppliers may not be able to deliver raw materials to our specifications. In addition, those suppliers normally support blood-based hospital businesses and generally do not have the capacity to support commercial products manufactured under cGMP by biopharmaceutical firms. The suppliers may be ill-equipped to support our needs, especially in non-routine circumstances like an FDA inspection or medical crisis, such as widespread contamination. We also do not have contracts with many of these suppliers, and we may not be able to contract with them on acceptable terms or at all. Accordingly, we may experience delays in receiving key raw materials to support clinical or commercial manufacturing.

In addition, some raw materials are currently available from a single supplier, or a small number of suppliers. We cannot be sure that these suppliers will remain in business or that they will not be purchased by one of our competitors or another company that is not interested in continuing to produce these materials for our intended purpose. In addition, the lead time needed to establish a relationship with a new supplier can be lengthy, and we may experience delays in meeting demand in the event we must switch to a new supplier. The time and effort to qualify a new supplier could result in additional costs, diversion of resources or reduced manufacturing yields, any of which would negatively impact our operating results. Further, we may be unable to enter into agreements with a new supplier on commercially reasonable terms, which could have a material adverse impact on our business.

If we or our third-party suppliers use hazardous, non-hazardous, biological or other materials in a manner that causes injury or violates applicable law, we may be liable for damages.

Our research and development activities involve the controlled use of potentially hazardous substances, including chemical and biological materials. We and our suppliers are subject to federal, state and local laws and regulations in the United States governing the use, manufacture, storage, handling and disposal of medical and hazardous materials. Although we believe that we and our suppliers' procedures for using, handling, storing and disposing of these materials comply with legally prescribed standards, we and our suppliers cannot completely eliminate the risk of contamination or injury resulting from medical or hazardous materials. As a result of any such contamination or injury, we may incur liability or local, city, state or federal authorities may curtail the use of these materials and interrupt our business operations. In the event of an accident, we could be held liable for damages or penalized with fines, and the liability could exceed our resources. We do not have any insurance for liabilities arising from medical or hazardous materials. Compliance with applicable environmental laws and regulations is expensive, and current or future environmental regulations may impair our research, development and production efforts, which could harm our business, prospects, financial condition or results of operations.

Risks Related to Government Regulation

The FDA regulatory approval process is lengthy and time-consuming, and we may experience significant delays in the clinical development and regulatory approval of our product candidates.

The research, testing, manufacturing, labeling, approval, selling, import, export, marketing, and distribution of drug products, including biologics, are subject to extensive regulation by the FDA and other regulatory authorities in the United States. We are not permitted to market any biological drug product in the United States until we receive approval of a BLA from the FDA. We have not previously submitted a BLA to the FDA, or similar approval filings to comparable foreign authorities. A BLA must include extensive preclinical and clinical data and supporting information to establish the product candidate's safety and effectiveness for each desired indication. The BLA must also include significant information regarding the chemistry, manufacturing and controls for the product, including with respect to chain of identity and chain of custody of the product.

We expect the novel nature of our product candidates to create further challenges in obtaining regulatory approval. For example, the FDA has limited experience with commercial development of allogeneic T cell therapies for cancer. We may also request regulatory approval of future CAR-based product candidates by target, regardless of cancer type or origin, which the FDA may have difficulty accepting if our clinical trials only involved cancers of certain origins. The FDA may also require a panel of experts, referred to as an Advisory Committee, to deliberate on the adequacy of the safety and efficacy data to support licensure. The opinion of the Advisory Committee, although not binding, may have a significant impact on our ability to obtain licensure of the product candidates based on the completed clinical trials, as the FDA often adheres to the Advisory Committee's recommendations. Accordingly, the regulatory approval pathway for our product candidates may be uncertain, complex, expensive and lengthy, and approval may not be obtained.

We may also experience delays in completing planned clinical trials for a variety of reasons, including delays related to:

- obtaining regulatory authorization to begin a trial, if applicable;
- the availability of financial resources to commence and complete the planned trials;
- reaching agreement on acceptable terms with prospective CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- obtaining approval at each clinical trial site by an independent IRB;
- recruiting suitable patients to participate in a trial;
- having patients complete a trial, including having patients enrolled in clinical trials dropping out of the trial before the product candidate is manufactured and returned to the site, or return for post-treatment follow-up;
- clinical trial sites deviating from trial protocol or dropping out of a trial;
- addressing any patient safety concerns that arise during the course of a trial;
- adding new clinical trial sites; or
- manufacturing sufficient quantities of qualified materials under cGMPs and applying them on a patient by patient basis for use in clinical trials.

We could also encounter delays if physicians encounter unresolved ethical issues associated with enrolling patients in clinical trials of our product candidates in lieu of prescribing existing treatments that have established safety and efficacy profiles. Further, a clinical trial may be suspended or terminated by us, the IRBs for the institutions in which such trials are being conducted or by the FDA or other regulatory authorities due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a product candidate, changes in governmental regulations or administrative actions, lack of adequate funding to continue the clinical trial, or based on a recommendation by the Data Safety Monitoring Committee. The FDA's review of our data of our ongoing clinical trials of UCART19 may, depending on the data, also result in the delay, suspension or termination of one or more clinical trials of UCART19, which would also delay or prevent the initiation of our other planned clinical trials. If we experience termination of, or delays in the completion of, any clinical trial of our product candidates, the commercial prospects for our product candidates will be harmed, and our ability to generate product revenue will be delayed. In addition, any delays in completing our clinical trials will increase our costs, slow down our product development and approval process and jeopardize our ability to commence product sales and generate revenue.

Many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may ultimately lead to the denial of regulatory approval of our product candidates.

We expect the product candidates we develop will be regulated as biological products, or biologics, and therefore they may be subject to competition sooner than anticipated.

The Biologics Price Competition and Innovation Act of 2009 (BPCIA) was enacted as part of the Affordable Care Act to establish an abbreviated pathway for the approval of biosimilar and interchangeable biological products. The regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as "interchangeable" based on its similarity to an approved biologic. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the reference product was approved under a BLA. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty.

While it is uncertain when such processes intended to implement the BPCIA may be fully adopted by the FDA, any such processes could have a material adverse effect on the future commercial prospects for our biological products.

We believe that any of the product candidates we develop that is approved in the United States as a biological product under a BLA should qualify for the 12-year period of exclusivity. However, there is a risk that this exclusivity could be shortened due to congressional action or otherwise, or that the FDA will not consider the subject product candidates to be reference products for competing products, potentially creating the opportunity for generic competition sooner than anticipated. Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of the reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

The regulatory landscape that will govern our product candidates is uncertain; regulations relating to more established gene therapy and cell therapy products are still developing, and changes in regulatory requirements could result in delays or discontinuation of development of our product candidates or unexpected costs in obtaining regulatory approval.

Because we are developing novel CAR T cell immunotherapy product candidates that are unique biological entities, the regulatory requirements that we will be subject to are not entirely clear. Even with respect to more established products that fit into the categories of gene therapies or cell therapies, the regulatory landscape is still developing. For example, regulatory requirements governing gene therapy products and cell therapy products have changed frequently and may continue to change in the future. Moreover, there is substantial, and sometimes uncoordinated, overlap in those responsible for regulation of existing gene therapy products and cell therapy products. For example, in the United States, the FDA has established the Office of Tissues and Advanced Therapies (OTAT), formerly known as the Office of Cellular, Tissue and Gene Therapies (OCTGT), within its Center for Biologics Evaluation and Research (CBER) to consolidate the review of gene therapy and related products, and the Cellular, Tissue and Gene Therapies Advisory Committee to advise CBER on its review. Gene therapy clinical trials are also subject to review and oversight by an institutional biosafety committee (IBC), a local institutional committee that reviews and oversees basic and clinical research conducted at the institution participating in the clinical trial. Although the FDA decides whether individual gene therapy protocols may proceed, review process and determinations of other reviewing bodies can impede or delay the initiation of a clinical study, even if the FDA has reviewed the study and approved its initiation. Conversely, the FDA can place an IND application on clinical hold even if such other entities have provided a favorable review. Furthermore, each clinical trial must be reviewed and approved by an independent IRB at or servicing each institution at which a clinical trial will be conducted. In addition, adverse developments in clinical trials of gene therapy products conducted by others may cause the FDA or other regulatory bodies to change the requirements for approval of any of our product candidates.

Complex regulatory environments exist in other jurisdictions in which we might consider seeking regulatory approvals for our product candidates, further complicating the regulatory landscape. For example, in the EU a special committee called the Committee for Advanced Therapies (CAT) was established within the EMA in accordance with Regulation (EC) No 1394/2007 on advanced-therapy medicinal products (ATMPs) to assess the quality, safety and efficacy of ATMPs, and to follow scientific developments in the field. ATMPs include gene therapy products as well as somatic cell therapy products and tissue engineered products. In this regard, on May 28, 2014, the EMA issued a recommendation that UCART19 be considered a gene therapy product under Regulation (EC) No 1394/2007 on ATMPs. We believe this recommendation is likely to be applicable to our UCART19 product candidate; however, this recommendation is not definitive until UCART19 obtains regulatory approval for commercialization.

These various regulatory review committees and advisory groups and new or revised guidelines that they promulgate from time to time may lengthen the regulatory review process, require us to perform additional studies, increase our development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of our product candidates or lead to significant post-approval limitations

or restrictions. Because the regulatory landscape for our CAR T cell immunotherapy product candidates is new, we may face even more cumbersome and complex regulations than those emerging for gene therapy products and cell therapy products. Furthermore, even if our product candidates obtain required regulatory approvals, such approvals may later be withdrawn as a result of changes in regulations or the interpretation of regulations by applicable regulatory agencies.

Delay or failure to obtain, or unexpected costs in obtaining, the regulatory approval necessary to bring a potential product to market could decrease our ability to generate sufficient product revenue to maintain our business.

The FDA may disagree with our regulatory plan and we may fail to obtain regulatory approval of our product candidates.

We plan to support the completion of the CALM and PALL clinical trials, which we expect to occur in the second half of 2019, and, assuming positive data, we expect UCART19 to be advanced to potential registrational trials, CALM II and PALL II. The general approach for FDA approval of a new biologic or drug is for the sponsor to provide dispositive data from two well-controlled, Phase 3 clinical studies of the relevant biologic or drug in the relevant patient population. Phase 3 clinical studies typically involve hundreds of patients, have significant costs and take years to complete. We expect CALM II will be designed to evaluate the efficacy of UCART19 in an open-label, international, non-comparative, two-stage, pivotal, multicenter, single-arm clinical trial in adult patients with R/R ALL who have exhausted available treatment options, and PALL II will be designed as an open-label, international, non-comparative, two-stage, pivotal clinical trial of pediatric patients with R/R ALL aged from three months up to less than 18 years. If the results are sufficiently compelling, we intend to discuss with the FDA submission of a BLA for UCART19. However, we do not have any agreement or guidance from the FDA that our regulatory development plans will be sufficient for submission of a BLA for UCART19. For example, the FDA may require that we conduct a comparative trial against an approved therapy including potentially an approved autologous T cell therapy, which would significantly delay our development timelines and require substantially more resources. In addition, the FDA may only allow us to evaluate patient's that have failed or who are ineligible for autologous therapy, which are extremely difficult patients to treat and patients with advanced and aggressive cancer, and our product candidates may fail to improve outcomes for such patients.

The FDA may grant accelerated approval for our product candidates and, as a condition for accelerated approval, the FDA may require a sponsor of a drug or biologic receiving accelerated approval to perform post-marketing studies to verify and describe the predicted effect on irreversible morbidity or mortality or other clinical endpoint, and the drug or biologic may be subject to withdrawal procedures by the FDA that are more accelerated than those available for regular approvals. We believe our accelerated approval strategy is warranted given the limited alternatives for patients with R/R ALL, but the FDA may ultimately require a Phase 3 clinical trial prior to approval, particularly since our product candidates represent a novel treatment. In addition, the standard of care may change with the approval of new products in the same indications that we are studying. This may result in the FDA or other regulatory agencies requesting additional studies to show that our product candidate is superior to the new products.

ALLO-647 will also require regulatory review prior to its use in our clinical trials and the FDA may not accept the use of ALLO-647 in our clinical trials in a timely manner or at all. For instance, the FDA may not accept comparability data to alemtuzumab. In addition, we cannot be certain we will be able to successfully obtain regulatory approval of ALLO-647 in a timely manner or at all. Any delays to ALLO-647 approval could delay any approval or commercialization of UCART19 and our other allogeneic T cell product candidates.

Our clinical trial results may also not support approval. In addition, our product candidates could fail to receive regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;

- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that our product candidates are safe and effective for any of their proposed indications;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval, including due to the heterogeneity of patient populations;
- we may be unable to demonstrate that our product candidates' clinical and other benefits outweigh their safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to the satisfaction of the FDA or comparable foreign regulatory authorities to support the submission of a BLA or other comparable submission in foreign jurisdictions or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities will inspect our commercial manufacturing facility and may not approve our facility; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

We may seek orphan drug designation for some or all of our product candidates across various indications, but we may be unable to obtain such designations or to maintain the benefits associated with orphan drug designation, including market exclusivity, which may cause our revenue, if any, to be reduced.

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, defined as a disease or condition with a patient population of fewer than 200,000 in the United States, or a patient population greater than 200,000 in the United States when there is no reasonable expectation that the cost of developing and making available the drug or biologic in the United States will be recovered from sales in the United States for that drug or biologic. In order to obtain orphan drug designation, the request must be made before submitting a BLA. In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages, and user-fee waivers. After the FDA grants orphan drug designation, the generic identity of the drug and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

If a product that has orphan drug designation subsequently receives the first FDA approval of that particular product for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications, including a BLA, to market the same biologic (meaning, a product with the same principal molecular structural features) for the same indication for seven years, except in limited circumstances such as a showing of clinical superiority to the product with orphan drug exclusivity or if FDA finds that the holder of the orphan drug exclusivity has not shown that it can assure the availability of sufficient quantities of the orphan drug to meet the needs of patients with the disease or condition for which the drug was designated. As a result, even if one of our product candidates receives orphan exclusivity, the FDA can still approve other biologics that do not have the same principal molecular structural features for use in treating the same indication or disease or the same biologic for a different indication or disease during the exclusivity period. Furthermore, the FDA can waive orphan exclusivity if we are unable to manufacture sufficient supply of our product or if a subsequent applicant demonstrates clinical superiority over our product.

We may seek orphan drug designation for some or all of our product candidates in specific orphan indications in which there is a medically plausible basis for the use of these products. Even if we obtain orphan drug designation, exclusive marketing rights in the United States may be limited if we seek approval for an indication broader than the orphan designated indication and may be lost if the FDA later determines that the

request for designation was materially defective or if we are unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition, or if a subsequent applicant demonstrates clinical superiority over our products, if approved. In addition, although we may seek orphan drug designation for other product candidates, we may never receive such designations.

A Breakthrough Therapy Designation by the FDA, even if granted for any of our product candidates, may not lead to a faster development or regulatory review or approval process and it does not increase the likelihood that our product candidates will receive marketing approval.

We may seek a Breakthrough Therapy Designation for our product candidates if the clinical data support such a designation for one or more product candidates. A breakthrough therapy is defined as a drug or biologic that is intended, alone or in combination with one or more other drugs or biologics, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the drug, or biologic in our case, may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For product candidates that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Biologics designated as breakthrough therapies by the FDA may also be eligible for priority review.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a Breakthrough Therapy Designation for a product candidate may not result in a faster development process, review or approval compared to drugs considered for approval under non-expedited the FDA review procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not mean that we will be successful in obtaining regulatory approval of our product candidates in other jurisdictions.

Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not guarantee that we will be able to obtain or maintain regulatory approval in any other jurisdiction, while a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. For example, even if the FDA grants marketing approval of a product candidate, comparable regulatory authorities in foreign jurisdictions must also approve the manufacturing, marketing and promotion of the product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional preclinical studies or clinical trials as clinical studies conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In many jurisdictions outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that jurisdiction. In some cases, the price that we intend to charge for our products is also subject to approval.

We may also submit marketing applications in other countries. Regulatory authorities in jurisdictions outside of the United States have requirements for approval of product candidates with which we must comply prior to marketing in those jurisdictions. Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our products in certain countries. If we fail to comply with the regulatory requirements in international markets and/or receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of our product candidates will be harmed.

Even if we receive regulatory approval of our product candidates, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our product candidates.

Any regulatory approvals that we receive for our product candidates will require surveillance to monitor the safety and efficacy of the product candidate. The FDA may also require a risk evaluation and mitigation strategy, or REMS, in order to approve our product candidates, which could entail requirements for a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. In addition, if the FDA or a comparable foreign regulatory authority approves our product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, import, export and recordkeeping for our product candidates will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMPs and cGCPs for any clinical trials that we conduct post-approval. As such, we and our contract manufacturers will be subject to continual review and inspections to assess compliance with cGMP and adherence to commitments made in any BLA, other marketing application and previous responses to inspectional observations. Accordingly, we and others with whom we work must continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production and quality control. In addition, the FDA could require us to conduct another study to obtain additional safety or biomarker information. Further, we will be required to comply with FDA promotion and advertising rules, which include, among others, standards for direct-to-consumer advertising, restrictions on promoting products for uses or in patient populations that are not described in the product's approved uses (known as "off-label use"), limitations on industry-sponsored scientific and educational activities and requirements for promotional activities involving the internet and social media. Later discovery of previously unknown problems with our product candidates, including adverse events of unanticipated severity or frequency, or with our third-party suppliers or manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical studies to assess new safety risks; or imposition of distribution restrictions or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of our product candidates, withdrawal of the product from the market or voluntary or mandatory product recalls;
- fines, warning letters or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or suspension or revocation of license approvals;
- product seizure or detention, or refusal to permit the import or export of our product candidates; and
- injunctions or the imposition of civil or criminal penalties.

The FDA's and other regulatory authorities' policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. For example, certain policies of the current U.S. President's administration may impact our business and industry. Namely, the current U.S. President's administration has taken several executive actions, including the issuance of a number of Executive Orders, that could impose significant burdens on, or otherwise materially delay, FDA's ability to engage in routine oversight activities such as implementing statutes through rulemaking, issuance of guidance, and review and approval of marketing applications. It is difficult to predict how these orders will be implemented, and the extent to which they will impact the FDA's ability to exercise its regulatory authority. If these executive actions impose restrictions on FDA's ability to engage in oversight and implementation activities in the normal course, our business may be negatively impacted. If we are slow or unable to adapt to changes in existing requirements

or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

Negative public opinion and increased regulatory scrutiny of genetic research and therapies involving gene editing may damage public perception of our product candidates or adversely affect our ability to conduct our business or obtain regulatory approvals for our product candidates.

The gene-editing technologies that we use are novel. Public perception may be influenced by claims that gene editing is unsafe, and products incorporating gene editing may not gain the acceptance of the public or the medical community. In particular, our success will depend upon physicians specializing in our targeted diseases prescribing our product candidates as treatments in lieu of, or in addition to, existing, more familiar, treatments for which greater clinical data may be available. Any increase in negative perceptions of gene editing may result in fewer physicians prescribing our treatments or may reduce the willingness of patients to utilize our treatments or participate in clinical trials for our product candidates. Increased negative public opinion or more restrictive government regulations in response thereto, would have a negative effect on our business or financial condition and may delay or impair the development and commercialization of our product candidates or demand for such product candidates.

Even if we obtain regulatory approval of our product candidates, the products may not gain market acceptance among physicians, patients, hospitals, cancer treatment centers and others in the medical community.

The use of engineered T cells as a potential cancer treatment is a recent development and may not become broadly accepted by physicians, patients, hospitals, cancer treatment centers and others in the medical community. We expect physicians in the large bone marrow transplant centers to be particularly influential and we may not be able to convince them to use our product candidates for many reasons. For example, certain of the product candidates that we will be developing target a cell surface marker that may be present on cancer cells as well as non-cancerous cells. It is possible that our product candidates may kill these non-cancerous cells, which may result in unacceptable side effects, including death. Additional factors will influence whether our product candidates are accepted in the market, including:

- the clinical indications for which our product candidates are approved;
- physicians, hospitals, cancer treatment centers and patients considering our product candidates as a safe and effective treatment;
- the potential and perceived advantages of our product candidates over alternative treatments;
- the prevalence and severity of any side effects;
- product labeling or product insert requirements of the FDA or other regulatory authorities;
- limitations or warnings contained in the labeling approved by the FDA;
- the timing of market introduction of our product candidates as well as competitive products;
- the cost of treatment in relation to alternative treatments;
- the availability of coverage and adequate reimbursement and pricing by third-party payors and government authorities;
- the willingness of patients to pay out-of-pocket in the absence of coverage and adequate reimbursement by third-party payors and government authorities;
- relative convenience and ease of administration, including as compared to alternative treatments and competitive therapies; and
- the effectiveness of our sales and marketing efforts.

If our product candidates are approved but fail to achieve market acceptance among physicians, patients, hospitals, cancer treatment centers or others in the medical community, we will not be able to generate significant revenue. Even if our products achieve market acceptance, we may not be able to maintain that market acceptance over time if new products or technologies are introduced that are more favorably received than our products, are more cost effective or render our products obsolete.

Coverage and reimbursement may be limited or unavailable in certain market segments for our product candidates, which could make it difficult for us to sell our product candidates, if approved, profitably.

Successful sales of our product candidates, if approved, depend on the availability of coverage and adequate reimbursement from third-party payors including governmental healthcare programs, such as Medicare and Medicaid, managed care organizations and commercial payors, among others. Significant uncertainty exists as to the coverage and reimbursement status of any product candidates for which we obtain regulatory approval. In addition, because our product candidates represent new approaches to the treatment of cancer, we cannot accurately estimate the potential revenue from our product candidates.

Patients who are provided medical treatment for their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. Obtaining coverage and adequate reimbursement from third-party payors is critical to new product acceptance.

Third-party payors decide which drugs and treatments they will cover and the amount of reimbursement. Reimbursement by a third-party payor may depend upon a number of factors, including, but not limited to, the third-party payor's determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Obtaining coverage and reimbursement of a product from a government or other third-party payor is a time-consuming and costly process that could require us to provide to the payor supporting scientific, clinical and cost-effectiveness data for the use of our products. Even if we obtain coverage for a given product, if the resulting reimbursement rates are insufficient, hospitals may not approve our product for use in their facility or third-party payors may require co-payments that patients find unacceptably high. Patients are unlikely to use our product candidates unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our product candidates. Separate reimbursement for the product itself may or may not be available. Instead, the hospital or administering physician may be reimbursed only for providing the treatment or procedure in which our product is used. Further, from time to time, CMS revises the reimbursement systems used to reimburse health care providers, including the Medicare Physician Fee Schedule and Outpatient Prospective Payment System, which may result in reduced Medicare payments. In some cases, private third-party payers rely on all or portions of Medicare payment systems to determine payment rates. Changes to government healthcare programs that reduce payments under these programs may negatively impact payments from private third-party payers, and reduce the willingness of physicians to use our product candidates.

In the United States, no uniform policy of coverage and reimbursement for products exists among third-party payors. Therefore, coverage and reimbursement for products can differ significantly from payor to payor. Further, one payor's determination to provide coverage for a product does not assure that other payors will also provide coverage for the product. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

We intend to seek approval to market our product candidates in both the United States and in selected foreign jurisdictions. If we obtain approval in one or more foreign jurisdictions for our product candidates, we will be subject to rules and regulations in those jurisdictions. In some foreign countries, particularly those in Europe, the pricing of biologics is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after obtaining marketing approval of a product candidate. Some of these countries may require the completion of clinical trials that compare the cost-effectiveness of a particular product candidate to currently available therapies. Other member states allow companies to fix their own prices for medicines, but monitor and control company profits. The downward pressure on health care costs has become very intense. As a result, increasingly high barriers are being erected to the entry of new products. In addition, in some countries, cross-border imports from low-priced markets exert a commercial pressure on pricing within a country.

The marketability of any product candidates for which we receive regulatory approval for commercial sale may suffer if government and other third-party payors fail to provide coverage and adequate reimbursement. We expect downward pressure on pharmaceutical pricing to continue. Further, coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

The advancement of healthcare reform may negatively impact our ability to sell our product candidates, if approved, profitably.

Third-party payors, whether domestic or foreign, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory changes to the health care system that could impact our ability to sell our product candidates, if approved, profitably. In particular, in 2010 the Affordable Care Act was enacted. The Affordable Care Act and its implementing regulations, among other things, revised the methodology by which rebates owed by manufacturers to the state and federal government for covered outpatient drugs and certain biologics, including our product candidates, under the Medicaid drug rebate program are calculated, increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid drug rebate program, extended the Medicaid drug rebate program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations, subjected manufacturers to new annual fees and taxes for certain branded prescription drugs, and provided incentives to programs that increase the federal government’s comparative effectiveness research. Additionally, the Affordable Care Act allowed states to implement expanded eligibility criteria for Medicaid programs, imposed a new Medicare Part D coverage gap discount program, expanded the entities eligible for discounts under the Public Health Service pharmaceutical pricing program and implemented a new Patient-Centered Outcomes Research Institute. We are still unsure of the full impact that the Affordable Care Act will have on our business.

Some of the provisions of the Affordable Care Act have yet to be implemented, and there have been legal and political challenges to certain aspects of the Affordable Care Act. Since January 2017, the U.S. President has signed two Executive Orders and other directives designed to delay, circumvent, or loosen certain requirements mandated by the Affordable Care Act. In December 2017, Congress repealed the tax penalty for an individual’s failure to maintain Affordable Care Act-mandated health insurance as part of a tax reform bill. Further, on January 22, 2018, the U.S. President signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain Affordable Care Act-mandated fees, including the so-called “Cadillac” tax on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device excise tax on non-exempt medical devices. Moreover, the Bipartisan Budget Act of 2018 (BBA), among other things, amends the Affordable Care Act, effective January 1, 2019, to close the coverage gap in most Medicare drug plans, commonly referred to as the “donut hole”. More recently, in July 2018, CMS announced that it is suspending further collections and payments to and from certain Affordable Care Act qualified health plans and health insurance issuers under the Affordable Care

Act risk adjustment program pending the outcome of federal district court litigation regarding the method CMS uses to determine this risk adjustment. Congress is continuing to consider legislation that would alter other aspects of the Affordable Care Act. The ultimate content, timing or effect of any healthcare reform legislation on the U.S. healthcare industry is unclear

Further legislation or regulation could be passed that could harm our business, financial condition and results of operations. Other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. For example, in August 2011, President Obama signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee on Deficit Reduction did not achieve a targeted deficit reduction of at least $1.2 trillion for fiscal years 2012 through 2021, triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect beginning on April 1, 2013 and will stay in effect through 2027, unless additional Congressional action is taken. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

There have been, and likely will continue to be, legislative and regulatory proposals at the foreign, federal and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our products. Such reforms could have an adverse effect on anticipated revenue from product candidates that we may successfully develop and for which we may obtain regulatory approval and may affect our overall financial condition and ability to develop product candidates.

In addition, there has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient assistance programs, and reform government program reimbursement methodologies for drugs. At the federal level, the U.S. President's administration's budget proposal for fiscal year 2019 contains further drug price control measures that could be enacted during the 2019 budget process or in other future legislation, including, for example, measures to permit Medicare Part D plans to negotiate the price of certain drugs under Medicare Part B, to allow some states to negotiate drug prices under Medicaid, and to eliminate cost sharing for generic drugs for low-income patients. Further, the current U.S. President's administration released a "Blueprint", or plan, to lower drug prices and reduce out of pocket costs of drugs that contains additional proposals to increase drug manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products, and reduce the out of pocket costs of drug products paid by consumers. The Department of Health and Human Services (HHS) has already started the process of soliciting feedback on some of these measures and, at the same, is immediately implementing others under its existing authority. While some proposed measures will require authorization through additional legislation to become effective, Congress and the current U.S. President's administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. Individual states in the United States have also become increasingly active in passing legislation and implementing regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

We cannot predict the initiatives that may be adopted in the future. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare and/or impose price controls may adversely affect:

- the demand for our product candidates, if we obtain regulatory approval;
- our ability to set a price that we believe is fair for our products;
- our ability to generate revenue and achieve or maintain profitability;
- the level of taxes that we are required to pay; and
- the availability of capital.

Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors, which may adversely affect our future profitability.

Risks Related to Our Intellectual Property

We depend on intellectual property licensed from third parties and termination of any of these licenses could result in the loss of significant rights, which would harm our business.

We are dependent on patents, know-how and proprietary technology, both our own and licensed from others.

We depend substantially on our license agreements with Pfizer, Servier and Cellectis. These licenses may be terminated upon certain conditions. Any termination of these licenses could result in the loss of significant rights and could harm our ability to commercialize our product candidates. For example, we are dependent on our license with Cellectis for gene-editing technology that is necessary to produce our engineered T cells. In addition, Servier in-licenses some of the intellectual property rights they are licensing to us. To the extent these licensors fail to meet their obligations under their license agreements, which we are not in control of, we may lose the benefits of our license agreements with these licensors. In the future, we may also enter into additional license agreements that are material to the development of our product candidates.

Disputes may also arise between us and our licensors regarding intellectual property subject to a license agreement, including those related to:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our product candidates, and what activities satisfy those diligence obligations; and
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners.

If disputes over intellectual property that we have licensed, or license in the future, prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates.

We are generally also subject to all of the same risks with respect to protection of intellectual property that we license, as we are for intellectual property that we own, which are described below. If we or our licensors fail to adequately protect this intellectual property, our ability to commercialize products could suffer.

If our efforts to protect the proprietary nature of the intellectual property related to our technologies are not adequate, we may not be able to compete effectively in our market.

We rely upon a combination of patents, trade secret protection and license agreements to protect the intellectual property related to our technologies. Any disclosure to or misappropriation by third parties of our confidential proprietary information could enable competitors to quickly duplicate or surpass our technological achievements, thus eroding our competitive position in our market.

We have an exclusive collaboration with Servier to develop and commercialize UCART19 and ALLO-501, and we hold the commercial rights to these product candidates in the United States. Under the Servier Agreement, we also have an exclusive option to obtain the same rights to additional product candidates targeting one additional cancer antigen. We also have an exclusive worldwide license from Cellectis to its TALEN gene-editing technology for the development of allogeneic T cell product candidates directed against 15 different cancer antigens. Our collaboration with Servier gives us access to TALEN gene-editing technology for all product candidates under the Servier Agreement. Certain intellectual property which is covered by these agreements may have been developed with funding from the U.S. government. If so, our rights in this intellectual property may be subject to certain research and other rights of the government.

Additional patent applications have been filed, and we anticipate additional patent applications will be filed, both in the United States and in other countries, as appropriate. However, we cannot predict:

- if and when patents will issue;
- the degree and range of protection any issued patents will afford us against competitors including whether third parties will find ways to invalidate or otherwise circumvent our patents;
- whether or not others will obtain patents claiming aspects similar to those covered by our patents and patent applications; or
- whether we will need to initiate litigation or administrative proceedings which may be costly whether we win or lose.

Composition of matter patents for biological and pharmaceutical products such as CAR-based product candidates often provide a strong form of intellectual property protection for those types of products, as such patents provide protection without regard to any method of use. We cannot be certain that the claims in our pending patent applications covering composition of matter of our product candidates will be considered patentable by the United States Patent and Trademark Office (USPTO) or by patent offices in foreign countries, or that the claims in any of our issued patents will be considered valid and enforceable by courts in the United States or foreign countries. Method of use patents protect the use of a product for the specified method. This type of patent does not prevent a competitor from making and marketing a product that is identical to our product for an indication that is outside the scope of the patented method. Moreover, even if competitors do not actively promote their product for our targeted indications, physicians may prescribe these products “off-label.” Although off-label prescriptions may infringe or contribute to the infringement of method of use patents, the practice is common and such infringement is difficult to prevent or prosecute.

The strength of patents in the biotechnology and pharmaceutical field involves complex legal and scientific questions and can be uncertain. The patent applications that we own or in-license may fail to result in issued patents with claims that cover our product candidates or uses thereof in the United States or in other foreign countries. Even if the patents do successfully issue, third parties may challenge the patentability, validity, enforceability or scope thereof, for example through inter partes review (IPR) post-grant review or ex parte reexamination before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions, which may result in such patents being cancelled, narrowed, invalidated or held unenforceable. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property or prevent others from designing their products to avoid being covered by our claims. If the breadth or

strength of protection provided by the patents and patent applications we hold with respect to our product candidates is threatened, it could dissuade companies from collaborating with us to develop, and threaten our ability to commercialize, our product candidates. Further, if we encounter delays in our clinical trials, the period of time during which we could market our product candidates under patent protection would be reduced. United States patent applications containing or that at any time contained a claim not entitled to a priority date before March 16, 2013 are subject to the "first to file" system implemented by the America Invents Act (2011).

This first to file system will require us to be cognizant going forward of the time from invention to filing of a patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing, we cannot be certain that we were the first to file any patent application related to our product candidates. Furthermore, for United States applications in which all claims are entitled to a priority date before March 16, 2013, an interference proceeding can be provoked by a third-party or instituted by the USPTO, to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. For United States applications containing a claim not entitled to priority before March 16, 2013, there is a greater level of uncertainty in the patent law in view of the passage of the America Invents Act, which brought into effect significant changes to the United States patent laws, including new procedures for challenging patent applications and issued patents.

Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of trade secrets and other proprietary information.

In addition to the protection afforded by patents, we seek to rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable, processes for which patents are difficult to enforce and any other elements of our product discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. Trade secrets, however, may be difficult to protect. Although we require all of our employees to assign their inventions to us, and require all of our employees and key consultants who have access to our proprietary know-how, information, or technology to enter into confidentiality agreements, we cannot be certain that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Furthermore, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent unauthorized material disclosure of our intellectual property to third parties, we will not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, operating results and financial condition.

Third-party claims of intellectual property infringement may prevent or delay our product discovery and development efforts.

Our commercial success depends in part on our avoiding infringement of the patents and proprietary rights of third parties. There is a substantial amount of litigation involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing our product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may give rise to claims of infringement of the patent rights of others.

Third parties may assert that we infringe their patents or are otherwise employing their proprietary technology without authorization and may sue us. We are aware of several U.S. patents held by third parties relating to certain CAR compositions of matter and their methods of use. Generally, conducting clinical trials and other development activities in the United States is not considered an act of infringement. If and when UCART19 or another CAR-based product candidate is approved by the FDA, third parties may then seek to enforce their patents by filing a patent infringement lawsuit against us. Patents issued in the United States by law enjoy a

presumption of validity that can be rebutted only with evidence that is "clear and convincing," a heightened standard of proof. We may not be able to prove in litigation that any patent enforced against us is invalid.

Additionally, there may be third-party patents of which we are currently unaware with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that our product candidates may infringe. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. If any third-party patents were held by a court of competent jurisdiction to cover the manufacturing process of our product candidates, constructs or molecules used in or formed during the manufacturing process, or any final product itself, the holders of any such patents may be able to block our ability to commercialize the product candidate unless we obtained a license under the applicable patents, or until such patents expire or they are finally determined to be held not infringed, unpatentable, invalid or unenforceable. Similarly, if any third-party patent were held by a court of competent jurisdiction to cover aspects of our formulations, processes for manufacture or methods of use, including combination therapy or patient selection methods, the holders of any such patent may be able to block our ability to develop and commercialize the product candidate unless we obtained a license or until such patent expires or is finally determined to be held not infringed, unpatentable, invalid or unenforceable. In either case, such a license may not be available on commercially reasonable terms or at all. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, or at all, our ability to commercialize our product candidates may be impaired or delayed, which could in turn significantly harm our business.

Parties making claims against us may seek and obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our product candidates. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business and may impact our reputation. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign our infringing products, which may be impossible or require substantial time and monetary expenditure. We cannot predict whether any such license would be available at all or whether it would be available on commercially reasonable terms. Furthermore, even in the absence of litigation, we may need to obtain licenses from third parties to advance our research or allow commercialization of our product candidates. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize our product candidates, which could harm our business significantly.

We may not be successful in obtaining or maintaining necessary rights to product components and processes for our development pipeline through acquisitions and in-licenses.

Presently we have rights to the intellectual property, through licenses from third parties and under patent applications that we own or will own, to develop UCART19 and our other product candidates. Because our programs may involve additional product candidates that may require the use of proprietary rights held by third parties, the growth of our business will likely depend in part on our ability to acquire, in-license or use these proprietary rights.

Our product candidates may also require specific formulations to work effectively and efficiently and these rights may be held by others. We may be unable to acquire or in-license any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, which would harm our business. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In that event, we may be required to expend significant time and resources to develop or license replacement technology. We may need to cease use of the compositions or methods covered by such third-party intellectual property rights.

The licensing and acquisition of third-party intellectual property rights is a competitive area, and companies, which may be more established, or have greater resources than we do, may also be pursuing strategies to license or acquire third-party intellectual property rights that we may consider necessary or attractive in order to commercialize our product candidates. More established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities.

We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe our patents or the patents of our licensors. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that one or more of our patents is not valid or is unenforceable or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated, held unenforceable or interpreted narrowly and could put our patent applications at risk of not issuing. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign our infringing products, which may be impossible or require substantial time and monetary expenditure.

Interference proceedings provoked by third parties or brought by the USPTO may be necessary to determine the priority of inventions with respect to our patents or patent applications or those of our licensors. An unfavorable outcome could result in a loss of our current patent rights and could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. Litigation or interference proceedings may result in a decision adverse to our interests and, even if we are successful, may result in substantial costs and distract our management and other employees. We may not be able to prevent, alone or with our licensors, misappropriation of our trade secrets or confidential information, particularly in countries where the laws may not protect those rights as fully as in the United States.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees on any issued patent are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Noncompliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. In such an event, our competitors might be able to enter the market, which would have a material adverse effect on our business.

The lives of our patents may not be sufficient to effectively protect our products and business.

Patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after its first effective filing date. Although various extensions may be available, the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent life has expired for a product, we may be open to competition from biosimilar or generic medications. In addition, although upon issuance in the United States a patent's life can be increased based on certain delays caused by the USPTO, this increase can be reduced or eliminated based on certain delays caused by the patent applicant during patent prosecution. If we do not have sufficient patent life to protect our products, our business and results of operations will be adversely affected.

We may be subject to claims challenging the inventorship of our patents and other intellectual property.

We may in the future be subject to claims that former employees, collaborators, or other third parties have an interest in our patents or other intellectual property as an inventor or co-inventor. For example, we may have inventorship disputes arise from conflicting obligations of consultants or others who are involved in developing our product candidates. Litigation may be necessary to defend against these and other claims challenging inventorship. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Issued patents covering our product candidates could be found unpatentable, invalid or unenforceable if challenged in court or the USPTO.

If we or one of our licensing partners initiate legal proceedings against a third party to enforce a patent covering one of our product candidates, the defendant could counterclaim that the patent covering our product candidate, as applicable, is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace, and there are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include IPR, ex parte re-examination and post grant review in the United States, and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). Such proceedings could result in revocation or amendment to our patents in such a way that they no longer cover and protect our product candidates. The outcome following legal assertions of unpatentability, invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we, our patent counsel and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of unpatentability, invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates. Such a loss of patent protection could have a material adverse impact on our business.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involve both technological and legal complexity, and is therefore costly, time-consuming and inherently uncertain. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts, and the USPTO, the

laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future. For example, in the 2013 case, *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, the U.S. Supreme Court held that certain claims to DNA molecules are not patentable. While we do not believe that any of the patents owned or licensed by us will be found invalid based on this decision, we cannot predict how future decisions by the courts, the U.S. Congress or the USPTO may impact the value of our patents.

We may not be able to protect our intellectual property rights throughout the world.

We may not be able to protect our intellectual property rights outside the United States. Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biopharmaceutical products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties.

We have received confidential and proprietary information from third parties. In addition, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies. We may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed confidential information of these third parties or our employees' former employers. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial cost and be a distraction to our management and employees.

Risks Related to This Offering and Ownership of Our Common Stock

We do not know whether an active, liquid and orderly trading market will develop for our common stock or what the market price of our common stock will be and as a result it may be difficult for you to sell your shares of our common stock.

Prior to this offering there has been no public market for shares of our common stock. An active trading market for our shares may never develop or be sustained following this offering. You may not be able to sell your

shares quickly or at the market price if trading in shares of our common stock is not active. The initial public offering price for our common stock was determined through negotiations with the underwriters, and the negotiated price may not be indicative of the market price of the common stock after the offering. As a result of these and other factors, you may be unable to resell your shares of our common stock at or above the initial public offering price. Further, an inactive market may also impair our ability to raise capital by selling shares of our common stock and may impair our ability to enter into strategic partnerships or acquire companies or products by using our shares of common stock as consideration.

The price of our stock may be volatile, and you could lose all or part of your investment.

The trading price of our common stock following this offering is likely to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control, including limited trading volume. In addition to the factors discussed in this "Risk Factors" section and elsewhere in this prospectus, these factors include:

- the commencement, enrollment or results of our ongoing and planned clinical trials of our product candidates or any future clinical trials we or Servier may conduct, or changes in the development status of our product candidates;
- our or Servier's decision to initiate a clinical trial, not to initiate a clinical trial or to terminate an existing clinical trial;
- adverse results or delays in clinical trials;
- any delay in our regulatory filings for our product candidates and any adverse development or perceived adverse development with respect to the applicable regulatory authority's review of such filings, including without limitation the FDA's issuance of a "refusal to file" letter or a request for additional information;
- our failure to commercialize our product candidates;
- adverse regulatory decisions, including failure to receive regulatory approval of our product candidates;
- changes in laws or regulations applicable to our products, including but not limited to clinical trial requirements for approvals;
- adverse developments concerning our manufacturers or suppliers;
- our inability to obtain adequate product supply for any approved product or inability to do so at acceptable prices;
- our inability to establish collaborations if needed;
- additions or departures of key scientific or management personnel;
- unanticipated serious safety concerns related to immuno-oncology or related to the use of our product candidates;
- introduction of new products or services offered by us or our competitors;
- announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by us or our competitors;
- our ability to effectively manage our growth;
- the size and growth of our initial cancer target markets;
- our ability to successfully treat additional types of cancers or at different stages;
- actual or anticipated variations in quarterly operating results;

- our cash position;
- our failure to meet the estimates and projections of the investment community or that we may otherwise provide to the public;
- publication of research reports about us or our industry, or immunotherapy in particular, or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- changes in the market valuations of similar companies;
- overall performance of the equity markets;
- sales of our common stock by us or our stockholders in the future;
- trading volume of our common stock;
- changes in accounting practices;
- ineffectiveness of our internal controls;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- significant lawsuits, including patent or stockholder litigation;
- general political and economic conditions; and
- other events or factors, many of which are beyond our control.

In addition, the stock market in general, and the Nasdaq Global Select Market and biopharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance. In the past, securities class action litigation has often been instituted against companies following periods of volatility in the market price of a company's securities. If the market price of our common stock after this offering does not exceed the initial public offering price, you may not realize any return on your investment in us and may lose some or all of your investment. In the past, securities class action litigation has often been instituted against companies following periods of volatility in the market price of a company's securities. This type of litigation, if instituted, could result in substantial costs and a diversion of management's attention and resources, which would harm our business, operating results or financial condition.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies or product candidates.

We may seek additional capital through a combination of public and private equity offerings, debt financings, strategic partnerships and alliances and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms may include liquidation or other preferences that adversely affect your rights as a stockholder. The incurrence of indebtedness would result in increased fixed payment obligations and could involve certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. If we raise additional funds through strategic partnerships and alliances and licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or product candidates, or grant licenses on terms unfavorable to us.

We do not intend to pay dividends on our common stock so any returns will be limited to the value of our stock.

We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock.

Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

Prior to this offering, our executive officers, directors, and 5% stockholders beneficially owned approximately 47.7% of our voting stock as of June 30, 2018, and, upon the closing of this offering, that same group will continue to beneficially own a significant percentage of our outstanding voting stock. Accordingly, even after this offering, these stockholders will have the ability to influence us through this ownership position and significantly affect the outcome of all matters requiring stockholder approval. For example, these stockholders may be able to significantly affect the outcome of elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may feel are in your best interest as one of our stockholders.

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.

The initial public offering price is substantially higher than the net tangible book value per share of our common stock. Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the book value of our tangible assets after subtracting our liabilities. As a result, investors purchasing common stock in this offering will incur immediate dilution of $ per share, based on the initial public offering price of $ per share. Further, investors purchasing common stock in this offering will contribute approximately % of the total amount invested by stockholders since our inception, but will own only approximately % of the shares of common stock outstanding after giving effect to this offering.

This dilution is due to our investors who purchased shares prior to this offering having paid substantially less when they purchased their shares than the price offered to the public in this offering and the exercise of stock options granted to our employees. To the extent outstanding options are exercised, there will be further dilution to new investors. As a result of the dilution to investors purchasing shares in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of our liquidation. For a further description of the dilution that you will experience immediately after this offering, see “Dilution.”

We are an emerging growth company, and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are an emerging growth company, as defined in the JOBS Act enacted in April 2012. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements and exemptions from the requirements of holding nonbinding advisory votes on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could be an emerging growth company for up to five years following the year in which we complete this offering, although circumstances could cause us to lose that status earlier. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of this offering, (b) in which we have total annual gross revenue of at least $1.07 billion or (c) in which we are deemed

to be a large accelerated filer, which requires the market value of our common stock that is held by non-affiliates to exceed $700 million as of the prior June 30th, and (2) the date on which we have issued more than $1 billion in non-convertible debt during the prior three-year period.

Even after we no longer qualify as an emerging growth company, we may still qualify as a "smaller reporting company" which would allow us to take advantage of many of the same exemptions from disclosure requirements including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

We will incur significant increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. We will be subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (Exchange Act), which will require, among other things, that we file with the Securities and Exchange Commission (SEC) annual, quarterly and current reports with respect to our business and financial condition**.** In addition, the Sarbanes-Oxley Act, as well as rules subsequently adopted by the SEC and the Nasdaq Global Select Market to implement provisions of the Sarbanes-Oxley Act, impose significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Further, in July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) was enacted. There are significant corporate governance and executive compensation related provisions in the Dodd-Frank Act that require the SEC to adopt additional rules and regulations in these areas such as "say on pay" and proxy access. Emerging growth companies are permitted to implement many of these requirements over a longer period and up to five years from the pricing of this offering. We intend to take advantage of this legislation for as long as we are permitted to do so. Once we become required to implement these requirements, we will incur additional compliance-related expenses. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate.

We expect the rules and regulations applicable to public companies to continue to increase our legal and financial compliance costs and to make some activities more time-consuming and costly. If these requirements divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition and results of operations. The increased costs will decrease our net income or increase our net loss, and may require us to reduce costs in other areas of our business or increase the prices of our products or services. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain the same or similar coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

Sales of a substantial number of shares of our common stock by our existing stockholders in the public market could cause our stock price to fall.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in this prospectus lapse, the trading price of our common stock could decline. Based on shares of common stock outstanding as of June 30, 2018 and assuming an initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus) for purposes of determining the number of shares that will be issued upon automatic share settlement of the 2018 Notes in connection with the closing of this offering, upon the closing of this offering we will have outstanding a total of shares of common stock. Of these shares, only the shares of common stock sold in this offering by us (excluding any shares sold to our directors and officers in the directed share program), plus any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable without restriction in the public market immediately following this offering. The underwriters, however, may, in their sole discretion, permit our officers, directors and other stockholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements.

We expect that the lock-up agreements pertaining to this offering will expire 180 days from the date of this prospectus. In addition, shares of common stock that are either subject to outstanding options or reserved for future issuance under the 2018 Plan will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act of 1933, as amended (Securities Act). If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

After this offering and assuming an initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), the holders of shares of our common stock will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to the 180-day lock-up agreements described above. See "Description of Capital Stock—Registration Rights." Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares held by affiliates, as defined in Rule 144 under the Securities Act. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to the 2018 Plan, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital may be needed in the future to continue our planned operations, including conducting clinical trials, commercialization efforts, expanded research and development activities and costs associated with operating a public company. To raise capital, we may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell common stock, convertible securities or other equity securities, investors may be materially diluted by subsequent sales. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to the holders of our common stock, including shares of common stock sold in this offering.

Pursuant to the 2018 Plan, certain amendments of which became effective on the business day prior to the public trading date of our common stock, our management is authorized to grant stock options to our employees, directors and consultants.

Initially, the aggregate number of shares of our common stock that may be issued pursuant to stock awards under the 2018 Plan is shares. Additionally, the number of shares of our common stock reserved for issuance under the 2018 Plan will automatically increase on January 1 of each year, beginning on January 1, 2019 and continuing through and including January 1, 2028, by % of the total number of shares of our capital stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares determined by our board of directors. Unless our board of directors elects not to increase the number of shares available for future grant each year, our stockholders may experience additional dilution, which could cause our stock price to fall.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section entitled "Use of Proceeds," and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment. The failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders. If we do not invest or apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause our stock price to decline.

Anti-takeover provisions under our charter documents and Delaware law could delay or prevent a change of control which could limit the market price of our common stock and may prevent or frustrate attempts by our stockholders to replace or remove our current management.

Our amended and restated certificate of incorporation and amended and restated bylaws, which are to become effective at or prior to the closing of this offering, contain provisions that could delay or prevent a change of control of our company or changes in our board of directors that our stockholders might consider favorable. Some of these provisions include:

- a board of directors divided into three classes serving staggered three-year terms, such that not all members of the board will be elected at one time;
- a prohibition on stockholder action through written consent, which requires that all stockholder actions be taken at a meeting of our stockholders;
- a requirement that special meetings of stockholders be called only by the chairman of the board of directors, the chief executive officer, or by a majority of the total number of authorized directors;
- advance notice requirements for stockholder proposals and nominations for election to our board of directors;
- a requirement that no member of our board of directors may be removed from office by our stockholders except for cause and, in addition to any other vote required by law, upon the approval of not less than two-thirds of all outstanding shares of our voting stock then entitled to vote in the election of directors;
- a requirement of approval of not less than two-thirds of all outstanding shares of our voting stock to amend any bylaws by stockholder action or to amend specific provisions of our certificate of incorporation; and
- the authority of the board of directors to issue preferred stock on terms determined by the board of directors without stockholder approval and which preferred stock may include rights superior to the rights of the holders of common stock.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporate Law, which may prohibit certain business combinations with stockholders owning 15% or more of our outstanding voting stock. These anti-takeover provisions and other provisions in our amended and restated certificate of incorporation and amended and restated bylaws could make it more difficult for stockholders or potential acquirors to obtain control of our board of directors or initiate actions that are opposed by the then-current board of directors and could also delay or impede a merger, tender offer or proxy contest involving our company. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors of your choosing or cause us to take other corporate actions you

desire. Any delay or prevention of a change of control transaction or changes in our board of directors could cause the market price of our common stock to decline.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. Securities and industry analysts do not currently, and may never, publish research on our company. If no securities or industry analysts commence coverage of our company, the trading price for our stock would likely be negatively impacted. In the event securities or industry analysts initiate coverage, if one or more of the analysts who covers us downgrades our stock or publishes inaccurate or unfavorable research about our business, our stock price may decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. The forward-looking statements are contained principally in the sections entitled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business." These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- the success, cost, timing and potential indications of our product development activities and clinical trials, including the ongoing clinical trials of UCART19;
- the timing of our planned IND submissions to the FDA for our product candidates, including ALLO-501 and ALLO-715;
- the timing of the initiation, enrollment and completion of planned clinical trials;
- our ability to obtain and maintain regulatory approval of our product candidates, including UCART19, ALLO-501 and ALLO-715 in any of the indications for which we plan to develop them, and any related restrictions, limitations, and/or warnings in the label of an approved product candidate;
- our ability to obtain funding for our operations, including funding necessary to complete the clinical trials of any of our product candidates, including UCART19, ALLO-501 and ALLO-715;
- our plans to research, develop and commercialize our product candidates, including UCART19, ALLO-501 and ALLO-715;
- our ability to attract and retain collaborators with development, regulatory and commercialization expertise;
- the size of the markets for our product candidates, and our ability to serve those markets;
- our ability to successfully commercialize our product candidates, including UCART19, ALLO-501 and ALLO-715;
- the rate and degree of market acceptance of our product candidates, including UCART19, ALLO-501 and ALLO-715;
- our ability to develop and maintain sales and marketing capabilities, whether alone or with potential future collaborators;
- regulatory developments in the United States and foreign countries;
- the performance of our third-party suppliers and manufacturers;
- the success of competing therapies that are or become available;
- our ability to attract and retain key scientific or management personnel;
- our use of the proceeds from this offering;
- the accuracy of our estimates regarding expenses, future revenues, capital requirements and needs for additional financing; and
- our expectations regarding our ability to obtain and maintain intellectual property protection for our product candidates and our ability to operate our business without infringing on the intellectual property rights of others.

In some cases, you can identify these statements by terms such as "anticipate," "believe," "could," "estimate," "expects," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would" or the

negative of those terms, and similar expressions that convey uncertainty of future events or outcomes. These forward-looking statements reflect our management's beliefs and views with respect to future events and are based on estimates and assumptions as of the date of this prospectus and are subject to risks and uncertainties. In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements. We discuss many of the risks associated with the forward-looking statements in this prospectus in greater detail under the heading "Risk Factors." Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Given these uncertainties, you should not place undue reliance on these forward-looking statements.

You should carefully read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this prospectus by these cautionary statements.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in any forward-looking statements, whether as a result of new information, future events or otherwise.

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately $ million (or approximately $ million if the underwriters' option to purchase additional shares is exercised in full) from the sale of the shares of common stock offered by us in this offering, based on an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase (decrease) the net proceeds to us from this offering by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, a 1.0 million share increase (decrease) in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us by $, assuming the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus) remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purposes of this offering are to obtain additional capital to support our operations, to create a public market for our common stock and to facilitate our future access to the public equity markets. We anticipate that we will use the net proceeds of this offering as follows:

- approximately $ to fund our portion of the costs for the ongoing UCART19 CALM and PALL clinical trials;
- approximately $ to fund our portion of the costs for the planned UCART19 CALM II and PALL II clinical trials;
- approximately $ to fund our portion of the costs for the planned clinical trial of ALLO-501;
- approximately $ to fund the planned clinical trial of ALLO-715;
- approximately $ to fund the transition services from Pfizer and the expansion of our facilities, including the build-out of our headquarters in South San Francisco, California and our own clinical and commercial manufacturing facility;
- approximately $ to fund our internal research and development capabilities to advance new product candidates; and
- the remainder for working capital and other general corporate purposes, including the additional costs associated with being a public company.

We may also use a portion of the net proceeds from this offering to in-license, acquire, or invest in complementary businesses, technologies, products or assets. However, we have no current commitments or obligations to do so.

We believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will enable us to fund our operating expenses and capital expenditure requirements through at least the next months from the date of this offering and through the completion of the CALM and PALL clinical trials, the Phase 1 clinical trial of ALLO-501 and the Phase 1 clinical trial of ALLO-715. We may require additional funding to be able to complete the CALM II and PALL II clinical trials, and any Phase 2 portion of the ALLO-501 and ALLO-715 clinical trials. It is difficult to predict the cost and timing required to complete our clinical trials due to, among other factors, our lack of experience with initiating and conducting clinical trials, the rate of subject enrollment in our clinical trials, filing requirements with various regulatory agencies, clinical trial results, and the actual costs of manufacturing and supplying our product candidates.

Our expected use of net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering, or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual use of the net proceeds will vary depending on numerous factors, including our ability to obtain additional financing, the progress, cost and

results of our preclinical and clinical development programs, and whether we are able to enter into future licensing or collaboration arrangements. We may find it necessary or advisable to use the net proceeds for other purposes, and our management will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds from this offering.

Pending their use, we plan to invest the net proceeds from this offering in short- and medium-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings to support our operations and finance the growth and development of our business. We do not intend to pay cash dividends on our common stock for the foreseeable future. Any future determination related to our dividend policy will be made at the discretion of our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects and other factors our board of directors may deem relevant.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of June 30, 2018 as follows:

- on an actual basis;
- on a pro forma basis to reflect (i) the filing and effectiveness of our amended and restated certificate of incorporation immediately prior to the completion of this offering, (ii) the conversion of all outstanding shares of our convertible preferred stock as of June 30, 2018 into 11,743,987 shares of our common stock immediately upon the closing of this offering, (iii) the receipt of $150.0 million in cash proceeds from our convertible preferred stockholders in July and August 2018 related to subscriptions receivable, (iv) the receipt of $116.9 million in net cash proceeds from the sale of the 2018 Notes in September 2018 (which is currently reflected in cash and cash equivalents and additional paid-in capital) and (v) the settlement of the 2018 Notes into shares of our common stock and a charge to accumulated deficit of $ million related to the settlement of the 2018 Notes' embedded redemption features, assuming an initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), in connection with the closing of this offering; and
- on a pro forma as adjusted basis to give effect to (i) the pro forma adjustments set forth above and (ii) our issuance and sale of shares of our common stock in this offering at the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this information together with the sections entitled "Selected Financial Data," "Description of Capital Stock" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes included elsewhere in this prospectus.

	As of June 30, 2018		
	Actual	Pro Forma	Pro Forma as Adjusted(1)
	(Unaudited) (In thousands, except share and per share data)		
Cash and cash equivalents	$ 143,927	$ 410,827	$
Convertible preferred stock, $0.001 par value; 11,743,987 shares authorized, issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	$ 411,052	$ —	$ —
Subscriptions receivable from preferred stockholders	(150,000)	—	—
Stockholders' (deficit) equity:			
Preferred stock, $0.001 par value; no shares authorized, issued and outstanding, actual; shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted	—	—	
Common stock, $0.001 par value; 20,000,000 shares authorized, 5,279,000 shares issued and outstanding, actual; shares authorized, shares issued and outstanding, pro forma; shares authorized, shares issued and outstanding, pro forma as adjusted	5	17	
Additional paid-in capital	8,056	535,996	
Accumulated deficit	(137,501)	(137,501)	
Total stockholders' (deficit) equity	(129,440)	398,512	
Total capitalization	$ 131,612	$ 398,512	$

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, additional paid-in capital, total capitalization and total stockholders' equity by approximately $, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us, as set forth on the cover page of this prospectus, at the assumed initial public offering price would increase (decrease) each of cash and cash equivalents, additional paid-in capital, total capitalization and total stockholders' equity by approximately $, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The outstanding share information in the table above excludes, as of June 30, 2018, the following:

- 1,398,900 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2018, with a weighted-average exercise price of $11.89 per share;
- 352,200 shares of common stock issuable upon the exercise of outstanding stock options granted after June 30, 2018, at a weighted-average exercise price of $25.06 per share;
- shares of common stock reserved for future issuance under the 2018 Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective upon the execution of the underwriting agreement for this offering (including shares of common stock reserved for issuance under our Prior Plan, which shares will be added to the 2018 Plan upon its effectiveness); and
- shares of common stock reserved for issuance under the ESPP, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective upon the execution of the underwriting agreement for this offering.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock after this offering.

As of June 30, 2018, we had a historical net tangible book deficit of $(130.5) million, or $(24.72) per share of common stock. Our historical net tangible book deficit per share represents the amount of our total tangible assets less total liabilities and convertible preferred stock net of subscriptions receivable, divided by the total number of shares of common stock outstanding at June 30, 2018.

After giving effect to (i) the automatic conversion of all outstanding shares of our convertible preferred stock into 11,743,987 shares of our common stock immediately upon the completion of this offering, (ii) the receipt of $150.0 million in cash proceeds from our convertible preferred stockholders in July and August 2018 related to subscriptions receivable and (iii) the receipt of $116.9 million in net cash proceeds from the sale of the 2018 Notes in September 2018 and the settlement of the 2018 Notes into shares of our common stock, assuming an initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), in connection with the closing of this offering, our pro forma net tangible book value as of June 30, 2018 was $ million, or approximately $ per share.

Net tangible book value dilution per share to new investors represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the pro forma as adjusted net tangible book value per share of common stock immediately after completion of this offering. After giving further effect to the sale of shares of our common stock that we are offering at the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of June 30, 2018 was $ million, or approximately $ per share. This amount represents an immediate increase in pro forma net tangible book value of $ per share to our existing stockholders and an immediate dilution in pro forma net tangible book value of approximately $ per share to new investors participating in this offering.

Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the initial public offering price per share paid by new investors. The following table illustrates this dilution:

Assumed initial public offering price per share		$
Historical net tangible book deficit per share at June 30, 2018, before giving effect to this offering	$(24.72)	
Pro forma increase in historical net tangible book value per share attributable to conversion of all outstanding shares of convertible preferred stock and of all 2018 Notes		
Pro forma net tangible book value per share at June 30, 2018, before giving effect to this offering.		
Increase in pro forma net tangible book value per share attributable to investors participating in this offering		
Pro forma as adjusted net tangible book value per share after this offering		
Dilution per share to new investors participating in this offering		$

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase (decrease) the pro forma as

adjusted net tangible book value per share after this offering by approximately $, and dilution in pro forma net tangible book value per share to new investors by approximately $, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us. Similarly, each increase of 1.0 million shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase our pro forma as adjusted net tangible book value per share after this offering by approximately $ and decrease the dilution to investors participating in this offering by approximately $ per share, assuming that the assumed initial public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us. Each decrease of 1.0 million shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would decrease the pro forma as adjusted net tangible book value per share after this offering by approximately $ and increase the dilution to investors participating in this offering by approximately $ per share, assuming that the assumed initial public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us.

If the underwriters exercise their option to purchase additional shares of our common stock in full in this offering, the pro forma as adjusted net tangible book value after the offering would be $ per share, the increase in pro forma as adjusted net tangible book value per share to existing stockholders would be $ per share and the dilution per share to new investors would be $ per share, in each case assuming an initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus).

To the extent that outstanding options with an exercise price per share that is less than the pro forma as adjusted net tangible book value per share are exercised, new investors will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The following table summarizes on a pro forma as adjusted basis as of June 30, 2018, the number of shares of common stock purchased or to be purchased from us, the total consideration paid or to be paid to us in cash and the average price per share paid by existing stockholders for shares issued prior to this offering and the price to be paid by new investors in this offering. The calculation below is based on the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. As the table below shows, investors participating in this offering will pay an average price per share substantially higher than our existing stockholders paid.

	Shares Purchased		Total Consideration		Weighted-Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders		%	$	%	$
Investors participating in this offering					$
Total		100.0%	$	100.0%	

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase (decrease) each of the total consideration paid by new investors and the total consideration paid by all stockholders by approximately $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) each of the total

consideration paid by investors participating in this offering and the total consideration paid by all stockholders by approximately $ million, assuming the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus) remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The foregoing tables and calculations exclude:

- 1,398,900 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2018, with a weighted-average exercise price of $11.89 per share;
- 352,200 shares of common stock issuable upon the exercise of outstanding stock options granted after June 30, 2018, at a weighted-average exercise price of $25.06 per share;
- shares of common stock reserved for future issuance under the 2018 Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective upon the execution of the underwriting agreement for this offering (including shares of common stock reserved for issuance under our Prior Plan which shares will be added to the 2018 Plan upon its effectiveness); and
- shares of common stock reserved for issuance under the ESPP, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective upon the execution of the underwriting agreement for this offering.

We may choose to raise additional capital through the sale of equity or debt due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent we issue additional shares of common stock or other equity or convertible debt securities in the future, there will be further dilution to investors participating in this offering.

SELECTED FINANCIAL DATA

The following tables set forth our selected financial data as of, and for the periods ended on, the dates indicated. We have derived the selected statement of operations and comprehensive loss data for the period from November 30, 2017 (inception) to December 31, 2017 and balance sheet data as of December 31, 2017 from our audited financial statements included elsewhere in this prospectus. We have derived the selected statement of operations and comprehensive loss data for the six months ended June 30, 2018 and the balance sheet data as of June 30, 2018 from our unaudited interim financial statements included elsewhere in this prospectus. Our unaudited interim financial statements have been prepared on the same basis as our audited financial statements and, in our opinion, reflect all adjustments, consisting only of normal recurring adjustments, that are necessary for the fair presentation of our unaudited interim financial statements. The selected financial data included in this section are not intended to replace the financial statements and related notes included elsewhere in this prospectus. You should read the selected financial data together with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results to be expected for any other period in the future, and our interim results are not necessarily indicative of the results to be expected for the full year or any other period.

	Period from November 30, 2017 (Inception) to December 31, 2017	Six Months Ended June 30, 2018 (Unaudited)
	(In thousands, except share and per share data)	
Statements of Operations and Comprehensive Loss Data:		
Operating expenses:		
Research and development	$ —	$ 122,486
General and administrative	2	15,123
Total operating expenses	2	137,609
Loss from operations	(2)	(137,609)
Interest and other income, net	—	110
Net and comprehensive loss	$ (2)	$ (137,499)
Net loss per share, basic and diluted[1]	$ 0.00	$ (49.44)
Weighted-average shares used in computing net loss per share, basic and diluted[1]	5,000,000	2,781,025
Pro forma net loss per share, basic and diluted (unaudited)[1]		$ (16.40)
Weighted-average shares used in computing pro forma net loss per share, basic and diluted (unaudited)[1]		8,383,101

(1) See Notes 2 and 11 to our financial statements included elsewhere in this prospectus for a description of how we compute basic and diluted net loss per share and basic and diluted unaudited pro forma net loss per share, and the weighted-average number of shares used in the computation of these per share amounts.

	As of December 31, 2017	As of June 30, 2018 (Unaudited)
	(In thousands)	
Balance Sheet Data:		
Cash and cash equivalents	$ —	$ 143,927
Total assets	—	148,845
Working capital(1)	—	129,519
Total liabilities	2	17,233
Convertible preferred stock	—	411,052
Subscriptions receivable from preferred stockholders	—	(150,000)
Accumulated deficit	(2)	(137,501)
Total stockholders' (deficit) equity	(2)	(129,440)

(1) We define working capital as current assets less current liabilities. See our financial statements and related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with the section entitled "Selected Financial Data" and our financial statements and related notes appearing elsewhere in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the section entitled "Risk Factors," our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis. You should carefully read the section entitled "Risk Factors" to gain an understanding of the important factors that could cause actual results to differ materially from our forward-looking statements. Please also see the section entitled "Special Note Regarding Forward-Looking Statements."

Overview

We are a clinical stage immuno-oncology company pioneering the development and commercialization of genetically engineered allogeneic T cell therapies for the treatment of cancer. We are developing a pipeline of off-the-shelf T cell product candidates that are designed to target and kill cancer cells. Our engineered T cells are allogeneic, meaning they are derived from healthy donors for intended use in any patient, rather than from an individual patient for that patient's use, as in the case of autologous T cells. We believe this key difference will enable us to deliver readily available treatments faster, more reliably, at greater scale, and to more patients.

In collaboration with Servier, we are developing UCART19, a CAR T cell product candidate targeting CD19. UCART19 is being studied in clinical trials in patients with R/R B-cell precursor ALL, and we expect UCART19 to be advanced to potential registrational trials in the second half of 2019. We also plan to submit an IND in the first half of 2019 for our second allogeneic anti-CD19 CAR T cell product candidate, ALLO-501, for the treatment of NHL. In addition, we have a deep pipeline of allogeneic CAR T cell product candidates targeting multiple promising antigens in a host of hematological malignancies and solid tumors. For example, we plan to submit an IND in 2019 for an allogeneic CAR T cell product candidate targeting BCMA for the treatment of multiple myeloma. We believe our management team's experience in immuno-oncology and specifically in CAR T cell therapy will help drive the rapid development and, if approved, the commercialization of these potentially curative therapies for patients with aggressive cancer.

We believe our allogeneic platform has the potential to be the next revolution in cancer treatment. Our allogeneic approach involves engineering healthy donor T cells, which we believe will allow for the creation of an inventory of off-the-shelf products that can be delivered to a larger portion of eligible patients throughout the world.

We were incorporated in November 2017. In April 2018, we acquired certain assets from Pfizer, including strategic license and collaboration agreement and other intellectual property related to the development and administration of allogeneic CAR T cells for the treatment of cancer. We have an exclusive collaboration with Servier to develop and commercialize UCART19 and ALLO-501, and we hold the commercial rights to these product candidates in the United States. Under the Servier Agreement, we also have an exclusive option to obtain the same rights to additional product candidates targeting one additional cancer antigen. We also have an exclusive worldwide license from Cellectis to its TALEN gene-editing technology for the development of allogeneic T cell product candidates directed against 15 different cancer antigens. Our collaboration with Servier gives us access to TALEN gene-editing technology for all product candidates under the Servier Agreement. In connection with the Pfizer asset acquisition, we hired 39 employees from Pfizer, who are primarily research and technical operation employees and were leading the research and development of our product candidates and next generation gene engineering and cell engineering technologies at Pfizer.

Since our inception through June 30, 2018, our operations have been financed primarily by net proceeds of $149.3 million from the sale of our convertible preferred stock. As of June 30, 2018, we had $143.9 million in cash and cash equivalents. In July and August 2018, we received $150.0 million in cash proceeds from our convertible preferred stockholders related to subscriptions receivable. In September 2018, we sold and issued $120.2 million aggregate principal amount of 2018 Notes and received net cash proceeds of $116.9 million. The 2018 Notes do not accrue interest and will automatically settle into shares of our common stock in connection with the closing of this offering at a settlement price equal to 85% of the initial public offering price per share. Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to liquidity and capital preservation.

Since inception, we have had significant operating losses, the vast majority of which are attributable to acquired intangible in-process research and development costs pursuant to the Asset Contribution Agreement with Pfizer. Our net loss and comprehensive loss was $137.5 million for the six months ended June 30, 2018 and as of June 30, 2018, we had an accumulated deficit of $137.5 million. Our primary use of cash is to fund operating expenses, which consist primarily of research and development expenditures, and to a lesser extent, general and administrative expenditures. Cash used to fund operating expenses is impacted by the timing of when we pay these expenses, as reflected in the change in our outstanding accounts payable and accrued expenses. We expect to continue to incur net losses for the foreseeable future, and we expect our research and development expenses, general and administrative expenses, and capital expenditures will continue to increase. In particular, we expect our expenses and losses to increase as we continue our development of, and seek regulatory approvals for, our product candidates, and begin to commercialize any approved products, as well as hire additional personnel, develop commercial infrastructure, pay fees to outside consultants, lawyers and accountants, and incur increased costs associated with being a public company such as expenses related to services associated with maintaining compliance with Nasdaq listing rules and SEC requirements, insurance and investor relations costs. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing of our clinical trials and our expenditures on other research and development activities.

Based upon our current operating plan, we believe that the net proceeds from this offering, together with our existing cash and cash equivalents as of June 30, 2018 and the receipt of $150.0 million in cash proceeds from our convertible preferred stockholders in July and August 2018 related to subscriptions receivable and $116.9 million in net cash proceeds from the sale of the 2018 Notes in September 2018, will enable us to fund our operating expenses and capital expenditure requirements through at least the next months from the date of this offering. To date, we have not had any products approved for sale and have not generated any product sales. We do not expect to generate any revenues from product sales unless and until we successfully complete development and obtain regulatory approval for one or more of our product candidates, which we expect will take a number of years. If we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. As a result, until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through equity offerings, debt financings or other capital sources, including potentially collaborations, licenses and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Any failure to raise capital as and when needed could have a negative impact on our financial condition and on our ability to pursue our business plans and strategies. If we are unable to raise capital, we will need to delay, reduce or terminate planned activities to reduce costs.

We have invested resources to optimize our manufacturing process, including the development of improved analytical methods. We plan to continue to invest in process science, product characterization and manufacturing to continuously improve our production and supply chain capabilities over time. Our product candidates are designed and manufactured via a platform comprised of defined unit operations and technologies. The process is gradually developed from small to larger scales, incorporating compliant procedures to create cGMP conditions. Notwithstanding this platform based model, each product is unique and for each new product candidate, a developmental phase is necessary to individually customize each engineering step and to create a robust

procedure that can later be implemented in a cGMP environment to ensure the production of clinical batches. This work is performed in our research and development environment to evaluate and assess variability in each step of the process in order to define the most reliable production conditions.

We expect to continue to rely on a third-party CMO and may rely on CMOs and other third parties for the manufacturing and processing of our product candidates in the future. We believe the use of contract manufacturing and testing for the first clinical product candidates is cost-effective and has allowed us to rapidly prepare for clinical trials in accordance with our development plans. We expect third-party manufacturers will be capable of providing and processing sufficient quantities of our product candidates to meet anticipated clinical trial demands. In addition, we plan to secure and build our own manufacturing facility for clinical and commercial supply and are currently searching for a suitable location for such facility. We plan to create a robust supply chain with redundant sources of supply comprised of both internal and external infrastructure.

Our Research Development and License Agreements

Asset Contribution Agreement with Pfizer

In April 2018, we entered into an Asset Contribution Agreement (Pfizer Agreement) with Pfizer pursuant to which we acquired certain assets and assumed certain liabilities from Pfizer, including the Cellectis Agreement and the Servier Agreement described below and other intellectual property for the development and administration of CAR T cells for the treatment of cancer. See Notes 5 and 6 to our financial statements included elsewhere in this prospectus for further description of the Pfizer Agreement.

Research Collaboration and License Agreement with Cellectis

In June 2014, Pfizer entered into a Research Collaboration and License Agreement (Cellectis Agreement) with Cellectis. In April 2018, Pfizer assigned the agreement to us pursuant to the Pfizer Agreement. See Note 6 to our financial statements included elsewhere in this prospectus for further description of the Cellectis Agreement.

Exclusive License and Collaboration Agreement With Servier

In October 2015, Pfizer entered into an Exclusive License and Collaboration Agreement (Servier Agreement) with Servier to develop, manufacture and commercialize certain allogeneic CD19 CAR products, including UCART19, in the United States with the option to obtain the rights over additional products, including other allogenic anti-CD19 CAR product candidates. In April 2018, Pfizer assigned the agreement to us pursuant to the Pfizer Agreement. See Note 6 to our financial statements included elsewhere in this prospectus for further description of the Servier Agreement.

Transition Services Agreement

In connection with the closing of the Pfizer asset purchase transaction, we entered into the TSA with Pfizer in April 2018, pursuant to which Pfizer provides us with certain (i) research and development services, including services relating to testing, studies, and clinical trials, project management services, laboratory equipment and operations services, animal care services, data storage services and regulatory strategy services, and (ii) general and administrative services, including business technology services, compliance services, finance/accounting services, and procurement, manufacturing and supply chain services, with respect to the assets that we purchased from Pfizer. Under the TSA, Pfizer also provides us with certain facilities and facility management services. The services are provided by certain employees of Pfizer as independent contractors of Allogene. We believe that it is helpful for Pfizer to provide such services to us under the TSA to help facilitate the efficient operation of our business after the asset purchase and as we transition to becoming a stand-alone public company.

Pfizer began providing the services in May 2018 and will continue providing the services for a period of time ranging from one to 12 months, depending on the service, which we refer to as the Service Period, with the exception of the services relating to the facilities, which Pfizer shall provide for 18 months. The services and employees for each service may be amended from time to time by the parties. Under the TSA, we estimate we will pay Pfizer an aggregate of $11.2 million in 2018 and $2.6 million in 2019.

The TSA provides that Pfizer will indemnify us for damages that result from Pfizer's gross negligence, willful misconduct or material breach of the TSA and that we will indemnify Pfizer for damages that arise from the provision of the services, unless such damages result from Pfizer's gross negligence, willful misconduct or material breach. We are also required to indemnify Pfizer for damages that arise from our material breach of the TSA.

The term of the agreement began in April 2018 and ends on the earlier to occur of the last date that Pfizer is required to provide the services or the termination of the TSA in accordance with the agreement. Either party may terminate the agreement upon 60 days' prior written notice in the event of the other party's uncured material breach. Pfizer may terminate the TSA upon 10 days' prior written notice in the event of for our non-payment, if left uncured. We may terminate our use of the facilities with 60 days' written notice.

Components of Operating Results

Operating Expenses

Research and Development

To date, our research and development expenses have related primarily to discovery efforts and preclinical and clinical development of our product candidates. Research and development expenses for the six months ended June 30, 2018 primarily consist of acquired in-process research and development recognized as a non-cash expense related to the Asset Contribution Agreement with Pfizer. Research and development expenses consist primarily of costs incurred for the development of our most advanced product candidate, UCART19, which include:

- expenses incurred under agreements with our collaboration partners and third-party contract organizations, investigative clinical trial sites that conduct research and development activities on our behalf, and consultants;
- costs related to production of clinical materials, including fees paid to contract manufacturers;
- laboratory and vendor expenses related to the execution of preclinical and clinical trials;
- employee-related expenses, which include salaries, benefits and stock-based compensation; and
- facilities and other expenses, which include expenses for rent and maintenance of facilities, depreciation and amortization expense and other supplies.

Other significant research and development costs include costs relating to facilities and overhead costs, including payments to Pfizer under the TSA for use of their facilities. We expense all research and development costs in the periods in which they are incurred. We accrue for costs incurred as the services are being provided by monitoring the status of the project and the invoices received from our external service providers. We adjust our accrual as actual costs become known. Where contingent milestone payments are due to third parties under research and development arrangements or license agreements, the milestone payment obligations are expensed when the milestone results are achieved.

We are required to reimburse Servier for 60% of the costs associated with the development of UCART19, including for the CALM and PALL clinical trials. We accrue for costs incurred by monitoring the status of the CALM and PALL clinical trials and the invoices received from Servier. We adjust our accrual as actual costs become known.

Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. We expect our research and development expenses to increase over the next several years as our UCART19, ALLO-501 and ALLO-715 clinical programs progress and as we seek to initiate clinical trials of additional product candidates. We also expect to incur increased research and development expenses as we selectively identify and develop additional product candidates. However, it is difficult to determine with certainty the duration and completion costs of our current or future preclinical programs and clinical trials of our product candidates.

The duration, costs and timing of clinical trials and development of our product candidates will depend on a variety of factors that include, but are not limited to, the following:

- per patient trial costs;
- the number of patients that participate in the trials;
- the number of sites included in the trials;
- the countries in which the trials are conducted;
- the length of time required to enroll eligible patients;
- the number of doses that patients receive;
- the drop-out or discontinuation rates of patients;
- potential additional safety monitoring or other studies requested by regulatory agencies;
- the duration of patient follow-up; and
- the efficacy and safety profile of the product candidates.

In the case of UCART19, we are also dependent on Servier's ability to manage the CALM and PALL clinical trials. In addition, the probability of success for each product candidate will depend on numerous factors, including competition, manufacturing capability and commercial viability. We will determine which programs to pursue and how much to fund each program in response to the scientific and clinical success of each product candidate, as well as an assessment of each product candidate's commercial potential.

Because our product candidates are still in clinical and preclinical development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of product candidates or whether, or when, we may achieve profitability. Due to the early stage nature of our programs, we do not track costs on a project by project basis. As our programs become more advanced, we intend to we intend to track the external and internal cost of each program.

General and Administrative

General and administrative expenses consist primarily of salaries and other staff-related costs, including stock-based compensation for options granted and modification of shares of common stock issued to our founders to include vesting conditions, for personnel in executive, commercial, finance, accounting, legal, investor relations, facilities, business development and human resources functions. Other significant costs include costs relating to facilities and overhead costs, including payments to Pfizer under the TSA for use of their facilities, legal fees relating to corporate and patent matters, insurance, investor relations costs, fees for accounting and consulting services, and other general and administrative costs. General and administrative costs are expensed as incurred, and we accrue for services provided by third parties related to the above expenses by monitoring the status of services provided and receiving estimates from our service providers, and adjusting our accruals as actual costs become known.

We expect our general and administrative expenses to increase over the next several years to support our continued research and development activities, manufacturing activities, potential commercialization of our product candidates and the increased costs of operating as a public company. These increases are anticipated to include increased costs related to the hiring of additional personnel, developing commercial infrastructure, fees to outside consultants, lawyers and accountants, and increased costs associated with being a public company such as expenses related to services associated with maintaining compliance with Nasdaq listing rules and SEC requirements, insurance and investor relations costs.

Interest and Other Income, Net

Interest and other income, net consists of interest earned on our cash equivalents during the period.

Results of Operations

Period from November 30, 2017 (Inception) to December 31, 2017

The following sets forth our results of operations for the period from November 30, 2017 (inception) to December 31, 2017 (in thousands):

	Period From November 30, 2017 (Inception) to December 31, 2017
Operating expenses:	
Research and development	$ —
General and administrative	2
Total operating expenses	2
Loss from operations	(2)
Interest and other income, net	—
Net and comprehensive loss	$ (2)

From the period from November 30, 2017 (inception) to December 31, 2017, we incurred $2,000 in start-up costs to establish our company. Principal operations commenced in April 2018 when we acquired certain assets from Pfizer and completed a Series A and A-1 preferred stock financing.

Six Months Ended June 30, 2018

The following sets forth our results of operations for the six months ended June 30, 2018 (in thousands):

	Six Months Ended June 30, 2018 (Unaudited)
Operating expenses:	
Research and development	$ 122,486
General and administrative	15,123
Total operating expenses	137,609
Loss from operations	(137,609)
Interest and other income, net	110
Net and comprehensive loss	$ (137,499)

Research and Development Expenses

Research and development expenses were $122.5 million for the six months ended June 30, 2018. Research and development consisted primarily of a non-cash charge of $109.4 million associated with acquired in-process research and development assets with no alternative future use purchased from Pfizer, $4.7 million in external costs for payments to our research and development partners related to product candidate development activities and manufacturing support for UCART19 clinical trials, $2.3 million for personnel-related costs, and $1.9 million for expenses incurred under the TSA with Pfizer.

General and Administrative Expenses

General and administrative expenses were $15.1 million for the six months ended June 30, 2018. General and administrative expenses consisted primarily of $8.0 million in stock-based compensation expense resulting from the modification of our founders' shares of common stock to include vesting conditions, $3.6 million in start-up costs, including legal fees and professional consulting service fees, related to the establishment of our company, $1.3 million for personnel-related costs and $1.3 million for expenses incurred under the TSA with Pfizer.

Interest and Other Income, Net

Interest and other income, net was $0.1 million for the six months ended June 30, 2018 and consisted of interest earned on our cash equivalents during the period.

Liquidity and Capital Resources

Since our inception through June 30, 2018, our operations have been financed primarily by net proceeds of $149.3 million from the sale of our convertible preferred stock. As of June 30, 2018, we had $143.9 million in cash and cash equivalents. In July and August 2018, we received $150.0 million in cash proceeds from our convertible preferred stockholders related to subscriptions receivable. In September 2018, we received $116.9 million in net cash proceeds from the sale of the 2018 Notes. Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to liquidity and capital preservation.

We have incurred losses since our inception in November 2017 and, as of June 30, 2018, we had an accumulated deficit of $137.5 million. Our primary use of cash is to fund operating expenses, which consist primarily of research and development expenditures related to UCART19, ALLO-501 and ALLO-715, and other research efforts, and to a lesser extent, general and administrative expenditures. Cash used to fund operating expenses is impacted by the timing of when we pay these expenses, as reflected in the change in our outstanding accounts payable and accrued expenses.

Our product candidates may never achieve commercialization and we anticipate that we will continue to incur losses for the foreseeable future. We expect that our research and development expenses, general and administrative expenses, and capital expenditures will continue to increase. As a result, until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through a combination of equity offerings, debt financings or other capital sources, including potentially collaborations, licenses and other similar arrangements. Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, third-party clinical research and development services, costs relating to the build-out of our headquarters and manufacturing facility, license payments or milestone obligations that may arise, laboratory and related supplies, clinical costs, manufacturing costs, legal and other regulatory expenses and general overhead costs.

Based upon our current operating plan, we believe that the net proceeds from this offering, together with our existing cash and cash equivalents as of June 30, 2018 and the receipt of $150.0 million in cash proceeds from

our convertible preferred stockholders related to subscription receivables in July and August 2018 and $116.9 million in net cash proceeds from the sale of the 2018 Notes in September 2018, will enable us to fund our operating expenses and capital expenditure requirements through at least the next months from the date of this offering. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. We will continue to require additional financing to advance our current product candidates through clinical development, to develop, acquire or in-license other potential product candidates and to fund operations for the foreseeable future. We will continue to seek funds through equity offerings, debt financings or other capital sources, including potentially collaborations, licenses and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. If we do raise additional capital through public or private equity offerings, the ownership interest of our existing stockholders, including investors in this offering, will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect our stockholders' rights. If we raise additional capital through debt financing, we may be subject to covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. Any failure to raise capital as and when needed could have a negative impact on our financial condition and on our ability to pursue our business plans and strategies. If we are unable to raise capital, we will need to delay, reduce or terminate planned activities to reduce costs.

Because of the numerous risks and uncertainties associated with research, development and commercialization of pharmaceutical products, we are unable to estimate the exact amount of our operating capital requirements. Our future funding requirements will depend on many factors, including, but not limited to:

- the scope, progress, results and costs of researching and developing our lead product candidates or any future product candidates, and conducting nonclinical studies and clinical trials;
- the timing of, and the costs involved in, obtaining regulatory approvals or clearances for our lead product candidates or any future product candidates;
- the number and characteristics of any additional product candidates we develop or acquire;
- the timing of any cash milestone payments if we successfully achieve certain predetermined milestones;
- the cost of manufacturing our lead product candidates or any future product candidates and any products we successfully commercialize, including costs associated with building-out our manufacturing capabilities;
- our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of any such agreements that we may enter into;
- the expenses needed to attract and retain skilled personnel;
- the costs associated with being a public company; and
- the timing, receipt and amount of sales of any future approved or cleared products, if any.

Further, our operating plans may change, and we may need additional funds to meet operational needs and capital requirements for clinical trials and other research and development activities. We currently have no credit facility or committed sources of capital. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated product development programs.

Cash Flows

The following table summarizes our cash flows for the periods indicated (in thousands):

	Period from November 30, 2017 (Inception) to December 31, 2017	Six Months Ended June 30, 2018 (Unaudited)
Net cash provided by (used in):		
Operating activities	$ —	$ (6,042)
Investing activities	—	(2,634)
Financing activities	—	152,603
Net increase in cash and cash equivalents	$ —	$ 143,927

Operating Activities

During the six months ended June 30, 2018, cash used in operating activities of $6.0 million was attributable to a net loss of $137.5 million, partially offset by non-cash charges of $117.9 million and a net change of $13.5 million in our net operating assets and liabilities. The non-cash charge consisted primarily of acquired in-process research and development expense resulting from the asset acquisition from Pfizer of $109.4 million and $8.1 million of stock-based compensation. The change in operating assets and liabilities was primarily due to a $12.6 million increase in accrued and other liabilities resulting from the timing of payments made to our collaboration partners and Pfizer and accrued professional and consulting services, a $1.3 million increase in accounts payable driven by increased professional fees and a $0.3 million increase in prepaid expenses and other current liabilities.

Investing Activities

During the six months ended June 30, 2018, cash used by investing activities of $2.6 million was related to cash transaction costs incurred in the asset acquisition from Pfizer of $2.1 million and the purchase of property and equipment of $0.5 million.

Financing Activities

During the six months ended June 30, 2018, cash provided by financing activities of $152.6 million was related to net proceeds of $149.3 million from the issuance of our Series A and A-1 convertible preferred stock and $3.3 million from the issuance of common stock in connection with stock option exercises.

Contractual Obligations and Commitments

We did not have any contractual obligations, including debt obligations, capital lease obligations, operating lease obligations, purchase obligations or other long-term liabilities, as of December 31, 2017 or June 30, 2018.

In August 2018, we entered into an operating lease agreement for our new headquarters in South San Francisco. The operating lease term is expected to commence on March 1, 2019 and expires ten years from the commencement date. The initial annual base rent is approximately $4.1 million, and such amount will increase by 3.5% annually on each anniversary of the commencement date. Payments associated with this operating lease agreement will result in operating lease obligations of $3.4 million in 2019, $4.2 million in 2020, $4.4 million in 2021, $4.5 million in 2022, and $33.6 million through 2029.

Commitments

Our commitments primarily consist of obligations under our agreements with Pfizer, Cellectis and Servier. Under these agreements we are required to make milestone payments upon successful completion of certain regulatory and sales milestones on a target-by-target and country-by-country basis. The payment obligations under the license agreements are contingent upon future events such as our achievement of specified development, regulatory and commercial milestones and we will be required to make development milestone payments and royalty payments in connection with the sale of products developed under these agreements. As of June 30, 2018, we were unable to estimate the timing or likelihood of achieving the milestones or making future product sales. For additional information regarding our agreements, see "—Our Research Development and License Agreements" above.

Additionally, we have entered into an agreement with third-party contract manufacturers for the manufacture and processing of certain of our product candidates for clinical testing purposes, and we have entered and will enter into other contracts in the normal course of business with contract research organizations for clinical trials and other vendors for other services and products for operating purposes. These agreements generally provide for termination or cancellation, and, other than for costs already incurred.

We also have a Change in Control and Severance Plan that require the funding of specific payments, if certain events occur, such as a change of control and the termination of employment without cause.

Off-Balance Sheet Arrangements

During the periods presented, we did not have, nor do we currently have, any off-balance sheet arrangements as defined under SEC rules.

Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

We are exposed to market risks in the ordinary course of our business. These risks primarily include interest rate sensitivities. We held cash and cash equivalents of $143.9 million as of June 30, 2018. We generally hold our cash in interest-bearing money market accounts. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates. Due to the short-term maturities of our cash equivalents and the low risk profile of our investments, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our cash equivalents.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with United States generally accepted accounting principles (U.S. GAAP). The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

Accrued Research and Development Costs

We accrue liabilities for estimated costs of research and development activities conducted by our collaboration partners and third-party service providers, which include the conduct of preclinical and clinical

studies, and contract manufacturing activities. We recorded the estimated costs of research and development activities based upon the estimated amount of services provided but not yet invoiced, and includes these costs in the accrued and other current liabilities on the balance sheets and within research and development expense on the statements of operations.

We accrue for these costs based on factors such as estimates of the work completed and budget provided and in accordance with agreements established with our collaboration partners and third-party service providers. We make significant judgments and estimates in determining the accrued liabilities balance in each reporting period. As actual costs become known, we adjust its accrued liabilities. We have not experienced any material differences between accrued costs and actual costs incurred since our inception.

Research and Development Expenses

We expense research and development costs as incurred. Acquired intangible assets are expensed as research and development costs if, at the time of payment, the technology is under development; is not approved by the FDA or other regulatory agencies for marketing; has not reached technical feasibility; or otherwise has no foreseeable alternative future use.

Research and development expenses also include costs incurred for internal and sponsored and collaborative research and development activities. Research and development costs consist of salaries and benefits, including associated stock-based compensation, and laboratory supplies and facility costs, as well as fees paid to other entities that conduct certain research and development activities on our behalf. Costs associated with co-development activities performed under the various license and collaboration agreements are included in research and development expenses.

Stock-Based Compensation

We recognize compensation costs related to stock-based awards granted to employees and directors, including stock options, based on the estimated fair value of the awards on the date of grant. We estimate the grant date fair value, and the resulting stock-based compensation, using the Black-Scholes option-pricing model. The grant date fair value of the stock-based awards is generally recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the respective awards.

The Black-Scholes option-pricing model requires the use of subjective assumptions to determine the fair value of stock-based awards. These assumptions include:

- *Fair Value of Common Stock*—Historically, for all periods prior to this initial public offering, the fair value of the shares of common stock underlying our share-based awards was estimated on each grant date by our board of directors. In order to determine the fair value of our common stock underlying option grants, our board of directors considered, among other things, valuations of our common stock prepared by an unrelated third-party valuation firm in accordance with the guidance provided by the American Institute of Certified Public Accountants Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*.
- *Expected Term*—The expected term represents the period that stock-based awards are expected to be outstanding. The expected term for option grants is determined using the simplified method. The simplified method deems the expected term to be the midpoint between the vesting date and the contractual life of the stock-based awards.
- *Expected Volatility*—Since we have been a privately held company and do not have any trading history for our common stock, the expected volatility is estimated based on the average volatility for comparable publicly traded biotechnology companies over a period equal to the expected term of the stock option grants. The comparable companies were chosen based on their similar size, stage in the life cycle or area of specialty. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available.

- *Risk-Free Interest Rate*—The risk-free interest rate is based on the U.S. Treasury zero coupon issues in effect at the time of grant for periods corresponding with the expected term of option.
- *Expected Dividend*—We have never paid dividends on our common stock and have no plans to pay dividends on our common stock. Therefore, we used an expected dividend yield of zero.

For the six months ended June 30, 2018, stock-based compensation related to stock options was $53,000. As of June 30, 2018, we had $13.8 million of total unrecognized stock-based compensation which we expect to recognize over a weighted-average period of 3.7 years. In addition, we recorded $8.0 million in stock-based compensation as a result of the modification of our founders' shares of common stock to include vesting conditions.

Subsequent to June 30, 2018, we granted stock options to purchase up to an aggregate of 352,200 shares of our common stock to our employees and consultants, at a weighted-average exercise price of $25.06 per share.

For our valuations performed prior to June 30, 2018, we used the OPM Backsolve method. In an option pricing method (OPM) framework, the backsolve method for inferring the equity value implied by a recent financing transaction involves making assumptions for the expected time to liquidity, volatility and risk-free rate and then solving for the value of equity such that value for the most recent financing equals the amount paid. This method was selected as management concluded that the contemporaneous financing transaction was an arm's-length transaction. Furthermore, as of the valuation date prior to June 30, 2018, we were at an early stage of development and future liquidity events were difficult to forecast.

For our valuation performed subsequent to June 30, 2018, we used a hybrid method of the OPM and the Probability-Weighted Expected Return Method (PWERM). PWERM considers various potential liquidity outcomes. Our approach included the use of different timing of initial public offering scenarios and a scenario assuming continued operation as a private entity. Under the hybrid OPM and PWERM method, the per share value calculated under the OPM and PWERM are weighted based on expected exit outcomes and the quality of the information specific to each allocation methodology to arrive at a final estimated fair value per share value of the common stock before a discount for lack of marketability is applied.

Given the absence of a public trading market for our common stock, our board of directors exercised their judgment and considered a number of objective and subjective factors to determine the best estimate of the fair value of our common stock, including contemporaneous valuations performed by an independent third party, our stage of development, important developments in our operations, the prices at which we sold shares of our preferred stock, the rights, preferences and privileges of our preferred stock relative to those of our common stock, actual operating results and financial performance, the conditions in the biotechnology industry and the economy in general, the stock price performance and volatility of comparable public companies, and the lack of liquidity of our common stock, among other factors. After the closing of this offering, our board of directors will determine the fair value of each share of underlying common stock based on the closing price of our common stock as reported on the date of the grant. Our board of directors intended all options granted to be exercisable at a price per share not less than the per share fair value of our common stock underlying those options on the grant date.

Based upon the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover of this prospectus), the aggregate intrinsic value of options outstanding as of June 30, 2018 was $ million, of which $ million related to vested options and $ million related to unvested options.

Emerging Growth Company Status

We are an emerging growth company, as defined in the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. We have elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date we (i) are no longer an emerging growth company or

(ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

Recently Adopted Accounting Pronouncements

In March 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2016-09, *Stock Compensation—Improvements to Employee Share-Based Payment Accounting* (ASU 2016-09). ASU 2016-09 was issued to simplify accounting guidance by identifying, evaluating, and improving areas for which cost and complexity can be reduced while maintaining or improving the usefulness of the information provided to users of financial statements. The areas affected by ASU 2016-09 include accounting for income taxes, classification of excess tax benefits on the statement of cash flows, minimum statutory tax withholding requirements, and classification of employee taxes paid on the statement of cash flows when an employer withholds shares for tax-withholding purposes. In addition, under this guidance, an entity can make an accounting policy election to either estimate the number of awards that are expected to vest or account for forfeitures when they occur. We adopted this guidance beginning with the period from November 30, 2017 (inception) to December 31, 2017, and elected to account for forfeitures as they occur.

In January 2017, the FASB issued Accounting Standards Update No. 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business* (ASU 2017-01). ASU 2017-01 clarifies the framework for determining whether an integrated set of assets and activities meets the definition of a business. The revised framework establishes a screen for determining whether an integrated set of assets and activities is a business and narrows the definition of a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. This screen reduces the number of transactions that need to be further evaluated. This new accounting guidance is effective for public or private companies for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted. The new accounting guidance should be applied prospectively on or after the effective date. We adopted this guidance on January 1, 2018.

In June 2018, the FASB issued Accounting Standards Update No. 2018-07, *Improvements to Nonemployee Share-Based Payment Accounting* (ASU 2018-07). ASU 2018-07 simplifies the accounting for share-based payments to nonemployees by aligning it with the accounting for share-based payments to employees, with certain exceptions. Some of the areas of simplification apply only to nonpublic entities. For all entities, the amendments are effective for annual periods beginning after December 15, 2019, and interim periods within annual periods beginning after December 15, 2020. Early adoption is permitted for any entity in any interim or annual period for which financial statements haven’t been issued or made available for issuance, but not before an entity adopts ASC 606. We early adopted this guidance on January 1, 2018.

Recent Accounting Pronouncements

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, *Leases* (ASU 2016-02) provides accounting guidance for both lessee and lessor accounting models. The principle of ASU 2016-02 is that a lessee should recognize the assets and liabilities that arise from leases. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases (other than leases that meet the definition of a short-term lease). The liability will be equal to the present value of lease payments. The asset will be based on the liability. For income statement purposes, ASU 2016-02 requires leases to be classified as either operating or finance. Operating leases will result in straight-line expense while finance leases will result in a front-loaded expense pattern. ASU 2016-02 is effective for public companies for fiscal years beginning after December 15, 2018. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2019, and interim periods within annual periods beginning after December 15, 2020. Early adoption is permitted. The new standard must be adopted using a modified-retrospective transition and provides for certain practical expedients. We are currently evaluating the effects of the adoption of this ASU on our financial statements.

BUSINESS

Overview

We are a clinical stage immuno-oncology company pioneering the development and commercialization of genetically engineered allogeneic T cell therapies for the treatment of cancer. We are developing a pipeline of off-the-shelf T cell product candidates that are designed to target and kill cancer cells. Our engineered T cells are allogeneic, meaning they are derived from healthy donors for intended use in any patient, rather than from an individual patient for that patient's use, as in the case of autologous T cells. We believe this key difference will enable us to deliver readily available treatments faster, more reliably, at greater scale, and to more patients.

In collaboration with Servier, we are developing UCART19, a chimeric antigen receptor (CAR) T cell product candidate targeting CD19. UCART19 is being studied in clinical trials in patients with relapsed or refractory (R/R) B-cell precursor acute lymphoblastic leukemia (ALL), and we expect UCART19 to be advanced to potential registrational trials in the second half of 2019. We also plan to submit an investigational new drug application (IND) in the first half of 2019 for our second allogeneic anti-CD19 CAR T cell product candidate, ALLO-501, for the treatment of R/R non-Hodgkin lymphoma (NHL). In addition, we have a deep pipeline of allogeneic CAR T cell product candidates targeting multiple promising antigens in a host of hematological malignancies and solid tumors. For example, we plan to submit an IND in 2019 for an allogeneic CAR T cell product candidate targeting B-cell maturation antigen (BCMA) for the treatment of multiple myeloma. We believe our management team's experience in immuno-oncology and specifically in CAR T cell therapy will help drive the rapid development and, if approved, the commercialization of these potentially curative therapies for patients with aggressive cancer.

CAR T cell therapy, a form of cancer immunotherapy, has recently emerged as a revolutionary and potentially curative therapy for patients with hematologic cancers, including refractory cancers. In 2017, two autologous anti-CD19 CAR T cell therapies, Kymriah, developed by Novartis International AG (Novartis), and Yescarta, developed by Kite Pharma, Inc. (Kite), were approved by the U.S. Food and Drug Administration (FDA) for the treatment of R/R B-cell precursor ALL (Kymriah) and R/R large B-cell lymphoma (Yescarta) based on unprecedented efficacy data. Autologous CAR T cell therapies are manufactured individually for the patient's use by modifying the patient's own T cells outside the body, causing the T cells to express CARs. The entire manufacturing process is dependent on the viability of each patient's T cells and takes approximately two to four weeks. As seen in the registrational trials for Kymriah and Yescarta, up to 31% of intended patients ultimately did not receive treatment primarily due to interval complications from the underlying disease during manufacturing or manufacturing failures.

We believe our allogeneic platform has the potential to be the next revolution in cancer treatment. Our allogeneic approach involves engineering healthy donor T cells, which we believe will allow for the creation of an inventory of off-the-shelf products that can be delivered to a larger portion of eligible patients throughout the world. These potential benefits led our Executive Chairman, Arie Belldegrun, M.D., FACS, who was previously the Chairman and Chief Executive Officer at Kite, and our President and Chief Executive Officer, David Chang, M.D., Ph.D., previously Chief Medical Officer and Executive Vice President of Research and Development at Kite, to found our company with the driving purpose of accelerating the development of allogeneic CAR T cell therapies. Dr. Belldegrun and Dr. Chang led the development of Yescarta at Kite, achieving FDA approval in just 34 months after the submission of an IND. Shortly before Yescarta approval, in October 2017, Gilead Sciences, Inc. (Gilead) acquired Kite for $11.9 billion.

Our Pipeline

We are currently developing a pipeline of multiple allogeneic CAR T cell product candidates utilizing protein engineering, gene editing, gene insertion and advanced proprietary T cell manufacturing technologies. Our most advanced product candidate, UCART19, is an engineered allogeneic CAR T cell therapy that targets

CD19, a protein expressed on the cell surface of B cells and a validated target for B cell driven hematological malignancies. We are also developing engineered allogeneic CAR T cell product candidates for multiple myeloma, other blood cancers and solid tumors. Our pipeline is represented in the diagram below.

1 *May not be required if Phase 2 is a registrational clinical trial.*
2 *Servier holds ex-US commercial rights.*
3 *To enable expansion and persistence of allogeneic CAR T product candidates.*

Our lead product candidates include:

- *UCART19.* In 2016, our collaboration partner, Servier, initiated two clinical trials of UCART19: the CALM trial and the PALL trial. The CALM trial is a Phase 1, open-label, dose-escalation clinical trial in adult patients with R/R ALL. The PALL trial is a Phase 1, open-label, clinical trial in pediatric patients with R/R ALL. In June 2018, interim results from 18 patients in the CALM and PALL clinical trials were presented at the 23rd European Hematology Association Annual Congress. As of April 2018, 13 out of 16 evaluable patients, or 81%, achieved a complete response (CR) and 12 of those patients, or 92%, achieved a minimum residual disease negative CR (MRD- CR). The most common adverse events were related to cytokine release syndrome (CRS) and were generally manageable. Two mild graft-versus-host disease (GvHD) cases in the skin were observed and resolved. We expect UCART19 to be advanced to potential registrational trials in the second half of 2019.
- *ALLO-501.* We plan to submit an IND in the first half of 2019 for our second allogeneic anti-CD19 CAR T cell product candidate, ALLO-501, for the treatment of patients with R/R NHL. The manufacturing process for ALLO-501 is different than the one employed for UCART19, but the two product candidates are identical in molecular design.
- *ALLO-715.* We plan to submit an IND in 2019 for an allogeneic CAR T cell product candidate, ALLO-715, targeting BCMA for the treatment of patients with R/R multiple myeloma. Several clinical studies of third-party autologous CAR T cell therapies targeting BCMA have produced promising results in this indication.
- *ALLO-647.* We are developing an anti-CD52 monoclonal antibody, ALLO-647, which is designed to be used prior to infusing our other product candidates as part of the lymphodepletion regimen. We believe ALLO-647 can reduce the likelihood of a patient's immune system rejecting the engineered allogeneic T cells, and may create a window of persistence during which our engineered allogeneic T cells can actively target and destroy cancer cells.

Our Approach

Our allogeneic T cell development strategy has four key pillars: (1) developing product candidates to minimize the risk of GvHD, a condition where allogeneic T cells can recognize the patient's normal tissue as foreign and cause damage, (2) creating a window of persistence that may enable allogeneic T cells to expand in patients, (3) building a leading manufacturing platform and (4) leveraging next generation technologies to improve the functionality of allogeneic CAR T cells. We use Cellectis's TALEN gene-editing technology with the goal of limiting the risk of GvHD by engineering T cells to lack functional T cell receptors (TCRs) that are no longer capable of recognizing a patient's normal tissue as foreign. With the goal of enhancing the expansion and persistence of our engineered allogeneic T cells, we use TALEN to inactivate the CD52 gene in donor T cells and an anti-CD52 monoclonal antibody to deplete CD52 expressing T cells in patients while sparing the therapeutic allogeneic T cells. We believe this enables a window of persistence for the infused allogeneic T cells to actively target and destroy cancer cells. We are also developing ALLO-647, our own anti-CD52 monoclonal antibody. Our off-the-shelf approach is dependent on state-of-the-art manufacturing processes, and we are building a technical operations organization with fully integrated in-house expertise in clinical and commercial engineered T cell manufacturing. Finally, we plan to leverage next generation technologies to develop more potent allogeneic T cell products candidates that can potentially be used at a lower cell dose, thereby allowing more efficient manufacturing of the allogeneic T cells. We believe next generation technologies will also allow us to develop allogeneic T cell therapies for the treatment of solid tumors, which to date have been difficult to treat because of the lack of validated targets and tumor microenvironments that can impair the activity of T cells.

Our History and Team

We believe we have established a leadership position in allogeneic T cell therapy. In April 2018, we acquired certain assets from Pfizer Inc. (Pfizer), including strategic license and collaboration agreements and other intellectual property related to the development and administration of allogeneic CAR T cells for the treatment of cancer. We have an exclusive collaboration with Servier to develop and commercialize UCART19 and ALLO-501, and we hold the commercial rights to these product candidates in the United States. Under the Servier Agreement, we also have an exclusive option to obtain the same rights to additional product candidates targeting one additional cancer antigen. We also have an exclusive worldwide license from Cellectis to its TALEN gene-editing technology for the development of allogeneic T cell product candidates directed against 15 different cancer antigens. Our collaboration with Servier gives us access to TALEN gene-editing technology for all product candidates under the Servier Agreement. In connection with the Pfizer asset acquisition, we hired 39 employees from Pfizer, who are primarily research and technical operation employees and were leading the research and development of our product candidates and next generation gene engineering and cell engineering technologies at Pfizer.

In April 2018, we initiated a $300.0 million Series A and A-1 preferred stock financing, with the first $150.0 million received in April and the second $150.0 million received in July and August, with investments from BellCo Capital, Gilead, Pfizer, Regents of the University of California, funds affiliated with TPG Capital, L.P., partners of Two River, and Vida Ventures, LLC. In September 2018, we sold and issued $120.2 million aggregate principal amount of convertible promissory notes (2018 Notes). The 2018 Notes do not accrue interest and will automatically settle into shares of our common stock in connection with the closing of this offering at a settlement price equal to 85% of the initial public offering price per share.

Our world-class management team has significant experience in immuno-oncology and in progressing products from early stage research to clinical trials, and ultimately to regulatory approval and commercialization. In particular, Dr. Belldegrun's experience in T cell therapy dates back to his time at the National Cancer Institute as a research fellow in surgical oncology and immunotherapy with Steven Rosenberg, M.D., Ph.D, a recognized pioneer in immuno-oncology. Our President and Chief Executive Officer, Dr. Chang, served as Executive Vice President of Kite and held senior leadership roles at Amgen, Inc. (Amgen). Moreover, both Dr. Belldegrun and Dr. Chang led the development and approval of Yescarta at Kite. Additionally, our Chief Technical Officer,

Alison Moore, Ph.D., was previously Senior Vice President, Process Development at Amgen, where she led the development, deployment and oversight of manufacturing for approximately 80 multi-modality assets. Dr. Moore has over 25 years of experience in biotechnology, including in the immuno-oncology space leading process development of Amgen's comprehensive bi-specific T cell engager production platform.

Our Strategy

Our goal is to maintain and build upon our leadership position in allogeneic T cell therapy. We plan to rapidly develop and, if approved, commercialize allogeneic T cell products for the treatment of cancer that can be delivered faster, more reliably and at greater scale than autologous T cell therapies. We believe achieving this goal could result in allogeneic T cell therapy becoming a standard of care in cancer treatment and enable us to make potentially curative therapies more readily accessible to more patients throughout the world. Key elements of our strategy include:

- ***Capitalize on a validated target and our first mover advantage in engineered allogeneic anti-CD19 CAR T cell product candidates.*** Autologous anti-CD19 CAR T cell therapies, such as Kymriah and Yescarta, have emerged as potentially curative therapies for B-cell lymphomas and leukemias. We believe developing allogeneic CAR T cell product candidates targeting CD19, such as UCART19 and ALLO-501, is the next frontier in delivering potentially curative therapies against B-cell lymphomas and leukemias, including ALL and NHL. We plan to support Servier in advancing the CALM and PALL trials in ALL and initiating potential registrational trials for UCART19 after completion of the CALM and PALL trials in the second half of 2019. We also plan to submit an IND in the first half of 2019 for ALLO-501 in NHL. We believe having the first anti-CD19 allogeneic CAR T cell product candidate in the clinic gives us a first mover advantage in efforts to obtain approval of and commercialize anti-CD19 allogeneic CAR T cell product candidates in B-cell lymphoma and leukemia indications.
- ***Expand our leadership position within hematologic indications.*** In addition to UCART19, we plan to advance our near-term pipeline against additional hematological targets where there remains a high unmet need. For example, we are developing ALLO-715, an allogeneic CAR T cell product candidate targeting BCMA. We believe BCMA is a promising target, as early results from clinical trials of third-party autologous CAR T cell therapeutic candidates targeting BCMA have been compelling. We plan to submit an IND for a clinical trial of ALLO-715 for the treatment of patients with R/R multiple myeloma in 2019. In addition to advancing UCART19, ALLO-501 and ALLO-715, we plan to develop additional allogeneic T cell product candidates targeting other antigens found on hematologic malignancies, including ALLO-819 targeting Flt3 for the treatment of acute myeloid leukemia (AML).
- ***Build state-of-the-art gene engineering and cell manufacturing capabilities.*** Manufacturing allogeneic T cell product candidates involves a series of complex and precise steps. We believe a critical component to our success will be to leverage and expand our proprietary manufacturing know-how, expertise and capacity. Accordingly, we plan to build our own manufacturing facility. We believe establishing our own fully integrated manufacturing operations and infrastructure will allow us to improve the manufacturing process, limit our reliance on contract manufacturing organizations (CMOs) and more rapidly advance product candidates.
- ***Leverage next generation technologies to advance our platform and expand into solid tumor indications with high unmet need.*** We have a broad portfolio of solid tumor targets, including CD70 for the treatment of renal cell cancer and DLL3 for the treatment of small cell lung cancer and other aggressive neuroendocrine tumors. We plan to leverage next generation technologies to make more potent allogeneic CAR T cells and improve the characteristics of our product candidates. For example, we are exploring ways to improve the functionality of our product candidates, such as modulating cytokines or chemokines to augment expansion, persistence and trafficking of allogeneic T cells. We are also exploring gene-editing technologies to allow site-specific integration of CARs, which could potentially provide more consistent product characteristics and enhanced T cell functions. In addition,

we continually survey the scientific and industry landscape for opportunities to license, partner or acquire technologies that may help us advance current or new T cell therapies for the benefit of patients.

Allogeneic T Cell Therapy

The Immune System and Cancer

White blood cells are a component of the immune system and are responsible for defending the body against infectious pathogens and other foreign material. T cells are a type of white blood cell and are involved in both sensing and killing infected or abnormal cells, including cancer cells, as well as coordinating the activation of other cells in an immune response.

T cells can be distinguished from other white blood cells by T cell receptors present on their cell surface. These receptors contribute to tumor surveillance by helping T cells recognize and destroy cancerous cells once identified. When T cells with cancer-specific receptors are absent, present in low numbers, of poor quality or rendered inactive by suppressive mechanisms employed by tumor tissue, cancer may grow and spread to various organs. In addition, standard of care treatments, such as chemotherapy regimens, can damage the patient's immune system, thereby inhibiting the ability of T cells to kill cancer.

Engineered T Cell Therapies

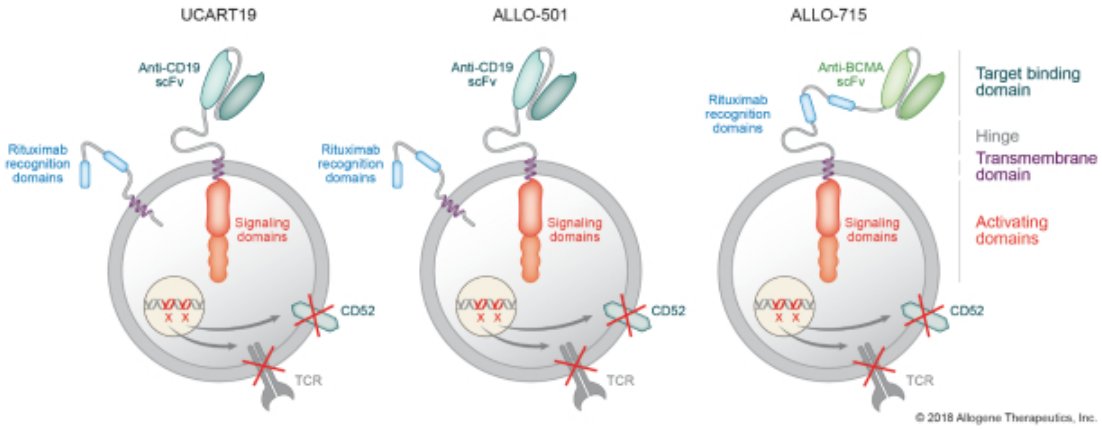
Engineered T cell therapy is a type of immunotherapy treatment whereby human T cells are removed from the body and engineered to express CARs which, when infused into a patient, recognize and destroy cancer cells in a more targeted manner.

Chimeric Antigen Receptors (CARs)

CARs are engineered molecules that, when present on the surface of a T cell, enable the T cell to recognize specific proteins or antigens that are present on the surface of other cells. The CAR in UCART19, ALLO-501 and ALLO-715 is comprised of a single chain protein that contains the following elements:

- *Target Binding Domain:* At one end of the CAR is a target binding domain that is specific to a target antigen. This domain extends out onto the surface of the engineered T cell, where it can recognize the target antigens. The target binding domain consists of a single-chain variable fragment (scFv) of an antibody comprising variable domains of heavy and light chains joined by a short linker.
- *Transmembrane Domain and Hinge:* This middle portion of the CAR links the scFv target binding domain to the activating elements inside the cell. This transmembrane domain "anchors" the CAR in the cell's membrane. In addition, the transmembrane domain may also interact with other transmembrane proteins that enhance CAR function. The hinge domain, which extends to the exterior of the cell, connects the transmembrane domain to scFv and provides structural flexibility to facilitate optimal binding of scFv to the target antigen on the cancer cell's surface.
- *Activating Domains:* The other end of transmembrane domain, inside the T cell, is connected to two contiguous domains responsible for activating the T cell when the CAR binds to the target cell. The CD3z domain delivers an essential primary signal within the T cell, and the 41BB domain delivers an additional, co-stimulatory signal. Together, these signals trigger T cell activation, resulting in proliferation of the CAR T cells and killing of the cancer cell. In addition, activated CAR T cells stimulate the local secretion of cytokines and other molecules that can recruit and activate additional immune cells to potentiate killing of the cancer cells.

The figure below shows the constructs that support our three lead programs: UCART19, ALLO-501 and ALLO-715.



Allogeneic T Cell Therapies: The Next Revolution

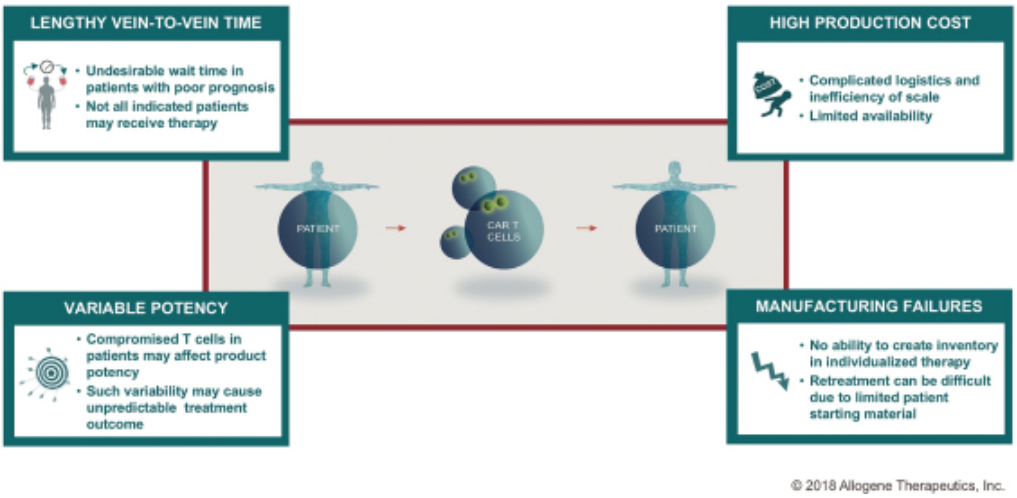
There are two primary approaches to engineered T cell therapy: autologous and allogeneic. Autologous therapies use engineered T cells derived from the individual patient, while allogeneic therapies use engineered T cells derived from healthy donor T cells.

The autologous approach, pioneered by Novartis and Kite, has been highly successful in engineering patients' immune systems to fight cancer, in particular CD19 positive cancers, resulting in significant remission rates. Autologous products are manufactured by first collecting a patient's white blood cells, through a process known as leukapheresis, separating the T cells from the patient's blood sample and proliferating the isolated T cells. After the cells have multiplied, the CAR construct is virally transduced into the T cells and the engineered T cells are then propagated until a sufficient number of cells are available for infusion into the patient. Finally, the engineered T cells are frozen, and then shipped back to the clinical center for administration to the patient. The process from leukapheresis to delivery to the clinical center takes approximately two to four weeks.

While the autologous approach has been revolutionary, demonstrating compelling efficacy in many patients, it is burdened by the following key limitations:

- ***Lengthy Vein-to-Vein Time***. Due to the individualized manufacturing process, patients must wait approximately two to four weeks to be treated with their engineered cells. As a result, in the registrational trials for Yescarta and Kymriah, up to 31% of intended patients ultimately did not receive treatment primarily due to interval complications from the underlying disease during manufacturing or manufacturing failures.
- ***Variable Potency***. In many cases, patients have T cells that have been damaged or weakened due to prior chemotherapy or hematopoietic stem-cell transplant. Compromised T cells may not proliferate well during manufacturing or may produce cells with insufficient potency that cannot be used for patient treatment, resulting in manufacturing failures, or that can show poor expansion and activity in patients. In addition, the individualized nature of autologous manufacturing, together with the variability in patients' T cells, may lead to variable potency of manufactured T cells, and this variability may cause unpredictable treatment outcomes.
- ***Manufacturing Failures***. Autologous cell manufacturing sometimes encounters production failures. This can mean that a patient never receives treatment, as additional patient starting material may not be available or the patient may no longer be eligible due to advanced disease. Furthermore, retreatment can be difficult due to a limited supply of usable patient starting material.

- ***High Production Cost***. The delivery of autologous T cell therapy is complicated due to the individualized nature of manufacturing, which allows only one patient to be treated from each manufacturing run and requires dedicated infrastructure to maintain a strict chain of custody and chain of identity of patient-by-patient material collection, manufacturing and delivery. The complex logistics add significant cost to the process and limit the ability to scale. Additionally, the collection of T cells through leukapheresis from each individual patient results in a time consuming and costly step in the autologous process. In part due to these logistics, autologous treatment is currently only available at select centers.



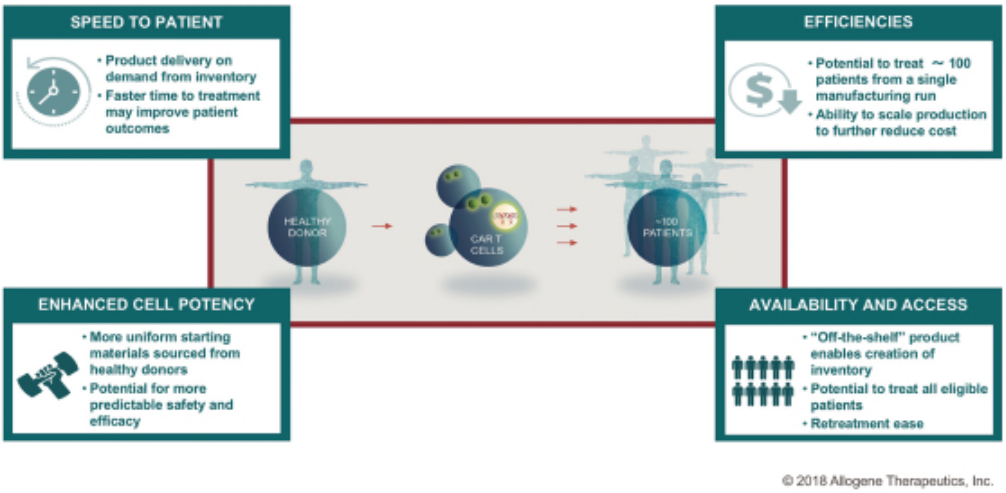
We believe our allogeneic platform has the potential to be the next revolution in cancer treatment. Allogeneic engineered T cells are manufactured in a similar manner as autologous, but with two key differences: (1) allogeneic T cells are derived from T cells from healthy donors and (2) allogeneic T cells must be genetically engineered to minimize the risk of GvHD and avoid being destroyed by the patient's immune system.

Our approach is designed to provide the same intended curative outcome as autologous therapy, while offering the following potential key advantages:

- ***Availability and Access***. We believe that we can scale to approximately 100 doses of an allogeneic product from T cells from one healthy donor that can be used in any eligible patients. Because our allogeneic product candidates are designed to be frozen and available off-the-shelf, they could potentially be readily shipped and administered to patients around the world. We believe having an inventory of off-the-shelf allogeneic T cell products can also facilitate delivering multiple product doses to a patient over time as well as enable treatment with multiple different engineered allogeneic T cell products directed to different cancer targets in a patient.
- ***Speed to Patient***. Many patients with aggressive cancer or rapidly progressing cancer that is refractory to existing therapies may not have multiple weeks to wait for autologous T cell treatment. Our allogeneic approach has the potential to create off-the-shelf product inventory, which could enable dosing of patients within days of prescription. This would represent a significant reduction in patient wait time, potentially allowing the treatment of patients who are too sick to wait for the autologous therapy, and could improve patient outcomes.
- ***Enhanced Cell Consistency and Potency***. Our manufacturing process produces therapies from selected, screened and tested T cells from healthy donors. These donor cells are potentially superior for engineered cellular therapy as compared to T cells from patient donors who have undergone prior

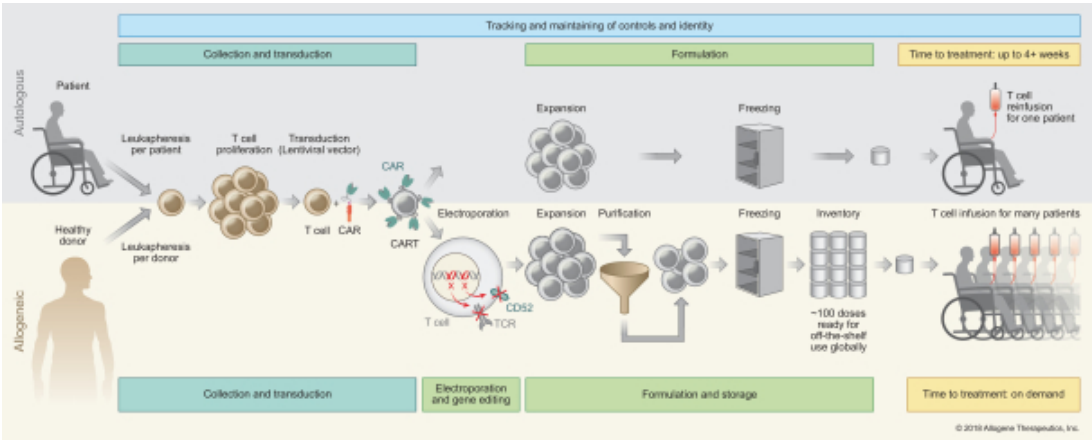
chemotherapy or hematopoietic stem-cell transplant, which can damage or weaken T cells. In addition, greater consistency of the product may yield more predictable treatment outcomes.

- ***Streamlined Manufacturing and Cost Efficiencies***. We are building an efficient and scalable manufacturing process and organization. The allogeneic approach utilizes healthy donor T cells which we believe provides enhanced scalability, reduces costs of engineered T cell therapy and reduces costs to the healthcare system as our allogeneic approach does not require us to collect and track T cells from each individual patient.



Manufacturing Allogeneic T Cells

There are similarities as well as key differences between the processes for allogeneic and autologous T cell manufacturing, as illustrated in the figure below.



The three primary steps to creating our engineered allogeneic CAR T cells are: (1) collection and transduction, (2) gene editing, and (3) purification, formulation, and storage.

Step 1. Collection and Transduction

The starting material for our allogeneic T cell products is white blood cells from a healthy donor, which are collected using a standard blood bank procedure known as leukapheresis. The collected cells are then screened, tested, and shipped to a central processing facility, where the T cells are isolated and stored frozen, creating an inventory of starting healthy donor cells for manufacturing.

The manufacturing process starts by thawing frozen healthy donor T cells, which are then stimulated to proliferate and transduced with a viral vector to integrate the CAR sequence into the T cell genome. The CAR sequence directs the expression of CAR proteins on the cell surface that allows the transduced T cells to recognize and bind to a target molecule that is present on cancer cells.

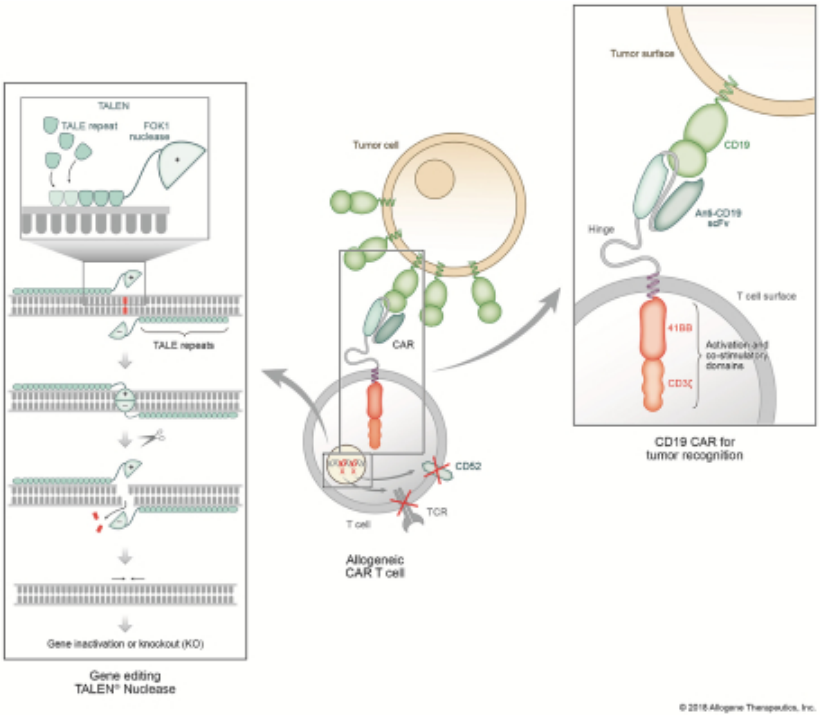
We can also concurrently add additional genes to these cells that confer specific properties. For example, we can add an off-switch by expressing proteins that can make T cells susceptible to certain drugs, such as anti-CD20 monoclonal antibodies, and enable us to deplete our engineered T cells if needed by administering such drugs to the patient.

Step 2. Gene Editing

Next, we use Cellectis's electroporation and TALEN technologies for gene editing of T cells. TALEN is a class of DNA cutting enzymes derived by fusing the DNA-cutting domain of a nuclease to the DNA-binding domains from transcription activator-like effectors (TALE). The TALE DNA-binding domain can be tailored to specifically recognize a unique DNA sequence. These fusion proteins serve as readily targetable "DNA scissors" for genome engineering applications that enable us to perform targeted genome modifications such as sequence insertion, deletion, repair and replacement in living cells.

Electroporation allows TALEN mRNA to enter into the cell, where it is translated into a nuclease that can cut DNA and inactivate specific target genes. Inactivation of genes, such as TCRα and CD52, which is performed for UCART19, ALLO-501, and ALLO-715, is intended to reduce the risk of GvHD and allow the allogeneic T cells to expand and persist in patients. We believe the inactivation of other target genes using the TALEN technology can be incorporated into future product candidates, with the goal of enhancing functions of T cells, including making them more potent at targeting solid tumors. The mRNA molecules are subsequently degraded by the cell, which means that gene editing by TALEN nuclease can only occur for a short space of time.

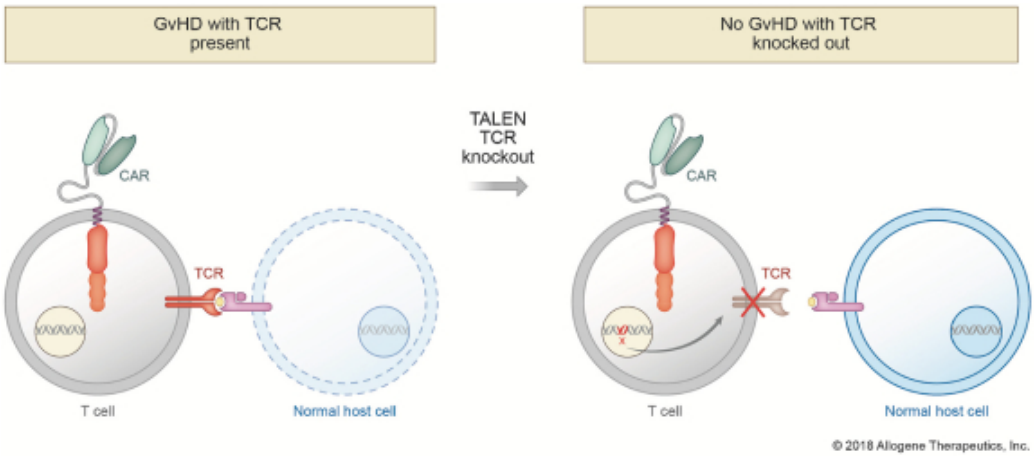
The figure below illustrates how we utilize Cellectis's TALEN and electroporation technology to inactivate the genes coding for TCRα and CD52 in our allogeneic T cells for UCART19.



We believe the key benefits of TALEN technology are:

- *Precision*. It is possible to design a TALEN that will cleave at any selected region in any gene, giving us the ability to achieve the desired genetic outcome with any gene.
- *Specificity and Selectivity*. TALEN may be designed to limit its DNA cleavage to the desired sequence and to reduce the risk of cutting elsewhere in the genome. This parameter is essential, especially for therapeutic applications, because unwanted genomic modifications potentially could lead to harmful effects for the patient. In addition, gene editing requires only a transient presence of TALEN, thus preserving the integrity and functionality of the T cell's genome.
- *Efficiency*. A large percentage of cells treated by the nuclease bear the desired genomic modification after treatment is completed. We believe TALEN's efficiency will contribute to the cost-effectiveness of a manufacturing process involving the generation of gene-edited T cells.

TCRα knockout: Non-modified allogeneic T cells bear functional TCRs and, if injected into a patient, can potentially recognize the patient's tissue as foreign and damage them. This reaction, known as GvHD, is mediated by intact TCRs on allogeneic T cells. To reduce the risk of GvHD, all of our product candidates undergo the inactivation of a gene coding for TCRα, a key component of TCRs. The engineered T cells lacking functional TCRs are no longer capable of recognizing peptide antigens presented on major histocompatibility complex proteins and thus incapable of attacking the patient's normal tissue. This could mitigate the risk of GvHD that can occur when allogeneic TCR-positive T cells are infused into patients who are unrelated to the healthy donor, as shown in the figure below.



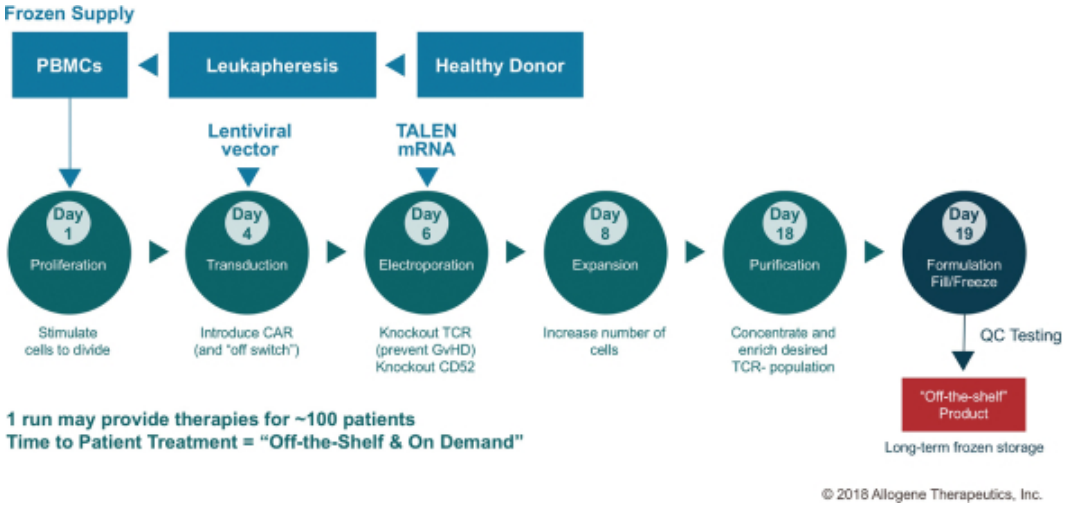
CD52 knockout: The patient's immune system is expected to recognize allogeneic T cells as foreign and destroy or reject them. To prevent this rejection, we use anti-CD52 antibody to deplete lymphocytes, including T cells, in patients. Anti-CD52 antibody recognizes CD52 protein expressed on many immune cells, including T cells. CD52 protein is expressed in both donor and patient immune cells. To selectively deplete a patient's immune cells while sparing the therapeutic allogeneic T cells, we use TALEN gene editing to inactivate the CD52 gene in allogeneic T cells, thus protecting allogeneic T cells from the anti-CD52 antibody mediated depletion.

By administering anti-CD52 antibody prior to infusing our product candidates, we believe we can reduce the likelihood of a patient's immune system rejecting the engineered allogeneic T cells. We believe this approach may create a window of persistence during which our engineered allogeneic T cells can expand and actively target and destroy cancer cells in the body. We also believe our approach is unique and differentiated. To capitalize on this differentiation and to secure our own source of anti-CD52 monoclonal antibody, we are developing ALLO-647. We submitted a DMF to the FDA in August 2018. If the FDA activates the DMF, Servier will be authorized to reference the DMF in its IND proposing use of ALLO-647 in combination with UCART19 in clinical trials.

Step 3. Purification, Formulation, and Storage

Once the allogeneic T cells have been engineered with CARs and gene edited to remove the genes encoding TCRα and CD52, they are cultured for 10 days to increase the cell number and then harvested. The allogeneic cells then undergo a purification step to remove residual TCR positive cells that have not undergone TCRα gene editing. We believe this purification step is essential as none of the currently available gene-editing nucleases can completely inactivate the target genes. After overnight recovery, the cells are formulated in a cryopreservation media and filled into closed, stoppered vials prior to controlled-rate freezing and long term storage in the vapor phase of liquid nitrogen. This inventory will be securely stored and then shipped to patients or oncology centers as needed.

The figure below illustrates the steps in a manufacturing run for our engineered allogeneic CAR T product candidates.



Product Pipeline and Development Strategy

Using our proprietary allogeneic T cell platform, we are researching and developing multiple product candidates for the treatment of blood cancers and solid tumors.

Our product candidates are allogeneic T cells engineered to be used as off-the-shelf treatments for any patient with a particular cancer type. Each product candidate targets a selected antigen expressed on tumor cells and bears specific engineered attributes.

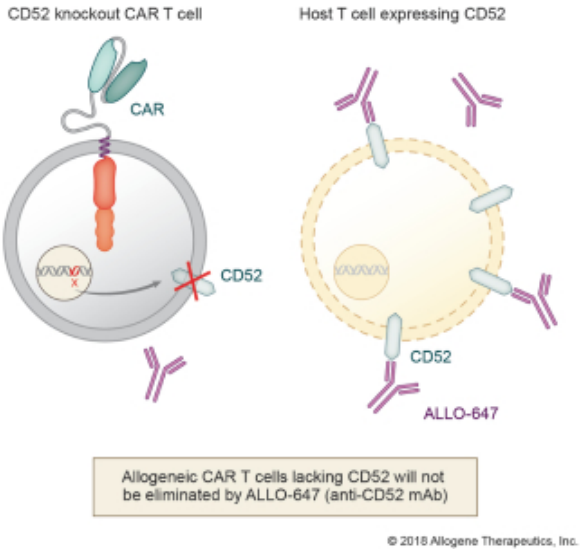
In the near term, we are progressing multiple product candidates directed at promising targets for blood cancers, including ALL, NHL, multiple myeloma and AML. We are also conducting earlier-stage research programs focused on targets associated with solid tumors, such as renal cell carcinoma, small cell lung cancer and other common epithelial cancers.

Our product pipeline is represented in the diagram below:

CATEGORY	PROGRAM	PRE-CLINICAL	PHASE 1	PHASE 2	PHASE 3[1]	NEXT ANTICIPATED MILESTONE
Hematological Malignancies	UCART19 (CD19/ALL) (Servier Sponsored)[2]					Initiate potential registrational trials in ALL in 2H 2019
	ALLO-501 (CD19/NHL)[2]					File IND in 1H 2019
	ALLO-715 (BCMA/MM)					File IND in 2019
	ALLO-819 (FLT3/AML)					
	CD70 (NHL)					
Solid Tumors	CD70 (RCC)					
	DLL3 (SCLC)					
Lymphodepletion Agent[3]	ALLO-647 (Anti-CD52 mAb)					Submit Drug Master File (DMF) in 2H 2018

1 *May not be required if Phase 2 is a registrational clinical trial.*
2 *Servier holds ex-US commercial rights.*
3 *To enable expansion and persistence of allogeneic CAR T product candidates.*

In addition to the allogeneic CAR T cell product candidates we are developing for the treatment of blood cancers and solid tumors, we are developing an anti-CD52 monoclonal antibody, ALLO-647, which is designed to be used prior to infusing our other product candidates as part of the lymphodepletion regimen. As illustrated below, we believe ALLO-647 can reduce the likelihood of a patient's immune system from rejecting the engineered allogeneic T cells, and may create a window of persistence during which our engineered allogeneic T cells can actively target and destroy cancer cells in the body.

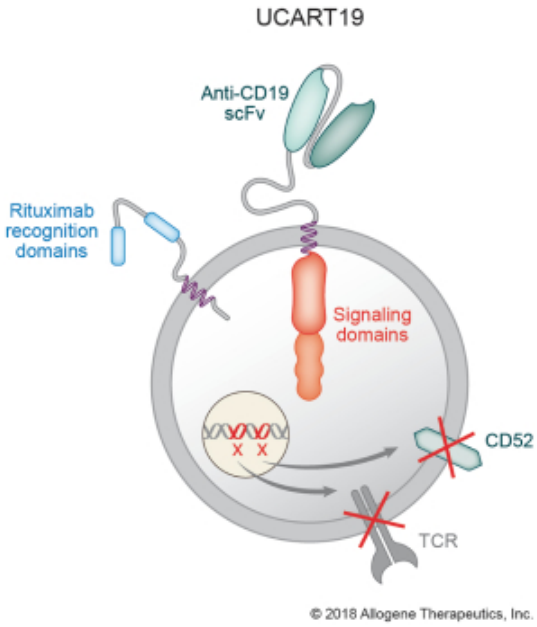


UCART19

We, in partnership with Servier, are developing UCART19 to be a potential first-in-class allogeneic CAR T cell product candidate for the treatment of pediatric and adult patients with R/R CD19 positive B-cell ALL. There are currently two ongoing Phase 1 clinical trials in adult and pediatric R/R ALL. We expect UCART19 to be advanced to potential registrational trials in the second half of 2019.

UCART19 targets CD19, an antigen expressed on the surface of B cells, including malignant B cells. In addition to these indications, CD19 targeting CAR T therapies have shown preliminary efficacy in chronic lymphocytic leukemia, mantle cell lymphoma and low-grade NHLs, such as follicular lymphoma (FL) or marginal zone lymphoma.

UCART19 is manufactured to express a CAR that is designed to target CD19 and gene edited to lack TCRα and CD52 to minimize the risk of GvHD and avoid being destroyed by the patient's immune system. In addition, UCART19 cells are engineered to express a small protein on the cell surface called RQR8, which consists of two rituximab recognition domains separated by a recognition domain for an anti-CD34 antibody. This allows for recognition and elimination of cells in the event that silencing of CAR activity is desired. The figure bellow depicts the construct of UCART19.



Target Indication: Acute Lymphoblastic Leukemia (ALL)

ALL is characterized by the proliferation of immature lymphocytes in the bone marrow. Approximately 5,960 new cases and 1,470 deaths in the United States are anticipated in 2018, according to the U.S. SEER database. Approximately 80% of cases of ALL are B-cell ALL, which we plan to address with UCART19.

The risk for developing ALL is highest in children younger than five years of age. From age five until the mid-20s, the risk declines slowly and begins to steadily rise again after age 50. Overall, about 40% of all cases of ALL are in adults. Though most cases occur in children, approximately 80% of deaths from ALL occur in adults.

Over the past four decades pediatric cure rates have reached greater than 80% in developed countries. This progress can be attributed, in part, to a deeper understanding of the molecular genetics and pathogenesis of the disease, advances in combination chemotherapy, monitoring of minimal residual disease, and use of tyrosine kinase inhibitors for Philadelphia chromosome–positive ALL. Allogeneic stem-cell transplant (allo-SCT) offers the potential for cure in some individuals, however, the option is available only to approximately a third of patients due to the lack of compatible stem cell source, general health, or the high risk of complications. Furthermore, allo-SCT carries a high rate of treatment-related mortality which can occur in approximately 20-30% of patients undergoing allo-SCT. In patients with R/R ALL after two or more lines of therapy, the median disease-free survival is less than six months. The five-year overall survival in adults over the age of 60 is approximately 20%, highlighting the high unmet need despite the recent advances in the treatment of ALL.

Clinical Data

UCART19 is being studied in two ongoing Phase 1 clinical trials, CALM and PALL, sponsored and conducted by Servier, our collaboration partner. In addition, UCART19 has been used in three patients under a compassionate use license.

Initiated in 2016, CALM is an ongoing Phase 1, open-label, dose-escalation clinical trial in adult patients with R/R ALL to evaluate safety, anti-leukemic activity, and determine the maximum tolerated dose (MTD). Post-therapy allo-SCT was allowed at the discretion of the investigator. The CALM trial commenced in the United Kingdom at King's College Hospital NHS Foundation Trust, in the United States at the Hospital of the University of Pennsylvania, Massachusetts General Hospital and University of Texas MD Anderson Cancer Center, and in France at Hôpital Saint-Antoine and Hôpital Saint-Louis. Of the 12 patients enrolled at the time of the April 2018 data cutoff, 10 were enrolled in Europe.

Initiated in 2016, PALL is an ongoing Phase 1, open-label, clinical trial in pediatric R/R ALL patients to evaluate safety and anti-leukemic activity. The PALL clinical trial commenced in the United Kingdom at University College London Great Ormond Hospital, in Belgium at Het Kinderziekenhuis Prinses Elisabeth, and in France at Hôpital Robert-Debré. All six patients enrolled at the time of the April 2018 data cutoff were enrolled in the United Kingdom.

Prior to the initiation of CALM and PALL, UCART19 was administered to three patients with CD19 positive B-cell ALL (two children and one adult) under a compassionate use license granted by the Medicines and Healthcare Products Regulatory Agency in the United Kingdom. The patients had previously failed multiple lines of prior treatment. UCART19 for these patients was manufactured at an academic site, the University College London. The two children are alive (37 and 31 months after UCART19 infusion) and the one adult died within the first month following UCART19 infusion due to disease progression.

CALM Interim Clinical Findings

As of April 2018, all 12 of the patients enrolled had been treated, with six patients at the first dose level of 6×10^6 total cells (approximately 10^5 cells per kilogram) and six patients at the second dose level with 6 to 8×10^7 total cells (approximately 10^6 cells per kilogram). As of the April 2018 data cutoff, no patients were treated at the third and final dose level of 1.8 to 2.4×10^8 total cells. The majority of the patients received three or greater lines of prior treatment, with three having received a prior treatment of blinatumomab, and seven having received a prior treatment of allo-SCT, reflecting clinical practice in Europe where 10 of the 12 patients were enrolled. Patient characteristics are presented below.

	All (N=12)
Median age in yrs (range)	29.50 (18-62)
Nb of prior treatment lines	
1 or 2	4
³3	8
Incl. prior inotuzumab ozogamicin	6
Incl. prior blinatumomab	3
Previous allo-SCT	7
Time of relapse following previous allo-SCT	
< 6 months	4
³ 6 months	3
Median (range)	5.9 months (4.1-11)
Bone marrow blasts prior to lymphodepletion	
<5%	3
5-25%	3
>25%	6
Median (range)	34% (0-98)

Interim Safety

All 12 enrolled patients received UCART19 at the target cell dose following lymphodepleting chemotherapy consisting of cyclophosphamide and fludarabine, with 10 patients receiving alemtuzumab, which we refer to as the FCA regimen, and two patients not receiving alemtuzumab, which we refer to as the FC regimen. The table below summarizes the adverse events by grade related to UCART19 infusion as well as those related to the lymphodepletion regimen. Grade 1 represents mild toxicity, Grade 2 represents moderate toxicity, Grade 3 represents severe toxicity and Grade 4 represents life threatening toxicity. Grade 5 toxicity represents toxicity resulting in death.

	Worst Grade					
N=12	G1 n(%)	G2 n(%)	G3 n(%)	G4 n(%)	G5 n(%)	All Grades n(%)
AEs related to UCART19						
Cytokine release syndrome	1 (8.3)	8 (66.7)	1 (8.3)	1 (8.3)	—	11 (91.7)
Neurotoxicity events	3 (25.0)	—	—	—	—	3 (25.0)
Graft-versus-host disease in skin	1 (8.3)	—	—	—	—	1 (8.3)
AEs related to lymphodepletion and/or UCART19						
Prolonged cytopenia(1)	—	—	—	3 (25.0)	—	3 (25.0)
Neutropenic sepsis	—	—	—	1 (8.3)	1 (8.3)	2 (16.7)
CMV infection	—	3 (25.0)	—	—	—	3 (25.0)
Adenovirus infection	1 (8.3)	—	1 (8.3)	—	—	2 (16.7)

(1) Persistent Grade 4 neutropenia and/or thrombocytopenia beyond day 42 post UCART19 infusion.

The most common UCART19 related adverse event was CRS, reported in 11 patients (two patients experiencing severe cases of CRS, one Grade 3 and one Grade 4). Three patients developed prolonged cytopenia, defined as persistent cytopenia beyond day 42 after UCART19 infusion. Three patients experienced mild, or Grade 1, neurotoxicity events. One patient experienced Grade 1 GvHD adverse event of the skin, which resolved with topical steroids.

Two dose limiting toxicities have been reported. The first case occurred at the first dose level and was a Grade 4 CRS related to UCART19, and associated with Grade 5 neutropenic sepsis related to lymphodepletion and UCART19. Death occurred on day 15 after UCART19 infusion. The second case, a Grade 4 prolonged cytopenia, occurred at the second dose level and was reported as related to both lymphodepletion and UCART19. This patient underwent allo-SCT and had an unrelated Grade 5 pulmonary hemorrhage in the setting of infection on day 19 following allo-SCT or day 82 after UCART19 infusion. Grade 5 adverse events have been reported in other autologous anti-CD19 CAR T cell therapy trials in part due to advanced stage of disease and accompanying confounding conditions.

Two additional deaths have also been reported that were not attributed to UCART19. One patient died from progressive disease, and one patient from allo-SCT related complications. Transplant related mortality occurs in approximately 20-30% of patients following allo-SCT.

Interim Efficacy

Of the 12 patients dosed with UCART19, two were not evaluable (one died at day 15, as noted above, and one had not reached the day 28 evaluation as of the April 2018 data cutoff). Eight out of the 10 evaluable patients achieved a CR, defined as the absence of any evidence of cancer, or CR with incomplete blood count recovery (CRi). Seven patients achieved MRD- CR. Two patients received a second dose of UCART19 under compassionate use (as a deviation from the clinical trial protocol) and both achieved MRD- CR. MRD- CR occurs when a patient achieves a CR and there is no evidence of ALL cells in the marrow when using sensitive

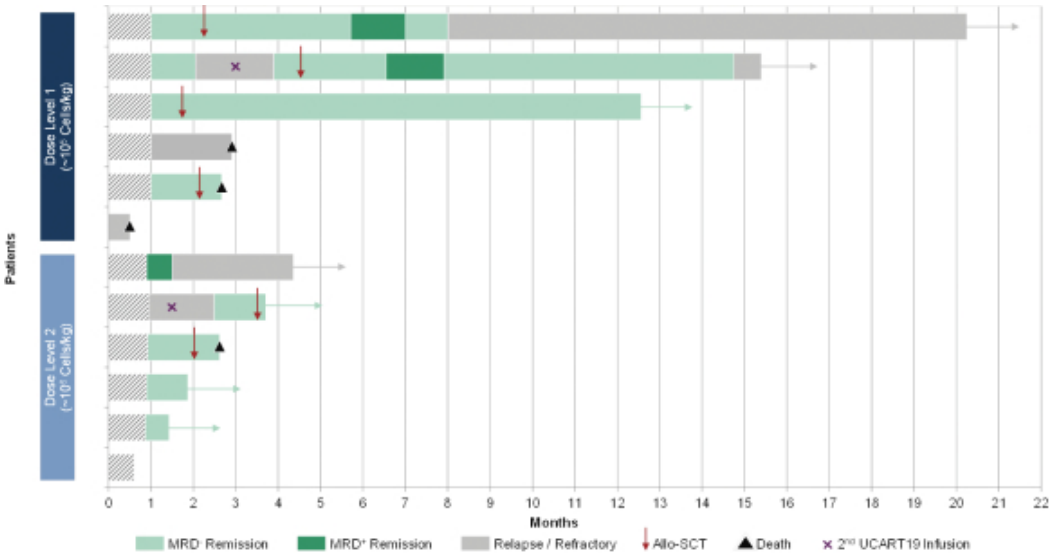
tests such as polymerase chain reaction or flow cytometry. CR or CRi rates are the typical regulatory standard, but studies in both children and adults with ALL have demonstrated a strong correlation between minimal residual disease (MRD+) and risks for relapse.

Six patients proceeded to an allo-SCT, including four patients after the first dose of UCART19, and two patients after the second dose. As of the April 2018 data cutoff, four patients remained in MRD- CR at 12.4, 3.6, 1.8 and 1.3 months after UCART19 infusion.

CAR T cell expansion was detected in blood from day 7 after UCART19 infusion, reaching the peak expansion between day 10 and day 17. One patient at the second dose level showed the highest peak linked to a long persistence up to day 42 still ongoing at the data cutoff. At dose level two, the longest persistence observed as of the data cutoff occurred on day 56.

The two patients on the FC regimen showed no evidence of CAR T cell expansion. A similar lack of CAR T cell expansion was seen in two out of 10 patients on the FCA regimen.

The following table illustrates response, duration of remission and re-dosing of UCART19 in the CALM trial.



PALL Interim Clinical Findings

As of April 2018, all six of the patients enrolled had been treated at a weight-banded cell dose equivalent to 1.1 to 2.3 × 10^6 cells/kg. Five patients had three or greater lines of prior treatment, with three having received four or greater lines of prior treatment. Two patients had received a prior treatment of allo-SCT. Patient characteristics are presented below.

	All (N=6)
Median age in yrs (range)	3.75 (0.8-16.4)
Disease at screening	
B-All relapsed	6
Disease at diagnosis	
NOS	4
with t(12;21)(p13;q22) TEL-AML1 (ETV6-RUNX1)	1
with t(v;11q23);MLL rearranged	1
Nb of prior treatment lines	
2 prior treatment lines	1
3 prior treatment lines	2
³4 prior treatment lines	3
Previous inotuzumab ozogamicin	2
Previous allogeneic stem cell transplantation (SCT)	2
Time of relapse following previous SCT	
>6 months	2
Bone marrow blasts at inclusion	
<10%	5
>50%	1
Median (range)	4.5% (0-80)

Interim Safety

All six enrolled patients received UCART19 at the target cell dose following lymphodepleting chemotherapy consisting of cyclophosphamide and fludarabine. Five patients also received alemtuzumab. The table below summarizes the adverse events by grade related to UCART19 cell infusion as well as those related to the lymphodepletion regimen and/or UCART19.

	Worst Grade					
N=6	G1 n(%)	G2 n(%)	G3 n(%)	G4 n(%)	G5 n(%)	All Grades n(%)
AEs related to UCART19						
Cytokine release syndrome	1 (16.7)	4 (66.7)	1 (16.7)	—	—	6 (100.0)
Neurotoxic events	2 (33.3)	1 (16.7)	—	—	—	3 (50.0)
Graft-versus-host disease in skin	1 (16.7)	—	—	—	—	1 (16.7)
AEs related to lymphodepletion and/or UCART19						
Prolonged cytopenia(1)	—	—	—	3 (50.0)	—	3 (50.0)
BK virus hemorrhagic cystitis	—	—	2 (33.3)	—	—	2 (33.3)
Metapneumovirus infection	—	—	—	1 (16.7)	—	1 (16.7)
CMV infection	—	—	1 (16.7)	—	—	1 (16.7)
Febrile neutropenia	—	—	1 (16.7)	—	—	1 (16.7)
Adenovirus infection	1 (16.7)	—	—	—	—	1 (16.7)

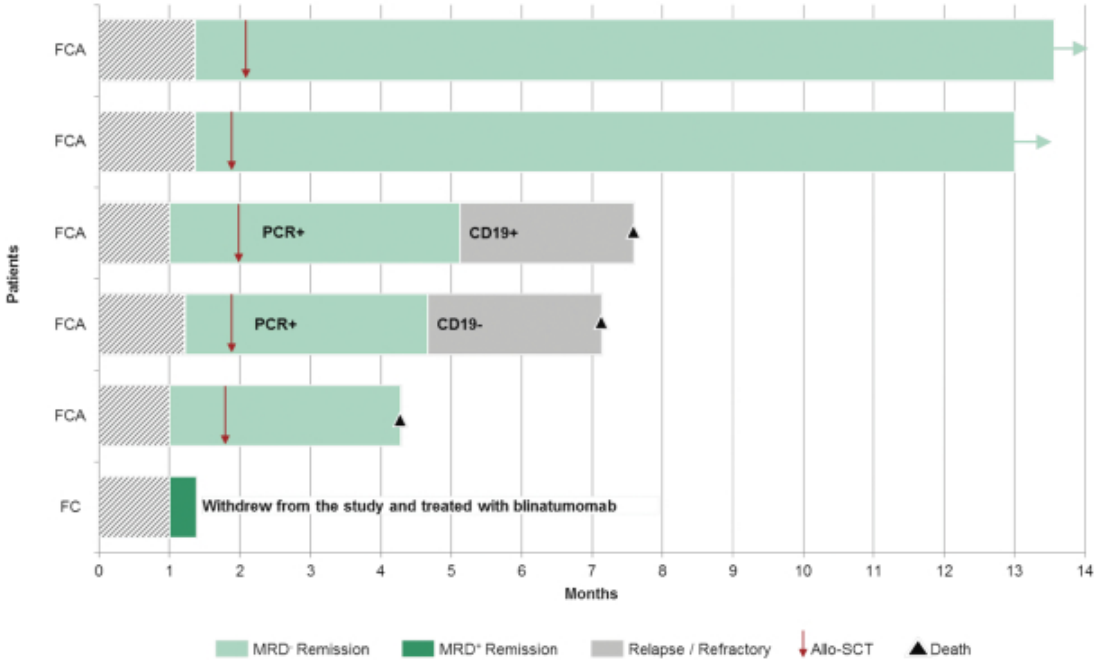
(1) Persistent Grade 4 neutropenia and/or thrombocytopenia beyond day 42 post UCART19 infusion.

As of April 2018, the most frequent adverse events related to UCART19 were CRS in all treated patients, with one patient experiencing Grade 3 CRS. Mild-to-moderate neurotoxic events occurred in three of the six treated patients. Three patients experienced prolonged cytopenia, reported as related to lymphodepletion and in some cases possibly related to UCART19. Viral reactivation with cytomegalovirus (CMV), adenovirus, BK virus and metapneumovirus was attributed to lymphodepletion. One patient experienced transient Grade 1 skin GvHD. Two patients died from disease recurrence following allo-SCT and one patient died from complications of allo-SCT. There were no treatment-related deaths.

Interim Efficacy

All patients completed the 28-day evaluation period and were evaluable for anti-leukemic activity. Five of the six patients achieved MRD- CRs and all five underwent allo-SCT. Two patients were in remission greater than 13 months after UCART19 infusion, as of the April 2018 data cutoff, and three patients died following allo-SCT, two due to disease recurrence, and one due to transplant-related complications. One patient withdrew from the study due to lack of response and received subsequent treatment with blinatumomab off-study. This is the only patient that received the FC regimen.

The following table illustrates response and duration of remission.



Development Plan

We, in partnership with Servier, plan to complete the third dose level of UCART19 to determine recommended Phase 2 dose level in CALM and then expand the enrollment to gain additional patient experience on the optimal lymphodepletion regimen, specifically testing the benefits of anti-CD52 monoclonal antibody, alemtuzumab or ALLO-647. Upon completion of these study objectives, which we expect to occur in the second half of 2019, we expect UCART19 to be advanced to potential registrational trials, CALM II and PALL II.

CALM II will be designed to evaluate the efficacy of UCART19 in an open-label, Phase 2, international, non-comparative, two-stage, pivotal, multicenter, single-arm clinical trial in adult patients with R/R ALL who

have exhausted available treatment options. The dose will be a flat dose based on the recommended Phase 2 dose identified in Phase 1. The primary efficacy end-point will be overall complete remission rate within three months of UCART19 infusion. Up to 63 patients are expected to be enrolled. Redosing will be allowed in case of relapse within a three month period after the first infusion.

PALL II will be designed as an open-label, Phase 2, international, non-comparative, two-stage, pivotal clinical trial of pediatric patients with R/R ALL aged from three months up to less than 18 years. The dose of UCART19 will depend on the actual weight at the time of infusion. The primary efficacy end-point will be overall complete remission rate within two months of UCART19 infusion. Up to 63 patients are expected to be enrolled. Patients will be monitored for 12 months after infusion whether or not they have received an allo-SCT. Re-dosing will be allowed in CALM II in case of relapse within the three-month period after the first infusion. A pediatric investigation plan was submitted to the European Medicines Agency in March 2018.

In the ongoing CALM and PALL trials, we use alemtuzumab, a commercially available monoclonal antibody that binds CD52, for the purpose of lymphodepletion. To secure our own readily available source of anti-CD52 antibody, we are developing our own monoclonal anti-CD52 antibody, ALLO-647. We submitted a DMF to the FDA in August 2018 for ALLO-647. If the FDA activates the DMF, Servier will be authorized to reference the DMF in its IND proposing use of ALLO-647 in combination with UCART19 in clinical trials. We plan to use ALLO-647 in the safety dose-expansion phase of the ongoing CALM clinical trial to further evaluate and optimize its use as a lymphodepleting agent. If anti-CD52 monoclonal antibody is deemed necessary for lymphodepletion, ALLO-647, if approved for clinical use, will be used in the CALM II and PALL II clinical trials. We expect to make the determination based on the expanded enrollment in the first CALM trial as noted above.

ALLO-501

ALLO-501 is our second allogeneic CAR T cell product candidate targeting CD19. We plan to submit an IND in the first half of 2019 for a Phase 1 clinical trial of ALLO-501 for the treatment of NHL. ALLO-501 is jointly developed by us and Servier. We will be the sponsor of the ALLO-501 program and lead the clinical development program.

ALLO-501 is identical to UCART19 in molecular design, however several modifications have been introduced by us to the manufacturing process for ALLO-501, which distinguishes ALLO-501 from UCART19. These modifications are designed to facilitate more efficient manufacturing scale-up for the larger patient population targeted by ALLO-501. Clinical supply for ALLO-501 trials will be manufactured in the United States using a CMO. Transfer of manufacturing technology to the CMO has been completed.

Target Indication: Non-Hodgkin Lymphoma (NHL)

NHL is a hematologic cancer originating from malignant lymphocytes. It is the most common hematological malignancy in the United States, with 74,680 new cases and 19,910 deaths estimated to be diagnosed in 2018, according to the U.S. SEER database. Over 60 NHL subtypes have been identified, and each subtype represents different neoplastic lymphoid cells (T, B or NK cells) that have arrested at different stages of differentiation. The most common subtype is B-cell, which represents over 90% of all new NHL cases in 2016.

B-cell NHL itself represents a group of different neoplasms that not only differ in pathology, but also response to therapy and prognosis. NHL can be rapidly growing (aggressive) with short survival, such as large B-cell lymphomas, which include DLBCL, or it can be slow growing, or indolent, such as FL. Despite recent therapeutic advances, more than 50% of patients with aggressive B-cell NHL are incurable using existing approved therapies.

The R-CHOP chemotherapy combination (rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone) introduced in the early 2000s remains the standard of care for newly diagnosed DLBCL, and five-

year survival can be achieved for 55-60% of patients. Unfortunately, approximately 30% of DLBCL second line and subsequent therapy is dependent on whether the patients are candidates for high-dose therapy followed by autologous stem-cell therapy. A retrospective analysis of patients with R/R DLBCL found that outcomes in this population are poor, with an objective response rate of 26% (CR: 7%, partial response: 18%) and median overall survival of 6.3 months.

Despite availability of multiple active agents, high response rates, and long progression-free survival with first-line therapy, follicular lymphoma remains an incurable disease. Most patients treated today eventually relapse, and subsequent responses and durations of responses become increasingly shorter. Ultimately, patients become resistant to chemo-immunotherapy, clinically defined as relapsed within 12 months. In these patients, the toxicity commonly outweighs the benefit of treatment with chemotherapy. Therefore, there remains a high unmet medical need for newer treatment options, especially for those patients with cancer that is resistant to chemo-immunotherapy.

Clinical Development Plan

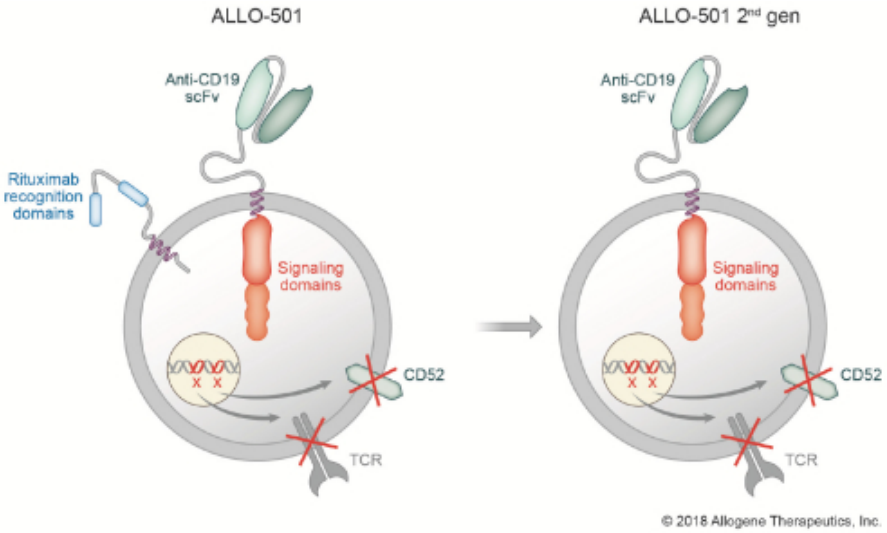
We plan to submit an IND for ALLO-501 in the first half of 2019. The initial clinical trial is expected to be an open-label, Phase 1/2, single arm, multicenter clinical trial evaluating the safety and efficacy of ALLO-501 in patients with R/R large B-cell lymphoma. Cell kinetics and pharmacodynamics of ALLO-501 will be evaluated as secondary and exploratory objectives, respectively. The Phase 1 portion of the trial will be a dose-escalation study for ALLO-501. Based on the MTD established during dose escalation, a single dose of ALLO-501 will be selected as the recommended Phase 2 dose. Prior to ALLO-501 treatment, all patients will undergo lymphodepletion with an FC regimen and potentially ALLO-647 following the same design as in the CALM clinical trial.

Assuming positive Phase 1 data in the large B-cell lymphoma trial, we plan to introduce our second-generation of ALLO-501, as discussed below, in the Phase 2 portion of the trial. We believe the second-generation ALLO-501 will have the potential to facilitate treatment of patients who were previously treated with rituximab.

Up to 18 patients are expected to be evaluated in Phase 1 and approximately 70 patients are expected to be evaluated in Phase 2. The Phase 2 portion of the study is anticipated to commence in 2020. All patients treated with ALLO-501 will be followed in a long term follow up study for at least 15 years.

Next Generation

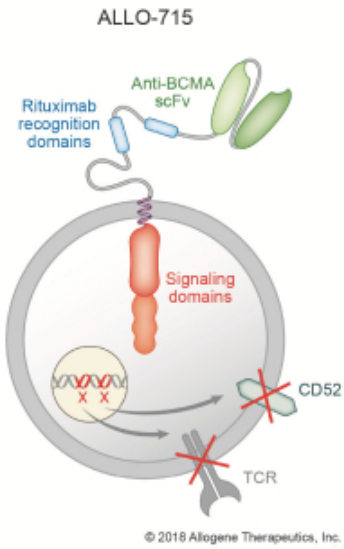
We have created a second version of ALLO-501. The first and current version of ALLO-501 co-expresses a small protein on the cell surface called RQR8, which consists of two rituximab recognition domains separated by a recognition domain for an anti-CD34 antibody. This allows for removal of the CAR T by rituximab. Since prior treatment with rituximab, depending on the lag time between the rituximab administration and planned ALLO-501 infusion, may reduce the persistence of ALLO-501, we have removed RQR8 in this second version of ALLO-501, as illustrated in the figure below. The second version of ALLO-501 manufactured from several donors under non-cGMP conditions has been compared to the current version of ALLO-501 *in vitro*. In this study, we found that both first and second versions of ALLO-501 exhibited similar characteristics and killing activity.



ALLO-715

ALLO-715 is an allogeneic CAR T cell product candidate targeting BCMA. BCMA is a member of the tumor necrosis factor receptor family and is selectively expressed on immunoglobulin-producing plasma cells, including malignant plasma cells (myeloma cells). ALLO-715 will initially be evaluated for the treatment of adult patients with R/R multiple myeloma. We plan to submit an IND for ALLO-715 in 2019.

ALLO-715 is manufactured to express a CAR that is designed to target BCMA and gene edited to lack TCRα and CD52 to minimize the risk of GvHD and avoid being destroyed by the patient's immune system. In addition, rituximab recognition domains, as an off-switch, has been incorporated in between the scFv and the linker domain. We have completed the lead candidate selection and manufacturing under cGMP conditions is in process to enable IND submission. The figure bellow depicts the construct of ALLO-715.



Target Indication: Multiple Myeloma

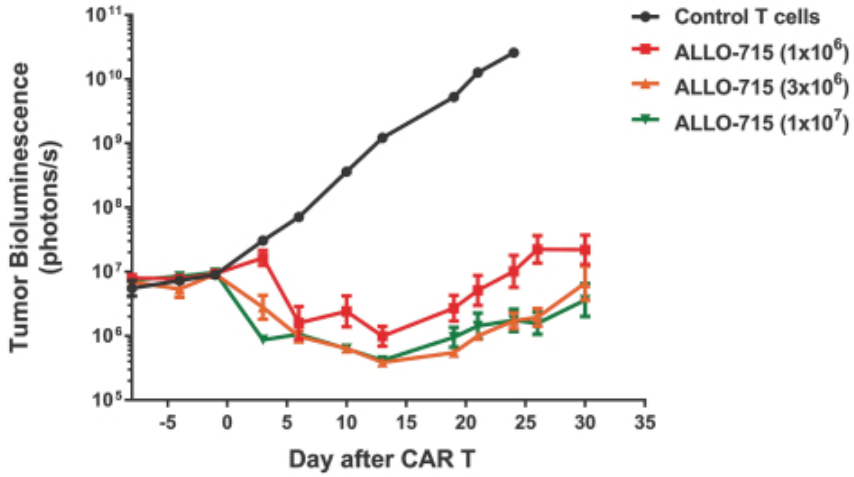
Multiple myeloma is a hematological malignancy that is characterized by uncontrolled expansion of bone marrow plasma cells. There will be an estimated 30,770 new cases of multiple myeloma and 12,770 deaths from multiple myeloma in 2018 in the United States according to the U.S. SEER database. Multiple myeloma predominantly affects the elderly, with 14 times more patients diagnosed at age 65 and over than those diagnosed under the age of 65.

For patients under the age of 70 with no comorbidities, autologous stem cell therapy represents a potentially curative treatment option. For transplant ineligible patients, immunomodulatory drugs (Revlimid, Pomalyst, Thalomid) and proteasome inhibitors (Velcade, Kyrprolis, Ninlaro), often used in combination with one another, have displaced older cytotoxic agents as the mainstay of treatment. In the past five years, several new drugs with novel mechanisms (Darzalex, Empliciti, Farydak) have been approved for multiple myeloma, however none of these novel treatments, other than autologous stem cell therapy, is considered as curative.

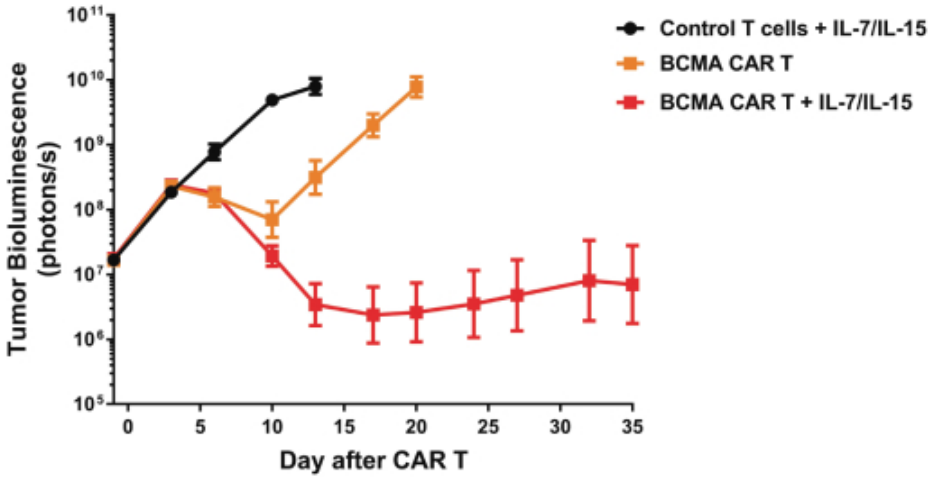
Despite the introduction of newer therapies, a majority of patients are expected to relapse and the unmet need in patients with R/R myeloma remains high. In clinical trials, only 3% of patients who were previously treated with at least three lines of therapy (including proteasome inhibitors and immunomodulatory drugs), or who were refractory to both proteasome inhibitors and immunomodulatory drugs, achieved a complete response to Darzalex. Median survival in such patients was just 17.5 months. Trials of autologous CAR T cell therapies such as bb2121, currently being developed by bluebird bio, Inc. (bluebird) in partnership with Celgene Corporation, have shown early promise in multiple myeloma with complete response rates of 50% at doses greater than 150×10^6 CAR T cells.

Pre-clinical Findings

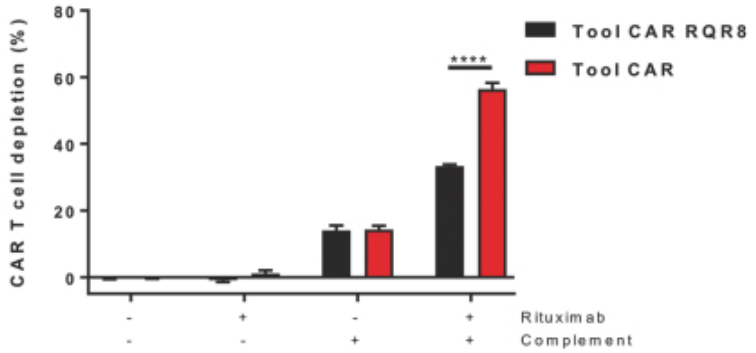
ALLO-715 showed activity *in vitro* against myeloma cell lines and *in vivo* anti-tumor activity, as illustrated below. ALLO-715 allogeneic T cells were injected seven days after intravenous injection of luciferase-expressing a human myeloma cell line into immuno-deficient mice. As expected, tumors in mice injected with control T cells continued to grow as evidenced by increased bioluminescence from these mice. Tumor reduction was observed in ALLO-715 treated mice in a dose-dependent manner.



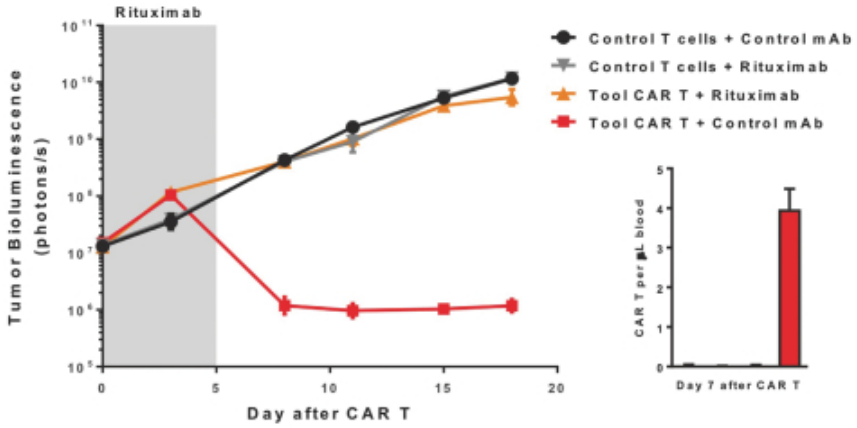
Limited duration of activity of human CAR T cells in mice can be caused by the lack of T cell homeostatic cytokines that normally supports growth and expansion of T cells. To test whether cytokine expression can increase the anti-tumor efficacy of BCMA CAR T cells, mice were treated with a virus to induce expression of human IL-7 and IL-15/IL-15Ra fusion proteins prior to implantation of a myeloma cell line. Animals were then treated with a suboptimal dose of BCMA CAR T cells and tumor growth was monitored by luminescence. Without prior treatment of cytokine encoding virus, continued growth of myeloma cell line was evident in mice treated with BCMA CAR T cells. However, in mice that were previously treated with the cytokine encoding viruses, the same dose of BCMA CAR T cells produced significant and prolonged tumor regression, as illustrated below.



Complement mediated cytotoxicity (CDC) is one of the mechanisms by which rituximab mediates CD20-dependent cell killing. Cells expressing a BCMA CAR with a separate off-switch (RQR8) or an intra-CAR off-switch (R2) were cultured for three hours in the presence of rituximab and complement and residual CAR T cells were measured by flow cytometry. Intra-CAR off-switch (R2) showed superior clearance of BCMA CAR T cells relative to first generation off-switch (RQR8), as illustrated below.



The R2 off-switch has also been observed to function *in vivo*, as illustrated below with BCMA CAR T cells showing efficient anti-tumor activity in the absence of rituximab but losing anti-tumor activity in the presence of rituximab. Mice previously injected with a luciferase-expressing human myeloma cell line received BCMA CAR T cells followed by five consecutive daily injections of rituximab or control immunoglobulin G (IgG). Rituximab treatment abrogated the anti-tumor activity of BCMA CAR T cells in this experiment.



Clinical Development Plan

We plan to submit an IND to initiate a Phase 1/2 clinical trial of ALLO-715 in 2019. The Phase 1 portion of the trial is expected to be an open label, multi-dose, multi center, dose escalation, safety, pharmacokinetic and pharmacodynamic clinical trial of ALLO-715 in adult patients with R/R multiple myeloma, who have progressed on at least two lines of prior therapy, including protease inhibitor therapies, immunomodulatory drugs and anti-CD38 monoclonal antibodies. The primary goal will be to assess safety and tolerability at increasing dose levels of ALLO-715 in successive cohorts of patients with multiple myeloma in order to estimate the MTD and the recommended Phase 2 dose of ALLO-715.

The Phase 2 dose expansion portion of the trial is expected to evaluate safety and efficacy of ALLO-715 at the recommended dose and potentially support the registration of ALLO-715 in patients with R/R multiple

myeloma who have progressed on at least two lines of prior therapy. We expect a maximum of up to 110 patients to be enrolled in this Phase 1/2 study.

Future Opportunities

Moving forward, we plan to utilize our allogeneic platform to pursue additional targets of interest. These include the additional targets currently in our pipeline as well as other targets that might be validated in the future. For example, we are developing allogeneic CAR T cell product candidates targeting Flt3 for the treatment of AML (ALLO-819), CD70 for the treatment of renal cell carcinoma, and DLL3 for the treatment of small cell lung cancer (SCLC).

- ***Acute Myeloid Leukemia and ALLO-819***. Flt3 is a receptor tyrosine kinase that is overactive in AML blasts. AML is a tumor type of high unmet medical need with few treatment options. It is a cancer of bone marrow stem cells and is the most common type of leukemia in adults. SEER estimates 19,520 new diagnoses and 10,670 deaths in the United States in 2018. Patients have a poor prognosis despite improvements in chemotherapy regimens and supportive care. We have conducted *in vitro* and *in vivo* studies of our anti-Flt3 product candidate, ALLO-819 that showed anti-tumor activity against blasts present in bone marrow from AML patients and in mice. We are currently advancing an IND-enabling data set for ALLO-819.
- ***Renal Cell Carcinoma and CD70***. Analysis using proteomic and immunohistochemistry techniques have demonstrated a high level of CD70 expression in clear cell renal cell carcinoma (ccRCC) cell lines and in more than 80% of human ccRCC tumor samples. ccRCC is the most common subtype of renal cancer. Approximately 65,000 new cases of renal cell carcinoma are diagnosed per year in the United States and 15,000 deaths are anticipated in 2018, according to SEER. Average duration of disease control is eight to nine months in first-line and five to six months in second-line, with the five year survival rate for metastatic disease of only 11.6%, and median survival of high risk group at 5.9 months. We are in the final stages of testing and refining constructs and selecting an anti-CD70 CAR T cell product candidate to progress to IND-enabling studies.
- ***Small Cell Lung Cancer and DLL3***. DLL3 is a target which is being pursued for SCLC using ADCs, bi-specifics and autologous CAR T therapies. According to SEER, there will be approximately 234,000 new cases of lung cancer in the United States in 2018, and according to the American Cancer Society, SCLC comprises approximately 10-15% of all lung cancers. SCLC is responsive to chemotherapy, but recurrence arises rapidly, with less than 7% of patients surviving over five years. Recently, SCLC has shown to be responsive to immunotherapy with approximately one-third of patients responding to PD-1/PD-L1 therapy and achieving a median overall survival of approximately eight months. We believe an allogeneic anti-DLL3 CAR T cell product candidate could be used alone or in combination with PD-1/PD-L1 therapy. We are currently testing and refining constructs for an anti-DLL3 CAR T cell product candidate, and following completion we plan to progress to IND-enabling studies.

We also plan to enhance our platform using next-generation technologies such as cytokine signal modulation, switch technologies, including small-molecule induced off-switch, and site-specific integration.

- ***Cytokine Signal Modulation***. Expressing cytokines from the CAR T cells or producing intracellular signals which mimic the action of a cell receiving a cytokine signal could enhance the proliferative potential, migratory behavior, and killing activity of engineered CAR T cells. Such modulation may allow engineered CAR T cells to more effectively elicit endogenous immune response thereby enhancing anti-tumor activity of CAR T cells. We are currently investigating controlled or regulated expression of select cytokines and testing hybrid cytokine receptors to modulate cytokine signaling in CAR T cells in a desired manner.
- ***Switch Technology***. In addition to the CD20 epitope engineered off-switch, such as RQR8 and R2 off-switches that responds to rituximab, we are investigating the use of small molecule dimerization of

death-inducing proteins to eliminate CAR T cells in the event that CAR T cell activity is no longer needed or needs to be shut off for safety reasons.

- ***Site-Specific Integration***. Using a combination of gene-editing technology and homologous recombination technology we can potentially integrate the CAR into specific target genes within the T cell DNA. Such site-specific integration allows the CAR or other target genes to be introduced into the T cells in a more homogeneous manner, allowing a more uniform and controlled expression of the CAR, with the goal of generating CAR T cell products that behave in a more consistent and predictable manner.

In addition, we continually survey the scientific and industry landscape for opportunities to license, partner or acquire technologies that may help us advance current or new T cell therapies for the benefit of patients.

Our Manufacturing Strategy

We have invested resources to optimize our manufacturing process, including the development of improved analytical methods. We plan to continue to invest in process science, product characterization and manufacturing to continuously improve our production and supply chain capabilities over time.

Our product candidates are designed and manufactured via a platform comprised of defined unit operations and technologies. The process is gradually developed from small to larger scales, incorporating compliant procedures to create current good manufacturing practices (cGMP) conditions. Although we have a platform-based manufacturing model, each product is unique and for each new product candidate, a developmental phase is necessary to individually customize each engineering step and to create a robust procedure that can later be implemented in a cGMP environment to ensure the production of clinical batches. This work is performed in our research and development environment to evaluate and assess variability in each step of the process in order to define the most reliable production conditions.

In October 2015, Cellectis announced that it completed a series of three production runs of UCART19, confirming the transfer of Cellectis's manufacturing process into clinical grade, cGMP conditions. This important milestone established that allogeneic T cell product candidates can be manufactured under cGMP conditions and demonstrated the industrial production potential of UCART19. Servier is responsible for UCART19 manufacturing and is working with a CMO in Europe to provide clinical supply for the CALM and PALL clinical trials. ALLO-501 is identical in molecular design to UCART19, but is produced using a modified manufacturing process, optimized by us. ALLO-501 and ALLO-715 will be manufactured in the United States by a CMO, and we will manage all other aspects of the supply, including planning, CMO oversight, disposition and distribution logistics. We will similarly develop, and manufacture all of our other product candidates.

The CMO that is manufacturing the clinical supply of ALLO-501 and ALLO-715 in the United States is subject to cGMP requirements, using qualified equipment and materials. We also utilize a separate third party contractor to manufacture cGMP viral vector used to deliver the applicable CAR gene into the T cells. We believe all materials and components utilized in the production of the cell line, viral vector and final T cell product are available from qualified suppliers and suitable for pivotal process development in readiness for registration and commercialization.

We expect to continue to rely on our CMO and may rely on CMOs and other third parties for the manufacturing and processing of our product candidates in the future. We believe the use of contract manufacturing and testing for our first clinical product candidates is cost-effective and has allowed us to rapidly prepare for clinical trials in accordance with our development plans. We expect third-party manufacturers will be capable of providing and processing sufficient quantities of our product candidates to meet anticipated clinical trial demands.

In addition, we plan to build our own manufacturing facility and we are currently searching for a suitable location for such facility. We plan to create a robust supply chain with redundant sources of supply comprised of both internal and external infrastructure.

Strategic Agreements

Asset Contribution Agreement with Pfizer

In April 2018, we entered into an Asset Contribution Agreement (Pfizer Agreement) with Pfizer pursuant to which we acquired certain assets and assumed certain liabilities from Pfizer, including the Cellectis Agreement and the Servier Agreement described below, and other intellectual property for the development and administration of CAR T cells for the treatment of cancer.

As consideration for the purchased assets, we issued Pfizer 3,187,772 shares of our Series A-1 Preferred Stock. In addition, we are required to make milestone payments upon successful completion of regulatory and sales milestones on a target-by-target basis for certain targets, including CD19 and BCMA, covered by the Pfizer Agreement. The aggregate potential milestone payments upon successful completion of various regulatory milestones in the United States and the European Union are $30 million or $60 million per target (depending on the target, and $840.0 million for all targets), provided that we are not obligated to pay a milestone for regulatory approval in the European Union for an anti-CD19 allogeneic CAR T cell product, to the extent Servier has commercial rights to such territory. The aggregate potential milestone payments upon reaching certain annual net sales thresholds in North America, Europe, Asia, Australia and Oceania, which we refer to as the Territory, for a certain number of targets covered by the Pfizer Agreement are $325.0 million per target. Concurrently with our entry into the Pfizer Agreement, we and Pfizer entered into a letter agreement pursuant to which Pfizer granted us, in partial consideration for our milestone and royalty payment obligations under the Pfizer Agreement, an option to expand the Territory to include some or all of the rest of the world at our election. We may exercise the option at any time during the 12 year period following closing of the asset acquisition under the Pfizer Agreement.

Pfizer is also eligible to receive, on a product-by-product and country-by-country basis, (i) royalties in the low single-digit percentage on annual net sales in the United States for products commercialized by us targeting certain targets, including CD19, covered by the Pfizer Agreement, (ii) tiered marginal royalties ranging from the low to mid-single-digit percentages on annual net sales in any country in the world for products commercialized by us targeting certain other targets covered by the Pfizer Agreement and (iii) royalties in the low single-digit percentage on annual net sales in any country in the Territory for products commercialized by us targeting targets not covered by the Pfizer Agreement that use certain Pfizer intellectual property and for which an IND is first filed on or before April 6, 2023. The royalties in the foregoing clauses (i) and (ii) are subject to reduction for products not covered by certain patent claims or for future required licenses of third party intellectual property. Our royalty obligation with respect to a given product in a given country, which we refer to as the Pfizer Royalty Term, begins upon the first sale of such product in such country and ends on the later of (i) expiration of the last claim of a defined set of patent rights, in each case covering such product in such country or (ii) 12 years from the first sale of such product in such country.

Under the Pfizer Agreement, we are required to use commercially reasonable efforts to develop and seek regulatory approval in and for the United States and the European Union for certain products covered by the Pfizer Agreement and to commercialize each product covered by the Pfizer Agreement in the applicable royalty territory in which regulatory approval for such product has been obtained. We also agreed to offer employment to certain Pfizer employees on terms no less favorable than the terms such employees enjoyed while being employed by Pfizer. We hired 39 employees from Pfizer pursuant to the terms of the Pfizer Agreement.

Pfizer is required, subject to certain limitations, to indemnify us against damages arising out of any breach or inaccuracy in the representations or warranties made by Pfizer, any breach of a covenant by Pfizer or any

liability not acquired by us. Likewise, we are required, subject to certain limitations, to indemnify Pfizer against damages arising out of any breach or inaccuracy of our representations and warranties, any breach of a covenant made in the agreement or the related patent and know-how license agreement by us, including any practice of intellectual property outside of the scope of the license granted to us, or any assumed liability.

Research Collaboration and License Agreement with Cellectis

In June 2014, Pfizer entered into a Research Collaboration and License Agreement (Cellectis Agreement) with Cellectis. In April 2018, Pfizer assigned the agreement to us pursuant to the Pfizer Agreement.

Pursuant to the Cellectis Agreement, we have an exclusive, worldwide, royalty-bearing, sublicensable license, on a target-by-target basis, under certain of Cellectis's intellectual property to make, use, sell, import, and otherwise commercialize CAR T products directed at certain targets, including BCMA, Flt3, DLL3 and CD70, for the treatment of cancer.

The Cellectis Agreement included a research collaboration to conduct discovery and pre-clinical development activities to generate CAR T cells directed at targets selected by each party. Pursuant to the terms of the Cellectis Agreement, the research collaboration ended in June 2018.

Cellectis has a non-exclusive, worldwide, royalty-free, perpetual and irrevocable license, with sublicensing rights under certain conditions, under certain of our intellectual property to make, use, sell, import and otherwise commercialize CAR T products directed at Cellectis-selected targets.

The Cellectis Agreement provides for payments of up to $185.0 million per product that is directed against an Allogene-selected target, with aggregate potential pre-clinical, clinical and commercial milestone payments totaling up to $2.8 billion. We expect to pay Cellectis $5.0 million upon the dosing of the first patient in our Phase 1 clinical trial of ALLO-715 in 2019. Cellectis is also eligible to receive tiered royalties on annual worldwide net sales of any products that are commercialized by us that contain or incorporate, or are covered by, certain of Cellectis's intellectual property at rates in the high single-digit percentages. Such royalties may be reduced, on a licensed product-by-licensed product and country-by-country basis, for generic entry and for payments due under licenses of third party patents. Pursuant to the Cellectis Agreement, and subject to certain exceptions, we are required to indemnify Cellectis against all third party claims related to the development, manufacturing, commercialization or use of any product licensed by us to Cellectis targeting a Cellectis-selected target, and Cellectis is required, subject to certain exceptions, to indemnify us against all third party claims related to the development, manufacturing, commercialization or use of any product licensed by Cellectis to us targeting an Allogene-selected target.

The royalties are payable, on a licensed product-by-licensed product and country-by-country basis, until the later of (i) the expiration of the last to expire of the licensed patents covering such product; (ii) the loss of regulatory exclusivity afforded such product in such country, and (iii) the tenth anniversary of the date of the first commercial sale of such product in such country; however, in no event shall such royalties be payable, with respect to a particular licensed product, past the twentieth anniversary of the first commercial sale for such product.

Depending on the Cellectis-selected target, we have a right of first refusal or right of first negotiation to purchase or license from Cellectis rights to develop and commercialize products against such Cellectis-selected targets. Under the Cellectis Agreement, we have certain diligence obligations to progress the development of CAR T product candidates and to commercialize one CAR T product per Allogene-selected target in one major market country where we have received regulatory approval. If we materially breach any of our diligence obligations and fail to cure within 90 days, then with respect to certain targets, such target will cease to be an Allogene-selected target and instead will become a Cellectis-selected target.

Unless earlier terminated in accordance with the agreement, the Cellectis Agreement will expire on a product-by-product and country-by-country basis, upon expiration of all royalty payment obligations with respect to such licensed product in such country. Beginning at the first anniversary of the effective date of the Cellectis Agreement, we have had the right to terminate the agreement at will upon 60 days' prior written notice, either in its entirety or on a target-by-target basis. Either party may terminate the agreement, in its entirety or on a target-by-target basis, upon 90 days' prior written notice in the event of the other party's uncured material breach. The agreement may also be terminated by us upon written notice at any time in the event that Cellectis becomes bankrupt or insolvent.

Exclusive License and Collaboration Agreement With Servier

In October 2015, Pfizer entered into an Exclusive License and Collaboration Agreement (Servier Agreement) with Servier to develop, manufacture and commercialize certain allogeneic anti-CD19 CAR products, including UCART19, in the United States with the option to obtain the rights over additional product candidates targeting one additional cancer antigen, including other allogeneic anti-CD19 CAR product candidates. In April 2018, Pfizer assigned the agreement to us pursuant to the Pfizer Agreement.

Under the Servier Agreement, we obtain an exclusive license, with the right to grant sublicenses under certain conditions, under certain of Servier's intellectual property, to develop, manufacture and commercialize certain allogeneic anti-CD19 CAR products, including UCART19, in the field of anti-tumor adoptive immunotherapy in the United States, with an exclusive option to obtain the same rights for additional products in the United States and, if Servier does not elect to pursue development or commercialization of those products in certain markets outside of the United States pursuant to its license described below, outside of the United States as well. Our option for each other product is exercisable upon Servier's delivery to us of an IND-enabling data package for such product. We are generally not required to make any additional payments to Servier to exercise an option, except for products directed at a certain target, for which we are required to pay Servier an option fee in the low tens of millions of dollars range upon exercise. If we opt-in to another product, Servier has the right to obtain rights to such product outside the United States and to share development costs for such product.

The Servier Agreement also provides Servier with an exclusive license, with the right to grant sublicenses under certain conditions, under certain of our intellectual property, to develop, manufacture and commercialize allogeneic adaptive T cell products directed at a certain Allogene-selected target in the field of anti-tumor adoptive immunotherapy outside of the United States.

Under the Servier Agreement, both we and Servier are required to use commercially reasonable efforts to carry out the activities assigned to each of us under an agreed-upon global research and development plan. In addition, we are required to use commercially reasonable efforts to develop and obtain marketing approval in the United States in the field of anti-tumor adoptive immunotherapy for at least one product directed against CD19, and Servier is required to use commercially reasonable efforts to develop and obtain marketing approval in the European Union, and one other country in a group of specified countries outside of the European Union and the United States, in the field of anti-tumor adoptive immunotherapy for at least one allogeneic adaptive T cell product directed against a certain Allogene-selected target.

For products that we are co-developing with Servier, including UCART19, we are responsible for 60% of the development costs and Servier is responsible for 40% of the development costs under the global research and development plan. Subject to certain restrictions, each party has the right to conduct activities that are specific to its territory outside the global research and development plan at such party's sole expense. In addition, each party is solely responsible for commercialization activities in its territory at such party's sole expense.

Pfizer made an upfront, non-refundable payment of $29.0 million to Servier. We are required to make milestone payments to Servier upon successful completion of regulatory and sales milestones on a target-by-target basis. For products directed against CD19, including UCART19, we are obligated to pay Servier

aggregate potential payments of up to $137.5 million upon successful completion of various regulatory milestones, and aggregate potential payments of up to $78.0 million upon successful completion of various sales milestones. The total potential payments that we are obligated to make under the Servier Agreement upon successful completion of regulatory and sales milestones are $381.5 million, including the aforementioned CD19-related milestone payments. Similarly, Servier is required to make milestone payments upon successful completion of regulatory and sales milestones for products directed at the Allogene-selected target that achieves such milestones. The total potential payments that Servier is obligated to make to us under the Servier Agreement upon successful completion of regulatory and sales milestones are $42 million and €70.5 million ($82.3 million), respectively. The foregoing milestones are subject to certain adjustments if we obtain rights for certain products outside of the United States upon Servier's election not to pursue such rights.

Each party is also eligible to receive tiered royalties on annual net sales in countries within the paying party's respective territory of any licensed products that are commercialized by such party. The royalty rates range from the low tens to the high teen percentages. Such royalties may be reduced for interchangeable drug entry, expiration of patent rights and amounts paid pursuant to licenses of third party patents. The royalty obligation for each party with respect to a given licensed product in a given country in each party's respective territory, which we refer to as the Servier Royalty Term, begins upon the first commercial sale of such product in such country and ends after a defined number of years.

Unless earlier terminated in accordance with the Servier Agreement, the Servier Agreement will continue, on a licensed product-by-licensed product and country-by-country basis, until the Servier Royalty Term with respect to the sale of such licensed product in such country expires. In addition, the agreement can be terminated (i) by either party for the other party's material breach that remains uncured for 90 days (or 30 days in the event of failure to pay) after written notice, (ii) by either party for certain insolvency-related events, (iii) by the licensed party for convenience on a licensed product-by-licensed product basis, at specified times with respect to the certain licensed products, upon 90 days' written notice and (iv) by the licensed party for safety reasons upon 30 days' written notice after consulting with the licensing party with respect to such safety reasons. In addition, the agreement will terminate immediately with respect to a licensed product if Cellectis terminates certain agreements that cover the relevant intellectual property licensed under the Servier Agreement.

Intellectual Property

Our commercial success depends in part on our ability to obtain and maintain proprietary protection for our most advanced product candidate, UCART19, our other product candidates, ALLO-647, ALLO-501 and ALLO-715, future product candidates, as well as novel discoveries, product development technologies, and know-how. Our commercial success also depends in part on our ability to operate without infringing on the proprietary rights of others and to prevent others from infringing our proprietary rights. Our policy is to develop and maintain protection of our proprietary position by, among other methods, filing or in-licensing U.S. and foreign patents and applications related to our technology, inventions, and improvements that are important to the development and implementation of our business.

We also rely on trademarks, trade secrets, know-how, continuing technological innovation, confidentiality agreements, and invention assignment agreements to develop and maintain our proprietary position. The confidentiality agreements are designed to protect our proprietary information and the invention assignment agreements are designed to grant us ownership of technologies that are developed for us by our employees, consultants, or other third parties. We seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in our agreements and security measures, either may be breached, and we may not have adequate remedies. In addition, our trade secrets may otherwise become known or independently discovered by competitors.

With respect to both licensed and company-owned intellectual property, we cannot be sure that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications filed by us in the future, nor can we be sure that any of our existing patents or any patents that may be granted to us in the future will be commercially useful in protecting our commercial products and methods of using and manufacturing the same.

We are actively building our intellectual property portfolio around our product candidates and our discovery programs, based on our own intellectual property as well as licensed intellectual property. Following the execution of the Pfizer Agreement, we are the owners of, co-owners of, or the licensee of multiple patents and patent applications in the United States and worldwide. These licensed assets include rights to the Cellectis TALEN gene-editing technology to engineer T cells that lack functional TCRs and to inactivate the CD52 gene in donor cells. We have exclusive worldwide rights to these patents for certain antigen targets, including BCMA, and have U.S. rights to these patents for CD19. Our patent rights are composed of patents and pending patent applications that are solely owned by us, co-owned with Servier, co-owned with Cellectis, exclusively licensed from Pfizer, exclusively licensed from Servier, or exclusively licensed from Cellectis.

Our patent portfolio includes protection for our lead product candidates, UCART19, ALLO-501 and ALLO-715, as well as our other research-stage candidates. With respect to UCART19 and ALLO-501, we have an exclusive license from Servier in the United States to patent rights covering composition of matter and methods of making and use covering UCART19 and ALLO-501. With respect to ALLO-715, we have an exclusive license from Pfizer to patent rights covering ALLO-715 in the United States and in foreign jurisdictions. These rights include composition of matter protection for ALLO-715 and methods of making and using ALLO-715. More generally, our patent portfolio and filing strategy is designed to provide multiple layers of protection by pursuing claims directed toward: (1) antigen binding domains directed to the targets of our product candidates; (2) CAR constructs used in our product candidates; (3) methods of treatment for therapeutic indications; (4) manufacturing processes, preconditioning methods, and dosing regimens; and (5) reducing GvHD, and methods for genetically engineering immune cells suitable for allogeneic use.

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the date of filing of the first non-provisional application to which priority is claimed. In the United States, patent term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the United States Patent and Trademark Office in granting a patent, or may be shortened if a patent is terminally disclaimed over an earlier-filed patent. In the United States, the term of a patent that covers an FDA-approved drug may also be eligible for a patent term extension of up to five years under the Hatch-Waxman Act, which is designed to compensate for the patent term lost during the FDA regulatory review process. The length of the patent term extension is calculated based on the length of time it takes for regulatory review. A patent term extension under the Hatch-Waxman Act cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval and only one patent applicable to an approved drug may be restored. Moreover, a patent can only be restored once, and thus, if a single patent is applicable to multiple products, it can only be extended based on one product. Similar provisions are available in Europe and certain other foreign jurisdictions to extend the term of a patent that covers an approved drug.

Competition

Our products will compete with novel therapies developed by biopharmaceutical companies, academic research institutions, governmental agencies and public and private research institutions, in addition to standard of care treatments.

Novartis and Kite were the first to achieve FDA approval for autologous T cell therapies. In August 2017, Novartis obtained FDA approval to commercialize Kymriah, the treatment of children and young adults with

B-cell ALL that is refractory or has relapsed at least twice. In May 2018, Kymriah received FDA approval for adults with R/R DLBCL. In October 2017, Kite obtained FDA approval to commercialize Yescarta, the first CAR T cell product candidate for the treatment of adult patients with R/R large B-cell lymphoma. Kite has published data on Yescarta in ALL as well. Juno Therapeutics, Inc. (Juno), a subsidiary of Celgene, has published data on its anti-CD19 CAR therapy, JCAR019. bluebird bio, Inc. (bluebird) was the first company to publish data on an anti-BCMA CAR therapy, bb2121, in multiple myeloma. Data can be found in the Competitor Data section below.

Due to the promising therapeutic effect of T cell therapies in clinical trials, we anticipate increasing competition from existing and new companies developing these therapies, as well as in the development of allogeneic T cell therapies.

Potential cell therapy competitors include:

- *Allogeneic T cell therapy competition*: Celyad S.A., CRISPR Therapeutics AG, Fate Therapeutics Inc., Intellia Therapeutics, Inc., Gilead (acquired Kite), Poseida Therapeutics, Inc., Precision Biosciences, Inc. and Sangamo Therapeutics, Inc. Additionally, Cellectis has several fully-owned allogeneic CAR programs that will compete with programs that fall outside our agreement with Cellectis.
- *Autologous T cell therapy competition*: Autolus Therapeutics plc, bluebird, Gilead, Novartis, Celgene (acquired Juno) and Tmunity Therapeutics, Inc.
- *Cell-therapy competition*: Atara Biotherapeutics, Inc., Adaptimmune Therapeutics PLC, and Celyad S.A.

Competition will also arise from non-cell based immune and other pursued by small-cap biotechnology and large-cap pharmaceutical companies including Amgen Inc., AstraZeneca plc, Bristol-Myers Squibb Company, Incyte Corporation, Merck & Co., Inc., and F. Hoffmann-La Roche AG.

Many of our competitors, either alone or with their collaboration partners, have significantly greater financial resources and expertise in research and development, pre-clinical testing, clinical trials, manufacturing, and marketing than we do. Future collaborations and mergers and acquisitions may result in further resource concentration among a smaller number of competitors.

Our commercial potential could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than products that we may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market or make our development more complicated. The key competitive factors affecting the success of all of our programs are likely to be efficacy, safety, and convenience.

These competitors may also vie for a similar pool of qualified scientific and management talent, sites and patient populations for clinical trials, as well as for technologies complementary to, or necessary for, our programs.

Competitor Data

Kymriah (Novartis) – ALL

In August 2017, tisagenlecleucel (Kymriah) was approved for pediatric and young adults with R/R B-cell precursor ALL based on data from an open-label, multicenter single-arm trial. In total, 107 patients were screened, 88 were enrolled, 68 were dosed, and 63 were evaluable for efficacy. Nine percent of the enrolled patients did not receive the product due to manufacturing failure. Six other patients died awaiting their infusion,

and 3 experienced an adverse event that precluded receiving tisagenlecleucel. Among the 63 evaluable patients, 52 (83%) achieved CR/CRi, all of which were MRD-negative. Grade 3 or greater CRS and neurotoxic events occurred in 47% (n=32) and 15% (n=10) of dosed patients, respectively. Nine (17%) of the 52 responders relapsed within six months and six (12%) underwent stem cell transplantation. *Source: Kymriah BLA and United States product insert.*

Kymriah (Novartis) – Large B-Cell Lymphoma

In May 2018, Kymriah was approved for use in adult patients with R/R large B-cell lymphoma based on data from an open-label, multicenter, single-arm trial. Of the 160 patients enrolled, 106 patients were dosed (66%), including 92 patients who received product manufactured in the United States and were followed for at least three months or discontinued earlier. Eleven out of 160 patients enrolled did not receive Kymriah due to manufacturing failure. Thirty-eight other patients did not receive Kymriah, primarily due to death (n=16), physician decision (n=16), and adverse events (n=3). A retrospectively identified sub-group of 68 patients was evaluable for the major efficacy outcome measures. Twenty-two of these patients (32%) achieved CR while 12 (18%) achieved a partial response. Grade 3 or greater CRS and neurotoxic events occurred in 23% (n=24) and 18% (n=19) of dosed patients, respectively. *Source: Kymriah BLA and United States product insert.*

Yescarta (Kite – Gilead) – DLBCL

In October 2017, axicabtagene ciloleucel (Yescarta) was approved for DLBCL patients who have relapsed within one year of autologous hematopoietic stem cell transplantation and patients who are refractory to two or more lines of salvage therapies. Among the 111 patients enrolled in the Phase 2 ZUMA-1 clinical trial, axicabtagene ciloleucel was successfully manufactured for 110 patients (99%) and administered to 101 patients (91%). Fifty-four percent of the 101 dosed patients (n=55) achieved CR and 28% (n=28) achieved a partial response. Grade 3 or greater CRS and neurotoxic events occurred in 13% (n=13) and 28% (n=28) of patients, respectively. *Source: Neelapu et al., 2017.*

KTE-C19 (Kite – Gilead) – ALL

In 2017 Kite published results from Zuma-3, a Phase 1/2 clinical trial of KTE C19 in adults with high burden R/R ALL. Of the 33 patients enrolled, 29 were dosed with KTE-C19. One patient withdrew consent, two suffered serious adverse events prior to dosing and one was treated under compassionate use. Of the 24 patients evaluable for efficacy by the data cutoff, 17 (71%) patients achieved CR + CRi. All responding patients were MRD-negative. Grade 3 or greater CRS and neurotoxic events occurred in 28% (n=8) and 52% (n=15) of dosed patients, respectively.

In 2017 Kite published results from Zuma-4, a Phase 1 clinical trial of KTE C19 in pediatric and adolescent patients with R/R ALL. Of the eight patients enrolled, seven patients received KTE-C19. There was one manufacturing failure. At the time of data cutoff, 7 (100%) patients achieved either CR + CRh + CRi. All responding patients were MRD-negative. Grade 3 or greater CRS and neurotoxic events occurred in 43% (n=3) and 29% (n=2) of patients, respectively. *Source: ZUMA-4 ESMO 2017 Poster.*

JCAR017 (Juno – Celgene) – ALL

A Phase 1 clinical trial of lisocabtagene maraleucel (JCAR017) in children and young adult patients with R/R B-cell ALL was conducted using a CD19 CAR product of defined CD4/CD8 composition, uniform CAR expression, and limited effector differentiation. Forty-three of forty-five enrolled patients were dosed with treatment. The rate of MRD-CR as measured by multi parameter flow cytometry was 93% (n=40) in patients who received a CAR T cell product and 100% (n=14) in the subset of patients who received fludarabine and cyclophosphamide lymphodepletion. Twenty-three percent (n=10) of patients developed Grade 3 or higher cytokine release syndrome and 21% (n=9) of patients developed Grade 3 or higher neurotoxicity. Eleven patients relapsed within six months and 11 patients underwent consolidative allogeneic HSCT. *Source: Gardner et al., Blood 2017.*

Government Regulation and Product Approval

As a biopharmaceutical company that operates in the United States, we are subject to extensive regulation. Our cell products will be regulated as biologics. With this classification, commercial production of our products will need to occur in registered facilities in compliance with cGMP for biologics. The FDA categorizes human cell- or tissue-based products as either minimally manipulated or more than minimally manipulated, and has determined that more than minimally manipulated products require clinical trials to demonstrate product safety and efficacy and the submission of a BLA for marketing authorization. Our products are considered more than minimally manipulated and will require evaluation in clinical trials and the submission and approval of a BLA before we can market them.

Government authorities in the United States (at the federal, state and local level) and in other countries extensively regulate, among other things, the research, development, testing, manufacturing, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing and export and import of biopharmaceutical products such as those we are developing. Our product candidates must be approved by the FDA before they may be legally marketed in the United States and by the appropriate foreign regulatory agency before they may be legally marketed in foreign countries. Generally, our activities in other countries will be subject to regulation that is similar in nature and scope as that imposed in the United States, although there can be important differences. Additionally, some significant aspects of regulation in Europe are addressed in a centralized way, but country-specific regulation remains essential in many respects. The process for obtaining regulatory marketing approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources.

U.S. Product Development Process

In the United States, the FDA regulates pharmaceutical and biological products under the Federal Food, Drug and Cosmetic Act (FDCA), the Public Health Service Act (PHSA) and their implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. FDA sanctions could include, among other actions, refusal to approve pending applications, withdrawal of an approval, a clinical hold, warning letters, product recalls or withdrawals from the market, product seizures, total or partial suspension of production or distribution injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us. The process required by the FDA before a biological product may be marketed in the United States generally involves the following:

- completion of nonclinical laboratory tests and animal studies according to good laboratory practices (GLPs) and applicable requirements for the humane use of laboratory animals or other applicable regulations;
- submission to the FDA of an IND, which must become effective before human clinical trials may begin;
- approval by an independent Institutional Review Board (IRB) or ethics committee at each clinical site before the trial is commenced;
- performance of adequate and well-controlled human clinical trials according to the FDA's regulations commonly referred to as good clinical practices (GCPs) and any additional requirements for the protection of human research patients and their health information, to establish the safety and efficacy of the proposed biological product for its intended use;

- submission to the FDA of a BLA for marketing approval that includes substantial evidence of safety, purity, and potency from results of nonclinical testing and clinical trials;
- satisfactory completion of an FDA Advisory Committee review, if applicable;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities where the biological product is produced to assess compliance with cGMP, to assure that the facilities, methods and controls are adequate to preserve the biological product's identity, strength, quality and purity and, if applicable, the FDA's current good tissue practices (GTPs) for the use of human cellular and tissue products;
- potential FDA audit of the nonclinical study and clinical trial sites that generated the data in support of the BLA; and
- FDA review and approval, or licensure, of the BLA.

Before testing any biological product candidate, including our product candidates, in humans, the product candidate enters the preclinical testing stage. Preclinical tests, also referred to as nonclinical studies, include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies to assess the potential safety and activity of the product candidate. The conduct of the preclinical tests must comply with federal regulations and requirements including GLPs. The clinical trial sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of the IND. Some preclinical testing may continue even after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA raises concerns or questions regarding the proposed clinical trials and places the trial on a clinical hold within that 30-day time period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. The FDA may also impose clinical holds on a biological product candidate at any time before or during clinical trials due to safety concerns or non-compliance. If the FDA imposes a clinical hold, trials may not recommence without FDA authorization and then only under terms authorized by the FDA. Accordingly, we cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate such trials.

In addition to the IND submission process, sponsors of certain clinical studies of cells containing recombinant or synthetic nucleic acid molecules, including human gene transfer studies, must comply with the National Institutes of Health's (NIH) Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules (NIH Guidelines). The NIH Guidelines set forth the principles and requirements for NIH and institutional oversight of research with recombinant or synthetic nucleic acid molecules, including the standards for investigators and institutions to follow to ensure the safe handling and containment of such molecules. In April 2016, modifications to the NIH Guidelines went into effect, pursuant to which only a subset of human gene transfer protocols are subject to review by the NIH Recombinant DNA Advisory Committee (RAC), a federal advisory committee that provides recommendations regarding research involving recombinant or synthetic nucleic acid molecules. Specifically, under the modified NIH Guidelines, RAC review of the protocol will be required only in exceptional cases where (1) an oversight body such as an Institutional Biosafety Committee (IBC), which provides local review and oversight of research utilizing recombinant or synthetic nucleic acid molecules, or an IRB determines that the protocol would significantly benefit from RAC review, and (2) the protocol (a) uses a new vector, genetic material, or delivery methodology that represents a first-in-human experience and thus presents an unknown risk, and/or (b) relies on preclinical safety data that were obtained using a new preclinical model system of unknown and unconfirmed value, and/or (c) involves a proposed vector, gene construct, or method of delivery associated with possible toxicities that are not widely known and that may render it difficult for oversight bodies to evaluate the protocol rigorously. The RAC review proceedings are public, and reports are posted publicly to the website for the NIH's Office of Biotechnology Activities. Although compliance with the NIH Guidelines is mandatory for research conducted at or sponsored by institutions receiving NIH funding of recombinant or synthetic nucleic acid molecule research, many companies and other institutions not otherwise subject to the NIH Guidelines voluntarily follow them. Independent of RAC review,

the NIH Guidelines also require all human gene transfer protocols subject to the NIH Guidelines to be registered with NIH, with limited exemptions. A study subject to the NIH Guidelines may not begin until the IBC approves the protocol, and the IBC cannot approve the protocol until confirmation from the NIH that such registration is complete. In the event that RAC review is warranted, the protocol registration process cannot be completed until RAC review has taken place.

Clinical trials involve the administration of the biological product candidate to patients under the supervision of qualified investigators, generally physicians not employed by or under the trial sponsor's control. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety, including stopping rules that assure a clinical trial will be stopped if certain adverse events should occur. Each protocol and any amendments to the protocol must be submitted to the FDA as part of the IND. Clinical trials must be conducted and monitored in accordance with the FDA's regulations comprising the GCP requirements, including the requirement that all research patients provide informed consent. Further, each clinical trial must be reviewed and approved by an independent IRB at or servicing each institution at which the clinical trial will be conducted. An IRB is charged with protecting the welfare and rights of trial participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the form and content of the informed consent that must be signed by each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed. Certain clinical trials involving human gene transfer research also must be overseen by an IBC, a standing committee established under the NIH Guidelines specifically to provide peer review of the safety of research plans, procedures, personnel training and environmental risks of work involving recombinant DNA molecules. IBCs are typically assigned certain review responsibilities relating to the use of recombinant DNA molecules, including reviewing potential environmental risks, assessing containment levels, and evaluating the adequacy of facilities, personnel training, and compliance with the NIH Guidelines. Some studies also include oversight by an independent group of qualified experts organized by the clinical study sponsor, known as a data safety monitoring board, which provides authorization for whether or not a study may move forward at designated check points based on access to certain data from the study and may halt the clinical trial if it determines that there is an unacceptable safety risk for subjects or other grounds, such as no demonstration of efficacy. There are also requirements governing the reporting of ongoing clinical studies and clinical study results to public registries.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- *Phase 1*. The biological product is initially introduced into healthy human subjects and tested for safety. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients.
- *Phase 2*. The biological product is evaluated in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance, optimal dosage and dosing schedule.
- *Phase 3*. Clinical trials are undertaken to further evaluate dosage, clinical efficacy, potency, and safety in an expanded patient population at geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk to benefit ratio of the product and provide an adequate basis for product labeling.

Post-approval clinical trials, sometimes referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These clinical trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication, particularly for long-term safety follow-up. During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data, and clinical trial investigators. Annual progress reports detailing the results of the clinical trials must be

submitted to the FDA. Written IND safety reports must be promptly submitted to the FDA, and the investigators for serious and unexpected adverse events, any findings from other studies, tests in laboratory animals or *in vitro* testing that suggest a significant risk for human patients, or any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must submit an IND safety report within 15 calendar days after the sponsor determines that the information qualifies for reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, if at all. The FDA or the sponsor or its data safety monitoring board may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research patients are being exposed to an unacceptable health risk, including risks inferred from other unrelated immunotherapy trials. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the biological product has been associated with unexpected serious harm to patients.

Human immunotherapy products are a new category of therapeutics. Because this is a relatively new and expanding area of novel therapeutic interventions, there can be no assurance as to the length of the trial period, the number of patients the FDA will require to be enrolled in the trials in order to establish the safety, efficacy, purity and potency of immunotherapy products, or that the data generated in these trials will be acceptable to the FDA to support marketing approval.

Concurrently with clinical trials, companies usually complete additional studies and must also develop additional information about the physical characteristics of the biological product as well as finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. To help reduce the risk of the introduction of adventitious agents with use of biological products, the PHSA emphasizes the importance of manufacturing control for products whose attributes cannot be precisely defined. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the sponsor must develop methods for testing the identity, strength, quality, potency and purity of the final biological product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the biological product candidate does not undergo unacceptable deterioration over its shelf life.

U.S. Review and Approval Processes

After the completion of clinical trials of a biological product, FDA approval of a BLA must be obtained before commercial marketing of the biological product. The BLA submission must include results of product development, laboratory and animal studies, human trials, information on the manufacture and composition of the product, proposed labeling and other relevant information. The testing and approval processes require substantial time and effort and there can be no assurance that the FDA will accept the BLA for filing and, even if filed, that any approval will be granted on a timely basis, if at all.

Under the Prescription Drug User Fee Act (PDUFA), as amended, each BLA must be accompanied by a significant user fee. The FDA adjusts the PDUFA user fees on an annual basis. PDUFA also imposes an annual program fee for biological products. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on BLAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

Within 60 days following submission of the application, the FDA reviews a BLA submitted to determine if it is substantially complete before the agency accepts it for filing. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission and may request additional information. In this event, the BLA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins

an in-depth substantive review of the BLA. The FDA reviews the BLA to determine, among other things, whether the proposed product is safe, potent, and/or effective for its intended use, and has an acceptable purity profile, and whether the product is being manufactured in accordance with cGMP to assure and preserve the product's identity, safety, strength, quality, potency and purity. The FDA may refer applications for novel biological products or biological products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. During the biological product approval process, the FDA also will determine whether a Risk Evaluation and Mitigation Strategy (REMS) is necessary to assure the safe use of the biological product. A REMS is a safety strategy to manage a known or potential serious risk associated with a medicine and to enable patients to have continued access to such medicines by managing their safe use, and could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. If the FDA concludes a REMS is needed, the sponsor of the BLA must submit a proposed REMS. The FDA will not approve a BLA without a REMS, if required.

Before approving a BLA, the FDA will inspect the facilities at which the product is manufactured. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. For immunotherapy products, the FDA also will not approve the product if the manufacturer is not in compliance with the GTPs, to the extent applicable. These are FDA regulations and guidance documents that govern the methods used in, and the facilities and controls used for, the manufacture of human cells, tissue, and cellular and tissue based products (HCT/Ps), which are human cells or tissue intended for implantation, transplant, infusion, or transfer into a human recipient. The primary intent of the GTP requirements is to ensure that cell and tissue based products are manufactured in a manner designed to prevent the introduction, transmission and spread of communicable disease. FDA regulations also require tissue establishments to register and list their HCT/Ps with the FDA and, when applicable, to evaluate donors through screening and testing. Additionally, before approving a BLA, the FDA will typically inspect one or more clinical sites to assure that the clinical trials were conducted in compliance with IND trial requirements and GCP requirements. To assure cGMP, GTP and GCP compliance, an applicant must incur significant expenditure of time, money and effort in the areas of training, record keeping, production, and quality control.

Notwithstanding the submission of relevant data and information, the FDA may ultimately decide that the BLA does not satisfy its regulatory criteria for approval and deny approval. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently than we interpret the same data. If the agency decides not to approve the BLA in its present form, the FDA will issue a complete response letter that describes all of the specific deficiencies in the BLA identified by the FDA. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical trials. Additionally, the complete response letter may include recommended actions that the applicant might take to place the application in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the BLA, addressing all of the deficiencies identified in the letter, or withdraw the application.

If a product receives regulatory approval, the approval may be limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling. The FDA may impose restrictions and conditions on product distribution, prescribing, or dispensing in the form of a risk management plan, or otherwise limit the scope of any approval. In addition, the FDA may require post marketing clinical trials, sometimes referred to as Phase 4 clinical trials, designed to further assess a biological product's safety and effectiveness, and testing and surveillance programs to monitor the safety of approved products that have been commercialized.

In addition, under the Pediatric Research Equity Act (PREA), a BLA or supplement to a BLA must contain data to assess the safety and effectiveness of the product for the claimed indications in all relevant pediatric

subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may grant deferrals for submission of data or full or partial waivers. Unless otherwise required by regulation, PREA does not apply to any product for an indication for which orphan designation has been granted. However, if only one indication for a product has orphan designation, a pediatric assessment may still be required for any applications to market that same product for the non-orphan indication(s).

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making available in the United States a drug or biologic for this type of disease or condition will be recovered from sales in the United States for that drug or biologic. Orphan drug designation must be requested before submitting a BLA. After the FDA grants orphan drug designation, the generic identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. The orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review or approval process.

If a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications, including a full BLA, to market the same biologic for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity. Orphan drug exclusivity does not prevent FDA from approving a different drug or biologic for the same disease or condition, or the same drug or biologic for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the BLA application user fee.

A designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. In addition, exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition.

Expedited Development and Review Programs

The FDA has a fast track program that is intended to expedite or facilitate the process for reviewing new products that meet certain criteria. Specifically, new products are eligible for fast track designation if they are intended to treat a serious or life-threatening disease or condition and demonstrate the potential to address unmet medical needs for the disease or condition. Fast track designation applies to the combination of the product and the specific indication for which it is being studied. Unique to a fast track product, the FDA may consider for review sections of the BLA on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the BLA, the FDA agrees to accept sections of the BLA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the BLA.

Any product, submitted to the FDA for approval, including a product with a fast track designation, may also be eligible for other types of FDA programs intended to expedite development and review, such as priority review and accelerated approval. A product is eligible for priority review if it has the potential to provide safe and effective therapy where no satisfactory alternative therapy exists or a significant improvement in the treatment, diagnosis or prevention of a disease compared to marketed products. The FDA will attempt to direct additional resources to the evaluation of an application for a new product designated for priority review in an

effort to facilitate the review. Additionally, a product may be eligible for accelerated approval. Products studied for their safety and effectiveness in treating serious or life-threatening diseases or conditions may receive accelerated approval upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require that a sponsor of a drug or biological product receiving accelerated approval perform adequate and well-controlled post-marketing clinical studies. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product.

In addition, the Food and Drug Administration Safety and Innovation Act (FDASIA), which was enacted and signed into law in 2012, established the breakthrough therapy designation. Breakthrough therapy designation is intended to expedite the development and review of products that treat serious or life-threatening conditions. The designation by FDA requires preliminary clinical evidence that a product candidate, alone or in combination with other drugs and biologics, demonstrates substantial improvement over currently available therapy on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. If the FDA designates a breakthrough therapy, it may take actions appropriate to expedite the development and review of the application, which may include holding meetings with the sponsor and the review team throughout the development of the therapy; providing timely advice to, and interactive communication with, the sponsor regarding the development of the drug to ensure that the development program to gather the nonclinical and clinical data necessary for approval is as efficient as practicable; involving senior managers and experienced review staff, as appropriate, in a collaborative, cross-disciplinary review; assigning a cross-disciplinary project lead for the FDA review team to facilitate an efficient review of the development program and to serve as a scientific liaison between the review team and the sponsor; and considering alternative clinical trial designs when scientifically appropriate, which may result in smaller trials or more efficient trials that require less time to complete and may minimize the number of patients exposed to a potentially less efficacious treatment. Breakthrough therapy designation comes with all of the benefits of fast track designation, which means that the sponsor may file sections of the BLA for review on a rolling basis if certain conditions are satisfied, including an agreement with FDA on the proposed schedule for submission of portions of the application and the payment of applicable user fees before the FDA may initiate a review. The breakthrough therapy designation is a distinct status from both accelerated approval and priority review, which can also be granted to the same product if relevant criteria are met. If a product is designated as breakthrough therapy, FDA will expedite the development and review of such product.

Fast Track designation, priority review and breakthrough therapy designation do not change the standards for approval but may expedite the development or approval process.

Post-Approval Requirements

Any products for which we receive FDA approvals are subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the product, providing the FDA with updated safety and efficacy information, product sampling and distribution requirements, and complying with FDA promotion and advertising requirements, which include, among others, standards for direct-to-consumer advertising, restrictions on promoting products for uses or in patient populations that are not described in the product's approved uses (known as "off-label use"), limitations on industry-sponsored scientific and educational activities, and requirements for promotional activities involving the internet. Although a physician may prescribe a legally available product for an off-label use, if the physicians deems such product to be appropriate in his/her professional medical judgment, a manufacturer may not market or promote off-label uses.

In addition, quality control and manufacturing procedures must continue to conform to applicable manufacturing requirements after approval to ensure the long-term stability of the product. cGMP regulations

require among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation and the obligation to investigate and correct any deviations from cGMP. Manufacturers and other entities involved in the manufacture and distribution of approved products are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP and other laws. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance. Discovery of problems with a product after approval may result in restrictions on a product, manufacturer, or holder of an approved BLA, including, among other things, recall or withdrawal of the product from the market. In addition, changes to the manufacturing process are strictly regulated, and depending on the significance of the change, may require prior FDA approval before being implemented. Other types of changes to the approved product, such as adding new indications and claims, are also subject to further FDA review and approval.

The FDA also may require post-marketing testing, known as Phase 4 testing, and surveillance to monitor the effects of an approved product. Discovery of previously unknown problems with a product or the failure to comply with applicable FDA requirements can have negative consequences, including adverse publicity, judicial or administrative enforcement, warning letters from the FDA, mandated corrective advertising or communications with doctors, and civil or criminal penalties, among others. Newly discovered or developed safety or effectiveness data may require changes to a product's approved labeling, including the addition of new warnings and contraindications, and also may require the implementation of other risk management measures. Also, new government requirements, including those resulting from new legislation, may be established, or the FDA's policies may change, which could delay or prevent regulatory approval of our products under development.

U.S. Marketing Exclusivity

The Biologics Price Competition and Innovation Act (BPCIA) amended the PHSA to authorize the FDA to approve similar versions of innovative biologics, commonly known as biosimilars. A competitor seeking approval of a biosimilar must file an application to establish its molecule as highly similar to an approved innovator biologic, among other requirements. The BPCIA, however, bars the FDA from approving biosimilar applications for 12 years after an innovator biological product receives initial marketing approval. This 12-year period of data exclusivity may be extended by six months, for a total of 12.5 years, if the FDA requests that the innovator company conduct pediatric clinical investigations of the product.

Depending upon the timing, duration and specifics of the FDA approval of the use of our product candidates, some of our U.S. patents, if granted, may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent restoration term of up to five years, as compensation for patent term lost during product development and the FDA regulatory review process. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of a BLA plus the time between the submission date of a BLA and the approval of that application. Only one patent applicable to an approved product is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The U.S. Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we may intend to apply for restoration of patent term for one of our currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant BLA.

Pediatric exclusivity is another type of regulatory market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric trial in accordance with an FDA-issued "Written Request" for such a trial.

Other U.S. Healthcare Laws and Compliance Requirements

In the United States, our activities are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including but not limited to, the Centers for Medicare and Medicaid Services (CMS), other divisions of the U.S. Department of Health and Human Services (e.g., the Office of Inspector General), the U.S. Department of Justice (DOJ), and individual U.S. Attorney offices within the DOJ, and state and local governments. For example, our business practices, including any future sales, marketing and scientific/educational grant programs may be required to comply with the anti-fraud and abuse provisions of the Social Security Act, the false claims laws, the patient data privacy and security provisions of the Health Insurance Portability and Accountability Act (HIPAA) transparency requirements, and similar state laws, each as amended.

The federal Anti-Kickback Statute prohibits, among other things, any person or entity, from knowingly and willfully offering, paying, soliciting or receiving any remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any item or service reimbursable under Medicare, Medicaid or other federal healthcare programs. The term remuneration has been interpreted broadly to include anything of value. The federal Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers, and formulary managers on the other. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution. The exceptions and safe harbors are drawn narrowly and practices that involve remuneration that may be alleged to be intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances. Our practices may not in all cases meet all of the criteria for protection under a statutory exception or regulatory safe harbor.

Additionally, the intent standard under the federal Anti-Kickback Statute was amended by the Patient Protection Affordable Care Act of 2010, as amended by the Health Care and Education Reconciliation Act of 2010, collectively, the Affordable Care Act, to a stricter standard such that a person or entity no longer needs to have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it in order to have committed a violation. Rather, if “one purpose” of the remuneration is to induce referrals, the federal Anti-Kickback Statute is violated. In addition, the Affordable Care Act codified case law that a claim that includes items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal civil False Claims Act (discussed below).

The civil monetary penalties statute imposes penalties against any person or entity who, among other things, is determined to have presented or caused to be presented a claim to, among others, a federal healthcare program that the person knows or should know is for a medical or other item or service that was not provided as claimed or is false or fraudulent.

The federal civil False Claims Act prohibits, among other things, any person or entity from knowingly presenting, or causing to be presented, a false claim for payment to, or approval by, the federal government or knowingly making, using, or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government. As a result of a modification made by the Fraud Enforcement and Recovery Act of 2009, a claim includes “any request or demand” for money or property presented to the U.S. government. Several pharmaceutical and other healthcare companies are being investigated or, in the past, have been prosecuted under these laws for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. Other companies have been prosecuted for causing false claims to be submitted because of the companies’ marketing of the product for unapproved, and thus non-reimbursable, uses.

HIPAA created additional federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud or to obtain, by means of false or fraudulent pretenses, representations or promises, any money or property owned by, or under the control or custody of, any healthcare benefit program, including private third-party payors and knowingly and willfully falsifying, concealing or covering up by trick, scheme or device, a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services.

Also, many states have similar fraud and abuse statutes or regulations that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

We may be subject to data privacy and security regulations by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (HITECH) and their implementing regulations, imposes requirements on certain types of individuals and entities relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA's privacy and security standards directly applicable to business associates that are independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in specified circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Additionally, the federal Physician Payments Sunshine Act within the Affordable Care Act, and its implementing regulations, require that certain manufacturers of drugs, devices, biological and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) report information related to certain payments or other transfers of value made or distributed to physicians and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals and to report annually certain ownership and investment interests held by physicians and their immediate family members.

In order to distribute products commercially, we must comply with state laws that require the registration of manufacturers and wholesale distributors of drug and biological products in a state, including, in certain states, manufacturers and distributors who ship products into the state even if such manufacturers or distributors have no place of business within the state. Some states also impose requirements on manufacturers and distributors to establish the pedigree of product in the chain of distribution, including some states that require manufacturers and others to adopt new technology capable of tracking and tracing product as it moves through the distribution chain. Several states have enacted legislation requiring pharmaceutical and biotechnology companies to establish marketing compliance programs, file periodic reports with the state, make periodic public disclosures on sales, marketing, pricing, clinical trials and other activities, and/or register their sales representatives, as well as to prohibit pharmacies and other healthcare entities from providing certain physician prescribing data to pharmaceutical and biotechnology companies for use in sales and marketing, and to prohibit certain other sales and marketing practices. All of our activities are potentially subject to federal and state consumer protection and unfair competition laws.

If our operations are found to be in violation of any of the federal and state healthcare laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including without limitation, civil, criminal and/or administrative penalties, damages, fines, disgorgement, exclusion from participation in government programs, such as Medicare and Medicaid, injunctions, private "qui tam" actions brought by individual whistleblowers in the name of the government, or refusal to allow us to enter into government contracts, contractual damages, reputational harm, administrative burdens, diminished profits and

future earnings, additional reporting requirements and/or oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Coverage, Pricing and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any product candidates for which we obtain regulatory approval. In the United States and markets in other countries, sales of any products for which we receive regulatory approval for commercial sale will depend, in part, on the extent to which third-party payors provide coverage, and establish adequate reimbursement levels for such products. In the United States, third-party payors include federal and state healthcare programs, private managed care providers, health insurers and other organizations. The process for determining whether a third-party payor will provide coverage for a product may be separate from the process for setting the price of a product or for establishing the reimbursement rate that such a payor will pay for the product. Third-party payors may limit coverage to specific products on an approved list, or also known as a formulary, which might not include all of the FDA-approved products for a particular indication. Third-party payors are increasingly challenging the price, examining the medical necessity and reviewing the cost-effectiveness of medical products, therapies and services, in addition to questioning their safety and efficacy. We may need to conduct expensive pharmaco-economic studies in order to demonstrate the medical necessity and cost-effectiveness of our products, in addition to the costs required to obtain the FDA approvals. Our product candidates may not be considered medically necessary or cost-effective. A payor's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a product does not assure that other payors will also provide coverage for the product. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

Different pricing and reimbursement schemes exist in other countries. In the EU, governments influence the price of pharmaceutical products through their pricing and reimbursement rules and control of national health care systems that fund a large part of the cost of those products to consumers. Some jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost-effectiveness of a particular product candidate to currently available therapies. Other member states allow companies to fix their own prices for medicines, but monitor and control company profits. The downward pressure on health care costs has become very intense. As a result, increasingly high barriers are being erected to the entry of new products. In addition, in some countries, cross-border imports from low-priced markets exert a commercial pressure on pricing within a country.

The marketability of any product candidates for which we receive regulatory approval for commercial sale may suffer if the government and third-party payors fail to provide adequate coverage and reimbursement. In addition, emphasis on managed care in the United States has increased and we expect will continue to increase the pressure on healthcare pricing. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Healthcare Reform

In the United States and some foreign jurisdictions, there have been, and continue to be, several legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of product candidates, restrict or regulate post-approval activities, and affect the ability to profitably sell product candidates for which marketing approval is obtained. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the

stated goals of containing healthcare costs, improving quality and/or expanding access. In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives.

For example, the Affordable Care Act has substantially changed healthcare financing and delivery by both governmental and private insurers. Among the Affordable Care Act provisions of importance to the pharmaceutical and biotechnology industries, in addition to those otherwise described above, are the following:

- an annual, nondeductible fee on any entity that manufactures or imports certain specified branded prescription drugs and biologic agents apportioned among these entities according to their market share in some government healthcare programs that began in 2011;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program, retroactive to January 1, 2010, to 23.1% and 13% of the average manufacturer price for most branded and generic drugs, respectively, and capped the total rebate amount for innovator drugs at 100% of the Average Manufacturer Price (AMP);
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts, which through subsequent legislative amendments, will be increased to 70%, starting in 2019, off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturers' outpatient drugs to be covered under Medicare Part D;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals beginning in 2014 and by adding new mandatory eligibility categories for individuals with income at or below 133% of the federal poverty level, thereby potentially increasing manufacturers' Medicaid rebate liability;
- expansion of the entities eligible for discounts under the 340B Drug Discount Program;
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;
- expansion of healthcare fraud and abuse laws, including the FCA and the Anti-Kickback Statute, new government investigative powers, and enhanced penalties for noncompliance;
- a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted, or injected;
- requirements to report certain financial arrangements with physicians and teaching hospitals;
- a requirement to annually report certain information regarding drug samples that manufacturers and distributors provide to physicians;
- establishment of a Center for Medicare and Medicaid Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending that began on January 1, 2011; and
- a licensure framework for follow on biologic products.

Some of the provisions of the Affordable Care Act have yet to be implemented, and there have been legal and political challenges to certain aspects of the Affordable Care Act. Since January 2017, the current U.S. President has signed two executive orders and other directives designed to delay, circumvent, or loosen certain requirements mandated by the Affordable Care Act. In December 2017, Congress repealed the tax penalty for an individual's failure to maintain Affordable Care Act-mandated health insurance as part of a tax reform bill.

Further, on January 22, 2018, the current U.S. President signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain Affordable Care Act-mandated fees, including the so-called "Cadillac" tax on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device excise tax on non-exempt medical devices. Moreover, the Bipartisan Budget Act of 2018 (BBA), among other things, amends the Affordable Care Act, effective January 1, 2019, to close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole". Congress is continuing to consider legislation that would alter other aspects of the Affordable Care Act. The ultimate content, timing or effect of any healthcare reform legislation on the U.S. healthcare industry is unclear.

We anticipate that the Affordable Care Act, if substantially maintained in its current form, will continue to result in additional downward pressure on coverage and the price that we receive for any approved product, and could seriously harm our business. Any reduction in reimbursement from Medicare and other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our products. Such reforms could have an adverse effect on anticipated revenue from product candidates that we may successfully develop and for which we may obtain regulatory approval and may affect our overall financial condition and ability to develop product candidates.

Further legislation or regulation could be passed that could harm our business, financial condition and results of operations. Other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. For example, in August 2011, President Obama signed into law the Budget Control Act of 2011, which, among other things, created the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee on Deficit Reduction did not achieve a targeted deficit reduction of at least $1.2 trillion for fiscal years 2012 through 2021, triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which went into effect beginning on April 1, 2013 and will stay in effect through 2027 unless additional Congressional action is taken. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Additionally, there has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed federal legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. At the federal level, the U.S. President's administration's budget proposal for fiscal year 2019 contains further drug price control measures that could be enacted during the 2019 budget process or in other future legislation, including, for example, measures to permit Medicare Part D plans to negotiate the price of certain drugs under Medicare Part B, to allow some states to negotiate drug prices under Medicaid, and to eliminate cost sharing for generic drugs for low-income patients. While any proposed measures will require authorization through additional legislation to become effective, Congress and the U.S. President's administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. Individual states in the United States have also become increasingly active in passing legislation and implementing regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

The Foreign Corrupt Practices Act

The Foreign Corrupt Practices Act (FCPA) prohibits any U.S. individual or business from paying, offering, or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political

party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations.

Additional Regulation

In addition to the foregoing, state and federal laws regarding environmental protection and hazardous substances, including the Occupational Safety and Health Act, the Resource Conservancy and Recovery Act and the Toxic Substances Control Act, affect our business. These and other laws govern our use, handling and disposal of various biological, chemical and radioactive substances used in, and wastes generated by, our operations. If our operations result in contamination of the environment or expose individuals to hazardous substances, we could be liable for damages and governmental fines. We believe that we are in material compliance with applicable environmental laws and that continued compliance therewith will not have a material adverse effect on our business. We cannot predict, however, how changes in these laws may affect our future operations.

Europe / Rest of World Government Regulation

In addition to regulations in the United States, we will be subject to a variety of regulations in other jurisdictions governing, among other things, clinical trials and any commercial sales and distribution of our products. Whether or not we obtain FDA approval of a product, we must obtain the requisite approvals from regulatory authorities in foreign countries prior to the commencement of clinical trials or marketing of the product in those countries. Certain countries outside of the United States have a similar process that requires the submission of a clinical trial application much like the IND prior to the commencement of human clinical trials. In the EU, for example, a clinical trial application must be submitted to each country's national health authority and an independent ethics committee, much like the FDA and IRB, respectively. Once the clinical trial application is approved in accordance with a country's requirements, clinical trial development may proceed. Because biologically sourced raw materials are subject to unique contamination risks, their use may be restricted in some countries.

The requirements and process governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In all cases, the clinical trials must be conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

To obtain regulatory approval of an investigational drug or biological product under EU regulatory systems, we must submit an MAA. The application used to file the BLA in the United States is similar to that required in the EU, with the exception of, among other things, country-specific document requirements.

For other countries outside of the EU, such as countries in Eastern Europe, Latin America or Asia, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary from country to country. In all cases, again, the clinical trials must be conducted in accordance with GCP and the applicable regulatory requirements and the ethical principles that have their origin in the Declaration of Helsinki.

If we or our potential collaborators fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

Employees

As of September 4, 2018, we had 70 full-time employees. Of these employees, 35 hold Ph.D. or M.D. degrees, and 44 are engaged in research, development and technical operations. Substantially all of our employees are located in South San Francisco, California. Our employees are not represented by labor unions or covered by collective bargaining agreements. We consider our relationship with our employees to be good.

Research and Development Expenses

We had no research and development expenses during the period from November 30, 2017 (inception) to December 31, 2017. For the six months ended June 30, 2018, we had $122.5 million in research and development expenses, consisting of $109.4 million of acquired in-process research and development charges associated with the asset acquisition from Pfizer, $4.7 million in external costs for payments to our collaboration partners related to product candidate development activities and manufacturing support for UCART19 clinical trials, $2.3 million for personnel-related costs, and $1.9 million for expenses incurred under the TSA with Pfizer.

Facilities

We occupy approximately 21,544 square feet of office and laboratory space in South San Francisco, California pursuant to our TSA with Pfizer. In August 2018, we entered into a new lease for approximately 68,000 square feet for office and laboratory space in South San Francisco. We expect to complete occupancy in the new facility by the end of the second quarter of 2019. We believe that our existing facilities and other available properties will be sufficient for our needs for the foreseeable future, and we plan to identify and secure our own manufacturing facility.

Legal Proceedings

From time to time, we may become involved in litigation or other legal proceedings. We are not currently a party to any litigation or legal proceedings that, in the opinion of our management, are likely to have a material adverse effect on our business. Regardless of outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

MANAGEMENT

The following table sets forth information about our executive officers and directors.

Name	Age	Position(s)
Executive Officers		
David Chang, M.D., Ph.D.	58	President, Chief Executive Officer and Director
Eric Schmidt, Ph.D.	50	Chief Financial Officer
Alison Moore, Ph.D.	51	Chief Technical Officer
Non-Employee Directors		
Arie Belldegrun, M.D., FACS	68	Executive Chairman of the Board of Directors
David Bonderman	75	Director
John DeYoung	56	Director
Franz Humer, Ph.D.	72	Director
Joshua Kazam	41	Director
Todd Sisitsky	46	Director
Owen Witte, M.D.	69	Director
Robert Abraham, Ph.D. (4)	65	Director

(1) Member of the audit committee.
(2) Member of the compensation committee.
(3) Member of the nominating and corporate governance committee.
(4) Dr. Abraham will resign from our board of directors contingent and effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part.

Executive Officers

David Chang, M.D., Ph.D. is a co-founder of Allogene and has served as our President and Chief Executive Officer and as a member of our board of directors since June 2018. Prior to joining us, Dr. Chang served as the Chief Medical Officer and Executive Vice President, Research and Development of Kite from June 2014 until March 2018. Dr. Chang previously held senior positions at Amgen Inc., a biopharmaceutical company, including Vice President, Global Development from July 2006 to May 2014, Senior Director, Oncology-Therapeutics from July 2005 to June 2006 and Director, Medical Sciences from December 2002 to June 2005. Prior to that, he was an Associate Professor at the University of California, Los Angeles School of Medicine. Dr. Chang has served as a member of the Board of Directors of Peloton Therapeutics, Inc., a privately held biopharmaceutical company, since March 2018. He has also served as a Venture Partner of Vida Ventures, LLC since November 2017, and Two River Consulting, LLC since October 2017. Dr. Chang obtained a B.S. in Biology from the Massachusetts Institute of Technology and an M.D. and Ph.D. from Stanford University. Our board of directors believes Dr. Chang's expertise and experience in the life sciences, including his work in immune-oncology and his educational background, provide him with the qualifications and skills to serve on our board of directors.

Eric Schmidt, Ph.D. has served as our Chief Financial Officer since June 2018. Prior to joining us, Dr. Schmidt was a Managing Director and Senior Research Analyst at Cowen and Company, LLC. He joined Cowen as a Research Analyst in 1998 where he covered biotechnology stocks until June 2018. He was previously a Vice President and Research Analyst for UBS Securities. Before joining UBS in 1995, he co-founded Cambridge Biological Consultants, a scientific consulting and research firm. Dr. Schmidt obtained a Bachelor of Arts in Chemistry from the University of Pennsylvania and a Ph.D. in Biology from the Massachusetts Institute of Technology.

Alison Moore, Ph.D. has served as our Chief Technical Officer since June 2018. Prior to joining us, she most recently served as Senior Vice President, Process Development at Amgen Inc. from January 2013 until June 2018. Dr. Moore has previously held senior roles at Amgen in Operations Technology from January 2013 until August 2014, Process and Product engineering from January 2011 until January 2013, and Corporate

Manufacturing from August 2008 until December 2010. Prior to these positions, she was Vice President, Site Operations at Amgen's Fremont, California, manufacturing facility, from March 2006 until August of 2008. Before joining Amgen, from 2005 to 2006, Dr. Moore was a Director in Chemistry, Manufacturing and Controls, and Regulatory Affairs at Genentech, Inc. Prior to Genentech, she was a Postdoctoral Research Fellow at the Medical University of Lübeck, Germany. Dr. Moore holds both a bachelor's degree in Pharmacology with Honors and a Ph.D. in Cell Biology from Manchester University, England.

Non-Employee Directors

Arie Belldegrun, M.D., FACS, is a co-founder of Allogene and has served as Executive Chairman of our board of directors since November 2017. From March 2014 until October 2017 Dr. Belldegrun served as the President and Chief Executive Officer of Kite and as a director from June 2009 until October 2017. Dr. Belldegrun currently serves as Chairman of Urogen Pharma, Ltd., a position he has held since December 2012, as Chairman and Partner of Two River Consulting, LLC, a position he has held since June 2009, and as Chairman of the Board of Directors of Kronos Bio, Inc., a position that he has held since June 2017. Dr. Belldegrun has also served as Senior Managing Director of Vida Ventures, LLC since November 2017. Dr. Belldegrun previously served as a director of Teva Pharmaceutical Industries Ltd. from March 2013 until January 2017, Chairman of Arno Therapeutics, Inc. from March 2008 until January 2017, a director of Capricor Therapeutics, Inc. from September 2009 until November 2013, and a director of SonaCare Medical, LLC from October 2009 until October 2014. In 1996, he founded Agensys, Inc., a biotechnology company, where he served as its founding Chairman from 1996 to 2001, and continued to serve on the board until 2007 when it was acquired by Astellas Pharma Inc. Dr. Belldegrun was also the Founding Vice-Chairman of the board of directors and Chairman of the scientific advisory board of Cougar Biotechnology, Inc., a biotechnology company, from 2003 to 2009, when it was acquired by Johnson & Johnson. He is certified by the American Board of Urology and is a Fellow of the American College of Surgeons and the American Association of Genitourinary Surgeons. Dr. Belldegrun is Professor of Urology, holds the Roy and Carol Doumani Chair in Urologic Oncology, and Director of the Institute of Urologic Oncology at the David Geffen School of Medicine at the University of California, Los Angeles, or UCLA. Prior to joining UCLA in October of 1988, he was a research fellow at NCI/NIH in surgical oncology and immunotherapy from July 1985 to August 1988 under Dr. Steven Rosenberg. Dr. Belldegrun received his M.D. from the Hebrew University Hadassah Medical School in Jerusalem before completing his post graduate studies in Immunology at the Weizmann Institute of Science and his residency in Urologic Surgery at Harvard Medical School. Our board of directors believes Dr. Belldegrun's expertise, experience, and track record in forming successful companies in immune oncology as well as his expertise as a urological oncologist provide him with the qualifications and skills to serve on our board of directors.

David Bonderman has served as a member of our board of directors since April 2018. He is a Founding Partner of TPG Capital, LP, a global alternative asset firm, established in 1992. Mr. Bonderman currently serves or has served during the past five years serves on the board of directors of the following public companies: RyanAir Holdings, plc, a major airlines company, of which he has been Chairman since August 1996; China International Capital Corporation Limited (since November 2010) and TPG Pace Holdings Corp. (since April 2017). Mr. Bonderman previously served on the board of directors of the following public companies: Kite (from February 2011 to October 2017); General Motors Company (from July 2009 to June 2014); JSC VTB Bank (from March 2011 to June 2014); CoStar Group, Inc., a commercial real estate information company (from May 1995 to June 2015); Pace Holdings Corp. (f/k/a Paceline Holdings Corp.) (from September 2015 to March 2017); Caesars Entertainment Corporation (from January 2008 to October 2017); Energy Future Holdings Corp. (from October 2007 to March 2018) and TPG Pace Energy Holdings Corp. (from April 2017 to July 2018). Prior to forming TPG in 1992, Mr. Bonderman was Chief Operating Officer of the Robert M. Bass Group, Inc. (RMBG), now doing business as Keystone Group, L.P., in Fort Worth, Texas. Prior to joining RMBG in 1983, Mr. Bonderman was a partner in the law firm of Arnold & Porter in Washington, D.C., where he specialized in corporate, securities, bankruptcy and antitrust litigation. From 1969 to 1970, Mr. Bonderman was a Fellow in Foreign and Comparative Law in conjunction with Harvard University, and from 1968 to 1969, he was Special Assistant to the U.S. Attorney General in the Civil Rights division. From 1967 to 1968, Mr. Bonderman was

Assistant Professor at Tulane University School of Law in New Orleans, Louisiana. Mr. Bonderman holds a bachelor's degree from the University of Washington and a J.D. from Harvard Law School. Mr. Bonderman graduated magna cum laude from Harvard Law School where he was a member of the Harvard Law Review and Sheldon Fellow. Our board of directors believes that Mr. Bonderman's expertise and experience as a director of other public companies and his educational background provide him with the qualifications and skills to serve on our board of directors.

John DeYoung has served as a member of our board of directors since April 2018. Mr. DeYoung is Vice President of Worldwide Business Development for Pfizer's Oncology Business Unit. He is a member of Pfizer's Oncology Leadership Team and its Worldwide Business Development Leadership Team. Mr. DeYoung joined Pfizer in 1991 and has held leadership positions in Finance, Marketing, Commercial Development and Business Development. Mr. DeYoung received his bachelor's degree in business from Michigan State University in 1985 and his MBA from the University of Chicago in 1990. Our board of directors believes Mr. DeYoung's expertise and experience in the life sciences and his financial background provide him with the qualifications and skills to serve on our board of directors.

Franz Humer, Ph.D. has served as a member of our board of directors since April 2018. Dr. Humer is Chairman of the board of directors of the International Centre for Missing and Exploited Children and Chairman of the Humer Foundation. Dr. Humer previously served as a member of the board of directors of Kite from September 2015 until October 2017. He has also served as an independent director of Citigroup Inc. since 2012, and Chugai Pharmaceuticals Ltd. (Japan) since 2002. Dr. Humer also serves as a director of Bial Pharmaceuticals (Portugal), WISeKey (Cyber Security Company, Switzerland) and as a member of the International Advisory Board of Allianz SE. He served as Chairman of Diageo plc from 2005 to 2017. In addition, Dr. Humer served as Head of Pharmaceuticals and then as Chief Operating Officer of F. Hoffmann-La Roche Ltd. from 1996 to 1998, prior to serving as Chief Executive Officer of Roche Group from 1998 to 2001 and later as chairman and Chief Executive Officer from 2001 to 2008. His tenure as Chairman of Roche Holding Ltd. extended from 2008 to 2014. Before joining Roche Group, he served on the board of Glaxo Holdings plc and was responsible for research, business development, manufacturing, commercial strategy, and all non-US operations for 13 years. In 1973, Dr. Humer joined Schering Plough Corporation where he held various General Management positions in Latin America and Europe. Dr. Humer attended the University of Innsbruck, where he obtained a Ph.D. in Law, and INSEAD in Fontainebleau, where he obtained an MBA. Our board of directors believes that Dr. Humer's expertise and experience in life sciences, his experience as a director of other companies and his educational background provide him with the qualifications and skills to serve on our board of directors.

Joshua Kazam has served as a member of our board of directors since November 2017. Mr. Kazam served as our President from November 2017 until June 2018. He was a founder of Kite and served as a member of Kite's board of directors from Kite's inception in June 2009 until October 2017. Mr. Kazam also served as Kite's President until September 2010. In June 2009, Mr. Kazam co-founded Two River Consulting, LLC, a life-science consulting and investment firm. Since October 2005, he has also served as an officer and director and is the co-owner of Riverbank Capital Securities, Inc., a FINRA member broker dealer. From 2002 to 2004, Mr. Kazam served as the Director of Investment Management for the Orion Biomedical Fund, a private equity fund focused on biotechnology investments. Mr. Kazam has served on the board of directors of Capricor Therapeutics, Inc., a publicly reporting biotechnology company, since May 2005, and Vision Path, Inc. (d/b/a Hubble Contacts) since May 2016, Kronos Bio, Inc. since June 2017 and Platinum Eagle Acquisition Corp., a blank check company formed for the purpose of effecting a business combination with one or more businesses, since January 2018. Mr. Kazam served on the board of directors of Velcera, Inc. from 2003 until it was acquired by Perrigo Company plc in 2013. He is also the co-founder and has served on the board of directors of Veterinary Prime, Inc. since its inception in February 2015 and has served as the President of Desert Flower Foundation since June 2016. Mr. Kazam received his bachelor's degree in Entrepreneurial Management from the Wharton School of the University of Pennsylvania and is a Member of the Wharton School's Undergraduate Executive Board. Our board of directors believes Mr. Kazam's expertise and experience in the life sciences and venture capital industries and his educational background provide him with the qualifications and skills to serve on our board of directors.

Todd Sisitsky has served as a member of our board of directors since April 2018. Mr. Sisitsky is Managing Partner of TPG Capital, where he co-leads the firm's investment activities in healthcare services and pharmaceutical/medical device sectors. He has played leadership roles in connection with TPG's investments in companies such as Aptalis Pharma, a GI-focused specialty pharmaceutical company, Biomet, a broad-based orthopedic product manufacturer, Exactech, an orthopedic implant manufacturer with a focus on extremities, hips and knees, Fenwal Transfusion Therapies, a blood product technologies business, IASIS Healthcare, a Tennessee-based acute care hospital company, Surgical Care Affiliates, an ambulatory surgery center business, HealthScope, a hospital and pathology company based in Australia, IMS Health, a leading global data services and consulting business to several segments of the healthcare industry, Immucor, a leading automated blood screening and testing business, and Par Pharmaceutical Companies, Inc. Mr. Sisitsky currently serves as director of Endo International plc, a position he has held since April 2016, and director of IQVIA Holdings, Inc., a position he has held since April 2018. Mr. Sisitsky previously served as a director of Par Pharmaceutical Companies, Inc. from September 2012 to September 2015, director of IMS Health Holdings, Inc. from February 2010 until October 2016 and Surgical Care Affiliates, Inc. from October 2013 until March 2017. Mr. Sisitsky also serves on the board of directors of the global not-for-profit organization, the Campaign for Tobacco Free Kids, as well as on the Dartmouth Medical School Board of Advisors, where he serves as chairman. Prior to joining TPG in 2003, Mr. Sisitsky worked at Forstmann Little & Company and Oak Hill Capital Partners. He received an MBA from the Stanford Graduate School of Business and earned his bachelor's degree from Dartmouth College. Our board of directors believes Mr. Sisitsky's expertise and experience in life science investing and the finance industry provide him with the qualifications and skills to serve on our board of directors.

Owen Witte, M.D., has served as a member of our board of directors since April 2018. Dr. Witte previously served as a member of the board of directors of Kite from March 2017 until October 2017. Dr. Witte joined the UCLA faculty in 1980, where he is presently a University Professor of microbiology, immunology and molecular genetics, the UCLA David Saxon Presidential Chair in Developmental Immunology and the director of the Eli and Edythe Broad Center of Regenerative Medicine and Stem Cell Research. Dr. Witte was appointed a University Professor by the University of California Board of Regents, an honor reserved for scholars of the highest international distinction. Dr. Witte is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, and the National Academy of Medicine. Dr. Witte currently serves on several editorial and advisory boards. He previously served on the board of directors for the American Association for Cancer Research. He was appointed by President Obama to the President's Cancer Panel. Dr. Witte holds a bachelor's degree from Cornell University and an M.D. from Stanford University. He completed postdoctoral research at the Massachusetts Institute of Technology. Our board of directors believes Dr. Witte's expertise and experience in cancer research, his experience in academia and his educational background provide him with the qualifications and skills to serve on our board of directors.

Robert Abraham, Ph.D. has served as a member of our board of directors since April 2018. Dr. Abraham is Senior Vice President and Group Head, Oncology R&D Group in Pfizer's Worldwide Research and Development organization. Prior to joining Pfizer in 2009, he served in Wyeth Research as Vice President of Oncology Research, one of the five therapeutic areas in Wyeth Discovery Research. Prior to joining Wyeth in 2005, he was a professor at the Sanford-Burnham Institute for Medical Research, or SBIMR in La Jolla, CA. He was the founding Director of the Signal Transduction Research Program and served as the Director of the SBIMR Cancer Research Center. Dr. Abraham retains an appointment as an Adjunct Professor at the SBIMR, together with an Adjunct Professor Appointment in Pharmacology at the University of California, San Diego. From 1998 to 2001, he was a Professor in the Department of Pharmacology and Cancer Biology at the Duke University Medical Center. He also served as Associate Director of Translational Research in the Duke Comprehensive Cancer Center. Before his arrival at Duke University, he was at the Mayo Clinic where he served as a Professor in both the Department of Immunology and Department of Pharmacology. From 1997 to 1998, he also served as Director of Basic Sciences in the Mayo Comprehensive Cancer Center. He received his B.S. in Biology from Bucknell University in 1974 and subsequently completed his Ph.D. studies in Pharmacology at the University of Pittsburgh. In 1981, he worked as a Postdoctoral Fellow in Pharmacology and Immunology at the

Mayo Clinic. Our board of directors believes Dr. Abraham's expertise and experience in the life sciences and his educational background provide him with the qualifications and skills to serve on our board of directors. Dr. Abraham has informed of us of his intention to resign from our board of directors contingent and effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part.

Scientific Advisory Board

We have established a scientific advisory board comprised of scientific leaders that regularly provides advice and input on matters related to our research and development programs. Our scientific advisory board consists of experts across a range of key disciplines relevant to our programs and science. We intend to continue to leverage the broad expertise of our advisors by seeking their counsel on important topics relating to our research and development programs. Some members of our scientific advisory board have entered into consulting agreements with us covering their respective confidentiality, non-disclosure and proprietary rights matters and own or have owned shares of our common stock or options to purchase shares of our common stock.

All of the scientific advisors are employed by or have consulting arrangements with other entities and devote only a small portion of their time to us. Our current advisors are:

Name	Titles
Ton Schumacher, Ph.D. (Chair)	Senior Member at the Netherlands Cancer Institute, Professor of Immunotechnology at Leiden University Medical Center, Postdoctoral Fellow at the Massachusetts Institute of Technology, Postdoctoral Researcher at the Whitehead Institute, founder of three biotechnology companies in the area of immuno-oncology
Donald B. Kohn, M.D.	Professor of Microbiology, Immunology and Molecular Genetics and Pediatrics, Director of the UCLA Human Gene and Stem Cell Therapy Program, member of the Broad Stem Cell Research Center and the Jonsson Comprehensive Cancer Center, pediatric intern and resident at the University of Wisconsin Hospitals, medical staff fellowship in the Metabolism Branch of the National Cancer Institute. Professor and Head of the Division of Research Immunology/Bone Marrow Transplantation at the Children's Hospital Los Angeles, USC Keck School of Medicine, President of the American Society of Gene and Cell Therapy and the Clinical Immunology Society
Crystal Mackall, M.D.	Endowed Professor of Pediatrics and Medicine at the Stanford University School of Medicine, Director of the Parker Institute for Cancer Immunotherapy at Stanford, Founding Director of the Stanford Center for Cancer Cell Therapy and Associate Director of the Stanford Cancer Institute, Head of the Immunology Section and Chief of the Pediatric Oncology Branch at the National Institute of Health's National Cancer Institute, co-leader of StandUp2Cancer, St. Baldrick's Foundation and NCI Pediatric Dream Team
Matthew Porteus, M.D., Ph.D.	Associate Professor of Pediatrics in the Department of Pediatrics, Divisions of Hematology/Oncology and Human Gene Therapy at Stanford University School of Medicine, intern and resident in pediatrics at Boston Children's Hospital, pediatric hematology/oncology fellow in the combined Boston Children's Hospital/Dana Farber Cancer Institute program, postdoctoral fellow at the Massachusetts Institute of Technology and Caltech, independent

Name	Titles
	faculty member at UT Southwestern in the Departments of Pediatrics and Biochemistry, Associate Professor at Stanford University
Owen Witte, M.D.	Investigator of the Howard Hughes Medical Institute, Professor of Microbiology, Immunology and Molecular Genetics and Medical Pharmacology at UCLA, where he holds the President's Chair in Developmental Immunology at UCLA's David Geffen School of Medicine, Founding Director of the Eli and Edythe Broad Center of Regenerative Medicine and Stem Cell Research at UCLA, member of the National Academy of Science and National Academy of Medicine, postdoctoral fellow at the Massachusetts Institute of Technology Center for Cancer Research, predoctoral fellow Stanford University

Board Composition

Our business and affairs are organized under the direction of our board of directors, which currently consists of nine members. The primary responsibilities of our board of directors are to provide oversight, strategic guidance, counseling and direction to our management. Our board of directors meets on a regular basis and on an ad hoc basis as required.

Our board of directors has determined that all of our directors other than Dr. Belldegrun, Mr. Kazam and Dr. Chang are independent directors, as defined by Rule 5605(a)(2) of the Nasdaq Listing Rules.

In accordance with the terms of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective immediately prior to and upon the completion of this offering, respectively, we will divide our board of directors into three classes, as follows:

- Class I, which will consist of , and , whose terms will expire at our annual meeting of stockholders to be held in 2019;
- Class II, which will consist of , and , whose terms will expire at our annual meeting of stockholders to be held in 2020; and
- Class III, which will consist of , and , whose terms will expire at our annual meeting of stockholders to be held in 2021.

At each annual meeting of stockholders to be held after the initial classification, the successors to directors whose terms then expire will serve until the third annual meeting following their election and until their successors are duly elected and qualified. The authorized size of our board of directors is currently nine members but will be reduced to members effective upon the effectiveness of the registration statement of which this prospectus forms a part. The authorized number of directors may be changed only by resolution of our board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed between the three classes so that, as nearly as possible, each class will consist of one-third of the directors. This classification of our board of directors may have the effect of delaying or preventing changes in our control or management. Our directors may be removed for cause by the affirmative vote of the holders of at least % of our voting stock.

Board Leadership Structure

Our board of directors is currently chaired by Dr. Belldegrun, who has authority, among other things, to call and preside over board of directors meetings, to set meeting agendas and to determine materials to be distributed to the board of directors. Accordingly, the Executive Chairman has substantial ability to shape the work of the board of directors. We believe that separation of the positions of Executive Chairman and Chief Executive

Officer reinforces the independence of the board of directors in its oversight of our business and affairs. In addition, we have a separate chair for each committee of our board of directors. The chair of each committee is expected to report annually to our board of directors on the activities of their committee in fulfilling their responsibilities as detailed in their respective charters or specify any shortcomings should that be the case.

Role of the Board in Risk Oversight

The audit committee of our board of directors is primarily responsible for overseeing our risk management processes on behalf of our board of directors. Going forward, we expect that the audit committee will receive reports from management periodically regarding our assessment of risks. In addition, the audit committee reports regularly to our board of directors, which also considers our risk profile. The audit committee and our board of directors focus on the most significant risks we face and our general risk management strategies. While our board of directors oversees our risk management, management is responsible for day-to-day risk management processes. Our board of directors expects management to consider risk and risk management in each business decision, to proactively develop and monitor risk management strategies and processes for day-to-day activities and to effectively implement risk management strategies adopted by the audit committee and our board of directors. We believe this division of responsibilities is the most effective approach for addressing the risks we face and that our board of directors' leadership structure, which also emphasizes the independence of our board of directors in its oversight of its business and affairs, supports this approach.

Board Committees

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee.

Audit Committee

Our audit committee consists of , and . Our board of directors has determined that each of the members of our audit committee satisfies the Nasdaq Stock Market and SEC independence requirements. serves as the chair of our audit committee. The functions of this committee include, among other things:

- evaluating the performance, independence and qualifications of our independent auditors and determining whether to retain our existing independent auditors or engage new independent auditors;
- reviewing and approving the engagement of our independent auditors to perform audit services and any permissible non-audit services;
- monitoring the rotation of partners of our independent auditors on our engagement team as required by law;
- prior to engagement of any independent auditor, and at least annually thereafter, reviewing relationships that may reasonably be thought to bear on their independence, and assessing and otherwise taking the appropriate action to oversee the independence of our independent auditor;
- reviewing our annual and quarterly financial statements and reports, including the disclosures contained under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations," and discussing the statements and reports with our independent auditors and management;
- reviewing, with our independent auditors and management, significant issues that arise regarding accounting principles and financial statement presentation and matters concerning the scope, adequacy and effectiveness of our financial controls;
- reviewing with management and our independent auditors any earnings announcements and other public announcements regarding material developments;

- establishing procedures for the receipt, retention and treatment of complaints received by us regarding financial controls, accounting or auditing matters and other matters;
- preparing the report that the SEC requires in our annual proxy statement;
- reviewing and providing oversight of any related-person transactions in accordance with our related person transaction policy and reviewing and monitoring compliance with legal and regulatory responsibilities, including our code of business conduct and ethics;
- reviewing our major financial risk exposures, including the guidelines and policies to govern the process by which risk assessment and risk management are implemented;
- reviewing on a periodic basis our investment policy; and
- reviewing and evaluating on an annual basis the performance of the audit committee and the audit committee charter.

Our board of directors has determined that qualifies as an audit committee financial expert within the meaning of SEC regulations and meets the financial sophistication requirements of the Nasdaq Listing Rules. In making this determination, our board has considered prior experience, business acumen and independence. Both our independent registered public accounting firm and management periodically meet privately with our audit committee.

We believe that the composition and functioning of our audit committee complies with all applicable requirements of the Sarbanes-Oxley Act, and all applicable SEC and Nasdaq rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Compensation Committee

Our compensation committee consists of , and . serves as the chair of our compensation committee. Our board of directors has determined that each of the members of our compensation committee is a non-employee director, as defined in Rule 16b-3 promulgated under the Exchange Act and satisfies the Nasdaq Stock Market independence requirements. The functions of this committee include, among other things:

- reviewing, modifying and approving (or if it deems appropriate, making recommendations to the full board of directors regarding) our overall compensation strategy and policies;
- reviewing and making recommendations to the full board of directors regarding the compensation and other terms of employment of our executive officers;
- reviewing and approving (or if it deems it appropriate, making recommendations to the full board of directors regarding) performance goals and objectives relevant to the compensation of our executive officers and assessing their performance against these goals and objectives;
- reviewing and approving (or if it deems it appropriate, making recommendations to the full board of directors regarding) the equity incentive plans, compensation plans and similar programs advisable for us, as well as modifying, amending or terminating existing plans and programs;
- evaluating risks associated with our compensation policies and practices and assessing whether risks arising from our compensation policies and practices for our employees are reasonably likely to have a material adverse effect on us;
- reviewing and making recommendations to the full board of directors regarding the type and amount of compensation to be paid or awarded to our non-employee board members;
- establishing policies with respect to votes by our stockholders to approve executive compensation as required by Section 14A of the Exchange Act and determining our recommendations regarding the frequency of advisory votes on executive compensation, to the extent required by law;

- reviewing and assessing the independence of compensation consultants, legal counsel and other advisors as required by Section 10C of the Exchange Act;
- administering our equity incentive plans;
- establishing policies with respect to equity compensation arrangements;
- reviewing the competitiveness of our executive compensation programs and evaluating the effectiveness of our compensation policy and strategy in achieving expected benefits to us;
- reviewing and making recommendations to the full board of directors regarding the terms of any employment agreements, severance arrangements, change in control protections and any other compensatory arrangements for our executive officers;
- reviewing with management and approving our disclosures under the caption "Compensation Discussion and Analysis" in our periodic reports or proxy statements to be filed with the SEC, to the extent such caption is included in any such report or proxy statement;
- preparing the report that the SEC requires in our annual proxy statement; and
- reviewing and assessing on an annual basis the performance of the compensation committee and the compensation committee charter.

We believe that the composition and functioning of our compensation committee complies with all applicable requirements of the Sarbanes-Oxley Act, and all applicable SEC and Nasdaq rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee consists of , and . Our board of directors has determined that each of the members of this committee satisfies the Nasdaq Stock Market independence requirements. serves as the chair of our nominating and corporate governance committee. The functions of this committee include, among other things:

- identifying, reviewing and evaluating candidates to serve on our board of directors consistent with criteria approved by our board of directors;
- determining the minimum qualifications for service on our board of directors;
- evaluating director performance on the board and applicable committees of the board and determining whether continued service on our board is appropriate;
- evaluating, nominating and recommending individuals for membership on our board of directors;
- evaluating nominations by stockholders of candidates for election to our board of directors;
- considering and assessing the independence of members of our board of directors;
- developing a set of corporate governance policies and principles, including a code of business conduct and ethics, periodically reviewing and assessing these policies and principles and their application and recommending to our board of directors any changes to such policies and principles;
- considering questions of possible conflicts of interest of directors as such questions arise; and
- reviewing and assessing on an annual basis the performance of the nominating and corporate governance committee and the nominating and corporate governance committee charter.

We believe that the composition and functioning of our nominating and corporate governance committee complies with all applicable requirements of the Sarbanes-Oxley Act, and all applicable SEC and Nasdaq rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Compensation Committee Interlocks and Insider Participation

None of our current or former executive officers serve as a member of the compensation committee. None of our officers serve, or have served during the last completed fiscal year, on the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving as a member of our board of directors or our compensation committee. For a description of transactions between us and members of our compensation committee and affiliates of such members, please see "Certain Relationships and Related Party Transactions."

Code of Business Conduct and Ethics

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or person performing similar functions. Following this offering, a current copy of the code will be available on the Corporate Governance section of our website, www.allogene.com.

Limitation of Liability and Indemnification

Our amended and restated certificate of incorporation, which will become effective immediately prior to the completion of this offering, limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law allows a corporation to eliminate the personal liability of directors of a corporation to the corporation and its stockholders for monetary damages for breach of their fiduciary duties as directors, except for liability for any:

- breach of his or her duty of loyalty to the corporation or its stockholders;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- transaction from which the director derived an improper personal benefit.

Our amended and restated certificate of incorporation, which will become effective immediately prior to the completion of this offering, does not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, will remain available under Delaware law. These limitations also do not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Our amended and restated bylaws, which will become effective upon the completion of this offering, provide that we will indemnify our directors and executive officers and may indemnify other officers, employees and other agents, to the fullest extent permitted by law. Our amended and restated bylaws, which will become effective upon the completion of this offering, also provide that we are obligated to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding and also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in connection with their services to us, regardless of whether our amended and restated bylaws permit such indemnification. We have obtained a policy of directors' and officers' liability insurance.

We have entered, and intend to continue to enter, into separate indemnification agreements with our directors and executive officers, in addition to the indemnification provided for in our amended and restated bylaws. These agreements, among other things, will require us to indemnify our directors and executive officers for certain expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of their services as one of our directors or executive officers or any other company or enterprise to which the person provides services at our request. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

We believe that these provisions in our amended and restated certificate of incorporation and amended and restated bylaws and these indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

Except as otherwise disclosed under the heading "Legal Proceedings" in the "Business" section of this prospectus, at present, there is no pending litigation or proceeding involving any of our directors or executive officers as to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

EXECUTIVE AND DIRECTOR COMPENSATION

Our only named executive officer for the year ended December 31, 2017 was Joshua Kazam, our former President. During the period from November 30, 2017 (inception) through December 31, 2017, we did not have any other executive officers.

Summary Compensation Table

Name and principal position	Year	Salary ($)	Bonus ($)	Option awards ($)	All other compensation ($)	Total ($)
Joshua Kazam[1]	2017	—	—	—	—	—
Former President						

(1) Mr. Kazam resigned as our President on June 25, 2018.

Annual Base Salary

Our named executive officer for 2017, Joshua Kazam, did not receive a salary for 2017 .

The base salary of our executive officers is generally determined and approved by our board of directors in connection with the executive officer's commencement of employment.

Bonus Compensation

From time to time our board of directors or compensation committee may approve bonuses for our executive officers based on individual performance, company performance or as otherwise determined to be appropriate. In 2017, our sole named executive officer was not entitled to any target or minimum bonus and no specific performance goals or bonus program were established.

Equity-Based Incentive Awards

Our equity-based incentive awards are designed to align our interests and those of our stockholders with those of our employees and consultants, including our executive officers. The board of directors or an authorized committee thereof is responsible for approving equity grants. As of the date of this prospectus, stock option awards were the only form of equity awards we have granted to any of our executive officers.

We have historically used stock options as an incentive for long-term compensation to our executive officers because the stock options allow our executive officers to profit from this form of equity compensation only if our stock price increases relative to the stock option's exercise price, which exercise price is set at the fair market value of our common stock on the date of grant. We may grant equity awards at such times as our board of directors determines appropriate. Our executives generally are awarded an initial grant in the form of a stock option in connection with their commencement of employment with us. Additional grants may occur periodically in order to specifically incentivize executives with respect to achieving certain corporate goals or to reward executives for exceptional performance.

Prior to this offering, we have granted all stock options pursuant to our Prior Plan. Following this offering, we will grant equity incentive awards under the terms of the 2018 Plan. The terms of our equity plans are described below under "— Equity Benefit Plans."

All options are granted with an exercise price per share that is no less than the fair market value of our common stock on the date of grant of such award. Our stock option awards generally vest over a four-year period and may be subject to acceleration of vesting and exercisability under certain termination and change in control events.

Agreements with Named Executive Officer and Principal Officers

Before his resignation as our President, we did not enter into an employment agreement with our named executive officer. However, we have entered into employment agreements with our current Principal Executive Officer and our current Principal Financial and Accounting Officer. Each of these current officers' employment began after December 31, 2017 and their employment agreements are described below.

David Chang, M.D., Ph.D. We entered into a letter agreement with Dr. Chang, our President and Chief Executive Officer, in June 2018 that governs the current terms of his employment with us. Pursuant to the agreement, Dr. Chang is entitled to an annual base salary of $525,000, is eligible to receive an annual target performance bonus of up to 45% of his base salary, as determined by our board of directors, and was granted initial new hire options to purchase 372,500 shares of common stock. Additionally, we entered into a vesting restriction agreement with Dr. Chang in April 2018, pursuant to which the 489,170 shares of common stock beneficially owned by Dr. Chang and issued in December 2017 became subject to vesting over a 52-month period commencing in December 2017. Subject to Dr. Chang's continuous service through each vesting date.

Eric Schmidt, Ph.D. We entered into a letter agreement with Dr. Schmidt, our Chief Financial Officer, in June 2018 that governs the current terms of his employment with us. Pursuant to the agreement, Dr. Schmidt is entitled to an annual base salary of $375,000, is eligible to receive an annual target performance bonus of up to 35% of his base salary, as determined by our board of directors, and was granted initial new hire options to purchase 279,000 shares of common stock.

Each of the options granted to Drs. Chang and Schmidt are subject to a four-year vesting schedule, with 25% vesting one year after the vesting commencement date and the balance vesting monthly over the remaining 36 months, subject to each individual's continued service through each vesting date.

Each of these current officers' employment is at will and may be terminated by us at any time. Any potential payments and benefits due upon a qualifying termination of employment or a change in control are further described below under "— Potential Payments and Benefits upon Termination or Change in Control."

Potential Payments and Benefits upon Termination or Change in Control

Regardless of the manner in which an executive officer's service terminates, each executive officer is entitled to receive amounts earned during his or her term of service, including unpaid salary and unused vacation, as applicable. In addition, our Board has approved a Change in Control Plan described below.

Change in Control and Severance Benefit Plan

Our current executive officers are entitled to certain severance and change of control payments and benefits pursuant to our change in control and severance benefit plan (Change in Control Plan). The Change in Control Plan provides for a combination of a lump-sum cash severance payment, continued health benefits and accelerated vesting of outstanding equity awards in the event of an involuntary termination without "cause" or a resignation with "good reason," or an involuntary termination. In the event that the involuntary termination occurs within the period commencing three months before and ending 12 months after a change in control, then the participants in the Change in Control Plan are entitled to enhanced severance benefits, as well as accelerated vesting of their outstanding equity compensation awards.

Under the Change in Control Plan, the term "cause" generally means (i) the employee's commission of any crime involving fraud, dishonesty or moral turpitude; (ii) the employee's attempted commission of or participation in a fraud or act of dishonesty against us that results in (or might have reasonably resulted in) material harm to our business; (iii) the employee's intentional, material violation of any contract or agreement between us and the employee or any statutory duty that the employee owes to us; or (iv) the employee's conduct

that constitutes gross insubordination, incompetence or habitual neglect of duties and that results in (or might have reasonably resulted in) material harm to our business. The term "change in control" generally means (1) the acquisition by any person or company of more than 50% of the combined voting power of our then outstanding stock, (2) a merger, consolidation or similar transaction in which our stockholders immediately before the transaction do not own, directly or indirectly, more than 50% of the combined voting power of the surviving entity (or the parent of the surviving entity) in substantially the same proportions as their ownership immediately prior to such transaction, (3) a sale, lease, exclusive license or other disposition of all or substantially all of our assets other than to an entity more than 50% of the combined voting power of which is owned by our stockholders in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to such transaction, or (4) a complete dissolution or liquidation of the company.

The term "good reason" generally means (i) a material reduction of such employee's annual base salary, which is a reduction of at least 10% of such employee's base salary (unless pursuant to a salary reduction program applicable generally to the Company's similarly situated employees); (ii) a material reduction in such employee's authority, duties or responsibilities; (iii) a relocation of such employee's principal place of employment with the Company (or successor to the Company, if applicable) to a place that increases such employee's one-way commute by more than 50 miles as compared to such employee's then-current principal place of employment immediately prior to such relocation (excluding regular travel in the ordinary course of business).

Perquisites, Health, Welfare and Retirement Benefits

Our executive officers, during their employment with us, are eligible to participate in our employee benefit plans, including our medical, dental, group term life, disability and accidental death and dismemberment insurance plans, in each case on the same basis as all of our other employees. In addition, we provide a 401(k) plan to our employees, including our executive officers, as discussed in the section below entitled "— 401(k) Plan."

We generally do not provide perquisites or personal benefits to our executive officers, except in limited circumstances. We do, however, pay the premiums for medical, dental, group term life, disability and accidental death and dismemberment insurance for all of our employees. Our board of directors may elect to adopt qualified or nonqualified benefit plans in the future if it determines that doing so is in our best interests.

401(k) Plan

We maintain a defined contribution employee retirement plan, or 401(k) plan, for our employees. Our executive officers are eligible to participate in the 401(k) plan on the same basis as our other employees. The 401(k) plan is intended to qualify as a tax-qualified plan under Section 401(a) of the Code. The 401(k) plan provides that each participant may contribute up to the lesser of 100% of his or her compensation or the statutory limit, which is $18,000 and $18,500 for calendar years 2017 and 2018, respectively. Participants that are 50 years or older can also make "catch-up" contributions, which in calendar years 2017 and 2018 may be up to an additional $6,000 above the statutory limit. We currently make matching contributions into the 401(k) plan on behalf of participants. Participant contributions are held and invested, pursuant to the participant's instructions, by the plan's trustee.

Nonqualified Deferred Compensation

We do not maintain nonqualified defined contribution plans or other nonqualified deferred compensation plans. Our board of directors may elect to provide our officers and other employees with nonqualified defined contribution or other nonqualified deferred compensation benefits in the future if it determines that doing so is in our best interests.

Equity Benefit Plans

Amended and Restated 2018 Equity Incentive Plan

Our board of directors adopted our 2018 Plan in 2018 and our stockholders approved our 2018 Plan in 2018. Our 2018 Plan is a successor to and continuation of our Prior Plan. No stock awards may be granted under the 2018 Plan until the date of the underwriting agreement related to this offering. Once the 2018 Plan is effective, no further grants will be made under the Prior Plan.

Stock Awards. Our 2018 Plan provides for the grant of incentive stock options (ISOs) within the meaning of Section 422 of the Code, to employees, including employees of any parent or subsidiary, and for the grant of nonstatutory stock options (NSOs) stock appreciation rights, restricted stock awards, restricted stock unit awards, performance stock awards, performance cash awards and other forms of stock awards to employees, directors and consultants, including employees and consultants of our affiliates.

Authorized Shares. Initially, the maximum number of shares of our common stock that may be issued under our 2018 Plan after it becomes effective will be shares, which is the sum of (1) new shares, plus (2) the number of shares (not to exceed shares) (i) that remain available for the issuance of awards under our Prior Plan at the time our 2018 Plan becomes effective, and (ii) any shares subject to outstanding stock options or other stock awards that were granted under our Prior Plan that terminate or expire prior to exercise or settlement; are forfeited because of the failure to vest; or are reacquired or withheld (or not issued) to satisfy a tax withholding obligation or the purchase or exercise price. In addition, the number of shares of our common stock reserved for issuance under our 2018 Plan will automatically increase on January 1 of each calendar year, starting on January 1, 2019 (assuming the 2018 Plan becomes effective in 2018) through January 1, 2028, in an amount equal to % of the total number of shares of our capital stock outstanding on the last day of the calendar month before the date of each automatic increase, or a lesser number of shares determined by our board of directors. The maximum number of shares of our common stock that may be issued on the exercise of ISOs under our 2018 Plan is .

Shares subject to stock awards granted under our 2018 Plan that expire or terminate without being exercised in full or that are paid out in cash rather than in shares do not reduce the number of shares available for issuance under our 2018 Plan. If any shares of common stock issued pursuant to a stock award are forfeited back to or repurchased or reacquired by us for any reason, the shares that are forfeited or repurchased or reacquired will revert to and again become available for issuance under the 2018 Plan. Any shares reacquired in satisfaction of tax withholding obligations or as consideration for the exercise or purchase price of a stock award will again become available for issuance under the 2018 Plan.

Plan Administration. Our board of directors, or a duly authorized committee of our board of directors, will administer our 2018 Plan and is referred to as the "plan administrator" herein. Our board of directors may also delegate to one or more of our officers the authority to (1) designate employees (other than officers) to receive specified stock awards and (2) determine the number of shares subject to such stock awards. Under our 2018 Plan, our board of directors has the authority to determine award recipients, grant dates, the numbers and types of stock awards to be granted, the applicable fair market value, and the provisions of each stock award, including the period of exercisability and the vesting schedule applicable to a stock award.

Under the 2018 Plan, the board of directors also generally has the authority to effect, with the consent of any adversely affected participant, (A) the reduction of the exercise, purchase, or strike price of any outstanding award; (B) the cancellation of any outstanding award and the grant in substitution therefore of other awards, cash, or other consideration; or (C) any other action that is treated as a repricing under generally accepted accounting principles.

Stock Options. ISOs and NSOs are granted under stock option agreements adopted by the plan administrator. The plan administrator determines the exercise price for stock options, within the terms and

conditions of the 2018 Plan, provided that the exercise price of a stock option generally cannot be less than 100% of the fair market value of our common stock on the date of grant. Options granted under the 2018 Plan vest at the rate specified in the stock option agreement as determined by the plan administrator.

The plan administrator determines the term of stock options granted under the 2018 Plan, up to a maximum of 10 years. Unless the terms of an optionholder's stock option agreement provide otherwise, if an optionholder's service relationship with us or any of our affiliates ceases for any reason other than disability, death, or cause, the optionholder may generally exercise any vested options for a period of three months following the cessation of service. This period may be extended in the event that exercise of the option is prohibited by applicable securities laws or our insider trading policy. If an optionholder's service relationship with us or any of our affiliates ceases due to death, or an optionholder dies within a certain period following cessation of service, the optionholder or a beneficiary may generally exercise any vested options for a period of 18 months following the date of death. If an optionholder's service relationship with us or any of our affiliates ceases due to disability, the optionholder may generally exercise any vested options for a period of 12 months following the cessation of service. In the event of a termination for cause, options generally terminate upon the termination date. In no event may an option be exercised beyond the expiration of its term.

Acceptable consideration for the purchase of common stock issued upon the exercise of a stock option will be determined by the plan administrator and may include (1) cash, check, bank draft or money order, (2) a broker- assisted cashless exercise, (3) the tender of shares of our common stock previously owned by the optionholder, (4) a net exercise of the option if it is an NSO, or (5) other legal consideration approved by the plan administrator.

Unless the plan administrator provides otherwise, options generally are not transferable except by will or the laws of descent and distribution. Subject to approval of the plan administrator or a duly authorized officer in each case, (i) an option may be transferred pursuant to a domestic relations order, official marital settlement agreement, or other divorce or separation instrument and (ii) an optionholder may designate a beneficiary who may exercise the option following the optionholder's death.

Tax Limitations on ISOs. The aggregate fair market value, determined at the time of grant, of our common stock with respect to ISOs that are exercisable for the first time by an award holder during any calendar year under all of our stock plans may not exceed $100,000. Options or portions thereof that exceed such limit will generally be treated as NSOs. No ISO may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our affiliates unless (1) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant, and (2) the term of the ISO does not exceed five years from the date of grant.

Restricted Stock Unit Awards. Restricted stock unit awards are granted under restricted stock unit award agreements adopted by the plan administrator. Restricted stock unit awards may be granted in consideration for any form of legal consideration that may be acceptable to our board of directors and permissible under applicable law. A restricted stock unit award may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the plan administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit award. Except as otherwise provided in the applicable award agreement, restricted stock unit awards that have not vested will be forfeited once the participant's continuous service ends for any reason.

Restricted Stock Awards. Restricted stock awards are granted under restricted stock award agreements adopted by the plan administrator. A restricted stock award may be awarded in consideration for cash, check, bank draft or money order, past or future services to us, or any other form of legal consideration that may be acceptable to our board of directors and permissible under applicable law. The plan administrator determines the terms and conditions of restricted stock awards, including vesting and forfeiture terms. If a participant's service relationship with us ends for any reason, we may receive any or all of the shares of common stock held by the

participant that have not vested as of the date the participant terminates service with us through a forfeiture condition or a repurchase right.

Stock Appreciation Rights. Stock appreciation rights are granted under stock appreciation right agreements adopted by the plan administrator. The plan administrator determines the purchase price or strike price for a stock appreciation right, which generally cannot be less than 100% of the fair market value of our common stock on the date of grant. A stock appreciation right granted under the 2018 Plan vests at the rate specified in the stock appreciation right agreement as determined by the plan administrator.

The plan administrator determines the term of stock appreciation rights granted under the 2018 Plan, up to a maximum of 10 years. If a participant's service relationship with us or any of our affiliates ceases for any reason other than cause, disability, or death, the participant may generally exercise any vested stock appreciation right for a period of three months following the cessation of service. This period may be further extended in the event that exercise of the stock appreciation right following such a termination of service is prohibited by applicable securities laws or our insider trading policy. If a participant's service relationship with us, or any of our affiliates, ceases due to disability or death, or a participant dies within a certain period following cessation of service, the participant or a beneficiary may generally exercise any vested stock appreciation right for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, stock appreciation rights generally terminate immediately upon the occurrence of the event giving rise to the termination of the individual for cause. In no event may a stock appreciation right be exercised beyond the expiration of its term.

Performance Awards. The 2018 Plan permits the grant of performance-based stock and cash awards. Our compensation committee may structure awards so that the stock or cash will be issued or paid only following the achievement of certain pre-established performance goals during a designated performance period.

The performance goals that may be selected include one or more of the following: (i) sales; (ii) revenues; (iii) assets; (iv) expenses; (v) market penetration or expansion; (vi) earnings from operations; (vii) earnings before or after deduction for all or any portion of interest, taxes, depreciation, amortization, incentives, service fees or extraordinary or special items, whether or not on a continuing operations or an aggregate or per share basis; (viii) net income or net income per common share (basic or diluted); (ix) return on equity, investment, capital or assets; (x) one or more operating ratios; (xi) borrowing levels, leverage ratios or credit rating; (xii) market share; (xiii) capital expenditures; (xiv) cash flow, free cash flow, cash flow return on investment, or net cash provided by operations; (xv) stock price, dividends or total stockholder return; (xvi) development of new technologies or products; (xvii) sales of particular products or services; (xviii) economic value created or added; (xix) operating margin or profit margin; (xx) customer acquisition or retention; (xxi) raising or refinancing of capital; (xxii) successful hiring of key individuals; (xxiii) resolution of significant litigation; (xxiv) acquisitions and divestitures (in whole or in part); (xxv) joint ventures and strategic alliances; (xxvi) spin-offs, split-ups and the like; (xxvii) reorganizations; (xxviii) recapitalizations, restructurings, financings (issuance of debt or equity) or refinancings; (xxix) or strategic business criteria, consisting of one or more objectives based on the following goals: achievement of timely development, design management or enrollment, meeting specified market penetration or value added, payor acceptance, patient adherence, peer reviewed publications, issuance of new patents, establishment of or securing of licenses to intellectual property, product development or introduction (including, without limitation, any clinical trial accomplishments, regulatory or other filings, approvals or milestones, discovery of novel products, maintenance of multiple products in pipeline, product launch or other product development milestones), geographic business expansion, cost targets, cost reductions or savings, customer satisfaction, operating efficiency, acquisition or retention, employee satisfaction, information technology, corporate development (including, without limitation, licenses, innovation, research or establishment of third-party collaborations), manufacturing or process development, legal compliance or risk reduction, patent application or issuance goals, or goals relating to acquisitions, divestitures or other business combinations (in whole or in part), joint ventures or strategic alliances; and (xxx) other measures of performance selected by the board of directors.

The performance goals may be based on company-wide performance or performance of one or more business units, divisions, affiliates, or business segments, and may be either absolute or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Our board of directors is authorized at any time in its sole discretion, to adjust or modify the calculation of a performance goal for such performance period in order to prevent the dilution or enlargement of the rights of participants, (a) in the event of, or in anticipation of, any unusual or extraordinary corporate item, transaction, event or development; (b) in recognition of, or in anticipation of, any other unusual or nonrecurring events affecting us, or our financial statements in response to, or in anticipation of, changes in applicable laws, regulations, accounting principles, or business conditions; or (c) in view of the board of director's assessment of our business strategy, performance of comparable organizations, economic and business conditions, and any other circumstances deemed relevant. Specifically, the board of directors is authorized to make adjustment in the method of calculating attainment of performance goals and objectives for a performance period as follows: (i) to exclude the dilutive effects of acquisitions or joint ventures; (ii) to assume that any business divested by us achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; and (iii) to exclude the effect of any change in the outstanding shares of our common stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends. In addition, the board of directors is authorized to make adjustment in the method of calculating attainment of performance goals and objectives for a performance period as follows: (i) to exclude restructuring and/or other nonrecurring charges; (ii) to exclude exchange rate effects, as applicable, for non-U.S. dollar denominated net sales and operating earnings; to exclude the effects of changes to generally accepted accounting standards required by the Financial Accounting Standards Board; (iv) to exclude the effects of any items that are "unusual" in nature or occur "infrequently" as determined under generally accepted accounting principles; (v) to exclude the effects to any statutory adjustments to corporate tax rates; and (vi) to make other appropriate adjustments selected by the board of directors.

Other Stock Awards. The plan administrator may grant other awards based in whole or in part by reference to our common stock. The plan administrator will set the number of shares under the stock award and all other terms and conditions of such awards.

Changes to Capital Structure. In the event there is a specified type of change in our capital structure, such as a stock split, reverse stock split, or recapitalization, appropriate adjustments will be made to (1) the class and maximum number of shares reserved for issuance under the 2018 Plan, (2) the class and maximum number of shares by which the share reserve may increase automatically each year, (3) the class and maximum number of shares that may be issued on the exercise of ISOs and (4) the class and number of shares and exercise price, strike price, or purchase price, if applicable, of all outstanding stock awards.

Corporate Transactions. Our 2018 Plan provides that in the event of certain specified significant corporate transactions (or a change in control, as defined below), unless otherwise provided in an award agreement or other written agreement between us and the award holder, the plan administrator may take one or more of the following actions with respect to such stock awards:

- arrange for the assumption, continuation, or substitution of a stock award by a successor corporation;
- arrange for the assignment of any reacquisition or repurchase rights held by us to a successor corporation;
- accelerate the vesting, in whole or in part, of the stock award and provide for its termination if not exercised (if applicable) at or before the effective time of the transaction;
- arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by us;
- cancel or arrange for the cancellation of the stock award, to the extent not vested or not exercised before the effective time of the transaction, in exchange for a cash payment, if any; or

- make a payment equal to the excess, if any, of (A) the value of the property the participant would have received on exercise of the award immediately before the effective time of the transaction, over (B) any exercise price payable by the participant in connection with the exercise.

The plan administrator is not obligated to treat all stock awards or portions of stock awards in the same manner and is not obligated to take the same actions with respect to all participants.

Under the 2018 Plan, a corporate transaction is generally the consummation of: (1) a sale of all or substantially all of our assets, (2) the sale or disposition of more than 50% of our outstanding securities, (3) a merger or consolidation where we do not survive the transaction, or (4) a merger or consolidation where we do survive the transaction but the shares of our common stock outstanding immediately before such transaction are converted or exchanged into other property by virtue of the transaction.

Change in Control. In the event of a change in control, the plan administrator may take any of the above-mentioned actions. Awards granted under the 2018 Plan may be subject to additional acceleration of vesting and exercisability upon or after a change in control as may be provided in the applicable stock award agreement or in any other written agreement between us or any affiliate and the participant, but in the absence of such provision, no such acceleration will automatically occur. Under the 2018 Plan, a change in control is generally (1) the acquisition by any person or company of more than 50% of the combined voting power of our then outstanding stock, (2) a merger, consolidation or similar transaction in which our stockholders immediately before the transaction do not own, directly or indirectly, more than 50% of the combined voting power of the surviving entity (or the parent of the surviving entity) in substantially the same proportions as their ownership immediately prior to such transaction, (3) a sale, lease, exclusive license or other disposition of all or substantially all of our assets other than to an entity more than 50% of the combined voting power of which is owned by our stockholders in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to such transaction, (4) a complete dissolution or liquidation of the company or (5) when a majority of our board of directors becomes comprised of individuals who were not serving on our board of directors on the date of the underwriting agreement related to this offering, or the incumbent board, or whose nomination, appointment, or election was not approved by a majority of the incumbent board still in office.

Plan Amendment or Termination. Our board of directors has the authority to amend, suspend, or terminate our 2018 Plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. Certain material amendments also require the approval of our stockholders. No ISOs may be granted after the tenth anniversary of the date our board of directors adopts our 2018 Plan. No stock awards may be granted under our 2018 Plan while it is suspended or after it is terminated.

Prior Amended and Restated 2018 Equity Incentive Plan

Our board of directors adopted our prior Amended and Restated 2018 Equity Incentive Plan, or the Prior Plan, in June 2018 and our stockholders approved the Prior Plan in July 2018. All references in this prospectus to the Prior Plan shall be deemed to refer to our Amended and Restated 2018 Equity Incentive Plan, as amended, unless the context otherwise requires. As of , 2018, there were shares remaining available for the future grant of stock awards under our Prior Plan. As of , 2018, there were outstanding stock options covering a total of shares of our common stock that were granted under our Prior Plan.

Stock Awards. Our Prior Plan provides for the grant of ISOs within the meaning of Section 422 of the Code to employees, including employees of any parent or subsidiary, and for the grant of NSOs, stock appreciation rights, restricted stock awards, restricted stock unit awards and other stock awards to employees, directors and consultants, including employees and consultants of our affiliates. We have granted stock options under the Prior Plan.

Authorized Shares. Subject to certain capitalization adjustments, the aggregate number of shares of common stock that may be issued pursuant to stock awards under the Prior Plan will not exceed 2,325,553 shares. The

maximum number of shares of our common stock that may be issued pursuant to the exercise of ISOs under our Prior Plan is 6,976,659 shares.

Shares subject to stock awards granted under our Prior Plan that expire or terminate without being exercised in full or that are settled in cash rather than in shares do not reduce the number of shares available for issuance under our Prior Plan. Additionally, if any shares issued pursuant to a stock award are forfeited back to or repurchased because of the failure to meet a contingency or condition required to vest, then the shares that are forfeited or repurchased will revert to and again become available for issuance under the Prior Plan. This includes shares used to pay the exercise price of a stock award or to satisfy the tax withholding obligations related to a stock award.

Plan Administration. Our board of directors, or a duly authorized committee of our board of directors, will administer our Prior Plan and is referred to as the "plan administrator" herein. The plan administrator may also delegate to one or more of our officers the authority to (1) designate employees (other than officers) to receive specified stock awards and (2) determine the number of shares subject to such stock awards. Under our Prior Plan, the plan administrator has the authority to determine award recipients, dates of grant, the numbers and types of stock awards to be granted, the applicable fair market value and the provisions of each stock award, including the period of their exercisability and the vesting schedule applicable to a stock award.

Under the Prior Plan, the plan administrator also generally has the authority to effect, with the consent of any adversely affected participant, (A) the reduction of the exercise, purchase, or strike price of any outstanding award or (B) any other action that is treated as a repricing under generally accepted accounting principles.

Stock Options. ISOs and NSOs are granted under stock option agreements adopted by the plan administrator. The plan administrator determines the exercise price for stock options, within the terms and conditions of the Prior Plan, provided that the exercise price of a stock option generally cannot be less than 100% of the fair market value of our common stock on the date of grant. Options granted under the Prior Plan vest at the rate specified in the stock option agreement as determined by the plan administrator.

The plan administrator determines the term of stock options granted under the Prior Plan, up to a maximum of 10 years. If an optionholder's service relationship with us or any of our affiliates ceases for any reason other than disability, death or cause, the optionholder may generally exercise any vested options for a period of three months following the cessation of service. This period may be extended in the event that exercise of the option is prohibited by applicable securities laws or our insider trading policy. If an optionholder's service relationship with us or any of our affiliates ceases due to death, or an optionholder dies within a certain period following cessation of service, the optionholder or a beneficiary may generally exercise any vested options for a period of 18 months following the date of death. If an optionholder's service relationship with us or any of our affiliates ceases due to disability, the optionholder may generally exercise any vested options for a period of 12 months following the cessation of service.

In the event of a termination for cause, options generally terminate upon the termination date. In no event may an option be exercised beyond the expiration of its term.

Acceptable consideration for the purchase of common stock issued upon the exercise of a stock option will be determined by the plan administrator and may include (1) cash, check, bank draft or money order, (2) a broker-assisted cashless exercise, (3) the tender of shares of our common stock previously owned by the optionholder, (4) a net exercise of the option if it is an NSO, (5) a deferred payment arrangement or (6) other legal consideration approved by the plan administrator.

Unless the plan administrator provides otherwise, options generally are not transferable except by will or the laws of descent and distribution.

Tax Limitations on ISOs. The aggregate fair market value, determined at the time of grant, of our common stock with respect to ISOs that are exercisable for the first time by an optionholder during any calendar year under all of our stock plans may not exceed $100,000. Options or portions thereof that exceed such limit will generally be treated as NSOs. No ISO may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our affiliates unless (1) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant and (2) the term of the ISO does not exceed five years from the date of grant.

Restricted Stock Unit Awards. Restricted stock unit awards are granted under restricted stock unit award agreements adopted by the plan administrator. Restricted stock unit awards may be granted in consideration for any form of legal consideration that may be acceptable to our board of directors and permissible under applicable law. A restricted stock unit awards may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the plan administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit award. Except as otherwise provided in the applicable award agreement, restricted stock unit awards that have not vested will be forfeited once the participant's continuous service ends for any reason.

Restricted Stock Awards. Restricted stock awards are granted under restricted stock award agreements adopted by the plan administrator. A restricted stock award may be awarded in consideration for cash, check, bank draft or money order, past or future services to us, or any other form of legal consideration that may be acceptable to our board of directors and permissible under applicable law. The plan administrator determines the terms and conditions of restricted stock awards, including vesting and forfeiture terms. If a participant's service relationship with us ends for any reason, we may receive any or all of the shares of common stock held by the participant that have not vested as of the date the participant terminates service with us through a forfeiture condition or a repurchase right.

Changes to Capital Structure. In the event there is a specified type of change in our capital structure, such as a stock split, reverse stock split, or recapitalization, appropriate adjustments will be made to (1) the class and maximum number of shares reserved for issuance under the Prior Plan, (2) the class and maximum number of shares that may be issued on the exercise of ISOs and (3) the class and number of shares and exercise price, strike price, or purchase price, if applicable, of all outstanding stock awards.

Corporate Transactions. Our Prior Plan provides that in the event of certain specified significant corporate transactions, unless otherwise provided in an award agreement or other written agreement between us and the award holder, the plan administrator may take one or more of the following actions with respect to such stock awards:

- arrange for the assumption, continuation, or substitution of a stock award by a surviving or acquiring corporation;
- arrange for the assignment of any reacquisition or repurchase rights held by us to the surviving or acquiring corporation;
- accelerate the vesting, in whole or in part, of the stock award and provide for its termination if not exercised (if applicable) at or before the effective time of the transaction;
- arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by us;
- cancel or arrange for the cancellation of the stock award, to the extent not vested before the effective time of the transaction, in exchange for no consideration or for a cash payment, if any as the plan administrator deems appropriate; and
- cancel or arrange for the cancellation of the stock award in exchange for a payment equal to the excess, if any, of (A) the value of the property the participant would have received on exercise of the award immediately before the effective time of the transaction, over (B) any exercise price payable by the participant in connection with the exercise.

The plan administrator is not obligated to treat all stock awards or portions of stock awards in the same manner and is not obligated to treat all participants in the same manner.

Under the Prior Plan, a corporate transaction is generally the consummation of: (1) a sale of all or substantially all of our assets, (2) the sale or disposition of at least 50% of our outstanding securities, (3) a merger or consolidation where we do not survive the transaction, or (4) a merger or consolidation where we do survive the transaction but the shares of our common stock outstanding immediately before such transaction are converted or exchanged into other property by virtue of the transaction.

Change in Control. A stock award under the Prior Plan may be subject to additional acceleration of vesting and exercisability upon or after a change in control as may be provided in the award agreement or other written agreement between us and the participant, but in the absence of such provision, no such acceleration will occur, except as described above. Under the Prior Plan, a change in control is a transaction that qualifies as a "deemed liquidation event" as defined in our amended and restated certificate of incorporation, but excluding (1) a capitalization adjustment, (2) a public offering of our securities, (3) a captial raising transaction, (4) a transaction exclusively for the purpose of changing our domicile or corporate form, or (5) a merger, consolidation or similar transaction in which our stockholders immediately before the transaction continue to hold, directly or indirectley, at the least a majority of our combined voting power or the combined voting power of the surviving entity (as applicable) immediately following such transaction.

Plan Amendment or Termination. Our board of directors has the authority to amend, suspend, or terminate our Prior Plan, provided that such action does not impair the existing rights of any participant without such participant's written consent. Certain material amendments also require the approval of our stockholders. Unless terminated sooner, the Prior Plan will automatically terminate on June 24, 2028. No stock awards may be granted under our Prior Plan while it is suspended or after it is terminated.

2018 Employee Stock Purchase Plan

Our board of directors adopted, and our stockholders approved, our ESPP in 2018. The ESPP will become effective immediately prior to and contingent upon the date of the underwriting agreement related to this offering. The purpose of the ESPP is to secure the services of new employees, to retain the services of existing employees, and to provide incentives for such individuals to exert maximum efforts toward our success and that of our affiliates. The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Code for U.S. employees.

Share Reserve. Following this offering, the ESPP authorizes the issuance of shares of our common stock under purchase rights granted to our employees or to employees of any of our designated affiliates. The number of shares of our common stock reserved for issuance will automatically increase on January 1 of each calendar year, beginning on January 1, 2019 (assuming the ESPP becomes effective in 2018) through January 1, 2028, by the lesser of (1) % of the total number of shares of our common stock outstanding on the last day of the calendar month before the date of the automatic increase and (2) shares; provided that before the date of any such increase, our board of directors may determine that such increase will be less than the amount set forth in clauses (1) and (2). As of the date hereof, no shares of our common stock have been purchased under the ESPP.

Administration. Our board of directors administers the ESPP and may delegate its authority to administer the ESPP to our compensation committee. The ESPP is implemented through a series of offerings under which eligible employees are granted purchase rights to purchase shares of our common stock on specified dates during such offerings. Under the ESPP, we may specify offerings with durations of not more than 27 months, and may specify shorter purchase periods within each offering. Each offering will have one or more purchase dates on which shares of our common stock will be purchased for employees participating in the offering. An offering under the ESPP may be terminated under certain circumstances.

Payroll Deductions. Generally, all regular employees, including executive officers, employed by us or by any of our designated affiliates, may participate in the ESPP and may contribute, normally through payroll deductions, up to % of their earnings (as defined in the ESPP) for the purchase of our common stock under the ESPP. Unless otherwise determined by our board of directors, common stock will be purchased for the accounts of employees participating in the ESPP at a price per share that is at least the lesser of (1) 85% of the fair market value of a share of our common stock on the first date of an offering or (2) 85% of the fair market value of a share of our common stock on the date of purchase.

Limitations. Employees may have to satisfy one or more of the following service requirements before participating in the ESPP, as determined by our board of directors, including: (1) being customarily employed for more than 20 hours per week, (2) being customarily employed for more than five months per calendar year or (3) continuous employment with us or one of our affiliates for a period of time (not to exceed two years). No employee may purchase shares under the ESPP at a rate in excess of $25,000 worth of our common stock based on the fair market value per share of our common stock at the beginning of an offering for each calendar year such a purchase right is outstanding. Finally, no employee will be eligible for the grant of any purchase rights under the ESPP if immediately after such rights are granted, such employee has voting power over 5% or more of our outstanding capital stock measured by vote or value under Section 424(d) of the Code.

Changes to Capital Structure. In the event that there occurs a change in our capital structure through such actions as a stock split, merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, liquidating dividend, combination of shares, exchange of shares, change in corporate structure, or similar transaction, the board of directors will make appropriate adjustments to: (1) the class(es) and maximum number of shares reserved under the ESPP, (2) the class(es) and maximum number of shares by which the share reserve may increase automatically each year, (3) the class(es) and number of shares subject to and purchase price applicable to outstanding offerings and purchase rights and (4) the class(es) and number of shares that are subject to purchase limits under ongoing offerings.

Corporate Transactions. In the event of certain significant corporate transactions, any then-outstanding rights to purchase our stock under the ESPP may be assumed, continued, or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue, or substitute for such purchase rights, then the participants' accumulated payroll contributions will be used to purchase shares of our common stock within 10 business days before such corporate transaction, and such purchase rights will terminate immediately.

Under the ESPP, a corporate transaction is generally the consummation of: (1) a sale of all or substantially all of our assets, (2) the sale or disposition of more than 50% of our outstanding securities, (3) a merger or consolidation where we do not survive the transaction and (4) a merger or consolidation where we do survive the transaction but the shares of our common stock outstanding immediately before such transaction are converted or exchanged into other property by virtue of the transaction.

ESPP Amendment or Termination. Our board of directors has the authority to amend or terminate our ESPP, provided that except in certain circumstances such amendment or termination may not materially impair any outstanding purchase rights without the holder's consent. We will obtain stockholder approval of any amendment to our ESPP as required by applicable law or listing requirements.

Director Compensation

Except as indicated below, historically, we have not paid cash, equity or other compensation to any of our non-employee directors for service on our board of directors, and our non-employee directors did not receive any compensation for their board service in 2017. We have reimbursed and will continue to reimburse all of our non-employee directors for their travel, lodging and other reasonable expenses incurred in attending meetings of our board of directors and committees of our board of directors.

In June 2018, our board of directors approved a compensation package for Arie Belldegrun, M.D., FACS, our Executive Chairman, which includes an option to purchase 186,000 shares of our common stock. In addition, Franz Humer, Ph.D., and Owen Witte, M.D., were each granted an option to purchase 35,000 shares of our common stock and an annual cash retainer of $40,000, payable quarterly. Each of the options granted to Drs. Belldegrun, Humer and Witte are subject to a four-year vesting schedule, with 25% vesting one year after the vesting commencement date and the balance vesting monthly over the remaining 36 months, subject to each individual's continued service through each vesting date. As chair of the audit committee, Dr. Humer also received an annual cash retainer of $25,000, payable quarterly. Please see "Certain Relationships and Related Party Transactions—Consulting Arrangements" for additional information relating to Dr. Belldegrun's compensation.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following includes a summary of transactions since November 30, 2017, our inception, to which we have been a party, in which the amount involved in the transaction exceeded $120,000, and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our capital stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than equity and other compensation, termination, change in control and other arrangements, which are described under "Executive And Director Compensation."

Series A and A-1 Convertible Preferred Stock Financing

In April 2018, we entered into a Series A and A-1 preferred stock purchase agreement with various investors, pursuant to which we issued and sold to participating investors an aggregate of 7,557,900 shares of our Series A convertible preferred stock and 998,225 shares of our Series A-1 convertible preferred stock at a purchase price of $35.06 per share, and received aggregate gross proceeds of approximately $300 million. Half of this funding was received in April 2018 and the remainder was received in July and August 2018.

The participants in the Series A and A-1 convertible preferred stock financing included the following executive officers and members of our board of directors and holders of more than 5% of our capital stock or entities affiliated with them. The following table sets forth the aggregate number of shares of convertible preferred stock issued to these related parties in the Series A and A-1 convertible preferred stock financing:

Participants	Shares of Series A Convertible Preferred Stock	Shares of Series A-1 Convertible Preferred Stock	Consideration
Executive Officers and Directors			
David Chang, M.D., Ph.D.(1)	5,704	—	$ 199,995
Joshua Kazam	3,565	—	$ 124,997
Arie Belldegrun, M.D., FACS(2)	27,095	—	$ 950,011
Owen Witte, M.D.	7,130	—	$ 249,994
Franz Humer, Ph.D.	14,261	—	$ 500,023
Greater than 5% stockholders			
Pfizer Inc.	—	998,225	$ 34,999,998
Entities affiliated with TPG Carthage Holdings, L.P.(3)	4,278,107	—	$149,999,984
Gilead Sciences, Inc.	1,426,036	—	$ 50,000,007
Entities affiliated with VVAG Special Fund LLC (4)	1,426,036	—	$ 50,000,007
Seaview Trust	57,042	—	$ 2,000,020

(1) Consists of 5,704 shares of Series A convertible preferred stock held by the Chang 2006 Family Trust (Chang Trust). Dr. Chang, our President and Chief Executive Officer and a member of our board of directors, is a trustee of the Chang Trust.

(2) Consists of 27,095 shares of Series A convertible preferred stock held by the Belldegrun Family Trust (Belldegrun Trust). Dr. Belldegrun, a member of our board of directors, is a trustee of the Belldegrun Trust.

(3) Consists of (i) 2,852,071 shares of Series A convertible preferred stock held by TPG Carthage Holdings, L.P. and (ii) 1,426,036 shares of Series A convertible preferred stock held by The Rise Fund Carthage, L.P.

(4) Consists of (i) 1,140,829 shares of Series A convertible preferred stock held by VVAG Special Fund LLC (VVAG), and (ii) 285,207 shares of Series A convertible preferred stock held by Vida Ventures, LLC (Vida). Arie Belldegrun, M.D., FACS, the Executive Chairman of our board of directors, is a Co-Founder and Managing Director of VVAG, Vida and certain of their affiliated entities.

Pfizer Asset Purchase Transaction

In April 2018, we entered into an asset contribution agreement with Pfizer. The Pfizer asset contribution agreement is described above in "Business—Strategic Agreements."

In April 2018, we entered into a transition services agreement with Pfizer for certain research and development and general and administrative services relating to our development of the assets and products that we purchased from Pfizer. The Pfizer transition services agreement is described above in "Management's Discussion and Analysis of Financial Condition and Results of Operations—Transition Services Agreement."

Investor Agreements

In connection with our Series A and A-1 convertible preferred stock financing, we entered into an investors' rights agreement, voting agreement and right of first refusal and co-sale agreement containing registration rights, information rights, voting rights and rights of first refusal and co-sale, among other things, with certain of our stockholders. In addition, in connection with our sale and issuance of the 2018 Notes in September 2018, we amended our investors' rights agreement to provide certain registration rights to the purchasers of the 2018 Notes. The foregoing agreements will terminate upon the closing of this offering, except for the registration rights set forth in the investors' rights agreements, as more fully described below in "Description of Capital Stock—Registration Rights."

Consulting Arrangements

In April 2018, we entered into an Independent Contractor Agreement with David Chang, M.D., Ph.D., our President and Chief Executive Officer and member of our board of directors, for services consistent with the role and duties of Chief Executive Officer. In exchange for the services agreed upon under the consulting agreement, we paid Dr. Chang at a rate of $8,250 per week. The agreement was terminated in June 2018.

In June 2018, we entered into a letter agreement with TPG Capital – FO LLC (TPG FO), an affiliate of TPG Carthage Holdings, L.P. and The Rise Fund Carthage, L.P., beneficial owners of more than 5% of our capital stock, for consulting services. Pursuant to the letter agreement, TPG FO is to provide strategic, operations and transition consulting services for a consulting fee not to exceed $150,000 per quarter, paid in arrears beginning in April 2018, unless a higher rate is approved by our board of directors or our audit committee.

In June 2018, we entered into a consulting agreement with Two River Consulting LLC (Two River). Arie Belldegrun, M.D., FACS, the Executive Chairman of our board of directors and Joshua Kazam, a member of our board of directors, are each partners of Two River, and David Chang, M.D., Ph.D., our President and Chief Executive Officer, is a venture partner of Two River. Pursuant to the consulting agreement, Two River provides strategic, financial, business development and secretarial consulting services and is compensated for such services rendered at a rate of no more than $150,000 per quarter, paid in arrears beginning in April 2018, unless a higher rate is approved by our board of directors or our audit committee. Dr. Belldegrun and Dr. Chang do not receive any salary, commission or other fees for serving as partners of Two River.

In August 2018 we entered into a consulting agreement with Bellco Capital, Inc. (Bellco). Our executive chairman, Arie Belldegrun, M.D., FACS, is the Chairman and an owner of Bellco. Pursuant to the consulting agreement, Bellco provides certain services for us, which are performed by Dr. Belldegrun and include without limitation, providing advice and analysis with respect to our business, business strategy and potential opportunities in the field of allogeneic CAR T cell therapy and any other aspect of the CAR T cell therapy business as we may agree. In consideration for these services, we pay Bellco $26,250 per month in arrears commencing June 2018 and, in our discretion, may pay Bellco an annual performance award in an amount up to 60% of the aggregate compensation payable to Bellco in a calendar year. We also reimburse Bellco for out of pocket expenses incurred in performing the services.

Stock Options Granted to Executive Officers and Directors

We have granted stock options to our executive officers and directors, as more fully described in the section entitled "Executive and Director Compensation."

Indemnification Agreements

We have entered, and intend to continue to enter, into separate indemnification agreements with each of our directors and executive officers, as described in "Management — Limitation of Liability and Indemnification."

Policies and Procedures for Transactions with Related Persons

We have adopted a written related-person transactions policy that sets forth our policies and procedures regarding the identification, review, consideration and oversight of "related-person transactions." For purposes of our policy only, a "related-person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we and any "related person" are participants involving an amount that exceeds $120,000. Transactions involving compensation for services provided to us as an employee, consultant or director are not considered related-person transactions under this policy. A related person is any executive officer, director, nominee to become a director or a holder of more than five percent of our common stock, including any of their immediate family members and affiliates, including entities owned or controlled by such persons.

Under the policy, where a transaction has been identified as a related-person transaction, management must present information regarding the proposed related-person transaction to our audit committee (or, where review by our audit committee would be inappropriate, to another independent body of our board of directors) for review. The presentation must include a description of, among other things, all of the parties thereto, the direct and indirect interests of the related persons, the purpose of the transaction, the material facts, the benefits of the transaction to us and whether any alternative transactions are available, an assessment of whether the terms are comparable to the terms available from unrelated third parties and management's recommendation. To identify related-person transactions in advance, we rely on information supplied by our executive officers, directors and certain significant stockholders. In considering related-person transactions, our audit committee or another independent body of our board of directors takes into account the relevant available facts and circumstances including, but not limited to:

- the risks, costs and benefits to us;
- the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated;
- the terms of the transaction;
- the availability of other sources for comparable services or products; and
- the terms available to or from, as the case may be, unrelated third parties.

In the event a director has an interest in the proposed transaction, the director must recuse himself or herself from the deliberations and approval.

PRINCIPAL STOCKHOLDERS

The following table sets forth information regarding beneficial ownership of our capital stock by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock;
- each of our directors;
- our named executive officer; and
- all of our current executive officers and directors as a group.

The percentage ownership information under the column entitled "Before Offering" is based on 17,022,987 shares of common stock outstanding as of June 30, 2018, assuming conversion of all outstanding shares of our convertible preferred stock into 11,743,987 shares of common stock, which will occur in connection with the completion of this offering. The percentage ownership information under the column entitled "After Offering" is based on (i) the sale of shares of common stock in this offering and (ii) the automatic settlement of the 2018 Notes into an aggregate of shares of our common stock, assuming an initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), in connection with the closing of this offering. The following table does not reflect any potential purchases pursuant to the directed share program or otherwise in this offering, which purchases, if any, will increase the percentage of shares owned by certain of our directors and executive officers after this offering.

Information with respect to beneficial ownership has been furnished by each director, officer or beneficial owner of more than 5% of our common stock. We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of common stock issuable pursuant to the exercise of stock options that are either immediately exercisable or exercisable on or before August 29, 2018, which is 60 days after June 30, 2018. These shares are deemed to be outstanding and beneficially owned by the person holding those options for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

Except as otherwise noted below, the address for each person or entity listed in the table is c/o Allogene Therapeutics, Inc., 210 East Grand Avenue, South San Francisco, California 94080.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
		Before Offering	After Offering
Greater than 5% Stockholders			
Pfizer Inc.(1)	4,185,997	24.6%	
Entities affiliated with TPG Carthage Holdings, L.P. (2)	4,278,107	25.1%	
Gilead Sciences, Inc.(3)	1,426,036	8.4%	
Entities affiliated with VVAG Special Fund LLC(4)	1,426,036	8.4%	
Seaview Trust(5)	1,521,150	8.9%	
Directors and Named Executive Officers			
David Chang, M.D., Ph.D.(6)	867,374	5.0%	
Joshua Kazam(7)	330,886	1.9%	
Arie Belldegrun, M.D., FACS(8)	2,388,704	13.9%	
Franz Humer, Ph.D.(9)	49,261	*	
Owen Witte, M.D.(10)	42,130	*	
David Bonderman(11)	4,278,107	25.1%	
Todd Sisitsky	—	—	
John DeYoung	—	—	
Robert Abraham, Ph.D.	—	—	
All current executive officers and directors as a group (12 persons)(12)	8,480,462	47.4%	

* Represents beneficial ownership of less than 1%.

(1) Consists of 4,185,997 shares of common stock issuable upon conversion of preferred stock held by Pfizer Inc. (Pfizer). The address of Pfizer is 235 E. 42nd Street, New York, NY 10017.

(2) Consists of (i) 2,852,071 shares of common stock issuable upon conversion of preferred stock held by TPG Carthage Holdings, L.P. (TPG Carthage), and (ii) 1,426,036 shares of common stock issuable upon conversion of preferred stock held by The Rise Fund Carthage, L.P. (Rise Carthage). The general partner of TPG Carthage is TPG GenPar VII, L.P., whose general partner is TPG GenPar VII Advisors, LLC, whose sole member is TPG Holdings I, L.P., whose general partner is TPG Holdings I-A, LLC, whose sole member is TPG Group Holdings (SBS), L.P. (Group Holdings) whose general partner is TPG Group Holdings (SBS) Advisors, Inc. (Group Advisors). The general partner of Rise Carthage is The Rise Fund GenPar, L.P., whose general partner is The Rise Fund GenPar Advisors, LLC, whose sole member is TPG Holdings I, L.P., whose general partner is TPG Holdings I-A, LLC, whose sole member is Group Holdings, whose general partner is Group Advisors. David Bonderman, a member of our board of directors, and James G. Coulter are sole shareholders of Group Advisors and may therefore be deemed to be the beneficial owners of the common shares held by TPG Carthage and Rise Carthage. Messrs. Bonderman and Coulter disclaim beneficial ownership of the TPG Shares except to the extent of their pecuniary interest therein. The address of each of TPG Carthage and Rise Carthage, Group Advisors is c/o TPG Global, LLC, 301 Commerce Street, Suite 3300, Fort Worth, Texas 76102.

(3) Consists of 1,426,036 shares of common stock issuable upon conversion of preferred stock held by Gilead Sciences, Inc. (Gilead). The address of Gilead is 333 Lakeside Drive, Foster City, CA 94404.

(4) Consists of (i) 1,140,829 shares of common stock issuable upon conversion of preferred stock held by VVAG Special Fund LLC (VVAG), and (ii) 285,207 shares of common stock issuable upon conversion of preferred stock held by Vida Ventures, LLC (Vida). VVAG LLC is the manager of VVAG. Arie Belldegrun, M.D., FACS, Executive Chairman of our board of directors, Leonard Potter and Fred Cohen, M.D., D.Phil., are Senior Managing Directors, and each may therefore be deemed to be the beneficial owners of the common shares held by VVAG. VV Manager LLC is the manager of Vida. Dr. Belldegrun, Mr. Potter, and Dr. Cohen, are Senior Managing Directors of VV Manager LLC and may therefore be deemed to be the beneficial owners of the common shares held by Vida. Dr. Belldegrun, Mr. Potter and Cohen each disclaim beneficial ownership of such shares, except to the extent of any pecuniary interest therein. The address of VVAG LLC and VV Manager LLC is 40 Broad Street, Suite 201, Boston MA 02109.

(5) Consists of (i) 1,464,108 shares of common stock and (ii) 57,042 shares of common stock issuable upon conversion of preferred stock. Hanna Ackerman is trustee of the Seaview Trust and may therefore be deemed to be the beneficial owner of the common shares held by the Seaview Trust. Dr. Belldegrun is an economic beneficiary of the Seaview Trust, but he

does not have voting or investment control over the shares held by the Seaview Trust. The address of the Seaview Trust is 811 Strada Vecchia Rd., Los Angeles, CA 90077.

(6) Consists of (i) 489,170 shares of common stock and 5,704 shares of common stock issuable upon conversion of preferred stock held by the Chang 2006 Family Trust (Chang Trust) and (ii) 372,500 shares of common stock issuable upon exercise of options, all of which will be unvested but exercisable within 60 days of June 30, 2018. David Chang, M.D., Ph.D., our President and Chief Executive Officer and member of our board or directors, is co-trustee of the Chang Trust.

(7) Consists of 327,321 shares of common stock and 3,565 shares of common stock issuable upon conversion of preferred stock held by Joshua Kazam. Mr. Kazam resigned as our President in June 2018.

(8) Consists of (i) 749,573 shares of common stock and 27,095 shares of common stock issuable upon conversion of preferred stock held by the Belldegrun Family Trust, (ii) the shares of common stock issuable upon the conversion of preferred stock held by VVAG and Vida as described in note (4) above and (iii) 186,000 shares of common stock issuable upon exercise of options, all of which will be unvested but exercisable within 60 days of June 30, 2018. Dr. Belldegrun is the co-trustee of the Belldegrun Family Trust and a Senior Managing Director of VVAG LLC and VV Manager LLC and may be deemed to beneficially own the shares held by the Belldegrun Family Trust, VVAG and Vida. Dr. Belldegrun disclaims beneficial ownership of the shares, except to the extent of any pecuniary interest therein, to the shares held by each of the Belldegrun Family Trust, VVAG and Vida.

(9) Consists of (i) 14,261 shares of common stock issuable upon conversion of preferred stock and (ii) 35,000 shares of common stock issuable upon exercise of options, all of which will be unvested but exercisable within 60 days of June 30, 2018 held by Franz Humer, Ph.D.

(10) Consists of (i) 7,130 shares of common stock issuable upon conversion of preferred stock and (ii) 35,000 shares of common stock issuable upon exercise of options, all of which will be unvested but exercisable within 60 days of June 30, 2018 held by Owen Witte, M.D.

(11) Consists of the shares described in note (2) above.

(12) Includes the shares described in notes (6) through (11), and shares held or issuable upon early exercise of stock options by executive officers who are not named in the table above.

DESCRIPTION OF CAPITAL STOCK

Upon filing of our amended and restated certificate of incorporation and the completion of this offering, our authorized capital stock will consist of shares of common stock, par value $0.001 per share, and shares of preferred stock, par value $0.001 per share. All of our authorized preferred stock upon the completion of this offering will be undesignated. The following is a summary of the rights of our common and preferred stockholders and some of the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective immediately prior to and upon the completion of this offering, respectively, and of the Delaware General Corporation Law. This summary is not complete. For more detailed information, please see our amended and restated certificate of incorporation and amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is a part, as well as the relevant provisions of the Delaware General Corporation Law.

Common Stock

Outstanding Shares

As of June 30, 2018, there were 5,279,000 shares of common stock issued and outstanding held of record by 41 stockholders. This amount excludes our outstanding shares of convertible preferred stock, which will convert into 11,743,987 shares of common stock in connection with the completion of this offering. Based on the number of shares of common stock outstanding as of June 30, 2018, and assuming (i) the conversion of all outstanding shares of our convertible preferred stock, (ii) the settlement of all outstanding 2018 Notes into an aggregate of shares of our common stock, assuming an initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), in connection with the closing of this offering and (iii) the issuance by us of shares of common stock in this offering, there will be shares of common stock outstanding upon the completion of this offering.

As of June 30, 2018, there were 1,398,900 shares of common stock subject to outstanding options under our equity incentive plan.

Voting

Our common stock is entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and does not have cumulative voting rights. Accordingly, the holders of a majority of the shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election.

Dividends

Subject to preferences that may be applicable to any then-outstanding preferred stock, the holders of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding-up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of

the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

Fully Paid and Nonassessable

All of our outstanding shares of common stock are, and the shares of common stock to be issued in this offering will be, fully paid and nonassessable.

Convertible Preferred Stock

As of June 30, 2018, there were 11,743,987 shares of convertible preferred stock outstanding, held of record by 23 stockholders. In connection with the completion of this offering, all outstanding shares of convertible preferred stock will be converted into 11,743,987 shares of our common stock. Immediately prior to the completion of this offering, our certificate of incorporation will be amended and restated to delete all references to such shares of convertible preferred stock. Under the amended and restated certificate of incorporation, our board of directors will have the authority, without further action by the stockholders, to issue up to shares of convertible preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control that may otherwise benefit holders of our common stock and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. We have no current plans to issue any shares of preferred stock.

Registration Rights

After the closing of this offering, certain holders of shares of our common stock, including all of the current preferred stockholders, including certain holders of more than five percent of our capital stock and entities affiliated with certain of our directors, and the holders of the 2018 Notes, will be entitled to certain rights with respect to registration of the shares of common stock issued upon conversion of our convertible preferred stock and the 2018 Notes under the Securities Act. These shares are referred to as registrable securities. The holders of these registrable securities possess registration rights pursuant to the terms of the investors' rights agreement and are described in additional detail below.

The registration of shares of our common stock pursuant to the exercise of the registration rights described below would enable the holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective. We are required to pay all registration expenses, other than underwriting discounts, selling commissions and stock transfer taxes, (collectively, Selling Expenses), of the shares registered pursuant to the demand, piggyback and Form S-3 registrations described below.

Generally, in an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions, to limit the number of shares the holders may include. The demand, piggyback and Form S-3 registration rights described below will expire upon the earliest to occur of (i) the closing of a "Deemed Liquidation Event", as such term is defined in our amended and restated certificate of incorporation (as currently in effect), (ii) five years after the effective date of the registration statement, of which this prospectus forms a part, (iii) with respect to any particular holder, at such time after consummation of the our first underwritten public offering that such holder can sell its shares under Rule 144 of the Securities Act during any three-month period, or (iv) upon termination of the investors' rights agreement.

Demand Registration Rights

The holders of the registrable securities will be entitled to certain demand registration rights. Subject to the terms of the lockup agreements described under "Underwriters", at any time beginning on the earlier of April 6, 2021 or 180 days following the closing of this offering, the holders of at least 51% of the registrable securities then outstanding, may make a written request that we register all or a portion of their shares, subject to certain specified exceptions. Such request for registration must cover securities the aggregate offering price of which, after payment of Selling Expenses, would exceed $20,000,000. We will not be required to effect more than two registrations pursuant to these demand registration rights.

Piggyback Registration Rights

In connection with this offering, the holders of registrable securities were entitled to, and the necessary percentage of holders waived, their rights to notice of this offering and to include their shares of registrable securities in this offering. If we propose to register for offer and sale any of our securities under the Securities Act in another offering, either for our own account or for the account of other security holders, the holders of registrable securities will be entitled to certain "piggyback" registration rights allowing them to include their shares in such registration, subject to certain marketing and other limitations. As a result, whenever we propose to file a registration statement under the Securities Act, including a registration statement on Form S-3 as discussed below, other than with respect to a demand registration or a registration statement on Forms S-4 or S-8, the holders of these shares are entitled to notice of the registration and have the right, subject to limitations that the underwriters may impose on the number of shares included in the registration, to include their shares in the registration.

Form S-3 Registration Rights

The holders of the registrable securities will be entitled to certain Form S-3 registration rights. Holders of at least 30% of the registrable securities may request that we register for offer and sale their shares on Form S-3 if we are qualified to file a registration statement on Form S-3, subject to certain specified exceptions. Such request for registration on Form S-3 must cover securities the aggregate offering price of which, after payment of Selling Expenses, equals or exceeds $2,000,000. We will not be required to effect more than two registrations on Form S-3 within any 12-month period.

Anti-Takeover Effects of Provisions of Our Amended and Restated Certificate of Incorporation, Our Amended and Restated Bylaws and Delaware Law

Delaware Anti-Takeover Law

We are subject to Section 203 of the Delaware General Corporation Law (Section 203). Section 203 generally prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years following the time that such stockholder became an interested stockholder, unless:

- prior to such time the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (1) by persons who are directors and also officers and (2) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- at or subsequent to such time, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Provisions of our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective immediately prior to and upon the completion of this offering, respectively, may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws:

- permit our board of directors to issue up to shares of preferred stock, with any rights, preferences and privileges as they may designate (including the right to approve an acquisition or other change in our control);
- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that the board of directors or any individual director may only be removed with cause and the affirmative vote of the holders of at least % of the voting power of all of our then outstanding common stock;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- divide our board of directors into three classes;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner and also specify requirements as to the form and content of a stockholder's notice;

- do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- provide that special meetings of our stockholders may be called only by the chairman of the board, our Chief Executive Officer or by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and
- provide that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors or officers to us or our stockholders, (iii) any action asserting a claim against us arising pursuant to any provision of the Delaware General Corporation Law or our certificate of incorporation or bylaws, and (iv) any action asserting a claim against us governed by the internal affairs doctrine.

The amendment of any of these provisions, with the exception of the ability of our board of directors to issue shares of preferred stock and designate any rights, preferences and privileges thereto, would require approval by the holders of at least % of our then-outstanding common stock.

Nasdaq Global Select Market Listing

We have applied for listing of our common stock on the Nasdaq Global Select Market under the symbol “ALLO.”

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is . The transfer agent’s address is .

SHARES ELIGIBLE FOR FUTURE SALE

Immediately prior to this offering, there has been no public market for our common stock. Future sales of substantial amounts of common stock in the public market could adversely affect prevailing market prices. Furthermore, since only a limited number of shares will be available for sale shortly after this offering because of contractual and legal restrictions on resale described below, sales of substantial amounts of common stock in the public market after the restrictions lapse could adversely affect the prevailing market price for our common stock as well as our ability to raise equity capital in the future.

Based on the number of shares of common stock outstanding as of June 30, 2018, upon the completion of this offering and assuming (i) the conversion of all of our outstanding shares of convertible preferred stock as of June 30, 2018 into an aggregate of 11,743,987 shares of common stock, (ii) the settlement of all outstanding 2018 Notes into an aggregate of shares of common stock, assuming an initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), in connection with the closing of this offering (iii) no exercise of the underwriters' option to purchase additional shares of common stock and (iv) no exercise of outstanding options, an aggregate of shares of common stock will be outstanding. All of the shares sold in this offering will be freely tradable in the public market without restriction or further registration under the Securities Act (excluding any shares sold to our directors and officers in the directed share program), unless held by an affiliate of ours. Except as set forth below, the remaining shares of common stock outstanding after this offering will be restricted as a result of securities laws or lock-up agreements. In addition, any shares sold in this offering to entities affiliated with our existing stockholders and directors will be subject to lock-up agreements. These remaining shares will generally become available for sale in the public market as follows:

- no restricted shares will be eligible for immediate sale upon the completion of this offering;
- up to restricted shares will be eligible for sale under Rule 144 or Rule 701 upon expiration of lock-up agreements 180 days after the date of this offering; and
- the remainder of the restricted shares will be eligible for sale from time to time thereafter upon expiration of their respective holding periods under Rule 144, as described below, but could be sold earlier if the holders exercise any available registration rights.

Rule 144

In general, under Rule 144 as currently in effect, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, any person who is not an affiliate of ours and has held their shares for at least six months, including the holding period of any prior owner other than one of our affiliates, may sell shares without restriction, provided current public information about us is available. In addition, under Rule 144, any person who is not an affiliate of ours and has held their shares for at least one year, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell an unlimited number of shares immediately upon the completion of this offering without regard to whether current public information about us is available. Beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours and who has beneficially owned restricted securities for at least six months, including the holding period of any prior owner other than one of our affiliates, is entitled to sell a number of restricted shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; or
- the average weekly trading volume of our common stock on the Nasdaq Global Select Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales of restricted shares under Rule 144 held by our affiliates are also subject to requirements regarding the manner of sale, notice and the availability of current public information about us. Rule 144 also provides that affiliates relying on Rule 144 to sell shares of our common stock that are not restricted shares must nonetheless comply with the same restrictions applicable to restricted shares, other than the holding period requirement.

Notwithstanding the availability of Rule 144, the holders of substantially all of our restricted shares have entered into lock-up agreements as described below and their restricted shares will become eligible for sale at the expiration of the restrictions set forth in those agreements.

Rule 701

Under Rule 701, shares of our common stock acquired upon the exercise of currently outstanding options or pursuant to other rights granted under our stock plans may be resold by:

- persons other than affiliates, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject only to the manner-of-sale provisions of Rule 144; and
- our affiliates, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject to the manner-of-sale and volume limitations, current public information and filing requirements of Rule 144, in each case, without compliance with the six-month holding period requirement of Rule 144.

As of June 30, 2018, options to purchase a total of 1,398,900 shares of common stock were outstanding, of which none were vested. Of the total number of shares of our common stock issuable under these options, substantially all are subject to contractual lock-up agreements with us or the underwriters described below under “Underwriting” and will become eligible for sale at the expiration of those agreements unless held by an affiliate of ours.

Lock-Up Agreements

We, along with our directors, executive officers and substantially all of our other stockholders and optionholders, have agreed that for a period of 180 days, after the date of this prospectus, except with the prior written consent of the representatives of the underwriters and subject to specified exceptions, we or they will not offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant for the sale of, or otherwise dispose of or transfer, any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock, or enter into any swap or other arrangement that transfers to another, in whole or in part, directly or indirectly, any of the economic consequences of ownership of the common stock. The representatives of the underwriters have advised us that they has no current intent or arrangement to release any of the shares subject to the lock-up agreements prior to the expiration of the lock-up agreements.

After this offering, certain of our employees, including our executive officers and/or directors, may enter into written trading plans that are intended to comply with Rule 10b5-1 under the Exchange Act. Sales under these trading plans would not be permitted until the expiration of the lock-up agreements relating to the offering described above.

Registration Rights

Upon the closing of this offering and assuming an initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), the holders of an aggregate of shares of our common stock will have rights, subject to certain conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. After registration pursuant to these rights, these shares will become freely tradable without restriction under the Securities Act. See “Description of Capital Stock—Registration Rights” for additional information regarding these registration rights.

Equity Incentive Plans

We intend to file with the SEC a registration statement on Form S-8 under the Securities Act covering the shares of common stock reserved for issuance under the Prior Plan, the 2018 Plan and the ESPP. The registration statement is expected to be filed and become effective as soon as practicable after the completion of this offering. Accordingly, shares registered under the registration statement will be available for sale in the open market following its effective date, subject to Rule 144 volume limitations and the lock-up agreements described above, if applicable.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS OF OUR COMMON STOCK

The following is a discussion of the material U.S. federal income tax consequences applicable to non-U.S. holders (as defined below) with respect to their purchase, ownership and disposition of shares of our common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. All prospective non-U.S. holders of our common stock should consult their own tax advisors with respect to the U.S. federal income tax consequences of the purchase, ownership and disposition of our common stock, as well as any consequences arising under the laws of any other taxing jurisdiction, including any state, local and non-U.S. tax consequences and any U.S. federal non-income tax consequences. In general, a non-U.S. holder means a beneficial owner of our common stock (other than a partnership or an entity or arrangement treated as a partnership for U.S. federal income tax purposes) that is not, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation, or an entity treated as a corporation for U.S. federal income tax purposes, created or organized in the United States or under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust if (1) a U.S. court can exercise primary supervision over the trust's administration and one or more "United States persons" have the authority to control all of the trust's substantial decisions or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a "United States person."

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended, which we refer to as the Code, existing U.S. Treasury Regulations promulgated thereunder, published administrative rulings and judicial decisions, all as in effect as of the date of this prospectus supplement. These laws are subject to change and to differing interpretation, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences to non-U.S. holders described in this prospectus supplement.

This discussion is limited to non-U.S. holders that hold shares of our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances, nor does it address any aspects of U.S. estate or gift tax, or any state, local or non-U.S. taxes. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as holders that own, or are deemed to own, more than 5% of our capital stock (except to the extent specifically set forth below), corporations that accumulate earnings to avoid U.S. federal income tax, tax-exempt organizations, banks, financial institutions, insurance companies, brokers, dealers or traders in securities, commodities or currencies, tax-qualified retirement plans, holders subject to the alternative minimum tax or Medicare contribution tax, holders who hold or receive our common stock pursuant to the exercise of employee stock options or otherwise as compensation, holders holding our common stock as part of a hedge, straddle or other risk reduction strategy, conversion transaction or other integrated investment, holders deemed to sell our common stock under the constructive sale provisions of the Code, controlled foreign corporations, passive foreign investment companies, U.S. expatriates and certain former citizens or long-term residents of the United States and "qualified foreign pension funds" as defined in Section 897(1)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds.

In addition, this discussion does not address the tax treatment of partnerships (or entities or arrangements that are treated as partnerships for U.S. federal income tax purposes) or persons that hold their common stock through such partnerships or such entities or arrangements. If a partnership, including any entity or arrangement

treated as a partnership for U.S. federal income tax purposes, holds shares of our common stock, the U.S. federal income tax treatment of a partner in such partnership will generally depend upon the status of the partner, the activities of the partnership and certain determinations made at the partner level. Such partners and partnerships should consult their own tax advisors regarding the tax consequences of the purchase, ownership and disposition of our common stock.

There can be no assurance that the Internal Revenue Service, which we refer to as the IRS, will not challenge one or more of the tax consequences described herein, and we have not obtained, nor do we intend to obtain, a ruling with respect to the U.S. federal income tax consequences with respect to the matters discussed below.

Distributions on Our Common Stock

Distributions, if any, on our common stock generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's adjusted tax basis in the common stock. Any remaining excess will be treated as capital gain from the sale or exchange of such common stock, subject to the tax treatment described below in "Gain on Sale, Exchange or Other Disposition of Our Common Stock."

Subject to the discussions below regarding effectively connected income, backup withholding and foreign accounts, dividends paid to a non-U.S. holder will generally be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. A non-U.S. holder of our common stock who claims the benefit of an applicable income tax treaty generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E (or successor form) and satisfy relevant certification and other requirements. Non-U.S. holders are urged to consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements. To claim the exemption, the non-U.S. holder must furnish to us or the applicable withholding agent a valid IRS Form W-8ECI (or applicable successor form), certifying that the dividends are effectively connected with the non-U.S. holder's conduct of a trade or business within the United States. However, such U.S. effectively connected income is taxed, on a net income basis, at the same graduated U.S. federal income tax rates applicable to "United States persons" (as defined in the Code), unless a specific treaty exemption applies. Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty.

Sale, Exchange or Other Disposition of Our Common Stock

Subject to the discussions below regarding backup withholding and foreign accounts, in general, a non-U.S. holder will not be subject to any U.S. federal income tax on any gain realized upon such holder's sale, exchange or other disposition of shares of our common stock unless:

- the gain is effectively connected with a U.S. trade or business of the non-U.S. holder and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed base

maintained in the United States by such non-U.S. holder, in which case the non-U.S. holder generally will be taxed, on a net income basis, at the graduated U.S. federal income tax rates applicable to "United States persons" (as defined in the Code) and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in "Distributions on Our Common Stock" may also apply;

- the non-U.S. holder is a nonresident alien individual who is present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty) on the net gain derived from the disposition, which may be offset by U.S. source capital losses of the non-U.S. holder, if any (even though the individual is not considered a resident of the United States), provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses; or
- our common stock constitutes a U.S. real property interest because we are, or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder's holding period, if shorter) a "U.S. real property holding corporation" (as defined in the Code). Even if we are or become a U.S. real property holding corporation, provided that our common stock is "regularly traded" (as defined in the applicable Treasury Regulations) on an established securities market, our common stock will be treated as a U.S. real property interest only with respect to a non-U.S. holder that holds more than 5% of our outstanding common stock, directly or indirectly, actually or constructively, during the shorter of the five-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. In such case, such non-U.S. holder generally will be taxed on its net gain derived from the disposition at the graduated U.S. federal income tax rates applicable to "United States persons" (as defined in the Code). Generally, a corporation is a U.S. real property holding corporation only if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rules described above.

Backup Withholding and Information Reporting

We must report annually to the IRS and to each non-U.S. holder the gross amount of the dividends on our common stock paid to such holder and the tax withheld, if any, with respect to such dividends. Non-U.S. holders will have to comply with specific certification procedures to establish that the holder is not a "United States persons" (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. U.S. backup withholding generally will not apply to a non-U.S. holder who provides a properly executed IRS Form W-8BEN or W-8BEN-E or otherwise establishes an exemption.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is established under the provisions of a specific income tax treaty or agreement.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder may be allowed as a credit against the non-U.S. holder's U.S. federal income tax liability, if any, and may entitle such holder to a refund, provided that the required information is timely furnished to the IRS.

Foreign Accounts

The Code generally imposes a U.S. federal withholding tax of 30% on dividends and the gross proceeds of a disposition of our common stock paid to a "foreign financial institution" (as specifically defined for this purpose), unless such institution enters into an agreement with the U.S. government to, among other things, withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding U.S. account holders of such institution (which may include certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners). Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing these withholding and reporting requirements may be subject to different rules. This U.S. federal withholding tax of 30% also applies to dividends and the gross proceeds of a disposition of our common stock paid to a non-financial foreign entity, unless such entity provides the withholding agent with either a certification that it does not have any substantial direct or indirect U.S. owners or information regarding substantial direct and indirect U.S. owners of the entity. The withholding tax described above will not apply if the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from the rules. The withholding provisions described above currently apply to dividends on our common stock and, beginning on January 1, 2019, will apply with respect to gross proceeds of a sale or other disposition of our common stock. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. Non-U.S. holders are encouraged to consult with their own tax advisors regarding the possible implications of these rules on their investment in our common stock.

EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED OR RECENT CHANGES IN APPLICABLE LAW, AS WELL AS TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL, NON-U.S. OR U.S. FEDERAL NON-INCOME TAX LAWS OR UNDER ANY APPLICABLE TAX TREATY.

UNDERWRITING

We and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman Sachs & Co. LLC, J.P. Morgan Securities LLC, Cowen and Company, LLC and Jefferies LLC are the representatives of the underwriters.

Underwriters	Number of Shares
Goldman Sachs & Co. LLC	
J.P. Morgan Securities LLC	
Cowen and Company, LLC	
Jefferies LLC	
Total	

The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional shares from us to cover sales by the underwriters of a greater number of shares than the total number set forth in the table above. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following tables show the per share and total underwriting discounts and commissions to be paid to the underwriters by us. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

Paid by us	No Exercise	Full Exercise
Per Share	$	$
Total	$	$

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to $ per share from the initial public offering price. After the initial offering of the shares, the representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

We and our officers, directors, and holders of substantially all of our common stock have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus continuing through the date 180 days after the date of this prospectus, except with the prior written consent of the representatives. This agreement does not apply to any existing employee benefit plans. See "Shares Available for Future Sale" for a discussion of certain transfer restrictions.

Prior to the offering, there has been no public market for the shares. The initial public offering price has been negotiated among us and the representatives. Among the factors to be considered in determining the initial public offering price of the shares, in addition to prevailing market conditions, will be our historical performance, estimates of the business potential and our earnings prospects, an assessment of our management and the consideration of the above factors in relation to market valuation of companies in related businesses.

We have applied to list our common stock on the Nasdaq Global Select Market under the symbol "ALLO".

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A "covered short position" is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. "Naked" short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of our stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on NYSE, NASDAQ NMS or relevant exchange, in the over-the-counter market or otherwise.

We estimate that its share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately $. We will also reimburse the underwriters for certain of their expenses incurred in connection with this offering in an amount up to $.

We have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the issuer and to persons and entities with relationships with the issuer, for which they received or will receive customary fees and expenses, including acting as a placement agent in our previous private placement financings.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the issuer (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the issuer. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or

publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

At our request, the underwriters have reserved up to shares of our common stock offered by this prospectus for sale, at the initial public offering price, to our directors and officers and certain other parties related to us. Shares purchased by our directors and officers will be subject to the 180-day lock-up restriction described in the "Underwriting" section of this prospectus. The number of shares of common stock available for sale to the general public will be reduced to the extent these individuals purchase such reserved shares. Any reserved shares that are not so purchased will be offered by the underwriters to the general public on the same basis as the other shares offered by this prospectus.

Selling Restrictions

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relative Member State") an offer to the public of our common shares may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of our common shares may be made at any time under the following exemptions under the Prospectus Directive:

- To any legal entity which is a qualified investor as defined in the Prospectus Directive;
- To fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the Representatives for any such offer; or
- In any other circumstances falling within Article 3(2) of the Prospectus Directive;

provided that no such offer or shares of our common stock shall result in a requirement for the publication by us or any Brazilian placement agent of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to public" in relation to our common shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and our common shares to be offered so as to enable an investor to decide to purchase our common shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (as amended), including by Directive 2010/73/EU and includes any relevant implementing measure in the Relevant Member State.

This European Economic Area selling restriction is in addition to any other selling restrictions set out below.

United Kingdom

In the United Kingdom, this prospectus is only addressed to and directed as qualified investors who are (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the Order); or (ii) high net worth entities and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). Any investment or investment activity to which this prospectus relates is available only to relevant persons and will only be engaged with relevant persons. Any person who is not a relevant person should not act or relay on this prospectus or any of its contents.

Canada

The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions, and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption form, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this offering memorandum (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Hong Kong

The shares may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) ("Companies (Winding Up and Miscellaneous Provisions) Ordinance") or which do not constitute an invitation to the public within the meaning of the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) ("Securities and Futures Ordinance"), or (ii) to "professional investors" as defined in the Securities and Futures Ordinance and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance, and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" in Hong Kong as defined in the Securities and Futures Ordinance and any rules made thereunder.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA")) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to conditions set forth in the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of

whom is an accredited investor, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for 6 months after that corporation has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation's securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore ("Regulation 32")

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for 6 months after that trust has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than S$200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended), or the FIEA. The securities may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for reoffering or resale, directly or indirectly, in Japan or to or for the benefit of any resident of Japan, except pursuant to an exemption from the registration requirements of the FIEA and otherwise in compliance with any relevant laws and regulations of Japan.

LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus will be passed upon for us by Cooley LLP, San Diego, California. The underwriters are being represented by Latham & Watkins LLP, Menlo Park, California.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements at December 31, 2017 and for the period from November 30, 2017 (inception) to December 31, 2017, as set forth in their report. We have included our financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act, with respect to the shares of common stock being offered by this prospectus. This prospectus does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, over the Internet at the SEC's website at www.sec.gov. You may also read and copy any document we file with the SEC at its public reference facilities at 100 F Street NE, Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities. You may also request a copy of these filings, at no cost, by writing us at 210 East Grand Avenue, South San Francisco, California 94080 or telephoning us at (415) 640-5325.

Upon the completion of this offering, we will be subject to the information reporting requirements of the Exchange Act, and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for inspection and copying at the public reference room and website of the SEC referred to above. We also maintain a website at www.allogene.com, at which, following the completion of this offering, you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not incorporated by reference in, and is not part of, this prospectus.

ALLOGENE THERAPEUTICS, INC.

INDEX TO FINANCIAL STATEMENTS

Period From November 30, 2017 (inception) to December 31, 2017 and Six Months Ended June 30, 2018

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of
Allogene Therapeutics, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheet of Allogene Therapeutics, Inc. (the Company) as of December 31, 2017, the related statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit and cash flows for the period from November 30, 2017 (inception) to December 31, 2017, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2017, and the results of its operations and its cash flows for the period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2018.
Redwood City, California
August 10, 2018

ALLOGENE THERAPEUTICS, INC.

Balance Sheets

(in thousands, except share and per share amounts)

	December 31, 2017	June 30, 2018 (Unaudited)	Pro Forma June 30, 2018 (Unaudited)
Assets			
Current assets:			
Cash and cash equivalents	$ —	$ 143,927	$ 293,927
Prepaid expenses and other current assets	—	337	337
Total current assets	—	144,264	294,264
Property and equipment, net	—	3,526	3,526
Intangible assets, net	—	1,055	1,055
Total assets	$ —	$ 148,845	$ 298,845
Liabilities, convertible preferred stock and stockholders' (deficit) equity			
Current liabilities:			
Accounts payable	$ —	$ 1,268	$ 1,268
Accrued and other current liabilities	2	13,477	13,477
Total current liabilities	2	14,745	14,745
Other long-term liabilities	—	2,488	2,488
Total liabilities	2	17,233	17,233
Commitments and Contingencies (Notes 5 and 6)			
Convertible preferred stock, $0.001 par value; 1,000,000 and 11,743,987 shares authorized as of December 31, 2017 and June 30, 2018 (unaudited), respectively; no shares and 11,743,987 shares issued and outstanding as of December 31, 2017 and June 30, 2018 (unaudited), respectively, actual; aggregate liquidation preference of $411.8 million as of June 30, 2018 (unaudited), actual; no shares issued and outstanding as of June 30, 2018, pro forma (unaudited)	—	411,052	—
Subscriptions receivable from preferred stockholders	—	(150,000)	—
Stockholders' (deficit) equity:			
Common stock, $0.001 par value: 9,000,000 and 20,000,000 shares authorized as of December 31, 2017 and June 30, 2018 (unaudited), respectively; 5,000,000 and 5,279,000 shares issued and outstanding at December 31, 2017 and June 30, 2018 (unaudited), respectively, actual; 17,022,987 shares issued and outstanding at June 30, 2018, pro forma (unaudited)	5	5	17
Notes receivable from common stockholders	(5)	—	—
Additional paid-in capital	—	8,056	419,096
Accumulated deficit	(2)	(137,501)	(137,501)
Total stockholders' (deficit) equity	(2)	(129,440)	281,612
Total liabilities, convertible preferred stock and stockholders' (deficit) equity	$ —	$ 148,845	$ 298,845

The accompanying notes are an integral part of these financial statements.

ALLOGENE THERAPEUTICS, INC.

Statements of Operations and Comprehensive Loss
(in thousands, except share and per share amounts)

	Period from November 30, 2017 (Inception) to December 31, 2017	Six Months Ended June 30, 2018 (Unaudited)
Operating expenses:		
Research and development	$ —	$ 122,486
General and administrative	2	15,123
Total operating expenses	2	137,609
Loss from operations	(2)	(137,609)
Interest and other income, net	—	110
Net and comprehensive loss	$ (2)	$ (137,499)
Net loss per share, basic and diluted	$ 0.00	$ (49.44)
Weighted-average number of shares used in computing net loss per share, basic and diluted	5,000,000	2,781,025
Pro forma net loss per share, basic and diluted (unaudited)		$ (16.40)
Weighted-average number of shares used in computing pro forma net loss per share, basic and diluted (unaudited)		8,383,101

The accompanying notes are an integral part of these financial statements.

ALLOGENE THERAPEUTICS, INC.

Statements of Convertible Preferred Stock and Stockholders' Deficit

(in thousands, except share and per share amounts)

	Convertible Preferred Stock		Subscriptions Receivable from Preferred Stockholders	Common Stock		Notes Receivable from Common Stockholders	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount		Shares	Amount				
Balance — November 30, 2017 (Inception)	—	$ —	$ —	—	$ —	$ —	$ —	$ —	$ —
Issuance of common stock	—	—	—	5,000,000	5	—	—	—	5
Notes receivable from common stockholders	—	—	—	—	—	(5)	—	—	(5)
Net and comprehensive loss	—	—	—	—	—	—	—	(2)	(2)
Balance — December 31, 2017	—	—	—	5,000,000	5	(5)	—	(2)	(2)
Issuance of Series A convertible preferred shares at $35.06 per share, net of issuance costs of $635 (unaudited)	7,557,990	264,365	—	—	—	—	—	—	—
Issuance of Series A-1 convertible preferred shares at $35.06 per share in connection with asset acquisition (unaudited)	3,187,772	111,770	—	—	—	—	—	—	—
Issuance of Series A-1 convertible preferred shares at $35.06 per share, net of issuance costs of $84 (unaudited)	998,225	34,917	—	—	—	—	—	—	—
Subscriptions receivable from preferred stockholders (unaudited)	—	—	(150,000)	—	—	—	—	—	—
Proceeds received from common stockholders (unaudited)	—	—	—	—	—	5	—	—	5
Issuance of common stock for early exercise of stock options (unaudited)	—	—	—	279,000	—	—	—	—	—
Stock-based compensation (unaudited)	—	—	—	—	—	—	8,056	—	8,056
Net and comprehensive loss (unaudited)	—	—	—	—	—	—	—	(137,499)	(137,499)
Balance — June 30, 2018 (unaudited)	11,743,987	$411,052	$ (150,000)	5,279,000	$ 5	$ —	$ 8,056	$ (137,501)	$ (129,440)

The accompanying notes are an integral part of these financial statements.

ALLOGENE THERAPEUTICS, INC.

Statements of Cash Flows
(in thousands)

	Period From November 30, 2017 (Inception) to December 31, 2017	Six Months Ended June 30, 2018 (Unaudited)
Cash flows from operating activities:		
Net loss	$ (2)	$ (137,499)
Adjustments to reconcile net loss to net cash used in operating activities:		
Acquired in-process research and development	—	109,436
Amortization of other intangible assets acquired	—	151
Depreciation and amortization of fixed assets	—	299
Stock-based compensation	—	8,056
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	—	(337)
Accounts payable	—	1,268
Accrued and other current liabilities	2	12,584
Net cash used in operating activities	—	(6,042)
Cash flows from investing activities:		
Purchase of property and equipment	—	(536)
Cash paid for acquisition of assets	—	(2,098)
Net cash used in investing activities	—	(2,634)
Cash flows from financing activities:		
Proceeds from issuance of convertible preferred stock, net of issuance costs	—	149,282
Proceeds from issuance of common stock and upon exercise of stock options	—	3,321
Net cash provided by financing activities	—	152,603
Net increase in cash and cash equivalents	—	143,927
Cash and cash equivalents — beginning of period	—	—
Cash and cash equivalents — end of period	$ —	$ 143,927
Non-cash investing and financing activities:		
Subscriptions receivable from common shareholders	$ 5	$ —
Subscriptions receivable from preferred shareholders	$ —	$ 150,000
Series A-1 convertible preferred stock issued in asset acquisition	$ —	$ 111,770
Property and equipment purchase in accounts payable and accrued liabilities	$ —	$ 60

The accompanying notes are an integral part of these financial statements.

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

1. Basis of Presentation

Allogene Therapeutics, Inc. (the Company or Allogene) was incorporated on November 30, 2017 in the State of Delaware and is headquartered in South San Francisco, California. Allogene is a clinical-stage immuno-oncology company pioneering the development and commercialization of genetically engineered allogeneic T cell therapies for the treatment of cancer. The Company is developing a pipeline of off-the-shelf T cell product candidates that are designed to target and kill cancer cells.

For the period from November 30, 2017 (inception) to December 31, 2017, the Company incurred $2,000 in start-up costs to establish the Company. Principal operations commenced in April 2018 when Allogene acquired certain assets from Pfizer Inc. (Pfizer) (see Note 5) and completed a Series A and A-1 preferred stock financing (see Note 7).

Need for Additional Capital

The Company has sustained operating losses and expects to continue to generate operating losses for the foreseeable future. The Company's ultimate success depends on the outcome of its research and development activities. The Company had cash and cash equivalents of $143.9 million and subscriptions receivable from its preferred shareholders of $150.0 million as of June 30, 2018. Since inception through June 30, 2018, the Company has incurred cumulative net losses of $137.5 million. Management expects to incur additional losses in the future to fund its operations and conduct product research and development and recognizes the need to raise additional capital to fully implement its business plan.

The Company intends to raise such additional capital through the issuance of equity securities, debt financings or other sources. However, if such financing is not available at adequate levels, the Company will need to reevaluate its operating plan and may be required to delay the development of its product candidates. Management considers that there are no conditions or events, in the aggregate, that raise substantial doubt about the entity's ability to continue as a going concern for a period of at least one year from the date the financial statements are issued. The Company expects that its cash and cash equivalents as of June 30, 2018 and amounts received in July and August 2018 from its subscriptions receivable (see Note 12) will be sufficient to fund its operations through 2019.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of expenses during the reporting period. Significant estimates and assumptions made in the accompanying financial statements include but are not limited to the fair value of common stock, the fair value of stock options, income tax uncertainties, and certain accruals. The Company evaluates its estimates and assumptions on an ongoing basis using historical experience and other factors and adjusts those estimates and assumptions when facts and circumstances dictate. Actual results could differ from those estimates.

Unaudited Interim Financial Information

The accompanying interim balance sheet as of June 30, 2018, the interim statements of operations and comprehensive loss and cash flows for the six months ended June 30, 2018 and the interim statements of

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

convertible preferred stock and stockholders' deficit for the six months ended June 30, 2018 are unaudited. The unaudited interim financial statements have been prepared on the same basis as the annual financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to present fairly the balance sheet as of June 30, 2018, the statements of operations and comprehensive loss and cash flows for the six months ended June 30, 2018 and the statements of convertible preferred stock and stockholders' deficit for the six months ended June 30, 2018. The financial data disclosed in these notes to the financial statements related to the six months ended June 30, 2018 and as of June 30, 2018 are also unaudited. The results of operations for the six months ended June 30, 2018 are not necessarily indicative of the results to be expected for the full year ending December 31, 2018, or for any other future annual or interim period.

Unaudited Pro Forma Balance Sheet

The unaudited pro forma balance sheet as of June 30, 2018 reflects the conversion of all shares of the Company's outstanding convertible preferred stock into 11,743,987 shares of common stock immediately prior to the consummation of an initial public offering (IPO) and the receipt of the $150.0 million in subscriptions receivable from the preferred stockholders that were received in July and August 2018. The shares of common stock issuable and the proceeds expected to be received in the IPO are excluded from such pro forma financial information.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with original maturities of three months or less from the purchase date to be cash equivalents. Cash equivalents consist primarily of amounts invested in money market accounts.

Fair Value Measurement

Assets and liabilities recorded at fair value on a recurring basis in the balance sheets are categorized based upon the level of judgment associated with the inputs used to measure their fair values. Fair value is defined as the exchange price that would be received for an asset or an exit price that would be paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The authoritative guidance on fair value measurements establishes a three-tier fair value hierarchy for disclosure of fair value measurements as follows:

Level 1—Observable inputs such as unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.

Level 2—Inputs (other than quoted prices included in Level 1) are either directly or indirectly observable for the asset or liability. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active.

Level 3— Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Property and Equipment, Net

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation is computed on a straight-line basis over the estimated useful lives of the related assets, generally three to seven

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

years. Maintenance and repairs are charged to operations as incurred. Upon sale or retirement of assets, the cost and related accumulated depreciation are removed from the balance sheet and the resulting gain or loss is reflected in operations.

Definite-Lived Intangible Assets

Identifiable intangible assets consist of in-process research and development and workforce associated with asset acquisition. Intangible assets with finite lives are amortized over their estimated useful lives on a straight-line basis, generally two years. Acquired in-process research and development intangible assets with no alternative future use are charged to research and development expense when acquired. The straight-line method of amortization represents the Company's best estimate of the distribution of the economic value of the identifiable intangible assets. Intangible assets are carried at cost less accumulated amortization. Amortization of intangible assets is included in research and development expenses.

Impairment of Long-Lived Assets

Long-lived assets are reviewed annually for impairment or whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability is measured by comparison of the carrying amount of an asset group to the future net undiscounted cash flows that the assets are expected to generate. If the carrying amount of an asset group exceeds its estimated future cash flows, an impairment charge is recognized in the amount by which the carrying amount of the asset group exceeds the fair value of the asset group. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the projected discounted future net cash flows arising from the asset. There has been no impairment of long-lived assets for any of the periods presented.

Deferred Offering Costs

Deferred offering costs, consisting of legal, accounting and filing fees relating to an IPO, are capitalized. The deferred offering costs will be offset against offering proceeds upon the completion of the offering. In the event the offering is terminated or delayed, deferred offering costs will be expensed. No deferred offering costs were incurred during the six months ended June 30, 2018.

Accrued Research and Development Costs

The Company records accrued liabilities for estimated costs of research and development activities conducted by collaboration partners and third-party service providers, which include the conduct of preclinical studies and clinical trials, and contract manufacturing activities. The Company records the estimated costs of research and development activities based upon the estimated amount of services provided but not yet invoiced, and includes these costs in accrued and other current liabilities on the balance sheets and within research and development expense on the statements of operations.

The Company accrues for these costs based on factors such as estimates of the work completed and in accordance with agreements established with its collaboration partners and third-party service providers. The Company makes significant judgments and estimates in determining the accrued liabilities balance in each reporting period. As actual costs become known, the Company adjusts its accrued liabilities. The Company has not experienced any material differences between accrued costs and actual costs incurred since its inception.

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

Research and Development Expenses

Research and development costs are expensed as incurred. Research and development expenses for the six months ended June 30, 2018 primarily consist of acquired intangible assets as research and development costs pursuant to the Asset Contribution Agreement with Pfizer (see Note 5) as, at the time of acquisition of the asset, the technology is under development; is not approved by the U.S. Food and Drug Administration or other regulatory agencies for marketing; has not reached technical feasibility; or otherwise has no foreseeable alternative future use. For the six months ended June 30, 2018, the Company recognized expense of $109.4 million related to the acquired intangible in-process research and development.

Research and development expenses also include costs incurred for internal and sponsored and collaborative research and development activities. Research and development costs consist of salaries and benefits, including associated stock-based compensation, and laboratory supplies and facility costs, as well as fees paid to other entities that conduct certain research and development activities on the Company's behalf. Costs associated with co-development activities performed under the various license and collaboration agreements are included in research and development expenses.

Stock-Based Compensation

The Company measures its stock-based awards granted to employees and directors based on the estimated fair values of the awards and recognizes the compensation over the requisite service period. The Company uses the Black-Scholes option-pricing model to estimate the fair value of its stock-based awards. Stock-based compensation is recognized using the straight-line method. As the stock compensation expense is based on awards ultimately expected to vest, it is reduced by forfeitures. The Company accounts for forfeitures as they occur.

Income Taxes

Income taxes are accounted for under the asset and liability method. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Management makes an assessment of the likelihood that the resulting deferred tax assets will be realized. A valuation allowance is provided when it is more likely than not that some portion or all of a deferred tax asset will not be realized. Due to the Company's historical operating performance and the recorded cumulative net losses in prior fiscal periods, the net deferred tax assets have been fully offset by a valuation allowance.

The Company recognizes uncertain income tax positions at the largest amount that is more likely than not to be sustained upon audit by the relevant taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. Changes in recognition or measurement are reflected in the period in which judgment occurs. The Company's policy is to recognize interest and penalties related to the underpayment of income taxes as a component of the provision for income taxes.

Comprehensive Loss

Comprehensive loss is composed of net loss and other comprehensive income or loss. To date, the Company has not had any transactions that are required to be reported in comprehensive loss other than the net loss incurred from operations.

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

Net Loss Per Share

Basic net loss per share is calculated by dividing the net loss by the weighted-average number of shares of common stock outstanding for the period, without consideration for potential dilutive shares of common stock. Since the Company was in a loss position for all periods presented, basic net loss per share is the same as diluted net loss per share since the effects of potentially dilutive securities are antidilutive. Shares of common stock subject to repurchase are excluded from the weighted-average shares.

Unaudited Pro Forma Net Loss Per Share

Pro forma basic and diluted net loss per share has been computed to give effect to the conversion of the shares of the Company's convertible preferred stock into common stock as if such conversion had occurred at the beginning of the period. The pro forma net loss per share does not include the shares expected to be sold and related proceeds to be received from an IPO.

Segments

Operating segments are defined as components of an entity for which separate financial information is available and that is regularly reviewed by the Chief Operating Decision Maker (CODM) in deciding how to allocate resources to an individual segment and in assessing performance. The Company's CODM is its Chief Executive Officer. The Company has determined it operates in a single operating segment and has one reportable segment.

Emerging Growth Company Status

The Company is an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 (the JOBS Act). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. The Company has elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that it is (i) no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, these financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

Recently Adopted Accounting Pronouncements

In March 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2016-09, *Stock Compensation—Improvements to Employee Share-Based Payment Accounting* (ASU 2016-09). ASU 2016-09 was issued to simplify accounting guidance by identifying, evaluating, and improving areas for which cost and complexity can be reduced while maintaining or improving the usefulness of the information provided to users of financial statements. The areas affected by ASU 2016-09 include accounting for income taxes, classification of excess tax benefits on the statement of cash flows, minimum statutory tax withholding requirements, and classification of employee taxes paid on the statement of cash flows when an employer withholds shares for tax-withholding purposes. In addition, under this guidance, an entity can make an accounting policy election to either estimate the number of awards that are expected to vest or account for forfeitures when they occur. The Company adopted this guidance beginning with the period from November 30, 2017 (inception) to December 31, 2017, and elected a policy to account for forfeitures as they occur.

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

In January 2017, the FASB issued Accounting Standards Update, *Business Combinations (Topic 805): Clarifying the Definition of a Business* (ASU 2017-01). ASU 2017-01 clarifies the framework for determining whether an integrated set of assets and activities meets the definition of a business. The revised framework establishes a screen for determining whether an integrated set of assets and activities is a business and narrows the definition of a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. This screen reduces the number of transactions that need to be further evaluated. This new accounting guidance is effective for public or private companies for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted. The new accounting guidance should be applied prospectively on or after the effective date. The Company adopted this guidance on January 1, 2018.

In June 2018, the FASB issued Accounting Standards Update No. 2018-07, *Improvements to Nonemployee Share-Based Payment Accounting* (ASU 2018-07). ASU 2018-07 simplifies the accounting for share-based payments to nonemployees by aligning it with the accounting for share-based payments to employees, with certain exceptions. Some of the areas of simplification apply only to nonpublic entities. For all entities, the amendments are effective for annual periods beginning after December 15, 2019, and interim periods within annual periods beginning after December 15, 2020. Early adoption is permitted for any entity in any interim or annual period for which financial statements haven't been issued or made available for issuance, but not before an entity adopts ASC 606. The Company early adopted this guidance on January 1, 2018.

Recent Accounting Pronouncements

In February 2016, the FASB issued Accounting Standards Update No. 2016-02, *Leases* (ASU 2016-02), which provides accounting guidance for both lessee and lessor accounting models. The principle of ASU 2016-02 is that a lessee should recognize the assets and liabilities that arise from leases. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all of their leases (other than leases that meet the definition of a short-term lease). The liability will be equal to the present value of lease payments. The asset will be based on the liability. For income statement purposes, ASU 2016-02 requires leases to be classified as either operating or finance. Operating leases will result in straight-line expense while finance leases will result in a front-loaded expense pattern. ASU 2016-02 is effective for public companies for fiscal years beginning after December 15, 2018. For all other entities, this standard is effective for annual reporting periods beginning after December 15, 2019, and interim periods within annual periods beginning after December 15, 2020. Early adoption is permitted. The new standard must be adopted using a modified-retrospective transition and provides for certain practical expedients. The Company is currently evaluating the effects of the adoption of this ASU on its financial statements.

3. Fair Value Measurements

The Company measures and reports its cash equivalents at fair value.

Money market funds are measured at fair value on a recurring basis using quoted prices and are classified as Level 1. There were no transfers between Levels 1, 2 or 3 for any of the periods presented. As of June 30, 2018, the Company held $125.0 million in money market funds (Level 1) with no unrealized gains or losses.

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

4. Balance Sheet Components

Property and Equipment, Net

Property and equipment, net consists of the following:

	December 31, 2017	June 30, 2018
	(In thousands)	
Laboratory equipment	$ —	$3,755
Computer equipment and software	—	70
	—	3,825
Less: Accumulated depreciation and amortization	—	(299)
Total property and equipment, net	$ —	$3,526

Depreciation and amortization expense for property and equipment amounted to $0.3 million for the six months ended June 30, 2018.

Intangible Assets, Net

The intangible assets consist of the following:

	June 30, 2018		
	Cost	Accumulated Amortization	Carrying value
		(In thousands)	
Assembled workforce	$ 1,206	$ (151)	$ 1,055

As of June 30, 2018, the weighted-average remaining amortization period of the assembled workforce was 1.76 years. Amortization expense related to the other intangible asset was $0.2 million for the six months ended June 30, 2018.

Accrued Liabilities

Accrued liabilities consist of the following:

	December 31, 2017	June 30, 2018
	(In thousands)	
Accrued research and development expenses	$ —	$ 8,621
Accrued compensation	—	1,777
Other	2	3,079
Total accrued liabilities	$ 2	$13,477

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

5. Asset Acquisition

In April 2018, the Company entered into an Asset Contribution Agreement (the Pfizer Agreement) with Pfizer pursuant to which the Company acquired certain assets, including certain contracts described in Note 6, and intellectual property for the development and administration of CAR T cells for the treatment of cancer.

As consideration for the purchased assets, the Company issued Pfizer 3,187,772 shares of its Series A-1 convertible preferred stock with an estimated fair value of $111.8 million or $35.06 per share. The Company also incurred $2.1 million of direct expenses related to the asset acquisition, bringing the total consideration to $113.9 million. The fair value of the Series A-1 convertible preferred stock was established using the price per share paid by third-party investors in the concurrent closing of the Series A and A-1 convertible preferred stock financing of $35.06 per share as well as the price per share paid by Pfizer to purchase additional shares of Series A-1 convertible preferred stock at $35.06 per share at the same time and at the same price per share as the rest of Series A and A-1 financing (see Note 7 for additional details). The Series A-1 convertible preferred shares issued to Pfizer have the same rights, preferences and privileges as the Series A convertible preferred shares issued to the third-party investors.

The Company accounted for the transaction as an asset acquisition as substantially all of the estimated fair value of the gross assets acquired was concentrated in a single identified asset, anti-CD19 CAR T cell therapy, thus satisfying the requirements of the screen test in ASU 2017-01. The assets acquired in the transaction were measured based on the fair value of the Series A-1 convertible preferred stock issued to Pfizer and direct transaction costs of $2.1 million, as the fair value of the equity given was more readily determinable than the fair value of the assets received. The following table summarizes the fair value of assets acquired (in thousands):

Property and equipment	$ 3,258
In-process research and development (IPR&D):	
anti-CD19 CAR T cell therapy	103,936
anti-BCMA CAR T cell therapy	5,500
Assembled workforce	1,206
Total assets acquired	$ 113,900

The estimated fair values of anti-CD19 CAR T cell therapy and anti-BCMA CAR T cell therapy were determined using a risk-adjusted discounted cash flow approach, which used the present value of the direct cash flows expected to be generated by anti-CD19 CAR T cell therapy and anti-BCMA CAR T cell therapy during their estimated economic lives, net of returns on contributory assets such as working capital, property and equipment, and the assembled workforce. The discount rate of 16.5% was based on rates of return available from alternative investments of similar type and quality as of the valuation date. The remaining IPR&D targets were determined to be more conceptual in nature with nominal value being attributed to them. The estimate of the fair value of the assembled workforce was determined using a replacement cost approach, based off the estimated cost of recruiting and training an equivalent workforce as of the acquisition date.

The amount allocated to intangible IPR&D assets was charged to research and development expense as these assets had no alternative future use at the time of the acquisition transaction. The remaining intangible asset relates to the assembled workforce which was capitalized and is being amortized over its estimated economic life of two years.

In addition, under the terms of the Pfizer Agreement, the Company is also required to make milestone payments to Pfizer of $30.0 million or $60.0 million per target (depending on the target, and $840.0 million in the

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

aggregate for all targets) upon successful completion of certain regulatory and sales milestones for certain targets covered by the Pfizer Agreement. These contingent payments are not part of the consideration for the purchased assets.

As part of the asset acquisition, the Company also assumed licensing agreements Pfizer had entered into with two third-party entities holding certain intellectual property. Both agreements cover use of the intellectual property held by the parties and certain research collaboration activities. See Note 6 for additional details on these agreements.

Under the Pfizer Agreement, the Company is required to use commercially reasonable efforts to develop and seek regulatory approval in and for the United States and the European Union for certain products covered by the Pfizer Agreement and to commercialize each product covered by the Pfizer Agreement in the applicable royalty territory in which regulatory approval for such product has been obtained.

6. License Agreements and Other Commitments

Asset Contribution Agreement with Pfizer

In connection with the Pfizer Agreement (see Note 5), the Company is required to make milestone payments upon successful completion of regulatory and sales milestones on a target-by-target basis for the targets including CD19 and BCMA, covered by the Pfizer Agreement. The aggregate potential milestone payments upon successful completion of various regulatory milestones in the United States and the European Union are $30.0 million or $60.0 million, depending on the target, with aggregate potential regulatory and development milestones of up to $840.0 million, provided that we are not obligated to pay a milestone for regulatory approval in the European Union for an anti-CD19 allogeneic CAR T cell product, to the extent Servier has commercial rights to such territory. The aggregate potential milestone payments upon reaching certain annual net sales thresholds in North America, Europe, Asia, Australia and Oceania (the Territory) for a certain number of targets covered by the Pfizer Agreement are $325.0 million per target. The sales milestones in the foregoing sentence are payable on a country-by-country basis until the last to expire of any Pfizer Royalty Term, as described below, for any product in such country in the Territory.

Pfizer is also eligible to receive, on a product-by-product and country-by-country basis, royalties in single-digit percentages on annual net sales for products covered by the Pfizer Agreement or that use certain Pfizer intellectual property and for which an IND is first filed on or before April 6, 2023. The Company’s royalty obligation with respect to a given product in a given country begins upon the first sale of such product in such country and ends on the later of (i) expiration of the last claim of any applicable patent or (ii) 12 years from the first sale of such product in such country.

Research Collaboration and License Agreement with Cellectis

As part of the Pfizer Agreement (see Note 5), Pfizer assigned to the Company a Research Collaboration and License Agreement (the Cellectis Agreement), with Cellectis S.A. (Cellectis). Pursuant to the Cellectis Agreement, the Company has an exclusive, worldwide, royalty-bearing, sublicensable license, on a target-by-target basis, under certain of Cellectis’s intellectual property to make, use, sell, import, and otherwise commercialize products directed at certain targets for the treatment of cancer.

The Cellectis Agreement included a research collaboration to conduct discovery and pre-clinical development activities to generate CAR T cells directed at targets selected by each party. Pursuant to the terms of the Cellectis

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

Agreement, the research collaboration ended in June 2018. Cellectis has a non-exclusive, worldwide, royalty-free, perpetual and irrevocable license, with sublicensing rights under certain conditions, under certain of the Company's intellectual property to conduct research, and to make, use, sell, import and otherwise commercialize products directed at Cellectis-selected targets.

The Cellectis Agreement requires Allogene to make payments of up to $185.0 million per product that is directed against a Company-selected target, with aggregate maximum potential pre-clinical, clinical and commercial milestone payments totaling up to $2.8 billion across all potential targets. Cellectis is also eligible to receive tiered royalties on annual worldwide net sales of any products that are commercialized by the Company that contain or incorporate, or are covered by, certain of Cellectis's intellectual property at rates in the high single-digit percentages.

Unless earlier terminated in accordance with the agreement, the Cellectis Agreement will expire on a product-by-product and country-by-country basis, on the later of (i) the expiration of the last to expire of the licensed patents covering such product; (ii) the loss of regulatory exclusivity afforded such product in such country, and (iii) the tenth anniversary of the date of the first commercial sale of such product in such country; however, in no event will the term extend, with respect to a particular licensed product, past the twentieth anniversary of the first commercial sale for such product.

All costs the Company incurred in connection with this agreement were recognized as research and development expenses. For the six months ended June 30, 2018, $0.4 million of costs have been incurred associated with research services performed by Cellectis. As of June 30, 2018, $0.4 million was recorded in the accrued and other current liabilities.

License and Collaboration Agreement with Servier

As part of the Pfizer Agreement (see Note 5), Pfizer assigned to the Company an Exclusive License and Collaboration Agreement (the Servier Agreement), with Les Laboratoires Servier SAS and Institut de Recherches Internationales Servier SAS (collectively, Servier) to develop, manufacture and commercialize certain allogeneic anti-CD19 CAR T cell product candidates, including UCART19, in the United States with the option to obtain the rights over additional products, including other anti-CD19 product candidates.

Under the Servier Agreement, the Company has an exclusive license to develop, manufacture and commercialize UCART19 in the field of anti-tumor adoptive immunotherapy in the United States, with an exclusive option to obtain the same rights for additional product candidates in the United States and, if Servier does not elect to pursue development or commercialization of those product candidates in certain markets outside of the United States pursuant to its license, outside of the United States as well. The Company is generally not required to make any additional payments to Servier to exercise an option, except for products directed at a certain target, for which the Company is required to pay Servier an option fee in the low tens of millions of dollars range upon exercise. If the Company opts-in to another product candidate, Servier has the right to obtain rights to such product candidate outside the United States and to share development costs for such product candidate.

Under the Servier Agreement, the Company is required to use commercially reasonable efforts to develop and obtain marketing approval in the United States in the field of anti-tumor adoptive immunotherapy for at least one product directed against CD19, and Servier is required to use commercially reasonable efforts to develop and obtain marketing approval in the European Union, and one other country in a group of specified countries outside of the European Union and the United States, in the field of anti-tumor adoptive immunotherapy for at least one allogeneic adaptive T cell product directed against a certain Company-selected target.

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

For product candidates that the Company is co-developing with Servier, including UCART19, the Company is responsible for 60% of the development costs and Servier is responsible for the remaining 40% of the development costs under the global research and development plan. Subject to certain restrictions, each party has the right to conduct activities that are specific to its territory outside the global research and development plan at such party's sole expense. In addition, each party is solely responsible for commercialization activities in its territory at such party's sole expense.

The Company is required to make milestone payments to Servier upon successful completion of regulatory and sales milestones on a target-by-target basis. For products directed against CD19, including UCART19, the Servier Agreement provides for aggregate potential payments by the Company to Servier of up to $137.5 million upon successful completion of various regulatory milestones, and aggregate potential payments by the Company to Servier of up to $78.0 million upon successful completion of various sales milestones. The total potential payments that the Company is obligated to make under the Servier Agreement upon successful completion of regulatory and sales milestones are $381.5 million, including the CD19-related milestone payments described above. Similarly, Servier is required to make milestone payments upon successful completion of regulatory and sales milestones for products directed at the Allogene-target covered by the Servier Agreement that achieves such milestones. The total potential payments that Servier is obligated to make to the Company under the Servier Agreement upon successful completion of regulatory and sales milestones are $42 million and €70.5 million ($82.3 million), respectively. The foregoing milestones are subject to certain adjustments if the Company obtains rights for certain products outside of the United States upon Servier's election not to pursue such rights.

Each party is also eligible to receive tiered royalties on annual net sales in countries within the paying party's respective territory of any licensed products that are commercialized by such party that are directed at the targets licensed by such party under the Servier Agreement. The royalty rates are in a range from the low tens to the high teen percentages. Such royalties may be reduced for interchangeable drug entry, expiration of patent rights and amounts paid pursuant to licenses of third party patents. The royalty obligation for each party with respect to a given licensed product in a given country in each party's respective territory (the Servier Royalty Term) begins upon the first commercial sale of such product in such country and ends after a defined number of years.

Unless earlier terminated in accordance with the Servier Agreement, the Servier Agreement will continue, on a licensed product-by-licensed product and country-by-country basis, until the Servier Royalty Term with respect to the sale of such licensed product in such country expires.

For the six months ended June 30, 2018, the Company recorded $3.2 million of the costs incurred under the cost-sharing terms of the Servier Agreement as research and development expense.

Operating Lease

As of June 30, 2018, the Company has not entered into any long-term operating lease agreements.

Indemnification

From time to time, the Company enters into certain types of contracts that contingently requires the Company to indemnify various parties against claims from third parties. These contracts primarily relate to (i) the Company's bylaws, under which the Company must indemnify directors and executive officers, and may indemnify other officers and employees, for liabilities arising out of their relationship, (ii) contracts under which the Company must indemnify directors and certain officers for liabilities arising out of their relationship, (iii) contracts under which the Company may be required to indemnify partners against certain claims, including claims from third

parties asserting, among other things, infringement of their intellectual property rights, and (iv) procurement, consulting, or license agreements under which the Company may be required to indemnify vendors, consultants or licensors for certain claims, including claims that may be brought against them arising from the Company's acts or omissions with respect to the supplied products, technology or services. From time to time, the Company may receive indemnification claims under these contracts in the normal course of business. In addition, under these contracts, the Company may have to modify the accused infringing intellectual property and/or refund amounts received.

In the event that one or more of these matters were to result in a claim against the Company, an adverse outcome, including a judgment or settlement, may cause a material adverse effect on the Company's future business, operating results or financial condition. It is not possible to determine the maximum potential amount under these contracts due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement.

The Company also maintains director and officer insurance, which may cover certain liabilities arising from our obligation to indemnify the Company's directors. To date, the Company has not incurred any material costs and has not accrued any liabilities in the financial statements as a result of these provisions.

7. Convertible Preferred Stock and Stockholders' Deficit

Convertible Preferred Stock

As discussed in Note 5, the Company issued 3,187,772 shares of its Series A-1 convertible preferred stock to Pfizer in connection with the Pfizer Agreement entered into in April 2018.

In April 2018, the Company issued 7,557,990 shares of its Series A convertible preferred stock at a price per share of $35.06 for net cash proceeds of $264.4 million and issued 998,225 shares of Series A-1 convertible preferred stock at a price per share of $35.06 for net cash proceeds of $34.9 million. Fifty percent of the aggregate purchase price of $300.0 million was paid in April 2018. The remaining subscriptions receivable of $150.0 million was received in July and August 2018, at the election of the Company's board of directors. The subscriptions receivable are classified as mezzanine equity on the balance sheet as of June 30, 2018 as the shares are issued but unpaid.

Convertible preferred stock consists of the following:

	June 30, 2018			
	Shares Authorized	Shares Issued and Outstanding	Net Carrying Value	Aggregate Liquidation Preference
	(In thousands, except share amounts)			
Series A	7,557,990	7,557,990	$ 264,365	$ 265,000
Series A-1	4,185,997	4,185,997	146,687	146,770
	11,743,987	11,743,987	$ 411,052	$ 411,770

The Company classifies the convertible preferred stock outside of stockholders' deficit because, in the event of certain "liquidation events" that are not solely within the control of the Company (including merger, acquisition, or sale of all or substantially all of the assets), the shares would become redeemable at the option of the holders. The Company did not adjust the carrying values of the convertible preferred stock to the deemed liquidation

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

values of such shares since a liquidation event was not probable at any of the reporting dates. Subsequent adjustments to increase or decrease the carrying values to the ultimate liquidation values will be made only if and when it becomes probable that such a liquidation event will occur.

The holders of the Company's convertible preferred stock have various rights, preferences and privileges as follows:

Optional Conversion Rights

Each share of convertible preferred stock shall be convertible, at the option of the holder, into such number of fully paid shares of common stock as is determined by dividing the original issuance price by the conversion price in effect at the time of conversion. As of June 30, 2018, the initial conversion price per share of convertible preferred stock is equivalent to the original issue price. The original issuance price was $35.06 per share for the Series A and A-1 convertible preferred stock. Based on the conversion ratios in effect as of June 30, 2018, the Series A and A-1 convertible preferred stock will convert on a one-for-one basis into common stock. The respective applicable conversion price is subject to adjustment upon any future stock splits or stock combinations, reclassifications or exchanges of similar stock, upon a reorganization, merger or consolidation of the Company, or upon the issuance or sale by the Company of common stock for consideration less than the applicable conversion price.

Mandatory Conversion Rights

Each share of Series A and A-1 convertible preferred stock automatically converts into the number of shares of common stock determined in accordance with the conversion rate upon any of the following: (a) written consent of a majority of each of (i) the holders of a majority of Series A convertible preferred stock, and (ii) the holders of a majority of Series A-1 convertible preferred stock, each voting separately, as a separate class and series or (b) the closing of a public offering with a pre-money valuation of the Company of at least $600.0 million and in which the gross cash proceeds are at least $100.0 million (Qualified Initial Public Offering) or (c) the closing of a public offering, other than Qualified Initial Offering, that is approved by at least 51% of the outstanding shares of Series A and A-1 convertible preferred stock, voting together as a class.

Dividends

The holders of the outstanding shares of convertible preferred stock are entitled to first receive, when and if declared by the board of directors, a dividend at least equal to the dividend payable on common stock as if all convertible preferred stock had been converted to common stock. No dividends had been declared as of June 30, 2018.

Liquidation

In the event of any liquidation, dissolution, or winding up of the Company, either voluntary or involuntary, the holders of convertible preferred stock shall be entitled to receive pro rata, prior and in preference to any distribution to the holders of the common stock, an amount equal to the greater of (i) the original issuance prices of each series (in each case, as adjusted for stock splits, stock dividends or distributions, recapitalizations, and similar events) and all declared but unpaid dividends, if any or (ii) such amount per share as would have been payable had all shares of convertible preferred stock been converted to common stock. If the assets and funds to be distributed among the holders of convertible preferred stock are insufficient to permit the payment to such

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

holders, then the entire assets and funds of the Company legally available for distribution will be distributed ratably among the holders of convertible preferred stock in proportion to the preferential amount each such holder is otherwise entitled to receive.

Voting Rights

Each share of convertible preferred stock has a number of votes equal to the number of shares of common stock into which it is convertible. The holders of convertible preferred stock, voting together as a single class, shall be entitled to elect five members of the Company's board of directors. The holders of common stock have the right to elect two members of the Company's board of directors. The holders of common stock and convertible preferred stock, voting together as a single class on an as-converted basis, are entitled to elect three members of the board of directors.

Redemption

The Series A and A-1 convertible preferred stocks are not currently redeemable.

Common Stock

Pursuant to the Amended and Restated Certificate of Incorporation filed on April 5, 2018, the Company is authorized to issue a total of 20,000,000 shares of common stock, of which 5,279,000 shares were issued and outstanding at June 30, 2018.

In connection with the issuance of the Company's Series A convertible preferred stock in April 2018, the Company's founders agreed to modify their common shares outstanding to include vesting provisions that require continued service to the Company in order to vest in those shares. As such, the 5,000,000 modified shares of common stock became compensatory upon such modification. The total compensation cost resulting from the modification is approximately $59.5 million and is being recognized over the four-year vesting term. For the six-month period ended June 30, 2018, the Company recognized $8.0 million of this amount in general and administrative expense.

Common stockholders are entitled to dividends if and when declared by the Board of Directors subject to the prior rights of the preferred stockholders. As of June 30, 2018, no dividends on common stock had been declared by the Board of Directors.

8. Stock-Based Compensation

In June 2018, the Company adopted the 2018 Equity Incentive Plan (2018 Plan). The 2018 Plan provides for the Company to sell or issue common stock or restricted common stock, or to grant incentive stock options or nonqualified stock options for the purchase of common stock, to employees, members of the Board of Directors and consultants of the Company under terms and provisions established by the Board of Directors. Under the terms of the Plan, options may be granted at an exercise price not less than fair market value. The Company generally grants stock-based awards with service conditions only. Options granted typically vest over a four-year period but may be granted with different vesting terms.

As of June 30, 2018, there were 182,543 shares reserved by the Company under the 2018 Plan for the future issuance of equity awards.

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

The following summarizes option activity under the 2018 Plan:

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contract Term (In years)	Aggregate Intrinsic Value (In thousands)
Balance, December 31, 2017	—	—		
Options granted	1,677,900	$ 11.89		
Options exercised	279,000	$ 11.89		
Options forfeited	—	—		
Balance outstanding, June 30, 2018	1,398,900	$ 11.89	9.99	—
Exercisable, June 30, 2018	1,003,500	11.89	9.99	—
Vested and expected to vest, June 30, 2018	1,398,900	$ 11.89	9.99	—

The aggregate intrinsic values of options outstanding, exercisable, vested and expected to vest were calculated as the difference between the exercise price of the options and the estimated fair value of the Company's common stock, as determined by the board of directors, as of June 30, 2018. No intrinsic value of options exercised existed for the six months ended June 30, 2018.

During the six months ended June 30, 2018, the estimated weighted-average grant-date fair value of employee options granted was $8.24 per share. As of June 30, 2018, there was $13.8 million of unrecognized stock-based compensation related to unvested stock options, which is expected to be recognized over a weighted-average period of 3.7 years.

The fair value of employee and director stock option awards was estimated at the date of grant using a Black-Scholes option-pricing model with the following assumptions:

	Six Months Ended June 30, 2018
Fair value of common stock	$11.89
Expected term (years)	5.99 to 6.25 years
Expected volatility	77.00%
Expected risk-free interest rate	2.87%
Expected dividend	0%

The Black-Scholes option-pricing model requires the use of subjective assumptions which determine the fair value of stock-based awards. These assumptions include:

Fair value of common stock—Historically, because there has been no public market for the Company's common stock, the fair value of the Company's common stock underlying share-based awards was estimated on each grant date by the Company's board of directors. In order to determine the fair value of the Company's common stock underlying option grants, the Company's board of directors considered, among other things, valuations of the Company's common stock prepared by an unrelated third-party valuation firm in accordance with the guidance provided by the American Institute of Certified Public Accountants Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*.

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

Expected term— The expected term represents the period that stock-based awards are expected to be outstanding. The expected term for option grants is determined using the simplified method. The simplified method deems the term to be the average of the time-to-vesting and the contractual life of the stock-based awards.

Expected volatility—Since the Company is a privately held company and does not have any trading history for its common stock, the expected volatility is estimated based on the average volatility for comparable publicly traded biotechnology companies over a period equal to the expected term of the stock option grants. The comparable companies were chosen based on their similar size, stage in the life cycle or area of specialty. The Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available.

Risk-free interest rate—The risk-free interest rate is based on the U.S. Treasury zero coupon issues in effect at the time of grant for periods corresponding with the expected term of option.

Expected dividend—The Company has never paid dividends on its common stock and has no plans to pay dividends on its common stock. Therefore, the Company used an expected dividend yield of zero.

For the six months ended June 30, 2018, total stock-based compensation expense related to stock options was $53,000, of which $40,000 was recorded in general and administrative expense and $13,000 in research and development expense. As discussed in Note 7, the Company also recorded in general and administrative expenses $8.0 million in stock-based compensation related to the modification of its founders' common stock.

Early Exercised Options

The Company allows its executive employees and directors to exercise options granted under the 2018 Plan prior to vesting. The shares related to early exercised stock options are subject to the Company's lapsing repurchase right upon termination of employment at the lesser of the original purchase price or fair market value at the time of repurchase. In order to vest, the holders are required to provide continued service to the Company. The proceeds are initially recorded in accrued and other liabilities and other long-term liabilities for the noncurrent portion. The proceeds are reclassified to common stock and paid-in capital as the repurchase right lapses. As of June 30, 2018, there was $0.8 million recorded in accrued and other liabilities and $2.5 million recorded in other long-term liabilities related to shares held by employees and directors that were subject to repurchase. The underlying shares are shown as outstanding in the financial statements since the exercise date.

9. Related Party Transactions

As of June 30, 2018, Pfizer holds 4,185,997 shares of Series A-1 convertible preferred stock and has appointed two members to the Company's board of directors.

In April 2018, the Company entered into a transition services agreement (the Pfizer TSA) for Pfizer to provide the Company professional services related to research and development, project management, and other administrative functions. For the six months ended June 30, 2018, the costs incurred under the Pfizer TSA were $3.7 million, which were recorded as general and administrative expense of $1.8 million and research and development expense of $1.9 million. The Company also purchased certain lab supplies from Pfizer in connection with its research and development activities. For the six months ended June 30, 2018, the total lab supplies purchased from Pfizer was $3.3 million, which is recorded as research and development expense.

As of June 30, 2018, the Company has an amount payable to Pfizer of $6.6 million which is recorded in the accrued and other current liabilities on the accompanying balance sheets.

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

Consulting Agreements

In June 2018, the Company entered into a services agreement with a firm affiliated with the Company's President and Chief Executive Officer, the Company's Executive Chairman of the board of directors, and a director of the Company to provide various managerial, administrative, accounting and financial services to the Company. Additionally, in June 2018 the Company entered into a consulting services agreement with a firm affiliated with a beneficial owner of more than 5% of our capital stock. The costs incurred for services provided under these agreements were $0.3 million for the six months ended June 30, 2018 and were included in general and administrative expenses.

10. Income Taxes

For the period from November 30, 2017 to December 31, 2017 and for the six months ended June 30, 2018, the Company recorded no income tax expense. The Company has incurred net operating losses for all the periods presented. The Company has not reflected any benefit of such net operating loss carryforwards in the accompanying financial statements. The Company has established a full valuation allowance against its deferred tax assets due to the uncertainty surrounding the realization of such assets.

The components of the deferred tax assets and liabilities are as follows:

	December 31, 2017	June 30, 2018
	(In thousands)	
Net operating loss carryforwards	$ —	$ 5,999
Depreciation and amortization	—	73
Accrual and allowances	—	23
In-process research and development	—	23,121
Total deferred tax assets	—	29,216
Less: valuation allowance	—	(29,216)
Net deferred tax assets	$ —	$ —

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Due to the lack of earnings history, the net deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by approximately $29.2 million during the six months ended June 30, 2018.

The Company records a liability related to uncertain tax positions in the financial statements. It is the Company's policy to include penalties and interest expense related to income taxes as a component of interest and other income, net, as necessary. As of June 30, 2018, there were no accrued interest and penalties related to uncertain tax positions.

The Company had $0 and $0.5 million in unrecognized tax benefits as of December 31, 2017 and June 30, 2018, respectively. The reversal of the uncertain tax benefits would not affect the effective tax rate to the extent that the Company continues to maintain a full valuation allowance against its deferred tax assets. Unrecognized tax benefits may change during the next 12 months for items that arise in the ordinary course of business.

In December 2017, the Tax Cuts and Jobs Acts (Tax Act) was signed into law. The Tax Act, among other changes, lowers the Company's federal tax rate from 34% to 21%. Since the Company established a valuation

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

allowance to offset its deferred tax assets, there is no impact to the effective tax rate, as any changes to deferred taxes were offset by an equal change in the valuation allowance.

11. Net Loss and Unaudited Pro Forma Net Loss Per Share

The following outstanding potentially dilutive shares have been excluded from the calculation of diluted net loss per share for the periods presented due to their anti-dilutive effect:

	December 31, 2017	June 30, 2018
Convertible preferred stock	—	11,743,987
Stock options to purchase common stock	—	1,398,900
Founder shares of common stock subject to future vesting		4,326,922
Early exercised stock options subject to future vesting	—	279,000
Total	—	17,748,809

Pro Forma Net Loss Per Share

The following table sets forth the computation of unaudited pro forma basic and diluted net loss per share during the six months ended June 30, 2018:

	Six Months Ended June 30, 2018
Net loss per share, basic and diluted	$ (49.44)
Weighted-average number of shares used in computing net loss per share, basic and diluted	2,781,025
Pro forma adjustment to reflect assumed conversion of convertible preferred stock	5,602,076
Weighted-average number of shares used in computing pro forma net loss per share, basic and diluted	8,383,101
Pro forma net loss per share, basic and diluted	$ (16.40)

12. Subsequent Events

Subsequent events have been evaluated through August 10, 2018, which is the date that the financial statements were available to be issued.

Receipt of Subscriptions Receivable

In July and August 2018, the Company received an aggregate of $150.0 million in cash proceeds from its Series A and A-1 convertible preferred stockholders related to subscriptions receivable (see Note 7).

ALLOGENE THERAPEUTICS, INC.

Notes to the Financial Statements

(Information as of June 30, 2018 and for the six months ended June 30, 2018 is unaudited)

Operating Lease Agreement

In August 2018, the Company entered into an operating lease agreement for new office and laboratory space in South San Francisco, California. The lease term is expected to commence on March 1, 2019 and expires ten years from the commencement date. The initial annual base rent is approximately $4.1 million, and such amount will increase by 3.5% annually on each anniversary of the commencement date. In connection with the lease, the Company will maintain a letter of credit for the benefit of the landlord in the amount of $0.9 million.

Convertible Notes

In September 2018, the Company entered into a note purchase agreement pursuant to which it sold and issued $120.2 million aggregate principal amount of convertible promissory notes (2018 Notes) and received net cash proceeds of $116.9 million. The 2018 Notes do not accrue interest and will be settled with shares of common stock in connection with the closing of the IPO at a settlement price equal to 85% of the IPO price per share. If the Company is acquired, completes a business combination resulting in a change of control or sells all or substantially all of its assets (each, a “liquidation transaction”) prior to the one-year anniversary of the issuance date of the 2018 Notes, the 2018 Notes, unless previously settled into shares of common stock in the IPO, will settle into shares of common stock at a price per share equal to 85% of the estimated fair value of the consideration per share payable to the holders of common stock in connection with such liquidation transaction. If neither the IPO nor a liquidation transaction occurs prior to the one-year anniversary of the issuance date of the 2018 Notes, the 2018 Notes will be converted into shares of newly designated Series B convertible preferred stock of the Company at settlement price per share that will be determined based on a stipulated $900.0 million valuation of the Company and its fully diluted capitalization as of immediately prior to the conversion of the 2018 Notes. The 2018 Notes contain additional redemption features contingent upon the occurrence of certain future events.

Shares

Common Stock

Goldman Sachs & Co. LLC **J.P. Morgan** **Cowen** **Jefferies**

, 2018

Through and including , 2018 (the 25th day after the commencement of this offering), all dealers that buy, sell or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth all costs and expenses, other than underwriting discounts and commissions, payable by Allogene Therapeutics, Inc. (the Registrant), in connection with the sale of the common stock being registered. All amounts shown are estimates except for the Securities and Exchange Commission (SEC) registration fee, the FINRA filing fee and the Nasdaq Global Select Market listing fee.

	Amount paid or to be paid
SEC registration fee	$ 12,450
FINRA filing fee	*
Nasdaq Global Select Market listing fee	125,000
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous expenses	*
Total	$ *

* To be provided by amendment.

Item 14. Indemnification of Directors and Officers.

The Registrant is incorporated under the laws of the State of Delaware. Section 145 of the Delaware General Corporation Law provides that a Delaware corporation may indemnify any persons who were, are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer, director, employee or agent of such corporation, or is or was serving at the request of such corporation as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was illegal. A Delaware corporation may indemnify any persons who were, are, or are threatened to be made, a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person is or was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit, provided such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses (including attorneys' fees) actually and reasonably incurred.

The Registrant's amended and restated certificate of incorporation and amended and restated bylaws, which will become effective immediately prior to and upon the completion of this offering, respectively, provide for the indemnification of its directors and officers to the fullest extent permitted under the Delaware General

Corporation Law. Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- transaction from which the director derives an improper personal benefit;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares; or
- breach of a director's duty of loyalty to the corporation or its stockholders.

The Registrant's amended and restated certificate of incorporation, as currently in effect, includes such a provision, and the Registrant's amended and restated certificate of incorporation that will become effective immediately prior to the completion of this offering will include such a provision. Expenses incurred by any officer or director in defending any such action, suit or proceeding in advance of its final disposition shall be paid by the Registrant upon delivery to it of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified by the Registrant.

Section 174 of the Delaware General Corporation Law provides, among other things, that a director who willfully or negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption may be held liable for such actions. A director who was either absent when the unlawful actions were approved or dissented at the time may avoid liability by causing his or her dissent to such actions to be entered in the books containing minutes of the meetings of the board of directors at the time such action occurred or immediately after such absent director receives notice of the unlawful acts.

As permitted by the Delaware General Corporation Law, the Registrant has entered into indemnity agreements with each of its directors and executive officers, that require the Registrant to indemnify such persons against any and all costs and expenses (including attorneys', witness or other professional fees) actually and reasonably incurred by such persons in connection with any action, suit or proceeding (including derivative actions), whether actual or threatened, to which any such person may be made a party by reason of the fact that such person is or was a director or officer or is or was acting or serving as an officer, director, employee or agent of the Registrant or any of its affiliated enterprises. Under these agreements, the Registrant is not required to provided indemnification for certain matters, including:

- indemnification beyond that permitted by the Delaware General Corporation Law;
- indemnification for any proceeding with respect to the unlawful payment of remuneration to the director or officer;
- indemnification for certain proceedings involving a final judgment that the director or officer is required to disgorge profits from the purchase or sale of the Registrant's stock;
- indemnification for proceedings involving a final judgment that the director's or officer's conduct was in bad faith, knowingly fraudulent or deliberately dishonest or constituted willful misconduct or a breach of his or her duty of loyalty, but only to the extent of such specific determination;
- indemnification for proceedings or claims brought by an officer or director against us or any of the Registrant's directors, officers, employees or agents, except for claims to establish a right of indemnification or proceedings or claims approved by the Registrant's board of directors or required by law;
- indemnification for settlements the director or officer enters into without the Registrant's consent; or
- indemnification in violation of any undertaking required by the Securities Act of 1933, as amended (Securities Act), or in any registration statement filed by the Registrant.

The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder. Except as otherwise disclosed under the heading “Legal Proceedings” in the “Business” section of the prospectus included in this registration statement, there is at present no pending litigation or proceeding involving any of the Registrant’s directors or executive officers as to which indemnification is required or permitted, and the Registrant is not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

The Registrant has an insurance policy in place that covers its officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act, or otherwise.

The Registrant plans to enter into an underwriting agreement which provides that the underwriters are obligated, under some circumstances, to indemnify the Registrant’s directors, officers and controlling persons against specified liabilities, including liabilities under the Securities Act.

Item 15. Recent sales of unregistered securities.

Set forth below is information regarding securities issued and options granted by us since November 30, 2017 that were not registered under the Securities Act. Also included is the consideration, if any, received by us, for such securities and options and information relating to the Securities Act, or rule of the SEC, under which exemption from registration was claimed.

(1) In December 2017, we issued and sold 5,000,000 shares of common stock to our founders pursuant to a series of stock purchase agreements at a purchase price of $0.001 per share, and received aggregate gross proceeds of $5,000.

(2) In April 2018, we entered into a Series A and A-1 preferred stock purchase agreement with various investors, pursuant to which we issued and sold to such investors an aggregate of 7,557,990 shares of our Series A convertible preferred stock and 998,225 shares of our Series A-1 convertible preferred stock at a purchase price of $35.062233 per share, and received aggregate gross proceeds of approximately $300 million. Half of this funding was received in April 2018 and the remainder was received in July and August 2018.

(3) In April 2018, we entered into an asset contribution agreement with Pfizer Inc., pursuant to which we issued and sold to Pfizer an aggregate of 3,187,772 shares of our Series A-1 convertible preferred stock in exchange for certain assets and rights relating to investigational drugs.

(4) In June 2018, we granted stock options under our amended and restated 2018 equity incentive plan, as amended (the Prior Plan), to purchase up to an aggregate of 1,677,900 shares of our common stock to our employees, directors and consultants, at a weighted-average exercise price of $11.89 per share. In August 2018, we granted stock options under the Prior Plan to purchase up to an aggregate of 352,200 shares of our common stock to our employees and consultants, at a weighted-average exercise price of $25.06 per share. From June 2018 to the effective date of this registration statement, 956,301 shares of common stock were issued upon the exercise of options granted to employees, directors and consultants and the payment of $11,370,419 to us was made.

(5) In September 2018, we entered into a note purchase agreement with certain individual and institutional accredited investors, pursuant to which we sold and issued $120.2 million aggregate principal amount of convertible promissory notes in exchange for $116.9 million in net cash proceeds.

The offers, sales and issuances of the securities described in paragraphs (1) through (3) and (5) were deemed to be exempt from registration under the Securities Act in reliance on Section 4(a)(2) (or Regulation D promulgated thereunder) in that the issuance of securities to the accredited investors did not involve a public offering. The recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to

the securities issued in these transactions. Each of the recipients of securities in these transactions was an accredited investor under Rule 501 of Regulation D. No underwriters were involved in these transactions.

The offers, sales and issuances of the securities described in paragraph (4) were deemed to be exempt from registration under the Securities Act in reliance on either Rule 701 in that the transactions were under compensatory benefit plans and contracts relating to compensation as provided under Rule 701 or Section 4(a)(2) in that the issuance of securities to the accredited investors did not involve a public offering. The recipients of such securities were our employees, directors or bona fide consultants and received the securities under the Prior Plan.

Appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions had adequate access, through employment, business or other relationships, to information about us.

Item 16. Exhibits and financial statement schedules.

(a) Exhibits.

EXHIBIT INDEX

Exhibit number	Description of document
1.1†	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation, as currently in effect.
3.2†	Form of Amended and Restated Certificate of Incorporation to become effective immediately prior to the completion of this offering.
3.3	Amended and Restated Bylaws, as currently in effect.
3.4†	Form of Amended and Restated Bylaws to become effective upon the completion of this offering.
4.1†	Form of Common Stock Certificate of the Registrant.
4.2	Investors' Rights Agreement, dated April 6, 2018, by and among the Registrant and certain of its securityholders, as amended September 5, 2018.
5.1†	Opinion of Cooley LLP.
10.1+†	Form of Indemnity Agreement by and between the Registrant and its directors and officers.
10.2+	Allogene Therapeutics, Inc. Amended and Restated 2018 Equity Incentive Plan (Prior Plan) and Forms of Stock Option Grant Notice, Option Agreement, Notice of Exercise and Early Exercise Stock Purchase Agreement thereunder, as amended.
10.3+†	Allogene Therapeutics, Inc. Amended and Restated 2018 Equity Incentive Plan and Forms of Stock Option Grant Notice, Option Agreement and Notice of Exercise thereunder.
10.4+†	Allogene Therapeutics, Inc. 2018 Employee Stock Purchase Plan.
10.5+†	Allogene Therapeutics, Inc. 2018 Change in Control Plan.
10.6*	Research Collaboration and License Agreement, dated June 17, 2014, by and between the Registrant (assignee of Pfizer Inc.) and Cellectis SA, as amended.
10.7*†	Exclusive License and Collaboration Agreement, dated October 30, 2015, by and between the Registrant (assignee of Pfizer Inc.) and Les Laboratoires Servier and Institut de Recherches Internationales Servier.
10.8*	Asset Contribution Agreement, dated April 2, 2018, by and between the Registrant and Pfizer Inc.
10.9*	Transition Services Agreement, dated April 6, 2018, by and between the Registrant and Pfizer Inc.

Exhibit number	Description of document
10.10*	Option for Rights to Retained Territory Letter Agreement, dated April 2, 2018, by and between the Registrant and Pfizer Inc.
10.11	Lease, dated August 1, 2018, by and between the Registrant and Britannia Pointe Grand Limited Partnership.
10.12+	Employment Agreement by and between the Registrant and David Chang, M.D., Ph.D.
10.13+	Employment Agreement by and between the Registrant and Eric Schmidt, Ph.D.
10.14+	Employment Agreement by and between the Registrant and Alison Moore, Ph.D.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2†	Consent of Cooley LLP. Reference is made to Exhibit 5.1.
24.1	Power of Attorney. Reference is made to the signature page hereto.

† To be filed by amendment.
+ Indicates management contract or compensatory plan.
* Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the SEC.

(b) Financial statement schedules.

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or the notes thereto.

Item 17. Undertakings.

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the Underwriting Agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(a) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(b) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, State of California, on the 14th day of September, 2018.

ALLOGENE THERAPEUTICS, INC.

By: /s/ David Chang, M.D., Ph.D.
David Chang, M.D., Ph.D.
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David Chang, M.D., Ph.D., and Eric Schmidt, Ph.D., and each of them, as his or her true and lawful attorneys-in-fact and agents, each with the full power of substitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments), and to sign any registration statement for the same offering covered by this registration statement that is to be effective upon filing pursuant to Rule 462(b) promulgated under the Securities Act, and all post-effective amendments thereto, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ David Chang, M.D., Ph.D. David Chang, M.D., Ph.D.	President, Chief Executive Officer and Member of the Board of Directors *(Principal Executive Officer)*	September 14, 2018
/s/ Eric Schmidt, Ph.D. Eric Schmidt, Ph.D.	Chief Financial Officer *(Principal Financial and Accounting Officer)*	September 14, 2018
/s/ Arie Belldegrun, M.D., FACS Arie Belldegrun, M.D., FACS	Executive Chairman of the Board of Directors	September 14, 2018
/s/ David Bonderman David Bonderman	Member of the Board of Directors	September 14, 2018
/s/ Franz Humer, Ph.D. Franz Humer, Ph.D.	Member of the Board of Directors	September 14, 2018
/s/ John DeYoung John DeYoung	Member of the Board of Directors	September 14, 2018

Signature	Title	Date
/s/ Joshua Kazam Joshua Kazam	Member of the Board of Directors	September 14, 2018
/s/ Owen Witte, M.D. Owen Witte, M.D.	Member of the Board of Directors	September 14, 2018
/s/ Todd Sisitsky Todd Sisitsky	Member of the Board of Directors	September 14, 2018
/s/ Robert Abraham, Ph.D. Robert Abraham, Ph.D.	Member of the Board of Directors	September 14, 2018

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF ALLOGENE THERAPEUTICS, INC.

(Pursuant to Sections 242 and 245 of the General Corporation Law of the State of Delaware)

Allogene Therapeutics, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "**General Corporation Law**"),

DOES HEREBY CERTIFY:

1. That the name of this corporation is Allogene Therapeutics, Inc., and that this corporation was originally incorporated pursuant to the General Corporation Law on November 30, 2017 under the name Allogene Therapeutics, Inc. (the "**Corporation**").

2. That the Board of Directors duly adopted resolutions proposing to amend and restate the Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Certificate of Incorporation of this corporation be amended and restated in its entirety to read as follows:

FIRST: The name of this corporation is Allogene Therapeutics, Inc.

SECOND: The address of the registered office of the Corporation in the State of Delaware is 251 Little Falls Drive, Wilmington, DE 19808, County of New Castle. The name of its registered agent at such address is Corporation Service Company.

THIRD: The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 20,000,000 shares of Common Stock, $0.001 par value per share ("**Common Stock**") and (ii) 11,743,987 shares of Preferred Stock, $0.001 par value per share ("**Preferred Stock**").

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. COMMON STOCK

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein.

2. Voting. The holders of the Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings); provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to this Amended and Restated Certificate of Incorporation that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to this Amended and Restated Certificate of Incorporation or pursuant to the General Corporation Law. There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of this Amended and Restated Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

B. PREFERRED STOCK

(i) 7,557,990 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated "**Series A Preferred Stock**" and (ii) 4,185,997 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated "**Series A-1 Preferred Stock**", each with the following rights, preferences, powers, privileges and restrictions, qualifications and limitations. Unless otherwise indicated, references to "sections" or "subsections" in this Part B of this Article Fourth refer to sections and subsections of Part B of this Article Fourth. The Series A Preferred Stock and Series A-1 Preferred Stock are collectively referred to herein as the "**Class A Preferred Stock**".

1. Dividends.

The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in this Amended and Restated Certificate of Incorporation) the holders of the Class A Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Class A Preferred Stock in an amount at least equal to: (i) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Class A Preferred Stock as would equal the product of (A) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock, and (B) the number of shares of Common Stock issuable upon conversion of a share of Class A Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend; or (ii) in the case of a

dividend on any class or series that is not convertible into Common Stock, at a rate per share of Class A Preferred Stock determined by (A) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (B) multiplying such fraction by an amount equal to the Class A Original Issue Price (as defined below); provided that, if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one class or series of capital stock of the Corporation, the dividend payable to the holders of Class A Preferred Stock pursuant to this Section 1 shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest Class A Preferred Stock dividend. The "**Class A Original Issue Price**" shall mean, with respect to each series within the Class A Preferred Stock, $35.062233 per share, subject in each case to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such series of the Class A Preferred Stock.

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

2.1 Preferential Payments to Holders of Class A Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of Class A Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, and in the event of a Deemed Liquidation Event (as defined below), the holders of shares of Class A Preferred Stock then outstanding shall be entitled to be paid out of the consideration payable to stockholders in such Deemed Liquidation Event or out of the Available Proceeds (as defined below), as applicable, before any payment shall be made to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to the greater of: (i) one times the applicable Class A Original Issue Price, plus any dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had all shares of such series of Class A Preferred Stock been converted into Common Stock pursuant to Section 4 (including, if applicable, the issuance of the Make-Whole Shares with respect to the Series A-1 Preferred Stock) immediately prior to such liquidation, dissolution, winding up or Deemed Liquidation Event (the amount payable pursuant to this sentence is hereinafter referred to as the "**Class A Liquidation Amount**"). If upon any such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Class A Preferred Stock the full amount to which they shall be entitled under this Subsection 2.1, the holders of shares of Class A Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

2.2 Payments to Holders of Common Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, after the payment in full of all Class A Liquidation Amounts required to be paid to the holders of shares of Class A Preferred Stock, the remaining assets of the Corporation available for distribution to its stockholders or, in the case of a Deemed Liquidation Event, the consideration not payable to the holders of shares of Class A Preferred Stock pursuant to Section 2.1 or the remaining Available Proceeds, as the case may be, shall be distributed among the holders of shares of Common Stock, pro rata based on the number of shares held by each such holder.

2.3 Deemed Liquidation Events.

2.3.1 Definition. Each of the following events shall be considered a "**Deemed Liquidation Event**" unless the holders of at least 51% of the outstanding shares of both (i) Series A Preferred Stock and (ii) Series A-1 Preferred Stock (each voting separately, as a separate series and class) elect otherwise by written notice sent to the Corporation at least 20 days prior to the effective date of any such event:

(a) a merger or consolidation in which

(i) the Corporation is a constituent party or

(ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation,

except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation; or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation; or

(b) (1) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the business or assets of the Corporation and its subsidiaries taken as a whole or (2) the sale or disposition (whether by merger, consolidation or otherwise, and whether in a single transaction or a series of related transactions) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation.

2.3.2 Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event referred to in Subsection 2.3.1(a)(i) unless the agreement or plan of merger or consolidation for such transaction (the "**Merger Agreement**") provides that the consideration payable to the stockholders of the Corporation in such Deemed Liquidation Event shall be paid to the holders of capital stock of the Corporation in accordance with Subsections 2.1 and 2.2.

(b) In the event of a Deemed Liquidation Event referred to in Subsection 2.3.1(a)(ii) or 2.3.1(b), the Corporation shall promptly distribute the consideration received by the Corporation for such Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors of the Corporation (the "**Board**"))**,** with such distribution to be made in accordance with Subsections 2.1 and 2.2. The Board shall effect a dissolution and liquidation of the Corporation under the General Corporation Law as soon as practicable thereafter (any assets available for distribution to the stockholders of the Corporation, together with the consideration referred to in the immediately preceding sentence, the "**Available Proceeds**"), and distribute any assets available for distribution in accordance with Subsections 2.1 and 2.2 (taking into account any distribution already made pursuant to the immediately preceding sentence). Prior to the full distribution provided for in this Subsection 2.3.2(b), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in connection with such Deemed Liquidation Event.

2.3.3 Amount Deemed Paid or Distributed. In any Deemed Liquidation Event, if Available Proceeds are in a form of property other than in cash, the value of such distribution shall be deemed to be the fair market value of such property. The determination of fair market value of such property shall be made in good faith by the Board, provided that to the extent such property consists of securities, the fair market value of such securities shall be determined as follows:

(a) For securities not subject to investment letters or other similar restrictions on free marketability covered by Subsection 2.3.3(b) below,

(i) if traded on a national securities exchange or the Nasdaq Stock Market (or a similar national quotation system), the value shall be deemed to be the average of the closing prices of the securities on such exchange or system over the 30 trading day period ending three days prior to the closing of the Deemed Liquidation Event;

(ii) if actively traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the 30 trading day period ending three days prior to the closing of such transaction; or

(iii) if there is no active public market, the value shall be the fair market value thereof, as determined in good faith by the Board.

For the purposes of this Subsection 2.3.3, "**trading day**" shall mean any day which the exchange or system on which the securities to be distributed are traded is open and "**closing prices**" or

"**closing bid or sales prices**" shall be deemed to be: (A) for securities traded primarily on the New York Stock Exchange or Nasdaq Stock Market, the last reported trade price or sale price, as the case may be, at 4:00 p.m., New York time, on that day and (B) for securities listed or traded on other exchanges, markets and systems, the market price as of the end of the regular hours trading period that is generally accepted as such for such exchange, market or system. If, after the date hereof, the benchmark times generally accepted in the securities industry for determining the market price of a stock as of a given trading day shall change from those set forth above, the fair market value shall be determined as of such other generally accepted benchmark times.

(b) The method of valuation of securities subject to investment letters or other similar restrictions on free marketability (other than restrictions arising solely by virtue of a stockholder's status as an affiliate or former affiliate) shall take into account an appropriate discount (as determined in good faith by the Board from the market value as determined pursuant to Subsections 2.3.3(a)(i), (ii), or (iii) above so as to reflect the approximate fair market value thereof.

2.3.4 Allocation of Escrow and Contingent Consideration. In the event of a Deemed Liquidation Event pursuant to Subsection 2.3.1(a)(i), if any portion of the consideration payable to the stockholders of the Corporation is payable only upon satisfaction of contingencies (the "**Additional Consideration**"), the Merger Agreement shall provide that (a) the portion of such consideration that is not Additional Consideration (such portion, the "**Initial Consideration**") shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1 and 2.2 as if the Initial Consideration were the only consideration payable in connection with such Deemed Liquidation Event; and (b) any Additional Consideration which becomes payable to the stockholders of the Corporation upon satisfaction of such contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1 and 2.2 after taking into account the previous payment of the Initial Consideration as part of the same transaction. For the purposes of this Subsection 2.3.4, consideration placed into escrow or retained as a holdback to be available for satisfaction of indemnification or similar obligations in connection with such Deemed Liquidation Event shall be deemed to be Additional Consideration. The Class A Preferred Stock holders' entitlement to the preferential payment in accordance with Subsection 2.1 shall not be abrogated or diminished in the event part of the consideration is subject to escrow in connection with a Deemed Liquidation Event

3. Voting.

3.1 General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein. Except as provided by law or by the other provisions of this Amended and Restated Certificate of Incorporation, holders of Class A Preferred Stock shall vote together with the holders of Common Stock as a single class and on an as-converted to Common Stock basis (including, if and when issued, the issuance of the Make-Whole Shares with respect to the Series A-1 Preferred Stock).

3.2 Election of Directors. The holders of record of the shares of Class A Preferred Stock, exclusively and as a separate class, shall be entitled to elect five directors of the Corporation (the "**Class A Directors**"). The holders of record of the shares of Common Stock, exclusively and as a separate class, shall be entitled to elect two directors of the Corporation (the "**Common Directors**"). Any Class A Director or Common Director may be removed without cause by, and only by, the affirmative vote of the holders of majority of the shares of the class or series of capital stock entitled to elect such director(s), either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. If the holders of shares of Class A Preferred Stock or Common Stock, as the case may be, fail to elect a sufficient number of directors to fill all directorships for which they are entitled to elect directors, voting exclusively and as a separate class, pursuant to the first sentence of this Subsection 3.2, then any directorship not so filled shall remain vacant until such time as the holders of the Class A Preferred Stock or Common Stock, as the case may be, elect a person to fill such directorship by vote or written consent in lieu of a meeting; and no such directorship may be filled by stockholders of the Corporation other than by the stockholders of the Corporation that are entitled to elect a person to fill such directorship, voting exclusively and as a separate class. The holders of record of the shares of Common Stock and of any other class or series of voting stock (including the Class A Preferred Stock voting on an as-converted to Common Stock basis (including, if and when issued, the issuance of the Make-Whole Shares with respect to the Series A-1 Preferred Stock)), exclusively and voting together as a single class, shall be entitled to elect the balance of the total number of directors of the Corporation. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series (determined on an as-converted to Common Stock basis (including, if and when issued, the issuance of the Make-Whole Shares with respect to the Series A-1 Preferred Stock)) entitled to elect such director shall constitute a quorum for the purpose of electing such director. Except as otherwise provided in this Subsection 3.2, a vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series.

3.3 Class A Preferred Stock Protective Provisions. At any time when shares of Class A Preferred Stock are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or this Amended and Restated Certificate of Incorporation) the prior written consent or affirmative vote of at least 51% of the outstanding shares of Class A Preferred Stock (the "**Requisite Holders**") given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and any such act or transaction entered into without such consent or vote shall be null and void *ab initio*, and of no force or effect:

3.3.1 liquidate, dissolve or wind-up the business and affairs of the Corporation, effect any merger or consolidation or any other Deemed Liquidation Event, or consent to any of the foregoing;

3.3.2 amend, alter or repeal any provision of this Amended and Restated Certificate of Incorporation or Bylaws of the Corporation or the governing documents of any subsidiary of the Corporation;

3.3.3 create, or authorize the creation of, or issue or obligate itself to issue shares of, any additional class or series of capital stock unless the same ranks junior to the Class A Preferred Stock with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends and rights of redemption, or increase or decrease the authorized number of shares of any series of Class A Preferred Stock or increase or decrease the authorized number of shares of any additional class or series of capital stock of the Corporation;

3.3.4 (i) reclassify, alter or amend any existing security of the Corporation that is pari passu with the Class A Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Class A Preferred Stock in respect of any such right, preference, or privilege, or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Class A Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Class A Preferred Stock in respect of any such right, preference or privilege;

3.3.5 purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation prior to the Class A Preferred Stock other than repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at no greater than the original purchase price;

3.3.6 create, or authorize the creation of, or issue, or authorize the issuance of any debt security or create any lien or security interest (except for purchase money liens or statutory liens of landlords, mechanics, materialmen, workmen, warehousemen and other similar persons arising or incurred in the ordinary course of business) or incur other indebtedness for borrowed money, including but not limited to obligations and contingent obligations under guarantees, or permit any subsidiary to take any such action with respect to any debt security lien, security interest or other indebtedness for borrowed money, if the aggregate indebtedness of the Corporation and its subsidiaries for borrowed money following such action would exceed $1,000,000, other than equipment leases incurred in the ordinary course;

3.3.7 create, or hold capital stock in, any subsidiary that is not wholly owned (either directly or through one or more other subsidiaries) by the Corporation, or permit any subsidiary to create, or authorize the creation of, or issue or obligate itself to issue, any shares of any class or series of capital stock, or sell, transfer or otherwise dispose of any capital stock of any direct or indirect subsidiary of the Corporation, or permit any direct or indirect subsidiary to sell, lease, transfer, exclusively license or otherwise dispose (in a single transaction or series of related transactions) of all or substantially all of the assets of such subsidiary;

3.3.8 increase or decrease the authorized number of directors constituting the Board;

3.3.9 enter into or be a party to any related-party transaction with any director, officer, stockholder or employee of the Corporation or any of their respective affiliates, other than Board-approved employment arrangements;

3.3.10 change or alter the principal business of the Corporation, enter any new line of business, or exit any line of business; or

3.3.11 sell, assign, license, transfer, convey, pledge or encumber material technology or intellectual property (including, without limitation, patents, patent applications, trade secrets, know-how and data), other than non-exclusive licenses granted in the ordinary course of business.

3.4 Series A-1 Preferred Stock Protective Provisions. At any time when shares of Series A-1 Preferred Stock are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or this Amended and Restated Certificate of Incorporation) the prior written consent or affirmative vote of at least 51% of the outstanding shares of Series A-1 Preferred Stock given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and any such act or transaction entered into without such consent or vote shall be null and void *ab initio*, and of no force or effect:

3.4.1 amend, alter or repeal any provision of this Amended and Restated Certificate of Incorporation or Bylaws of the Corporation in a manner that adversely affects the powers, preferences or rights of the Series A-1 Preferred Stock; provided that such amendment, alteration or repeal does not so affect all of the Class A Preferred Stock in the same manner;

3.4.2 effect any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock or the Series A-1 Preferred Stock that does not so affect all of the Class A Preferred Stock in the same manner;

3.4.3 effect any merger or consolidation or any other Deemed Liquidation Event, or consent to any of the foregoing, prior to the first anniversary of the Original Issue Date for the Series A-1 Preferred Stock;

3.4.4 effect any merger or consolidation or any other Deemed Liquidation Event, or consent to any of the foregoing, after the first anniversary of the Original Issue Date for the Series A-1 Preferred Stock and prior to the second anniversary of the Original Issue Date for the Series A-1 Preferred Stock, unless both (A) the aggregate value of the consideration payable under Subsections 2.1 and 2.2 is either less than $200,000,000 or greater than $1,500,000,000 and (B) such merger or consolidation or other Deemed Liquidation Event does not constitute a transaction between the Corporation (or any subsidiary of the Corporation), on the one hand, and a stockholder of the Corporation or any “associate” (as defined in Rule 12b-2 promulgated

under the Securities Exchange Act of 1934) of the Corporation or any stockholder of the Corporation, on the other hand (in which case, if the conditions reflected in both Clause (A) and Clause (B) above are satisfied, this Subsection 3.4.4 shall not apply);

3.4.5 purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at no greater than the original purchase price;

3.4.6 other than with respect to bona fide joint ventures, create, or hold capital stock in, any subsidiary that is not wholly owned (either directly or through one or more other subsidiaries) by the Corporation, or permit any subsidiary to create, or authorize the creation of, or issue or obligate itself to issue, any shares of any class or series of capital stock, or sell, transfer or otherwise dispose of any capital stock of any direct or indirect subsidiary of the Corporation, except to the Corporation or any other wholly-owned subsidiary of the Corporation; or

3.4.7 increase or decrease the authorized number of shares of Series A-1 Preferred Stock.

3.5 Series A Preferred Stock Protective Provisions. At any time when shares of Series A Preferred Stock are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do the following without (in addition to any other vote required by law or this Amended and Restated Certificate of Incorporation) the prior written consent or affirmative vote of at least 51% of the outstanding shares of Series A Preferred Stock given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and any such act or transaction entered into without such consent or vote shall be null and void *ab initio*, and of no force or effect:

3.5.1 amend, alter or repeal any provision of this Amended and Restated Certificate of Incorporation or Bylaws of the Corporation in a manner that adversely affects the powers, preferences or rights of the Series A Preferred Stock; provided that such amendment, alteration or repeal does not so affect all of the Class A Preferred Stock;

3.5.2 purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at no greater than the original purchase price;

3.5.3 other than with respect to bona fide joint ventures, create, or hold capital stock in, any subsidiary that is not wholly owned (either directly or through one or more other subsidiaries) by the Corporation, or permit any subsidiary to

create, or authorize the creation of, or issue or obligate itself to issue, any shares of any class or series of capital stock, or sell, transfer or otherwise dispose of any capital stock of any direct or indirect subsidiary of the Corporation, except to the Corporation or any other wholly-owned subsidiary of the Corporation; or

3.5.4 increase or decrease the authorized number of shares of Series A Preferred Stock.

4. Optional Conversion.

The holders of the Class A Preferred Stock shall have conversion rights as follows (the "**Conversion Rights**"):

4.1 Right to Convert; Conversion Ratio. Each share of Class A Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and non-assessable shares of Common Stock as is determined by dividing the Class A Original Issue Price by the Class A Conversion Price (as defined below) in effect at the time of conversion. The "**Class A Conversion Price**" means the conversion price (as adjusted) applicable to a particular series of Preferred Stock, which shall be initially equal to the applicable Class A Original Issue Price. Such initial Class A Conversion Price, and the rate at which shares of Class A Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

4.2 Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Class A Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Class A Preferred Stock the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

4.3 Mechanics of Conversion.

4.3.1 Notice of Conversion. In order for a holder of Class A Preferred Stock to voluntarily convert shares of Class A Preferred Stock into shares of Common Stock, such holder shall (a) provide written notice to the Corporation's transfer agent at the office of the transfer agent for the Class A Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent) that such holder elects to convert all or any number of such holder's shares of Class A Preferred Stock and, if applicable, any event on which such conversion is contingent and (b), if such holder's shares are certificated, surrender the certificate or certificates for such shares of Class A Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such

certificate), at the office of the transfer agent for the Class A Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent). Such notice shall state such holder's name or the names of the nominees in which such holder wishes the shares of Common Stock to be issued. If required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such notice and, if applicable, certificates (or lost certificate affidavit and agreement) shall be the time of conversion (the "**Conversion Time**"), and the shares of Common Stock issuable upon conversion of the specified shares shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time (i) issue and deliver to such holder of Class A Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof and a certificate for the number (if any) of the shares of Class A Preferred Stock represented by the surrendered certificate that were not converted into Common Stock, (ii) pay in cash such amount as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and (iii) pay all declared but unpaid dividends on the shares of Class A Preferred Stock converted.

4.3.2 Reservation of Shares. The Corporation shall at all times when the Class A Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Class A Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Class A Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Class A Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Amended and Restated Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the Class A Conversion Price below the then par value of the shares of Common Stock issuable upon conversion of the Class A Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and non-assessable shares of Common Stock at such adjusted Class A Conversion Price.

4.3.3 Effect of Conversion. All shares of Class A Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor, to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as

provided in Subsection 4.2 and to receive payment of any dividends declared but unpaid thereon. Any shares of Class A Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Class A Preferred Stock accordingly.

4.3.4 No Further Adjustment. Upon any such conversion, no adjustment to the Class A Conversion Price shall be made for any declared but unpaid dividends on the Class A Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

4.3.5 Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Class A Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Class A Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

4.4 Adjustments to Class A Conversion Price for Diluting Issues.

4.4.1 Special Definitions. For purposes of this Article Fourth, the following definitions shall apply:

(a) "**Option**" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(b) "**Original Issue Date**" shall mean the date on which the first share of the applicable class or series of Preferred Stock was issued.

(c) "**Convertible Securities**" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(d) "**Additional Shares of Common Stock**" shall mean all shares of Common Stock issued (or, pursuant to Subsection 4.4.2 below, deemed to be issued) by the Corporation after the Class A Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, "**Exempted Securities**"):

(i) shares of Common Stock, Options or Convertible Securities issuable upon conversion of any of the shares of Class A Preferred Stock, or as a dividend or distribution on the Class A Preferred Stock,

or in any subsequent closing under the equity commitment letters between the Corporation and certain equityholders dated April 2, 2018 or the date hereof (as applicable).

(ii) shares of Common Stock, Options or Convertible Securities issued upon the conversion of any debenture, Option, or other Convertible Security;

(iii) shares of Common Stock, Options or Convertible Securities issuable upon a stock split, stock dividend, split-up, or any subdivision of shares of Common Stock, or other distribution on shares of Common Stock that is covered by Subsection 4.5, 4.6, 4.7 or 4.8;

(iv) shares of Common Stock or Options issued or issuable to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board, including the affirmative vote or consent of a majority of the Class A Directors;

(v) shares of Common Stock, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board, including the affirmative vote or consent of a majority of the Class A Directors; or

(vi) shares of Common Stock, Options or Convertible Securities issued in strategic transactions where the purpose of the issuance is other than to raise capital, including, without limitation, as consideration pursuant to the acquisition of another corporation or other entity by the Corporation by merger, purchase of substantially all of the assets or other reorganization, provided that such issuances

are approved by the Board, including the affirmative vote or consent of a majority of the Class A Directors.

4.4.2 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the Class A Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Class A Conversion Price pursuant to the terms of Subsection 4.4.3, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Class A Conversion Price computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Class A Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing the Class A Conversion Price to an amount which exceeds the lower of (i) the Class A Conversion Price in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Class A Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Class A Conversion Price pursuant to the terms of Subsection 4.4.3 (either because the consideration per share (determined pursuant to Subsection 4.4.4) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Class A Conversion Price then in effect, or because such Option or Convertible

Security was issued before the Class A Original Issue Date), are revised after the Class A Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Subsection 4.4.2(a) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Class A Conversion Price pursuant to the terms of Subsection 4.4.3, the Class A Conversion Price shall be readjusted to such Class A Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Class A Conversion Price provided for in this Subsection 4.4.2 shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Subsection 4.4.2). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Class A Conversion Price that would result under the terms of this Subsection 4.4.2 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the Class A Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

4.4.3 Adjustment of Class A Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Class A Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.2), without consideration, or for a consideration per share less than the applicable Class A Conversion Price in effect immediately prior to such issuance or deemed issuance, then the Class A Conversion Price shall be adjusted on a series-by-series basis such that the Class A Conversion Price for a specific series of Class A Preferred Stock shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(a) "CP_2" shall mean the Class A Conversion Price for a given series of Class A Preferred Stock in effect immediately after such issuance or deemed issuance of Additional Shares of Common Stock

(b) "CP_1" shall mean the Class A Conversion Price for a given series of Class A Preferred Stock in effect immediately prior to such issuance or deemed issuance of Additional Shares of Common Stock;

(c) "A" shall mean the number of shares of Common Stock outstanding immediately prior to such issuance or deemed issuance of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issuance or deemed issuance or upon conversion or exchange of Convertible Securities (including the Class A Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(d) "B" shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued or deemed issued at a price per share equal to CP_1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP_1); and

(e) "C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

4.4.4 Determination of Consideration. For purposes of this Subsection 4.4, the consideration received by the Corporation for the issuance or deemed issuance of any Additional Shares of Common Stock shall be computed as follows:

(a) Cash and Property: Such consideration shall:

(i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board; and

(iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation

for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board.

(b) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 4.4.2, relating to Options and Convertible Securities, shall be determined by dividing:

(i) The total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

4.4.5 Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the applicable Class A Conversion Price pursuant to the terms of Subsections 4.4.3, then, upon the final such issuance, the applicable Class A Conversion Price(s) shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

4.5 Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Class A Original Issue Date effect a subdivision of the outstanding Common Stock, the applicable Class A Conversion Price in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Class A Original Issue Date combine the outstanding shares of Common Stock, the applicable Class A Conversion Price in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

4.6 Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Class A Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the applicable Class A Conversion Price in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the applicable Class A Conversion Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the applicable Class A Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Class A Conversion Price shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and (b) that no such adjustment shall be made if the holders of Class A Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Class A Preferred Stock had been converted into Common Stock on the date of such event.

4.7 Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Class A Original Issue Date shall make or

issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of Class A Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Class A Preferred Stock had been converted into Common Stock on the date of such event.

4.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Subsection 2.3, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Class A Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Subsections 4.4, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Class A Preferred Stock shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Class A Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of the Class A Preferred Stock, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the applicable Class A Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Class A Preferred Stock.

4.9 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of any Class A Conversion Price pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than ten (10) days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Class A Preferred Stock a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the Class A Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of Class A Preferred Stock (but in any event not later than ten (10) days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the applicable Class A Conversion Price then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of Class A Preferred Stock.

4.10 Notice of Record Date. In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Class A Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or

(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation,

then, and in each such case, the Corporation will send or cause to be sent to the holders of the Class A Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Class A Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Class A Preferred Stock and the Common Stock. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

4.11 Series A-1 Make-Whole Shares. In addition to the shares of Common Stock issuable pursuant to Subsection 4.1, upon any conversion of the Series A-1 Preferred Stock, such holders shall also receive a number of shares of Common Stock (if any) equal to the following (the "**Make-Whole Shares**"):

$$(F - G) \times H$$

Where:

A	=	Aggregate number of shares of Common Stock issued and issuable under then-vested awards granted under the Corporation's equity compensation plans as of the date of conversion (limited to awards representing at the time of grant the right to receive up to a total of 1,860,443 shares of Common Stock in the aggregate (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to Common Stock)).
B	=	Weighted-average exercise price or purchase price (as applicable) for the awards included in variable "A"
C	=	The fair market value of one share of Common Stock as of the applicable conversion date, which value shall be calculated as follows (as applicable): (i) the initial offering price to the public of the Common Stock in the event of a conversion of the Series A-1 Preferred Stock in connection with either a Qualified Initial Public

Offering or a Non-Qualified Initial Public Offering (an "**IPO**"); (ii) the aggregate consideration payable on a per-share basis for the Common Stock (including shares issuable underlying outstanding equity awards and shares issuable under Subsection 4.11) in a Deemed Liquidation Event in the event of a conversion in connection with a Deemed Liquidation Event, or (iii) in the event of a conversion not in connection with an IPO or a Deemed Liquidation Event, then the fair value of the Common Stock as of the date of conversion, as reasonably determined by the Board of Directors and based on the most recent valuation prepared in accordance with Section 409A of the Internal Revenue Code of 1986, as amended.

D	=	Total shares of Common Stock and Preferred Stock (calculated on an as-converted to Common Stock basis, but without giving effect to this Subsection 4.11) held by the holder of the Series A-1 Preferred Stock that is being converted.
E	=	Total shares of Common Stock and Preferred Stock (calculated on an as-converted to Common Stock basis, but without giving effect to this Subsection 4.11) issued and outstanding as of conversion.
F	=	D ÷ E
G	=	D ÷ (E + Option Shares)
H	=	(E + Option Shares) ÷ (1 – F)
Option Shares =		A – ((A x B) ÷ C); *provided, however,* that in no event shall Option Shares be less than 0

5. Mandatory Conversion.

5.1 Trigger Events. Upon any of the following: (a) the closing of the sale of shares of Common Stock in a firm-commitment underwritten public offering with a pre-money Corporation valuation of at least $600,000,000, made pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "**Securities Act**"), resulting in at least $100,000,000 of gross proceeds to the Corporation, and in connection with such offering the Common Stock is listed for trading on the Nasdaq Stock Market, the New York Stock Exchange or another exchange or marketplace approved by the Board (a "**Qualified Initial Public Offering**"), (b) the initial public offering of the Corporation's securities, other than a Qualified Initial Public Offering, in a firm commitment underwritten offering registered under the Securities Act that is approved by the Requisite Holders (a "**Non-Qualified Initial Public Offering**"), or (c) the date and time, or the occurrence of an event, specified by vote or written consent of a majority of each of: (i) the holders of a majority of Series A Preferred Stock, and (ii) the holders of a majority of the Series A-1 Preferred Stock (each voting separately, as a separate class and series) (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the "**Mandatory Conversion Time**"), then: (x) all outstanding shares of Class A Preferred Stock shall automatically be converted into shares of

Common Stock, at the then effective conversion rate as calculated pursuant to Subsection 4.1 and with the additional shares (if any) issuable to the Series A-1 Preferred Stock as set forth in Subsection 4.11, and (y) such shares of Preferred Stock may not be reissued by the Corporation.

5.2 Procedural Requirements. All holders of record of shares of Class A Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Class A Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Class A Preferred Stock in certificated form shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Class A Preferred Stock converted pursuant to Subsection 5.1, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the Mandatory Conversion Time (notwithstanding the failure of the holder or holders thereof to surrender any certificates at or prior to such time), except only the rights of the holders thereof, upon surrender of any certificate or certificates of such holders (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the next sentence of this Subsection 5.2. As soon as practicable after the Mandatory Conversion Time and, if applicable, the surrender of any certificate or certificates (or lost certificate affidavit and agreement) for Class A Preferred Stock, the Corporation shall: (a) issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof, and (b) pay cash as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Class A Preferred Stock converted. Such converted Class A Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Class A Preferred Stock accordingly.

6. Redeemed or Otherwise Acquired Shares. Any shares of Class A Preferred Stock that are redeemed or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Class A Preferred Stock following redemption.

7. Notices. Any notice required or permitted by the provisions of this Article Fourth to be given to a holder of shares of Class A Preferred Stock shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law, and shall be deemed sent upon such mailing or electronic transmission.

FIFTH: Subject to any additional vote required by this Amended and Restated Certificate of Incorporation or Bylaws, in furtherance and not in limitation of the powers conferred by statute, the Board is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

SIXTH: Subject to any additional vote required by this Amended and Restated Certificate of Incorporation, the number of directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation.

SEVENTH: Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

EIGHTH: Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board or in the Bylaws of the Corporation.

NINTH: To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article Ninth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any repeal or modification of the foregoing provisions of this Article Ninth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

TENTH: To the fullest extent permitted by applicable law, the Corporation is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of the Corporation (and any other persons to which General Corporation Law permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law.

Any amendment, repeal or modification of the foregoing provisions of this Article Tenth shall not: (i) adversely affect any right or protection of any director, officer or other agent of the Corporation existing at the time of such amendment, repeal or modification, or (ii) increase the liability of any director of the Corporation with respect to any acts or omissions of such director, officer or agent occurring prior to, such amendment, repeal or modification.

ELEVENTH: The Corporation renounces, to the fullest extent permitted by law, any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An "**Excluded Opportunity**" is any matter, transaction or interest

that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of: (i) any director of the Corporation who is not also an employee or officer of the Corporation or any of its subsidiaries, or (ii) any partner, member, director, manager, stockholder, employee, affiliate, successor, assign, associated investment fund or agent of TPG Global LLC, Pfizer Inc. or Gilead Sciences, Inc., or any partner, director, manager, stockholder, employee, affiliate, successor, assign, associated investment fund or agent of any of the foregoing, other than someone who is also an employee of the Corporation or any of its subsidiaries (collectively, the persons referred to in clauses (i) and (ii) are "**Covered Persons**"), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Corporation while such Covered Person is performing services in such capacity. Any repeal or modification of this Article Eleventh will only be prospective and will not affect the rights under this Article Eleventh in effect at the time of the occurrence of any actions or omissions to act giving rise to liability. Notwithstanding anything to the contrary contained elsewhere in this Amended and Restated Certificate of Incorporation, the affirmative vote of the Requisite Holders, will be required to amend or repeal, or to adopt any provisions inconsistent with this Article Eleventh.

TWELFTH: Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring: (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim against the Corporation, its directors, officers or employees arising pursuant to any provision of the Delaware General Corporation Law or the Corporation's certificate of incorporation or bylaws or (iv) any action asserting a claim against the Corporation, its directors, officers or employees governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Article Twelfth shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article Twelfth (including, without limitation, each portion of any sentence of this Article Twelfth containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

THIRTEENTH: For purposes of Section 500 of the California Corporations Code (to the extent applicable), in connection with any repurchase of shares of Common Stock permitted under this Amended and Restated Certificate of Incorporation from employees, officers, directors or consultants of the Corporation in connection with a termination of employment or services pursuant to agreements or arrangements approved by the Board (in addition to any other consent required under this Amended and Restated Certificate of Incorporation), such repurchase may be

made without regard to any "preferential dividends arrears amount" or "preferential rights amount" (as those terms are defined in Section 500 of the California Corporations Code). Accordingly, for purposes of making any calculation under California Corporations Code Section 500 in connection with such repurchase, the amount of any "preferential dividends arrears amount" or "preferential rights amount" (as those terms are defined therein) shall be deemed to be zero.

* * *

3. That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of this corporation in accordance with Section 228 of the General Corporation Law.

4. That this Certificate of Incorporation, which restates and integrates and further amends the provisions of this Corporation's Certificate of Incorporation, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this 5th day of April, 2018.

By: /s/ Joshua A. Kazam
Joshua A. Kazam, President

AMENDED AND RESTATED

BYLAWS

OF

ALLOGENE THERAPEUTICS, INC.

(A DELAWARE CORPORATION)

ARTICLE I

OFFICES

Section 1. Registered Office. The registered office of the corporation in the State of Delaware shall be 251 Little Falls Drive, City of Wilmington, County of New Castle, 19808 or in such other location as the Board of Directors may from time to time determine or the business of the corporation may require.

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware, as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II

CORPORATE SEAL

Section 3. Corporate Seal. The Board of Directors may adopt a corporate seal. Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE III

STOCKHOLDERS' MEETINGS

Section 4. Place of Meetings. Meetings of the stockholders of the corporation may be held at such place, either within or without the State of Delaware, as may be determined from time to time by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law ("***DGCL***").

Section 5. Annual Meeting.

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may lawfully come before it, shall be held on such date and at such time as may be designated from time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation's notice of meeting of stockholders; (ii) by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving of notice provided for in the following paragraph, who is entitled to vote at the meeting and who complied with the notice procedures set forth in this Section.

(b) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of paragraph (a) of this Section, (i) the stockholder must have given timely notice thereof in writing to the Secretary of the corporation, (ii) such other business must be a proper matter for stockholder action under the DGCL and applicable law, (iii) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the corporation with a Solicitation Notice (as defined in this paragraph), such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and form of proxy to

holders of at least the percentage of the corporation's voting shares required under applicable law to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the corporation's voting shares reasonably believed by such stockholder or beneficial owner to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice, and (iv) if no Solicitation Notice relating thereto has been timely provided pursuant to this Section, the stockholder or beneficial owner proposing such business or nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this Section. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the 90th day nor earlier than the close of business on the 120th day prior to the first anniversary of the preceding year's annual meeting; *provided*, *however*, that in the event that the date of the annual meeting is advanced more than 30 days prior to or delayed by more than 30 days after the anniversary of the preceding year's annual meeting, or if no annual meeting was held in the preceding year, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the 120th day prior to such annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting or the 10th day following the day on which public announcement of the date of such meeting is first made. In no event shall the public announcement of an adjournment of an annual meeting commence a new time period for the giving of a stockholder's notice as described above. Such stockholder's notice shall set forth: (A) as to each person whom the stockholder proposed to nominate for election or reelection as a director all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "***1934 Act***"), and Rule 14a-4(d) thereunder (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (C) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (ii) the class and number of shares of the corporation that are owned beneficially and of record by such stockholder and such beneficial owner, and (iii) whether either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of the proposal, at least the percentage of the corporation's voting shares required under applicable law to carry the proposal or, in the case of a nomination or nominations, a sufficient number of holders of the corporation's voting shares to elect such nominee or nominees (an affirmative statement of such intent, a "***Solicitation Notice***").

(c) Notwithstanding anything in the second sentence of paragraph (b) of this Section to the contrary, in the event that the number of directors to be elected to the Board of Directors of the corporation is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the corporation at least 100 days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the 10th day following the day on which such public announcement is first made by the corporation.

(d) Only such persons who are nominated in accordance with the procedures set forth in this Section (or elected or appointed pursuant to Article IV of these Amended and Restated Bylaws ("***Bylaws***")) shall be eligible to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth

in this Section. Except as otherwise provided by law, the Chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, to declare that such defective proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded.

(e) For purposes of this Section, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission (the "***SEC***") pursuant to Section 13, 14 or 15(d) of the 1934 Act.

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose or purposes, by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, (iii) the Board of Directors pursuant to a resolution adopted by directors representing a quorum of the Board of Directors or (iv) by the holders of shares entitled to cast not less than 20% of the votes at the meeting, and shall be held at such place, on such date, and at such time as the Board of Directors shall fix. At any time or times that the corporation is subject to Section 2115(b) of the California General Corporation Law ("***CGCL***"), stockholders holding 5% or more of the outstanding shares shall have the right to call a special meeting of stockholders as set forth in Section 18(b) of these Bylaws.

(b) If a special meeting is properly called by any person or persons other than the Board of Directors, the request shall be in writing, specifying the general nature of the business proposed to be transacted, and shall be delivered personally or sent by certified or registered mail, return receipt requested, or by telegraphic or other facsimile transmission to the Chairman of the Board of Directors, the Chief Executive Officer, or the Secretary of the corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The Board of Directors shall determine the time and place of such special meeting, which shall be held not less than 35 nor more than 120 days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the officer receiving the request shall cause notice to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. Nothing contained in this paragraph (b) shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board of Directors may be held.

Section 7. Notice of Meetings. Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour, in the case of special meetings, the purpose or purposes of the meeting, and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at any such meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. Notice of the time, place, if any, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his or her attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

Section 8. Quorum. At all meetings of stockholders, except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, the presence, in person, by remote communication, if applicable, or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairman of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of a majority of shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by statute, the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or classes or series, present in person, by remote communication, if applicable, or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of shares of such class or classes or series present in person, by remote communication, if applicable, or represented by proxy at the meeting shall be the act of such class or classes or series.

Section 9. Adjournment and Notice of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by the vote of a majority of the shares present in person, by remote communication, if applicable, or represented by proxy. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business that might have been transacted at the original meeting pursuant to the Certificate of Incorporation, these Bylaws or applicable law. If the adjournment is for more than 30 days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote or execute consents shall have the right to do so either in person, by remote communication, if applicable, or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted after three years from its date of creation unless the proxy provides for a longer period.

Section 11. Joint Owners of Stock. If shares or other securities having voting power stand of record in the names of two or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting (including giving consent pursuant to Section 13) shall have the following effect: (a) if only one votes, his or her act binds all; (b) if more than one votes, the act of the

majority so voting binds all; (c) if more than one votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in the DGCL, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest.

Section 12. List of Stockholders. The Secretary shall prepare and make, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law.

Section 13. Action Without Meeting.

(a) Unless otherwise provided in the Certificate of Incorporation, any action required by statute to be taken at any annual or special meeting of the stockholders, or any action that may be taken at any annual or special meeting of the stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, or by electronic transmission setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

(b) Every written consent or electronic transmission shall bear the date of signature of each stockholder who signs the consent, and no written consent or electronic transmission shall be effective to take the corporate action referred to therein unless, within 60 days of the earliest dated consent delivered to the corporation in the manner herein required, written consents or electronic transmissions signed by a sufficient number of stockholders to take action are delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be by hand or by certified or registered mail, return receipt requested.

(c) Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing or by electronic transmission and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of stockholders to take action were delivered to the corporation as provided in Section 228(c) of the DGCL. If the action to which the stockholders consent is such as would have required the filing of a certificate under any section of the DGCL if such action had been voted on by stockholders at a meeting thereof, then the certificate filed under such section shall state, in lieu of any statement required by such section concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL.

(d) An electronic mail, facsimile or other electronic transmission consenting to an action to be taken and transmitted by a stockholder or proxyholder, shall be deemed to be written, signed and dated for the purposes of this Section, provided that any such electronic mail, facsimile or other

electronic transmission sets forth or is delivered with information from which the corporation can determine (i) that the electronic mail, facsimile or other electronic transmission was transmitted by the stockholder or proxyholder or by a person or persons authorized to act for the stockholder and (ii) the date on which such stockholder or proxyholder or authorized person or persons transmitted such electronic mail, facsimile or electronic transmission. The date on which such electronic mail, facsimile or electronic transmission is transmitted shall be deemed to be the date on which such consent was signed. No consent given by electronic mail, facsimile or other electronic transmission shall be deemed to have been delivered until such consent is reproduced in paper form and until such paper form shall be delivered to the corporation by delivery to its registered office in the state of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be made by hand or by certified or registered mail, return receipt requested. Notwithstanding the foregoing limitations on delivery, consents given by electronic mail, facsimile or other electronic transmission may be otherwise delivered to the principal place of business of the corporation or to an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded if, to the extent and in the manner provided by resolution of the board of directors of the corporation. Any copy, facsimile or other reliable reproduction of a consent in writing may be substituted or used in lieu of the original writing for any and all purposes for which the original writing could be used, provided that such copy, facsimile or other reproduction shall be a complete reproduction of the entire original writing.

Section 14. Organization.

(a) At every meeting of stockholders, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the Chief Executive Officer, or, if the Chief Executive Officer is absent, a chairman of the meeting chosen by a majority in interest of the stockholders entitled to vote, present in person or by proxy, shall act as chairman. The Secretary, or, in his or her absence, an Assistant Secretary directed to do so by the Chief Executive Officer, shall act as secretary of the meeting.

(b) The Board of Directors shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters that are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

ARTICLE IV

DIRECTORS

Section 15. Number and Term of Office. The authorized number of directors of the corporation shall be fixed by the Board of Directors from time to time. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient.

Section 16. Powers. The business and affairs of the corporation shall be managed by or under the direction of the Board of Directors, except as otherwise provided by statute or by the Certificate of Incorporation.

Section 17. Term of Directors.

(a) Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, directors shall be elected at each annual meeting of stockholders to serve until his or her successor is duly elected and qualified or until his or her death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(b) No person entitled to vote at an election for directors may cumulate votes to which such person is entitled, unless, at the time of such election, the corporation is subject to Section 2115(b) of the CGCL. During such time or times that the corporation is subject to Section 2115(b) of the CGCL, every stockholder entitled to vote at an election for directors may cumulate such stockholder's votes and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which such stockholder's shares are otherwise entitled, or distribute the stockholder's votes on the same principle among as many candidates as such stockholder thinks fit. No stockholder, however, shall be entitled to so cumulate such stockholder's votes unless (i) the names of such candidate or candidates have been placed in nomination prior to the voting and (ii) the stockholder has given notice at the meeting, prior to the voting, of such stockholder's intention to cumulate such stockholder's votes. If any stockholder has given proper notice to cumulate votes, all stockholders may cumulate their votes for any candidates who have been properly placed in nomination. Under cumulative voting, the candidates receiving the highest number of votes, up to the number of directors to be elected, are elected.

Section 18. Vacancies.

(a) Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, or by a sole remaining director; *provided*, *however*, that whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director.

(b) At any time or times that the corporation is subject to Section 2115(b) of the CGCL, if, after the filling of any vacancy, the directors then in office who have been elected by stockholders shall constitute less than a majority of the directors then in office, then

(i) any holder or holders of an aggregate of 5% or more of the total number of shares at the time outstanding having the right to vote for those directors may call a special meeting of stockholders; or

(ii) the Superior Court of the proper county shall, upon application of such stockholder or stockholders, summarily order a special meeting of the stockholders, to be held to elect the entire board, all in accordance with Section 305(c) of the CGCL, the term of office of any director shall terminate upon that election of a successor.

Section 19. Resignation. Any director may resign at any time by delivering his or her notice in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time, upon receipt by the Secretary or at the pleasure of the Board of Directors. If no such specification is made, it shall be deemed effective at the pleasure of the Board of Directors. Unless otherwise provided in the Certificate of Incorporation, when one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each Director so chosen shall hold office for the unexpired portion of the term of the Director whose place shall be vacated and until his or her successor shall have been duly elected and qualified.

Section 20. Removal.

(a) Subject to any limitations imposed by applicable law, the Board of Directors or any director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock of the corporation entitled to vote generally at an election of directors or (ii) without cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock of the corporation, entitled to elect such director.

(b) During such time or times that the corporation is subject to Section 2115(b) of the CGCL, the Board of Directors or any individual director may be removed from office at any time without cause by the affirmative vote of the holders of a majority of the outstanding shares entitled to vote on such removal; *provided*, *however*, that unless the entire Board is removed, no individual director may be removed when the votes cast against such director's removal, or not consenting in writing to such removal, would be sufficient to elect that director if voted cumulatively at an election at which the same total number of votes were cast (or, if such action is taken by written consent, all shares entitled to vote were voted) and the entire number of directors authorized at the time of such director's most recent election were then being elected.

Section21. Meetings

(a) Regular Meetings. Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware that has been designated by the Board of Directors and publicized

among all directors, either orally or in writing, including a voice-messaging system or other system designated to record and communicate messages, facsimile, or by electronic mail or other electronic means. No further notice shall be required for a regular meeting of the Board of Directors.

(b) Special Meetings. Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairman of the Board, the Chief Executive Officer (if a director), the President (if a director) or any two of the directors.

(c) Meetings by Electronic Communications Equipment. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(d) Notice of Special Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least 24 hours before the date and time of the meeting. If notice is sent by US mail, it shall be sent by first class mail, postage prepaid at least five days before the date of the meeting. Notice of any meeting may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

(e) Waiver of Notice. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting.

Section 22. Quorum and Voting.

(a) Unless the Certificate of Incorporation requires a greater number, a quorum of the Board of Directors shall consist of a majority of the total number of directors then serving; *provided, however*, that such number shall never be less than 1/3 of the total number of directors except that when one director is authorized, then one director shall constitute a quorum. At any meeting, whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting. If the Certificate of Incorporation provides that one or more directors shall have more or less than one vote per director on any matter, every reference in this Section to a majority or other proportion of the directors shall refer to a majority or other proportion of the votes of the directors.

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

Section 23. Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of

Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing or writings or transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 24. Fees and Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor.

Section 25. Committees.

(a) Executive Committee. The Board of Directors may appoint an Executive Committee to consist of one or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any bylaw of the corporation.

(b) Other Committees. The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws.

(c) Term. The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock and the provisions of paragraphs (a) or (b) of this Section may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his or her death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(d) Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place that has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon notice to the members of such committee of the time and place of such special

meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee.

Section 26. Organization. At every meeting of the directors, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the Chief Executive Officer (if a director), or if the Chief Executive Officer is not a director or is absent, the President (if a director), or if the President is not a director or is absent, the most senior Vice President (if a director) or, in the absence of any such person, a chairman of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his or her absence, any Assistant Secretary directed to do so by the Chief Executive Officer or President, shall act as secretary of the meeting.

ARTICLE V

OFFICERS

Section 27. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer, the Treasurer and the Controller, all of whom shall be elected at the annual organizational meeting of the Board of Directors. The Board of Directors may also appoint one or more Assistant Secretaries, Assistant Treasurers, Assistant Controllers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed by or in the manner designated by the Board of Directors.

Section 28. Tenure and Duties of Officers.

(a) General. All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors, or by the Chief Executive Officer or other officer if so authorized by the Board of Directors.

(b) Duties of Chairman of the Board of Directors. The Chairman of the Board of Directors, when present, shall preside at all meetings of the stockholders and the Board of Directors. The Chairman of the Board of Directors shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. If there is no Chief Executive Officer and no President, then the Chairman of the Board of Directors shall also serve as the Chief Executive Officer of the corporation and shall have the powers and duties prescribed in paragraph (c) of this Section.

(c) Duties of Chief Executive Officer. The Chief Executive Officer shall preside at all meetings of the stockholders and (if a director) at all meetings of the Board of Directors, unless the

Chairman of the Board of Directors has been appointed and is present. The Chief Executive Officer shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The Chief Executive Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time.

(d) Duties of President. In the absence or disability of the Chief Executive Officer or if the office of Chief Executive Officer is vacant, the President shall preside at all meetings of the stockholders and (if a director) at all meetings of the Board of Directors, unless the Chairman of the Board of Directors has been appointed and is present. If the office of Chief Executive Officer is vacant, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time.

(e) Duties of Vice Presidents. The Vice Presidents may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant. The Vice Presidents shall perform other duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(f) Duties of Secretary. The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties provided for in these Bylaws and other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. The Chief Executive Officer may direct any Assistant Secretary to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer shall designate from time to time.

(g) Duties of Chief Financial Officer. The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the Chief Executive Officer. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to his or her office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer shall designate from time to time. The Chief Executive Officer may direct the Treasurer or any Assistant Treasurer, or the Controller or any Assistant Controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer shall designate from time to time.

Section 29. Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 30. Resignations. Any officer may resign at any time by giving notice in writing or by electronic transmission notice to the Board of Directors or to the Chief Executive Officer or to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer.

Section 31. Removal. Any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written or electronic consent of the directors in office at the time, or by any committee or superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

Section 32. Execution of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name, or to enter into contracts on behalf of the corporation, except as otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the corporation. All checks and drafts drawn on banks or other depositaries of funds to the credit of the corporation or on special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do. Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

Section 33. Voting of Securities Owned by the Corporation. All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairman of the Board of Directors, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII

SHARES OF STOCK

Section 34. Form and Execution of Certificates. The shares of the corporation shall be represented by certificates, or shall be uncertificated. Certificates for the shares of stock, if any, of the corporation shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of shares of stock in the corporation represented by certificate shall be entitled to have a certificate signed by or in the name of the corporation by any two authorized officers, including but not limited to the Chief Executive Officer, the President, the Chief Financial Officer, any Vice President, the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him or her in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he or she were such officer, transfer agent, or registrar at the date of issue.

Section 35. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner's legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

Section 36. Restrictions on Transfer.

(a) The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the sale, transfer, assignment, pledge, or other disposal of or encumbering of any of the shares of stock of the corporation or any right or interest therein, whether voluntarily or by operation of law, or by gift or otherwise (each, a "***Transfer***") of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

(b) Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and, in the case of stock represented by certificate, upon the surrender of a properly endorsed certificate or certificates for a like number of shares.

(c) At the option of the corporation, the stockholder shall be obligated to pay to the corporation a reasonable transfer fee related to the costs and time of the corporation and its legal and other advisors related to any proposed Transfer.

(d) If the stockholder desires to sell or otherwise Transfer any of his or her shares of stock, then the stockholder shall first give written notice thereof to the corporation. The notice shall name the proposed transferee and state the number of shares to be transferred, the proposed consideration, and all other terms and conditions of the proposed Transfer.

Section 37. Fixing Record Dates.

(a) In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than 60 nor less than 10 days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day immediately preceding the day on which notice is given, or if notice is waived, at the close of business on the day immediately preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however,* that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to consent to corporate action in writing without a meeting, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which date shall not be more than 10 days after the date upon which the resolution fixing the

record date is adopted by the Board of Directors. If no record date has been fixed by the Board of Directors, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is required by applicable law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to the corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. If no record date has been fixed by the Board of Directors and prior action by the Board of Directors is required by law, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting shall be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.

(c) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than 60 days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 38. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 39. Execution of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 34 of these Bylaws), may be signed by the Chairman of the Board of Directors, the Chief Executive Officer, the President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer; *provided, however,* that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the corporation.

ARTICLE IX

DIVIDENDS

Section 40. Declaration of Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

Section 41. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

ARTICLE X

FISCAL YEAR

Section 42. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 43. Indemnification of Directors, Executive Officers, Other Officers, Employees and Other Agents.

(a) Directors and Executive Officers. The corporation shall indemnify its directors and executive officers (for the purposes of this Article, "executive officers" shall have the meaning defined in Rule 3b-7 promulgated under the 1934 Act) to the fullest extent not prohibited by the DGCL or any other applicable law; *provided, however,* that the corporation may modify the extent of such indemnification by individual contracts with its directors and executive officers; and, *provided, further,* that the corporation shall not be required to indemnify any director or executive officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the DGCL or any other applicable law or (iv) such indemnification is required to be made under paragraph (d) of this Section.

(b) Other Officers, Employees and Other Agents. The corporation shall have power to indemnify its other officers, employees and other agents as set forth in the DGCL or any other applicable law. The Board of Directors shall have the power to delegate the determination of whether indemnification shall be given to any such person except executive officers to such officers or other persons as the Board of Directors shall determine.

(c) Expenses. The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person is or was a director or

executive officer of the corporation, or is or was serving at the request of the corporation as a director or executive officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or executive officer in connection with such proceeding, *provided, however*, that, if the DGCL requires, an advancement of expenses incurred by a director or officer in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking, by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such indemnitee is not entitled to be indemnified for such expenses under this Section or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (e) of this Section, no advance shall be made by the corporation to an executive officer of the corporation (except by reason of the fact that such executive officer is or was a director of the corporation, in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by a majority vote of a quorum consisting of directors who were not parties to the proceeding, even if not a quorum, or (ii) by a committee of such directors designated by a majority of such directors, even though less than a quorum, or (iii) if there are no such directors, or such directors so direct, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

(d) Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and executive officers under this Section shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or executive officer. Any right to indemnification or advances granted by this Section to a director or executive officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within 90 days of request therefor. The claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting the claim. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an executive officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such executive officer is or was a director of the corporation) for advances, the corporation shall be entitled to raise as a defense as to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation, or with respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his or her conduct was lawful. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct.

(e) Non-Exclusivity of Rights. The rights conferred on any person by this Section shall not be exclusive of any other right that such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or

disinterested directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL or any other applicable law.

(f) Survival of Rights. The rights conferred on any person by this Section shall continue as to a person who has ceased to be a director or executive officer and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) Insurance. To the fullest extent permitted by the DGCL, or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this Section.

(h) Amendments. Any repeal or modification of this Section shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) Saving Clause. If this Section or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and executive officer to the full extent not prohibited by any applicable portion of this Bylaw that shall not have been invalidated, or by any other applicable law. If this Section shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and executive officer to the full extent under applicable law.

(j) Certain Definitions. For the purposes of this Section, the following definitions shall apply:

(1) The term “proceeding” shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(2) The term “expenses” shall be broadly construed and shall include, without limitation, court costs, attorneys’ fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(3) The term the “corporation” shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger that, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Section with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(4) References to a “director,” “executive officer,” “officer,” “employee,” or “agent” of the corporation shall include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(5) References to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "serving at the request of the corporation" shall include any service as a director, officer, employee or agent of the corporation that imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this Section.

ARTICLE XII

NOTICES

Section 44. Notices.

(a) Notice to Stockholders. Written notice to stockholders of stockholder meetings shall be given as provided in Section 7 of these Bylaws. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with such stockholder, and except as otherwise required by law, written notice to stockholders for purposes other than stockholder meetings may be sent by United States mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means.

(b) Notice to Directors. Any notice required to be given to any director may be given by the method stated in paragraph (a) of this Section, or as provided for in Section 21 of these Bylaws. If such notice is not delivered personally, it shall be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

(c) Affidavit of Mailing. An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained.

(d) Methods of Notice. It shall not be necessary that the same method of giving notice be employed in respect of all recipients of notice, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

(e) Notice to Person with Whom Communication Is Unlawful. Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting that shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

(f) Notice to Stockholders Sharing an Address. Except as otherwise prohibited under DGCL, any notice given under the provisions of DGCL, the Certificate of Incorporation or the Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall have been deemed to have been given if such stockholder fails to object in writing to the corporation within 60 days of having been given notice by the corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the corporation.

ARTICLE XIII

AMENDMENTS

Section 45. Amendments. The Board of Directors is expressly empowered to adopt, amend or repeal Bylaws of the corporation. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the corporation; *provided, however*, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of a majority of the voting power of all of the then-outstanding shares of the capital stock of the corporation, voting together as a single class.

ARTICLE XIV

LOANS TO OFFICERS

Section 46. Loans to Officers. Except as otherwise prohibited under applicable law, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a Director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

ARTICLE XV

MISCELLANEOUS

Section 47. Annual Report.

(a) Subject to the provisions of paragraph (b) of this Section, the Board of Directors shall cause an annual report to be sent to each stockholder of the corporation not later than 120 days after the close of the corporation's fiscal year. Such report shall include a balance sheet as of the end of such fiscal year and an income statement and statement of changes in financial position for such fiscal year, accompanied by any report thereon of independent accountants or, if there is no such report, the certificate of an authorized officer of the corporation that such statements were prepared without audit from the books and records of the corporation. When there are more than 100 stockholders of record of the corporation's shares, as determined by Section 605 of the CGCL, additional information as required by Section 1501(b) of the CGCL shall also be contained in such report, provided that if the corporation has a class of securities registered under Section 12 of the 1934 Act, the 1934 Act shall take precedence. Such report shall be sent to stockholders at least 15 days prior to the next annual meeting of stockholders after the end of the fiscal year to which it relates.

(b) If and so long as there are fewer than 100 holders of record of the corporation's shares, the requirement of sending of an annual report to the stockholders of the corporation is hereby expressly waived.

Section 48. Forum. Unless the corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the corporation; (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the corporation to the corporation or the corporation's stockholders; (iii) any action asserting a claim against the corporation, its directors, officers or employees arising pursuant to any provision of the DGCL or the corporation's certificate of incorporation or the Bylaws of the corporation; or (iv) any action asserting a claim against the corporation, its directors, officers or employees governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Section 48 shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Section 48 (including, without limitation, each portion of any sentence of this Section 48 containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

Exhibit 4.2

INVESTORS' RIGHTS AGREEMENT

THIS INVESTORS' RIGHTS AGREEMENT (this "**Agreement**"), is made as of April 6, 2018 by and among Allogene Therapeutics, Inc. a Delaware corporation (the "**Company**"), each of the investors listed on Schedule A hereto, each of which is referred to in this Agreement as an "**Investor**."

RECITALS:

WHEREAS, the Company and the Investors are parties to that certain Preferred Stock Purchase Agreement of even date herewith (the "**Purchase Agreement**"); and

WHEREAS, the Company and Pfizer Inc. ("**Pfizer**") are parties to an Asset Contribution Agreement dated April 2, 2018 (the "**ACA**") providing for the purchase and sale of certain Pfizer assets in exchange for shares of Series A-1 Preferred Stock; and

WHEREAS, in order to induce the Company to enter into the Purchase Agreement, to induce the Investors to invest funds in the Company pursuant to the Purchase Agreement, and to induce Pfizer to enter into the ACA and consummate the transactions contemplated thereby, the Investors and the Company hereby agree that this Agreement shall govern the rights of the Investors to cause the Company to register shares of Common Stock issuable to the Investors, to receive certain information from the Company, and to participate in future equity offerings by the Company, and shall govern certain other matters as set forth in this Agreement;

NOW, THEREFORE, the parties hereby agree as follows:

1. Definitions. For purposes of this Agreement:

1.1 "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including without limitation any general partner, managing member, officer, director or trustee of such Person, or any venture capital fund or registered investment company now or hereafter existing that is controlled by one or more general partners, managing members or investment adviser of, or shares the same management company or investment adviser with, such Person.

1.2 "**Board of Directors**" means the board of directors of the Company.

1.3 "**Certificate of Incorporation**" means the Company's Amended and Restated Certificate of Incorporation, as amended and/or restated from time to time.

1.4 "**Class A Director**" means any director of the Company that the holders of record of the Preferred Stock are entitled to elect, exclusively and as a separate class or series of Preferred Stock, in each case pursuant to the Certificate of Incorporation.

1.5 "**Common Stock**" means shares of the Company's common stock, par value $0.001 per share.

1.6 "**Competitor**" means a Person, other than an Investor, engaged, directly or indirectly (including through any partnership, limited liability company, corporation, joint venture or similar arrangement (whether now existing or formed hereafter)), in the business of discovering, developing or commercializing pharmaceutical products for use in the fields of oncology or cell-based therapies, but shall not include any financial investment firm or collective investment vehicle that, together with its Affiliates, holds less than 20% of the outstanding equity of any Competitor and does not, nor do any of its Affiliates, have a right to designate any members of the board of directors of any Competitor.

1.7 "**Damages**" means any loss, damage, claim or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, claim or liability (or any action in respect thereof) arises out of or is based upon: (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

1.8 "**Derivative Securities**" means any securities or rights convertible into, or exercisable or exchangeable for (in each case, directly or indirectly)**,** Common Stock, including options and warrants.

1.9 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.10 "**Excluded Registration**" means: (i) a registration relating to the sale or grant of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, equity incentive or similar plan; (ii) a registration relating to the issuance of securities in an SEC Rule 145 transaction; (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or (iv) a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered.

1.11 "**FOIA Party**" means a Person, other than an Investor, that, in the reasonable determination of the Board of Directors, may be subject to, and thereby required to disclose non-public information furnished by or relating to the Company under, the Freedom of Information Act, 5 U.S.C. 552 ("**FOIA**"), any state public records access law, any state or other jurisdiction's laws similar in intent or effect to FOIA, or any other similar statutory or regulatory requirement.

1.12 "**Form S-1**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.13 "**Form S-3**" means such form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC that permits forward incorporation of substantial information by reference to other documents filed by the Company with the SEC.

1.14 "**GAAP**" means generally accepted accounting principles in the United States as in effect from time to time.

1.15 "**Holder**" means any holder of Registrable Securities who is a party to this Agreement.

1.16 "**Immediate Family Member**" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including, adoptive relationships, of a natural person referred to herein.

1.17 "**Initiating Holders**" means, collectively, Holders who properly initiate a registration request under this Agreement.

1.18 "**IPO**" means the Company's first underwritten public offering of its Common Stock under the Securities Act.

1.19 "**Major Investor**" means any Investor that, individually or together with such Investor's Affiliates, holds at least 285,207 shares of Registrable Securities, (as adjusted for any stock split, stock dividend, combination, or other recapitalization or reclassification effected after the date hereof) and for so long as it or its Affiliates hold Registrable Securities, Seaview Trust and Belldegrun Family Trust.

1.20 "**New Securities**" means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

1.21 "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.22 "**Preferred Stock**" means, collectively, shares of the Company's Series A Preferred Stock and Series A-1 Preferred Stock.

1.23 "**Registrable Securities**" means: (i) the Common Stock issuable or issued upon conversion of the Preferred Stock; (ii) any Common Stock issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company, acquired by the Investors after the date hereof; and (iii) any Common Stock

issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clauses (i) and (ii) above; excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which the applicable rights under this Agreement are not assigned pursuant to Subsection 6.1, and excluding for purposes of Section 2 any shares for which registration rights have terminated pursuant to Subsection 2.13 of this Agreement.

1.24 "**Registrable Securities then outstanding**" means the number of shares determined by adding the number of shares of outstanding Common Stock that are Registrable Securities and the number of shares of Common Stock issuable (directly or indirectly) pursuant to then exercisable and/or convertible securities that are Registrable Securities.

1.25 "**Restricted Securities**" means the securities of the Company required to be notated with the legend set forth in Subsection 2.12(b) hereof.

1.26 "**SEC**" means the United States Securities and Exchange Commission.

1.27 "**SEC Rule 144**" means Rule 144 promulgated by the SEC under the Securities Act.

1.28 "**SEC Rule 145**" means Rule 145 promulgated by the SEC under the Securities Act.

1.29 "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.30 "**Selling Expenses**" means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Company as provided in Subsection 2.6.

1.31 "**Series A Preferred Stock**" means shares of the Company's Series A Preferred Stock, par value $0.001 per share.

1.32 "**Series A-1 Preferred Stock**" means shares of the Company's Series A-1 Preferred Stock, par value $0.001 per share.

2. Registration Rights. The Company covenants and agrees as follows:

2.1 Demand Registration.

(a) Form S-1 Demand. If at any time after the earlier of (i) three years after the date of this Agreement or (ii) 180 days after the effective date of the registration statement for the IPO, the Company receives a request from holders of at least 51% of the Registrable

Securities then outstanding (but excluding for the specific purpose of this voting threshold shares of Common Stock issued or issuable solely as a result of the provisions of Article Fourth Section B(4.11) of the Certificate of Incorporation) that the Company file a Form S-1 registration statement with respect to the sale of Registrable Securities for which the anticipated aggregate offering price, net of Selling Expenses, would exceed $20 million), then the Company shall (x) within 10 days after the date such request is given, give notice thereof (the "**Demand Notice**") to all Holders other than the Initiating Holders; and (y) as soon as practicable, and in any event within 60 days after the date such request is given by the Initiating Holders, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within 20 days of the date the Demand Notice is given, and in each case, subject to the limitations of Subsections 2.1(c) and 2.3.

(b) Form S-3 Demand. If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from Holders of at least 30% of the Registrable Securities then outstanding (but excluding for the specific purpose of this voting threshold shares of Common Stock issued or issuable solely as a result of the provisions of Article Fourth Section B(4.11) of the Certificate of Incorporation) that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price, net of Selling Expenses, of at least $2 million, then the Company shall (i) within 10 days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within 45 days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within 20 days of the date the Demand Notice is given, and in each case, subject to the limitations of Subsections 2.1(c) and 2.3.

(c) Notwithstanding the foregoing obligations, if the Company furnishes to Holders requesting a registration pursuant to this Subsection 2.1 a certificate signed by the Company's chief executive officer stating that in the good faith judgment of the Board of Directors it would be materially detrimental to the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would: (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than 60 days after the request of the Initiating Holders is given; provided, however, that the Company may not invoke this right more than once in any 12-month period; and provided further that the Company shall not register any securities for its own account or that of any other stockholder during such 60-day period, other than pursuant to a registration relating to the sale or

grant of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, equity incentive or similar plan; a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered.

(d) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Subsection 2.1(a): (i) during the period that is 90 days before the Company's good faith estimate of the date of filing of, and ending on a date that is 180 days after the effective date of, a Company-initiated registration, provided that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) after the Company has effected two registrations pursuant to Subsection 2.1(a); or (iii) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Subsection 2.1(b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Subsection 2.1(b): (i) during the period that is 30 days before the Company's good faith estimate of the date of filing of, and ending on a date that is 60 days after the effective date of, a Company-initiated registration, provided that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; or (ii) if the Company has effected two registrations pursuant to Subsection 2.1(b) within the 12-month period immediately preceding the date of such request. A registration shall not be counted as "effected" for purposes of this Subsection 2.1(d) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration, elect not to pay the registration expenses therefor, and forfeit their right to one demand registration statement pursuant to Subsection 2.6, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Subsection 2.1(d); provided, that if such withdrawal is during a period the Company has deferred taking action pursuant to Subsection 2.1(c), then the Initiating Holders may withdraw their request for registration and such registration will not be counted as "effected" for purposes of this Subsection 2.1(d).

2.2 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its securities under the Securities Act in connection with the public offering of such securities solely for cash (other than in an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within 20 days after such notice is given by the Company, the Company shall, subject to the provisions of Subsection 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Subsection 2.2 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Subsection 2.6.

2.3 Underwriting Requirements.

(a) If, pursuant to Subsection 2.1, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Subsection 2.1, and the Company shall include such information in the Demand Notice. The underwriter(s) will be selected by the Initiating Holders, subject only to the reasonable approval of the Board of Directors. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Subsection 2.4(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting. Notwithstanding any other provision of this Subsection 2.3, if the managing underwriter(s) advise(s) the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder or in such other proportion as shall mutually be agreed to by all such selling Holders; provided, however, that the number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Subsection 2.2, the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, or (ii) the number of Registrable Securities included in the offering be reduced below 30% of the total number of securities included in such offering, unless such offering is the IPO, in which case the selling Holders may be excluded further if the underwriters make the determination described above and no other stockholder's

securities are included in such offering. For purposes of the provision in this Subsection 2.3(b) concerning apportionment, for any selling Holder that is a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, stockholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

(c) For purposes of Subsection 2.1, a registration shall not be counted as "effected" if, as a result of an exercise of the underwriter's cutback provisions in Subsection 2.3(a), fewer than 50% of the total number of Registrable Securities that Holders have requested to be included in such registration statement are actually included.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to 120 days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that: (i) such 120-day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Stock (or other securities) of the Company, from selling any securities included in such registration, and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed basis, subject to compliance with applicable SEC rules, such 120-day period shall be extended to be a one-year period, if necessary, to keep the registration statement effective until all such Registrable Securities are sold;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling Holders, any managing underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(i) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(j) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

In addition, the Company shall ensure that, at all times after any registration statement covering a public offering of securities of the Company under the Securities Act shall have become effective, its insider trading policy shall provide that the Company's directors may implement a trading program under Rule 10b5-1 of the Exchange Act.

2.5 Furnish Information. It shall be a condition precedent to the obligations of the Company to effect any registration statement pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

2.6 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements of one counsel for the selling Holders ("**Selling Holder Counsel**"), shall be borne and paid by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Subsection 2.1 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one registration pursuant to Subsections 2.1(a) or 2.1(b), as the case may be; provided further that if, at the time of such withdrawal, the Holders shall have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration pursuant to Subsections 2.1(a) or 2.1(b). All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.7 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.8 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder and its Affiliates, and the partners, members, officers, directors, and stockholders of each such Holder and its Affiliates; legal counsel and accountants for each such Holder and its Affiliates; any underwriter (as defined in the Securities Act) for each such Holder and its Affiliates; and each Person, if any, who controls or is alleged to control such Holder, its Affiliates or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, its Affiliates, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Subsection 2.8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of and relating to any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls or is alleged to control the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of and relating to such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Subsection 2.8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and provided further that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under Subsections 2.8(b) and 2.8(d) exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Subsection 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Subsection 2.8, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if such indemnified party reasonably determines that representation by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Subsection 2.8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Subsection 2.8.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either: (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Subsection 2.8 but it is judicially

determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Subsection 2.8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Subsection 2.8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided further that in no event shall a Holder's liability pursuant to this Subsection 2.8(d), when combined with the amounts paid or payable by such Holder pursuant to Subsection 2.8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of willful misconduct or fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise expressly superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Subsection 2.8 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement.

2.9 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies) and (ii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

2.10 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of a majority of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that would: (i) provide to such holder or prospective holder the right to include securities in any registration on other than a subordinate basis after all Holders have had the opportunity to include in the registration and offering all shares of Registrable Securities that they wish to so include; (ii) allow such holder or prospective holder to include such securities in any registration unless, under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the number of the Registrable Securities of the Holders that are included in any manner; or (iii) allow such holder or prospective holder to initiate a demand for registration of any securities held by such holder or prospective holder.

2.11 "Market Stand-off" Agreement. Each Holder hereby agrees, if requested by the managing underwriter, that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the registration by the Company for its own behalf of shares of its Common Stock or any other equity securities under the Securities Act on a registration statement on Form S-1, and ending on the date specified by the Company and the managing underwriter (such period not to exceed 180 days in the case of the IPO): (i) lend; offer; pledge; sell; contract to sell; sell any option or contract to purchase; purchase any option or contract to sell; grant any option, right, or warrant to purchase; or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Stock held immediately before the effective date of the registration statement for such offering, or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in

cash, or otherwise. The foregoing provisions of this Subsection 2.11 shall: (x) apply only to the IPO; (y) not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, or the transfer of any shares to any trust for the direct or indirect benefit of the Holder or the immediate family of the Holder, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value; and (z) be applicable to the Holders only if all officers, directors, and stockholders individually owning more than 1% of the Company's outstanding Common Stock (after giving effect to conversion into Common Stock of all outstanding Class A Preferred Stock) are subject to the same restrictions. The underwriters in connection with such registration are intended third-party beneficiaries of this Subsection 2.11 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Subsection 2.11 or that are necessary to give further effect thereto. Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply pro rata to all Company stockholders that are subject to such agreements, based on the number of shares subject to such agreements.

2.12 Restrictions on Transfer.

(a) The Preferred Stock and the Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Holder will cause any proposed purchaser, pledgee, or transferee of the Preferred Stock and the Registrable Securities held by such Holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement.

(b) Each certificate, instrument, or book entry representing (i) the Preferred Stock, (ii) the Registrable Securities, and (iii) any other securities issued in respect of the securities referenced in clauses (i) and (ii), upon any stock split, stock dividend, recapitalization, merger, consolidation, or similar event, shall (unless otherwise permitted by the provisions of Subsection 2.12(c)) be notated with a legend substantially in the following form:

THE SECURITIES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933. SUCH SHARES MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT.

THE SECURITIES REPRESENTED HEREBY MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Holders consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Subsection 2.12.

The foregoing legend shall be removed from the certificates representing any Restricted Securities, at the request of the holder thereof, at such time as (a) a period of at least one year, as determined in accordance with paragraph (d) of SEC Rule 144, has elapsed since the later of the date the Restricted Securities were acquired from the Company or an affiliate of the Company, and (b) the Restricted Securities become eligible for resale pursuant to SEC Rule 144(b)(1)(i).

(c) The holder of such Restricted Securities, by acceptance of ownership thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction, the Holder thereof shall give notice to the Company of such Holder's intention to effect such sale, pledge, or transfer. Each such notice shall describe the manner and circumstances of the proposed sale, pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder's expense by either: (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. The Company will not require such a legal opinion or "no action" letter: (x) in any transaction in compliance with SEC Rule 144; or (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder for no consideration; provided that each transferee agrees in writing to be subject to the terms of this Subsection 2.12. Each certificate, instrument, or book entry representing the Restricted Securities transferred as above provided shall be notated with, except if such transfer is made pursuant to SEC Rule 144, the appropriate restrictive legend set forth in Subsection 2.12(b), except that such certificate instrument, or book entry shall not be notated with such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

2.13 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Subsections 2.1 or 2.2 shall terminate upon the earliest to occur of:

(a) the closing of a Deemed Liquidation Event, as such term is defined in the Certificate of Incorporation;

(b) such time after consummation of the IPO as Rule 144 or another similar exemption under the Securities Act is available for the sale of all of such Holder's shares without limitation during a three-month period without registration; or

(c) the fifth anniversary of the IPO.

3. Information and Observer Rights.

3.1 Delivery of Financial Statements. The Company shall deliver to each Major Investor:

(a) as soon as practicable, but in any event within 120 days after the end of each fiscal year of the Company: (i) a balance sheet as of the end of such year, (ii) statements of income and of cash flows for such year, and a comparison between (x) the actual amounts as of and for such fiscal year and (y) the comparable amounts for the prior year and as included in the Budget (as defined in Subsection 3.1(d)) for such year, with an explanation of any material differences between such amounts and a schedule as to the sources and applications of funds for such year, and (iii) a statement of stockholders' equity as of the end of such year, all such financial statements audited and certified by independent public accountants of nationally recognized standing selected by the Company;

(b) as soon as practicable, but in any event within 45 days after the end of each of the first three quarters of each fiscal year of the Company, unaudited statements of income and cash flows for such fiscal quarter, and an unaudited balance sheet and a statement of stockholders' equity as of the end of such fiscal quarter, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments; and (ii) not contain all notes thereto that may be required in accordance with GAAP);

(c) as soon as practicable, but in any event within 45 days after the end of each of the first three quarters of each fiscal year of the Company, a statement showing the number of shares of each class and series of capital stock and securities convertible into or exercisable for shares of capital stock outstanding at the end of the period, the Common Stock issuable upon conversion or exercise of any outstanding securities convertible or exercisable for Common Stock and the exchange ratio or exercise price applicable thereto, and the number of shares of issued stock options and stock options not yet issued but reserved for issuance, if any, all in sufficient detail as to permit the Major Investors to calculate their respective percentage equity ownership in the Company, and certified by the chief financial officer or chief executive officer of the Company as being true, complete, and correct;

(d) as soon as practicable before the end of each fiscal year, a budget and business plan for the next fiscal year (collectively, the "**Budget**"), approved by the Board of Directors, including balance sheets, income statements, and statements of cash flow for such months and, promptly after prepared, any other budgets or revised budgets prepared by the Company; and

(e) with respect to the financial statements called for in Subsection 3.1(a) and Subsection 3.1(b), an instrument executed by the chief financial officer and chief executive officer of the Company certifying that such financial statements were prepared in accordance with GAAP consistently applied with prior practice for earlier periods (except as otherwise set forth in Subsection 3.1(b) and fairly present the financial condition of the Company and its results of operation for the periods specified therein.

If, for any period, the Company has any subsidiary whose accounts are consolidated with those of the Company, then in respect of such period the financial statements delivered pursuant to the foregoing sections shall be the consolidated and consolidating financial statements of the Company and all such consolidated subsidiaries.

Notwithstanding anything else in this Subsection 3.1 to the contrary, the Company may cease providing the information set forth in this Subsection 3.1 during the period starting with the date 30 days before the Company's good-faith estimate of the date of filing of a registration statement if it reasonably concludes it must do so to comply with the SEC rules applicable to such registration statement and related offering; provided that the Company's covenants under this Subsection 3.1 shall be reinstated at such time as the Company is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective.

3.2 Inspection. The Company shall permit each Major Investor, at such Major Investor's expense, to visit and inspect the Company's properties; examine its books of account and records; and discuss the Company's affairs, finances, and accounts with its officers, during normal business hours of the Company as may be reasonably requested by the Major Investor; provided, however, that the Company shall not be obligated pursuant to this Subsection 3.2 to provide access to any information that it reasonably and in good faith considers to be a trade secret or the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

3.3 Observer Rights. As long as Gilead Sciences, Inc., or a subsidiary thereof, ("**Gilead**") owns not less than 50% of the shares of Series A Preferred Stock it is purchasing under the Purchase Agreement (or an equivalent amount of Common Stock issued upon conversion thereof), the Company shall invite a representative of Gilead to attend all meetings of the Board of Directors in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors at the same time and in the same manner as provided to such directors; provided, however, that at the Company's request, the Company and such representative shall enter into a confidentiality agreement in customary form reasonably acceptable to Gilead; provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if the Company reasonably and in good faith believes that access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest; and provided further that such representative shall not be any individual affiliated directly with Gilead's business activities in the field of oncology or cell-based therapy.

3.4 Termination of Information and Observer Rights. The covenants set forth in Subsection 3.1, Subsection 3.2 and Subsection 3.3 shall terminate and be of no further force or effect: (i) immediately before the consummation of the IPO; (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act; or (iii) upon the closing of a Deemed Liquidation Event, as such term is defined in the Certificate of Incorporation, whichever event occurs first.

3.5 Confidentiality. Each Investor agrees that such Investor will keep confidential and will not disclose, divulge, or use for any purpose (other than to monitor its investment in the Company) any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company's intention to file a registration statement), unless such confidential information: (a) is known or becomes known to the public in general (other than as a result of a breach of this Subsection 3.5 by such Investor); (b) is or has been independently developed or conceived by such Investor without use of the Company's confidential information; or (c) is or has been made known or disclosed to such Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, however, that an Investor may disclose confidential information: (i) to its attorneys, accountants, consultants, and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company; (ii) to any prospective purchaser of any Registrable Securities from such Investor, if such prospective purchaser agrees to be bound by the provisions of this Subsection 3.5; (iii) to any existing or prospective Affiliate, partner, member, stockholder, or wholly owned subsidiary of such Investor in the ordinary course of business, provided that such existing or prospective Investor informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; or (iv) as may otherwise be required by law, regulation, rule, court order or subpoena (including of any securities exchange or market), provided that such Investor promptly, to the extent practicable, notifies the Company of such disclosure and furnishes only that portion of the confidential information that is legally compelled or is otherwise legally required to be disclosed, as reasonably determined by such Investor's legal counsel. For avoidance of doubt, notwithstanding the notice and other obligations in (iv), the Company acknowledges and agrees that The Regents of the University of California (the "**UC**") is subject to the California Public Records Act (Cal. Govt. Code §6250 et. seq. (the "**CPRA**")), which provides generally that all records relating to a public agency's business are open to public inspection and copying unless exempted under the CPRA, and that if the UC is required to make disclosures thereunder (as reasonably determined by the UC's legal counsel), the UC may do so without further obligations to the Company.

4. Rights to Future Stock Issuances.

4.1 Right of First Offer. Subject to the terms and conditions of this Subsection 4.1 and applicable securities laws, if the Company proposes to offer or sell any New Securities, the Company shall first offer such New Securities to each Major Investor. A Major Investor shall be entitled to apportion the right of first offer hereby granted to it in such proportions as it deems appropriate, among: (i) itself, (ii) its Affiliates and (iii) its beneficial interest holders, such as limited partners, members or any other Person having

"beneficial ownership," as such term is defined in Rule 13d-3 promulgated under the Exchange Act, of such Major Investor ("**Investor Beneficial Owners**"); provided that each such Affiliate or Investor Beneficial Owner: (x) is not a Competitor or FOIA Party, unless such party's purchase of New Securities is otherwise consented to by the Board of Directors, (y) agrees to enter into this Agreement and each of the Voting Agreement and Right of First Refusal and Co-Sale Agreement of even date herewith among the Company, the Investors and the other parties named therein, as an "**Investor**" under each such agreement (provided that any Competitor or FOIA Party shall not be entitled to any rights as a Major Investor under Subsections 3.1, 3.2, 3.3 and 4.1 hereof), and (z) agrees to purchase at least such number of New Securities as are allocable hereunder to the Major Investor holding the fewest number of Preferred Stock and any other Derivative Securities.

(a) The Company shall give notice (the "**Offer Notice**") to each Major Investor, stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such New Securities.

(b) By notification to the Company within 20 days after the Offer Notice is given, each Major Investor may elect to purchase or otherwise acquire, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the Common Stock then held by such Major Investor (including all shares of Common Stock then issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held by such Investor bears to the total Common Stock of the Company then outstanding (assuming (i) full conversion and/or exercise, as applicable, of all Preferred Stock and any other Derivative Securities then outstanding and (ii) excluding unallocated stock reserved under the Company's equity incentive plan as then in effect). At the expiration of such 20-day period, the Company shall promptly notify each Major Investor that elects to purchase or acquire all the shares available to it (each, a "**Fully Exercising Investor**") of any other Major Investor's failure to do likewise. During the ten-day period commencing after the Company has given such notice, each Fully Exercising Investor may, by giving notice to the Company, elect to purchase or acquire, in addition to the number of shares specified above, up to that portion of the New Securities for which Major Investors were entitled to subscribe but that were not subscribed for by the Major Investors which is equal to the proportion that the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of Preferred Stock and any other Derivative Securities then held, by such Fully Exercising Investor bears to the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held, by all Fully Exercising Investors who wish to purchase such unsubscribed shares. The closing of any sale pursuant to this Subsection 4.1(b) shall occur within the later of 90 days of the date that the Offer Notice is given and the date of initial sale of New Securities pursuant to Subsection 4.1(c).

(c) If all New Securities referred to in the Offer Notice are not elected to be purchased or acquired as provided in Subsection 4.1(b), the Company may, during the 90-day period following the expiration of the periods provided in Subsection 4.1(b), offer and sell the remaining unsubscribed portion of such New Securities to any Person or Persons at a price not less

than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within 30 days of the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Investors in accordance with this Subsection 4.1.

(d) The right of first offer in this Subsection 4.1 shall not be applicable to: (i) Exempted Securities (as defined in the Certificate of Incorporation), and (ii) shares of Common Stock issued in the IPO.

4.2 Termination. The covenants set forth in Subsection 4.1 shall terminate and be of no further force or effect: (i) immediately before the consummation of the IPO; or (ii) upon the closing of a Deemed Liquidation Event, as such term is defined in the Certificate of Incorporation, whichever event occurs first.

5. Additional Covenants.

5.1 Insurance. The Company shall obtain, within 90 days of the date hereof, from financially sound and reputable insurers Directors and Officers liability insurance in an amount and on terms and conditions satisfactory to the Board of Directors, and will use commercially reasonable efforts to cause such insurance policies to be maintained until such time as the Board of Directors determines that such insurance should be discontinued. Notwithstanding any other provision of this Section 5.1 to the contrary, for so long as any Class A Director is serving on the Board of Directors, the Company shall not cease to maintain a Directors and Officers liability insurance policy in an amount of at least $3,000,000 at all times prior to the initiation of clinical trials by the Company and at least $5,000,000 at all times following the initiation of clinical trials by the Company, and the Company shall annually, within 120 days after the end of each fiscal year of the Company, deliver to the Investors a certification that such a Directors and Officers liability insurance policy remains in effect.

5.2 Employee Agreements. The Company will cause each Person now or hereafter employed by it or by any subsidiary (or engaged by the Company or any subsidiary as a consultant/independent contractor) with access to confidential information and/or trade secrets to enter into a nondisclosure and proprietary rights assignment agreement in a customary form reasonably acceptable to the Investors. In addition, the Company shall not amend, modify, terminate, waive, or otherwise alter, in whole or in part, any of the above-referenced agreements or any restricted stock agreement between the Company and any employee, without the consent of a majority of the Class A Directors.

5.3 Employee Stock. Unless otherwise approved unanimously by the Board of Directors, all future equity-based compensation awards granted to employees or consultants shall be granted with an exercise price equal to the fair value of Common Stock on such date (as determined by a 409A valuation) in the form of stock options, and shall provide for vesting of such options over a four-year period, with the first 25% of such shares vesting no earlier than the first anniversary of the grant date, and with the remaining shares vesting in equal monthly installments over the following 36 months (subject to double-trigger vesting acceleration in full upon a change

of control of the Company). Additionally, all such awards shall provide for a market stand-off provision substantially similar to that in Subsection 2.11. Without the prior unanimous approval by the Board of Directors, the Company shall not amend, modify, terminate, waive or otherwise alter, in whole or in part, any stock purchase, stock restriction or option agreement with any existing employee or service provider if such amendment would cause it to be inconsistent with this Subsection 5.3.

5.4 Board Matters. Unless otherwise determined by the vote of a majority of the directors then in office, the Board of Directors shall meet at least quarterly in accordance with an agreed-upon schedule. The Company shall reimburse the directors for all reasonable out-of-pocket travel expenses incurred (consistent with the Company's travel policy) in connection with attending meetings of the Board of Directors. The Company shall cause to be established, as soon as practicable after such request, and will maintain, an audit and compensation committee, each of which shall consist solely of non-management directors. Other than with respect to customary audit and compensation committees of the Board of Directors, each non-employee director shall be entitled in such person's discretion to be a member of any committee of the Board of Directors; provided that no such committee shall be required to have more than three members, and that, subject to the next sentence, membership of any such committee shall be determined by consensus of the then-serving directors as a group; and provided further that, notwithstanding the foregoing, each non-employee director shall also be entitled in such person's discretion to participate in meetings of any committee of the Board of Directors in a non-voting observer capacity, and, in this respect, shall be provided with copies of all notices, minutes, consents, and other materials provided to the members of such committee(s) at the same time and in the same manner as provided to such members. Each committee of the Board of Directors shall include at least one Class A Director (with the Class A Director(s) serving on such committees to be determined by consensus of the Class A Directors as a group). The Board of Directors shall adopt customary delegations of authority for management promptly (but in any event within 90 days) following the Initial Closing (as defined in the Purchase Agreement).

5.5 Successor Indemnification. If the Company or any of its successors or assignees consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger, then to the extent necessary, proper provision shall be made so that the successors and assignees of the Company assume the obligations of the Company with respect to indemnification of members of the Board of Directors as in effect immediately before such transaction, whether such obligations are contained in the Company's Bylaws, the Certificate of Incorporation, or elsewhere, as the case may be.

5.6 Expenses of Counsel. In the event of a transaction which is a Sale of the Company (as defined in the Voting Agreement of even date herewith among the Investors, the Company and the other parties named therein), the reasonable fees and disbursements of one counsel for the Major Investors ("**Investor Counsel**"), in their capacities as stockholders, shall be borne and paid by the Company. At the outset of considering a transaction which, if consummated would constitute a Sale of the Company, the Company shall obtain the ability to share with the Investor Counsel (and such counsel's clients) and shall share the confidential information (including, without limitation, the initial and all subsequent drafts of memoranda of understanding, letters of intent and other transaction documents and related non-compete, employment, consulting

and other compensation agreements and plans) pertaining to and memorializing any of the transactions which, individually or when aggregated with others would constitute the Sale of the Company. The Company shall be obligated to share (and cause the Company's counsel and investment bankers to share) such materials when distributed to the Company's executives and/or any one or more of the other parties to such transaction(s). In the event that Investor Counsel deems it appropriate, in its reasonable discretion, to enter into a joint defense agreement or other arrangement to enhance the ability of the parties to protect their communications and other reviewed materials under the attorney client privilege, the Company shall, and shall direct its counsel to, execute and deliver to Investor Counsel and its clients such an agreement in form and substance reasonably acceptable to Investor Counsel. In the event that one or more of the other party or parties to such transactions require the clients of Investor Counsel to enter into a confidentiality agreement and/or joint defense agreement in order to receive such information, then the Company shall share whatever information can be shared without entry into such agreement and shall, at the same time, in good faith work expeditiously to enable Investor Counsel and its clients to negotiate and enter into the appropriate agreement(s) without undue burden to the clients of Investor Counsel.

5.7 Right to Conduct Activities. The Company hereby agrees and acknowledges that TPG Carthage Holdings, L.P. and The Rise Fund Carthage, L.P. (collectively, "**TPG**") (together with its Affiliates) is a professional investment organization, Pfizer (together with its Affiliates), Gilead (together with its Affiliates) and the UC (together with its Affiliates) are also in the business of making investments in third parties, and as such each of TPG, Pfizer, Gilead and UC review the business plans and related proprietary information of many enterprises, some of which may compete directly or indirectly with the Company's business (as currently conducted or as currently propose to be conducted). The Company hereby agrees that, to the extent permitted under applicable law, TPG (and its Affiliates) Pfizer (and its Affiliates), Gilead (and its Affiliates) and UC (and its Affiliates) shall not be liable to the Company for any claim arising out of, or based upon: (i) the investment by TPG (or its Affiliates), Pfizer (or its Affiliates), Gilead (or its Affiliates) or UC (or its Affiliates) in any entity competitive with the Company, or (ii) actions taken by any partner, officer, employee or other representative of TPG (or its Affiliates), Pfizer (or its Affiliates), Gilead (or its Affiliates) or UC (or its Affiliates) to assist any such competitive company, whether or not such action was taken as a member of the board of directors of such competitive company or otherwise, and whether or not such action has a detrimental effect on the Company; provided, however, that the foregoing shall not relieve (x) any of the Investors from liability associated with the unauthorized disclosure of the Company's confidential information obtained pursuant to this Agreement, or (y) any director or officer of the Company from any liability associated with his or her fiduciary duties to the Company.

5.8 FCPA Compliance. The Company shall not, and shall not permit any of its subsidiaries and Affiliate or any of its or their respective directors, officers, managers, employees, independent contractors, representatives or agents (collectively, "**Representatives**") to, promise, authorize or make any payment to, or otherwise contribute any item of value to, directly or indirectly, any non-U.S. government official, in each case, in violation of the U.S. Foreign Corrupt Practices Act, as amended ("**FCPA**") or any other applicable anti-bribery or anti-corruption law. The Company shall, and shall cause each of its subsidiaries and Affiliates to, cease all of its or their respective activities, as well as remediate any actions taken by the Company, its subsidiaries

or Affiliates or any of its or their respective Representatives in violation of the FCPA or any other applicable anti-bribery or anti-corruption law. The Company shall, and shall cause each of its Affiliates and subsidiaries to, maintain systems or internal controls (including, but not limited to, accounting systems, purchasing systems and billing systems) to ensure compliance with the FCPA or any other applicable anti-bribery or anti-corruption law.

5.9 Termination of Covenants. The covenants set forth in this Section 5, except for Subsections 5.5, 5.6 and 5.7, shall terminate and be of no further force or effect: (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Certificate of Incorporation, whichever event occurs first.

6. Miscellaneous.

6.1 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that is either: (a) an Affiliate of a Holder, (b) a Holder's Immediate Family Member or trust for the benefit of an individual Holder or one or more of such Holder's Immediate Family Members, or (c) after such transfer, a Holder of at least 500,000 shares of Registrable Securities (subject to appropriate adjustment for stock splits, stock dividends, combinations, and other recapitalizations); provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including the provisions of Subsection 2.11. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

6.2 Governing Law. This Agreement shall be governed by the internal law of the State of Delaware without regard to conflict of law principles that would result in the application of any law other than the law of the State of Delaware; provided, however, that provisions specific to UC's confidentiality and CPRA obligations set forth in Section 3.5 and sovereign immunity and right to decline to be sued in federal court as set forth in Subsection 6.10 shall be construed in accordance with the laws of the State of California notwithstanding any applicable laws or conflicts of laws principles.

6.3 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, *e.g.*, www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes**.**

6.4 Titles and Subtitles. The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

6.5 Notices.

(a) All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or: (i) personal delivery to the party to be notified; (ii) when sent, if sent by electronic mail or facsimile during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (iii) five days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on Schedule A hereto, or to the principal office of the Company and to the attention of the Chief Executive Officer, in the case of the Company, or to such email address, facsimile number, or address as subsequently modified by written notice given in accordance with this Subsection 6.5.

(b) Consent to Electronic Notice. Each Investor consents to the delivery of any stockholder notice pursuant to the Delaware General Corporation Law (the "**DGCL**"), as amended or superseded from time to time, by electronic transmission pursuant to Section 232 of the DGCL (or any successor thereto) at the electronic mail address or the facsimile number set forth below such Investor's name on the Schedules hereto, as updated from time to time by notice to the Company, or as on the books of the Company. To the extent that any notice given by means of electronic transmission is returned or undeliverable for any reason, the foregoing consent shall be deemed to have been revoked until a new or corrected electronic mail address has been provided, and such attempted Electronic Notice shall be ineffective and deemed to not have been given. Each Investor agrees to promptly notify the Company of any change in such stockholder's electronic mail address, and that failure to do so shall not affect the foregoing.

6.6 Amendments and Waivers. Any term of this Agreement may be amended, modified or terminated and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Company and the holders of at least 51% of the Registrable Securities then outstanding (but excluding for the specific purpose of this voting threshold shares of Common Stock issued or issuable solely as a result of the provisions of Article Fourth Section B(4.11) of the Certificate of Incorporation); provided that the Company may in its sole discretion waive compliance with Subsection 2.12(c) (and the Company's failure to object promptly in writing after notification of a proposed assignment allegedly in violation of Subsection 2.12(c) shall be deemed to be a waiver); and provided further that any provision hereof may be waived by any waiving party on such party's own behalf, without the consent of any other party. Notwithstanding the foregoing: (a) this

Agreement may not be amended, modified or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, modification, termination, or waiver applies to all Investors in the same fashion (it being agreed that a waiver of the provisions of Section 4 with respect to a particular transaction shall be deemed to apply to all Investors in the same fashion if such waiver does so by its terms, notwithstanding the fact that certain Investors may nonetheless, by agreement with the Company, purchase securities in such transaction, so long as each Major Investor is provided with an opportunity to purchase up to its portion of New Securities being offered in accordance with Subsection 4.1); (b) Subsections 3.1 and 3.2, Section 4, and any other section of this Agreement applicable to the Major Investors (including this clause (b) of this Subsection 6.6) may not be amended, modified, terminated or waived without the written consent of the holders of at least 51% of the Registrable Securities then outstanding and held by the Major Investors (but excluding for the specific purpose of this voting threshold shares of Common Stock issued or issuable solely as a result of the provisions of Article Fourth Section B(4.11) of the Certificate of Incorporation); (c) so long as the UC holds any Registrable Securities, the provisions of Subsection 3.5, Subsection 6.2, this Subsection 6.6(c), and Subsection 6.10 may not be amended, terminated or waived in any manner adverse to the UC without the consent of the UC and (d) Subsection 3.3 and this Subsection 6.6(d) may not be amended, modified, terminated or waived without the written consent of Gilead. Notwithstanding the foregoing, Schedule A hereto may be amended by the Company from time to time to add transferees of any Registrable Securities in compliance with the terms of this Agreement without the consent of the other parties. The Company shall give prompt notice of any amendment, modification or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, modification, termination, or waiver. Any amendment, modification, termination, or waiver effected in accordance with this Subsection 6.6 shall be binding on all parties hereto, regardless of whether any such party has consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

6.7 Severability. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

6.8 Aggregation of Stock. All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliated persons may apportion such rights as among themselves in any manner they deem appropriate.

6.9 Entire Agreement. This Agreement (including any Schedules and Exhibits hereto) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled.

6.10 Dispute Resolution. Subject to the last sentence hereof, the parties: (a) hereby irrevocably and unconditionally submit to the jurisdiction of the Court of Chancery of the State of Delaware for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, provided, that if jurisdiction is not then available in the Court of Chancery of the State of Delaware, then any such legal action or proceeding may be brought in any federal court located in the State of Delaware or any other Delaware state court, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the above-named courts, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court. Notwithstanding the foregoing, the UC will not be subject to the jurisdiction of a federal court and maintains its 11th Amendment right to decline to be sued in a federal court.

WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS, THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

6.11 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such non-breaching or non-defaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

ALLOGENE THERAPEUTICS, INC.

By: /s/ Joshua A. Kazam
Name: Joshua A. Kazam
Title: President

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

THE RISE FUND CARTHAGE, L.P.

By: The Rise Fund GenPar, L.P.
its General Partner
By: The Rise Fund GenPar Advisors, LLC
its General Partner

By: /s/ Michael LaGatta
Name: Michael LaGatta
Title: Vice President

TPG CARTHAGE HOLDINGS, L.P.

By: TPG GenPar VII, L.P.
its General Partner
By: TPG GenPar VII Advisors, LLC
its General Partner

By: /s/ Adam Fliss
Name: Adam Fliss
Title: Vice President

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

VIDA VENTURES, LLC

By: VV Manager, LLC, its Managing Member

By: /s/ Fred Cohen
Name: Fred Cohen
Title: Senior Managing Director

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

VVAG SPECIAL FUND LLC

By: VVAG LLC, its manager

By: /s/ Fred Cohen
Name: Fred Cohen
Title: Senior Managing Member

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

PFIZER, INC.

By: /s/ G. Mikael Dolsten
Name: G. Mikael Dolsten
Title: President, Worldwide Research & Development

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

GILEAD SCIENCES, INC.

By: /s/ John F. Milligan, Ph.D.
Name: John F. Milligan, Ph.D.
Title: President and Chief Executive Officer

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

By: /s/ Jagdeep Singh Bachher
Name: Jagdeep Singh Bachher
Title: Chief Investment Officer
Regents of the University of California

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

/s/ Veer Bhavnagri

VEER BHAVNAGRI

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

/s/ Joshua A. Kazam

JOSHUA A. KAZAM

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

/s/ David M. Tanen

DAVID M. TANEN

SIGNATURE PAGE TO INVESTORS' RIGHTS AGREEMENT

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

SEAVIEW TRUST

By: /s/ Joshua A. Kazam
Name: Joshua A. Kazam
Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

BELLDEGRUN FAMILY TRUST

By: /s/ Arie S. Belldegrun, M.D., FACS
Name: Arie S. Belldegrun, M.D., FACS
Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

CHANG 2006 FAMILY TRUST

By: /s/ David D. Chang
Name: David D. Chang
Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

/s/ Franz Humer
FRANZ HUMER

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

/s/ Own Witte

OWEN WITTE

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

/s/ Christine Cassiano

CHRISTINE CASSIANO

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

KB/V LLC
By: Kingsbrook Opportunities GP LLC,
its Manager

By: /s/ Scott M. Wallace
Name: Scott M. Wallace
Title: Managing Member

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

/s/ James Economou

JAMES ECONOMOU

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

/s/ Allan Pantuck

ALLAN PANTUCK

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

/s/ Stuart Holder
STUART HOLDEN

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

/s/ Roy Doumani

ROY DOUMANI

SIGNATURE PAGE TO INVESTORS' RIGHTS AGREEMENT

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

KIERNAN FAMILY TRUST

By: /s/ Vera Kiernan
Name: Vera Kiernan
Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

/s/ Linda Barnes

LINDA BARNES

SIGNATURE PAGE TO INVESTORS' RIGHTS AGREEMENT

AMENDMENT TO INVESTORS' RIGHTS AGREEMENT

THIS AMENDMENT TO INVESTORS' RIGHTS AGREEMENT (this "**Amendment**") is made as of September 5, 2018, by and among Allogene Therapeutics, Inc., a Delaware corporation (the "**Company**"), and the other individuals and entities listed on the signature pages hereto (the "**Investors**"), and amends that certain Investors' Rights Agreement, dated April 6, 2018, by and among the Company and the investors listed on Schedule A thereto (the "**Agreement**").

RECITALS

A. The Company and the Investors have agreed to enter into this Amendment to modify the terms of the Agreement in connection with the sale and issuance of convertible promissory notes of the Company (the "***Notes***") pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

B. The Agreement provides that any term of the Agreement may be amended only with the written consent of the Company and the holders of at least 51% of the Registrable Securities then outstanding (but excluding for the specific purpose of this voting threshold shares of Common Stock issued or issuable solely as a result of the provisions of Article Fourth Section B(4.11) of the Certificate of Incorporation) (with each capitalized term having the meaning set forth in the Agreement).

AGREEMENT

The parties hereby agree as follows:

1. Section 1.23 of the Agreement is hereby amended and restated to read in full as follows:

""**Registrable Securities**" means: (i) the Common Stock issuable or issued upon conversion of the Preferred Stock; (ii) any Common Stock issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company, acquired by the Investors after the date hereof; (iii) any Common Stock issued upon conversion of the Notes in connection with an Initial Public Offering (as defined in the Notes); and (iv) any Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clauses (i), (ii) and (iii) above; excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which the applicable rights under this Agreement are not assigned pursuant to Subsection 6.1, and excluding for purposes of Section 2 any shares for which registration rights have terminated pursuant to Subsection 2.13 of this Agreement. For purposes of this Section 1.23, "**Notes**" shall mean the Company's convertible promissory notes issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto."

2. Section 2.8(c) of the Agreement is hereby amended and restated to read in full as follows:

"Promptly after receipt by an indemnified party under this Subsection 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Subsection 2.8, give the indemnifying

party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if such indemnified party reasonably determines that representation by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Subsection 2.8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Subsection 2.8."

3. Section 2.11 of the Agreement is hereby amended and restated to read in full as follows:

""Market Stand-off" Agreement. Each Holder hereby agrees, if requested by the managing underwriter, that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the registration by the Company for its own behalf of shares of its Common Stock or any other equity securities under the Securities Act on a registration statement on Form S-1, and ending on the date specified by the Company and the managing underwriter (such period not to exceed 180 days) (the "**Lock-up Period**"): (i) lend; offer; pledge; sell; contract to sell; sell any option or contract to purchase; purchase any option or contract to sell; grant any option, right, or warrant to purchase; or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Stock held immediately before the effective date of the registration statement for such offering, or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash, or otherwise. The foregoing provisions of this Subsection 2.11 shall: (A) apply only to the IPO; (B) not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement**,** or the transfer of any shares to any trust for the direct or indirect benefit of the Holder or the immediate family of the Holder, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value; provided, however, that the foregoing restrictions shall not apply, in the case of a Holder that is an entity, to the transfer of any shares to an Affiliate of such Holder or any of the Holder's stockholders, members, partners or other equity holders, provided that such Affiliate, stockholder, member, partner or other equity holder agrees to be bound in writing by the restrictions set forth herein and no public disclosure or filing under the Exchange Act by any party to the transfer (the Holder, Affiliate, stockholder, member, partner or other equity holder) shall be required, or made voluntarily, during the Lock-up Period; (C) be applicable to the Holders only if all officers, directors, and stockholders individually owning more than 1% of the Company's outstanding Common Stock (after giving effect to conversion into Common Stock of all

outstanding Preferred Stock) are subject to the same restrictions; and (D) not apply to the transfer of any shares acquired (x) from the underwriters in the IPO or (y) in open market transactions on or after the IPO. In addition, if any officer, director or stockholder of the Company is granted an early release from the restrictions described this Subsection 2.11 during the Lock-up Period with respect to more than 1% in the aggregate of the Company's total outstanding common stock (whether in one or multiple releases), then each Major Investor shall also be granted an early release from its obligations hereunder on a *pro rata* basis with all other record or beneficial holders of similarly restricted securities of the Company based on the maximum percentage of shares held by any such record or beneficial holder being released from such holder's lock-up agreement; provided, however, that in the case of an early release from the restrictions described herein during the Lock-up Period in connection with an underwritten public offering, whether or not such offering or sale is wholly or partially a secondary offering of common stock (an "**Underwritten Sale**"), such early release shall only apply with respect to the Major Investor's participation in such Underwritten Sale so long as the Major Investor is given the ability to participate in such Underwritten Sale on a proportionate basis with the holder being released. The underwriters in connection with such registration are intended third-party beneficiaries of this Subsection 2.11 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Subsection 2.11 or that are necessary to give further effect thereto**.** Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply pro rata to all Company stockholders that are subject to such agreements, based on the number of shares subject to such agreements."

4. Section 2.12 of the Agreement is hereby amended and restated to read in full as follows:

"Restrictions on Transfer.

(a) The Preferred Stock and the Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Holder will cause any proposed purchaser, pledgee, or transferee of the Preferred Stock and the Registrable Securities held by such Holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement. Notwithstanding the foregoing, the Company shall not require any transferee of shares pursuant to an effective registration statement or, following the IPO, pursuant to SEC Rule 144, in each case, to be bound by the terms of this Agreement.

(b) Each certificate, instrument, or book entry representing (i) the Preferred Stock, (ii) the Registrable Securities, and (iii) any other securities issued in respect of the securities referenced in clauses (i) and (ii), upon any stock split, stock dividend, recapitalization, merger, consolidation, or similar event, shall (unless otherwise permitted by the provisions of Subsection 2.12(c)) be notated with a legend substantially in the following form:

THE SECURITIES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933. SUCH SHARES MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT.

THE SECURITIES REPRESENTED HEREBY MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Holders consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Subsection 2.12.

The foregoing legend shall be removed from the certificates representing any Restricted Securities, at the request of the holder thereof, at such time as (a) a period of at least one year, as determined in accordance with paragraph (d) of SEC Rule 144, has elapsed since the later of the date the Restricted Securities were acquired from the Company or an affiliate of the Company, or (b) the Restricted Securities become eligible for resale pursuant to SEC Rule 144(b)(1)(i).

(c) The holder of such Restricted Securities, by acceptance of ownership thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction or, following the IPO, the transfer is made pursuant to SEC Rule 144, the Holder thereof shall give notice to the Company of such Holder's intention to effect such sale, pledge, or transfer. Each such notice shall describe the manner and circumstances of the proposed sale, pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder's expense by either: (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. The Company will not require such a legal opinion or "no action" letter: (x) in any transaction in compliance with SEC Rule 144; or (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder for no consideration; provided that, with respect to transfers under the foregoing clause (y), each transferee agrees in writing to be subject to the terms of this Subsection 2.12. Each certificate, instrument, or book entry representing the Restricted Securities transferred as above provided shall be notated with, except if such transfer is made pursuant to SEC Rule 144 or pursuant to an effective registration statement, the appropriate restrictive legend set forth in Subsection 2.12(b), except that such certificate instrument, or book entry shall not be notated with such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

(d) The Company shall be obligated to reissue promptly unlegended certificates at the request of any Holder thereof if the Company has completed its IPO or in connection with a sale of Registrable Securities by a Holder pursuant to SEC Rule 144 and the Company shall obtain an opinion of counsel reasonably acceptable to the Company to the effect that the securities proposed to be disposed of may lawfully be so disposed of without registration, qualification and legend and provide such opinion to the transfer agent."

5. Schedule A of the Agreement is hereby amended to add the investors listed on **Exhibit A** attached hereto (each such investor, a "**New Investor**"). Upon the execution of the counterpart signature page attached hereto as **Exhibit B**, each New Investor shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (excluding Subsection 2.11) and Section 6 under the Agreement with respect to the Common Stock issued upon conversion of the Notes in connection with an Initial Public Offering (as defined in the Notes).

6. All other provisions of the Agreement shall remain in full force and effect.

7. This Amendment may be executed in any number of counterparts, each of which shall be enforceable against the parties actually executing such counterparts, and all of which together shall constitute one instrument.

8. This Amendment shall be construed in accordance with the laws of the State of Delaware, excluding conflicts of laws principles.

9. This Amendment and the Agreement and all exhibits hereto or thereto are intended to be the sole agreement of the parties as they relate to the subject matter hereof and thereof and do hereby supersede all other agreements of the parties relating to the subject matter hereof or thereof.

[*Signature pages follow*]

IN WITNESS WHEREOF, the parties have executed this Amendment to be effective as of the date first above written.

COMPANY:

ALLOGENE THERAPEUTICS, INC.

By: /s/ David Chang, M.D., Ph.D.
Name: David Chang, M.D., Ph.D.
Title: President and Chief Executive Officer

[SIGNATURE PAGE TO AMENDMENT TO INVESTORS' RIGHTS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Amendment to be effective as of the date first above written.

INVESTOR:

THE RISE FUND CARTHAGE, L.P.

By: The Rise Fund GenPar, L.P.
its General Partner
By: The Rise Fund GenPar Advisors, LLC
its General Partner

By: /s/ Michael LaGatta
Name: Michael LaGatta
Title: Vice President

TPG CARTHAGE HOLDINGS, L.P.

By: TPG GenPar VII, L.P.
its General Partner
By: TPG GenPar VII Advisors, LLC
its General Partner

By: /s/ Adam Fliss
Name: Adam Fliss
Title: Vice President

IN WITNESS WHEREOF, the parties have executed this Amendment to be effective as of the date first above written.

INVESTOR:

VVAG SPECIAL FUND LLC

By: VVAG LLC, its manager

By: /s/ Fred Cohen
Name: Fred Cohen
Title: Senior Managing Director

VIDA VENTURES, LLC

By: VV Manager LLC, its manger

By: /s/ Fred Cohen
Name: Fred Cohen
Title: Senior Managing Director

IN WITNESS WHEREOF, the parties have executed this Amendment to be effective as of the date first above written.

INVESTOR:

GILEAD SCIENCES, INC.

By: /s/ John F. Milligan, Ph.D.
Name: John F. Milligan, Ph.D.
Title: President and Chief Executive Officer

IN WITNESS WHEREOF, the parties have executed this Amendment to be effective as of the date first above written.

INVESTOR:

PFIZER, INC.

By: /s/ Douglas E. Giordano
Name: Douglas E. Giordano
Title: SVP of Worldwide Business Development

[SIGNATURE PAGE TO AMENDMENT TO INVESTORS' RIGHTS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Amendment to be effective as of the date first above written.

INVESTOR:

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

By: /s/ Jagdeep Singh Bachher
Name: Jagdeep Singh Bachher
Title: Chief Investment Officer
Regents of the University of California

IN WITNESS WHEREOF, the parties have executed this Amendment to be effective as of the date first above written.

INVESTOR:

BELLDEGRUN FAMILY TRUST

By: /s/ Arie Belldegrun, M.D., FACS
Name: Arie Belldegrun, M.D., FACS
Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Amendment to be effective as of the date first above written.

INVESTOR:

By: /s/ Joshua A. Kazam
Name: JOSHUA A. KAZAM

[SIGNATURE PAGE TO AMENDMENT TO INVESTORS' RIGHTS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Amendment to be effective as of the date first above written.

INVESTOR:

By: /s/ David M. Tanen
Name: DAVID M. TANEN

[SIGNATURE PAGE TO AMENDMENT TO INVESTORS' RIGHTS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Amendment to be effective as of the date first above written.

INVESTOR:

SEAVIEW TRUST

By: /s/ Hanna Ackerman
Name: Hanna Ackerman
Title: Trustee

[SIGNATURE PAGE TO AMENDMENT TO INVESTORS' RIGHTS AGREEMENT]

IN WITNESS WHEREOF, the parties have executed this Amendment to be effective as of the date first above written.

INVESTOR:

CHANG 2006 FAMILY TRUST

By: /s/ David Chang, M.D., Ph.D.
Name: David Chang, M.D., Ph.D.
Title: Trustee

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTORS:

SMALLCAP World Fund, Inc.

By: Capital Research and Management Company, for and on behalf of SMALLCAP World Fund, Inc.

By: /s/ Mark E. Brubaker
Name: Mark E. Brubaker
Title: Authorized Signatory

American Funds Insurance Series – Global Small Capitalization Fund

By: Capital Research and Management Company, for and on behalf of American Funds Insurance Series – Global Small Capitalization Fund

By: /s/ Mark E. Brubaker
Name: Mark E. Brubaker
Title: Authorized Signatory

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTORS:

T. Rowe Price New Horizons Fund, Inc.
T. Rowe Price New Horizons Trust
T. Rowe Price U.S. Equities Trust
MassMutual Select Funds—MassMutual Select
T. Rowe Price Small and Mid Cap Blend Fund
Each account, severally not jointly

By: T. Rowe Price Associates, Inc., Investment Adviser or Subadviser, as applicable

By: /s/ J. David Wagner
Name: J. David Wagner
Title: Vice President

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTORS:

T. Rowe Price Health Sciences Fund, Inc.
TD Mutual Funds – TD Health Sciences Fund
VALIC Company I – Health Sciences Fund
T. Rowe Price Health Sciences Portfolio
Each account, severally not jointly

By: T. Rowe Price Associates, Inc., Investment Adviser or Subadviser, as applicable

By: /s/ John C. Hall
Name: John C. Hall
Title: Vice President

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR:

PERCEPTIVE LIFE SCIENCES MASTER FUND LTD.

By: /s/ Adam Stone
Name: Adam Stone
Title: C.I.O.

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTORS:

FIDELITY MT. VERNON STREET TRUST: FIDELITY SERIES GROWTH COMPANY FUND

By: /s/ Colm Hogan
Name: Colm Hogan
Title: Authorized Signatory

FIDELITY MT. VERNON STREET TRUST: FIDELITY GROWTH COMPANY FUND

By: /s/ Colm Hogan
Name: Colm Hogan
Title: Authorized Signatory

FIDELITY GROWTH COMPANY COMMINGLED POOL
By: Fidelity Management Trust Company, as Trustee

By: /s/ Colm Hogan
Name: Colm Hogan
Title: Authorized Signatory

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTORS:

BLACKROCK HEALTH SCIENCES MASTER UNIT TRUST
By: BlackRock Capital Management, Inc.
Its: Investment Advisor

By: /s/ Hongying Xie
Name: Hongying Xie
Title: Managing Director

BLACKROCK HEALTH SCIENCES TRUST
By: BlackRock Advisors, LLC
Its: Investment Advisor

By: /s/ Hongying Xie
Name: Hongying Xie
Title: Managing Director

BLACKROCK HEALTH SCIENCES OPPORTUNITIES PORTFOLIO, A SERIES OF BLACKROCK FUNDS
By: BlackRock Advisors, LLC
Its: Investment Advisor

By: /s/ Hongying Xie
Name: Hongying Xie
Title: Managing Director

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR:

VENBIO SELECT FUND LLC

By: /s/ Behzad Aghazadeh
Name: Behzad Aghazadeh
Title: Portfolio Manager

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR:

CITADEL MULTI-STRATEGY EQUITIES MASTER FUND LTD.
By: Citadel Advisors LLC, its portfolio manager

By: /s/ Shellane Mulcahy
Name: Shellane Mulcahy
Title: Authorized Signatory

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR:

DEERFIELD SPECIAL SITUATIONS FUND, L.P.
By: Deerfield Mgmt, L.P.
General Partner
By: J.E. Flynn Capital, LLC
General Partner

By: /s/ David J. Clark
Name: David J. Clark
Title: Authorized Signatory

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR:

FRANKLIN STRATEGIC SERIES – FRANKLIN BIOTECHNOLOGY DISCOVERY FUND

By: Franklin Advisers, Inc., as Investment Manager

By: /s/ Evan McCulloch
Name: Evan McCulloch
Title: Vice President

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR:

JENNISON GLOBAL HEALTHCARE MASTER FUND, LTD.

By: Jennison Associates LLC, as Investment Manager of Jennison Global Healthcare Master Fund, Ltd.

By: /s/ David Chan
Name: David Chan
Title: Managing Director of Jennison Associates LLC and Portfolio Manager of the Fund

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: AL Co-Investment LLC

By: /s/ Owen Littman
Name: Owen Littman
Title: Authorized Signatory

INVESTOR (if an individual):

Name of Investor: _____

Signature: _____

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: Procurator Holdings, LLC

By: /s/ Victor Chiang
Name: Victor Chiang
Title: Managing Member

INVESTOR (if an individual):

Name of Investor: _____

Signature: _____

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: South Bay Capital Partners, LLC

By: /s/ Maurice Marciano
Name: Maurice Marciano
Title: Manager

INVESTOR (if an individual):

Name of Investor: _____

Signature: _____

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Richard S. Ressler

Signature: /s/ Richard S. Ressler

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: Stella Maris Holding Corp.

By: /s/ Daniel Stutz /s/ Rudy Buhler
Name: Daniel Stutz Rudy Buhler
Title: Corporate Directors

INVESTOR (if an individual):

Name of Investor: _____

Signature: _____

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Mr. Ran Rahav

Signature: /s/ Mr. Ran Rahav

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: Quartet, L.P.

By: /s/ Russell Goldsmith
Name: Russell Goldsmith
Title: General Partner

INVESTOR (if an individual):

Name of Investor: _____

Signature: _____

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Avi Arad

Signature: /s/ Avi Arad

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Tiomkin Avi

Signature: /s/ Tiomkin Avi

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Harry Sloan

Signature: /s/ Harry Sloan

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: SUMMIT COMMERCIAL INTERNATIONAL SA
By: ELPIDIA FINANCE INC. AS DIRECTOR

By: /s/ Teresa de Herrero
Name: Teresa de Herrero
Title: Director

INVESTOR (if an individual):

Name of Investor: _____

Signature: _____

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Anton Linderum

Signature: /s/ Anton Linderum

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: Dominick Fernando Mills Jr. and Christine Cassiano Family Trust

By: /s/ Dominick F. Mills
Name: Dominick F. Mills
Title: Trustee

INVESTOR (if an individual):

Name of Investor: _____

Signature: _____

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Cynthia M. Butitta

Signature: /s/ Cynthia M. Butitta

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Frederic D. Rosen

Signature: /s/ Frederic D. Rosen

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: Sonostar Ventures LLC

By: /s/ Gregory Kiernan
Name: Gregory Kiernan
Title: CEO

INVESTOR (if an individual):

Name of Investor: _____

Signature: _____

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: Mann Living Trust

By: /s/ Robert S. Mann
Name: Robert S. Mann
Title: Trustee

INVESTOR (if an individual):

Name of Investor: _____

Signature: _____

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: Sherry Lansing Trust dtd 4/23/88

By: /s/ Sherry Lansing
Name: Sherry Lansing
Title: Trustee

INVESTOR (if an individual):

Name of Investor: _____

Signature: _____

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Hanna Ackerman

Signature: /s/ Hanna Ackerman

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Linda Barnes

Signature: /s/ Linda Barnes

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Joshua Lennon Bradley

Signature: /s/ Joshua Lennon Bradley

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Christopher M. Wilfong

Signature: /s/ Christopher M. Wilfong

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Sean Algeo

Signature: /s/ Sean Algeo

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: Laura Whelan

Signature: /s/ Laura Whelan

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September 5, 2018

INVESTOR (if an entity):

Name of Investor: Messemer Family Trust
dated February 18, 2003

By: /s/ Deborah McDonald Messemer
Name: Deborah McDonald Messemer
Title: Trustee

INVESTOR (if an individual):

Name of Investor: _____

Signature: _____

EXHIBIT A

Investors

EXHIBIT B

COUNTERPART SIGNATURE PAGE TO
ALLOGENE THERAPEUTICS, INC.
INVESTORS' RIGHTS AGREEMENT

The undersigned is a holder of a convertible promissory note (the "***Note***") of Allogene Therapeutics, Inc. (the "***Company***") issued pursuant to that certain Note Purchase Agreement, dated September 5, 2018, by and among the Company and the purchasers listed on Exhibit A thereto.

The undersigned hereby agrees to be bound by the terms and conditions contained in the Investors' Rights Agreement, dated April 6, 2018, as amended from time to time, by and among the Company and the investors listed on Schedule A thereto, a copy of which is attached hereto as **EXHIBIT A** (the "***Investors' Rights Agreement***"). Capitalized terms used but not defined herein shall have the meanings assigned to them in the Investors' Rights Agreement.

Upon the execution this counterpart signature page, the undersigned shall be deemed an "Investor," a "Holder" and a party solely for purposes of Section 2 (but excluding Subsection 2.11) under the Investors' Rights Agreement with respect to the any Common Stock issued upon conversion of the Note in connection with an Initial Public Offering (as defined in the Note).

Dated: September ___, 2018

INVESTOR (if an entity):

Name of Investor: _____

By: _____
Name: _____
Title: _____

INVESTOR (if an individual):

Name of Investor: _____

Signature: _____

EXHIBIT A

INVESTORS' RIGHTS AGREEMENT

ALLOGENE THERAPEUTICS, INC.

AMENDED AND RESTATED
2018 EQUITY INCENTIVE PLAN

1. GENERAL.

(a) Purpose. This Allogene Therapeutics, Inc. Amended and Restated 2018 Equity Incentive Plan (the "***Plan***") is intended to help the Company secure and retain the services of eligible award recipients, provide incentives for such persons to exert maximum efforts for the success of Allogene Therapeutics, Inc. (the "***Company***") and any Affiliate, and provide a means by which eligible recipients may benefit from the Company's future performance through the grant of Awards covering Common Stock. Capitalized terms not defined in the text of the Plan are defined in Section 15.

(b) Eligible Award Recipients. Employees, Directors and Consultants are eligible to receive Awards.

(c) Available Awards. The Plan provides for the grant of the following Awards: (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) Restricted Stock Awards, (iv) Restricted Stock Unit Awards, and (vi) Other Stock-Based Awards.

2. ADMINISTRATION.

(a) Administration of the Plan. The Plan will be administered by the Company's Board of Directors (the "***Board***"), or at the discretion of the Board, by a committee of one or more Directors to whom authority has been delegated by the Board in accordance with applicable law (a "***Committee***"). The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revest in the Board some or all of the powers previously delegated.

(b) Powers of the Board. The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine: (A) who will be granted Awards; (B) when and how each Award will be granted; (C) what type of Award will be granted; (D) the provisions of each Award (which need not be identical), including when a person will be permitted to exercise or otherwise receive cash or Common Stock under the Award; (E) the number of shares of Common Stock subject to, or the cash value of, an Award; and (F) the Fair Market Value applicable to an Award.

(ii) To construe and interpret the Plan and Awards granted under it, and to establish, amend and revoke rules and regulations for administration of the Plan and Awards. The Board, in the exercise of these powers, may correct any defect, omission or inconsistency in the Plan or in any Award Agreement, in a manner and to the extent it will deem necessary or expedient to make the Plan or Award fully effective.

(iii) To settle all controversies regarding the Plan and Awards granted under it.

(iv) To accelerate, in whole or in part, the time at which an Award may be exercised or vest (or the time at which cash or shares of Common Stock may be issued in settlement thereof).

(v) To suspend or terminate the Plan at any time. Suspension or termination of the Plan will not impair rights and obligations under any Award granted while the Plan is in effect except with the written consent of the affected Participant.

(vi) To amend the Plan in any respect the Board deems necessary or advisable, subject to the limitations, if any, of applicable law, and to submit any amendment to the Plan for stockholder approval to the extent deemed necessary or desirable.

(vii) To amend the terms of any one or more Awards, including to modify the vesting terms, subject to consent of the Participant if such amendment would materially impair such Participant's rights. A Participant's rights will not be deemed to be materially impaired by any amendment solely because the change impairs the qualified status of an Option as an Incentive Stock Option under Section 422 of the Code. In addition, the Board may unilaterally amend an Award (regardless of whether it impairs a Participant's rights) in order to clarify the manner of exemption from, or to bring the Award into compliance with, Section 409A of the Code, or to comply with other applicable laws.

(viii) To adopt such procedures and sub-plans as are necessary or appropriate to facilitate participation in the Plan by Employees, Directors or Consultants who are foreign nationals or employed outside the United States.

(ix) To effect, with the consent of any materially adversely affected Participant, the reduction of the exercise, purchase or strike price of any outstanding Award, or any other action that is treated as a repricing under generally accepted accounting principles.

(x) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Awards.

(c) Limited Delegation of Grantmaking Authority to an Officer. The Board may delegate to one or more Officers the authority to designate Employees who are not Officers to be recipients of Awards and, to the extent permitted by applicable law, the terms of such Awards, and determine the number of shares of Common Stock to be subject to such Awards granted to such Employees; *provided, however*, that the Board resolutions regarding such delegation will specify the total number of shares of Common Stock that may be subject to the Awards granted by such Officer and that such Officer may not grant an Award to himself or herself. Any such Awards will be granted on the form of Award Agreement most recently approved for use by the Committee or the Board, unless otherwise provided in the resolutions approving the delegation authority. The Board may not delegate authority to an Officer who is acting solely in the capacity of an Officer (and not also as a Director) to determine the Fair Market Value pursuant to Section 15(q) below.

(d) Stock Plan Administrator. The Board may appoint one or more Officers to act as the Board's designee to administer the day-to-day operations of the Plan, and to make ministerial decisions regarding the Plan and Awards as expressly provided for in the Plan or any Award Agreement (the "***Stock Plan Administrator***"). Without limiting the foregoing, the Stock Plan Administrator will have the power

to: (i) determine whether Continuous Service will be considered interrupted, or whether vesting of Awards will be tolled, during an approved leave of absence or in connection with transfers between the Company, an Affiliate, or their successors; (ii) approve specific methods of payment for the exercise price of an Option at the time of exercise; (iii) approve amendments to forms of Award Agreements previously adopted by the Board to facilitate participation in the Plan by foreign nationals or comply with applicable law; (iv) impose a black-out period during which time Option exercises are prohibited (up to a maximum of thirty days) in connection with any pending Capitalization Adjustment, third party valuation of the Shares, or Corporate Transaction; and (v) approve extensions of the post-termination exercise period of an Option in connection with the termination of a Participant's Continuous Service (but not beyond the original term of the Option).

(e) Corporate Action Constituting Grant of Awards. The grant date of an Award will be the date on which the Board adopts a resolution, or takes other appropriate action, expressly granting an Award to a Participant that specifies the key terms and conditions of the Award (e.g., exercise price, vesting schedule, and number of shares); *provided*, that if a later effective grant date is set forth in such resolution, then such date as is set forth in such resolution will be the grant date.

(f) Effect of Board's Decision. All determinations, interpretations and constructions made by the Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

3. SHARES SUBJECT TO THE PLAN.

(a) Share Reserve.

(i) Subject to Section 9(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Awards from and after the Effective Date will not exceed 2,325,553 shares (the ***"Share Reserve"***).

(ii) For clarity, the Share Reserve in this Section 3(a) is a limitation on the number of shares of Common Stock that may be issued pursuant to the Plan. Accordingly, this Section 3(a) does not limit the granting of Awards except as provided in Section 7(a).

(b) Reversion of Shares to the Share Reserve. If an Award or any portion thereof (i) expires or otherwise terminates without all of the shares covered by such Award having been issued or (ii) is settled in cash (*i.e.*, the Participant receives cash rather than stock), such expiration, termination or settlement will not reduce (or otherwise offset) the number of shares of Common Stock that may be available for issuance under the Plan. If any shares of Common Stock issued pursuant to an Award are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required to vest such shares in the Participant, then the shares that are forfeited or repurchased will revert to and again become available for issuance under the Plan. Any shares reacquired by the Company in satisfaction of tax withholding obligations on an Award or as consideration for the exercise or purchase price of an Award will again become available for issuance under the Plan.

(c) Incentive Stock Option Limit. Subject to the Share Reserve and Section 9(a) relating to Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options will be a number of shares of Common Stock equal to three (3) multiplied by the Share Reserve, as may be increased from time to time.

(d) Source of Shares; Use of Proceeds. The stock issuable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company. Proceeds from the sale of Shares pursuant to Awards will constitute general funds of the Company.

4. ELIGIBILITY.

(a) Eligibility for Specific Awards. Awards may be granted to Employees, Directors and Consultants, except that Incentive Stock Options may only be granted only to employees of the Company or a "parent corporation" or "subsidiary corporation" thereof (as such terms are defined in Sections 424(e) and 424(f) of the Code).

(b) Consultants. A Consultant will not be eligible for the grant of an Award if, at the time of grant, either the offer or sale of the Company's securities to such Consultant is not exempt under Rule 701 of the Securities Act because of the nature of the services that the Consultant is providing to the Company, because the Consultant is not a natural person, or because of any other provision of Rule 701, unless the Company determines that such grant need not comply with the requirements of Rule 701 and will satisfy another exemption under the Securities Act as well as comply with the securities laws of all other relevant jurisdictions.

5. PROVISIONS RELATING TO OPTIONS.

An "***Option***" means any option to purchase shares of stock. Each Option will be subject to the conditions set forth in this Section 5, and such other conditions not inconsistent with the Plan as may reflected in the applicable Award Agreement.

(a) Designation of ISO or NSO Status. All Options will be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates will be issued for shares of Common Stock purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, or if an Option is designated as an Incentive Stock Option but some portion or all of the Option fails to qualify as an Incentive Stock Option under the applicable rules, then the Option (or portion thereof) will be a Nonstatutory Stock Option.

(b) Term. Subject to the provisions of Section 5(f) regarding Ten Percent Stockholders, no Option will be exercisable after the expiration of ten years from the date of its grant or such shorter period specified in the Award Agreement.

(c) Exercise Price. Subject to the provisions of Section 5(f) regarding Ten Percent Stockholders, the exercise price of each Option will be not less than 100% of the Fair Market Value of the Common Stock subject to the Option on the date the Award is granted. Notwithstanding the foregoing, an Option may be granted with an exercise price lower than 100% of the Fair Market Value of the Common Stock if such Award is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Corporate Transaction and in a manner consistent with the provisions of Section 409A of the Code and, if applicable, Section 424(a) of the Code.

(d) Option Exercise and Payment of Exercise Price. To exercise any outstanding Option, the Participant must provide notice of exercise to the Stock Plan Administrator in compliance with the provisions of the Award Agreement evidencing such Option. The purchase price of Common Stock acquired pursuant to the exercise of an Option will be paid, to the extent permitted by applicable law, by any combination of the methods of payment set forth below. The Board has the authority to grant Options

that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to utilize a particular method of payment. The permitted methods of payment are as follows:

(i) by cash, check, bank draft or money order payable to the Company;

(ii) provided that at the time of exercise the Common Stock is publicly traded and the Company has established procedures for cashless exercise, pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock duly endorsed for transfer to the Company, with a Fair Market Value on the date of delivery equal to the exercise price (or portion thereof) due for the number of shares being acquired;

(iv) provided that at the time of exercise the Company has established procedures for accepting such payment via a "net exercise," if an Option is a Nonstatutory Stock Option, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price;

(v) according to a deferred payment or similar arrangement with the Participant; provided, however, that interest will compound at least annually and will be charged at the minimum rate of interest necessary to avoid (A) the imputation of interest income to the Company and compensation income to the Participant under any applicable provisions of the Code, and (B) the classification of the Option as a liability for financial accounting purposes; or

(vi) in any other form of legal consideration that may be acceptable to the Board.

(e) Incentive Stock Option $100,000 Limitations. To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Participant during any calendar year (under all plans of the Company and any Affiliates) exceeds $100,000 (or such other limit established in the Code) or otherwise does not comply with the rules governing Incentive Stock Options, the Options or portions thereof that exceed such limit (according to the order in which they were granted) or otherwise do not comply with such rules will be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Award Agreement(s).

(f) Incentive Stock Options granted to Ten Percent Stockholders. A Ten Percent Stockholder may only be granted an Incentive Stock Option if the exercise price of such Option is at least 110% of the Fair Market Value on the date of grant and the Option is not exercisable after the expiration of five (5) years from the date of grant. If a purported grant of an Incentive Stock Option to a Ten Percent Stockholder does not meet these requirements, the grant will be a Nonstatutory Stock Option.

(g) Restrictions on Transfer. An Incentive Stock Option will not be transferable except by will or by the laws of descent and distribution, and will be exercisable during the lifetime of the Participant only by the Participant. A Nonstatutory Stock Option may, in the sole discretion of the Board, be transferable upon written approval by the Board and in a manner that is not prohibited by applicable tax and securities laws; *provided* that the Participant and the transferee enter into a transfer agreement in a form required by the Company. Except as explicitly provided in the Plan, an Option may not be transferred for consideration.

(h) Exercise Restrictions; Early Exercise. The Board may impose such restrictions on or conditions to the exercisability of Options and Stock Appreciation Rights as it, in its sole discretion, deems appropriate. The exercisability provisions of individual Options or Stock Appreciation Rights may vary. Except as otherwise provided in the Award Agreement or an individual agreement with the Participant, vesting will cease upon termination of the Participant's Continuous Service. An Option may include an "early exercise" provision whereby the Participant may exercise the Option as to any part or all of the shares of Common Stock subject to the Option prior to the full vesting of the Option, and where any unvested shares of Common Stock so purchased may be subject to a repurchase right in favor of the Company or to any other restriction the Board determines to be appropriate.

(i) Termination of Continuous Service. If a Participant's Continuous Service terminates, the Participant may exercise his or her Option (to the extent that the Participant was entitled to exercise the vested portion of such Award as of the date of termination of Continuous Service) but only within such period of time following the termination of the Participant's Continuous Service as set forth in the Award Agreement. Unless otherwise provided in the Award Agreement, the Option will be exercisable for a period of three (3) months following a termination of a Participant's Continuous Service by the Company without Cause or by the Participant for any reason; *provided, however* that such post-termination exercise period will instead be for the twelve (12) month period following a termination due to Disability, and an eighteen (18) month period following a termination due to the Participant's death. Additionally, if the Participant's death occurs within the applicable post-termination of Continuous Service period during which the Option was exercisable, the Option will be exercisable for an eighteen (18) month period following the Participant's death. If, after termination of Continuous Service, the Participant does not exercise his or her Option prior to the applicable deadline the Option will terminate.

(j) Automatic Extension of Termination Date. If the exercise of an Option following the termination of the Participant's Continuous Service for any reason other than for Cause would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option will terminate on the earlier of (i) the expiration of a period equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the exercise of the Option would not be in violation of such registration requirements, or (ii) the expiration of the term of the Option as set forth in the applicable Award Agreement. In addition, unless otherwise provided in a Participant's Award Agreement, if the immediate sale of any Common Stock received upon exercise of an Option within the applicable post-termination exercise period following the termination of the Participant's Continuous Service (other than for Cause) would violate the Company's insider trading policy, then the Option will not terminate prior to (i) the expiration of a period of months equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the sale of the Common Stock received upon exercise of the Option would not be in violation of the Company's insider trading policy, or (ii) the expiration of the permitted term of the Option as set forth in the applicable Award Agreement as determined without giving effect to any termination of Continuous Service.

(k) Termination for Cause. Except as explicitly provided otherwise in a Participant's Award Agreement or other individual written agreement between the Company or any Affiliate and the Participant, if a Participant's Continuous Service is terminated for Cause, the Option will terminate immediately upon such Participant's termination of Continuous Service, and the Participant will be prohibited from exercising his or her Option from and after the time of such termination of Continuous Service.

(l) Non-Exempt Employees. If an Option is granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, the Option will not be first exercisable for any shares of Common Stock until at least six (6) months following the date of grant of the Option (although the Award may vest prior to such date). Consistent with the provisions of the Worker Economic Opportunity Act, (i) if such non-exempt Employee dies or suffers a Disability, (ii) upon a Corporate Transaction in which such Option is not assumed, continued, or substituted, (iii) upon a Change in Control, or (iv) upon the Participant's retirement (as such term may be defined in the Participant's Award Agreement in another agreement between the Participant and the Company, or, if no such definition, in accordance with the Company's then current employment policies and guidelines), the vested portion of any Options and Stock Appreciation Rights may be exercised earlier than six (6) months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option will be exempt from his or her regular rate of pay.

6. PROVISIONS RELATING TO RESTRICTED STOCK AND RESTRICTED STOCK UNIT AWARDS.

(a) Restricted Stock Awards. A "***Restricted Stock Award***" is an award of actual shares of Common Stock that is subject to certain specified restrictions that lapse over the applicable vesting schedule. Each Restricted Stock Award will be subject to the conditions set forth in this Section 6(a), and such other conditions not inconsistent with the Plan as may be reflected in the applicable Award Agreement.

(i) Consideration. A Restricted Stock Award may be awarded in consideration for (A) cash, check, bank draft or money order payable to the Company, (B) past or future services to the Company or an Affiliate, or (C) any other form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Book Entry. To the extent consistent with the Company's Bylaws, at the Board's election, shares of Common Stock may be (i) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse; or (ii) evidenced by a certificate, which certificate will be held in such form and manner as determined by the Board.

(iii) Dividends. An Award Agreement evidencing a Restricted Stock Award may provide that any dividends paid on Restricted Stock will be subject to the same vesting and forfeiture restrictions as apply to the shares subject to the Restricted Stock Award to which they relate.

(b) Restricted Stock Unit Awards. A "***Restricted Stock Unit Award***" means an unfunded and unsecured promise to deliver shares of Common Stock, cash, other securities or other property, subject to certain restrictions. Each Restricted Stock Unit Award will be subject to the conditions set forth in this Section 6(b), and such other conditions not inconsistent with the Plan as may be reflected in the applicable Award Agreement.

(i) Consideration. At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under

applicable law. Unless otherwise determined by the Board at the time of grant, each Restricted Stock Unit Award will be granted in consideration of the Participant's services to the Company so that a Participant will not be required to make any payment to the Company (other than services to the Company) with respect to receipt of the Award, the vesting of the Award or the delivery of the Common Stock to be issued in settlement of the Award.

(ii) Settlement. A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Award Agreement.

(iii) Additional Restrictions. At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award, subject to compliance with Section 409A of the Code (if applicable).

(iv) Dividend Equivalents. Dividend equivalents may be credited in respect of shares of Common Stock covered by a Restricted Stock Unit Award, as determined by the Board and contained in the Award Agreement. At the sole discretion of the Board, such dividend equivalents may be converted into additional shares of Common Stock covered by the Restricted Stock Unit Award in such manner as determined by the Board. Any additional shares covered by the Restricted Stock Unit Award credited by reason of such dividend equivalents will be subject to all of the same terms and conditions of the underlying Award Agreement to which they relate.

(v) Unsecured Obligation. A Restricted Stock Unit Award is an unfunded obligation, and as a holder of a vested Restricted Stock Unit Award, a Participant will be considered an unsecured creditor of the Company with respect to the Company's obligation, if any, to issue shares pursuant to the terms of the applicable Award Agreement. A Participant will not have voting or any other rights as a stockholder of the Company with respect to the shares to be issued pursuant a Restricted Stock Unit Award unless and until such shares are actually issued. Nothing contained in the Plan or any Award Agreement, and no action taken pursuant to its provisions, will create or be construed to create a trust of any kind or a fiduciary relationship between a Participant and the Company or any other person.

7. OTHER STOCK-BASED AWARDS. Other forms of Awards valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof (e.g., stock appreciation rights, options with an exercise price less than 100% of the Fair Market Value of the Common Stock at the time of grant) (an "***Other Stock-Based Award***") may be granted either alone or in addition to other types of Awards provided for under the Plan. Subject to the provisions of the Plan, the Board will have sole and complete authority to determine the persons to whom and the time or times at which such Other Stock-Based Awards will be granted, the number of shares of Common Stock (or the cash equivalent thereof) to be granted pursuant to such Other Stock-Based Awards and all other terms and conditions of such Other Stock-Based Awards.

8. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.

(a) Capitalization Adjustments. In the event of a Capitalization Adjustment, the Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 3(c), and (iii) the class(es) and number of securities and price per share of stock subject to outstanding Awards. The Board will make such adjustments, and its determination will be final, binding and conclusive.

(b) Dissolution. Except as otherwise provided in the Award Agreement, in the event of a dissolution or liquidation of the Company, all outstanding Awards (other than Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company's right of repurchase) will terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company's repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Award is providing Continuous Service. Conversion of the Company into a limited liability company (or any other pass-through entity) will not be considered a dissolution or liquidation for purposes of the Plan.

(c) Corporate Transaction. The following provisions will apply to Awards in the event of a Corporate Transaction (including a transaction that also constitutes a Change in Control) unless otherwise provided in a Participant's Award Agreement or any other written agreement between the Company or any Affiliate and the Participant, or unless otherwise expressly provided by the Board at the time of grant of an Award. In the event of a Corporate Transaction, then, notwithstanding any other provision of the Plan, the Board will take one or more of the following actions with respect to Awards, contingent upon the closing or completion of the Corporate Transaction:

(i) arrange for the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) to assume or continue the Award or to substitute a similar stock award for the Award (including, but not limited to, an award to acquire the same consideration paid to the stockholders of the Company pursuant to the Corporate Transaction);

(ii) arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to the Award to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

(iii) accelerate the vesting, in whole or in part, of the Award (and, if applicable, the time at which the Award may be exercised) to a date prior to the effective time of such Transaction as the Board will determine (or, if the Board will not determine such a date, to the date that is five days prior to the effective date of the Transaction), with such Award terminating if not exercised (if applicable) at or prior to the effective time of the Corporate Transaction;

(iv) arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by the Company with respect to the Award;

(v) cancel or arrange for the cancellation of the Award, to the extent not vested prior to the effective time of the Corporate Transaction, in exchange for no consideration ($0) or such cash consideration, if any, as the Board, in its sole discretion, may consider appropriate; and

(vi) cancel or arrange for the cancellation of the Award, to the extent not exercised prior to the effective time of the transaction, in exchange for a payment, in such form as may be determined by the Board, equal to the excess, if any, of (A) the per share amount (or value of property per share) payable to holders of Common Stock in connection with the Corporate Transaction, over (B) the per share exercise price under the applicable Award, multiplied by the number of vested shares subject to the Award. For clarity, this payment may be $0 if the amount per share (or value of property per share) payable to the holders of the Common Stock as of the closing of the Corporate Transaction is equal to or less than the per

share exercise price of the Award. In addition, any escrow, holdback, earnout or similar provisions in the definitive agreement for the Corporate Transaction may apply to such payment to the holder of the Award to the same extent and in the same manner as such provisions apply to the holders of Common Stock.

The Board need not take the same action or actions with respect to all Awards or portions thereof or with respect to all Participants. The Board may take different actions with respect to the vested and unvested portions of an Award.

(d) Change in Control. An Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Award Agreement for such Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, no such acceleration will occur.

9. SECURITIES LAW COMPLIANCE.

(a) General. This Plan is intended to be a written compensatory benefit plan within the meaning of Rule 701 of the Securities Act; however, Awards may be granted under this Plan that do not qualify for exemption under Rule 701. The Company will seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Awards and to issue and sell shares of Common Stock upon exercise of the Awards; *provided*, *however*, that this undertaking will not require the Company to register under the Securities Act the Plan, any Award or any Common Stock issued or issuable pursuant to any such Award. A Participant will not be eligible for the grant of an Award or the subsequent issuance of cash or Common Stock pursuant to the Award if such grant or issuance would be in violation of any applicable securities law.

(b) Representations; Legends. The Board or the Stock Plan Administrator may, as a condition to the grant of any Award or the exercise of any Option under the Plan, require a Participant to (i) represent in writing that the shares received in connection with such Award are being acquired for investment and not with a view to distribution and (ii) make such other representations and warranties as are deemed appropriate by counsel to the Company. Each certificate representing shares acquired under the Plan will bear one or more legends in such form as the Company deems appropriate.

10. TAX MATTERS.

(a) Withholding Obligation. Each Participant shall, no later than the date as of which the value of an Award or of any shares or other amounts received thereunder first becomes includable in the gross income of the Participant, pay to the Company, or make arrangements satisfactory to the Company regarding payment of, amounts sufficient to satisfy applicable U.S. federal, state, local and international income tax, social insurance, payroll tax, fringe benefits tax, payment on account or other tax-related items related to the Participant's participation in the Plan (the "***Tax-Related Items***") and legally applicable to the Participant, if any, which arise in connection with the exercise, vesting or settlement of such Award, as applicable. Unless otherwise determined by the Board, the Fair Market Value of the Shares will be determined as of the date that the taxes are required to be withheld. The Company's obligation to deliver stock certificates (or evidence of book entry) to any Participant is subject to and conditioned on any such tax withholding obligations being satisfied by the Participant.

(b) Withholding Authorization. Unless otherwise provided in the Participant's Award Agreement, the Board or the Stock Plan Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time and subject to limitations of applicable law, may require or permit a

Participant to satisfy any applicable withholding obligations for Tax-Related Items, in whole or in part by (without limitation): (i) requiring the Participant to make a cash payment, (ii) withholding from the Participant's wages or other cash compensation paid to the Participant by the Company or any Affiliate; (iii) withholding from the Shares otherwise issuable a number of Shares having an aggregate Fair Market Value equal to all or a portion of the Tax-Related Items to be withheld, (iv) permitting the Participant to deliver to the Company already-owned shares having an aggregate Fair Market Value equal to the Tax-Related Items to be withheld or (v) withholding from the proceeds of the sale of otherwise deliverable Shares acquired pursuant to an Award either through a voluntary sale or through a mandatory sale arranged by the Company. The Company may withhold or account for these Tax-Related Items up to (but not in excess of) the maximum permissible statutory tax rate for the applicable tax jurisdiction. Whenever payments in satisfaction of Awards under this Plan are made in cash, such payment will be net of applicable withholding requirements for Tax-Related Items.

(c) Section 409A Compliance. Unless otherwise expressly provided for in an Award Agreement, the Plan and Award Agreements will be interpreted to the greatest extent possible in a manner that makes the Plan and the Awards granted hereunder exempt from Section 409A of the Code, and, to the extent not so exempt, in compliance with Section 409A of the Code. A Corporate Transaction or Change in Control must also constitute a change in the ownership or effective control of the Company, or in the ownership of a substantial portion of the Company's assets, within the meaning of Section 409A of the Code, and the determination of whether there has been a termination of Continuous Service will be made in a manner that is consistent with the definition of "separation from service", if required to prevent such payment from being subject to interest, penalties and/or additional tax imposed pursuant to Section 409A of the Code. Unless an Award Agreement specifically provides otherwise, if the shares of Common Stock are publicly traded, and if a Participant holding an Award that constitutes "deferred compensation" under Section 409A of the Code is a "specified employee" for purposes of Section 409A of the Code, no distribution or payment of any amount that is due because of a separation from service will be issued or paid before the date that is six months following the date of such Participant's separation from service or, if earlier, the date of the Participant's death, unless such distribution or payment can be made in a manner that complies with Section 409A of the Code, and any amounts so deferred will be paid in a lump sum on the day after such six month period elapses, with the balance paid thereafter on the original schedule.

(d) No Liability for Taxes. The Company has no duty or obligation to minimize the tax consequences of an Award to a Participant, and neither the Company nor any of its Officers, Directors, Employees or Affiliates will be liable to a Participant or any other person for any adverse tax consequences in connection with an Award.

11. GENERAL PROVISIONS.

(a) Vesting. The Board may impose such restrictions on or conditions to the vesting of the Shares subject to Awards as it deems appropriate. The vesting provisions of individual Awards may vary. Except as otherwise provided in the Award Agreement or an individual agreement with the Participant, vesting under an Award will cease immediately upon termination of the Participant's Continuous Service, and the Participant will have no further right, title or interest in such unvested portion of an Award.

(b) No Fractional Shares. No fractional shares of Common Stock shall be issued or delivered pursuant to the Plan. The Committee shall determine whether cash, additional Awards or other securities or property shall be issued or paid in lieu of fractional shares of Common Stock or whether any fractional shares should be rounded, forfeited or otherwise eliminated.

(c) Stockholder Rights. No Participant will be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to an Award unless and until (i) such Participant has satisfied all requirements for exercise of, or the issuance of shares of Common Stock under, the Award pursuant to its terms, and (ii) the issuance of the Common Stock subject to such Award has been entered into the books and records of the Company.

(d) No Employment or Other Service Rights. The adoption of the Plan and the grant of Awards do not confer upon any Participant any right to continued employment or service with the Company or any Affiliate.

(e) Change in Time Commitment. In the event a Participant's regular level of time commitment in the performance of his or her services for the Company and any Affiliates is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a full-time Employee to a part-time Employee or takes an extended leave of absence) after the date of grant of any Award to the Participant, the Board has the right in its sole discretion to (x) make a corresponding reduction in the number of shares or cash amount subject to any portion of such Award that is scheduled to vest or become payable after the date of such change in time commitment, and (y) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the Award that is so reduced or extended.

(f) Execution of Additional Documents; Repurchase Rights. The Company may require a Participant to execute any additional documents or instruments necessary or desirable, as determined in the sole discretion of the Board or the Stock Plan Administrator, to carry out the purposes or intent of the Award, including any stockholders' agreement providing for restrictions on the transferability of Shares acquired under the Plan (such as a right of first refusal, call rights or drag-along rights of the Company and certain of its investors). The Company will also have any repurchase rights set forth in the Company's bylaws or any Award Agreement. The Company will not be required to exercise any repurchase right provided in the bylaws, the Plan, any Award Agreement, or other agreement between the Company and a Participant until at least six (6) months (or such longer or shorter period of time necessary to avoid classification of the Award as a liability for financial accounting purposes) have elapsed following delivery of Shares.

(g) Electronic Delivery and Participation. Any reference in the Plan or in an Award Agreement to a "written" agreement or document will include any agreement or document delivered electronically or posted on the Company's intranet (or other shared electronic medium controlled by the Company to which the Participant has access). The form of delivery of any Common Stock (*e.g.*, a stock certificate or electronic entry evidencing such shares) will be determined by the Stock Plan Administrator.

12. PLAN TERM; EARLIER TERMINATION OR SUSPENSION OF THE PLAN.

The Board may suspend or terminate the Plan at any time. Unless terminated sooner by the Board, the Plan will automatically terminate on the day before the tenth (10th) anniversary of the earlier of the date the Plan is adopted by the Board or approved by the stockholders of the Company. No Awards may be granted under the Plan while the Plan is suspended or after it is terminated. Suspension or termination of the Plan will not materially impair rights and obligations under any Award granted while the Plan is in effect except with the written consent of the affected Participant or as otherwise permitted in the Plan.

13. EFFECTIVE DATE OF PLAN.

The Plan will become effective on the date this Plan is adopted by the Board (the "***Effective Date***").

14. CHOICE OF LAW.

The law of the State of Delaware will govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

15. DEFINITIONS. As used in the Plan, the following definitions will apply to the capitalized terms indicated below:

(a) "***Affiliate***" means, at the time of determination, any "parent" or "subsidiary" of the Company as such terms are defined in Rule 405 of the Securities Act. The Board will have the authority to determine the time or times at which "parent" or "subsidiary" status is determined within the foregoing definition.

(b) "***Award***" means any right to receive Common Stock granted under the Plan, including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a Restricted Stock Unit Award, or any Other Stock-Based Award.

(c) "***Award Agreement***" means a written agreement between the Company and a Participant evidencing the terms and conditions of an Award.

(d) "***Capitalization Adjustment***" means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Award after the Effective Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, stock split, reverse stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

(e) "***Cause***" will have the meaning ascribed to such term in any written agreement between the Participant and the Company or an Affiliate defining such term and, in the absence of such agreement, such term means, with respect to a Participant, the occurrence of any of the following events: (i) such Participant's commission of any felony or any crime involving fraud, dishonesty or moral turpitude; (ii) such Participant's attempted commission of, or participation in, a fraud or act of dishonesty against the Company or an Affiliate; (iii) such Participant's intentional, material violation of any contract or agreement between the Participant and the Company or an Affiliate or of any statutory duty owed to the Company or an Affiliate; (iv) such Participant's unauthorized use or disclosure of confidential information or trade secrets of the Company or an Affiliate; or (v) such Participant's gross misconduct. The determination that a termination of the Participant's Continuous Service is either for Cause or without Cause will be made by the Company, in its sole discretion. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Awards held by such Participant will have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(f) "***Change in Control***" means a Corporate Transaction that also qualifies as a "Deemed Liquidation Event" as defined in the Company's Amended and Restated Certificate of Incorporation, as may be amended from time to time, and does not otherwise constitute any of the following (as determined by the Board): (i) a Capitalization Adjustment, (ii) a public offering of the Company's securities, (iii) a transaction the primary purpose of which is to raise capital for the Company, (iv) a transaction effected exclusively for the purpose of changing the domicile or corporate form of the Company, or (v) a merger, consolidation or similar transaction involving (directly or indirectly) the Company in which the stockholders of the Company immediately prior to such transaction continue to hold (directly or indirectly), at least a majority of the combined outstanding voting power of the Company or the surviving entity in such transaction (as applicable) immediately following such transaction. The definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant will supersede the foregoing definition with respect to Awards subject to such agreement; *provided*, *however*, that if no definition of Change in Control or any analogous term is set forth in any individual written agreement, the foregoing definition will apply.

(g) "***Code***" means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(h) "***Common Stock***" means the common stock of the Company.

(i) "***Consultant***" means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, will not cause a Director to be considered a "Consultant" for purposes of the Plan.

(j) "***Continuous Service***" means that the Participant's service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Consultant or Director or a change in the entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant's service with the Company or an Affiliate, will not terminate a Participant's Continuous Service; *provided*, *however*, that if the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board, in its sole discretion, such Participant's Continuous Service will be considered to have terminated on the date such Entity ceases to qualify as an Affiliate.

(k) "***Corporate Transaction***" means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board, in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of more than 50% of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(l) "***Director***" means a member of the Board.

(m) "***Disability***" means, with respect to a Participant, the inability of such Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or that has lasted or can be expected to last for a continuous period of not less than twelve (12) months, as provided in Sections 22(e)(3) and 409A(a)(2)(c)(i) of the Code, and will be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(n) "***Employee***" means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an "Employee" for purposes of the Plan.

(o) "***Entity***" means a corporation, partnership, limited liability company or other entity.

(p) "***Exchange Act***" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(q) "***Fair Market Value***" means, as of any date, the value of the Common Stock determined by the Board in compliance with Section 409A of the Code or, in the case of an Incentive Stock Option, in compliance with Section 422 of the Code.

(r) "***Incentive Stock Option***" or "***ISO***" means an Option that is intended to be, and qualifies as, an "incentive stock option" within the meaning of Section 422 of the Code.

(s) "***Nonstatutory Stock Option***" or "***NSO***" means any Option granted pursuant to the Plan that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option. Nonstatutory Stock Options are also sometimes referred to as "Nonqualified Options" or "NQSOs."

(t) "***Officer***" means any person designated by the Company as an officer.

(u) "***Participant***" means a person to whom an Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Award.

(v) "***Securities Act***" means the Securities Act of 1933, as amended.

(w) "***Ten Percent Stockholder***" means a person who owns (or is deemed to own pursuant to Section 424(d) of the Code) stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or any Affiliate.

*** * * * * * ***

Plan History:

Date adopted by the Board of Directors:	June 25, 2018
Date approved by the Stockholders:	July 17, 2018
Date amended by the Board of Directors	July 31, 2018
Date approved by the Stockholders	August 10, 2018

ALLOGENE THERAPEUTICS, INC.

STOCK OPTION GRANT NOTICE
(AMENDED AND RESTATED 2018 EQUITY INCENTIVE PLAN)

ALLOGENE THERAPEUTICS, INC. (the "***Company***"), pursuant to its Amended and Restated 2018 Equity Incentive Plan (the "***Plan***"), hereby grants to Participant an option to purchase the number of shares of the Company's Common Stock set forth below. This option is subject to all of the terms and conditions as set forth in this Stock Option Grant Notice, the Option Terms and Conditions, and the Plan, all of which are attached hereto and incorporated herein in their entirety. This Stock Option Grant Notice and the Option Terms and Conditions are collectively referred to as the "***Option Agreement.***" Capitalized terms not explicitly defined in this Agreement but defined in the Plan will have the same definitions as in the Plan. If there is any conflict between the terms in this Agreement and the Plan, the terms of the Plan will control.

Participant:	_____
Date of Grant:	_____
Vesting Commencement Date:	_____
Number of Shares Subject to Option:	_____
Exercise Price (Per Share):	_____
Total Exercise Price:	_____
Expiration Date:	_____

Type of Grant: ☐ Incentive Stock Option[1] ☐ Nonstatutory Stock Option

Exercise Schedule: ☐ Same as Vesting Schedule ☐ Early Exercise Permitted

Vesting Schedule: [**Sample of standard vesting.** One-fourth (1/4th) of the shares vest one year after the Vesting Commencement Date; the balance of the shares vest in a series of 36 successive equal monthly installments measured from the first anniversary of the Vesting Commencement Date, subject to Participant's Continuous Service as of each such date.]

Additional Terms/Acknowledgements: Participant acknowledges receipt of, and understands and agrees to, this Agreement and the Plan. Participant acknowledges and agrees that this Option Agreement may not be modified, amended or revised except as provided in the Plan. Participant further acknowledges that as of the Date of Grant, this Option Agreement, and the Plan set forth the entire understanding between Participant and the Company regarding this option award and supersede all prior oral and written agreements, promises and/or representations on that subject with the exception of Awards previously granted and delivered to Participant.

This Stock Option Grant Notice and any notices, agreements or other documents related thereto may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of

1 If this is an Incentive Stock Option, it (plus other outstanding Incentive Stock Options) cannot be first *exercisable* for more than $100,000 in value (measured by exercise price) in any calendar year. Any excess over $100,000 is a Nonstatutory Stock Option.

2000, Uniform Electronic Transactions Act or other applicable law) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

By accepting this option, you consent to receive such documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

ALLOGENE THERAPEUTICS, INC.

By: _____
Signature

Title: _____
Email: _____
Date: _____

PARTICIPANT:

_____
Signature

Email: _____
Date: _____

ATTACHMENTS: OptionTerms and Conditions
Amended and Restated 2018 Equity Incentive Plan

ATTACHMENT I

OPTION TERMS AND CONDITIONS

ATTACHMENT II

AMENDED AND RESTATED 2018 EQUITY INCENTIVE PLAN

ALLOGENE THERAPEUTICS, INC.

AMENDED AND RESTATED
2018 EQUITY INCENTIVE PLAN

OPTION TERMS AND CONDITIONS
(Incentive Stock Option or Nonstatutory Stock Option)

As reflected by your Stock Option Grant Notice (the "***Grant Notice***") and these Option Terms and Conditions (together, this "***Option Agreement***"), **ALLOGENE THERAPEUTICS, INC.** (the "***Company***") has granted you an option under its Amended and Restated 2018 Equity Incentive Plan (the "***Plan***") to purchase the number of shares of the Company's Common Stock indicated in your Grant Notice at the exercise price indicated in your Grant Notice. The option is granted to you effective as of the date of grant set forth in the Grant Notice (the "***Date of Grant***").

The details of your option, in addition to those set forth in the Grant Notice and the Plan, are as follows:

1. GOVERNING PLAN DOCUMENT. Your option is subject to all the provisions of the Plan, including but not limited to the provisions in the Plan regarding the impact of any Capitalization Adjustment, Dissolution or Corporate Transaction. Your option is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. If there is any conflict between the terms in this Option Agreement and the Plan, the terms of the Plan will control. Capitalized terms not explicitly defined in this Option Agreement but defined in the Plan will have the same definitions as in the Plan.

2. VESTING. Your option will vest as provided in your Grant Notice. Vesting will cease upon the termination of your Continuous Service.

3. EXERCISE.

(a) General. You may exercise the *vested* portion of your option during its term by delivering a Notice of Exercise (in the form designated by the Company), together with payment of the exercise price and applicable withholding taxes, and such additional documents as the Company may then require (including, without limitation, any stockholders' agreement between the Company and certain of its stockholders) to the Stock Plan Administrator in accordance with the option exercise procedures established by the Stock Plan Administrator, which may include an electronic submission. Certain terms of the Plan may also restrict or prohibit your ability to exercise your option during certain periods.

(b) Exercise Prior to Vesting ("Early Exercise"). If permitted in your Grant Notice (*i.e.*, the "Exercise Schedule" indicates "Early Exercise Permitted") and subject to the provisions of your option, you may elect at any time that is both (i) during the period of your Continuous Service and (ii) during the term of your option, to exercise all or part of your option, including the *unvested* portion of your option ***by completing and delivering an Early Exercise Notice and Stock Purchase Agreement*** (in the form designated by the Company). A partial exercise of your option will be deemed to cover first vested shares of Common Stock and then the earliest vesting installment of unvested shares of Common Stock. If your option is an Incentive Stock Option, then, to the extent that the aggregate Fair Market Value (determined at the Date of Grant) of the shares of Common Stock with respect to which your option plus all other Incentive Stock Options you hold are *exercisable* for the first time by you during any calendar year (under all plans of the Company and its Affiliates) exceeds $100,000, your option(s) or portions thereof that exceed such limit (according to the order in which they were granted) will be treated as Nonstatutory Stock Options.

4. METHOD OF PAYMENT. You may always pay the Option exercise price in cash or by check, bank draft or money order. At the sole discretion of the Company *at the time of exercise*, you may be permitted to pay the Option exercise price pursuant to another payment method permitted by the Plan, subject to the restrictions specified in the Plan.

5. WHOLE SHARES. You may exercise your option only for whole shares of Common Stock.

6. TERM. You may not exercise your option before the Date of Grant or after the expiration of the option's term. Except as set forth in your Grant Notice, the term of your option expires, subject to the provisions of Section 5 of the Plan, upon the earliest of the following:

(a) immediately upon the termination of your Continuous Service for Cause;

(b) three (3) months after the termination of your Continuous Service for any reason other than Cause, Disability or death;

(c) 12 months after the termination of your Continuous Service due to your Disability;

(d) 18 months after your death if you die either during your Continuous Service (or during the periods provided in clauses (b) and (c) above);

(e) the Expiration Date indicated in your Grant Notice; or

(f) the day before the 10th anniversary of the Date of Grant.

Notwithstanding the foregoing, your option may also be terminated earlier in connection with a Corporate Transaction, as provided in the Plan.

If your option is an Incentive Stock Option, note that to obtain the federal income tax advantages associated with an Incentive Stock Option, the Code requires that at all times beginning on the Date of Grant and ending on the day three months before the date of your option's exercise, you must be an employee of the Company or an Affiliate, except in the event of your death or Disability. The Company has provided for extended exercisability of your option under certain circumstances for your benefit but cannot guarantee that your option will necessarily be treated as an Incentive Stock Option if you continue to provide services to the Company or an Affiliate as a Consultant or Director after your employment terminates or if you otherwise exercise your option more than three months after the date your employment with the Company or an Affiliate terminates.

7. TRANSFERABILITY. Except as otherwise provided in the Plan, your option is not transferable, except by will or by the laws of descent and distribution, and is exercisable during your life only by you.

8. MARKET STAND-OFF. By exercising your option you agree that you will not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale with respect to any shares of Common Stock or other securities of the Company held by you, for a period of 180 days following the effective

date of a registration statement of the Company filed under the Securities Act or such longer period as the underwriters or the Company will request to facilitate compliance with FINRA Rule 2711 or NYSE Member Rule 472 or any successor or similar rules or regulation(the "***Lock-Up Period***"); *provided, however*, that nothing contained in this section will prevent the exercise of a repurchase option, if any, in favor of the Company during the Lock-Up Period. You further agree to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to your shares of Common Stock until the end of such period. You also agree that any transferee of any shares of Common Stock (or other securities) of the Company held by you will be bound by this section. The underwriters of the Company's stock are intended third party beneficiaries of this section and will have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

9. RIGHT OF FIRST REFUSAL. Shares of Common Stock that you acquire upon exercise of your option are subject to any right of first refusal that may be described in the Company's bylaws in effect at such time the Company elects to exercise its right; *provided, however,* that if there is no right of first refusal described in the Company's bylaws at such time, the right of first refusal described below will apply. The Company's right of first refusal will expire on the first date upon which any security of the Company is listed (or approved for listing) upon notice of issuance on a national securities exchange or quotation system (the "***Listing Date***").

(a) Prior to the Listing Date, you may not validly Transfer (as defined below) any shares of Common Stock acquired upon exercise of your option, or any interest in such shares, unless such Transfer is made in compliance with the following provisions:

(i) Before there can be a valid Transfer of any shares of Common Stock or any interest therein, the record holder of the shares of Common Stock to be transferred (the "***Offered Shares***") will give written notice (by registered or certified mail) to the Company. Such notice will specify the identity of the proposed transferee, the cash price offered for the Offered Shares by the proposed transferee (or, if the proposed Transfer is one in which the holder will not receive cash, such as an involuntary transfer, gift, donation or pledge, the holder will state that no purchase price is being proposed), and the other terms and conditions of the proposed Transfer. The date such notice is mailed will be hereinafter referred to as the "***Notice Date***" and the record holder of the Offered Shares will be hereinafter referred to as the "***Offeror***." If, from time to time, there is any stock dividend, stock split or other change in the character or amount of any of the outstanding Common Stock which is subject to the provisions of your option, then in such event any and all new, substituted or additional securities to which you are entitled by reason of your ownership of the shares of Common Stock acquired upon exercise of your option will be immediately subject to the Company's Right of First Refusal (as defined below) with the same force and effect as the shares subject to the Right of First Refusal immediately before such event.

(ii) For a period of 30 calendar days after the Notice Date, or such longer period as may be required to avoid the classification of your option as a liability for financial accounting purposes, the Company will have the option to purchase all (but not less than all) of the Offered Shares at the purchase price and on the terms set forth in this section (the Company's "***Right of First Refusal***"). In the event that the proposed Transfer is one involving no payment of a purchase price, the purchase price will be deemed to be the Fair Market Value of the Offered Shares as determined in good faith by the Board in its discretion. The Company may exercise its Right of First Refusal by mailing (by registered or certified mail) written notice of exercise of its Right of First Refusal to the Offeror prior to the end of said 30 days (including any extension required to avoid classification of the option as a liability for financial accounting purposes).

(iii) The price at which the Company may purchase the Offered Shares pursuant to the exercise of its Right of First Refusal will be the cash price offered for the Offered Shares by the proposed transferee, or the Fair Market Value as determined by the Board in the event no purchase price is involved. To the extent consideration other than cash is offered by the proposed transferee, the Company will not be required to pay any additional amounts to the Offeror other than the cash price offered (or the Fair Market Value, if applicable). The Company's notice of exercise of its Right of First Refusal will be accompanied by full payment for the Offered Shares and, upon such payment by the Company, the Company will acquire full right, title and interest to all of the Offered Shares.

(iv) If, and only if, the Right of First Refusal is not exercised, the Transfer proposed in the notice may take place; *provided, however*, that such Transfer must, in all respects, be exactly as proposed in said notice except that such Transfer may not take place either before the 10th calendar day after the expiration of the 30 day option exercise period or after the ninetieth 90th calendar day after the expiration of the 30 day option exercise period, and if such Transfer has not taken place prior to said 90th day, such Transfer may not take place without once again complying with this section. The timing periods in this section will be adjusted to include any extension required to avoid the classification of your option as a liability for financial accounting purposes.

(b) As used in this Option Agreement, the term "***Transfer***" means any sale, encumbrance, pledge, gift or other form of disposition or transfer of shares of Common Stock or any legal or equitable interest therein; *provided, however*, that the term Transfer does not include a transfer of such shares or interests by will or intestacy to your Immediate Family (as defined below). In such case, the transferee or other recipient will receive and hold the shares of Common Stock so transferred subject to the provisions of this section, and there will be no further transfer of such shares except in accordance with the terms of this Option Agreement. As used herein, the term "***Immediate Family***" will mean your spouse, the lineal descendant or antecedent, father, mother, brother or sister, child, adopted child, grandchild or adopted grandchild of you or your spouse, or the spouse of any child, adopted child, grandchild or adopted grandchild of you or your spouse.

(c) None of the shares of Common Stock purchased on exercise of your option will be transferred on the Company's books nor will the Company recognize any such Transfer of any such shares or any interest therein unless and until all applicable provisions of this section have been complied with in all respects. The certificates of stock evidencing shares of Common Stock purchased on exercise of your option will bear an appropriate legend referring to the transfer restrictions imposed by this section.

(d) To ensure that the shares subject to the Company's Right of First Refusal will be available for repurchase by the Company, the Company may require you to deposit the certificates evidencing the shares that you purchase upon exercise of your option with an escrow agent designated by the Company under the terms and conditions of an escrow agreement approved by the Company. If the Company does not require such deposit as a condition of exercise of your option, the Company reserves the right at any time to require you to so deposit the certificates in escrow. As soon as practicable after the expiration of the Company's Right of First Refusal, the agent will deliver to you the shares and any other property no longer subject to such restriction. In the event the shares and any other property held in escrow are subject to the Company's exercise of its Right of First Refusal, the notices required to be given to you will be given to the escrow agent, and any payment required to be given to you will be given to the escrow agent. Within 30 days after payment by the Company for the Offered Shares, the escrow agent will deliver the Offered Shares that the Company has repurchased to the Company and will deliver the payment received from the Company to you.

10. OPTION NOT A SERVICE CONTRACT. Your option is not an employment or service contract, and nothing in your option will be deemed to create in any way whatsoever any obligation on your part to continue in the employ of the Company or an Affiliate, or of the Company or an Affiliate to continue your employment. In addition, nothing in your option will obligate the Company or an Affiliate, their respective stockholders, boards of directors, officers or employees to continue any relationship that you might have as a Director or Consultant for the Company or an Affiliate.

11. WITHHOLDING OBLIGATIONS. You may not exercise your option unless the applicable withholding obligations for Tax-Related Items are satisfied. As further provided in the Plan, at the time you exercise your option, in whole or in part, or at any time thereafter as requested by the Company, you hereby authorize withholding from payroll and any other amounts payable to you, and otherwise agree to make adequate provision for, any sums required to satisfy the withholding obligations, if any, which arise in connection with your option.

12. TAX CONSEQUENCES. You hereby agree that the Company does not have a duty to design or administer the Plan or its other compensation programs in a manner that minimizes your tax liabilities. You will not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax liabilities arising from your option or your other compensation. In particular, you acknowledge that this option is exempt from Section 409A of the Code only if the exercise price per share specified in the Grant Notice is at least equal to the "fair market value" per share of the Common Stock on the Date of Grant and there is no other impermissible deferral of compensation associated with the option. Because the Common Stock is not traded on an established securities market, the Fair Market Value is determined by the Board, perhaps in consultation with an independent valuation firm retained by the Company. You acknowledge that there is no guarantee that the Internal Revenue Service will agree with the valuation as determined by the Board, and you will not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates in the event that the Internal Revenue Service asserts that the valuation determined by the Board is less than the "fair market value" as subsequently determined by the Internal Revenue Service.

13. NOTICES. Any notices provided for in your option or the Plan will be given in writing (including electronically) and will be deemed effectively given upon receipt or, in the case of notices delivered by mail by the Company to you, five days after deposit in the United States mail, postage prepaid, addressed to you at the last address you provided to the Company. The Company may, in its sole discretion, decide to deliver any documents related to participation in the Plan and this option by electronic means or to request your consent to participate in the Plan by electronic means. By accepting this option, you consent to receive such documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

ALLOGENE THERAPEUTICS, INC.
NOTICE OF EXERCISE
(for exercise of vested options only)

Allogene Therapeutics, Inc.
210 East Grand Avenue
South San Francisco, CA 94080

Date of Exercise:

This constitutes notice to **ALLOGENE THERAPEUTICS, INC.** (the "***Company***") under my stock option that I elect to purchase the below number of shares of Common Stock of the Company (the "***Shares***") for the price set forth below.

Type of option (check one):	Incentive ☐	Nonstatutory ☐
Stock option dated:	_____	_____
Number of Shares as to which option is exercised:	_____	_____
Certificates to be issued in name of:	_____	_____
Total exercise price:	$_____	$_____
Cash payment delivered herewith:	$_____	$_____

By this exercise, I agree (i) to provide such additional documents as you may require pursuant to the terms of the Amended and Restated 2018 Equity Incentive Plan, (ii) to provide for the payment by me to you (in the manner designated by you) of your withholding obligation, if any, relating to the exercise of this option, and (iii) if this exercise relates to an incentive stock option, to notify you in writing within 15 days after the date of any disposition of any of the Shares issued upon exercise of this option that occurs within two years after the date of grant of this option or within one year after such Shares are issued upon exercise of this option.

I further agree that this Notice of Exercise may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act or other applicable law) or other transmission method and shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

I hereby make the following certifications and representations with respect to the number of Shares listed above, which are being acquired by me for my own account upon exercise of the option as set forth above:

I acknowledge that the Shares have not been registered under the Securities Act of 1933, as amended (the "***Securities Act***"), and are deemed to constitute "restricted securities" under Rule 701 and Rule 144 promulgated under the Securities Act. I warrant and represent to the Company that I have no present intention of distributing or selling said Shares, except as permitted under the Securities Act and any applicable state securities laws. I further acknowledge that I will not be able to resell the Shares for

at least 90 days after the stock of the Company becomes publicly traded (*i.e.*, subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934) under Rule 701 and that more restrictive conditions apply to affiliates of the Company under Rule 144.

I further acknowledge and agree that, except for such information as required to be delivered to me by the Company pursuant to the option or the Plan (if any), I will have no right to receive any information from the Company by virtue of the grant of the option or the purchase of shares of Common Stock through exercise of the option, ownership of such shares of Common Stock, or as a result of my being a holder of record of stock of the Company. Without limiting the foregoing, to the fullest extent permitted by law, I hereby waive all inspection rights under Section 220 of the Delaware General Corporation Law and all such similar information and/or inspection rights that may be provided under the law of any jurisdiction, or any federal, state or foreign regulation, that are, or may become, applicable to the Company or the Company's capital stock (the "***Inspection Rights***"). I hereby covenant and agree never to directly or indirectly commence, voluntarily aid in any way, prosecute, assign, transfer, or cause to be commenced any claim, action, cause of action, or other proceeding to pursue or exercise the Inspection Rights.

I further agree that, if required by the Company (or a representative of the underwriters) in connection with the first underwritten registration of the offering of any securities of the Company under the Securities Act, the Shares may be subject to certain transfer restrictions during the Lock-Up Period as provided in Section 8 of the Option Terms and Conditions. I further agree to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of such period.

I further acknowledge that all certificates representing any of the Shares subject to the provisions of the option shall have endorsed thereon appropriate legends reflecting the foregoing limitations, as well as any legends reflecting restrictions pursuant to the Company's Certificate of Incorporation, Bylaws and/or applicable securities laws.

Very truly yours,

_____
(Signature)

_____
Name (Please Print)

Address of Record: _____

_____

_____

Email: _____

ALLOGENE THERAPEUTICS, INC.

EARLY EXERCISE NOTICE AND STOCK PURCHASE AGREEMENT
(AMENDED AND RESTATED 2018 EQUITY INCENTIVE PLAN)

THIS AGREEMENT is made by and between **ALLOGENE THERAPEUTICS, INC.**, a Delaware corporation (the "***Company***"), and the individual designated on the signature page hereto as a Purchaser ("***Purchaser***").

Purchaser holds a stock option dated to purchase shares of common stock ("***Common Stock***") of the Company (the "***Option***") pursuant to the Company's Amended and Restated 2018 Equity Incentive Plan (the "***Plan***"). Purchaser wishes to take advantage of the early exercise provision of the Option and therefore to enter into this Agreement.

The parties agree as follows:

1. INCORPORATION OF PLAN AND OPTION BY REFERENCE. This Agreement is subject to all of the terms and conditions as set forth in the Plan and the Option. If there is a conflict between the terms of this Agreement and/or the Option and the terms of the Plan, the terms of the Plan shall control. If there is a conflict between the terms of this Agreement and the terms of the Option, the terms of the Option shall control. Defined terms not explicitly defined in this Agreement but defined in the Plan or the Option shall have the same definitions as provided in the Plan or the Option, as applicable.

2. PURCHASE AND SALE OF COMMON STOCK.

(a) Agreement to Purchase and Sell Common Stock. Purchaser hereby agrees to purchase from the Company, and the Company hereby agrees to sell to Purchaser, shares of the Common Stock of the Company in accordance with the Notice of Exercise duly executed by Purchaser and attached hereto as Exhibit A.

(b) Closing. The closing hereunder, including payment for and delivery of the Common Stock, shall occur at the offices of the Company immediately following the execution of this Agreement, or at such other time and place as the parties may mutually agree; *provided, however,* that if stockholder approval of the Plan is required before the Option may be exercised, then the Option may not be exercised, and the closing shall be delayed, until such stockholder approval is obtained. If such stockholder approval is not obtained within the time limit specified in the Plan, then this Agreement shall be null and void.

3. UNVESTED SHARE REPURCHASE OPTION.

(a) Repurchase Option. In the event Purchaser's Continuous Service terminates, then the Company shall have an irrevocable option (the "***Repurchase Option***") for a period of six months after said termination (or in the case of shares issued upon exercise of the Option after such date of termination, within six months after the date of the exercise), or such longer period as may be agreed to by the Company and Purchaser (the "***Repurchase Period***"), to repurchase from Purchaser or Purchaser's personal representative, as the case may be, those shares that Purchaser received pursuant to the exercise of the Option that have not as yet vested as of such termination date in accordance with the Vesting Schedule indicated on Purchaser's Stock Option Grant Notice (the "***Unvested Shares***").

(b) Share Repurchase Price. The Company may repurchase all or any of the Unvested Shares at the lower of (i) the Fair Market Value of the such shares (as determined under the Plan) on the date of repurchase, or (ii) the price equal to Purchaser's Exercise Price for such shares as indicated on Purchaser's Stock Option Grant Notice.

(c) Exercise of Repurchase Option. The Repurchase Option shall be exercised by written notice signed by such person as designated by the Company, and delivered or mailed as provided herein. Such notice shall identify the number of shares of Common Stock to be purchased and shall notify Purchaser of the time, place and date for settlement of such purchase, which shall be scheduled by the Company within the term of the Repurchase Option set forth above. In addition, the Company shall be deemed to have exercised the Repurchase Option as of the last day of the Repurchase Period, unless an officer of the Company notifies the holder of the Unvested Shares during the Repurchase Period in writing (delivered or mailed as provided herein) that the Company expressly declines to exercise its Repurchase Option for some or all of the Unvested Shares. The Company shall be entitled to pay for any shares of Common Stock purchased pursuant to its Repurchase Option at the Company's option in cash or by offset against any indebtedness owing to the Company by Purchaser (including without limitation any promissory note given in payment for the Common Stock), or by a combination of both. Upon exercise of the Repurchase Option and payment of the purchase price in any of the ways described above, the Company shall become the legal and beneficial owner of the Common Stock being repurchased and all rights and interest therein or related thereto, and the Company shall have the right to transfer to its own name the Common Stock being repurchased by the Company, without further action by Purchaser.

4. CAPITALIZATION ADJUSTMENTS TO COMMON STOCK. In the event of a Capitalization Adjustment, then any and all new, substituted or additional securities or other property to which Purchaser is entitled by reason of Purchaser's ownership of Common Stock shall be immediately subject to the Repurchase Option and be included in the word "Common Stock" for all purposes of the Repurchase Option with the same force and effect as the shares of the Common Stock presently subject to the Repurchase Option, but only to the extent the Common Stock is, at the time, covered by such Repurchase Option. While the total Option Price shall remain the same after each such event, the Option Price per share of Common Stock upon exercise of the Repurchase Option shall be appropriately adjusted.

5. CORPORATE TRANSACTIONS. In the event of a Corporate Transaction, then the Repurchase Option may be assigned by the Company to the successor of the Company (or such successor's parent company), if any, in connection with such Corporate Transaction. To the extent the Repurchase Option remains in effect following such Corporate Transaction, it shall apply to the new capital stock or other property received in exchange for the Common Stock in consummation of the Corporate Transaction, but only to the extent the Common Stock was at the time covered by such right. Appropriate adjustments shall be made to the price per share payable upon exercise of the Repurchase Option to reflect the Corporate Transaction upon the Company's capital structure; *provided, however,* that the aggregate price payable upon exercise of the Repurchase Option shall remain the same.

6. ESCROW OF UNVESTED COMMON STOCK. As security for Purchaser's faithful performance of the terms of this Agreement and to insure the availability for delivery of Purchaser's Common Stock upon exercise of the Repurchase Option herein provided for, Purchaser agrees, at the closing hereunder, to deliver to and deposit with the Secretary of the Company or the Secretary's designee ("***Escrow Agent***"), as Escrow Agent in this transaction, three stock assignments duly endorsed (with date and number of shares blank) in the form attached hereto as Exhibit B, together with a certificate or certificates evidencing all of the Common Stock subject to the Repurchase Option; said documents are to be held by the Escrow Agent and delivered by said Escrow Agent pursuant to the Joint Escrow Instructions of the Company and Purchaser set forth in Exhibit C, attached hereto and incorporated by this reference, which instructions also shall be delivered to the Escrow Agent at the closing hereunder.

7. STOCKHOLDER RIGHTS. Subject to the provisions of the Option, Purchaser shall exercise all rights and privileges of a stockholder of the Company with respect to the shares deposited in escrow. Purchaser shall be deemed to be the holder of the shares for purposes of receiving any dividends that may be paid with respect to such shares and for purposes of exercising any voting rights relating to such shares, even if some or all of such shares have not yet vested and been released from the Company's Repurchase Option.

8. LIMITATIONS ON TRANSFER. In addition to any other limitation on transfer created by applicable securities laws, Purchaser shall not sell, assign, hypothecate, donate, encumber or otherwise dispose of any interest in the Common Stock while the Common Stock is subject to the Repurchase Option. After any Common Stock has been released from the Repurchase Option, Purchaser shall not sell, assign, hypothecate, donate, encumber or otherwise dispose of any interest in the Common Stock except in compliance with the provisions herein and applicable securities laws. Furthermore, the Common Stock shall be subject to any right of first refusal in favor of the Company or its assignees or other transfer restrictions that may be contained in the Company's Bylaws.

9. RESTRICTIVE LEGENDS. All certificates representing the Common Stock shall have endorsed thereon legends in substantially the following forms (in addition to any other legend which may be required by other agreements between the parties hereto):

(a) "THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO AN OPTION SET FORTH IN AN AGREEMENT BETWEEN THE COMPANY AND THE REGISTERED HOLDER, OR SUCH HOLDER'S PREDECESSOR IN INTEREST, A COPY OF WHICH IS ON FILE AT THE PRINCIPAL OFFICE OF THIS COMPANY. ANY TRANSFER OR ATTEMPTED TRANSFER OF ANY SHARES SUBJECT TO SUCH OPTION IS VOID WITHOUT THE PRIOR EXPRESS WRITTEN CONSENT OF THE COMPANY."

(b) "THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 AS AMENDED. THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO THE SECURITIES UNDER SAID ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED."

(c) "THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A RIGHT OF FIRST REFUSAL OPTION IN FAVOR OF THE COMPANY AND/OR ITS ASSIGNEE(S) AS PROVIDED IN AN AGREEMENT WITH THE COMPANY."

(d) "THE SHARES REPRESENTED BY THIS CERTIFICATE WERE ISSUED PURSUANT TO THE EXERCISE OF **[AN INCENTIVE STOCK OPTION/ A NONSTATUTORY STOCK OPTION]**."

(e) "THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A TRANSFER RESTRICTION, AS PROVIDED IN THE BYLAWS OF THE COMPANY."

(f) Any legend required by appropriate blue sky officials.

10. INVESTMENT REPRESENTATIONS. In connection with the purchase of the Common Stock, Purchaser represents to the Company the following:

(a) Purchaser is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Common Stock. Purchaser is acquiring the Common Stock for investment for Purchaser's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act.

(b) Purchaser understands that the Common Stock has not been registered under the Securities Act by reason of a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Purchaser's investment intent as expressed herein.

(c) Purchaser further acknowledges and understands that the Common Stock must be held indefinitely unless the Common Stock is subsequently registered under the Securities Act or an exemption from such registration is available. Purchaser further acknowledges and understands that the Company is under no obligation to register the Common Stock. Purchaser understands that the certificate evidencing the Common Stock will be imprinted with a legend that prohibits the transfer of the Common Stock unless the Common Stock is registered or such registration is not required in the opinion of counsel for the Company.

(d) Purchaser is familiar with the provisions of Rules 144 and 701, under the Securities Act, as in effect from time to time, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly, from the issuer thereof (or from an affiliate of such issuer), in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of issuance of the securities, such issuance will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the securities exempt under Rule 701 may be sold by Purchaser 90 days thereafter, subject to the satisfaction of certain of the conditions specified by Rule 144 and the market stand-off provision described in Purchaser's Stock Option Agreement.

(e) In the event that the sale of the Common Stock does not qualify under Rule 701 at the time of purchase, then the Common Stock may be resold by Purchaser in certain limited circumstances subject to the provisions of Rule 144, which requires, among other things: (i) the availability of certain public information about the Company, and (ii) the resale occurring following the required holding period under Rule 144 after Purchaser has purchased, and made full payment of (within the meaning of Rule 144), the securities to be sold.

(f) Purchaser further understands that at the time Purchaser wishes to sell the Common Stock there may be no public market upon which to make such a sale, and that, even if such a public market then exists, the Company may not be satisfying the current public current information requirements of Rule 144 or 701, and that, in such event, Purchaser would be precluded from selling the Common Stock under Rule 144 or 701 even if the minimum holding period requirement had been satisfied.

(g) Purchaser further warrants and represents that Purchaser has either (i) preexisting personal or business relationships, with the Company or any of its officers, directors or controlling persons, or (ii) the capacity to protect his own interests in connection with the purchase of the Common Stock by virtue of the business or financial expertise of Purchaser or of professional advisors to Purchaser who are unaffiliated with and who are not compensated by the Company or any of its affiliates, directly or indirectly. Purchaser further warrants and represents that Purchaser's purchase the Common Stock was not accomplished by the publication of any advertisement.

11. SECTION 83(b) ELECTION. Purchaser understands that Section 83(a) of the Code taxes as ordinary income the difference between the amount paid for the Common Stock and the fair market value of the Common Stock as of the date any restrictions on the Common Stock lapse. In this context, "restriction" includes the right of the Company to buy back the Common Stock pursuant to the Repurchase Option set forth above. Purchaser understands that Purchaser may elect to be taxed at the time the Common Stock is purchased, rather than when and as the Repurchase Option expires, by filing an election under Section 83(b) (an "***83(b) Election***") of the Code with the Internal Revenue Service within 30 days of the date of purchase, a copy of which is included as Exhibit D. Even if the fair market value of the Common Stock at the time of the execution of this Agreement equals the amount paid for the Common Stock, the 83(b) Election must be made to avoid income under Section 83(a) in the future. Purchaser acknowledges that the foregoing is only a summary of the effect of United States federal income taxation with respect to purchase of the Common Stock hereunder, and does not purport to be complete. Purchaser further acknowledges that the Company has directed Purchaser to seek independent advice regarding the applicable provisions of the Code, the income tax laws of any municipality, state or foreign country in which Purchaser may reside, and the tax consequences of Purchaser's death. Purchaser assumes all responsibility for filing an 83(b) Election and paying all taxes resulting from such election or the lapse of the restrictions on the Common Stock.

12. REFUSAL TO TRANSFER. The Company shall not be required (a) to transfer on its books any shares of Common Stock of the Company which shall have been transferred in violation of any of the provisions set forth in this Agreement, or (b) to treat as owner of such shares or to accord the right to vote as such owner or to pay dividends to any transferee to whom such shares shall have been so transferred.

13. INSPECTION RIGHTS. Purchaser further acknowledges and agrees that, except for such information as required to be delivered to Purchaser by the Company pursuant to the Option or the Plan (if any), Purchaser will have no right to receive any information from the Company by virtue of the grant of the Option or the purchase of shares of Common Stock through exercise of the option, ownership of such shares of Common Stock, or as a result of my being a holder of record of stock of the Company. Without limiting the foregoing, to the fullest extent permitted by law, Purchaser hereby waives all inspection rights under Section 220 of the Delaware General Corporation Law and all such similar information and/or inspection rights that may be provided under the law of any jurisdiction, or any federal, state or foreign regulation, that are, or may become, applicable to the Company or the Company's capital stock (the "***Inspection Rights***"). Purchaser hereby covenants and agrees never to directly or indirectly commence, voluntarily aid in any way, prosecute, assign, transfer, or cause to be commenced any claim, action, cause of action, or other proceeding to pursue or exercise the Inspection Rights.

14. MISCELLANEOUS.

(a) Notices. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed facsimile if sent during normal business hours of the recipient, and if not during normal business hours of the recipient, then on the next business day, (iii) five calendar days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (iv) one business day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the other party hereto at such party's address hereinafter set forth on the signature page hereof, or at such other address as such party may designate by 10 days advance written notice to the other party hereto.

(b) Successors and Assigns. This Agreement shall inure to the benefit of the successors and assigns of the Company and, subject to the restrictions on transfer herein set forth, be binding upon Purchaser, Purchaser's successors, and assigns. The Company may assign the Repurchase Option hereunder at any time or from time to time, in whole or in part.

(c) Attorneys' Fees; Specific Performance. Purchaser shall reimburse the Company for all costs incurred by the Company in enforcing the performance of, or protecting its rights under, any part of this Agreement, including reasonable costs of investigation and attorneys' fees. It is the intention of the parties that the Company, upon exercise of the Repurchase Option and payment for the shares repurchased, pursuant to the terms of this Agreement, shall be entitled to receive the Common Stock, *in specie*, in order to have such Common Stock available for future issuance without dilution of the holdings of other stockholders. Furthermore, it is expressly agreed between the parties that money damages are inadequate to compensate the Company for the Common Stock and that the Company shall, upon proper exercise of the Repurchase Option, be entitled to specific enforcement of its rights to purchase and receive said Common Stock.

(d) Governing Law; Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware. The parties agree that any action brought by either party to interpret or enforce any provision of this Agreement shall be brought in, and each party agrees to, and does hereby, submit to the jurisdiction and venue of, the appropriate state or federal court for the district encompassing the Company's principal place of business.

(e) Further Execution. The parties agree to take all such further action(s) as may reasonably be necessary to carry out and consummate this Agreement as soon as practicable, and to take whatever steps may be necessary to obtain any governmental approval in connection with or otherwise qualify the issuance of the securities that are the subject of this Agreement.

(f) Independent Counsel. Purchaser acknowledges that this Agreement has been prepared on behalf of the Company by Cooley LLP, counsel to the Company and that Cooley LLP does not represent, and is not acting on behalf of, Purchaser. Purchaser has been provided with an opportunity to consult with Purchaser's own counsel with respect to this Agreement.

(g) Entire Agreement; Amendment. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes and merges all prior agreements or understandings, whether written or oral. This Agreement may not be amended, modified or revoked, in whole or in part, except by an agreement in writing signed by each of the parties hereto.

(h) Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (i) such provision shall be excluded from this Agreement, (ii) the balance of the Agreement shall be interpreted as if such provision were so excluded and (iii) the balance of the Agreement shall be enforceable in accordance with its terms.

(i) Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act or other applicable law) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

The parties hereto have executed this Agreement as of .

COMPANY:

ALLOGENE THERAPEUTICS, INC.

By: _____

Name: _____

Title: _____

Email: _____

PURCHASER:

_____

(Signature)

_____

Name (Please Print)

_____

Email

ATTACHMENTS:

Exhibit A	Notice of Exercise
Exhibit B	Assignment Separate from Certificate
Exhibit C	Joint Escrow Instructions
Exhibit D	Form of 83(b) Election

[SIGNATURE PAGE TO EARLY EXERCISE STOCK PURCHASE AGREEMENT]

EXHIBIT A

NOTICE OF EXERCISE

ALLOGENE THERAPEUTICS, INC.
NOTICE OF EXERCISE

Allogene Therapeutics, Inc.
210 East Grand Avenue
South San Francisco, CA 94080

Date of Exercise:

This constitutes notice to **ALLOGENE THERAPEUTICS, INC.** (the "***Company***") under my stock option that I elect to purchase the below number of shares of Common Stock of the Company (the "***Shares***") for the price set forth below.

Type of option (check one):	Incentive ☐	Nonstatutory ☐
Stock option dated:	_____	_____
Number of Shares as to which option is exercised:	_____	_____
Certificates to be issued in name of:	_____	_____
Total exercise price:	$_____	$_____
Cash payment delivered herewith:	$_____	$_____

By this exercise, I agree (i) to provide such additional documents as you may require pursuant to the terms of the Amended and Restated 2018 Equity Incentive Plan, (ii) to provide for the payment by me to you (in the manner designated by you) of your withholding obligation, if any, relating to the exercise of this option, and (iii) if this exercise relates to an incentive stock option, to notify you in writing within 15 days after the date of any disposition of any of the Shares issued upon exercise of this option that occurs within two years after the date of grant of this option or within one year after such Shares are issued upon exercise of this option.

I further agree that this Notice of Exercise may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act or other applicable law) or other transmission method and shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

I hereby make the following certifications and representations with respect to the number of Shares listed above, which are being acquired by me for my own account upon exercise of the option as set forth above:

I acknowledge that the Shares have not been registered under the Securities Act of 1933, as amended (the "***Securities Act***"), and are deemed to constitute "restricted securities" under Rule 701 and Rule 144 promulgated under the Securities Act. I warrant and represent to the Company that I have no present intention of distributing or selling said Shares, except as permitted under the Securities Act and any applicable state securities laws. I further acknowledge that I will not be able to resell the Shares for

at least 90 days after the stock of the Company becomes publicly traded (*i.e.*, subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934) under Rule 701 and that more restrictive conditions apply to affiliates of the Company under Rule 144.

I further acknowledge and agree that, except for such information as required to be delivered to me by the Company pursuant to the option or the Plan (if any), I will have no right to receive any information from the Company by virtue of the grant of the option or the purchase of shares of Common Stock through exercise of the option, ownership of such shares of Common Stock, or as a result of my being a holder of record of stock of the Company. Without limiting the foregoing, to the fullest extent permitted by law, I hereby waive all inspection rights under Section 220 of the Delaware General Corporation Law and all such similar information and/or inspection rights that may be provided under the law of any jurisdiction, or any federal, state or foreign regulation, that are, or may become, applicable to the Company or the Company's capital stock (the "***Inspection Rights***"). I hereby covenant and agree never to directly or indirectly commence, voluntarily aid in any way, prosecute, assign, transfer, or cause to be commenced any claim, action, cause of action, or other proceeding to pursue or exercise the Inspection Rights.

I further agree that, if required by the Company (or a representative of the underwriters) in connection with the first underwritten registration of the offering of any securities of the Company under the Securities Act, the Shares may be subject to certain transfer restrictions during the Lock-Up Period as provided in Section 8 of the Option Terms and Conditions. I further agree to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of such period.

I further acknowledge that all certificates representing any of the Shares subject to the provisions of the option shall have endorsed thereon appropriate legends reflecting the foregoing limitations, as well as any legends reflecting restrictions pursuant to the Company's Certificate of Incorporation, Bylaws and/or applicable securities laws.

Very truly yours,

_____
(Signature)

_____
Name (Please Print)

Address of Record: _____

Email: _____

EXHIBIT B

STOCK ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and transfers unto **ALLOGENE THERAPEUTICS, INC.**, a Delaware corporation (the "***Company***"), pursuant to the Repurchase Option under that certain Early Exercise Stock Purchase Agreement, dated [ ], by and between the undersigned and the Company (the "***Agreement***") shares of Common Stock of the Company standing in the undersigned's name on the books of the Company represented by Certificate No[s] and does hereby irrevocably constitute and appoint both the Company's Secretary and the Company's attorney, or either of them, to transfer said stock on the books of the Company with full power of substitution in the premises. This Assignment may be used only in accordance with and subject to the terms and conditions of the Agreement, in connection with the repurchase of shares of Common Stock issued to the undersigned pursuant to the Agreement, and only to the extent that such shares remain subject to the Company's Repurchase Option under the Agreement.

Dated: _____
(leave blank)

_____
(Signature)

_____
Name (Please Print)

INSTRUCTION: ***Please do not fill in any blanks other than the signature line. Do not fill in the date line***. The purpose of this Assignment is to enable the Company to exercise its Repurchase Option set forth in the Agreement without requiring additional signatures on the part of Purchaser.

EXHIBIT C

JOINT ESCROW INSTRUCTIONS

, 20

Secretary
Allogene Therapeutics, Inc.

_____
_____
_____

Ladies and Gentlemen:

As Escrow Agent for both **Allogene Therapeutics, Inc.**, a Delaware corporation ("***Company***") and the purchaser listed on the signature page hereto ("***Purchaser***"), you are hereby authorized and directed to hold the documents delivered to you pursuant to the terms of that certain Early Exercise Stock Purchase Agreement dated as of ("***Agreement***"), to which a copy of these Joint Escrow Instructions is attached as an Exhibit, in accordance with the following instructions:

1. In the event Company or an assignee shall elect to exercise the Repurchase Option set forth in the Agreement, the Company or its assignee will give to Purchaser and you a written notice specifying the number of shares of stock to be acquired and the time for a closing thereunder at the principal office of the Company. Purchaser and the Company hereby irrevocably authorize and direct you to close the transaction contemplated by such notice in accordance with the terms of said notice.

2. At the closing, you are directed (a) to date the stock assignments necessary for the transfer in question, (b) to fill in the number of shares being transferred, and (c) to deliver the same, together with the certificate evidencing the shares of stock to be transferred, to the Company.

3. Purchaser irrevocably authorizes the Company to deposit with you any certificates evidencing shares of stock to be held by you hereunder and any additions and substitutions to said shares as specified in the Agreement. Purchaser does hereby irrevocably constitute and appoint you as his attorney-in-fact and agent for the term of this escrow to execute with respect to such securities all documents necessary or appropriate to make such securities negotiable and complete any transaction herein contemplated, including but not limited to any appropriate filing with state or government officials or bank officials. Subject to the provisions of this paragraph 3, Purchaser shall exercise all rights and privileges of a stockholder of the Company while the stock is held by you.

4. This escrow shall terminate and the shares of stock held hereunder shall be released in full upon the exercise or expiration in full of the Repurchase Option, whichever occurs first.

5. If at the time of termination of this escrow under Section 4 herein you should have in your possession any documents, securities, or other property belonging to Purchaser, you shall deliver all of the same to Purchaser and shall be discharged of all further obligations hereunder; provided, however, that if at the time of termination of this escrow you are advised by the Company that any property subject to this escrow is the subject of a pledge or other security agreement, you shall deliver all such property to the pledgeholder or other person designated by the Company.

6. Except as otherwise provided in these Joint Escrow Instructions, your duties hereunder may be altered, amended, modified or revoked only by a writing signed by all of the parties hereto.

7. You shall be obligated only for the performance of such duties as are specifically set forth herein and may rely and shall be protected in relying or refraining from acting on any instrument reasonably believed by you to be genuine and to have been signed or presented by the proper party or parties. You shall not be personally liable for any act you may do or omit to do hereunder as Escrow Agent or as attorney-in-fact for Purchaser while acting in good faith and in the exercise of your own good judgment, and any act done or omitted by you pursuant to the advice of your own attorneys shall be conclusive evidence of such good faith.

8. You are hereby expressly authorized to disregard any and all warnings given by any of the parties hereto or by any other person or entity, excepting only orders or process of courts of law, and are hereby expressly authorized to comply with and obey orders, judgments or decrees of any court. In case you obey or comply with any such order, judgment or decree of any court, you shall not be liable to any of the parties hereto or to any other person, firm or corporation by reason of such compliance, notwithstanding any such order, judgment or decree being subsequently reversed, modified, annulled, set aside, vacated or found to have been entered without jurisdiction.

9. You shall not be liable in any respect on account of the identity, authorities or rights of the parties executing or delivering or purporting to execute or deliver these Joint Escrow Instructions documents or papers deposited or called for hereunder.

10. You shall not be liable for the outlawing of any rights under any statute of limitations with respect to these Joint Escrow Instructions or any documents deposited with you.

11. Your responsibilities as Escrow Agent hereunder shall terminate if you shall cease to be Secretary of the Company or if you shall resign by written notice to the Company. In the event of any such termination, the Secretary of the Company shall automatically become the successor Escrow Agent unless the Company shall appoint another successor Escrow Agent, and Purchaser hereby confirms the appointment of such successor as Purchaser’s attorney-in-fact and agent to the full extent of your appointment.

12. If you reasonably require other or further instruments in connection with these Joint Escrow Instructions or obligations in respect hereto, the necessary parties hereto shall join in furnishing such instruments.

13. It is understood and agreed that should any dispute arise with respect to the delivery and/or ownership or right of possession of the securities held by you hereunder, you are authorized and directed to retain in your possession without liability to anyone all or any part of said securities until such dispute shall have been settled either by mutual written agreement of the parties concerned or by a final order, decree or judgment of a court of competent jurisdiction after the time for appeal has expired and no appeal has been perfected, but you shall be under no duty whatsoever to institute or defend any such proceedings.

14. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed telex or facsimile if sent during normal business hours of the recipient, and if not during normal business hours of the recipient, then on the next business day, (c) five (5) calendar days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written

verification of receipt. All communications shall be sent to the other party hereto at such party's address set forth below, or at such other address as such party may designate by ten (10) days advance written notice to the other party hereto.

Company: Allogene Therapeutics, Inc.

_____

_____

_____

Attn: Chief Executive Officer

Purchaser: _____

_____

_____

Escrow Agent: Allogene Therapeutics, Inc.

_____

_____

_____

Attn: Secretary

15. By signing these Joint Escrow Instructions, you become a party hereto only for the purpose of said Joint Escrow Instructions; you do not become a party to the Agreement.

16. You shall be entitled to employ such legal counsel and other experts (including, without limitation, the firm of Cooley LLP) as you may deem necessary properly to advise you in connection with your obligations hereunder. You may rely upon the advice of such counsel, and you may pay such counsel reasonable compensation therefor. The Company shall be responsible for all fees generated by such legal counsel in connection with your obligations hereunder.

17. This instrument shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns. It is understood and agreed that references to "you" and "your" herein refer to the original Escrow Agents and to any and all successor Escrow Agents. It is understood and agreed that the Company may at any time or from time to time assign its rights under the Agreement and these Joint Escrow Instructions in whole or in part.

[Remainder of page intentionally left blank]

18. These Joint Escrow Instructions shall be governed by and interpreted and determined in accordance with the laws of the State of Delaware, as such laws are applied by Delaware courts to contracts made and to be performed entirely in Delaware by residents of that state. The parties hereby expressly consent to the personal jurisdiction of the state and federal courts located in the county in which the Company has its principal offices for any lawsuit arising from or related to this Agreement.

Very truly yours,

COMPANY:

ALLOGENE THERAPEUTICS, INC.

By: _____

Name: _____

Title: _____

PURCHASER:

_____

(Signature)

_____

Name (Please Print)

ESCROW AGENT:

_____

DAVID M. TANEN, SECRETARY

[SIGNATURE PAGE TO JOINT ESCROW INSTRUCTIONS]

EXHIBIT D

83(B) ELECTION FORM AND INSTRUCTIONS FOR FILING

[THIS FORM IS DESIGNED FOR INDIVIDUAL PURCHASERS. CORPORATE OR TRUST PURCHASERS SHOULD CONTACT THEIR TAX PROFESSIONAL TO REVIEW BEFORE SUBMITTING.]

Attached is a form of election under Section 83(b) of the Internal Revenue Code and an accompanying IRS cover letter. Please fill in your social security number or taxpayer identification number and sign the election and cover letter, then proceed as follows:

(a) Make **three** copies of the completed election form and one copy of the IRS cover letter.

(b) Send the **original** signed election form and cover letter, the copy of the cover letter, and a self-addressed stamped return envelope to the Internal Revenue Service Center where you would otherwise file your tax return[1]. Even if an address for an Internal Revenue Service Center is already included in the forms below, it is your obligation to verify such address. This can be done by searching for the term "where to file" on www.irs.gov or by calling 1 (800) 829-1040.

Sending the election via certified mail, requesting a return receipt, with the certified mail number written on the cover letter is also strongly recommended.

(c) Deliver one copy of the completed election form to Allogene Therapeutics, Inc..

(d) Applicable state law may require that you attach a copy of the completed election form to your state personal income tax return(s) when you file it for the year of exercise (assuming you file a state personal income tax return).[2]

Please consult your personal tax advisor(s) to determine whether or not a copy of this Section 83(b) election should be filed with your state personal income tax return(s).

(e) Retain one copy of the completed election form for your personal permanent records.

---

1 ***Note***: Per Treasury Regulation § 1.83-2(c), the Section 83(b) election must be filed with the IRS office where the person otherwise files his or her tax return. As of October 2016, if you live in a foreign country or are a dual status alien (foreigners that will have lived both in their home country and the United States during the year in which they make the election) you should send the 83(b) election to Austin, TX 73301-0215. You can verify this is still the correct address at: http://www.irs.gov/uac/Where-to-File-Addresses-for--Taxpayers-and--Tax-Professionals-Filing-Form-1040.

2 ***Note***: Pursuant to Treasury Regulations finalized in July 2016 (Treas. Reg. § 1.83-2(c); T.D. 9779), taxpayers are no longer required to submit a copy of a Code Sec. 83(b) election with their ***federal*** personal income tax returns for the year in which the property subject to the election was transferred. However, you are strongly encouraged to retain a copy of the completed election form and the IRS filed-stamped copy of your cover letter along with a copy of the federal personal income tax return for the year in which the property subject to the election was transferred for your personal permanent records in case you ever need to demonstrate proper and timely filing (a common requirement imposed by acquirers in M&A transactions).

Note: An additional copy of the completed election form must be delivered to the transferee (recipient) of the property if the service provider and the transferee are not the same person.

Please note that the election must be filed with the IRS within 30 days of the date of your restricted stock grant. Failure to file within that time will render the election void and you may recognize ordinary taxable income as your vesting restrictions lapse. The Company and its counsel cannot assume responsibility for failure to file the election in a timely manner under any circumstances.

SECTION 83(b) ELECTION

, 201

Department of the Treasury
Internal Revenue Service
[City, State Zip][3]

Re: Election Under Section 83(b) of the Code

Ladies and Gentlemen:

The undersigned taxpayer hereby elects, pursuant to Section 83(b) of the Internal Revenue Code of 1986, as amended, to include in gross income as compensation for services the excess (if any) of the fair market value of the shares described below over the amount paid for those shares. The following information is supplied in accordance with Treasury Regulation § 1.83-2:

1. **The name, social security number, address of the undersigned, and the taxable year for which this election is being made are:**

   Name: _____
   Social Security Number: _____
   Address: _____
   _____

   Taxable year: Calendar year 201 .[4]

2. **The property that is the subject of this election:** [#] shares of common stock of Allogene Therapeutics, Inc., a Delaware corporation (the "***Company***").

3. **The property was transferred on:** [●], 201 .

4. **The property is subject to the following restrictions:** Some or all of the shares are subject to forfeiture or repurchase at less than their fair market value if the undersigned does not continue to provide services for the Company for a designated period of time. The risk of forfeiture or repurchase lapses over a specified vesting period.

5. **The fair market value of the property at the time of transfer (determined without regard to any restriction other than a nonlapse restriction as defined in Treasury Regulation § 1.83-3(h)):** $[●] per share x [#] shares = $[●]

6. **For the property transferred, the undersigned paid:** $[●] per share x [#] shares = $[●].

---

3 ***Note***: Per Treasury Regulation § 1.83-2(c), the Section 83(b) election must be filed with the IRS office where the person otherwise files his or her tax return. Assuming these are individual taxpayers who would file a Form 1040, see http://www.irs.gov/uac/Where-to-File-Addresses-for—Taxpayers-and—Tax-Professionals-Filing-Form-1040. Use the address in the row which includes the state in which the service provider lives and in the column entitled "And you ARE NOT enclosing a payment".

4 ***Note***: If an entity is the service provider, instead use "Fiscal year ending ."

7. The amount to include in gross income is: $[●].[5]

The undersigned taxpayer will file this election with the Internal Revenue Service office with which taxpayer files his or her annual income tax return not later than 30 days after the date of transfer of the property. A copy of the election also will be furnished to the person for whom the services were performed and the transferee of the property. Additionally, the undersigned will include a copy of the election with his or her income tax return for the taxable year in which the property is transferred. The undersigned is the person performing the services in connection with which the property was transferred.

Very truly yours,

_____

[Name]

5 ***Note***: This should equal the amount in Item 5 minus the amount in Item 6, and in many cases will be $0.00.

RETURN SERVICE REQUESTED

Department of the Treasury
Internal Revenue Service
[City, State, ZIP]

Re: **Election Under Section 83(b) of the Internal Revenue Code**

Dear Sir or Madam:

Enclosed please find an executed form of election under Section 83(b) of the Internal Revenue Code of 1986, as amended, filed with respect to an interest in Allogene Therapeutics, Inc.

Also enclosed is a copy of the signed form of election under Section 83(b). Please acknowledge receipt of these materials by marking the copy when received and returning it in the enclosed stamped, self-addressed envelope.

Thank you very much for your assistance.

Very truly yours,

_____
[Name]

Enclosures

Exhibit 10.6

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

RESEARCH COLLABORATION AND LICENSE AGREEMENT

BY AND BETWEEN

PFIZER INC.

AND

CELLECTIS SA

JUNE 17, 2014

TABLE OF CONTENTS

EXHIBITS

Exhibit 1: Pfizer anti-bribery and anti-corruption principles

SCHEDULES

Schedule 1.52: Expected Subcontractors
Schedule 2.6.1: Research Plan

Schedule 8.2.1: In-Licensed Patent Right comprised in the Cellectis Technology
Schedule 8.2.3: Cellectis Patent Rights
Schedule 8.2.4
Schedule 8.2.8
Schedule 8.2.9
Schedule 8.2.10 Disclosed Third Party Agreement

RESEARCH COLLABORATION AND LICENSE AGREEMENT

This Research Collaboration and License Agreement (the "**Agreement**") is entered into as of June 17, 2014 (the "**Effective Date**"), by and among Pfizer Inc., a corporation organized and existing under the laws of the State of Delaware and having a place of business at 235 East 42nd Street, New York, New York, 10017 United States ("**Pfizer**") and Cellectis SA, a corporation organized and existing under the laws of France and having a place of business at 8 rue de la Croix Jarry, 75013 Paris, France ("**Cellectis**"). Pfizer and Cellectis may each be referred to herein individually as a "**Party**" and collectively as the "**Parties.**"

WHEREAS, Pfizer is engaged in the research, development and commercialization of pharmaceutical and health care products and has developed and owns proprietary rights to certain technology related to protein engineering and target validation;

WHEREAS, Cellectis has developed and controls proprietary rights to certain technology relating to adoptive immunotherapy CAR T-cell and genome engineering technologies; and

WHEREAS, Pfizer and Cellectis desire to collaborate to discover and research novel CAR-Ts active against certain designated targets and to provide for Pfizer to further research, develop, manufacture and commercialize such CAR-Ts and products containing such CAR-Ts, as provided for herein.

NOW THEREFORE, in consideration of the mutual promises and covenants set forth below and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

1. DEFINITIONS.

When used in this Agreement, the following capitalized terms will have the meanings set forth in this Article 1. Any terms defined elsewhere in this Agreement will be given equal weight and importance as though set forth in Article 1.

1.1. "**Additional Third Party Licenses**" is defined in Section 5.4.2(b).

1.2. "**Affiliate**" means, with respect to any Person, any other Person that controls, is controlled by or is under common control with such Person. A Person will be regarded as in control of another entity if it owns or controls at least fifty percent (50%) of the equity securities of the subject entity entitled to vote in the election of directors (or, in the case of an entity that is not a corporation, for the election of the corresponding managing authority), provided, however, that the term "**Affiliate**" will not include subsidiaries or other entities in which a Party or its Affiliates owns a majority of the ordinary voting power necessary to elect a majority of the board of directors or other managing authority, but is restricted from electing such majority by contract or otherwise, until such time as such restrictions are no longer in effect.

1.3. "**Agreement**" is defined in the introduction to this Agreement.

1.4. "**Agreement CAR-T**" means any CAR-T utilizing the Cellectis Technology that is identified, created or developed Targeting a Pfizer Target.

1.5. "**Alliance Manager**" is defined in Section 2.8.

1.6. "**Annual Net Sales**" means, with respect to any Pfizer Licensed Product in a Pfizer Year during the applicable Royalty Term for such Pfizer Licensed Product, the aggregate Net Sales by Pfizer, its Affiliates and its Sublicensees from the sale of such Pfizer Licensed Product in the Territory during such Pfizer Year.

1.7. "**Applicable Law**" means the laws, statutes, rules, regulations, guidelines, or other requirements that may be in effect from time to time and apply to a Party's activities to be performed under this Agreement, including any such laws, statutes, rules, regulations, guidelines, or other requirements of the FDA or the EMA.

1.8. "**Applicable Pfizer Technology**" means any (a) Know-How Controlled by Pfizer or its Affiliates that was invented, discovered or developed during the Term and in connection with Pfizer's or its Affiliates' activities under the Agreement and (b) Patent Rights Controlled by Pfizer or its Affiliates as of the date of Termination, to the extent that such Patent Right claims any Know-How described in clause (a) above, to the extent that such Know-How and Patent Rights are necessary for the further development, manufacture and commercialization of Continuation Products

1.9. [***]

1.10. "**Binding Obligation**" means, with respect to a Party (a) any oral or written agreement or arrangement that binds or affects such Party's operations or property, including any assignment, license agreement, loan agreement, guaranty, or financing agreement; (b) the provisions of such Party's charter, bylaws or other organizational documents or (c) any order, writ, injunction, decree or judgment of any court or Governmental Authority entered against such Party or by which any of such Party's operations or property are bound.

1.11. "**Biosimilar Biologic Product**" is defined in Section 5.4.2(a).

1.12. "**Biosimilar Notice**" means a copy of any application submitted by a Third Party to the FDA under 42 U.S.C. § 262(k) of the PHS Act (or, in the case of a country of the Territory outside the United States, any similar law) for Regulatory Approval of a biological product, which application identifies a Pfizer Licensed Product as the reference product with respect to such product, and other information that describes the process or processes used to manufacture the biological product.

1.13. "**BLA**" means a Biologics License Application filed with the FDA in the United States with respect to a Licensed Product, as defined in Title 21 of the U.S. Code of Federal Regulations, Section 601.2 et. seq.

1.14. "**Business Day**" means a day other than a Saturday, a Sunday or a day that is a national holiday in the United States.

1.15. "**Calendar Quarter**" means the respective periods of three (3) consecutive calendar months ending on March 31, June 30, September 30 or December 31, for so long as this Agreement is in effect.

1.16. "**Calendar Year**" means each successive period of twelve (12) calendar months commencing on January 1 and ending on December 31.

1.17. "**CAR**" means a chimeric antigen receptor expressed from an experimentally validated Cellectis viral construct with specific molecular architecture and signaling domain sequences.

1.18. "**CAR-T**" means a population of T-cells with a unique set of experimentally validated biologic attributes expressing a CAR construct produced using Cellectis Technology.

1.19. [***]

1.20. [***]

1.21. "**Cellectis CAR-T Developed IP**" means Developed IP directed to the manufacture, composition or use of CAR-Ts Targeting a Cellectis Program Target.

1.22. "**Cellectis Diligence Obligation**" is defined in Section 3.2.4.

1.23. "**Cellectis Improvement**" [***]

1.24. "**Cellectis Indemnified Party**" is defined in Section 10.2.

1.25. "**Cellectis Insolvency Event**" means the occurrence of any of the following: (a) a case is commenced by or against Cellectis under applicable bankruptcy, insolvency or similar laws, (b) Cellectis files for or is subject to the institution of bankruptcy, reorganization, liquidation, receivership or similar proceedings, (c) Cellectis assigns all or a substantial portion of its assets for the benefit of creditors, (d) a receiver or custodian is appointed for Cellectis' business, (e) a substantial portion of Cellectis' business is

subject to attachment or similar process, (f) Cellectis suspends or threatens to suspend making payments with respect to all or any class of its debts or (g) anything analogous to any of the events described in the foregoing clauses (a) through (f) occurs under the laws of any applicable jurisdiction.

1.26. "**Cellectis Know-How**" means any Know-How comprised in the Cellectis Technology that is introduced into the Research Program by Cellectis pursuant to the applicable Research Plan.

1.27. "**Cellectis Non-Compete Period**" is defined in Section 2.1.4.

1.28. "**Cellectis Patent Right**" means any Patent Right comprised in the Cellectis Technology. The Cellectis Patent Rights existing as of the Effective Date include those set forth on Schedule 8.2.3 attached hereto.

1.29. "**Cellectis Product**" means any product incorporating a CAR-T Targeting a Cellectis Program Target which would infringe a Valid Claim of any Licensed Pfizer Intellectual Property in the absence of the Licenses from Pfizer pursuant to Section 4.2 or that is claimed or covered by, or was made using or otherwise incorporates, any Pfizer Intellectual Property or Developed IP.

1.30. "**Cellectis Program Target**" means [***], plus any additional Cellectis Program Targets added to the Agreement pursuant to Section 2.2.

1.31. "**Cellectis Technology**" [***]

1.32. "**Cellectis Third Party Agreement**" means any agreement between Cellectis and any Third Party under which Cellectis obtains rights in or to any Cellectis Licensed Intellectual Property.

1.33. "**Change of Control**" means, with respect to a Party, (a) a merger, reorganization or consolidation of such Party with a Third Party which results in the voting securities of such Party outstanding immediately prior thereto ceasing to represent at least fifty (50%) of the combined voting power of the surviving entity immediately after such merger, reorganization or consolidation, (b) a Third Party becoming the beneficial owner of fifty (50%) or more of the combined voting power of the outstanding securities of such Party or (c) the sale or other transfer to a Third Party of all or substantially all of such Party's business or assets to which this Agreement relates.

1.34. "**Change Order**" is defined in Section 2.6.3.

1.35. "**Combination Product**" means a Pfizer Licensed Product containing an Agreement CAR-T and one or more other therapeutically active ingredients.

1.36. "**Commercialization**" or "**Commercialize**" means activities directed to marketing, promoting, distributing, importing, exporting, using for commercial purposes or selling or having sold a Pfizer Licensed Product. Commercialization will not include any activities related to Manufacturing or Development.

1.37. "**Commercially Reasonable Efforts**" means [***]

1.38. "**Confidential Information**" of a Party means all Know-How or other information, including proprietary information and materials (whether or not patentable) regarding such Party's technology, products, business or objectives, that is communicated in any way or form by the Disclosing Party to the Receiving Party, either prior to or after the Effective Date of this Agreement (including any information disclosed pursuant to the Confidentiality Agreement), and whether or not such Know-How or other information is identified as confidential at the time of disclosure. The terms and conditions of this Agreement will be deemed to be the Confidential Information of each Party. Cellectis Improvements will be deemed to be the Confidential Information of Cellectis. Pfizer Improvements will be deemed to be the Confidential Information of Pfizer. Developed IP will be deemed to be the Confidential Information of each Party, except that CAR-T Developed IP, upon assignment thereof to Pfizer pursuant to Section 6.1.1(d), will be deemed to be the Confidential Information solely of Pfizer.

1.39. "**Confidentiality Agreement**" means that certain Confidentiality Agreement between the Parties dated March 31, 2014.

1.40. "**Continuation Product**" is defined in Section 9.7.4(c).

1.41. "**Control**" or "**Controlled**" means, with respect to any (a) item of information, including Know-How, or (b) intellectual property right, the possession (whether by ownership interest or license, other than pursuant to this Agreement) by a Party of the ability to grant to the other Party access to or a license under such item or right, as provided herein, without violating the terms of any agreement or other arrangements with any Third Party.

1.42. "**Develop**" or "**Development**" means to discover, research or otherwise develop a product, including conducting any pre-clinical, non-clinical or clinical research and any drug development activity, including discovery, research, toxicology, pharmacology and other similar efforts, test method development and stability testing, manufacturing process development, formulation development, delivery system development, quality assurance and quality control development, statistical analysis, clinical studies (including pre- and post-approval studies), development of diagnostic assays in connection with clinical studies, and all activities directed to obtaining any Regulatory Approval, including any marketing, pricing or reimbursement approval.

1.43. "**Developed IP**" [***]

1.44. "**Development Milestone**" is defined in Section 5.3.1.

1.45. "**Development Milestone Payment**" is defined in Section 5.3.1.

1.46. "**Diligence Issue**" is defined in Section 3.2.5.

1.47. "**Disclosed Third Party Agreement**" is defined in Section 8.2.10(a).

1.48. "**Disclosing Party**" is defined in Section 7.1.

1.49. "**Effective Date**" is defined in the introduction to this Agreement.

1.50. [***]

1.51. "**EMA**" means the European Medicines Agency, or any successor agency thereto.

1.52. "**Expected Subcontractors**" means the subcontractor or contractors listed in Schedule 1.52, that Cellectis is using, or intends to use, as of the Effective Date, to engage for the performance any Research Plan Services or Research Program activities

1.53. "**FD&C Act**" means the United States Federal Food, Drug, and Cosmetic Act (21 U.S.C. § 301 et seq.), as amended, and the rules and regulations promulgated thereunder.

1.54. "**FDA**" means the United States Food and Drug Administration or any successor agency thereto.

1.55. "**Field**" means human oncologic therapeutic, diagnostic, prophylactic and prognostic purposes.

1.56. "**First Commercial Sale**" means, with respect to any Pfizer Licensed Product and any country of the world, the first sale of such Pfizer Licensed Product under this Agreement by Pfizer, its Affiliates or its Sublicensees to a Third Party in such country, after such Pfizer Licensed Product has been granted Regulatory Approval by the competent Regulatory Authorities in such country.

1.57. [***]

1.58. "**FTE**" means a full time equivalent scientific person (with B.S., M.S. or Ph.D. level or equivalent degrees, including laboratory technicians with exams recognized according to European standards) year, consisting of a minimum of a total of [***] of scientific work directly related to and in support of the Research Program by an employee of Cellectis or any of its Affiliates.

1.59. "**FTE Rate**" means [***] per FTE.

1.60. "**GAAP**" means United States generally accepted accounting principles, consistently applied.

1.61. "**Generic Competition**" is defined in Section 5.4.2(a).

1.62. "**Governmental Authority**" means any court, agency, department, authority or other instrumentality of any national, state, county, city or other political subdivision.

1.63. "**IND**" means an Investigational New Drug Application, as defined in the FD&C Act, that is required to be filed with the FDA before beginning clinical testing of a Pfizer Licensed Product or Cellectis Product, as applicable, in human subjects, or an equivalent foreign filing.

1.64. "**Indemnified Party**" is defined in Section 10.4.1.

1.65. "**Indemnifying Party**" is defined in Section 10.4.1.

1.66. "**Joint Developed IP**" is defined in Section 6.1.1(c).

1.67. "**Joint Patent Right**" is defined in Section 6.2.1(d).

1.68. "**Joint Research Committee**" or "**JRC**" is defined in Section 2.7.1.

1.69. "**Know-How**" means any proprietary invention, discovery, data, information, process, method, technique, material, technology, result or other know-how, whether or not patentable.

1.70. "**Law**" means any law, statute, rule, regulation, order, judgment or ordinance of any Governmental Authority.

1.71. "**Liability**" is defined in Section 10.2.

1.72. "**License**" is defined in Section 4.1.1.

1.73. "**Licensed Cellectis Intellectual Property**" means any and all intellectual property (including Patent Rights and Know-How) Controlled by Cellectis, including the Cellectis Technology, the Cellectis Improvements and Cellectis' interest in the Developed IP, for Pfizer to make, have made, use, have used, sell, have sold, offer for sale, have offered for sale, import, have imported and otherwise exploit and Commercialize Pfizer Licensed Products.

1.74. "**Licensed Pfizer Intellectual Property**" means any and all Pfizer Technology, Pfizer Improvement, and Pfizer's interest in the Developed IP, for Cellectis to make, have made, use, have used, sell, have sold, offer for sale, have offered for sale, import, have imported and otherwise exploit and Commercialize Cellectis Products.

1.75. "**Litigation Conditions**" is defined in Section 10.4.2.

1.76. "**MAA**" means an application with the EMA seeking Regulatory Approval of a Licensed Product in Europe using the EMA's centralized procedure.

1.77. "**Major EU Market Country**" means any of [***].

1.78. "**Major Market Country**" means any Major EU Market Country [***].

1.79. "**Manufacturing**" or "**Manufacture**" means activities directed to making, producing, manufacturing, processing, filling, finishing, packaging, labeling, quality assurance testing and release, shipping or storage of a product.

1.80. "**Marginal Royalty Rates**" is defined in Section 5.4.

1.81. [***]

1.82. "**Misuse**" means any use of Cellectis Confidential Information or Know-How by Pfizer in violation of Pfizer's non-use obligations pursuant to this Agreement or outside the scope of the licenses granted hereunder. For the avoidance of doubt, "**Misuse**" will not include Pfizer's disclosure of Cellectis Confidential Information to any Third Party in violation of Section 7.

1.83. "**Necessary**" is defined in Section 5.4.2(b).

1.84. "**Net Sales**" means, [***]

[***]

1.85. "**Non-Disclosing Party**" is defined in Section 7.3.2.

1.86. "**Notice of Dispute**" is defined in Section 11.10.1.

1.87. "**Other Cellectis Target**" means [***], plus any additional Other Cellectis Targets added to the Agreement pursuant to Section 2.3.

1.88. "**Party**" and "**Parties**" is defined in the introduction to this Agreement.

1.89. "**Patent Rights**" means any and all (a) patents, (b) pending patent applications, including all provisional applications, substitutions, continuations, continuations-in-part, divisions and renewals, and all patents granted thereon, (c) all patents-of-addition, reissues, reexaminations and extensions or restorations by existing or future extension or restoration mechanisms, including patent term extensions, supplementary protection certificates or the equivalent thereof, (d) inventor's certificates, (e) any other form of government-issued right substantially similar to any of the foregoing and (f) all United States and foreign counterparts of any of the foregoing. The Patent Rights owned by either Party include any Patent Right assigned to such Party pursuant to the provisions of this Agreement.

1.90. "**Person**" means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, incorporated association, joint venture or similar entity or organization, including a government or political subdivision or department or agency of a government.

1.91. "**Pfizer**" is defined in the introduction to this Agreement.

1.92. "**Pfizer CAR-T Developed IP**" [***]

1.93. "**Pfizer Diligence Obligation**" is defined in Section 3.2.4.

1.94. "**Pfizer Improvements**" [***]

1.95. "**Pfizer Indemnified Party**" is defined in Section 10.3.

1.96. "**Pfizer Know-How**" means any Know-How comprised in the Pfizer Technology.

1.97. "**Pfizer Licensed Product**" means any product containing an Agreement CAR-T that is claimed or covered by, or was made using or otherwise incorporates, any Licensed Cellectis Intellectual Property.

1.98. "**Pfizer Patent Right**" means any Patent Right comprised in the Pfizer Technology.

1.99. "**Pfizer Proprietary Materials**" means any and all biological (including any Antibodies) and other materials Controlled by Pfizer and provided by Pfizer to Cellectis under this Agreement.

1.100. "**Pfizer Quarter**" means each of the four thirteen week periods (a) with respect to the United States, commencing on January 1 of any Pfizer Year and (b) with respect to any country in the Territory other than the United States, commencing on December 1 of any Pfizer Year.

1.101. "**Pfizer Target**" means [***], plus any additional Pfizer Targets added to the Agreement pursuant to Section 2.1.

1.102. "**Pfizer Technology**" means [***]

1.103. "**Pfizer Year**" means the 12 month fiscal periods observed by Pfizer (a) commencing on January 1 with respect to the United States and (b) commencing on December 1 with respect to any country in the Territory other than the United States.

1.104. “**Phase I Clinical Trial**” means a study of a Pfizer Licensed Product in human subjects or patients with the endpoint of determining initial tolerance, safety, metabolism or pharmacokinetic information and clinical pharmacology of such product as and to the extent defined for the United States in 21 C.F.R. § 312.21(a), or its successor regulation, or the equivalent regulation in any other country. A so-called Phase I/II Clinical Trial will be deemed to be a Phase I Clinical Trial unless such study, when completed, allows Pfizer to proceed directly to a Phase III Clinical Trial.

1.105. “**Phase II Clinical Trial**” means a study of a Pfizer Licensed Product in human patients to determine the safe and effective dose range in a proposed therapeutic indication as and to the extent defined for the United Sates in 21 C.F.R. § 312.21(b), or its successor regulation, or the equivalent regulation in any other country.

1.106. “**Phase III Clinical Trial**” means a study of a Pfizer Licensed Product in human patients with a defined dose or a set of defined doses of a Pfizer Licensed Product designed to (a) ascertain efficacy and safety of such Pfizer Licensed Product for its intended use; (b) define warnings, precautions and adverse reactions that are associated with the Pfizer Licensed Product in the dosage range to be prescribed; and (c) support preparing and submitting applications for Regulatory Approval to the competent Regulatory Authorities in a country of the world, as and to the extent defined for the United States in 21 C.F.R.§ 312.21(c), or its successor regulation, or the equivalent regulation in any other country.

1.107. “**PHS Act**” means the United States Public Health Service Act, as amended, and the rules and regulations promulgated thereunder.

1.108. “**Price Approval**” means, in any country where a Governmental Authority authorizes reimbursement for, or approves or determines pricing for, pharmaceutical products, receipt (or, if required to make such authorization, approval or determination effective, publication) of such reimbursement authorization or pricing approval or determination (as the case may be)

1.109. “**Receiving Party**” is defined in Section 7.1.

1.110. “**Regulatory Approval**” means all technical, medical and scientific licenses, registrations, authorizations and approvals (including approvals of BLAs, MAAs, supplements and amendments, pre- and post- approvals, pricing and Third Party reimbursement approvals, and labeling approvals) of any Regulatory Authority, necessary for the use, Development, Manufacture and Commercialization of a pharmaceutical product in a regulatory jurisdiction. For the sake of clarity, Regulatory Approval will not be achieved for a Pfizer Licensed Product in a country until all applicable Price Approvals have also been obtained by Pfizer, its Affiliates, sublicensees or distributors, where applicable, for such Pfizer Licensed Product in such country.

1.111. “**Regulatory Approval Application**” means any application submitted to an appropriate Regulatory Authority seeking any Regulatory Approval.

1.112. "**Regulatory Authority**" means, with respect to any national, supra-national, regional, state or local regulatory jurisdiction, any agency, department, bureau, commission, council or other governmental entity involved in the granting of a Regulatory Approval for such jurisdiction.

1.113. "**Representative**" is defined in Section 7.2.1.

1.114. "**Research Plan**" is defined in Section 2.6.1.

1.115. "**Research Plan Services**" is defined in Section 2.6.2.

1.116. "**Research Program**" is defined in Section 2.5.

1.117. "**Research Project**" is defined in Section 2.6.1.

1.118. "**Research Term**" means four (4) years from the Effective Date.

1.119. "**Royalty Term**" means, on a Pfizer Licensed Product-by-Pfizer Licensed Product and country-by-country basis, the period of time from the First Commercial Sale of such Pfizer Licensed Product in such country until the later of (i) the expiration of the last Valid Claim that would, but for the license to or ownership by Pfizer hereunder, be infringed by the sale of such Pfizer Licensed Product in such country; (ii) the loss of regulatory exclusivity for the Pfizer Licensed Product in such country or (iii) the tenth (10th) anniversary of the date of the First Commercial Sale of such Pfizer Licensed Product in such country, but in no event later than the twentieth (20th) anniversary of the date of the First Commercial Sale in any country.

1.120. "**Sales Milestone**" is defined in Section 5.3.2.

1.121. "**Sales Milestone Payment**" is defined in Section 5.3.2.

1.122. "**Sales Threshold**" is defined in Section 5.3.2.

1.123. "**SEC**" means the United States Securities and Exchange Commission.

1.124. "**Servier Agreement**" means that certain Research, Product Development, Option, License and Commercialization Agreement by and between Servier and Cellectis dated February 17, 2014.

1.125. "**Servier Targets**" means [***], and the five other targets set forth in the Servier Agreement.

1.126. "**Subcontractors**" is defined in Section 2.13.

1.127. "**Sublicensee**" means any Person to whom Pfizer grants or has granted, directly or indirectly, a sublicense of rights licensed by Cellectis to Pfizer under this Agreement, in accordance with the provisions of this Agreement.

1.128. "[***] **Patent Rights**" means the Patent Rights set forth on Schedule 8.23 under the headings: CELLECTIS Patent Portfolio on [***], In-licensed Patent applications from [***], In-Licensed patent applications from [***], In-Licensed Patent applications from [***] and In-Licensed from [***]. The value attributed to the [***] Patent Rights corresponds to [***] of the total value of the Cellectis Technology.

1.129. "**Target**" means (a) a specific biological molecule that is identified by a GenBank accession number or similar information, or by its amino acid or nucleic acid sequence, and (b) any biological molecule substantially similar in amino acid or nucleic acid sequence that has substantially the same biological function as a molecule disclosed in clause (a), including any naturally occurring mutant or allelic variant of a molecule disclosed in clause (a), including naturally occurring variants, mutants, transcriptional and post-transcriptional isoforms (e.g., alternative splice variants), and post-translational modification variants (e.g., protein processing, maturation and glycosylation variants); and (c) truncated forms (including fragments thereof) which have a biological function substantially similar to that of any biological molecules disclosed in clause (a) or clause (b).

1.130. "**Target Designation Date**" means, with respect to the original Cellectis Program Target, Other Cellectis Targets and Pfizer Targets, the Effective Date, and with respect to additional Pfizer Targets, Cellectis Program Targets and Other Cellectis Target designated pursuant to Section 2.4, such date as provided in Section 2.4.

1.131. "**Targeting**" means, when used to describe the relationship between a molecule and a Target, that the molecule (a) binds to the Target (or a portion thereof) and (b) is designed or being developed to exert its biological effect in whole or in part through binding to such Target (or such portion thereof).

1.132. "**Term**" is defined in Section 9.2.

1.133. "**Terminated Pfizer Licensed Product**" is defined in Section 9.7.2(b).

1.134. "**Terminated Target**" is defined in Section 9.7.2.

1.135. "**Territory**" means the entire world.

1.136. "**Third Party**" means any Person other than Pfizer, Cellectis or their respective Affiliates.

1.137. "**Third Party Claim**" is defined in Section 10.4.1.

1.138. "**Trademark**" means any trademark, trade dress, design, logo, slogan, house mark or name used in connection with the Commercialization of any Pfizer Licensed Product by Pfizer or its Affiliates or Sublicensees hereunder, including any registration or application for registration of any of the foregoing.

1.139. "**Useful**" is defined in Section 5.4.2(b).

1.140. "**Valid Claim**" means, with respect to a particular country, a claim of an issued and unexpired patent right included within the Licensed Intellectual Property or Developed IP that (i) has not been held permanently revoked, unenforceable or invalid by a decision of a court or other governmental authority of competent jurisdiction, which decision is unappealed or unappealable within the time allowed for appeal, and (ii) has not been cancelled, withdrawn, abandoned, disclaimed or admitted to be invalid or unenforceable through reissue, disclaimer or otherwise. A Pfizer Licensed Product is "**Covered**" by a Valid Claim if its referenced activity by Pfizer or its Sublicensees would, but for the licenses granted by Cellectis under this Agreement, infringe such Valid Claim.

1.141. [***]

1.142. **Construction**. Except where the context expressly requires otherwise, (a) the use of any gender herein will be deemed to encompass references to either or both genders, and the use of the singular will be deemed to include the plural (and vice versa), (b) the words "include", "includes" and "including" will be deemed to be followed by the phrase "without limitation," (c) the word "will" will be construed to have the same meaning and effect as the word "shall," (d) any definition of or reference to any agreement, instrument or other document herein will be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (e) any reference herein to any Person will be construed to include the Person's successors and assigns, (f) the words "herein", "hereof" and "hereunder", and words of similar import, will be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (g) all references herein to sections or exhibits will be construed to refer to sections or exhibits of this Agreement, and references to this Agreement include all exhibits hereto, (h) the word "notice" means notice in writing (whether or not specifically stated) and will include notices, consents, approvals and other written communications contemplated under this Agreement, (i) provisions that require that a Party, the Parties or any committee hereunder "agree," "consent" or "approve" or the like will require that such agreement, consent or approval be specific and in writing, whether by written agreement, letter, approved minutes or otherwise (but excluding e-mail and instant messaging), (j) references to any specific law, rule or regulation, or article, section or other division thereof, will be deemed to include the then-current amendments thereto or any replacement or successor law, rule or regulation thereof, (k) any definition of or reference to any agreement, instrument or other document herein will be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), and (l) the term "or" will be interpreted in the inclusive sense commonly associated with the term "and/or."

2. RESEARCH PROGRAM.

2.1 Selection of Pfizer Targets.

2.1.1 **Pfizer Targets**. Pfizer hereby designates [***] as the initial Pfizer Targets for the first six Pfizer Research Projects.

2.1.2 **Additional Pfizer Target Right**. Pfizer will have the right following each anniversary of the Effective Date during the Research Term to add up to three additional Pfizer Targets under this Agreement, subject to availability of such Target, as set forth in Section 2.4 below.

2.1.3 **Exclusivity of Pfizer Targets**. Subject to Sections 3.2.6 and 4.5, during the Term of this Agreement, for each Pfizer Target, except as set forth in a Research Plan, neither Cellectis nor any of its Affiliates will (a) grant, or seek to grant, any right under any Cellectis Technology, Cellectis Improvements, Pfizer Improvements licensed to Cellectis pursuant to Section 4.2.3 or Developed IP to any Third Party with respect to such Pfizer Target or (b) use any Cellectis Technology, Cellectis Improvements, Pfizer Improvements licensed to Cellectis pursuant to Section 4.2.3 or Developed IP to Develop (itself or through or with a Third Party) or Commercialize CAR-Ts Targeting such Pfizer Target.

2.1.4 **CAR-T Exclusivity**. Except to the extent required of Cellectis pursuant to the Servier Agreement, until the earlier of (i) completion or termination of the Research Term or (ii) the filing by Cellectis of an IND for a Cellectis Program Target or Other Cellectis Target (together the "**Cellectis Non-Compete Period**"), neither Cellectis nor any of its Affiliates will grant, or seek to grant, any right under any Cellectis Technology, Cellectis Improvements, Pfizer Improvements licensed to Cellectis pursuant to Section 4.2.3 or Developed IP to any Third Party to Develop or Commercialize CAR-Ts in the Field, other than academic institutions solely for internal academic non-profit research, non-commercial research collaborations, and subcontractors of Cellectis and its Affiliates. For clarity, in the event that Cellectis files an IND for a product for a Cellectis Program Target or Other Cellectis Target the Cellectis Non-Compete Period will terminate at such time for such Cellectis Program Target or Other Cellectis Target, but will remain in effect for all other Targets, including the remaining Cellectis Program Target or Other Cellectis Target, pursuant to terms of this Section 2.1.4.

2.2 Selection of Cellectis Program Targets.

2.2.1 **Cellectis Program Targets**. Cellectis hereby designates [***] as the initial Cellectis Program Target for the first Cellectis Research Project.

2.2.2 **Additional Cellectis Program Target Right**. Cellectis will have the right following each anniversary of the Effective Date during the Research Term to add

an additional Cellectis Program Target under this Agreement, subject to availability of such Target, as set forth in Section 2.4 below.

2.2.3 **Exclusivity of Cellectis Program Targets**. During the Research Term, until the earlier of (i) completion or termination of the Research Term or (ii) the filing by Cellectis of an IND for a Cellectis Program Target (together the "**Cellectis Program Target Non-Compete Period**"), neither Pfizer nor any of its Affiliates will (a) grant, or seek to grant, any right under any Pfizer Technology, Pfizer Improvements, Cellectis Improvements licensed to Pfizer pursuant to Section 4.1.2 or Developed IP Controlled by Pfizer to any Third Party with respect to such Cellectis Program Target in the Field or (b) use any Pfizer Technology, Pfizer Improvements, Cellectis Improvements licensed to Pfizer pursuant to Section 4.1.2 or Developed IP Controlled by Pfizer to Develop (itself or through or with a Third Party) or Commercialize T-cells expressing a chimeric antigen receptor construct Targeting such Cellectis Program Target in the Field. For clarity, in the event that Cellectis files an IND for a product for a Cellectis Program Target or enters into an agreement with a Third Party related to such Cellectis Program Target, other than academic institutions solely for internal academic non-profit research, non-commercial research collaborations, or subcontractors for a Cellectis Program Target then the Cellectis Program Target Non-Compete Period will terminate at such time for such Cellectis Program Target, but will remain in effect for all other Cellectis Program Targets, pursuant to terms of this Section 2.2.3.

2.3 **Selection of Other Cellectis Targets.**

2.3.1 **Other Cellectis Targets**. Cellectis hereby designates [***] as the initial Other Cellectis Targets.

2.3.2 **Additional Other Cellectis Target Right**. Cellectis will have the right following each anniversary of the Effective Date during the Research Term to add up to two additional Other Cellectis Targets under this Agreement, subject to availability of such Target, as set forth in Section 2.4 below.

2.4 **Target Selection Process**. On or within 10 days of each anniversary of the Effective Date during the Research Term (including the 3rd anniversary of the Effective Date), Pfizer and Cellectis will meet, either in person or by phone, to designate additional Targets as either Pfizer Targets, Cellectis Program Targets, or Other Cellectis Targets ("each such date a "**Target Designation Date**"). The order of designation will be, subject to the limitations set forth in Sections 2.2.2 and 2.3.2: (i) Pfizer designates a Pfizer Target, (ii) Cellectis designates a Cellectis Target (either a Cellectis Program Target or an Other Cellectis Target) (iii) Pfizer designates a Pfizer Target, (iv) Cellectis designates a Cellectis Target (either a Cellectis Program Target or an Other Cellectis Target), (v) Pfizer designates a Pfizer Target and (vi) Cellectis designates a Cellectis Target (either a Cellectis Program Target or an Other Cellectis Target). The Parties hereby acknowledge and agree that neither Party will be able to designate a Target as a Pfizer Target, Cellectis Program Target or Other Cellectis Target, as applicable, if such

Target has previously been designated a Pfizer Target, Cellectis Program Target, Other Cellectis Target, or Servier Target. Following the 3rd anniversary of the Effective Date, Cellectis will have the right, but not the obligation, to nominate any additional Targets as Other Cellectis Targets.

2.5 **Scope and Conduct of the Research Program**. Under the terms and conditions set forth herein, Cellectis and Pfizer will collaborate to conduct discovery and pre-clinical Development activities to generate and validate Agreement CAR-Ts to the Pfizer Targets and Cellectis Program Targets (the "**Research Program**"). The Research Program will be conducted in accordance with the Research Plan for each Research Project (as more fully provided in Section 2.6 below), and each Party will use its Commercially Reasonable Efforts to perform all activities assigned to it and fulfill all of its obligations under each Research Plan in accordance with the timelines and budgets set forth in the applicable Research Plan. In addition, each Party will conduct its activities under the Research Plan(s) in accordance with Applicable Law.

2.6 **Research Plans**.

2.6.1 **Adoption of Research Plans**. The Parties will adopt a research plan (the "**Research Plan**") for the Pfizer Targets and Cellectis Program Target;s a "**Research Project**" will mean the work to be performed pursuant to such a Research Plan. The initial Research Plan for [***] is attached as Schedule 2.6.1. The Research Plan for any other Pfizer Target or Cellectis Program Target will be prepared by the JRC and adopted within [***] of the Target Designation Date for such Pfizer Target or Cellectis Program Target by the JRC. Each Research Plan will reference this Agreement and will be subject to all of the provisions of this Agreement, in addition to the specific details set forth in such Research Plan. To the extent any provisions of a Research Plan conflict or are inconsistent with the provisions of this Agreement, the provisions of this Agreement will control. Unless otherwise expressly stated in a Research Plan, the provisions of each Research Plan will be independent of and will not affect the provisions of any other Research Plan. If the Parties are unable to agree on a Research Plan within the specified time period, the JRC may specify the Research Plan, and all disputes regarding the preparation or modification of any Research Plan (including the approval of any Change Order) will be resolved by the JRC pursuant to the procedures set forth in Section 2.7.5.

2.6.2 **Responsibilities**. Each Research Plan will set forth the services and the obligations and responsibilities assigned to each Party under the corresponding Research Project (collectively the "**Research Plan Services**"), and will include the following minimum terms:

(a) [***]

(b) [***]

(c) Payment obligations of each Party.

2.6.3 **Changes in Research Plans**. A Research Plan may be amended by a written amendment (a "**Change Order**") to such Research Plan. Proposed Change Orders will be prepared in writing by the JRC and will be subject to review and written approval by each of the Parties. Each Change Order will set forth the agreed changes to the applicable task, protocol, specifications, responsibility, budget, timeline or other matter. As used in this Agreement, a Research Plan will be deemed to include any Change Orders with respect thereto. Each Change Order will reference this Agreement and the Research Plan it relates to and will be subject to the provisions of this Agreement. To the extent any provisions of a Change Order conflict or are inconsistent with the provisions of this Agreement, the provisions of this Agreement will control. All Change Orders will be incorporated herein by reference and form a part hereof.

2.7 **Governance of the Research Program**.

2.7.1 **Formation of the Joint Research Committee**. Cellectis and Pfizer will establish a "**Joint Research Committee**" (or "**JRC**") to oversee and coordinate the activities of the Parties under this Agreement in regard to the Research Program. The JRC will also serve as a forum to facilitate communications between the Parties regarding the Research Program. The JRC will be comprised of three (3) representatives from each Party as appointed by such Party, with such representatives possessing appropriate expertise and seniority to carry out the Research Projects. The JRC may change its size from time to time by mutual consent of its members. A Party may replace one or more of its representatives from time to time upon written notice to the other Party. Each Party, respectively, will designate its initial members of the JRC within thirty (30) days after the Effective Date. The JRC will exist until expiration of the Research Term, unless the Parties otherwise agree in writing.

2.7.2 **Co-Chairpersons and Secretary of the Joint Research Committee**. Each Party will designate a co-chairperson of the JRC and a secretary of the JRC will be designated in accordance with Section 2.8 below. A Party may change the designation of its co-chairperson from time to time upon written notice to the other Party. The co-chairpersons will be responsible for scheduling meetings of the JRC, preparing agendas for meetings and sending to all JRC members notices of all regular meetings and agendas for such meetings at least five (5) Business Days before such meetings. The co-chairpersons will solicit input from both Parties regarding matters to be included on the agenda, and any matter either Party desires to have included on the agenda will be included for discussion. Nothing herein will be construed to prohibit the JRC from discussing or acting on matters not included on the applicable agenda. The secretary will record the minutes of the meeting, circulate copies of meeting minutes to the Parties and each JRC member promptly following the meeting for review, comment and approval by the JRC members and finalize approved meeting minutes. The co-

chairpersons will be members of the JRC but the secretary need not be a member of the JRC.

2.7.3 **Meetings**. The JRC will meet at least once each Calendar Quarter until it has been terminated in accordance with Section 2.7.1 at dates and times mutually agreed by the JRC, unless otherwise mutually agreed by the Parties. The initial meeting of the JRC will be held within thirty (30) days after the Effective Date. Either Party may call a special meeting of the JRC on fifteen (15) days written notice to the other Party's members of the JRC (or upon such shorter notice as exigent circumstances may require). Such written notice will include an agenda for the special meeting. In-person meetings, including special meetings, of the JRC will alternate between the offices of the Parties, unless otherwise agreed upon by the members of the JRC. Meetings of the JRC may be held telephonically or by video conference; provided, however, that at least [***] will be held in-person. Meetings of the JRC will be effective only if at least one (1) representative of each Party is in attendance or participating in the meeting. Members of the JRC will have the right to participate in and vote at meetings held by telephone or video conference. In addition, the JRC may act on any matter or issue without a meeting if it is documented in a written consent signed by each member of the JRC.

2.7.4 **Responsibilities of the Joint Research Committee**. The JRC will be responsible for (a) planning and supervising research and development under this Agreement, including establishing, reviewing and recommending modifications and updates to the Research Plans; (b) receiving and reviewing all data and other information obtained by either Party in connection with the Research Program and monitoring and reporting to the Parties on activities conducted pursuant to the Research Plans; (c) documenting and approving initiation and completion of each Research Project; (d) evaluating FTE requirements for the performance of the Research Plans; and (e) such other functions as expressly specified hereunder or as agreed by the Parties.

2.7.5 **Decisions**. The JRC members will use good faith efforts to reach agreement on any and all matters properly brought before them related to the Research Program. In the event that, despite such good faith efforts, agreement on a particular matter cannot be reached by the JRC within ten days after the JRC first meets to consider such matter, or such later date as may be mutually acceptable to the parties (each such matter, a "**Disputed Matter**"), then either party may refer that Disputed Matter for resolution by their respective senior executives, and such senior executives would promptly initiate discussions in good faith to resolve such Disputed Matter. If the senior executives are unable to resolve the Disputed Matter within thirty (30) days of it being referred to them, then Cellectis will have the final decision making authority with respect to all Disputed Matters related to Cellectis Program Targets and Pfizer will have final decision making authority with respect to all other Disputed Matters; provided that neither Party will have the authority to obligate the other Party to perform

Research Plan Services that are substantially greater than the those set forth in the Research Plan attached hereto as Schedule 2.6.1.

2.8 **Alliance Managers**. In addition to the foregoing governance provisions, each of the Parties will appoint a single individual to serve as that Party's alliance manager ("**Alliance Manager**"). The role of each Alliance Manager will be to facilitate the relationship between the Parties as established by this Agreement. The Alliance Managers will attend meetings of the JRC and support the respective co-chairpersons of such committee in the discharge of their responsibilities. Unless otherwise determined by the JRC, Pfizer's Alliance Manager will serve as secretary at each meeting of the JRC. Alliance Managers will be non-voting participants in such committee meetings. A Party may replace its Alliance Manager from time to time upon written notice to the other Party.

2.9 **Conformance with Law**. Each Party will perform and discharge its obligations under this Agreement and the Research Program in conformance with (a) professional standards and practices, (b) this Agreement and the Research Plan(s) and (c) all Applicable Laws. Without limiting the generality of the foregoing, each Party will retain all records relating to its performance of this Agreement and the Research Plan(s) for the time periods required by Applicable Laws.

2.10 **Cellectis Personnel Matters**. Cellectis acknowledges and agrees that it is solely responsible for the compensation of the personnel assigned to the Research Plan Services, and as employer will be responsible for withholding all national, state, local or other applicable taxes and similar items. Cellectis also will be responsible for all other employer related obligations, including providing appropriate insurance coverage and employee benefits, and making all other deductions required by law affecting the gross wages of each employee. Cellectis personnel assigned to the Research Plan Services are not nor will they be deemed to be employees of Pfizer.

2.11 **Non-Solicit**.

2.11.1 **Cellectis Employees**. Pfizer hereby undertakes, on behalf of itself and its Affiliates, that prior to any Change of Control of Cellectis and during the period of time from the Effective Date until [***], neither Rinat nor Pfizer's oncology research unit (or the immumo-oncology or oncology research unit of a Third Party acquired by Pfizer) nor any person acting on their behalf will, without the prior written consent of Cellectis, directly or indirectly, encourage to quit, or attempt to encourage to quit any director or officer, executive or scientific research employee (project leader level or higher) of any of Cellectis and its Affiliates with whom Pfizer had contact during the Research Term, provided however, that Pfizer may engage in general solicitations such as through a search firm, newspaper or other media advertisement. In the event that Pfizer is alleged to have breached this Section 2.11.1 and Cellectis provides written notification to Pfizer of its objection to such alleged breach within 2 months of such alleged breach, the Parties will use reasonable efforts to resolve such alleged breach. In no event will a breach of this Section 2.11.1 be deemed a material breach of this Agreement for the purposes of Section 9.4 below.

2.11.2 **Pfizer Employees**. Cellectis hereby undertakes, on behalf of itself and its Affiliates, that prior to any Change of Control of Pfizer and during the period of time from the Effective Date [***], neither Cellectis nor any of its Affiliates nor any person acting on their behalf will, without the prior written consent of Pfizer, directly or indirectly, encourage to quit, or attempt to encourage to quit any director or officer, executive or scientific research employee (director level or higher) of any of Pfizer and its Affiliates with whom Cellectis had contact during the Research Term, provided however, that Cellectis may engage in general solicitations such as through a search firm, newspaper or other media advertisement. In the event that Cellectis is alleged to have breached this Section 2.11.2 and Pfizer provides written notification to Cellectis of its objection to such alleged breach within 2 months of such alleged breach, the Parties will use reasonable efforts to resolve such alleged breach. In no event will a breach of this Section 2.11.2 be deemed a material breach of this Agreement for the purposes of Section 9.4 below.

2.12 **Debarment Certification**. Neither Party nor any Person employed or retained to perform services by either Party has been debarred under Section 306(a) or (b) of the FD&C Act or any comparable provision of foreign law and no debarred Person will in the future be employed or retained to perform services by either Party in connection with any work to be performed for or on behalf of the other Party. If, at any time after execution of this Agreement, either Party becomes aware that such Party or any Person employed or retained to perform services by such Party in connection with any work performed for or on behalf of such Party is, or is in the process of being, debarred, such Party will so notify the other Party immediately.

2.13 **Subcontractors**. Except for Expected Subcontractors that are hereby accepted by Pfizer, Cellectis may not engage any contractor, or subcontractor (a "**Subcontractor**") to perform any Research Plan Services or Research Program activities without Pfizer's prior written consent, provided that such decision will be determined and communicated in a timely manner and any consent will not be unreasonably withheld. Cellectis will be responsible for the management of all permitted Subcontractors. The engagement by Cellectis of any Subcontractor in compliance with this Section 2.13 will not relieve Cellectis of its obligations under this Agreement or any applicable Research Plan. Any agreement between Cellectis and a permitted Subcontractor pertaining to the Research Plan Services will be consistent with the provisions of this Agreement. Furthermore, unless otherwise agreed by Pfizer in writing, prior to or at the time of engagement of any Subcontractor to perform any obligations hereunder, Cellectis will cause such Subcontractor to agree in writing to be bound by terms providing for Pfizer rights no less favorable to Pfizer than the rights granted to Pfizer in this Agreement.

2.14 **Inspections**. Each Party's authorized representative(s), and Regulatory Authorities to the extent required by law and applicable to the scope of the Research Plan Services performed, may, during regular business hours and, to the extent legally possible, at times arranged in advance with the other Party, audit, inspect and copy all data, records and work products, and audit and inspect all facilities, relating to the Research Plan Services and such other Party's performance under this Agreement and the applicable

Research Plan(s) (including all data, records, work products and facilities of subcontractors).

2.15 **Records**. Each Party will prepare, maintain and retain complete and accurate written records, accounts, notes, reports and data of the Research Plan Services and its performance under this Agreement and the Research Plan(s), in a form and of quality reasonably acceptable to both Parties. All such information will be treated as Confidential Information of Pfizer for the purpose of this Agreement.

3. PRODUCT DEVELOPMENT, MANUFACTURING, COMMERCIALIZATION AND REGULATORY MATTERS.

3.1 **General**. Except as expressly set forth in Article 2, Pfizer will have sole authority over and control of the Development, Manufacture and Commercialization of Pfizer Licensed Products Targeting such Pfizer Target.

3.2 **Diligence**.

3.2.1 **Pfizer Development Diligence**. Pfizer will use Commercially Reasonable Efforts to Develop [***] for [***] during the Term. For avoidance of doubt, any actions taken by Pfizer's Affiliates or Sublicensees under this Agreement will be treated as actions taken by Pfizer in regard to satisfaction of the requirements of this Section 3.2.1. Additionally, during the Research Term, Pfizer, or its Affiliates or Sublicensees will:

(a) Initiate Development for [***] within [***] from the Target Designation Date [***];

(b) Develop [***] during the Research Term; provided that if there are [***] designated [***], such Development will apply to the remaining [***]; and

(c) Not stop Development for [***] for [***] during the Research Term. For clarity, if Pfizer stops Development of a [***] for [***], but re-initiates Development activities prior to [***], Pfizer will be deemed to have satisfied its obligation with respect to this Section 3.2.1(c).

3.2.2 **Cellectis Development Diligence**. Cellectis will use Commercially Reasonable Efforts to Develop at least one Cellectis Product for each Cellectis Program Target during the Research Term. For avoidance of doubt, any actions taken by Cellectis' Affiliates or Sublicensees under this Agreement will be treated as actions taken by Cellectis in regard to satisfaction of the requirements of this Section 3.2.2. Additionally, Cellectis or its Affiliates or Sublicensees will, during the Research Term,:

(a) Initiate Development for [***] within [***] from the Target Designation Date for [***]; and

(b) Not stop Development for [***] for [***] during the Research Term. For clarity, if Cellectis stops Development of a Cellectis Program Target for [***], but re-initiates Development activities prior to [***], Cellectis will be deemed to have satisfied its obligation with respect to this Section 3.2.2(b).

3.2.3 **Commercial Diligence**. Pfizer will use Commercially Reasonable Efforts to Commercialize [***] where Pfizer has received Regulatory Approval for [***] in such country. Pfizer will have no other diligence obligations with respect to the Commercialization of Pfizer Licensed Products under this Agreement. For avoidance of doubt, any actions taken by Pfizer's Affiliates or Sublicensees under this Agreement will be treated as actions taken by Pfizer in regard to satisfaction of the requirements of this Section 3.2.2.

3.2.4 **Exceptions to Diligence Obligations**. Notwithstanding any provision of this Agreement to the contrary, each Party will be relieved from and will have no obligation to undertake any efforts with respect to any diligence obligation under each of the Pfizer Targets or Cellectis Program Targets, as applicable, pursuant to Section 3.2.1 or Section 3.2.3 (each, a "**Pfizer Diligence Obligation**") or Section (a "**Cellectis Diligence Obligation**") in the event that:

(a) Pfizer or Cellectis receives or generates any safety, tolerability or other data reasonably indicating or signaling, as measured by Pfizer's safety and efficacy evaluation criteria and methodology, that such Pfizer Licensed Product has or would have an unacceptable risk-benefit profile or is otherwise not reasonably suitable for initiation or continuation of clinical trials in humans;

(b) Pfizer or Cellectis receive any notice, information or correspondence from any applicable Regulatory Authority, or any applicable Regulatory Authority takes any action, that reasonably indicates that such Pfizer Licensed Product is unlikely to receive Regulatory Approval; or

(c) the Pfizer Diligence Obligation breach or Cellectis Diligence Obligation breach, as applicable, related to such Pfizer Target or Cellectis Program Target, as applicable, is caused by the negligence, recklessness or intentional acts of the other Party.

3.2.5 **Assertion of Diligence Obligation Claims**. If a Party is, becomes, or reasonably should be aware of facts that might form a reasonable basis that the

Other Party has failed to meet any Pfizer Diligence Obligation or Cellectis Diligence Obligation, as applicable, then Cellectis or Pfizer, as applicable, will promptly notify Pfizer or Cellectis, as applicable, in writing of such potential alleged performance failure (each such potential alleged performance failure, a "**Diligence Issue**"). Promptly upon Pfizer's or Cellectis', as applicable, receipt of any notice of a Diligence Issue pursuant to this Section 3.2.4, the Pfizer Alliance Manager and Cellectis Alliance Manager will meet to discuss the specific nature of such Diligence Issue and seek to identify an appropriate corrective course of action. If, no later than [***] after receipt of such a notice, (a) the Parties have not reached consensus regarding whether Pfizer has failed to satisfy the Pfizer Diligence Obligations or Cellectis has failed to satisfy the Cellectis Diligence Obligations and (b) the Parties' respective Alliance Managers have not agreed upon an appropriate corrective course of action for such Diligence Issue, then such Diligence Issue will be escalated and resolved pursuant to the dispute resolution provisions set forth in Section 11.10. If Cellectis or Pfizer, as applicable, fails to notify Pfizer or Cellectis, as applicable, of a Diligence Issue pursuant to this Section 3.2.5 [***] the date that Cellectis or Pfizer, as applicable, first discovers or reasonably should have discovered such Diligence Issue, then Pfizer or Cellectis, as applicable, will be deemed to have satisfied its Pfizer Diligence Obligations or Cellectis Diligence Obligations, as applicable, with respect to such Diligence Issue.

3.2.6 **Remedies for Breach of Pfizer Diligence Obligations**. If Pfizer materially breaches any Pfizer Diligence Obligation and fails to remedy such breach within [***] of Pfizer's receipt of notice of such breach from Cellectis, then, with respect to Pfizer Targets [***], the applicable Pfizer Target, [***]will cease to be a Pfizer Target and will become a Cellectis Program Target and with respect to any Pfizer Targets other than [***], the applicable Pfizer Target(s) will no longer be subject to the exclusivity provisions set forth in Section 2.1.3 above.

3.3 **Remedies for Breach of Cellectis Diligence Obligations**. If Cellectis materially breaches any Cellectis Diligence Obligation and fails to remedy such breach within [***] of Cellectis' receipt of notice of such breach from Pfizer, then the Pfizer Non-Compete Period with respect to such Cellectis Program Target(s) as set forth in Sections 2.2.3 will terminate.

3.4 **Regulatory Approvals**. Pfizer or its designated Affiliate(s) will file, in its own name, all Regulatory Approval applications for Pfizer Licensed Products Targeting such Pfizer Target where Pfizer, in its sole discretion, determines it is commercially advantageous to do so. Pfizer, or its designated Affiliate(s), will have the sole responsibility for, and sole authority with respect to, communications with any Regulatory Authority regarding any Regulatory Approval Application or any Regulatory Approval for a Pfizer Licensed Product once granted. Except to the extent necessary to fulfill its obligations under Section 3.2.1, neither Pfizer nor any of its Affiliates will have any obligation to seek Regulatory Approval for any Pfizer Licensed Product.

3.5 **Control of Commercialization Activities.**

3.5.1 **General**. Pfizer will have sole and exclusive control over all matters relating to the Commercialization of Pfizer Licensed Products Targeting such Pfizer Target; and

3.5.2 **Trademarks**. Pfizer will select and own all Trademarks used in connection with the Commercialization of any such Pfizer Licensed Products, including all goodwill associated therewith. Neither Cellectis nor its Affiliates will use or seek to register, anywhere in the world, any trademarks which are confusingly similar to any Trademarks used by or on behalf of Pfizer, its Affiliates or Sublicensees in connection with any Pfizer Licensed Product. Nothing in this Section 3.5.2 will be construed to prevent Cellectis from granting Pfizer any license or right in and to any trademark, trade dress, design, logo, slogan, house mark or name Controlled by Cellectis.

3.6 **Manufacturing**. Pfizer will have the exclusive right (subject to Sections 3.2.5 and 4.5) to Manufacture Pfizer Licensed Products Targeting such Pfizer Target itself or through one or more Affiliates or Third Parties selected by Pfizer. Pfizer will have no diligence obligations with respect to the Manufacture of Pfizer Licensed Products except to the extent necessary to fulfill the Pfizer Diligence Obligations. Pfizer will be responsible for 100% of the associated costs for the manufacturing of Pfizer Licensed Products.

3.7 **Pfizer Progress Reporting**. Commencing upon the Effective Date and until delivery of the first royalty report pursuant to Section 5.6.2, Pfizer will provide Cellectis with annual written reports on Pfizer's activities to Develop and Commercialize Pfizer Licensed Products Targeting such Pfizer Target. Any information or written report provided by Pfizer to Cellectis pursuant to this Section 3 will be deemed to be Pfizer's Confidential Information subject to the provisions of Article 7.

3.8 **Cellectis Progress Reporting**. Commencing upon the Effective Date and until the end of the Pfizer Non-Compete Period, Cellectis will provide Pfizer with annual written reports on Cellectis' activities to Develop and Commercialize products or compounds to a Cellectis Program Target. Any information or written report provided by Cellectis to Pfizer pursuant to this Section 3.8 will be deemed to be Cellectis' Confidential Information subject to the provisions of Article 7.

3.9 **Right of First Refusal**.

In the event that Cellectis proposes to enter into any Third Party agreement related to the Development or Commercialization of any CAR Targeting a Cellectis Program Target (each a "**Cellectis Target Product**") in the Field, Cellectis will first provide Pfizer with written notice of such proposal, including all material terms and conditions thereof (each a "**Cellectis Target Product Notice**"). For [***] following receipt of the Cellectis Target Product Notice, Pfizer will have the option to purchase or license from Cellectis the Cellectis Target Product upon the terms and conditions set forth in the

Cellectis Target Product Notice. In the event Pfizer elects to purchase or license the Cellectis Target Product from Cellectis, Pfizer will give written notice of its election to Cellectis within such [***] and the Parties will negotiate a mutually agreeable agreement for the purchase or license of the Cellectis Target Product within [***]; provided that the timeline for completing the agreement is not delayed by the actions or inactions of Cellectis. If Pfizer does not elect to purchase or license the Cellectis Target Product, Cellectis may, within [***] following the expiration of the option right granted to Pfizer, transfer or license the Cellectis Target Product to the proposed transferee or any other transferee, provided that this transfer will not be on terms and conditions more favorable to the transferee than those contained in the Cellectis Target Product Notice. In the event that Cellectis does not enter into the Third Party agreement to which the Cellectis Target Product Notice relates, this Section 3.9 will continue to apply with respect to the Cellectis Product Target. This Section 3.9 will be applicable to any potential Third Party agreement that Cellectis proposes entering into during the Term related to the Development or Commercialization of any CAR Targeting a Cellectis Program Target in the Field.

3.10 **Right of Negotiation**. In the event that Cellectis proposes to enter into any Third Party agreement related to the Development or Commercialization of any product Targeting an Other Cellectis Target, Cellectis will provide Pfizer with written notice of such intent and will negotiate in good faith with Pfizer regarding Pfizer's purchase or license of such product Targeting an Other Cellectis Target.

4. LICENSES AND RELATED GRANTS OF RIGHTS.

4.1 Grants to Pfizer.

4.1.1 **Exclusive License**. Subject to the terms and conditions of this Agreement, on a Pfizer Target-by-Pfizer Target basis and effective on the Target Designation Date for such Pfizer Target, Cellectis hereby grants to Pfizer and its Affiliates an exclusive (even as to Cellectis, except to the extent necessary for Cellectis to perform its obligations under the Research Program) license under the Licensed Cellectis Intellectual Property (excluding [***] Patent Rights), to make, have made, use, have used, sell, have sold, offer for sale, have offered for sale, import, have imported and otherwise exploit and Commercialize Pfizer Licensed Products in the Field in the Territory, with the right to sublicense as provided in Section 4.1.4 (the "**License**").

4.1.2 [***]**Patent Rights**.

(a) Subject to the terms and conditions of this Agreement on a Pfizer Target by Pfizer Target basis and effective on the Target Designation Date for such Pfizer Target, Cellectis hereby grants to Pfizer and its Affiliates the right to use the [***] engineered by Cellectis pursuant to this Agreement to Develop Pfizer Licensed Products until the filing of an IND for each Pfizer Licensed Product, in the Field.

(b) **Exclusive License**. Subject to the terms and conditions of this Agreement, on a Pfizer Target-by-Pfizer Target basis and effective upon the filing of an IND for each individual Pfizer Licensed Product developed under 4.1.2(a), Cellectis hereby grants to Pfizer and its Affiliates an exclusive (even as to Cellectis) license under the [***] Patent Rights, to make, have made, use, have used, sell, have sold, offer for sale, have offered for sale, import, have imported and otherwise exploit and Commercialize such Pfizer Licensed Product in the Field in the Territory, with the right to sublicense as provided in Section 4.1.3. For the sake of clarity, the license granted to Pfizer by Cellectis herein does not give Pfizer the right to [***].

4.1.3 **License to Cellectis Improvements**. Subject to the terms and conditions of this Agreement, Cellectis hereby grants to Pfizer and its Affiliates a non-exclusive, worldwide, sublicensable, royalty-free, perpetual and irrevocable license under any Cellectis Improvements that were solely or jointly invented by the employees, agents or independent contractors of Pfizer or its Affiliates to make, have made, use, have used, sell, have sold, offer for sale, have offered for sale, import, have imported and otherwise exploit and Commercialize any products and processes.

4.1.4 **Right to Sublicense**. Pfizer will have the right to grant sublicenses to its Affiliates and Third Parties of any and all licenses granted to Pfizer under this Agreement by Cellectis, provided that (a) Pfizer will be jointly and severally responsible with its Sublicensees to Cellectis for failure by its Sublicensees to comply with the terms and conditions of this Agreement; (b) each sublicense will include obligations on the Sublicensee that are consistent with the terms of this Agreement,; and (c) Pfizer will remain responsible for the payment to Cellectis of all Milestone Payments and royalties payable with respect to the activities and Net Sales of any Sublicensee.

4.1.5 **Direct License to Affiliates**. Pfizer may at any time request and authorize Cellectis to grant licenses directly to Affiliates of Pfizer by giving written notice designating to which Affiliate a direct license is to be granted. Upon receipt of any such notice, Cellectis will enter into and sign a separate direct license agreement with such designated Affiliate of Pfizer. All such direct license agreements will be consistent with the terms and conditions of this Agreement, except for such modifications as may be required by the laws and regulations in the country in which the direct license will be exercised. The Parties further agree to make any amendments to this Agreement that are necessary to conform the combined terms of such direct license agreements and this Agreement to the terms of this Agreement as set forth on the Effective Date. In countries where the validity of such direct license agreements requires prior governmental approval or registration, such direct license agreements will not become binding between the parties thereto until such approval or registration is granted, which approval or registration will be obtained by Pfizer. All costs of making such direct license agreement(s), including Cellectis' reasonable attorneys' fees, under this Section 4.1.4 will be borne by Pfizer.

4.1.6 **Right of Reference**. Cellectis hereby grants to Pfizer a "**Right of Reference,**" as that term is defined in 21 C.F.R. § 314.3(b), to any data Controlled by Cellectis or its Affiliates (a) that relates to the Licensed Cellectis Intellectual Property, the Agreement CAR-Ts, the Pfizer Licensed Products or preclinical studies with respect to the Pfizer Licensed Products and (b) that Pfizer reasonably believes may be necessary or useful to the Development, Manufacturing or Commercialization of any Agreement CAR-T or any Pfizer Licensed Product pursuant to this Agreement, and Cellectis will provide a signed statement to the foregoing effect, if so requested by Pfizer in accordance with 21 C.F.R. § 314.50(g)(3).

4.1.7 **Technology Transfer Assistance to Pfizer**. Cellectis will provide reasonable assistance, at no additional cost to Pfizer, to affect the timely and orderly transfer to Pfizer of the Know-How included in the Licensed Cellectis Intellectual Property necessary for Pfizer's use in performing its responsibilities under the Research Plans, and for the Development, Manufacturing and Commercialization of Pfizer Licensed Products pursuant to the License.

4.2 **Grants to Cellectis.**

4.2.1 **Research License**. Subject to the terms and conditions of this Agreement and during the Research Term with respect to each Pfizer Target, Pfizer hereby grants to Cellectis a non-exclusive, worldwide, royalty-free license, with no right to grant sublicenses, under the Pfizer Technology to perform the activities assigned to Cellectis under the applicable Research Plan.

4.2.2 **Non-Exclusive License**. Subject to the terms and conditions of this Agreement, Pfizer hereby grants to Cellectis and its Affiliates a non-exclusive, worldwide, royalty-free, perpetual and irrevocable license under the Pfizer Licensed Pfizer Intellectual Property Controlled by Pfizer solely to make, have made, use, have used, sell, have sold, offer for sale, have offered for sale, import, have imported and otherwise exploit and Commercialize Cellectis Products Targeting Cellectis Program Targets. Cellectis will have the right to grant sublicenses of the foregoing license to Third Party collaborators following the Cellectis Non-Compete Period only if Cellectis has entered into a written agreement with such Third Party collaborator (i) obtaining a covenant not to sue or (ii) granting Pfizer a non-exclusive, worldwide, royalty-free, perpetual and irrevocable license under improvements to the Cellectis Technology developed in the framework of the collaboration between Cellectis and such Third Party that are Controlled by such Third Party.

4.2.3 **License to Pfizer Improvements**. Subject to the terms and conditions of this Agreement, Pfizer hereby grants to Cellectis and its Affiliates a non-exclusive, worldwide, sublicensable, royalty-free, perpetual and irrevocable license under any Pfizer Improvements that were solely or jointly invented by the employees, agents or independent contractors of Cellectis or its Affiliates to make, have made,

use, have used, sell, have sold, offer for sale, have offered for sale, import, have imported and otherwise exploit and Commercialize any products and processes.

4.2.4 **Technology Transfer Assistance to Cellectis**. Pfizer will provide reasonable assistance, at no additional cost to Cellectis, to affect the timely and orderly transfer to Cellectis of the Know-How included in the Pfizer Technology, Pfizer Improvements, Developed IP solely owned by Pfizer, and CAR-T Developed IP (if applicable) necessary for Cellectis' use in performing its responsibilities under the Research Plans, and for the Development, Manufacturing and Commercialization of Cellectis Products Targeting Cellectis Programs Targets pursuant to the License under Sections 4.2.1 and 4.2.2 above.

4.3 **Reciprocal Non-Exclusive Research License for Disclosed Know-How and Confidential Information**. Without limiting any other license granted to either Party under this Agreement and subject to the terms of Section 7:

4.3.1 Cellectis hereby grants to Pfizer and its Affiliates a non-exclusive, irrevocable, perpetual, non-transferable, royalty-free, fully paid-up, worldwide license to use any and all Cellectis Know-How included in the Licensed Cellectis Intellectual Property and Cellectis Confidential Information disclosed to Pfizer during the Term of this Agreement solely for internal research purposes.

4.3.2 Pfizer hereby grants to Cellectis and its Affiliates a non-exclusive, irrevocable, perpetual, non-transferable, royalty-free, fully paid-up, worldwide license to use any and all Pfizer Know-How and Pfizer Confidential Information (other than any information regarding the identity of or Pfizer's reasons for selecting any Pfizer Target or Additional Pfizer Target, which will only be disclosed by Cellectis to its Representatives as necessary to comply with the terms of this Agreement) disclosed to Cellectis during the Term of this Agreement solely for internal research purposes.

4.3.3 Notwithstanding the foregoing, neither Pfizer nor Cellectis will have any right under this Section 4.3 to make or use any physical material supplied by the other Party for use in the Research Program other than for use in the Research Program.

4.4 **Retained Rights**. For the avoidance of doubt, except as expressly provided in regard to the licenses contained in this Article 4 or in the provisions of Section 6.1.1, each Party will retain ownership of all of its Pfizer Technology or Cellectis Technology, as applicable.

4.5 **Other Pfizer Programs**. Cellectis understands and acknowledges that Pfizer may have present or future initiatives or opportunities, including initiatives or opportunities with its Affiliates or Third Parties, involving similar products, programs, technologies or processes that are similar to or that may compete with a product, program, technology or process covered by this Agreement. Cellectis acknowledges and agrees that nothing in this Agreement will be construed as a representation, warranty, covenant or inference that

Pfizer will not itself Develop, Manufacture or Commercialize or enter into business relationships with one or more of its Affiliates or Third Parties to Develop, Manufacture or Commercialize products, programs, technologies or processes that are similar to or that may compete with any product, program, technology or process covered by this Agreement. Notwithstanding the foregoing, if Pfizer or its Affiliates, other than pursuant to this Agreement, themselves Develop, Manufacture or Commercialize or enter into business relationships with one or more of its Affiliates or Third Parties to Develop, Manufacture or Commercialize T-cells expressing a chimeric antigen receptor construct other than a CAR-T, with respect to a particular Pfizer Target in the Field, then any exclusive licenses granted to Pfizer under this Agreement with respect to a Pfizer Licensed Product Targeting such Pfizer Target will be automatically converted into non-exclusive licenses, and Cellectis' exclusivity obligation under Sections 2.1.3 and 2.1.4 will not apply with respect to such Pfizer Target.

4.6 **No Implied Rights**. Except as expressly provided in this Agreement, neither Party will be deemed, by estoppel, implication or otherwise, to have granted the other Party any license or other right with respect to any intellectual property of such Party.

5. PAYMENTS TO CELLECTIS.

5.1 **Upfront Fee**. Within [***] the Effective Date [***], unless this Agreement is terminated by Pfizer pursuant to Section 9.3 below, Pfizer will pay to Cellectis, concurrent with the purchase by Pfizer of the Cellectis securities pursuant to the Subscription Agreement, the non-creditable, non-refundable amount of Eighty Million Dollars ($80,000,000).

5.2 **Research Support Funding**.

5.2.1 **Research Program Payments**. Each Party will pay the other Party for the costs and expenses as set forth in each Research Plan, provided that Pfizer will bear the costs associated with Research Plan Services performed by Cellectis related to Pfizer Targets, as set forth in the Research Plan, at the FTE Rate. During the Research Term, Pfizer will provide [***] Pfizer FTEs [***] for Research Plan Services related to Cellectis Program Targets utilizing Pfizer infrastructure and technology as set forth in the Research Plan. Subject to the foregoing, the JRC shall determine the specific number of FTEs that shall perform Research Plan Services for Cellectis from time to time. Notwithstanding the foregoing, Pfizer shall only be obligated to reimburse Cellectis for the number of FTEs actually incurred and reported pursuant to Section 5.2.3 in the performance of its Research Plan Services.

5.2.2 **Other Expenses**. Except as expressly set forth in Section 5.2.1, each Party will be solely responsible for all costs and expenses it incurs in performing its obligations under the Research Program. Pfizer will be funding capital equipment required at Pfizer sites and Cellectis will be funding capital equipment required at Cellectis sites. Pfizer will be funding capital equipment required at Cellectis sites

that will at a later time be transferred to Pfizer and Cellectis will be funding capital equipment required at Pfizer sites that will at a later time transferred to Cellectis.

5.2.3 **Reports and Reimbursement Payments**. Within thirty (30) days after the end of each Calendar Quarter of the Research Term, Cellectis will provide Pfizer with a quarterly report containing a detailed account of activities performed together with an invoice for amounts payable under Section 5.2.1, with respect to such Calendar Quarter. Each report must be accompanied by a certificate executed by a duly appointed officer of Cellectis confirming the actual total number of FTE hours supplied by Cellectis during such Calendar Quarter and the identity of, and number of FTE hours performed by, each individual performing Research Plan Services during such Calendar Quarter. Payment shall be due within [***] after Pfizer receives such an invoice from Cellectis.

5.2.4 **Audit Rights**. During the Research Term and for a period of [***], Cellectis shall keep and maintain accurate and complete records showing the time devoted and activities performed by each FTE in performing Cellectis' obligations under the Research Program. Upon [***] prior written notice from Pfizer, Cellectis shall permit an independent certified public accounting firm of nationally recognized standing selected by Pfizer and reasonably acceptable to Cellectis to examine, at Pfizer's sole expense, the relevant books and records of Cellectis as may be reasonably necessary to verify the accuracy of the invoices submitted to Pfizer under Section 5.2.3 for the number of FTEs applied to the performance of Cellectis' obligations under the Research Program. An examination by Pfizer under this Section 5.2.4 shall occur not more than [***] and shall be limited to the pertinent books and records for [***] before the date of the request. Such examination shall be conducted during Cellectis' normal business hours at Cellectis' facility(ies) where such books and records are normally kept. Cellectis may require the accounting firm to sign a reasonable and customary non-disclosure agreement. The accounting firm shall provide both Cellectis and Pfizer a written report disclosing whether the invoices submitted by Cellectis are correct or incorrect and the specific details concerning any discrepancies. If the accounting firm determines the number of FTEs actually utilized by Cellectis was less than the number funded by Pfizer during the period covered by the audit, Cellectis shall, at Pfizer's sole discretion, either (a) refund the excess payments to Pfizer within [***] of its receipt of the auditor's report so concluding or (b) immediately offset all such excess payments against any outstanding or future amounts payable by Pfizer to Cellectis under this Agreement until Pfizer has received full credit for all such overpayments. Additionally, if the amount to be refunded exceeds [***] of the amount that was properly payable, Cellectis shall reimburse Pfizer for the cost of the audit.

5.3 **Milestones**

5.3.1 **Development Milestones**. Pfizer will pay to Cellectis the amount set forth below within [***] of receipt of Cellectis' invoice following the first occurrence of each event (each, a "**Development Milestone**") described below for each Pfizer Licensed Product for each Pfizer Target (each such amount, a "**Development Milestone Payment**") to be payable only once with respect to each Pfizer Licensed Product Targeting a Pfizer Target. For the avoidance of doubt, if any Development Milestone Payment is paid for an Agreement CAR-T or Pfizer Licensed Product Targeting a Pfizer Target and the Development or Commercialization of such Agreement CAR-T or Pfizer Licensed Product is terminated and such Agreement CAR-T or Pfizer Licensed Product is replaced with another Agreement CAR-T or Pfizer Licensed Product Targeting the same Pfizer Target, such Development Milestone Payment will not be owed by Pfizer if such Agreement CAR-T or Pfizer Licensed Product later achieves the same Development Milestone.

Development Milestone	Development Milestone Payments
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

If any Development Milestone described above occurs before a previous Development Milestone occurs, then any Development Milestone that has not yet

been paid for achievement of any previous Development Milestone shall become due upon the achievement of the subsequent Development Milestone and payable together with the payment due upon achievement of such subsequent Development Milestone. For clarity, the achievement of a Development Milestone related to [***] will not result in the payment of any other Development Milestone related to [***].

5.3.2 **Sales Milestones**. Pfizer will pay to Cellectis the following one-time payments (each, a "**Sales Milestone Payment**") within [***] of the last day of the Pfizer Year when aggregate Annual Net Sales of a Pfizer Licensed Product in a Pfizer Year first reach the respective threshold (a "**Sales Threshold**") indicated below (each, a "**Sales Milestone**"); provided that such Sales Threshold with respect to a Pfizer Licensed Product must be reached within [***] following the First Commercial Sale of such Pfizer Licensed Product in the Territory.

Total Annual Net Sales	Sales Milestone Payments
[***]	[***]
[***]	[***]

5.4 **Royalties**. With respect to each Pfizer Licensed Product and subject to the provisions of Section 5.4.2, Pfizer will pay Cellectis royalties in the amount of the applicable rates ("**Marginal Royalty Rates**") set forth below of Annual Net Sales of any Pfizer Licensed Product Targeting such Pfizer Target during the Royalty Term:

Annual Net Sales	Marginal Royalty Rates (% of the Annual Net Sales)
[***]	[***]
[***]	[***]

5.4.1 **Marginal Royalty Rate Application**. Each Marginal Royalty Rate set forth in the table above will apply only to that portion of the Annual Net Sales of a given Pfizer Licensed Product in the Territory during a given Pfizer Year that falls within the indicated range.

5.4.2 **Royalty Adjustments**. The following adjustments will be made, on a Pfizer Licensed Product-by-Pfizer Licensed Product and country-by-country basis, to the royalties payable pursuant to this Section 5.4:

(a) **Generic Competition**. Royalties payable following establishment of Generic Competition with respect to the sale by a Third Party of a product that is a Biosimilar Biologic Product to such Pfizer Licensed Product in such country will be payable at [***] of the otherwise applicable rate prior to application of this Section 5.4.2(a). "**Generic Competition**" means, with respect to a given Calendar Year with respect to a Pfizer Licensed Product in any country, that during such Calendar Year, one (1) or more Third Parties have received Regulatory Approval to sell in such country a Biosimilar Biologic Product, such Biosimilar Biologic Product(s) will be commercially available in such country and such Biosimilar Biologic Product(s) will have, in the aggregate. A product will be a "**Biosimilar Biologic Product**" with respect to a Pfizer Licensed Product if such product (1) has been licensed as a biosimilar or interchangeable product by FDA pursuant to Section 351(k) of the Public Health Service Act (42 U.S.C. 262(k)), as may be amended, or any subsequent or superseding law, statute or regulation, (2) has been licensed as a similar biological medicinal product by EMA pursuant to Directive 2001/83/EC, as may be amended, or any subsequent or superseding law, statute or regulation, or (3) has otherwise achieved analogous Regulatory Approval from another applicable Regulatory Authority.

(b) **Third Party Patents**. If, after the Effective Date, it is Necessary or Useful for Pfizer to license one or more Patent Rights from one or more Third Parties in order to Develop, Manufacture, Commercialize or use any Pfizer Licensed Product, whether directly or through any Pfizer Affiliate or Sublicensee, then Pfizer may, in its sole discretion, negotiate and obtain a license under such Patent Right(s) (each such Third Party license referred to herein as an "**Additional Third Party License**"). Any royalty otherwise payable to Cellectis under this Agreement with respect to Net Sales of any Pfizer Licensed Product by Pfizer, its Affiliates or Sublicensees will be reduced by [***] of the amounts payable to Third Parties pursuant to any Additional Third Party Licenses, such reduction to continue until all such amounts have been expended, provided that in no event will the total royalty payable to Cellectis for any Pfizer Licensed Product be less than [***] of the royalty amounts otherwise payable for such Pfizer Licensed Product and in no event will the royalty payable to Cellectis for any Pfizer Licensed Product be reduced below [***] (in each case, other than in the case of Cellectis' breach of any representation, warranty or covenant hereunder). For purposes of this Section 5.4.2(b), (i) "**Necessary**" means that, without a license to use the Third Party's Patent Right, the Development, Manufacture, Commercialization or use of any Pfizer

Licensed Product in the form such Pfizer Licensed Product exists at the time that the Additional Third Party License is executed would, in Pfizer's opinion, infringe such Third Party's Patent Right and (ii) "**Useful**" means that Pfizer has determined in its discretion that use of such Third Party's Patent Right would enhance the commercial potential of such Pfizer Licensed Product. For the avoidance of doubt, the Parties agree and acknowledge that this Section 5.4.2(b) will not apply with respect to royalties payable by Pfizer to any Third Party under any agreement in existence as of the Effective Date. Neither Party will intentionally negotiate with a Third Party an exclusive license that excludes sublicense rights to the other Party, in the event such Third Party rights are necessary, as determined by the negotiating Party, to Develop and Commercialize Licensed Pfizer Products and Cellectis Products in connection with the Research Program in the Field.

(c) **Cellectis Third Party Agreements**. Cellectis will be solely responsible for all obligations, including royalty obligations, that are due and owing or may become due and owing with respect to any Cellectis Third Party Agreements that are in effect as of the Effective Date or that Cellectis or any of its Affiliates enters into during the Term of this Agreement.

5.4.3 **Fully Paid-Up, Royalty Free License**. After expiration of the Royalty Term for any Pfizer Licensed Product in a country in the Territory, no further royalties will be payable in respect of sales of such Pfizer Licensed Product in such country and thereafter the License with respect to such Pfizer Licensed Product in such country will be a fully paid-up, perpetual, exclusive, irrevocable, royalty-free license.

5.5 **Diagnostic and Prognostic Products**. In no event will any milestone, net sales or royalty payments become due or owing pursuant to Sections 5.3 or 5.4 above with respect to any Pfizer Licensed Product Developed or Commercialized for diagnostic or prognostic purposes.

5.6 **Reports and Payments**.

5.6.1 **Cumulative Royalties**. The obligation to pay royalties under Section 5.4 will be imposed only once with respect to a single unit of a Pfizer Licensed Product regardless of how many Valid Claims in Patent Rights included within the Licensed Cellectis Intellectual Property would, but for this Agreement, be infringed by the use or sale of such Pfizer Licensed Product in the country in which such Pfizer Licensed Product is used or sold.

5.6.2 **Royalty Statements and Payments**. Within [***] after the end of each Pfizer Quarter, Pfizer will deliver to Cellectis a report setting forth for such Pfizer Quarter the following information, on a Pfizer Licensed Product-by-Pfizer Licensed Product basis: (a) the Net Sales of each Pfizer Licensed Product,

(b) the basis for any adjustments to the royalty payable for the sale of each Pfizer Licensed Product and (c) the royalty due hereunder for the sale of each Pfizer Licensed Product. No such reports will be due for any Pfizer Licensed Product before the First Commercial Sale of such Pfizer Licensed Product in the Territory. The total royalty due for the sale of Pfizer Licensed Products during such Pfizer Quarter will be remitted at the time such report is delivered to Cellectis.

5.6.3 **Taxes and Withholding**. It is understood and agreed between the Parties that any payments made under this Agreement are exclusive of any value added or similar tax ("**VAT**"), which will be added thereon as applicable. Where VAT is properly added to a payment made under this Agreement, the party making the payment will pay the amount of VAT only on receipt of a valid tax invoice issued in accordance with the laws and regulations of the country in which the VAT is chargeable. In addition, in the event any of the payments made by Pfizer pursuant to this Agreement become subject to withholding taxes under the Laws of any jurisdiction, Pfizer will deduct and withhold the amount of such taxes for the account of Cellectis, to the extent required by Law, such amounts payable to Cellectis will be reduced by the amount of taxes deducted and withheld, and Pfizer will pay the amounts of such taxes to the proper Governmental Authority in a timely manner and promptly transmit to Cellectis an official tax certificate or other evidence of such tax obligations together with proof of payment from the relevant Governmental Authority of all amounts deducted and withheld sufficient to enable Cellectis to claim such payment of taxes. Any such withholding taxes required under applicable Law to be paid or withheld will be an expense of, and borne solely by, Cellectis. Pfizer will provide Cellectis with reasonable assistance to enable Cellectis to recover such taxes as permitted by Law.

5.6.4 **Currency**. All amounts payable and calculations hereunder will be in United States dollars. As applicable, Net Sales and any royalty deductions will be converted into United States dollars in accordance with Pfizer's customary and usual conversion procedures, consistently applied.

5.6.5 **Method of Payment**. Except as permitted pursuant to Section 5.6.4, each payment hereunder will be made by electronic transfer in immediately available funds via either a bank wire transfer, an ACH (automated clearing house) mechanism, or any other means of electronic funds transfer, at Pfizer's election, to such bank account as the Cellectis will designate in writing to Pfizer at least forty-five (45) days before the payment is due.

5.6.6 **Additional Provisions Relating to Payments**. Cellectis acknowledges and agrees that nothing in this Agreement (including any schedules and exhibits hereto) will be construed as representing an estimate or projection of either (a) the number of Pfizer Licensed Products that will or may be successfully Developed or Commercialized or (b) anticipated sales or the actual value of any Pfizer Licensed Product. PFIZER MAKES NO REPRESENTATION OR WARRANTY, EITHER EXPRESS OR IMPLIED, THAT IT WILL BE ABLE TO SUCCESSFULLY DEVELOP OR COMMERCIALIZE ANY PRODUCT OR, IF

COMMERCIALIZED, THAT IT WILL ACHIEVE ANY PARTICULAR SALES LEVEL OF SUCH PRODUCT(S), PROVIDED THAT THE FOREGOING WILL NOT LIMIT PFIZER'S OBLIGATIONS UNDER THIS AGREEMENT.

5.7 **Maintenance of Records; Audits**.

5.7.1 **Record Keeping**. Pfizer will keep, and cause its Affiliates and Sublicensees to keep, accurate books of account and records in connection with the sale of Pfizer Licensed Products, in sufficient detail to permit accurate determination of all figures necessary for verification of royalties to be paid hereunder. Pfizer will maintain, and cause its Affiliates and Sublicensees to maintain, such records for a period of at least [***] after the end of the Calendar Year in which they were generated.

5.7.2 **Audits**. Upon thirty (30) days prior written notice from Cellectis, Pfizer will permit an independent certified public accounting firm of internationally recognized standing selected by Cellectis and reasonably acceptable to Pfizer to examine, at Cellectis' sole expense, the relevant books and records of Pfizer during the period covered by such examination, as may be reasonably necessary to verify the accuracy of the reports submitted by Pfizer in accordance with Section 5.6 and the payment of royalties hereunder. An examination by Cellectis under this Section 5.7.2 will occur not more than [***] and will be limited to the pertinent books and records for any Calendar Year ending not more than [***] before the date of the request. The accounting firm will be provided access to such books and records at Pfizer's or its Affiliates' facilities where such books and records are kept and such examination will be conducted during Pfizer's normal business hours. Pfizer may require the accounting firm to sign a reasonable and customary non-disclosure agreement before providing the accounting firm access to Pfizer's facilities or records. Upon completion of the audit, the accounting firm will provide both Pfizer and Cellectis a written report disclosing whether the reports submitted by Pfizer are correct or incorrect, whether the royalties paid are correct or incorrect and, in each case, the specific details concerning any discrepancies. No other information will be provided to Cellectis.

5.7.3 **Underpayments/Overpayments**. If such accounting firm concludes that additional royalties were due to Cellectis, Pfizer will pay to Cellectis the additional royalties within thirty (30) days of the date Pfizer receives such accountant's written report so concluding. If such underpayment exceeds [***] of the royalties that were to be paid to Cellectis, Pfizer also will reimburse Cellectis for all reasonable charges of such accountants for conducting the audit. If such accounting firm concludes that Pfizer overpaid royalties to Cellectis, Cellectis will repay such amount to Pfizer in full within thirty (30) days of the receipt of such accountant's report, or, at Pfizer's option, Pfizer will be entitled to offset all such overpayments against any outstanding or future amounts payable to Cellectis hereunder until Pfizer has received full credit for such overpayments.

5.7.4 **Confidentiality**. All financial information of Pfizer which is subject to review under this Section 5.7 will be deemed to be Pfizer's Confidential Information subject to the provisions of Article 7 hereof, and Cellectis will not disclose such Confidential Information to any Third Party or use such Confidential Information for any purpose other than verifying payments to be made by Pfizer to Cellectis hereunder.

5.7.5 **Costs**. Cellectis shall pay the full cost of the audit unless the discrepancy is to the Cellectis' detriment and is greater than [***] of all amounts due in such calendar year, in which cases Pfizer shall pay the reasonable cost charged by such accountant for such inspection.

5.8 **No Guarantee of Success**. Pfizer and Cellectis acknowledge and agree that payments to Cellectis pursuant to Section 5.2, Section 5.3 and Section 5.4: (a) have been included in this Agreement on the basis that they are only payable or otherwise relevant if a Pfizer Licensed Product is successfully Developed or Commercialized, as applicable; (b) are solely intended to allocate amounts that may be achieved upon successful Development or Commercialization of a Pfizer Licensed Product between Pfizer (who will receive all Pfizer Licensed Product sales revenues) and Cellectis; (c) are not intended to be used and will not be used as a measure of damages if this Agreement is terminated for any reason, including pursuant to Pfizer's right to terminate at for convenience, before any such success is achieved and such amounts become due; and (d) will only be triggered, and will only be relevant as provided, in accordance with the terms and conditions of such provisions. Pfizer and Cellectis further acknowledge and agree that nothing in this Agreement will be construed as representing any estimate or projection of (i) the successful Development or Commercialization of any Pfizer Licensed Product under this Agreement, (ii) the number of Pfizer Licensed Products that will or may be successfully Developed or Commercialized under this Agreement, (iii) anticipated sales or the actual value of any Pfizer Licensed Products that may be successfully Developed or Commercialized under this Agreement or (iv) the damages, if any, that may be payable if this Agreement is terminated for any reason. Pfizer makes no representation, warranty or covenant, either express or implied, that (A) it will successfully Develop, Manufacture, Commercialize or continue to Develop, Manufacture or Commercialize any Pfizer Licensed Product in any country, (B) if Commercialized, that any Pfizer Licensed Product will achieve any particular sales level, whether in any individual country or cumulatively throughout the Territory or (C) Pfizer will devote, or cause to be devoted, any level of diligence or resources to Developing or Commercializing any Pfizer Licensed Product in any country, or in the Territory in general, other than is expressly required under Section 3.2.

6. INTELLECTUAL PROPERTY.

6.1 **Inventions.**

6.1.1 **Ownership**. All determinations of inventorship under this Agreement will be made in accordance with the laws of the United States.

(a) **Pfizer Improvements**. Pfizer will own [***].

(b) **Cellectis Improvements**. Cellectis will own [***].

(c) **Developed IP**. Except as provided in Section 6.1.1(d), [***].

(d) **Assignment of Pfizer CAR-T Developed IP**. [***].

(e) **Assignment of Cellectis CAR-T Developed IP**. [***].

(f) **Implementation**. Each Party will assign, and does hereby assign, to the other Party such Patent Rights, Know-How or other intellectual property rights as necessary to achieve ownership as provided in this Section 6.1.1. Each assigning Party will execute and deliver all documents and instruments reasonably requested by the other Party to evidence or record such assignment or to file for, perfect or enforce the assigned rights. Each assigning Party will make its relevant employees, agents and independent contractors (and their assignments and signatures on such documents and instruments) reasonably available to the other Party for assistance in accordance with this Section 6.1.1 at no charge.

6.1.2 **Disclosure**. Each Party will promptly (and in no event less than [***] before filing any initial Patent Right disclosing such intellectual property) disclose to the other Party any Developed IP, Cellectis Improvement and Pfizer Improvement, including all invention disclosures or other similar documents submitted to such Party by its, or its Affiliates', employees, agents or independent contractors describing such Developed IP, Cellectis Improvement or Pfizer Improvement, and the proposed inventorship of any new Patent Rights intended to be filed. The other Party will promptly raise any issue regarding inventorship. Any inventorship issue raised more than [***] after notice of the filing of an initial Patent Rights and the content thereof, or the subsequent filing of new patent claims in a Patent Right directed to substantially different inventions, will not affect ownership of the Patent Right as determined in accordance with the initial inventorship determination.

6.2 **Patent Rights**.

6.2.1 **Filing, Prosecution and Maintenance of Patent Rights**.

(a) **Cooperation**. Without limiting any other rights and obligations of the Parties under this Agreement, the Parties will cooperate with respect to the timing, scope and filing of patent applications and patent claims relating to any Cellectis Improvements, Pfizer Improvements and Developed IP to preserve and enhance the patent protection for Agreement CAR-Ts, including the manufacture and use thereof. If the ownership rights in any Patent Rights included in Cellectis Improvements or Developed IP are substantially impeding or would substantially impede Pfizer's prosecution of CAR-T Developed IP assigned to Pfizer pursuant to Section 6.1.1(d), or Cellectis's prosecution of Cellectis CAR-T Developed IP assigned to Cellectis pursuant 6.1.1(e), the Parties will negotiate in good faith an amendment of the ownership of such Patent Rights included in Cellectis Improvements or Developed IP while preserving for each Party substantially the same rights, including all Milestone Payments and royalty payments, as are afforded in this Agreement.

(b) **Pfizer Patent Rights**. Pfizer, at its own expense, will have the sole right, but not the obligation, to prepare, file, prosecute and maintain, throughout the world, any Patent Rights that it solely owns, including Pfizer Patent Rights and Patent Rights comprised in the Pfizer Improvements and CAR-T Developed IP (to the extent assigned to Pfizer pursuant to Section 6.1.1(d)). Pfizer will keep Cellectis informed regarding the status of any Patent Right comprised in any such CAR-T Developed IP at Cellectis' reasonable request. To the extent Pfizer wishes not to file, prosecute or maintain any such Patent Right, Pfizer will provide Cellectis with thirty (30) days prior written notice to such effect, in which event Cellectis may elect to continue filing, prosecution or maintenance of such Patent Right, and Pfizer, upon Cellectis' written

request received within such thirty (30) day period, will execute such documents and perform such acts, at Cellectis' expense, as may be reasonably necessary to permit Cellectis to file, prosecute and maintain such Patent Right. Any such Patent Right that is prosecuted or maintained by Cellectis pursuant to this Section 6.2.1(c)(i) will continue to be owned by Pfizer, and (ii) subject to the Parties' other rights and obligations under this Agreement, may be licensed by Pfizer to one or more Third Parties.

(c) **Cellectis Patent Rights**. Cellectis, at its own expense, will have the sole right, but not the obligation, to prepare, file, prosecute and maintain, throughout the world, any Patent Rights included in Licensed Intellectual Property that it solely owns or has in-licensed from Third Parties, including Cellectis Patent Rights and Patent Rights comprised in the Cellectis Improvements. Cellectis will not disclose any Pfizer Confidential Information in any Patent Rights that it files, or in connection with the prosecution of any such Patent Rights, without Pfizer's prior written consent. Cellectis will notify Pfizer promptly upon filing or otherwise obtaining rights in any Patent Right after the Effective Date that covers or may cover the Development, Manufacture, Commercialization or use of any Pfizer Licensed Product. In the absence of such prompt notification, any such Patent Rights will be excluded from the Valid Claim definition. Cellectis will keep Pfizer informed regarding each Patent Right included in the Licensed Intellectual Property that Cellectis or any Third Party licensor is prosecuting and will consider in good faith any recommendations made by Pfizer in regard to the filing, prosecution or maintenance of any such Patent Right. To the extent Cellectis wishes not to file, prosecute or maintain any such Patent Right (other than any such Patent Right owned or co-owned by a Third Party licensor), Cellectis will provide Pfizer with thirty (30) days prior written notice to such effect, in which event Pfizer may elect to continue filing, prosecution or maintenance of such Patent Right, and Cellectis, upon Pfizer's written request received within such thirty (30) day period, will execute such documents and perform such acts, at Pfizer's expense, as may be reasonably necessary to permit Pfizer to file, prosecute and maintain, at its own discretion, such Patent Right. Any such Patent Rights that are prosecuted or maintained by Pfizer pursuant to this Section 6.2.1(c) will continue to be owned by Cellectis, and will be excluded from the Valid Claim definition; and, in addition to the exclusive licenses granted to Pfizer under Section 4, Cellectis will and does hereby grant to Pfizer (subject to any existing Third Party rights) a non-exclusive, sublicensable, perpetual, irrevocable, royalty-free, fully paid-up, worldwide license to practice and exploit such Patent Rights for any and all purposes. Cellectis will not decline to pay for or participate in the filing, prosecution or maintenance of any Patent Right under any Cellectis Third Party Agreement that is included in the Licensed Intellectual Property without Pfizer's prior written consent.

(d) **Joint Patent Rights**. In the event the Parties conceive or generate any Joint Developed IP, other than any Joint Developed IP that constitutes CAR-T Developed IP and is assigned to Pfizer pursuant to Section 6.1.1(c), or Cellectis CAR-T Developed IP and is assigned to Cellectis pursuant to Section 6.1.1(d), the Parties will promptly meet to discuss and determine, based on mutual consent, whether to seek patent protection thereon. Neither Party will file any Patent Right covering or claiming any such Joint Developed IP (a "**Joint Patent Right**") Pfizer will have the first right to file on and control prosecution of any Patent Right covering or claiming any Joint Developed IP used in the development, manufacture, composition or use of any CAR-T Targeting such Pfizer Target in accordance with Section 6.2.1(b). For avoidance of doubt, "**prosecution**" as used in this Section 6.2.1 includes oppositions, nullity or revocation actions, post-grant reviews and other patent office proceedings involving the referenced Patent Rights.

(e) **Liability**. To the extent that a Party is obtaining, prosecuting or maintaining a Patent Right included in the Licensed Intellectual Property or Developed IP (including CAR-T Developed IP) or otherwise exercising its rights under this Section 6.2.1, such Party, and its Affiliates, employees, agents or representatives, will not be liable to the other Party in respect of any act, omission, default or neglect on the part of any such Party, or its Affiliates, employees, agents or representatives, in connection with such activities undertaken in good faith.

(f) **Extensions**. The decision to file for a patent term extension and particulars thereof (including which patent(s) to extend) will be made with the goal of obtaining the optimal patent term and scope of protection for Pfizer Licensed Products. Pfizer will have the sole right but not the obligation to apply for and obtain any patent term extension or related extension of rights, including supplementary protection certificates and similar rights, for any patent relating to a Pfizer Licensed Product (including the choice of which patent(s) to extend), provided that it will consult with Cellectis before applying for or obtaining any such extensions or rights for any patents included in the Licensed Cellectis Intellectual Property. The Parties will provide reasonable assistance to each other in connection with obtaining any such extensions for any patent included in the Licensed Cellectis Intellectual Property. To the extent reasonably and legally required in order to obtain any such extension in a particular country, each Party will make available to the other a copy of the necessary documentation to enable such other Party to use the same for the purpose of obtaining the extension in such country.

(g) **Joint Research Agreement**. This Agreement will be understood to be a joint research agreement under 35 U.S.C. § 103(c)(3) entered into for the purpose of researching, identifying and Developing Agreement CAR-Ts and Pfizer Licensed Products.

(h) **Recording**. If a Party deems it necessary or desirable to register or record this Agreement or evidence of this Agreement with any patent office or other appropriate government authorities in one or more jurisdictions in the Territory, then the Parties will agree on a proposed evidence of such recording and the Parties will comply with the terms of Section 7.2.3 in respect of such filing. Each Party will execute and deliver to the other Party any documents necessary or desirable to complete such registration or recordation in accordance with the terms of Section 7.2.3.

6.2.2 **Enforcement of Patent Rights**.

(a) **Notice**. If either Pfizer or Cellectis becomes aware of any infringement that may affect competition of either Party within the Field, anywhere in the world, of any issued Patent Right within the Licensed Intellectual Property or Developed IP, such Party will promptly notify the other Party in writing to that effect.

(b) **Infringement of Certain Patent Rights**.

(i) Subject to the terms and conditions of any applicable Cellectis Third Party Agreements, if any infringement of a Patent Right included in the Licensed Intellectual Property by a Third Party arises from the Development, Manufacture or Commercialization of a product that does, or may, compete with a Pfizer Licensed Product Targeting such Pfizer Target, Pfizer will have the first right, but not the obligation, to take action to obtain a discontinuance of infringement or bring suit against a Third Party infringer of such Patent Right within six (6) months from the date of notice and to join Cellectis as a party plaintiff in each of the following circumstances: (x) where the Pfizer Licensed Product with which the Third Party's infringement will compete has been [***] or is the subject of [***] and no Cellectis Product or CAR-T product of another Cellectis licensee has begun or completed [***], or (y) where such Patent Right is directed exclusively to a Pfizer Target or a Pfizer Licensed Product Targeting such Pfizer Target; in all other circumstances, Pfizer may, with prior written consent of Cellectis (not to be unreasonably withheld), have the right to take action against such Third Party infringer.

(ii) Pfizer will bear all the expenses of any suit brought by it claiming infringement of any such Patent Right. Cellectis will cooperate with Pfizer in any such suit and will have the right to consult with Pfizer and to participate in and be represented by independent counsel in such litigation at its own expense. Pfizer will incur no liability to Cellectis as a consequence of such

litigation or any unfavorable decision resulting therefrom, including any decision holding any such Patent Right invalid or unenforceable, and Pfizer will not, without Cellectis' prior written consent, enter into any settlement or consent decree that requires any payment by or admits or imparts any other liability to Cellectis or admits the invalidity or unenforceability of any such Patent Right.

(iii) If Pfizer has not obtained a discontinuance of infringement by, or filed suit against, any such Third Party infringer within the six (6) month period set forth in subsection (i) above, then Cellectis will have the right, but not the obligation, to bring suit against such Third Party infringer, at Cellectis' sole expense; provided, however, that Cellectis will only have the foregoing right if Pfizer would not be required (by Applicable Law or otherwise) to join such suit as a party and such suit would not involve a Patent Right covering a then-existing Agreement CAR-T or Pfizer Licensed Product. Pfizer will have no obligation to cooperate with Cellectis in any such litigation, provided that Pfizer may, at its sole discretion, elect to consult with Cellectis and to participate in and be represented by independent counsel in such litigation at its own expense. Cellectis will incur no liability to Pfizer as a consequence of such litigation or any unfavorable decision resulting therefrom, including any decision holding any such Cellectis Patent Right or Joint Patent Right invalid or unenforceable; and Cellectis will not, without Pfizer's prior written consent, enter into any settlement or consent decree that requires any payment by or admits or imparts any other liability to Pfizer or admits the invalidity or unenforceability of any such Patent Right.

(iv) The enforcing Party will keep the other Party reasonably informed of all material developments in connection with any such suit. Subject to the terms and conditions of any applicable Cellectis Third Party Agreements, any recoveries obtained by either Party as a result of any proceeding against such a Third Party infringer will be allocated as follows:

(A) Such recovery will first be used to reimburse each Party for all out-of-pocket litigation costs in connection with such litigation paid by that Party; and

(B) With respect to any remaining portion of such recovery, if Pfizer was the enforcing Party, Cellectis will receive an amount equal to the royalty that would be payable, pursuant to Section 5.4, on an amount of Net Sales of the relevant Pfizer Licensed Product(s) in the country(ies) where such infringement occurred equal to such remaining

portion of such recovery, and Pfizer will receive any remaining portion of such recovery; or

(C) With respect to any remaining portion of such recovery, if Cellectis was the enforcing Party, Cellectis will receive any remaining portion of such recovery, except to the extent such recovery was calculated based on lost sales of Pfizer, in which case the allocation of such remaining portion will be made as provided in Section 6.2.2(b)(iv)(B).

(c) **Other Infringement of Joint Patent Rights**. With respect to any notice of a Third Party infringer of any Joint Patent Right other than in the case of a Joint Patent Right subject to Section 6.2.2(b), the Parties will meet as soon as reasonably practicable to discuss such infringement and determine an appropriate course of action and the Parties' respective rights and responsibilities with respect to any enforcement thereof.

6.2.3 **Biosimilar Notices**.

(a) Upon Pfizer's request any time after completion of the first Phase II Clinical Trial for any Pfizer Licensed Product, Cellectis will use reasonable efforts to assist and cooperate with Pfizer in establishing a strategy for responding to requests for information from Regulatory Authorities and Third Party requestors and preparing submissions responsive to any Biosimilar Notices received by Pfizer; provided that Pfizer will make the final decisions with respect to such strategy and any such responses.

(b) Biosimilar Notices. Pfizer will comply with the applicable provisions of 42 U.S.C. § 262(l) (or any amendment or successor statute thereto), any similar statutory or regulatory requirement enacted in the future regarding biologic products in the United States, or any similar statutory or regulatory requirement in any non-U.S. country or other regulatory jurisdiction, in each case, with respect to any Biosimilar Notice received by Pfizer from any Third Party regarding any Pfizer Licensed Product that is being Commercialized in the applicable jurisdiction, and the exchange of information between any Third Party and Pfizer pursuant to such requirements; provided that, prior to any submission of information by Pfizer to a Third Party, Cellectis will have the right to review the patent information included in such proposed submission, solely with respect to Patent Rights Controlled by Cellectis, and to make suggestions as to any changes to such patent information that Cellectis reasonably believes to be necessary; provided further that Pfizer will determine the final content of any such submission. In the case of a Pfizer Licensed Product approved in the United States under the PHS Act (or, in the case of a country in the Territory other than the United States, any similar law), to the extent permitted by Applicable Law, Pfizer, as the

sponsor of the application for the Pfizer Licensed Product, will be the "**reference product sponsor**" under the PHS Act. Pfizer will give written notice to Cellectis of receipt of a Biosimilar Notice received by Pfizer with respect to a Pfizer Licensed Product, and Pfizer will consult with Cellectis with respect to the selection of the Patent Rights to be submitted pursuant to 42 U.S.C. § 262(l) (or any similar law in any country of the Territory outside the United States); provided that Pfizer will have final say on such selection of Patent Rights. Cellectis agrees to be bound by the confidentiality provisions of 42 U.S.C. § 262(l)(1)(B)(iii). In order to establish standing in connection with any action brought by Pfizer under this Section 6.2.3, Cellectis, upon Pfizer's request, will reasonably cooperate with Pfizer in any such action, including timely commencing or joining in any action brought by Pfizer under this Section 6.2.3 solely to the extent any Patent Rights Controlled by Cellectis are involved in any such action, and the Parties rights and responsibilities regarding any action will be determined in accordance with Section 6.2.2(b).

6.3 **Interference, Opposition, Revocation and Declaratory Judgment Actions**. If the Parties mutually determine that, based upon the review of a Third Party's patent or patent application or other intellectual property rights, it may be desirable in connection with any Agreement CAR-T or Pfizer Licensed Product to provoke or institute an interference, opposition, revocation, post-grant review or other patent office proceedings or declaratory judgment action with respect thereto, then the Parties will consult with one another and will [***] in connection with such an action. Unless otherwise mutually determined by the Parties, if (i) such impasse exists during the Research Term then Cellectis will control such action and will select counsel for such action and (ii) such impasse exists following the Research Term then Pfizer will control such action and will select counsel for such action. The rights and obligations of the Parties under Section 6.4 are expressly subject to this Section 6.3.

6.4 **Infringement of Third Party Patent Rights**. If the Development, Manufacture or Commercialization of any Pfizer Licensed Product is alleged by a Third Party to infringe a Third Party's patent or other intellectual property rights, the Party becoming aware of such allegation will promptly notify the other Party. The Party that is alleged to infringe the Third Party's patent or intellectual property rights will have the right to take such action as it deems appropriate in response to such allegation, and will be solely responsible for all damages, costs and expenses in connection therewith, subject to Section 10.1.

7. CONFIDENTIALITY

7.1 **Confidentiality**. Except to the extent expressly authorized by this Agreement, the Parties agree that, during the Term and [***], each Party (the "**Receiving Party**") receiving any Confidential Information of the other Party (the "**Disclosing Party**") hereunder will: (a) keep the Disclosing Party's Confidential Information confidential; (b) not disclose, or permit the disclosure of, the Disclosing Party's Confidential Information; and (c) not use, or permit to be used, the Disclosing

Party's Confidential Information for any purpose, provided, however, that a Receiving Party may disclose Confidential Information of the Disclosing Party to the extent that such Confidential Information (i) was already known by the Receiving Party (other than under an obligation of confidentiality to the Disclosing Party) at the time of disclosure by the Disclosing Party; (ii) was generally available to the public or otherwise part of the public domain at the time of its disclosure to the Receiving Party; (iii) became generally available to the public or otherwise part of the public domain after its disclosure to the Receiving Party, other than through any act or omission of the Receiving Party in breach of its obligations under this Agreement; (iv) was disclosed to the Receiving Party, other than under an obligation of confidentiality, by a Third Party who had no obligation to the Disclosing Party not to disclose such information to the Receiving Party; or (v) was independently discovered or developed by or on behalf of the Receiving Party without the use of any Confidential Information of the Disclosing Party.

7.2 **Authorized Disclosure**.

7.2.1 **Disclosure to Party Representatives**. Notwithstanding the foregoing provisions of Section 7.1, the Receiving Party may disclose Confidential Information belonging to the Disclosing Party to the Receiving Party's, its Affiliates' and its Sublicensees' officers, directors, employees, consultants, contractors, licensors and agents (collectively, "**Representatives**") who (a) have a need to know such Confidential Information in connection with the performance of the Receiving Party's obligations or the exercise of the Receiving Party's rights under this Agreement and (b) have agreed in writing to non-disclosure and non-use provisions with respect to such Confidential Information that are at least as restrictive as those set forth in this Article 7.

7.2.2 **Disclosure to Third Parties**.

(a) Notwithstanding the foregoing provisions of Section 7.1, the Parties may disclose Confidential Information belonging to the other Party:

(i) to Governmental Authorities (A) to the extent reasonably necessary to obtain or maintain INDs or Regulatory Approvals for any Agreement CAR-T or Pfizer Licensed Product Targeting such Pfizer Target, or any Cellectis Target or Cellectis Product Targeting such Cellectis Target, within the Territory, and (B) in order to respond to inquiries, requests, investigations, orders or subpoenas relating to this Agreement;

(ii) to outside consultants, contractors, advisory boards, managed care organizations, and non-clinical and clinical investigators, in each case to the extent reasonably necessary for the performance of this Agreement and under reasonable obligations of confidentiality;

(iii) to the extent reasonably necessary, in connection with filing or prosecuting Patent Rights or Trademark rights as permitted by this Agreement;

(iv) to the extent reasonably necessary, in connection with prosecuting or defending litigation as permitted by this Agreement;

(v) subject to Section 7.3.2, in connection with or included in scientific presentations and publications relating to Agreement CAR-Ts or Pfizer Licensed Products, including abstracts, posters, journal articles and the like, and posting results of and other information about clinical trials to clincialtrials.gov or PhRMA websites; and

(vi) to the extent necessary in order to enforce its rights under this Agreement and as permitted in the Agreement.

(b) In the event a Party deems it reasonably necessary to disclose Confidential Information belonging to the other Party pursuant to Section 7.2.2(a)(i)(B), the Disclosing Party will to the extent possible give reasonable advance written notice of such disclosure to the other Party and take all reasonable measures to ensure confidential treatment of such information.

7.2.3 **SEC Filings and Other Disclosures**. Notwithstanding any provision of this Agreement to the contrary, either Party may disclose the terms of this Agreement to the extent required, in the reasonable opinion of such Party's legal counsel, to comply with applicable Law, including the rules and regulations promulgated by the United States Securities and Exchange Commission or any equivalent governmental agency in any country in the Territory. Notwithstanding the foregoing, before disclosing this Agreement or any of the terms hereof pursuant to this Section 7.2.3, the Parties will consult with one another on the terms of this Agreement to be redacted in making any such disclosure. Further, if a Party discloses this Agreement or any of the terms hereof in accordance with this Section 7.2.3, such Party will, at its own expense, seek such confidential treatment of confidential portions of this Agreement and such other terms, as may be reasonably requested by the other Party.

7.3 **Public Announcements; Publications**.

7.3.1 **Announcements**. Except as may be expressly permitted under Section 7.2.3, neither Party will make any public announcement regarding this Agreement without the prior written approval of the other Party. For the sake of clarity, nothing in this Agreement will prevent (a) either Party from making any public disclosure relating to this Agreement if the contents of such public disclosure have previously been made public other than through a breach of this Agreement by the issuing Party or its Affiliates; (b) Pfizer from making any

scientific publication or public announcement with respect to any Pfizer Licensed Product Targeting such Pfizer Target under this Agreement; provided, however, that, except as permitted under Section 7.2, Pfizer will not disclose any of Cellectis' Confidential Information in any such publication or announcement without obtaining Cellectis' prior written consent to do so and (c) Cellectis from making any scientific publication or public announcement with respect to any Cellectis Licensed Product Targeting such Cellectis Program Target under this Agreement; provided, however, that, except as permitted under Section 7.2, Cellectis will not disclose any of Pfizer's Confidential Information in any such publication or announcement without obtaining Pfizer's prior written consent to do so. The Parties agree that they will release the announcement attached hereto as Schedule 7.3.1 regarding the signing of this Agreement following the Effective Date.

7.3.2 **Publications**. During the Term, each Party will submit to the other Party (the "**Non-Disclosing Party**") for review and approval any proposed academic, scientific and medical publication or public presentation which contains the Non-Disclosing Party's Confidential Information. In addition, each Party will submit to the other Party for its review and approval any proposed publication or public presentation relating to the Research Program. In both instances, such review and approval will be conducted for the purposes of preserving the value of the Licensed Intellectual Property, Cellectis CAR-T Developed IP and Pfizer CAR-T Developed IP and the rights granted to each Party hereunder and determining whether any portion of the proposed publication or presentation containing the Non-Disclosing Party's Confidential Information should be modified or deleted. Written copies of such proposed publication or presentation required to be submitted hereunder will be submitted to the Non-Disclosing Party no later than thirty (30) days before submission for publication or presentation (the "**Review Period**"). The Non-Disclosing Party will provide its comments with respect to such publications and presentations within twenty (20) days after its receipt of such written copy, and the other Party will delete any Confidential Information of the Non-Disclosing Party upon request. The Review Period may be extended for an additional sixty (60) days in the event the Non-Disclosing Party can, within fifteen (15) days of receipt of the written copy, demonstrate reasonable need for such extension, including for the preparation and filing of patent applications. Cellectis and Pfizer will each comply with standard academic practice regarding authorship of scientific publications and recognition of contribution of other parties in any publication governed by this Section 7.3.2.

7.4 **Obligations in Connection with Change of Control**. If Cellectis is subject to a Change of Control, Cellectis will, and it will cause its Affiliates and Representatives to, ensure that no Confidential Information of Pfizer is released to (a) any Affiliate of Cellectis that becomes an Affiliate as a result of the Change of Control or (b) any Representatives of Cellectis (or of the relevant surviving entity of such Change of Control) who become Representatives as a result of the Change of Control, unless such Representatives have signed individual confidentiality agreements which include equivalent obligations to those set out in this Article 7. If any Change of Control of

Cellectis occurs, Cellectis will promptly notify Pfizer, share with Pfizer the policies and procedures it plans to implement in order to protect the confidentiality of Pfizer's Confidential Information prior to such implementation and make any adjustments to such policies and procedures that are reasonably requested by Pfizer.

8. REPRESENTATIONS AND WARRANTIES.

8.1 **Mutual Representations and Warranties**. Each of Cellectis and Pfizer hereby represents and warrants to the other Party that:

8.1.1 it is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization;

8.1.2 the execution, delivery and performance of this Agreement by such Party has been duly authorized by all requisite action under the provisions of its charter, bylaws and other organizational documents, and does not require any action or approval by any of its shareholders or other holders of its voting securities or voting interests;

8.1.3 it has the power and authority to execute and deliver this Agreement and to perform its obligations hereunder;

8.1.4 this Agreement has been duly executed and is a legal, valid and Binding Obligation on each Party, enforceable against such Party in accordance with its terms; and

8.1.5 the execution, delivery and performance by such Party of this Agreement and its compliance with the terms and provisions hereof does not and will not conflict with or result in a breach of or default under any Binding Obligation existing as of the Effective Date.

8.2 **Representations and Warranties of Cellectis**. Cellectis hereby represents and warrants to Pfizer that:

8.2.1 except as expressly disclosed in Schedule 8.2.1, Cellectis is the sole and exclusive owner of the Cellectis Technology existing as of the Effective Date, all of which is free and clear of any claims, liens, charges or encumbrances;

8.2.2 it has and will have the full right, power and authority to grant all of the right, title and interest in the licenses and other rights granted or to be granted to Pfizer or Pfizer's Affiliates under this Agreement;

8.2.3 as of the Effective Date (a) Schedule 8.2.3 sets forth a true and complete list of all Cellectis Patent Rights, (b) each such Patent Right is in full force and effect and (c) Cellectis or its Affiliates or their licensors have timely paid all filing and renewal fees payable with respect to such Patent Rights;

8.2.4 to its knowledge: (i) the Cellectis Patent Rights existing as of the Effective Date, are, or, upon issuance, will be, valid and enforceable patents and (ii) as of the Effective Date, except as set forth in Schedule 8.2.4, no Third Party (a) is infringing any Cellectis Patent Right for use in CARs in the Field or (b) has challenged or threatened to challenge the extent, validity or enforceability of any Cellectis Patent Right (including, by way of example, through the institution or threat of institution of interference, nullity or similar invalidity proceedings before the United States Patent and Trademark Office or any analogous foreign Governmental Authority);

8.2.5 it and its counsel, and, to its knowledge, [***], have complied with all Applicable Laws, including any disclosure requirements, in connection with the filing, prosecution and maintenance of the Cellectis Patent Rights existing as of the Effective Date;

8.2.6 except as expressly disclosed in Schedule 8.2.6, Cellectis has independently developed all Cellectis Know-How existing as of the Effective Date or otherwise has a valid right to use, and to permit Pfizer, Pfizer's Affiliates and Pfizer's Sublicensees to use, such Cellectis Know-How for all permitted purposes under this Agreement;

8.2.7 it [***] has obtained from all inventors of Cellectis Technology existing as of the Effective Date, valid and enforceable agreements assigning to Cellectis [***] each such inventor's entire right, title and interest in and to all such Cellectis Technology;

8.2.8 except as expressly disclosed in Schedule 8.2.8, no Cellectis Technology existing as of the Effective Date is subject to any funding agreement with any Governmental Authority;

8.2.9 except as expressly disclosed in Schedule 8.2.9, neither Cellectis nor any of its Affiliates are subject to any agreement or obligation that limits any ownership or license right granted to Pfizer or its Affiliates under this Agreement, including any right granted to Pfizer or its Affiliates to access, practice, grant any licenses or sublicenses under, or provide Pfizer's Sublicensees with access to any intellectual property right or material (including any Patent Right, Know-How or other data or information), in each case, that would, but for such agreement or obligation, be included in the rights licensed or assigned to Pfizer or its Affiliates pursuant to this Agreement;

8.2.10 (a) there are no Cellectis Third Party Agreements existing as of the Effective Date, other than the Cellectis Third Party Agreements expressly disclosed in Schedule 8.2.10 (each, a "**Disclosed Third Party Agreement**"), true and complete redacted copies of which have been provided to Pfizer, (b) except as provided in the Disclosed Third Party Agreements and except for the Servier Agreement, no Third Party has any right, title or interest in or to, or any license under, any Cellectis Technology for use of CAR-Ts in the Field, (c) no rights granted by or to Cellectis or its Affiliates under any Disclosed Third Party Agreement conflict with any right or license granted to Pfizer or its Affiliates hereunder and (d) Cellectis and its Affiliates are in compliance in all respects with all Disclosed Third Party Agreements, including all due diligence obligations of Cellectis under the Disclosed Third Party Agreements;

8.2.11 there is no (a) claim, demand, suit, proceeding, arbitration, inquiry, investigation or other legal action of any nature, civil, criminal, regulatory or otherwise, pending or, to the knowledge of Cellectis, threatened against Cellectis or any of its Affiliates or (b) judgment or settlement against or owed by Cellectis or any of its Affiliates, in each case in connection with the Cellectis Technology or relating to the transactions contemplated by this Agreement.

8.3 **Representations and Warranties of Pfizer**. Pfizer hereby represents and warrants to Cellectis that it has and will have the full right, power and authority to grant all of the right, title and interest in the licenses and other rights granted or to be granted to Cellectis or Cellectis's Affiliates under this Agreement.

8.4 **Cellectis Covenants**. In addition to the covenants made by the Parties elsewhere in this Agreement, Cellectis hereby covenants to the other that:

8.4.1 Cellectis will use its reasonable efforts to obtain, [***] of the Effective Date or as soon thereafter as practicable, an executed confirmatory letter agreement [***] substantially in the form as provided by Pfizer prior to the Effective Date or as otherwise acceptable to Pfizer.

8.5 **Mutual Covenants**. In addition to the covenants made by the Parties elsewhere in this Agreement, each Party hereby covenants to the other that, from the Effective Date until expiration or termination of this Agreement:

8.5.1 it will not (a) take any action that diminishes the rights under the Licensed Cellectis Intellectual Property or Licensed Pfizer Intellectual Property or Developed IP granted or assigned under this Agreement or (b) fail to take any action that is reasonably necessary to avoid diminishing the rights under the Licensed Cellectis Intellectual Property, Licensed Pfizer Intellectual Property or Developed IP granted or assigned to Pfizer or Pfizer's Affiliates under this Agreement;

8.5.2 it will (a) not enter into any Third Party Agreement that adversely affects (i) the rights granted to the other Party hereunder or (ii) its ability to fully perform its obligations hereunder; (b) not amend, terminate or otherwise modify any Third Party Agreement (including for Cellectis, the Servier Agreement) or consent or waive rights with respect thereto in any manner that (i) adversely affects the rights granted to the other Party hereunder or (ii) its ability to fully perform its obligations hereunder; (c) fulfill, and cause its Affiliates to fulfill, all of their respective obligations under all Third Party Agreements (including for Cellectis Servier Agreements) so as not to be in breach of such agreements; (e) inform Pfizer of existence of all notices received by Cellectis or its Affiliates relating to any alleged breach or default by Cellectis or its Affiliates under any Third Party Agreement (including Servier Agreement), and all other notices received by Cellectis or its Affiliates in connection with any Cellectis Third Party Agreement (including any Disclosed Third Party Agreement) that pertain to the rights granted to Pfizer or Pfizer's Affiliates hereunder, within [***] after receipt thereof; and (f) in the event that Cellectis does not resolve any such alleged breach or default, notify Pfizer within [***] before the expiration of the cure period for such breach of default under such Cellectis Third Party Agreement such that Pfizer is able to cure or otherwise resolve such alleged breach or default, and if Pfizer makes any payments to any Third Party in connection with the cure or other resolution of such alleged breach or default, then Pfizer may credit the amount of such payments against any royalties or other amounts payable to Cellectis pursuant to this Agreement.

8.5.3 it will not enter into or otherwise allow itself or its Affiliates to be subject to any agreement or arrangement which limits the ownership rights of the other Party or its Affiliates with respect to, or limits the ability of the other Party or its Affiliates to grant a license, sublicense or access, or provide or provide access or other rights in, to or under, any intellectual property right or material (including any Patent Right, Know-How or other data or information), in each case, that would, but for such agreement or arrangement, be included in the rights licensed or assigned to the other Party or its Affiliates pursuant to this Agreement; and

8.5.4 it will maintain valid and enforceable agreements with all Persons acting by or on behalf of itself or its Affiliates under this Agreement which require such Persons to assign to it their entire right, title and interest in and to all Patent Rights, Know-How or other intellectual property rights that are conceived or generated in the course of performing Research Plan Services.

8.6 **Representation by Legal Counsel**. Each Party hereto represents that it has been represented by legal counsel in connection with this Agreement and acknowledges that it has participated in the drafting hereof. In interpreting and applying the terms and provisions of this Agreement, the Parties agree that no presumption will exist or be implied against the Party which drafted such terms and provisions.

8.7 **Disclaimer**. THE FOREGOING REPRESENTATIONS AND WARRANTIES OF EACH PARTY ARE IN LIEU OF ANY OTHER REPRESENTATIONS AND

WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR ANY IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH ARE HEREBY SPECIFICALLY EXCLUDED AND DISCLAIMED.

9. GOVERNMENT APPROVALS; TERM AND TERMINATION.

9.1 **Government Approvals**. Each of Cellectis and Pfizer will cooperate with the other Party and use Commercially Reasonable Efforts to make all registrations, filings and applications, to give all notices and to obtain as soon as practicable all governmental or other consents, transfers, approvals, orders, qualifications authorizations, permits and waivers, if any, and to do all other things necessary or desirable for the consummation of the transactions as contemplated hereby.

9.2 **Term**. The term of this Agreement (the "**Term**") will commence on the Effective Date and will extend, unless this Agreement is terminated earlier in accordance with this Article 9, on a Pfizer Licensed Product-by-Pfizer Licensed Product and country-by-country basis, until such time as the Royalty Term with respect to the sale of such Pfizer Licensed Product in such country expires.

9.3 **Termination by Pfizer for Failure of Cellectis to Obtain Shareholder Approval**. In the event that Cellectis is unable to obtain approval of its shareholders by August 15, 2014 for the issuance of 2,786,924 ordinary shares of Cellectis to Pfizer pursuant to the Subscription Agreement by and between Cellectis and Pfizer OTC BV dated as of the Effective Date, then Pfizer will have the right, at its sole discretion, to terminate this Agreement in its entirety.

9.4 **Termination by Either Party for Cause**. Either Party may terminate this Agreement, in its entirety or, at the terminating Party's option, on a Pfizer Target-by-Pfizer Target basis or Cellectis Program Target-by Cellectis Program Target basis, as applicable, at any time during the Term of this Agreement by giving written notice to the other Party if the other Party commits a material breach of its obligations under this Agreement and such breach remains uncured for ninety (90) days, measured from the date written notice of such breach is given to the breaching Party. Notwithstanding the foregoing, a Party will have the right to terminate this Agreement pursuant to this Section 9.4 (a) in part with respect to an individual Pfizer Target or Cellectis Program Target, as applicable, only if the other Party's material breach giving rise to such termination right relates to such Pfizer Target or Cellectis Program Target, as applicable, or (b) in its entirety only if such material breach fundamentally frustrates the objectives or transactions contemplated by this Agreement taken as a whole or affects substantially all of the Research Program.

9.5 **Termination by Pfizer for Convenience**. At any time after the one (1) year anniversary of the Effective Date, Pfizer will have the right to terminate this Agreement for any or no reason, either in its entirety or on a Pfizer Target-by-Pfizer Target basis, by providing sixty (60) days advance written notice of such termination to Cellectis.

9.6 **Termination on Insolvency of Cellectis.** This Agreement may be terminated upon written notice by Pfizer at any time in the event of a Cellectis Insolvency Event.

9.7 **Effects of Termination**.

9.7.1 **Effect of Termination by Pfizer for Failure of Cellectis to Obtain Shareholder Approval**. If Pfizer terminates this Agreement pursuant to Section 9.3:

(a) all work under all Research Plans will cease;

(b) all rights and licenses granted by Cellectis to Pfizer pursuant to Sections 4.1 and will terminate;

(c) all rights and licenses granted by Pfizer to Cellectis pursuant to Sections 4.2 will terminate; and

(d) Pfizer will be relieved of any and all payment obligations under Section 5, including the upfront payment that would become due and payable pursuant to Section 5.1; and

(e) Any material or Confidential Information provided by a Party to the other Party in the course of the performance of this Agreement will be returned or destroyed as directed in writing by the providing Party.

9.7.2 **Effect of Termination by Pfizer for Cause**. If Pfizer terminates this Agreement with respect to any or all Pfizer Targets pursuant to Section 9.4 (each, a "**Terminated Target**"):

(a) all work under the applicable Research Plan with respect to each Terminated Target will cease;

(b) all licenses granted to Pfizer with respect to such Terminated Target and any Pfizer Licensed Product Targeting such Terminated Target (each, a "**Terminated Pfizer Licensed Product**"), including under Section 4.1, will continue and become irrevocable and perpetual, and Pfizer will have no further obligations to Cellectis under this Agreement with respect to any such Terminated Target or Terminated Pfizer Licensed Product (including no further obligation to pay Milestone Payments) other than (i) those obligations that expressly survive termination in accordance with Section 9.9 and (ii) an obligation to pay royalties with respect to Net Sales of Terminated Pfizer Licensed Products in accordance with the terms and conditions of this Agreement, in an amount equal to [***] of the amount that would otherwise have been payable under this Agreement;

(c) If Pfizer terminates this Agreement in its entirety pursuant to Section 9.4, or if Pfizer terminates this Agreement in its entirety pursuant

to Section 9.5: (i) all licenses granted by Pfizer to Cellectis under Sections 4.1.1 an 4.2.2 will terminate, (ii) Pfizer will have no further obligations to Cellectis under this Agreement other than those obligations that expressly survive termination in accordance with Section 9.9, and (iii) any material or Confidential Information provided Pfizer to Cellectis in the course of the performance of this Agreement will be returned or destroyed as directed in writing by Pfizer;

(d) Pfizer will have the right to offset, against any payment owing to Cellectis under subparagraph (b) above, any damages found or agreed by the Parties to be owed by Cellectis to Pfizer;

(e) Cellectis will remain entitled to receive payments that accrued before the effective date of such termination;

(f) nothing in this Section 9.7.1 will limit any other remedy Pfizer may have for Cellectis' breach of this Agreement; and

(g) the rights and obligations of the Parties with respect to all Pfizer Targets other than any such Terminated Target will remain in full force and effect.

9.7.3 **Effect of Termination by Pfizer on Insolvency of Cellectis**. If Pfizer terminates this Agreement pursuant to Section 9.6:

(a) Cellectis will have no further obligation to perform any of its obligations under this Agreement (including Cellectis' obligations under the Research Program) other than those obligations that expressly survive termination of this Agreement in accordance with Sections 9.7.2(b) and 9.9;

(b) all licenses granted to Pfizer, including under Section 4.1, will continue and become, subject only to the royalty obligation set forth below in this Section 9.7.2(b), irrevocable and perpetual, and Pfizer will have no further obligations to Cellectis under this Agreement (including no further obligation to pay Milestone Payments) other than (i) those obligations that expressly survive termination in accordance with Section 9.9 and (ii) an obligation to pay royalties with respect to Net Sales of Pfizer Licensed Products in accordance with the terms and conditions of this Agreement;

(c) Cellectis will remain entitled to receive payments that accrued before the effective date of such termination;

(d) Pfizer will have the right to offset, against any payment owing to Cellectis under subparagraph (b) above, any damages found or agreed by the Parties to be owed by Cellectis to Pfizer; and

(e) nothing in this Section 9.7.2 will limit any other remedy Pfizer may have for Cellectis' breach of this Agreement.

9.7.4 **Effect of Termination by Cellectis for Cause or by Pfizer for Convenience**.

(a) If Cellectis terminates this Agreement with respect to any Pfizer Target pursuant to Section 9.4, or if Pfizer terminates this Agreement with respect to any Pfizer Target pursuant to Section 9.5, then (i) all licenses granted by Cellectis to Pfizer under Sections 4.1.1, 4.1.2 and 4.1.3 with respect to any such Pfizer Target, (ii) any Pfizer Licensed Product Targeting such Pfizer Target will terminate, and (iii) any material or Confidential Information provided by Cellectis to Pfizer in the course of the performance of this Agreement will be returned or destroyed as directed in writing by Cellectis.

(b) If Cellectis terminates this Agreement in its entirety pursuant to Section 9.4, or if Pfizer terminates this Agreement in its entirety pursuant to Section 9.5: (i) all licenses granted by Cellectis to Pfizer under Sections 4.1.1, 4.1.2 and 4.1.3 will terminate, (ii) Cellectis will have no further obligations to Pfizer under this Agreement other than those obligations that expressly survive termination in accordance with Section 9.9, (iii) all rights and licenses granted by Pfizer to Cellectis pursuant to Section 4.2 will continue, (iv) Pfizer's right of first refusal set forth in Section 3.9 will continue to the extent that such Cellectis Product is Covered by Licensed Pfizer Intellectual Property and (v) any material or Confidential Information provided by Cellectis to Pfizer in the course of the performance of this Agreement will be returned or destroyed as directed in writing by Cellectis.

(c) In the event that Cellectis terminates this Agreement for cause pursuant to Section 9.4 or Pfizer terminates this Agreement without cause pursuant to Section 9.5 with respect to a Licensed Pfizer Product Targeting a Pfizer Target, on Cellectis' written notice to Pfizer, which notice may only be delivered within [***] following the effective date of such termination, unless such termination is related to material concerns regarding the safety of the Compound(s) or Product(s), the Parties will negotiate in good faith for a period not to exceed [***] following the effective date of termination regarding:

(i) the grant by Pfizer to Cellectis of a royalty-bearing, non-exclusive license under the Applicable Pfizer Technology permitting Cellectis to continue to Develop, Commercialize and Manufacture any Product under Development or Commercialization by Pfizer under this Agreement at the time of

termination, in the form in which such Product then exists (a "**Continuation Product**"); and

(ii) the related transfer to Cellectis of development data and regulatory filings specifically relating to such Continuation Product or the granting to Cellectis of rights of reference with respect to such data and filings.

(d) Neither Party will be obligated to enter into any transaction described in Section 9.7.4(c) and neither Party will have any liability to the other for failure to do so.

(e) For the avoidance of doubt, if Cellectis terminates this Agreement with respect to any Pfizer Target pursuant to Section 9.4, or if Pfizer terminates this Agreement with respect to any Pfizer Target pursuant to Section 9.5, in each case including all Pfizer Targets in the event that this Agreement is terminated in its entirety, any such Pfizer Target will no longer be considered to be a Pfizer Target for the purpose of this Agreement.

9.7.5 **Satisfaction of Obligations During Notice Period**. During the period from providing a notice of termination through the termination of the Agreement, the Parties will continue to perform their obligations under this Agreement.

9.7.6 **Pending Dispute Resolution**. If a Party gives notice of termination under Section 9.4 and the other Party disputes whether such notice was proper, then the issue of whether this Agreement has been terminated will be resolved in accordance with Section 11.10 and this Agreement will remain in effect pending the resolution of such dispute. If as a result of such dispute resolution process it is determined that the notice of termination was proper, then such termination will be effective immediately. If as a result of such dispute resolution process it is determined that the notice of termination was improper, then no termination will have occurred and this Agreement will remain in effect.

9.8 **Disposition of Inventories of Products**. Following termination of this Agreement with respect to one or more Pfizer Targets, Pfizer, its Affiliates and its Sublicensees will have the right to continue to sell their existing inventories of Pfizer Licensed Product(s) Targeting such Pfizer Targets that have received Regulatory Approval prior to such termination for a period not to exceed [***] after the effective date of such termination or expiration and Pfizer will pay any royalties payable in connection with such sales in accordance with Section 5.5.

9.9 **Survival of Certain Obligations**. Expiration or termination of this Agreement will not relieve the Parties of any obligation that accrued before such expiration or termination. The following provisions will survive expiration or termination of this Agreement: Sections 1 (Definitions); 5.6.2 to 5.6.6 (Reports and Payments); 5.7 (Maintenance and Audit Rights); 7 (Confidentiality); 8 (Representations and Warranties);

9.3 to 9.9 (Effect of Termination); 10 (Limitation on liabilities) and 11 (Miscellaneous) . In addition, any Section that is referred to in the above listed Sections shall survive solely for the interpretation or enforcement of the listed Sections.

9.10 **Right to Termination of Research Project(s) or Research Program by Pfizer upon Change of Control of Cellectis**. If a Change of Control of Cellectis is consummated during the Research Term, Pfizer will have the right to terminate any Research Project or the Research Program in its entirety, upon written notice to Cellectis within [***] after consummation of such Change of Control of Cellectis. Such termination of any Research Project or the Research Program (a) will not constitute termination of this Agreement, (b) will not affect the Parties' rights and obligations under this Agreement other than those relating to such Research Project or the Research Program and (c) will not relieve either Party of any obligation that arose prior to such termination. Following any such termination of any Research Project or the Research Program, as applicable, Pfizer will have no further funding obligation under Article 2 or Section 5.3 with respect to such Research Project or the Research Program, as applicable, other than that which may have accrued prior to such termination. In addition, if, at any time following a Change of Control of Cellectis consummated during the Research Term, Cellectis or its successor fails to perform its obligations under the Research Program in any material respect, then, effective upon written notice to Cellectis or its successor, Pfizer will have the right to terminate any Research Project or the Research Program in its entirety pursuant to this Section 9.10, and Cellectis will promptly transfer to Pfizer, at no additional cost to Pfizer, such Cellectis Know-How and Cellectis Improvements, including related materials, as is necessary for Pfizer to complete all activities contemplated under such Research Project or the Research Program, as applicable. For the avoidance of doubt, in the event that Pfizer terminates a Research Project or the Research Program in accordance with this Section 9.10, such termination will not be deemed to be a termination for cause under Section 9.4 or a termination for convenience under Section 9.5, and the only effects of such termination are as set forth in this Section 9.10. Notwithstanding any provision of this Agreement to the contrary, nothing in this Section 9.10 will limit, or preclude Pfizer from seeking, any other remedy Pfizer may have for Cellectis' breach of this Agreement; provided that Pfizer may not seek remedy under both this Section 9.10 and Section 9.4 with respect to the same performance failure by Cellectis or its successor.

9.11 **Bankruptcy**. All rights and licenses granted under or pursuant to this Agreement by Cellectis are, and will otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of rights to "**intellectual property**" as defined under Section 101 of the U.S. Bankruptcy Code. The Parties agree that Pfizer, as licensee of intellectual property under this Agreement, will retain and may fully exercise all of its rights and elections under the U.S. Bankruptcy Code. The Parties further agree that in the event of a rejection of this Agreement by Cellectis in any bankruptcy proceeding by or against Cellectis under the U.S. Bankruptcy Code, (i) Pfizer will be entitled to a complete duplicate of (or complete access to, as appropriate) any such intellectual property and all embodiments of such intellectual property, which, if not already in Pfizer's possession,

will be promptly delivered to it upon Pfizer's written request therefor, and (ii) Cellectis will not interfere with Pfizer's rights to intellectual property and all embodiments of intellectual property, and will assist and not interfere with Pfizer in obtaining intellectual property and all embodiments of intellectual property from another entity. The term "**embodiments**" of intellectual property includes all tangible, intangible, electronic or other embodiments of rights and licenses hereunder, including all compounds and products embodying intellectual property, Pfizer Licensed Products, filings with Regulatory Authorities and related rights, and Cellectis Technology.

10. LIMITATION ON LIABILITY, INDEMNIFICATION AND INSURANCE.

10.1 **No Consequential Damages**. Except with respect to liability arising from a breach of Article 7, from any willful misconduct or intentionally wrongful act, or to the extent such Party may be required to provide indemnification under this Article 10, in no event will either Party, its Affiliates, its Sublicensees or any of its, its Affiliates' or its Sublicensees' respective Representatives be liable under this Agreement for any special, indirect, incidental, consequential or punitive damages, whether in contract, warranty, tort, negligence, strict liability or otherwise, including loss of profits or revenue suffered by either Party or any of its respective Affiliates or Representatives. Without limiting the generality of the foregoing, "**consequential damages**" will be deemed to include, and neither Party will be liable to the other Party or any of such other Party's Affiliates, Representatives or stockholders for, any damages based on or measured by loss of projected or speculative future sales of the Pfizer Licensed Products, any Milestone Payment due upon any unachieved event under Section 5.3, any unearned royalties under Section 5.4 or any other unearned, speculative or otherwise contingent payments provided for in this Agreement.

10.2 **Indemnification by Pfizer**. Pfizer will indemnify, defend and hold harmless Cellectis, its Affiliates, their sublicensees, contractors, subcontractors and distributors and each of its and their respective employees, officers, directors and agents (each, a "**Cellectis Indemnified Party**") from and against any and all liability, loss, damage, expense (including reasonable attorneys' fees and expenses) and cost (collectively, a "**Liability**") that the Cellectis Indemnified Party may be required to pay to one or more Third Parties resulting from or arising out of:

[***]

10.3 **Indemnification by Cellectis**. Cellectis will indemnify, defend and hold harmless Pfizer, its Affiliates, Sublicensees, contractors, distributors and each of its and their respective employees, officers, directors and agents (each, a "**Pfizer Indemnified Party**") from and against any and all Liabilities that the Pfizer Indemnified Party may be required to pay to one or more Third Parties resulting from or arising out of:

[***]

10.4 **Procedure**.

10.4.1 **Notice**. Each Party will notify the other Party in writing in the event it becomes aware of a claim for which indemnification may be sought hereunder. In the event that any Third Party asserts a claim or other proceeding (including any governmental investigation) with respect to any matter for which a Party (the "**Indemnified Party**") is entitled to indemnification hereunder (a "**Third Party Claim**"), then the Indemnified Party will promptly notify the Party obligated to indemnify the Indemnified Party (the "**Indemnifying Party**") thereof; provided, however, that no delay on the part of the Indemnified Party in notifying the Indemnifying Party will relieve the Indemnifying Party from any obligation hereunder unless (and then only to the extent that) the Indemnifying Party is prejudiced thereby.

10.4.2 **Control**. Subject to Pfizer's right to control any actions described in Section 6.2 (even where Cellectis is the Indemnifying Party), the Indemnifying Party will have the right, exercisable by notice to the Indemnified Party within ten (10) Business Days after receipt of notice from the Indemnified Party of the commencement of or assertion of any Third Party Claim, to assume direction and control of the defense, litigation, settlement, appeal or other disposition of the Third Party Claim (including the right to settle the claim solely for monetary consideration) with counsel selected by the Indemnifying Party and reasonably acceptable to the Indemnified Party; provided that (a) the Indemnifying Party has

sufficient financial resources, in the reasonable judgment of the Indemnified Party, to satisfy the amount of any adverse monetary judgment that is sought, (b) the Third Party Claim seeks solely monetary damages and (c) the Indemnifying Party expressly agrees in writing that as between the Indemnifying Party and the Indemnified Party, the Indemnifying Party will be solely obligated to satisfy and discharge the Third Party Claim in full (the conditions set forth in clauses (a), (b) and (c) above are collectively referred to as the "**Litigation Conditions**"). Within ten (10) Business Days after the Indemnifying Party has given notice to the Indemnified Party of its exercise of its right to defend a Third Party Claim, the Indemnified Party will give notice to the Indemnifying Party of any objection thereto based upon the Litigation Conditions. If the Indemnified Party reasonably so objects, the Indemnified Party will continue to defend the Third Party Claim, at the expense of the Indemnifying Party, until such time as such objection is withdrawn. If no such notice is given, or if any such objection is withdrawn, the Indemnifying Party will be entitled, at its sole cost and expense, to assume direction and control of such defense, with counsel selected by the Indemnifying Party and reasonably acceptable to the Indemnified Party. During such time as the Indemnifying Party is controlling the defense of such Third Party Claim, the Indemnified Party will cooperate, and will cause its Affiliates and agents to cooperate upon request of the Indemnifying Party, in the defense or prosecution of the Third Party Claim, including by furnishing such records, information and testimony and attending such conferences, discovery proceedings, hearings, trials or appeals as may reasonably be requested by the Indemnifying Party. In the event that the Indemnifying Party does not satisfy the Litigation Conditions or does not notify the Indemnified Party of the Indemnifying Party's intent to defend any Third Party Claim within ten (10) Business Days after notice thereof, the Indemnified Party may (without further notice to the Indemnifying Party) undertake the defense thereof with counsel of its choice and at the Indemnifying Party's expense (including reasonable, out-of-pocket attorneys' fees and costs and expenses of enforcement or defense). The Indemnifying Party or the Indemnified Party, as the case may be, will have the right to join in (including the right to conduct discovery, interview and examine witnesses and participate in all settlement conferences), but not control, at its own expense, the defense of any Third Party Claim that the other Party is defending as provided in this Agreement.

10.4.3 **Settlement**. The Indemnifying Party will not, without the prior written consent of the Indemnified Party, enter into any compromise or settlement that commits the Indemnified Party to take, or to forbear to take, any action. The Indemnified Party will have the sole and exclusive right to settle any Third Party Claim, on such terms and conditions as it deems reasonably appropriate, to the extent such Third Party Claim involves equitable or other non-monetary relief, but will not have the right to settle such Third Party Claim to the extent such Third Party Claim involves monetary damages without the prior written consent of the Indemnifying Party. Each of the Indemnifying Party and the Indemnified Party will not make any admission of liability in respect of any Third Party Claim without the prior written consent of the other Party, and the Indemnified Party

will use reasonable efforts to mitigate Liabilities arising from such Third Party Claim.

10.5 **Insurance**. Each Party will obtain and maintain, during the Term, commercial general liability insurance, including products liability insurance, with reputable and financially secure insurance carriers (or pursuant to a program of self-insurance reasonably satisfactory to the other Party) to cover its indemnification obligations under Section 10.2 or Section 10.3, as applicable, in each case with limits of not less than [***] per occurrence and in the aggregate.

11. MISCELLANEOUS.

11.1 **Other Cellectis Targets**. For sake of clarity, except as set forth in Section 2.1.4 (CAR-T Exclusivity), 2.3 (Selection of Other Cellectis Targets), 2.4 (Targets Selection Process), and 2.8 (Right of Negotiation) Other Cellectis Targets are outside the scope of this Agreement.

11.2 **Assignment**. Either Party may not assign this Agreement or any interest hereunder without the prior written consent of the other, which consent will not be unreasonably withheld or delayed., except that this Agreement may be assigned as follows: (a) a Party may assign its rights and obligations under this Agreement by way of sale of itself or the sale of the portion of its business to which this Agreement relates, through merger, sale of assets or sale of stock or ownership interest and (b) a Party may assign its rights and obligations under this Agreement to any of its Affiliates. This Agreement will be binding upon the successors and permitted assigns of the Parties and the name of a Party appearing herein will be deemed to include the names of such Party's successors and permitted assigns to the extent necessary to carry out the intent of this Agreement. Any assignment not in accordance with this Section 11.2 will be void.

11.3 **Further Actions**. Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of the Agreement.

11.4 **Force Majeure**. Each Party will be excused from the performance of its obligations under this Agreement to the extent that such performance is prevented by force majeure (defined below) and the nonperforming Party promptly provides notice of the prevention to the other Party. Such excuse will be continued so long as the condition constituting force majeure continues and the nonperforming Party takes Commercially Reasonable Efforts to resume performance. For purposes of this Agreement, "**force majeure**" will include conditions beyond the control of the Parties, including an act of God, voluntary or involuntary compliance with any Applicable Law or order of any government, war, act of terror, civil commotion, labor strike or lock-out, epidemic, failure or default of public utilities or common carriers, or destruction of production facilities or materials by fire, earthquake, storm or like catastrophe.

11.5 **Notices**. Any notice or notification required or permitted to be provided pursuant to the terms and conditions of this Agreement (including any notice of force majeure,

breach, termination, change of address, etc.) will be in writing and will be deemed given upon receipt if delivered personally or by facsimile transmission (receipt verified), five days after deposited in the mail if mailed by registered or certified mail (return receipt requested) postage prepaid, or on the next Business Day if sent by overnight delivery using a nationally recognized express courier service and specifying next Business Day delivery (receipt verified), to the Parties at the following addresses or facsimile numbers (or at such other address or facsimile number for a Party as will be specified by like notice, provided, however, that notices of a change of address will be effective only upon receipt thereof):

All correspondence to Pfizer will be addressed as follows:

Pfizer Inc.
Notices: R&D Business Development
235 East 42nd Street
New York, NY 10017
Attention: Attn.: R&DBD Contract Notice
[***]

with a copy to:

Pfizer Inc.
Notices: Pfizer Legal Division
235 East 42nd Street
New York, NY 10017
Attn.: Chief Counsel, R&D
[***]

All correspondence to Cellectis will be addressed as follows:

Cellectis
8, rue de la Croix Jarry
75013 Paris
Attn.: Chief Executive Officer
Fax.: +33 1 81 69 16 03

with a copy to:

Cellectis
8, rue de la Croix Jarry
75013 Paris
Attn.: General Counsel
Fax.: +33 1 81 69 16 03

11.6 **Amendment**. No amendment, modification or supplement of any provision of this Agreement will be valid or effective unless made in writing and signed by a duly authorized officer of each Party.

11.7 **Waiver**. No provision of this Agreement will be waived by any act, omission or knowledge of a Party or its agents or employees except by an instrument in writing expressly waiving such provision and signed by a duly authorized officer of the waiving Party. The waiver by either of the Parties of any breach of any provision hereof by the other Party will not be construed to be a waiver of any succeeding breach of such provision or a waiver of the provision itself.

11.8 **Severability**. If any clause or portion thereof in this Agreement is for any reason held to be invalid, illegal or unenforceable, the same will not affect any other portion of this Agreement, as it is the intent of the Parties that this Agreement will be construed in such fashion as to maintain its existence, validity and enforceability to the greatest extent possible. In any such event, this Agreement will be construed as if such clause or portion thereof had never been contained in this Agreement, and there will be deemed substituted therefor such provision as will most nearly carry out the intent of the Parties as expressed in this Agreement to the fullest extent permitted by Applicable Law.

11.9 **Descriptive Headings**. The descriptive headings of this Agreement are for convenience only and will be of no force or effect in construing or interpreting any of the provisions of this Agreement.

11.10 **Dispute Resolution**. If any dispute or disagreement arises between Pfizer and Cellectis in respect of this Agreement, they will follow the following procedures in an attempt to resolve the dispute or disagreement:

11.10.1 The Party claiming that such a dispute exists will give notice in writing (a "**Notice of Dispute**") to the other Party of the nature of the dispute.

11.10.2 Within [***] of receipt of a Notice of Dispute, the Pfizer Alliance Manager and the Cellectis Alliance Manager will meet in person or by teleconference and exchange written summaries reflecting, in reasonable detail, the nature and extent of the dispute, and at this meeting they will use their reasonable endeavors to resolve the dispute.

11.10.3 If the Alliance Managers are unable to resolve the dispute during the meeting described in Section 11.10.2 or if for any reason such meeting does not take place within the period specified in Section 11.10.2, then the dispute will be referred to the JRC which will meet no later than [***] following the initial receipt of the Notice of Dispute and use reasonable endeavors to resolve the dispute.

11.10.4 If the JRC is unable to resolve the dispute during the meeting described in Section 11.10.3 or if for any reason such meeting does not take place within the period specified in Section 11.10.3, then the head of Rinat and the Chief Executive Office of Cellectis will meet at a mutually agreed-upon time and location for the purpose of resolving such dispute.

11.10.5 If, within a further period of [***], or if in any event within [***] of initial receipt of the Notice of Dispute, the dispute has

not been resolved, or if, for any reason, the meeting described in Section 11.10.4 has not been held within [***] of initial receipt of the Notice of Dispute, then the Parties agree that, subject to Section 11.11 below, either Party may initiate litigation to resolve the dispute.

11.11 **Election of Resolution Process**. Notwithstanding any provision of Section 11.10 to the contrary, if (i) either Party raises any allegation or claim of Misuse (each, a "**Misuse Allegation**") and (ii) the Parties are unable to resolve such Misuse Allegation pursuant to the dispute escalation process described in Sections 11.10.1 through 11.10.5 (the "**Escalation Process**"), then, following completion of the Escalation Process, the Parties may mutually agree to have such Misuse Allegation resolved pursuant to the terms of Section 11.12 (the "**Arbitration Process**"). If the Parties fail to agree on use of arbitration pursuant to Section 11.12 in a timely manner (not to exceed [***]), then the Parties will be deemed to have elected to have such Misuse Allegation resolved through litigation.

11.12 **Arbitration Process**. If the Parties mutually elect to resolve any Misuse Allegation pursuant to the Arbitration Process, then such Misuse Allegation will be referred to and finally resolved by binding arbitration in accordance with the Commercial Rules and Procedures (the "**Rules**") of the International Chamber of Commerce ("**ICC**"), by an arbitral tribunal composed of three arbitrators, all of whom will have relevant experience in pharmaceutical industry, appointed by agreement of the Parties in accordance with the Rules. If, at the time of the arbitration, the Parties agree in writing to submit the dispute to a single arbitrator, said single arbitrator will (1) have relevant experience in pharmaceutical industry and (2) be appointed by agreement of the Parties, or, failing such agreement, by ICC in accordance with the Rules. The foregoing arbitration proceedings may be commenced by either Party by written notice to the other Party. Unless otherwise agreed by the Parties hereto, all such arbitration proceedings will be held in London, England, provided that proceedings may be conducted by telephone conference call with the consent of both Parties and the arbitrator(s). All arbitration proceedings will be conducted in the English language.

11.12.1 **Limited Discovery**. Documentary discovery may be conducted at the discretion of the arbitrator(s), provided that any such discovery will (a) be limited to documents directly relating to the Misuse Allegation, (b) be conducted pursuant to document discovery procedures as set forth under the laws of the State of New York, U.S.A., (c) be conducted subject to the schedule stipulated by the Parties, or in the absence of stipulation, the schedule ordered by the arbitrator(s), and (d) not require either Party, its Affiliates or their respective employees, officers, directors or agents to be subject to deposition. Notwithstanding any provision of this Section 11.12.1 to the contrary, all discovery must be completed within sixty (60) days of the notice of commencement of arbitration proceedings.

11.12.2 **Awards and Fees**. The arbitrator(s) may only consider awards of direct monetary damages and will not under any circumstances have the authority to grant (a) injunctive relief, (b) equitable relief, (c) orders for specific performance, (d) punitive damages or (e) consequential damages as described in

Section 10.1. The allocation of expenses of the arbitration, including reasonable attorney's fees, will be determined by the arbitrator(s), or, in the absence of such determination, each Party will pay its own expenses.

11.12.3 **Rulings**. All arbitration proceedings must be completed within 180 days of the notice of commencement of arbitration proceedings. The Parties hereby agree that, subject to the provisions of this Section 11.12.3, the arbitrator(s) has authority to issue rulings and orders regarding all procedural and evidentiary matters that the arbitrator(s) deem reasonable and necessary with or without petition therefore by the Parties as well as the final ruling and judgment. Rulings will be issued by written order summarizing the arbitration proceedings no more than 30 days after the final submissions of the Parties. All rulings by the arbitrator(s) will be final and non-appealable to any court except in circumstances where such rulings do not comply with the terms of Section 11.12.

11.12.4 **Enforcement of Rulings by Courts of Competent Jurisdiction**. Any ruling issued by the arbitrator(s) pursuant to Section 11.12 may be enforced, to the extent that such ruling complies with the provisions of Section 11.12, in any court having jurisdiction over any of the Parties or any of their respective assets.

11.12.5 **Confidentiality**. All activities undertaken by the arbitrator(s) or the Parties pursuant to this Section 11.12 will be conducted subject to obligations of confidentiality no less restrictive than those set forth in Section 7. Further, the Parties acknowledge and agree that their respective conduct during the course of the arbitration and their respective statements and all information exchanged in connection with the arbitration is Confidential Information under this Agreement and subject to the provisions of Section 7.

11.12.6 **Unauthorized Disclosure of Confidential Information to Third Parties**. Notwithstanding any provision of this Agreement to the contrary (i) the provisions of this Section 11.12 will not apply to Pfizer's disclosure of Cellectis Confidential Information to any Third Party in violation of Section 7 and (ii) Cellectis reserves its rights under Section 11.10 to immediately initiate litigation seeking any remedy at law or in equity, including the issuance of a preliminary, temporary or permanent injunction, to preserve or enforce its rights under Section 7 with respect to any such unauthorized disclosure.

11.13 **Governing Law**. This Agreement, and all claims arising under or in connection therewith, will be governed by and interpreted in accordance with the substantive laws of the State of New York, without regard to conflict of law principles thereof.

11.14 **Consent to Jurisdiction**. Each Party to this Agreement, by its execution hereof, (a) hereby irrevocably submits to the exclusive jurisdiction of the United Kingdom for the purpose of any and all actions, suits or proceedings arising in whole or in part out of, related to, based upon or in connection with this Agreement or the subject matter hereof, (b) hereby waives to the extent not prohibited by Applicable Law, and agrees not to assert, by way of motion, as a defense or otherwise, in any such action, any claim that it is not

subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that any such action brought in one of the above-named courts should be dismissed on grounds of forum non conveniens, should be transferred to any court other than one of the above-named courts, or should be stayed by reason of the pendency of some other proceeding in any other court other than one of the above-named courts, or that this Agreement or the subject matter hereof may not be enforced in or by such court, and (c) hereby agrees not to commence any such action other than before one of the above-named courts nor to make any motion or take any other action seeking or intending to cause the transfer or removal of any such action to any court other than one of the above-named courts whether on the grounds of inconvenient forum or otherwise.

11.15 **Entire Agreement**. This Agreement, including its Exhibits and Schedules, constitutes and contains the complete, final and exclusive understanding and agreement of the Parties and cancels and supersedes any and all prior negotiations, correspondence, understandings and agreements, whether oral or written, between the Parties respecting the subject matter hereof and thereof, including the Confidentiality Agreement which is hereby terminated effective as of the Effective Date, provided that such Confidentiality Agreement will continue to govern the treatment of Confidential Information disclosed by the Parties prior to the Effective Date in accordance with its terms.

11.16 **Independent Contractors**. Both Parties are independent contractors under this Agreement. Nothing herein contained will be deemed to create an employment, agency, joint venture or partnership relationship between the Parties hereto or any of their agents or employees, or any other legal arrangement that would impose liability upon one Party for the act or failure to act of the other Party. Neither Party will have any express or implied power to enter into any contracts or commitments or to incur any liabilities in the name of, or on behalf of, the other Party, or to bind the other Party in any respect whatsoever.

11.17 **Pfizer Anti-Bribery and Anti-Corruption Practices**. Throughout the term of this Agreement, Cellectis, its Affiliates and Subcontractors must comply with the Anti-Bribery and Anti-Corruption provisions set forth in Attachment 11.17 hereto.

11.18 **Counterparts**. This Agreement may be executed in two counterparts, each of which will be an original and both of which will constitute together the same document. Counterparts may be signed and delivered by facsimile or PDF file, each of which will be binding when received by the applicable Party.

11.19 **No Third Party Rights or Obligations**. No provision of this Agreement will be deemed or construed in any way to result in the creation of any rights or obligation in any Person not a Party to this Agreement. However, Pfizer may decide, in its sole discretion, to use one or more of its Affiliates to perform its obligations and duties hereunder, provided that Pfizer will remain liable hereunder for the performance by any such Affiliates of any such obligations.

[The remainder of this page has been intentionally left blank. The signature page follows.]

IN WITNESS WHEREOF, duly authorized representatives of the Parties have duly executed this Agreement to be effective as of the Effective Date.

PFIZER

By: /s/ G.M. Dolsten
Name: G.M. Dolsten
Title: President of RD

CELLECTIS SA

By: /s/ Andre Choulika
Name: Andre Choulika
Title: CEO

ATTACHMENT 11.17

PFIZER ANTI-BRIBERY AND ANTI-CORRUPTION PRACTICES

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

EXHIBIT 1 TO ATTACHMENT 11.17

PFIZER ANTI-BRIBERY AND ANTI-CORRUPTION PRINCIPLES

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

Schedule 1.52: Expected Subcontractors

[***]

Schedule 2.6.1: Research Plan

[***]

Appendix A:

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

Appendix B:

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

Appendix C:

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

Appendix D:

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

Schedule 8.2.1: In Licensed Patent Right comprised in the Cellectis Technology

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

Schedule 8.2.3: Cellectis Patent Rights

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

Schedule 8.2.4

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

Schedule 8.2.8

[***]

Schedule 8.2.9

[***]

Schedule 8.2.10: Disclosed Third Party Agreement

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

AMENDMENT

THIS AMENDMENT ("Amendment") is made this 1st day of December, 2016 by and between **Pfizer, Inc.**, a corporation organized and existing under the laws of the State of Delaware and having a place of business at 235 East 42nd Street, New York, New York 10017 United States ("Pfizer"), and **Cellectis SA**, a corporation organized and existing under the laws of France and having a place of business at 8 rue de la Croix Jarry, 75013 Paris, France ("Cellectis").

WHEREAS, Pfizer and Cellectis are Parties to the Research Collaboration and License Agreement dated June 17, 2014 (as amended from time to time, the "Pfizer Collaboration Agreement");

WHEREAS, in furtherance of, and as part of, the transactions contemplated by the Pfizer Collaboration Agreement, subject to the terms and conditions set forth in this Amendment, Cellectis desires to clarify the grant of certain rights to Pfizer;

WHEREAS, pursuant to the Servier Agreement (as defined in the Pfizer Collaboration Agreement), Cellectis granted certain exclusive patent rights to Servier on the terms set forth therein in respect of, among other things, the Other Products in the Other Field in the Other Territory;

WHEREAS, in furtherance of, and as part of, the transactions contemplated by the Servier Agreement and pursuant to the terms set forth therein, Servier has requested that Cellectis license certain patent rights to Pfizer in respect of the Other Products in the Other Field in the Other Territory; and

WHEREAS, the parties desire to amend the Pfizer Collaboration Agreement as set forth below.

NOW, THEREFORE, for valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Section 1 is amended to include the following definitions:

> 1.88 "Other Field" means anti-tumor adoptive immunotherapy, together with any additional fields as amended from time to time by Cellectis at the written direction of Servier pursuant to Section 4.3(b) of the Servier Agreement.
>
> 1.89 "Other Products" means, as of the Effective Date, UCART19 [***], corresponding to an allogeneic anti-tumor adoptive T-cell expressing a single chain chimeric antigen receptor (CAR) directed against [***] target, and including specific attributes, as initially developed by Cellectis as per the Servier Agreement, and that are initially licensed by Cellectis to Servier as per the Servier Agreement together with any additional allogeneic anti-tumor adoptive T-cell CARs that bind to [***] as may be optioned by Servier from Cellectis under the Servier Agreement,

together with any additional products as amended from time to time by Cellectis at the written direction of Servier pursuant to Section 4.3(b) of the Servier Agreement.

1.90 “Other Territory” means the United States of America together with any additional territories as amended from time to time by Cellectis at the written direction of Servier pursuant to Section 4.3(b) of the Servier Agreement.

1.123 “Servier” means Les Laboratoires Servier, a corporation organized and existing under the laws of France and having a place of business located at 50 rue Carnot, 92150 Suresnes, France.

The remaining definitions will be renumbered in alphabetical order as necessary.

2. Section 4.1.2 of the Pfizer Collaboration Agreement is replaced in its entirety with the following:

4.1.2 [***] Patent Rights.

(a) Subject to the terms and conditions of this Agreement on a Pfizer Target-by-Pfizer Target basis and effective on the Target Designation Date for such Pfizer Target, Cellectis hereby grants to Pfizer and its Affiliates the right to use the [***] engineered by Cellectis pursuant to this Agreement to Develop Pfizer Licensed Products until the filing of an IND for each Pfizer Licensed Product, in the Field.

(b) Subject to the terms and conditions of this Agreement on an Other Product-by-Other Product basis and effective as of October 30, 2015 (or such later date as such Other Product is included hereunder pursuant to Section 4.3(b) of the Servier Agreement), Cellectis hereby grants to Pfizer and its Affiliates the right to use the [***] engineered by Cellectis pursuant to the Servier Agreement to Develop Other Products, and Cellectis shall further have the obligation to grant the rights set forth in this Section 4.l.2(b) to subcontractors as directed by Pfizer pursuant to Section 4.l.5(b) herein, until the filing of an IND for each Other Product, in the Other Field.

(c) Subject to the terms and conditions of this Agreement, on a Pfizer Target-by-Pfizer Target basis and effective upon the filing of an IND for each individual Pfizer Licensed Product developed under 4.1.2(a), Cellectis hereby grants to Pfizer and its Affiliates an exclusive (even as to Cellectis) license under the [***] Patent Rights, to make, have made, use, have used, sell, have sold, offer for sale, have offered for sale, import, have imported and otherwise exploit and Commercialize such Pfizer Licensed Product in the Field in the Territory, with the right to sublicense as provided in Section 4.1.3. Notwithstanding the foregoing, Pfizer hereby acknowledges and agrees that Cellectis shall have the right and obligation to grant licenses and rights to a Third Party as set forth in Section 4.l5(b) and Pfizer’s license and other rights under the [***] Patent Rights shall be limited accordingly so long as any such agreement remains in effect with such Third Party. For the sake of clarity, the license granted to Pfizer by Cellectis herein does not

give Pfizer the right (i) to [***] or (ii) sublicense the [***] Patent Rights pursuant to Section 4.1.4, provided however that Pfizer may sublicense pursuant to Section 4.1.4 solely in relation to a transaction involving, with respect to all [***] Patent Rights, only the [***] Patent Rights owned by Cellectis or owned by University of Minnesota.

(d) Subject to the terms and conditions of this Agreement, on an Other Product-by-Other Product basis and effective upon the filing of an IND for each individual Other Product developed under 4.1.2(b), Cellectis hereby grants to Pfizer and its Affiliates an exclusive (even as to Cellectis) license under the [***] Patent Rights, to make, have made, use, have used, sell, have sold, offer for sale, have offered for sale, import, have imported and otherwise exploit and Commercialize such Other Product in the Other Field in the Other Territory, and Cellectis shall further have the obligation to grant the licenses and rights set forth in this Section 4.1.2(d) to subcontractors as directed by Pfizer pursuant to Section 4.1.5(b) herein. For the sake of clarity, the license granted to Pfizer by Cellectis herein does not give Pfizer the right (i) to [***] or (ii) sublicense the [***] Patent Rights pursuant to Section 4.1.4, provided however that Pfizer may sublicense pursuant to Section 4.1.4 solely in relation to a transaction involving, with respect to all [***] Patent Rights, only the [***] Patent Rights owned by Cellectis or owned by University of Minnesota.

(e) In accordance with Section 4.l.5(b) of this Agreement, Pfizer has directed Cellectis to grant certain rights to Servier previously granted to Pfizer pursuant to Sections 4.l.2(a) and (c) herein. Pfizer hereby consents to the license granted by Cellectis to Servier pursuant to the Servier Agreement, as amended. The parties acknowledge and agree that any rights or licenses that have been granted to Servier at Pfizer's request (including any expansions of such rights or licenses, pursuant to this Agreement, that Pfizer directs Cellectis in writing to grant to Servier), or that may hereafter be granted by Cellectis to Servier, a subcontractor as directed by Servier, or a Third Party at the request of Pfizer, are rights or licenses that were provided to Pfizer pursuant to this Agreement in accordance with the broad collaboration and development activities contemplated hereunder, and therefore Cellectis has already received (or, in the future and in accordance with the terms of this Agreement, will have the right to receive) compensation that Cellectis and Pfizer have determined is fair and equitable and that Cellectis shall therefore not have the right to any additional payments or compensation from Servier, Pfizer or any other person or entity in connection with the foregoing. Without limiting the foregoing, the parties agree and acknowledge that all consideration paid or to be paid, whether one-time payments, milestone payments, royalty payments or otherwise, to Cellectis under the Servier Agreement or this Agreement shall not be reduced or otherwise modified or amended because of the license granted to Servier or other parties as contemplated hereby.

3. Section 4.1.5 of the Pfizer Collaboration Agreement is replaced in its entirety with the following:

(a) **Direct License to Affiliates**. Pfizer may at any time request and authorize Cellectis

to grant licenses directly to Affiliates of Pfizer by giving written notice designating to which Affiliate a direct license is to be granted. Upon receipt of any such notice, Cellectis will enter into and sign a separate direct license agreement with such designated Affiliate of Pfizer. All such direct license agreements will be consistent with the terms and conditions of this Agreement, except for such modifications as may be required by the laws and regulations in the country in which the direct license will be exercised. The Parties further agree to make any amendments to this Agreement that are necessary to conform the combined terms of such direct license agreements and this Agreement to the terms of this Agreement as set forth on the Effective Date. In countries where the validity of such direct license agreements requires prior governmental approval or registration, such direct license agreements will not become binding between the parties thereto until such approval or registration is granted, which approval or registration will be obtained by Pfizer. All costs of making such direct license agreement(s), including Cellectis' reasonable attorneys' fees, under this Section 4.1.4 will be borne by Pfizer. Cellectis may provide a copy of any such license or similar agreements (and this Agreement) to any of its direct or indirect licensors to the extent required to comply with the terms of any license agreement to which Cellectis is a party from time to time.

(b) **Direct License to Third Parties**. Pfizer may at any time request and authorize Cellectis to grant the rights and licenses set forth in Sections 4.l.2(a), 4.1.2(b), 4.l.2(c) and 4.l.2(d) of this Agreement directly to third parties by giving written notice designating to which Third Party such direct right or license is to be granted. Upon receipt of any such notice, Cellectis will enter into and sign a separate direct license or similar agreement with such designated Third Party, which, to the extent involving [***] Patent Rights licensed to Cellectis by Life Technologies Corporation, must include a license in respect of all of the [***] Patent Rights. All such direct license or similar agreements will be consistent with the terms and conditions of this Agreement, except for such modifications as may be required by the laws and regulations in the country in which the direct license or right will be exercised. Cellectis may provide a copy of any such license or similar agreements to any of its direct or indirect licensors to the extent required to comply with the terms of any license agreement to which Cellectis is a party from time to time. The parties further agree and acknowledge that no additional consideration would be due to Cellectis from Pfizer or such Third Party in respect of the grant of any such license or similar right, and the grant of any such license or similar right shall limit Pfizer's license and other rights accordingly so long as any such agreement remains in effect with such Third Party. The parties acknowledge and agree that any rights or licenses that may hereafter be granted by Cellectis at the request of Pfizer as contemplated by the immediately preceding sentence are rights or licenses that were previously provided to Pfizer pursuant to this Agreement in accordance with the broad collaboration and development activities contemplated by such agreement, and therefore Cellectis has already received (or, in the future and in accordance with the terms of this Agreement, will have the right to receive) compensation that Cellectis and Pfizer have determined is fair and equitable and that Cellectis shall therefore not have the right to any additional payments or compensation from Pfizer or any other person or entity in connection with the foregoing. The parties further

agree to make any amendments to this Agreement that are necessary to conform the combined terms of such direct license or similar agreements and this Agreement to the terms of this Agreement. In countries where the validity of such direct license or similar agreements requires prior governmental approval or registration, such direct license or similar agreements will not become binding between the parties thereto until such approval or registration is granted, which approval or registration will be obtained by Pfizer or the Third Party, as applicable.

4. Sections 9.7.4(a) and (b) of the Pfizer Collaboration Agreement are replaced in their entirety with the following:

(a) If Cellectis terminates this Agreement with respect to any Pfizer Target pursuant to Section 9.4, or if Pfizer terminates this Agreement with respect to any Pfizer Target pursuant to Section 9.5, then (i) all licenses granted by Cellectis to Pfizer under Sections 4.1.1, 4.1.2 and 4.1.3 with respect to any such Pfizer Target will terminate, (ii) any Pfizer Licensed Product Targeting such Pfizer Target will terminate, and (iii) any material or Confidential Information provided by Cellectis to Pfizer in the course of the performance of this Agreement will be returned or destroyed as directed by Cellectis.

(b) If Cellectis terminates this Agreement in its entirety pursuant to Section 9.4, or if Pfizer terminates this Agreement in its entirety pursuant to Section 9.5: (i) all licenses granted by Cellectis to Pfizer under Sections 4.1.1, 4.1.2(a), 4.1.2(c) and 4.1.3 will terminate, (ii) all rights and licenses granted by Cellectis to Pfizer pursuant to Section 4.l.2(b) and 4.1.2(d), and all obligations to which the parties are bound hereunder with relation thereto, will continue in full force and effect, to the extent such rights and licenses were not previously or concurrently terminated (including as set forth in Section 9.7.4(a) herein) and will subsequently terminate in accordance with the terms of the Servier Agreement, wherein such rights and licenses were initially granted to Servier, (iii) Cellectis will have no further obligations to Pfizer under this Agreement other than those obligations that expressly survive termination in accordance with Section 9.9, (iv) all rights and licenses granted by Pfizer to Cellectis pursuant to Section 4.2 will continue, (v) Pfizer's right of first refusal set forth in Section 3.9 will continue to the extent that such Cellectis Product is Covered by Licensed Pfizer Intellectual Property and (vi) any material or Confidential Information provided by Cellectis to Pfizer in the course of the performance of this Agreement will be returned or destroyed as directed in writing by Cellectis. For the avoidance of doubt, all rights and licenses granted by Cellectis to Pfizer pursuant to Section 4.1.2(b) and 4.1.2(d), and all obligations to which the parties are bound hereunder with relation thereto, will terminate immediately upon the earlier to occur of (i) termination or expiration of the of the license granted by Cellectis to Servier in respect of the [***] Patent Rights for the Other Products pursuant to the Servier Agreement, or (ii) on an Other Product-by-Other Product basis, termination or expiration of the license granted by Servier to Pfizer in respect of an Other Product pursuant to the Exclusive License and Collaboration Agreement dated as of October 30, 2015 by and between Pfizer and Servier (as amended from time to time).

[***] = CONFIDENTIAL TREATMENT REQUESTED

Except as modified and amended herein, the terms and conditions of the Agreement shall remain in full force and effect. The Agreement and this Amendment constitute the entire understanding between the Parties and supersedes all prior agreements, whether written or oral. No modification or amendment to the Agreement or Amendment shall be valid unless in writing and signed by both Parties.

(remainder of page intentionally left blank)

IN WITNESS WHEREOF, the Parties hereby agree to the forgoing.

PFIZER, INC.

By: /s/ John DeYoung
Name: John DeYoung
Title: Vice President

CELLECTIS S.A.

By: /s/ André Choulika
Name: André Choulika
Title: Chief Executive Officer

Exhibit 10.8

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

EXECUTION VERSION

ASSET CONTRIBUTION AGREEMENT

BY AND BETWEEN

PFIZER INC.

AND

ALLOGENE THERAPEUTICS, INC.

Dated as of April 2, 2018

TABLE OF CONTENTS

ASSET CONTRIBUTION AGREEMENT

This Asset Contribution Agreement (this "Agreement") is entered into as of April 2, 2018 (the "Effective Date"), by and between Pfizer Inc., a Delaware corporation ("Pfizer"), and Allogene Therapeutics, Inc., a Delaware corporation ("NewCo").

WHEREAS, Pfizer and the Pfizer Subsidiaries (the "Pfizer Parties") are engaged in, among other things, the Purchased Programs;

WHEREAS, NewCo desires to purchase from Pfizer, and Pfizer desires to sell to NewCo, certain assets related to the Purchased Programs, and NewCo is willing to assume certain Liabilities related to the Purchased Programs, in each case upon the terms and conditions set forth herein; and

WHEREAS, it is intended that the transactions contemplated by this Agreement, taken together with the transactions contemplated by the Preferred Stock Purchase Agreement, shall be treated as an exchange described in Section 351 of the Internal Revenue Code of 1986, as amended (the "Code").

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth below and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

ARTICLE 1

DEFINITIONS; CERTAIN RULES OF INTERPRETATION

1.1 Definitions. As used in this Agreement, the following terms shall have the meanings set forth or as referenced below:

"409A Plan" shall have the meaning specified in Section 7.2(e).

"Ablexis Agreement" shall mean that certain Consortium and License Agreement dated as of December 22, 2009, by and between Aliva Biopharmaceuticals, Inc. and Pfizer, as amended from time to time.

"Ablexis Antibodies" shall mean antibodies generated under the Ablexis Agreement in connection with any Purchased Assets.

"Affiliate" shall mean (a) in the case of an individual, the individual's spouse (or civil partner) and the members of the immediate family (which for purposes of this definition shall include only parents, siblings, children and spouses (or civil partners) of the foregoing) of (i) the individual, (ii) the individual's spouse (or civil partner) and (iii) any Entity that directly or indirectly, through one or more intermediaries, is controlled by, or is under common control with, any of the foregoing individuals, or (b) in the case of an Entity, another Entity or a Person that directly or indirectly, through one or more intermediaries, controls, or is controlled by, or is under common control with, such Entity; *provided that*, for the purposes of this definition, "control"

(including with correlative meanings, the terms "controlled by" and "under common control with"), as used with respect to any Person, shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by contract or otherwise.

"Agreement" shall have the meaning specified in the Preamble.

"Allogeneic Product" shall mean a product for administration to humans, which embodies, incorporates or includes a CAR-T.

"Annual Net Sales" shall have the meaning specified in Section 5.1(c)(ii).

"Arising Patent" shall mean:

(a) (i) any Exclusive Know-How Patent (as that term is defined in the Patent and Know-How License Agreement), (ii) any Non-Exclusive Know-How Patent (as that term is defined in the Patent and Know-How License Agreement) and (iii) any non-provisionals, continuations, divisions, renewals, reexaminations, reissues, reexaminations, extensions, restorations, and foreign counterparts thereof, and any and all patents granted on the Patents in clauses (i) and (ii); and

(b) any non-provisionals, continuations, divisions, renewals, reexaminations, reissues, reexaminations, extensions, restorations, and foreign counterparts of a Transferred Pfizer Patent, and any and all patents granted thereon.

"Assigned Contracts" shall have the meaning specified in Section 2.1(a).

"Assigned Patent" shall mean any Patent included in the Pfizer Assigned IP Rights.

"Assignment Consent" shall have the meaning specified in Section 2.5(a).

"Assumed Liabilities" shall have the meaning specified in Section 2.3.

"Books and Records" shall have the meaning specified in Section 2.1(d).

"Business Day" shall mean any day other than (a) a Saturday or a Sunday or (b) a day on which banking institutions are closed in New York, New York or San Francisco, California.

"Calendar Quarter" shall mean the respective periods of three (3) consecutive calendar months ending on March 31, June 30, September 30 and December 31.

"Calendar Year" shall mean each twelve (12) month period commencing on January 1.

"Cap" shall have the meaning specified in Section 14.5(a).

"CAR" shall mean a chimeric antigen receptor expressed from an experimentally validated viral construct with specific molecular architecture and signaling domain sequences.

"CAR-T" shall mean a population of allogeneic T-cells with a unique set of experimentally validated biologic attributes expressing a CAR construct.

"CD19 Target" shall mean the Target corresponding to the B lymphocyte antigen Cluster of Differentiation 19.

"CD52 Product" shall mean a product that (a) comprises an antibody that binds CD52 and has the Pfizer identifier number of [***] and (b) incorporates, or is made, developed, or optimized, by the use of, the Transferred Pfizer Know-How.

"Cellectis" shall mean Cellectis SA.

"Class A Preferred Stock" shall mean, collectively, the Series A Preferred Stock and the Series A-1 Preferred Stock.

"Clinical Trial" shall mean a human clinical study conducted on sufficient numbers of human subjects that is designed to (a) establish that a pharmaceutical product is reasonably safe for continued testing, (b) investigate the safety and efficacy of the pharmaceutical product for its intended use, and to define warnings, precautions and adverse reactions that may be associated with the pharmaceutical product in the dosage range to be prescribed or (c) support Regulatory Approval of such pharmaceutical product or label expansion of such pharmaceutical product.

"Closing" shall have the meaning specified in Section 4.1.

"Closing Date" shall have the meaning specified in Section 4.1.

"Code" shall have the meaning specified in the Preamble.

"Combination Product" shall have the meaning specified in the definition of "Net Sales".

"Commercially Reasonable Efforts" shall mean, with respect to a party's obligations or activities under this Agreement, the carrying out of such obligations or activities with a level of effort and resources consistent with the commercially reasonable practices normally devoted by a similarly situated company, including, as applicable, [***] it being understood that commercially reasonable efforts may not require that such party develop each and every product in its portfolio or as to which it has rights simultaneously, and it being further understood that, without limiting any obligation in this Agreement, it is possible that the application of Commercially Reasonable Efforts as described in the foregoing definition may be consistent with the termination of the development of a product in certain circumstances.

"Common Stock" shall mean the common stock, par value $0.001 per share of NewCo.

"Confidential Information" shall have the meaning specified in Section 9.6(a).

"Confidential Disclosure Agreement" shall mean that certain confidentiality agreement between Two River Consulting, LLC, a Delaware limited liability company, and Pfizer, dated November 8, 2017.

"Confidential Information Agreements" shall have the meaning specified in Section 7.20.

"Consent" shall mean any approval, consent, ratification, permission, waiver or authorization (including any Governmental Approval).

"Consideration" shall have the meaning specified in Section 3.1.

"Consolidated Return" shall mean any affiliated consolidated, combined, or unitary Tax Return filed with respect to a group that includes a Pfizer Party (or any other Affiliate of the Pfizer Parties).

"Continuation Period" shall have the meaning specified in Section 10.1(b).

"Contract" shall mean any written or oral agreement, contract, obligation, promise, understanding, arrangement, license, or legally binding commitment or undertaking of any nature, other than a Pfizer Benefit Plan.

"Copyrights" shall mean all copyrightable works of authorship and all copyrights and applications, throughout the world, whether published or unpublished, including rights to prepare, reproduce, perform, display and distribute copyrighted works and copies, compilations and derivative works thereof.

"Cooperation Period" shall have the meaning specified in Section 2.5(a).

"Cover", "Covering" and "Covered" shall mean, with respect to a Patent and an invention, that, in the absence of ownership of or a license under such Patent, the practice of such invention (e.g., with respect to a Patent in the U.S., the manufacture, use, sale, offer for sale or importation of such invention) would infringe a Valid Claim of such Patent (assuming, in the case of a pending patent application, that the claims of such patent application as then existing were issued).

"Covered Benefit Plan" shall have the meaning specified in Section 6.8(d).

"Damages" shall mean losses, damages, settlements, awards, fines, penalties, fees, liabilities, costs, including costs of investigation, or expenses of any nature, including reasonable attorneys' fees.

"Deductible" shall have the meaning specified in Section 14.5(a)

"Developed Pfizer Targets" shall mean the following Targets: BCMA, FLT3, CD33, EGFRVIII, CD70, MUC16, DLL3, Claudin18.2, and Wt1.

"Development Update" shall have the meaning specified in Section 5.2(b)(iv)(A).

"Disclosing Party" shall have the meaning specified in Section 9.6(a).

"Drop-Dead Date" shall have the meaning specified in Section 13.1(d).

"Early Access Program" shall mean any program that provides patients with a Product prior to Regulatory Approval in any country or region in the Territory and in which the use of such Product is not primarily intended to obtain information about the safety or effectiveness of a drug. "Early Access Programs" shall include treatment INDs / protocols, and named patient programs.

"Early Stage Target" shall mean the following Targets: [***].

"Effective Date" shall have the meaning specified in the Preamble.

"Employee Transfer Date" shall mean May 1, 2018 or such other date as is mutually agreed to between the parties.

"Enforceability Exceptions" shall have the meaning specified in Section 6.2(b).

"Entity" shall mean any corporation (including any non-profit corporation), general partnership, limited partnership, limited liability partnership, joint venture, estate, trust or company (including any limited liability company or joint stock company) or other similar entity.

"Equity Commitment Letters" shall have the meaning specified in Section 7.9.

"Equity Consideration" shall have the meaning specified in Section 3.1.

"Equity Consideration Cancellation" shall have the meaning specified in Section 14.8.

"ERISA" shall mean the Employee Retirement Income Security Act of 1974, as amended.

"Excluded Assets" shall have the meaning specified in Section 2.2.

"Excluded Liabilities" shall have the meaning specified in Section 2.4.

"Excluded Taxes" shall mean, without duplication, (a) all Taxes of the Pfizer Parties or any of their Affiliates, or for which the Pfizer Parties or any of their Affiliates is or are liable (including under any common law doctrine of de facto merger or transferee or successor liability or otherwise by operation of contract or Law), for any taxable period, (b) all Taxes related to the Excluded Assets or Excluded Liabilities for any taxable period, (c) all Taxes relating to the Purchased Programs, the Purchased Assets, the Transferred Employees, or the Assumed Liabilities, in each case with respect to any Pre-Closing Tax Period (including the portion of any Straddle Period through the end of the Closing Date, as determined in accordance with Section 12.2(e)) and (d) all Taxes, if any, imposed on NewCo under Section 1445 or 1446(f) of the Code in connection with the transactions contemplated by this Agreement.

"Exclusive Group 3 Know-How" shall have the meaning set forth in the Patent and Know-How License Agreement.

"Exclusive Group 3 Patents" shall have the meaning set forth in the Patent and Know-How License Agreement.

"FCPA" shall have the meaning specified in Section 7.23.

"FD&C Act" shall mean the United States Federal Food, Drug, and Cosmetic Act, as amended, and the rules and regulations promulgated thereunder.

"FDA" shall mean the United States Food and Drug Administration and any successor agency.

"Financing" shall have the meaning specified in Section 7.9.

"Financing Agreements" shall mean, collectively, the Preferred Stock Purchase Agreement, the Investors' Rights Agreement, the Right of First Refusal and Co-Sale Agreement and the Voting Agreement.

"First Commercial Sale" shall mean, with respect to a given Product in a given country or region of the Territory, the first sale of such Product by NewCo, its Affiliates or Sublicensees to a Third Party in such country after such Product has been granted Regulatory Approval by the appropriate Governmental Authority for commercial sale in such country; *provided* that, any sale occurring under an Early Access Program shall be deemed a "First Commercial Sale" for purposes hereunder.

"Founders" shall mean David D. Chang, Joshua A. Kazam, Veer Bhavnagri, David M. Tanen and Arie S. Belldegrun.

"GAAP" shall mean United States generally accepted accounting principles in effect from time to time.

"General Assignment and Bill of Sale" shall have the meaning specified in Section 4.2(a).

"Governmental Approval" shall mean any: (a) permit, license, certificate, concession, Consent, clearance, confirmation, exemption, franchise, certification, designation, rating, registration, variance, qualification or accreditation issued, granted, given or otherwise made available by or under the authority of any Governmental Authority or pursuant to any Law; (b) with respect to a pharmaceutical or biological product in a country or regulatory jurisdiction, the act of a Governmental Authority necessary for the testing, manufacturing, marketing, labeling, distribution, advertising, commercial sale or use of such product in such country or regulatory jurisdiction, including the approval of an Investigational New Drug Application, Biologic License Application or New Drug Application by the FDA or any analogous approval in jurisdictions other than the United States, but, in all cases, excluding any separate pricing or reimbursement approval, where required ("Regulatory Approval"); or (c) right under any Contract with any Governmental Authority.

"Governmental Authority" shall mean any: (a) nation, principality, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or quasi-governmental

authority of any nature (including any governmental division, subdivision, department, agency, bureau, branch, office, commission, council, board, instrumentality, officer, official, representative, organization, unit, body or Entity and any court or other tribunal); (d) multinational organization or body; or (e) individual, Entity or body exercising, or entitled to exercise, any executive, legislative, judicial, administrative, arbitral, regulatory, police, military or Tax Authority or power.

"Group 1 Pfizer IP Rights" shall mean those Intellectual Property Rights set forth on Schedule 2.1(c)(1) under the heading "Group 1 Pfizer IP Rights".

"Group 2 Pfizer IP Rights" shall mean those Intellectual Property Rights set forth on Schedule 2.1(c)(2) under the heading "Group 2 Pfizer IP Rights".

"Group 3 Pfizer IP Rights" shall mean those Intellectual Property Rights set forth on Schedule 4.2(c) under the heading "Group 3 Pfizer IP Rights" under which NewCo is granted licenses from Pfizer pursuant to the Patent and Know-How License Agreement.

"IFRS" shall mean International Financial Reporting Standards in effect from time to time.

"Inactive Employee" shall have the meaning specified in Section 10.1(a).

"IND" shall mean an Investigational New Drug Application submitted under the FD&C Act, or an analogous application or submission with any analogous agency or Governmental Authority outside of the United States for the purposes of obtaining permission to conduct Clinical Trials.

"Indemnitee" shall have the meaning specified in Section 14.4.

"Indemnitor" shall have the meaning specified in Section 14.4.

"Initial NewCo Organizational Documents" shall have the meaning specified in Section 7.1(b).

"Intellectual Property Rights" or "IP Rights" shall mean any or all rights in and to intellectual property and intangible industrial property rights of a Pfizer Party, including Patents, Trade Secrets, Copyrights, Trademarks, Know-How, internet domain names and any rights similar, corresponding or equivalent to any of the foregoing anywhere in the world.

"Investors' Rights Agreement" shall have the meaning specified in Section 4.2(e).

"IRS" shall mean the United States Internal Revenue Service.

"Key Assigned Contract" shall mean the Pfizer-Cellectis Agreement, the Pfizer-Servier Agreement and the WuXi Agreement.

"Key Assigned Contract Patents" shall mean (a) those Patents licensed to Pfizer under the Pfizer-Servier Agreement or the Pfizer-Cellectis Agreement immediately prior to the Closing Date and (b) any Patents that, under the terms of the Pfizer-Servier Agreement or the Pfizer-Cellectis

Agreement, would be licensed to Pfizer following the Closing if, in each case, Pfizer had remained a party thereto, in each case of clauses (a) and (b) taking into account any field or use limitations in effect under such relevant Key Assigned Contract.

"Key Employee" shall mean Joshua A. Kazam, David M. Tanen, and any other executive-level employee (including division director and vice president-level positions) as well as any employee or consultant who either alone or in concert with others develops, invents, programs or designs any of the NewCo Intellectual Property.

"Know-How" shall mean any non-public or proprietary information, inventions, discoveries, compounds, compositions, formulations, formulas, practices, procedures, processes, methods, knowledge, technology, techniques, designs, drawings, correspondence, computer programs, documents, apparatus, results, strategies, Regulatory Filings, information and submissions pertaining to, or made in association with, filings with any Governmental Authority or patent office, data (including pharmacological, toxicological, non-clinical and clinical data, analytical and quality control data, manufacturing data and descriptions, market data, financial data or descriptions), devices, assays, chemical formulations, specifications, material, product samples and other samples, physical, chemical and biological materials and compounds, whether or not patentable.

"Law" shall mean any federal, state, local, foreign and supranational or other law, statute, code, constitution, treaty, principle of common law, directive, ordinance, rule, regulation or Order, or any similar provision or requirement having the force or effect of law, of any Governmental Authority.

"Liability" shall mean any and all debts, liabilities and obligations, whether fixed, contingent or absolute, matured or unmatured, accrued or not accrued, determined or determinable, secured or unsecured, disputed or undisputed, subordinated or unsubordinated, or otherwise.

"Lien" shall mean any lien, claim, mortgage, encumbrance, pledge, license, security interest, equity or charge of any kind.

"Material Adverse Effect" shall mean any event, change or effect that, when taken individually or together with all other adverse events, changes and effects (a) would reasonably be expected to be materially adverse to the condition (financial or otherwise), assets, business or operations of the Purchased Programs, the Purchased Assets and the Products, taken as a whole, or (b) would prevent or materially delay the Pfizer Parties' consummation of the Transactions; *provided*, *however*, that any events, changes or effects will not be deemed to constitute a Material Adverse Effect to the extent resulting from (1) general economic, political or market conditions in the pharmaceutical industry as a whole, but only to the extent that such changes or conditions do not have a materially disproportionate effect on the Purchased Programs, taken as a whole, compared with other industry participants; (2) the impact of the Transactions, including the announcement or pendency of this Agreement or the Transactions, on relationships, contractual or otherwise, with customers, suppliers, distributors, partners or employees; (3) any failure by any Pfizer Party or the Purchased Programs to meet internal projections or forecasts for any period (provided that the underlying causes of such failure may, to the extent applicable, be considered in determining whether there has been a Material Adverse Effect); (4) acts of war or terrorism (or

the escalation of the foregoing) or natural disasters or other force majeure events; (5) changes in any Law applicable to the Purchased Programs or applicable accounting regulations or principles or the interpretation thereof; (6) compliance by Pfizer or any of its Affiliates with a request by NewCo that Pfizer or any of its Affiliates take an action (or refrain from taking an action) to the extent such action or inaction is in compliance with such request; or (7) any action taken by Pfizer or any of its Affiliates as required by this Agreement or with NewCo's written consent.

"Marginal Royalty Rates" shall have the meaning specified in Section 5.1(c)(ii).

"Milestone Event" shall have the meaning specified in Section 5.1(a) .

"Milestone Payment" shall have the meaning specified in Section 5.1(a).

"Net Sales" shall mean, in the case of sales of any Product(s) by or for the benefit of NewCo, its Affiliates or Sublicensees (for the purpose of this definition only, the "Seller") in the Royalty Territory applicable to such Product to independent, unrelated persons, including any distributor who purchases for purposes of resale to end-users (such a distributor to expressly not be deemed a Seller under this definition and, along with other such independent, unrelated persons, for the purpose of this definition only, "Buyers") in bona fide arm's length transactions (except as provided below with respect to clinical trial samples), the gross amount billed or invoiced by Seller with respect to such Product during the applicable period, less the following deductions, in each case to the extent actually paid, granted or accrued by such Seller (each as recognized by GAAP applied consistently throughout the calculation, as applicable) or allowed and taken by such Buyers and, in each case, not otherwise recovered by or reimbursed to Seller in connection with such Product (for the purpose of this definition only, "Permitted Deductions"): [

(a) trade, cash, promotional, prompt payment and quantity discounts;

(b) uncollectible amounts or reasonable reserves accrued therefor (it being understood that any subsequent reductions in such accrual amounts due to collections in subsequent periods shall be included in Net Sales when such reductions occur);

(c) returns, refunds, allowances, rebates and chargebacks;

(d) customs or excise duties, excise (including, but not limited to, the amount of any annual branded prescription drug manufacturer and importer fees attributable to the Products paid by the Seller), sales or use Taxes, consumption Tax, value added Tax or other Taxes (except income Taxes) or duties relating to sales Taxes on sales (such as excise, sales or use Taxes or value added Tax);

(e) Taxes on sales of pharmaceutical specialties reimbursed pursuant to a government health service, health insurance, social insurance or similar social services program;

(f) freight, insurance, packing costs and other transportation charges to the extent added to the sales price;

(g) amounts repaid or credits taken by reason of rejections, defects or returns or because of retroactive price reductions, or due to recalls or Laws requiring rebates;

(h) rebates taken by or fees paid to distributors, wholesalers, group purchasing organizations, pharmacy benefit management companies and management care entities and charge-backs, including any discount, rebate or reimbursement program applicable to a Product under which Seller provides to low income, uninsured or other patients the opportunity to purchase Products at discounted prices;

(i) rebates and/or discounts on sales of Products given to health insurance and other types of payers due to specific agreements ("claw-back" type of agreements) involving the Products; and

(j) any other specifically identifiable amounts included in gross amounts invoiced for the Products, to the extent such amounts are customary deductions from net sales calculations in the pharmaceutical or biotechnology industries in the applicable country or countries for reasons substantially equivalent to those listed above.

"Net Sales" shall not include any consideration received with respect to a sale, use or other disposition of any Product in a country for development purposes or as samples or for charitable purposes. Notwithstanding the foregoing, the amounts invoiced by NewCo, its Affiliates, or Sublicensees for the sale of Product among NewCo, its Affiliates, or Sublicensees for resale shall not be included in the computation of Net Sales hereunder and Net Sales shall be the gross invoice or contract price charged to the Third Party customer for that Product, less the Permitted Deductions. All of the foregoing elements of Net Sales calculations shall be determined in accordance with GAAP or IFRS, as applicable to the Seller.

Notwithstanding the foregoing, if a Product either (i) is sold in the form of a combination product containing both the Product and one or more independently therapeutically active pharmaceutical molecules (i.e. a chemical entity performing a therapeutic or prophylactic function distinct from the enhancement of the activity of the Product itself) that are not other Products or (ii) is sold in a form that contains (or is sold bundled with for the same price) a delivery device therefor (in either case of (i) or (ii), a "Combination Product" and any such other independently therapeutically active pharmaceutical molecules or delivery device, an "Other Component" of such Combination Product), the Net Sales of such Product for the purpose of calculating royalties owed under this Agreement for sales of such Product shall be determined by multiplying the actual Net Sales of the Combination Product (calculated using the above provisions) by the fraction A/(A+B), where A is the invoice price on a country-by-country basis, during the Royalty Term in question, of the Product when sold separately and B is the invoice price on a country-by-country basis, during the Royalty Term in question, of the other active pharmaceutical molecule or delivery device when sold separately. If any other active pharmaceutical molecule or delivery device in the combination is not sold separately in a country, Net Sales shall be calculated by multiplying actual Net Sales of such Combination Product by a fraction: (A/C), where A is the invoice price of the Product in such country if sold separately, and C is the invoice price of the Combination Product in such country. If neither the Product nor any other active pharmaceutical molecule or delivery device in the Combination Product is sold separately, the adjustment to Net Sales shall be determined by the parties in good faith to reasonably reflect the fair market value of the contribution of the Product in the Combination Product to the total fair market value of such Combination Product; provided that in the event the parties do not agree on such relative value contributions, either party may

require that the matter be referred to an independent expert selected by agreement of the parties. Except in the case of fraud or manifest error on the part of such independent expert, the decision of such independent expert as to such relative value contributions shall be binding upon the parties. The costs of the independent expert shall be borne by the non-prevailing party.

"NewCo" shall have the meaning specified in the Preamble.

"NewCo 401(k) Plan" shall have the meaning specified in Section 10.1(g).

"NewCo Damages" shall have the meaning specified in Section 14.1.

"NewCo Fundamental Representations" shall have the meaning specified in Section 11.2(a).

"NewCo Indemnified Persons" shall have the meaning specified in Section 14.1.

"NewCo Intellectual Property" shall mean all patents, patent disclosures and all related continuation, continuation-in-part, divisional, reissue, reexamination, utility model, renewals, extensions, certificate of invention and design patents, patent applications, registrations and applications for registrations, registered and unregistered trademarks, trademark applications, registered and unregistered service marks, service mark applications, tradenames, copyrights, trade secrets, domain names, information and proprietary rights and processes, similar or other intellectual property rights or know-how, subject matter of any of the foregoing, tangible embodiments of any of the foregoing, licenses in, to and under any of the foregoing, and any and all such cases that are owned or used by, or are necessary to, NewCo in the conduct of the NewCo's business as now conducted and as presently proposed to be conducted.

"Non-Assignable Asset" shall have the meaning specified in Section 2.5(a).

"Order" shall mean any (a) temporary, preliminary or permanent order, judgment, injunction, edict, decree, ruling, pronouncement, determination, decision, opinion, verdict, sentence, stipulation, writ or award that is or has been issued, made, entered, rendered or otherwise put into effect by or under the authority of any court, administrative agency or other Governmental Authority or any arbitrator or arbitration panel; or (b) settlement or conciliation agreement with any Governmental Authority that is or has been entered into in connection with any Proceeding.

"Organizational Documents" shall mean a certificate of incorporation, bylaws, limited partnership agreement, limited liability company agreement or comparable constituent or organizational documents.

"Other Assets" shall have the meaning specified in Section 2.1(f).

"Other Investors" shall mean TPG Carthage Holdings, L.P., a Delaware limited partnership, The Rise Fund Carthage, L.P., a Delaware limited partnership, VVAG Special Fund LLC, a Delaware limited liability company, Vida Ventures, LLC, a Delaware limited liability company, The Regents of the University of California, the Seaview Trust, the Belldegrun Family Trust, Franz Humer, Owen Witte, Chang 2006 Family Trust, Christine Cassiano, Joshua A. Kazam, KB/V LLC, James Economou, Allan Pantuck, Linda Barnes, Stuart Holden, Roy

Doumani, Kiernan Family Trust, Vera Kiernan Trustee, David M. Tanen, Veer Bhavnagri and, if it enters into an Equity Commitment Letter prior to the Closing, Gilead Sciences, Inc.

"Other Royalty-Bearing Product" shall mean any Allogeneic Product that (a) Targets a Target that is not a Pfizer Target, (b) is either (i) Covered by a Valid Claim of any Transferred Pfizer Patent, Arising Patent or Key Assigned Contract Patent or (ii) incorporates or is made, discovered, developed, or derived from the use of Transferred Pfizer Know-How and (c) for which an IND is first filed on or before the fifth (5th) anniversary of the Closing Date.

"Patent and Know-How License Agreement" shall have the meaning specified in Section 4.2(c).

"Patent Assignment" shall have the meaning specified in Section 4.2(b).

"Patents" shall mean any and all (a) issued patents, (b) pending patent applications, including all non-provisional or provisional applications, substitutions, continuations, continuations-in-part, divisions and renewals, and all patents granted thereon, (c) patents-of-addition, reissues, reexaminations and extensions or restorations by existing or future extension or restoration mechanisms, including patent term adjustments, patent term extensions, supplementary protection certificates or the equivalent thereof, (d) inventor's certificates, (e) other forms of government-issued rights substantially similar to any of the foregoing and (f) United States and foreign counterparts of any of the foregoing.

"Permits" shall mean, with respect to any Person, any license, franchise, permit, approval or other similar authorization issued by, or otherwise granted by, any Governmental Authority to which or by which such Person is subject or bound.

"Permitted Lien" shall mean (a) any Lien for Taxes not yet due or delinquent as of the Closing Date or which are being contested in good faith by appropriate Proceedings and for which appropriate reserves have been established under GAAP, (b) vendors', mechanics', materialmen's, carriers', workers', landlords', repairmen's, warehousemen's, construction and other similar Liens arising or incurred in the ordinary and usual course of business and consistent with past practice or with respect to Liabilities that are not yet due and payable or, if due, are not delinquent or are being contested in good faith by appropriate Proceedings, (c) Liens imposed or promulgated by applicable Law or any Governmental Authority with respect to real property, including zoning, building or similar restrictions, (d) pledges or deposits in connection with workers' compensation, unemployment insurance, and other social security legislation, (e) Liens imposed by securities Laws, (f) Liens relating to intercompany borrowings among a person and its wholly owned subsidiaries, provided that, as to the Pfizer Parties and the Purchased Assets, the Products and/or the Purchased Programs, such Liens are released and extinguished prior to or at the Closing, (g) defects, irregularities or imperfections of title which do not materially interfere with, or materially impair the use of, the property or assets subject thereto, or (h) Liens resulting from the action or inaction of NewCo or any of its Affiliates.

"Person" shall mean any individual, Entity or Governmental Authority.

"Personal Information" shall have the meaning specified in Section 7.24.

"Pfizer" shall have the meaning specified in the Preamble.

"Pfizer Assigned IP Rights" shall mean the Group 1 Pfizer IP Rights and the Group 2 Pfizer IP Rights.

"Pfizer Benefit Plan" shall mean each "employee benefit plan" as defined in Section 3(3) of ERISA (whether or not subject to ERISA) and each other pension, retirement, profit-sharing, deferred compensation, change in control, retention, employment, independent contractor, consulting, equity or equity-based compensation, stock purchase, employee stock purchase, severance or termination pay, vacation or paid time-off, bonus or other incentive, medical, health or welfare benefit, retiree medical, health or welfare benefit, life insurance, medical reimbursement, fringe benefit or other plan, agreement, arrangement, program, policy or contract (including any related funding mechanism), in each case, whether oral or written, funded or unfunded, or insured or self-insured, that is sponsored, maintained, contributed to or required to be contributed to by Pfizer or any of its Subsidiaries.

"Pfizer-Cellectis Agreement" shall mean that certain Research Collaboration and License Agreement between Pfizer, Inc. and Cellectis SA dated June 17, 2014, as amended as of the Effective Date.

"Pfizer Damages" shall have the meaning specified in Section 14.2.

"Pfizer Damages Fraction" shall have the meaning specified in Section 14.2.

"Pfizer Fundamental Representations" shall have the meaning specified in Section 11.1(a).

"Pfizer Indemnified Persons" shall have the meaning specified in Section 14.2.

"Pfizer Parties" shall have the meaning set forth in the Preamble.

"Pfizer Savings Plan" shall mean the Pfizer Savings Plan (plan number 002).

"Pfizer-Servier Agreement" shall mean that certain Exclusive License and Collaboration Agreement between Servier and Pfizer, Inc. dated October 30, 2015.

"Pfizer Subsidiaries" shall mean the Subsidiaries of Pfizer set forth on Exhibit A.

"Pfizer Target" shall mean (a) the Developed Pfizer Targets, (b) the Early Stage Targets, and (c) the ROR1 Target and the CD19 Target.

"Pfizer Territory" shall, with respect to a Product, mean the United States and any other countries included in the "Pfizer Territory" as defined for such Product in the Pfizer-Servier Agreement (including to the extent the license conversion provisions in such agreement apply); *provided* that in the event NewCo, its Affiliate or Sublicensee otherwise obtains the right to sell or otherwise commercialize such Product in any country or countries other than the United States, including by termination or amendment, in whole or in part, of the Pfizer-Servier Agreement as it may be amended from time to time, the Pfizer Territory shall include such country or countries with respect to such Product.

"Pfizer's knowledge" and similar phrases shall mean the actual knowledge of the individuals listed on Schedule 1.1(a) after due and reasonable inquiry.

"Post-Closing NewCo Organizational Documents" shall have the meaning specified in Section 7.1(b).

"Post-Closing Tax Period" shall mean any Tax period beginning after the Closing Date and, in the case of a Straddle Period, the portion of such period beginning after the Closing Date.

"Pre-Closing Tax Period" shall mean any Tax period ending on or before the Closing Date and, in the case of a Straddle Period, the portion of such period ending on and including the Closing Date.

"Preferred Stock Purchase Agreement" shall have the meaning specified in Section 4.2(f).

"Price Approval" shall mean, in any country where a Governmental Authority authorizes reimbursement for, or approves or determines pricing for, pharmaceutical products, receipt (or, if required to make such authorization, approval or determination effective, publication) of such reimbursement authorization or pricing approval or determination (as the case may be).

"Proceeding" shall mean any action, suit, litigation, arbitration, proceeding (including any civil, criminal, administrative, investigative or appellate proceeding), prosecution, hearing, inquiry, audit, examination or investigation that is, has been or may in the future be commenced, brought, conducted or heard at law or in equity or before any Governmental Authority.

"Product" shall mean any Royalty-Bearing Product or Other Royalty-Bearing Product.

"Prospective Employees" shall have the meaning specified in Section 6.8(a).

"Purchased Assets" shall have the meaning specified in Section 2.1.

"Purchased Inventory" shall have the meaning specified in Section 2.1(b).

"Purchased Programs" shall mean the programs conducted by the Pfizer Parties as of the date hereof related to developing, manufacturing, commercializing, distributing, promoting, packaging, importing, marketing, selling and otherwise exploiting the Products with respect to the Pfizer Targets, but for the avoidance of doubt, excluding the Excluded Assets.

"Purchased Programs Registered Intellectual Property" shall have the meaning specified in Section 6.9(a).

"Purchased Programs Permits" shall have the meaning specified in Section 6.4.

"Receiving Party" shall have the meaning specified in Section 9.6(a).

"Regulatory Approval" shall have the meaning specified in the definition of "Governmental Approval".

"Regulatory Filing" shall mean any documentation constituting or relating to or supporting any filing or application with any Governmental Authority with respect to a Product, including any documents submitted to any Governmental Authority, including INDs, applications for Regulatory Approval, and all correspondence with any Governmental Authority with respect to any Product (including minutes of any meetings, telephone conferences or discussions with any Governmental Authority).

"Regulatory Laws" shall mean the following Laws: (a) the Federal Food, Drug, and Cosmetic Act, as amended, and all regulations promulgated thereunder, (b) the federal False Claims Act (42 U.S.C. § 1320a-7b(a)), as amended, (c) the Physician Payments Sunshine Act, (d) the Patient Protection and Affordable Care Act, (e) the federal Medicare and Medicaid statutes, (f) the federal Anti-Kickback Statute, 42 U.S.C. § 1320a-7b, (g) the federal Physician Self-Referral (Stark) Law, 42 U.S.C. § 1395nn, (h) the federal Civil Monetary Penalties Law, 42 U.S.C. § 1320a-7a, (i) the Federal Trade Commission Act, (j) the Public Health Service Act and (k) any other Laws governing research, development, clinical testing, investigational use, marketing clearance, marketing approval, manufacturing, servicing, packaging, labeling, promotion, sale, import or export of a pharmaceutical product.

"Representatives" shall mean officers, directors, employees, agents, advisors and Affiliates.

"Restated Bylaws" shall have the meaning specified in Section 7.1(b).

"Restated Certificate" shall mean the Amended and Restated Certificate of Incorporation of NewCo, adopted and filed by NewCo on or before the closing of the transaction contemplated by the Preferred Stock Purchase Agreement.

"Right of First Refusal and Co-Sale Agreement" shall have the meaning specified in Section 4.2(g).

"ROR1 Target" shall mean the Target corresponding to Tyrosine-protein kinase transmembrane receptor ROR1, also known as neurotrophic tyrosine kinase, receptor-related 1 (NTRKR1).

"Royalty-Bearing Product" shall mean either (a) any CD52 Product or (b) any Allogeneic Product that Targets a Pfizer Target and:

(i) is, on a country-by-country basis, Covered by a Valid Claim of (A) any Transferred Pfizer Patent, (B) any Arising Patent, or (C) any Key Assigned Contract Patent;

(ii) incorporates or is made, discovered, developed, or derived from the use of Transferred Pfizer Know-How; or

(iii) meets the definition of a (A) "Pfizer Licensed Product" under the Pfizer-Cellectis Agreement, (B) "Pfizer Licensed Product" under the Pfizer-Servier Agreement or (C) "Servier Licensed Product" under the Pfizer-Servier Agreement.

"Royalty Term" shall mean, with respect to a given Product in a given country in the Territory, the period beginning upon the First Commercial Sale of such Product in such country and ending on the later of (a) expiration of the last to expire Valid Claim of (i) any applicable Transferred Pfizer Patent, (ii) any Arising Patent or (iii) any Key Assigned Contract Patent, in each case ((i), (ii) or (iii)) Covering such Product in such country or (b) twelve (12) years from First Commercial Sale of such Product in such country.

"Royalty Territory" shall mean (i) for any Product Targeting the Pfizer Targets CD19 or ROR1, the Pfizer Territory and (ii) for any other Product, all countries of the world.

"Sales Milestone Payment" shall have the meaning specified in Section 5.1(b).

"Series A Preferred Stock" shall mean the Company's Series A Preferred Stock, $0.001 par value per share.

"Series A-1 Preferred Stock" shall mean the Company's Series A-1 Preferred Stock, $0.001 par value per share.

"Servier" shall mean, collectively, Les Laboratoires Servier and Institut de Recherches Internationales Servier.

"Servier Product" shall mean any Product Targeting the Pfizer Targets CD19, ROR1 and EGFRVIII, and as to which either (i) Cellectis has granted Servier a license to develop and commercialize such Product in the Servier Territory, prior to the Effective Date, and which Servier has granted to Pfizer a sublicense under such rights in the United States pursuant to the Pfizer-Servier Agreement, prior to the Effective Date, or (ii) Pfizer has granted Servier a license to develop and commercialize such Product in the Servier Territory, under the Pfizer-Servier Agreement, prior to the Effective Date; *provided* that a Product Targeting EGFRVIII will no longer be deemed a Servier Product under this Agreement if Servier no longer is granted such license referred to in clause (ii) from Pfizer or its assignee under the Pfizer-Servier Agreement, as it may be amended from time to time.

"Servier Territory" shall have the meaning as set forth in the Pfizer-Servier Agreement.

"Set-off" shall have the meaning specified in Section 14.8.

"Shared Contracts" shall mean all Contracts listed on Schedule 2.6, which relate in part, but not exclusively, to the Purchased Programs.

"Stock Plan" shall have the meaning specified in Section 7.2(b)

"Straddle Period" shall have the meaning specified in Section 12.2(e).

"Sublicensee" shall mean any Person, including any assignee, transferee, licensee or sublicensee of NewCo or its Affiliates, to whom NewCo or its Affiliate has granted, including via sale, assignment, license, sublicense or other transfer of assets, any rights (a) assigned or otherwise transferred to NewCo or its Affiliates under this Agreement or (b) licensed or sublicensed to NewCo or its Affiliates under the Patent and Know-How License Agreement.

"Subsidiary" shall mean, with respect to any Person, any Entity in which such Person has a fifty percent (50%) or greater interest.

"Target" shall mean (a) a specific biological molecule that is identified by a GenBank accession number or similar information, or by its amino acid or nucleic acid sequence, and (b) any biological molecule substantially similar in amino acid or nucleic acid sequence that has substantially the same biological function as a molecule disclosed in clause (a), including any naturally occurring mutant or allelic variant of a molecule disclosed in clause (a), including naturally occurring variants, mutants, transcriptional and post-transcriptional isoforms (e.g., alternative splice variants), and post-translational modification variants (e.g., protein processing, maturation and glycosylation variants); and (c) truncated forms (including fragments thereof) which have a biological function substantially similar to that of any biological molecules disclosed in clause (a) or clause (b).

"Targeting" shall mean, when used to describe the relationship between a molecule and a Target, that the molecule (a) binds to the Target (or a portion thereof) and (b) is designed or being developed to exert its biological effect in whole or in part through binding to such Target (or such portion thereof).

"Targets" shall mean, when used as a verb, the correlative meaning of "Targeting."

"Tax" shall mean all forms of taxation imposed by any Tax Authority, including all national, state or local taxation (including income, value added, alternative or add-on minimum, occupation, real and personal property, escheat or unclaimed property, social security, gross receipts, sales, use, production, transfer, registration, ad valorem, franchise, profits, license, withholding, payroll, employment, unemployment, disability, excise, severance, occupation, premium or windfall profit taxes, stamp, customs duties, capital stock, and other import or export duties, estimated and other taxes of any kind whatsoever), together with any interest, penalties, and additions to tax, whether disputed or not.

"Tax Authority" shall mean a Governmental Authority responsible for the imposition, assessment or collection of any Tax (domestic or foreign).

"Tax Contest" shall have the meaning specified in Section 12.3(a).

"Tax Referee" shall have the meaning specified in Section 12.2(c).

"Tax Return" shall mean any report, return, statement, declaration, notice, claim for refund, certificate or other document (including any related or supporting schedules, statements or information) filed or required to be filed with any Tax Authority, or required to be maintained by any Person, in connection with the determination, assessment, collection or payment of any Tax.

"Term" shall mean the period of time commencing on the Effective Date and extending on a country-by-country basis until the earlier of (a) the last to expire of any Royalty Term for any Product in such country in the Territory and (b) the termination of this Agreement in accordance with ARTICLE 13.

"Territory" shall have the meaning specified on Schedule 1.1(b).

"Territory Option Agreement" means that certain Option Letter, dated as of the Effective Date, by and between Pfizer and NewCo, wherein NewCo is granted an option by Pfizer to expand the Territory under certain conditions.

"Third Party" shall mean any Person other than Pfizer, NewCo or their respective Affiliates.

"Total Annual Net Sales" shall have the meaning specified in Section 5.1(b).

"Trade Secrets" shall mean all trade secrets under applicable law and other rights in know-how and confidential or proprietary information, processing, manufacturing or marketing information, including new developments, inventions, processes, ideas or other proprietary information that provide any Pfizer Party with advantages over potential or actual competitors who do not know or use it and documentation thereof (including related papers, invention disclosures, blueprints, drawings, research data and results, flowcharts, diagrams, chemical compositions, formulae, diaries, notebooks, specifications, designs, methods of manufacture, processing techniques, data processing techniques, compilations of information, customer and supplier lists, pricing and cost information, and business and marketing plans and proposals) and all claims and rights related thereto.

"Trademarks" shall mean any and all trademarks, service marks, trade dress, logos, slogans, trade names, all material unregistered trademarks, together with all adaptations, derivations and combinations thereof, and all goodwill associated with any of the foregoing throughout the world.

"Transaction Agreements" shall mean this Agreement and the General Assignment and Bill of Sale, the Patent Assignment, the Patent and Know-How License Agreement, the Transition Services Agreement, the Territory Option Agreement, the Preferred Stock Purchase Agreement, the Investors' Rights Agreement, the Right of First Refusal and Co-Sale Agreement, the Voting Agreement and the Equity Commitment Letters.

"Transactions" shall mean, collectively, the transactions contemplated by this Agreement.

"Transfer Taxes" shall mean all federal, state, local or foreign sales (including bulk sales), use, VAT, transfer, real property transfer, recording, mortgage recording, license, stamp, stamp duty, documentary, conveyance, excise, registration, or similar Taxes that may be imposed in connection with the transfer of Purchased Assets.

"Transferred Employee" shall have the meaning specified in Section 10.1(a).

"Transferred Pfizer Know-How" shall mean Know-How included in the Pfizer Assigned IP Rights or the Group 3 Pfizer IP Rights licensed to NewCo pursuant to the Patent and Know-How License Agreement, including manufacturing Know-How, in each case which is maintained as a Trade Secret as of the Closing Date. Notwithstanding the foregoing, Transferred Pfizer Know-How shall not include any such Know-How which NewCo can demonstrate through competent, written evidence was known to NewCo or any of its Representatives (other than a Transferred Employee) prior to the Closing Date other than (a) from a Pfizer Party, its licensor or its

Representative or (b) from a Third Party who is, or was at the relevant time of disclosure, under an obligation of confidentiality with respect to such Know-How.

"Transferred Pfizer Patents" shall mean the Assigned Patents and the Patents included in the Group 3 Pfizer IP Rights.

"Transition Services Agreement" shall have the meaning specified in Section 4.2(d).

"Treasury Regulations" shall mean the regulations promulgated under the Code by the United States Treasury and IRS.

"Valid Claim" shall mean: (a) a claim of any issued and unexpired patent that (i) has not been, disclaimed, revoked or held unenforceable or invalid by a decision of a Governmental Authority of competent jurisdiction from which no appeal can be taken, or by a decision of a Governmental Authority of competent jurisdiction that can be appealed, but with respect to which an appeal has not taken within the time allowed for appeal, and (ii) has not been disclaimed or admitted to be invalid or unenforceable through reissue, disclaimer or otherwise; or (b) a claim of any pending patent application that (i) has not been cancelled, withdrawn or abandoned, without being re-filed in another application in the applicable jurisdiction, (ii) has not been finally rejected by an administrative agency or other governmental action from which no appeal can be taken and (iii) has not been pending or filed more than [***] years from the earliest possible priority date for such patent application; provided that if such claim is later issued, it shall from the issuance date forward be deemed to be a Valid Claim.

"VAT" shall mean (i) value added tax goods and services tax and (ii) any other similar turnover, sales or purchase, tax or duty, in the case of each of clause (i) and clause (ii), levied by any jurisdiction whether central, regional or local.

"Voting Agreement" shall have the meaning specified in Section 4.2(h).

"Worker Notification Law" shall mean the United States Worker Adjustment and Retraining Notification Act of 1988 or similar state or local Law.

"WuXi Agreement" shall mean that certain Master Services Agreement between Pfizer and WuXi AppTec, Inc., dated December 4, 2015.

1.2 Rules of Interpretation. Except as otherwise explicitly specified to the contrary, (a) references to a Section, Article, Exhibit or Schedule mean a Section or Article of, or Schedule or Exhibit to, this Agreement, unless another agreement is specified, (b) the word "including" (in its various forms) means "including without limitation," (c) references to a particular statute or regulation include all rules and regulations thereunder and any predecessor or successor statute, rules or regulation, in each case as amended or otherwise modified from time to time, (d) words in the singular or plural form include the plural and singular form, respectively, (e) references to a particular Person include such Person's successors and assigns to the extent not prohibited by this Agreement, (f) "extent" in the phrase "to the extent" means the degree to which a subject or other thing extends, and such phrase does not mean simply "if," (g) the headings contained in this Agreement, in any Exhibit or Schedule hereto and in the table of contents to this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this

Agreement, (h) the words “will” and “shall” shall be interpreted to have the same meaning, (i) unless otherwise specifically provided for herein, the term “or” shall not be deemed to be exclusive and (j) references to “$” shall mean U.S. dollars.

ARTICLE 2

THE TRANSACTION AGREEMENT

2.1 Purchased Assets. Subject to the terms and conditions of this Agreement, including the terms of Section 2.2, Pfizer shall, and shall cause the other Pfizer Parties to, transfer, convey, assign and deliver to NewCo, and NewCo shall acquire and accept from the Pfizer Parties, all of their respective right, title and interest in, to and under the following (collectively, the “Purchased Assets”), in each case free and clear of all Liens except Permitted Liens:

(a) Contracts. All Contracts set forth on Schedule 2.1(a) or otherwise used or held for use by Pfizer exclusively in connection with the Purchased Programs (collectively, the “Assigned Contracts”);

(b) Inventory. The inventory of raw materials, works-in-progress and drug substance to the extent related exclusively to the Purchased Programs and owned by the Pfizer Parties as of the Closing Date, including, without limitation, the inventory set forth on Schedule 2.1(b) (collectively, the “Purchased Inventory”);

(c) Intellectual Property. The Pfizer Assigned IP Rights;

(d) Books and Records. All books and records exclusively relating to the Purchased Assets, other than Consolidated Returns, and other than any books and records the disclosure of which would reasonably be expected to violate any Law or that relate solely to (i) personnel matters unrelated to Transferred Employees, (ii) any Excluded Asset, and (iii) any attorney work product, attorney-client communications, and other items that are protected by attorney-client privilege (the “Books and Records”);

(e) Goodwill. All goodwill of the Pfizer Parties related to the Purchased Programs;

(f) Other Assets. The other assets of the Pfizer Parties identified on Schedule 2.1(f), which includes the Transferred Pfizer Know-How (the “Other Assets”); and

(g) Subsequently Assigned Assets. Non-Assignable Assets assigned pursuant to Section 2.5.

2.2 Excluded Assets. Notwithstanding any other provision of this Agreement, the Purchased Assets shall not include, and the Pfizer Parties and their Affiliates shall retain and shall not contribute, transfer, convey, assign or deliver to NewCo any of the following (collectively, the “Excluded Assets”):

(a) any assets of the Pfizer Parties that are not included within the definition of Purchased Assets;

(b) any Contracts or intercompany payables or receivables between and among Pfizer and its Subsidiaries;

(c) any cash, checks, money orders, marketable securities, short-term instruments and other cash equivalents, funds in time and demand deposits or similar accounts, and any evidence of indebtedness issued or guaranteed by any Governmental Authority;

(d) any Intellectual Property Rights (including retained rights under the Intellectual Property Rights owned by the Pfizer Parties and licensed to NewCo under the Patent and Know-How License Agreement) other than the Pfizer Assigned IP Rights;

(e) any Pfizer Benefit Plan and any assets related thereto;

(f) all Tax losses and credits, Tax loss and credit carry forwards and other Tax attributes, all deposits or advance payments with respect to Taxes, and any claims, rights, and interest in and to any refund, credit or reduction of Taxes, in each case relating to Excluded Taxes (regardless of when received);

(g) all rights, claims or causes of action of a Pfizer Party against Third Parties to the extent relating to any Excluded Asset or any Excluded Liability;

(h) Non-Assignable Assets, subject to Section 2.5;

(i) the assets, Contracts, equipment or other property listed on Schedule 2.2(i); and

(j) all income Tax Returns and records and other Tax Returns to the extent not exclusively related to the Purchased Programs or Purchased Assets.

For the purposes of Section 2.1 and Section 2.2, the terms Purchased Assets and Excluded Assets, as applicable, shall not include any Tax assets.

2.3 Assumed Liabilities. NewCo shall assume, satisfy and thereafter discharge the following Liabilities of Pfizer or its Affiliates, as applicable (the "Assumed Liabilities"):

(a) all Liabilities under the Assigned Contracts arising after the Closing, and including all unfulfilled binding commitments made prior to the Closing Date to purchase inventory that are scheduled to be delivered or provided thereafter;

(b) all other Liabilities arising from or relating to the Purchased Assets or the conduct of the Purchased Programs after the Closing, including all Liabilities under, and obligations to comply with, applicable Laws; *provided that* Assumed Liabilities shall not include any Liability for Excluded Taxes;

(c) all Liabilities arising from or relating to the practice by NewCo, its Affiliates or Sublicensees of any Intellectual Property Rights owned by the Pfizer Parties and licensed to NewCo under the Patent and Know-How License Agreement;

(d) all Liabilities arising from or relating to the employment or termination of employment of any Prospective Employee on or after the Closing Date (except as provided in Section 2.4(c)(ii));

(e) all Liabilities arising from any lawsuits commenced and claims made after the Closing to the extent resulting from the conduct of the Purchased Programs or the ownership of, or license to, the Purchased Assets after the Closing, including lawsuits and claims arising from the developing, manufacturing, commercializing, distributing, promoting, packaging, importing, marketing, selling or otherwise exploiting any Product after the Closing, including any post-Closing product liability claims, warranty obligations and intellectual property infringement or misappropriation and irrespective of the legal theory asserted;

(f) all Liabilities, including but not limited to any obligation to provide any notices, payments or any other benefits due to any Transferred Employees, if any, and any notices due to any Governmental Authority, if any, which may be required as a result of any "employment loss" (as defined under the Worker Notification Law), in each case, caused by NewCo's actions that occur on or after the Closing Date;

(g) all Liabilities arising after the Closing under the Non-Assignable Assets to the extent NewCo receives the benefits of such Non-Assignable Asset; and

(h) all Liabilities set forth in Schedule 2.3(h).

2.4 Excluded Liabilities. Pfizer and its Affiliates shall retain, and shall be responsible for paying, performing and discharging when due, and NewCo shall not assume or have any responsibility for, any Liabilities of Pfizer and its Affiliates other than the Assumed Liabilities and except as set forth in Section 12.2(d), including the following Liabilities (collectively, the "Excluded Liabilities"):

(a) all Liabilities arising from the Excluded Assets;

(b) all Liabilities under the Assigned Contracts arising prior to the Closing, including all outstanding accounts payable under the Assigned Contracts arising prior to the Closing;

(c) all Liabilities arising from or relating to any (i) Pfizer Benefit Plan or the employment, or termination of employment, of any employee of a Pfizer Party including any Prospective Employee or Transferred Employee, in each case arising prior to the Closing Date or (ii) termination of employment of any Prospective Employee that does not accept an offer of employment from NewCo;

(d) all Liabilities in respect of Excluded Taxes;

(e) all Liabilities arising from or relating to the use of Group 2 Pfizer IP Rights licensed to Pfizer by Pfizer or its sublicensees pursuant to the Patent and Know How License Agreement;

(f) all Liabilities arising from any lawsuits commenced and claims made prior to or after the Closing to the extent resulting from the conduct of the Purchased Programs or the ownership of, or license to, the Purchased Assets prior to the Closing; and

(g) all Liabilities set forth on Schedule 2.4(g).

2.5 Non-Assignable Assets.

(a) Notwithstanding the foregoing, and without limiting Section 11.1, if any Contract that would be an Assigned Contract, or other asset that would be a Purchased Asset, including the portion of any Shared Contract which is applicable to the Purchased Programs pursuant to Section 2.6, is not assignable or transferable (each, a "Non-Assignable Asset") without the consent of, or waiver by, a Third Party or action by a Governmental Authority (each, an "Assignment Consent"), either as a result of the provisions thereof or applicable Laws, and any such Assignment Consent is not obtained on or prior to the Closing Date, then this Agreement and the related instruments of transfer shall not constitute an assignment or transfer of such Non-Assignable Asset and such Non-Assignable Asset shall not be included in the Purchased Assets. Without limiting the Pfizer Parties' obligations under Section 8.4 or Section 9.1, each of the parties hereto, for a period of [***] following the Closing Date, or longer to the extent provided for or contemplated by the Transition Services Agreement (the "Cooperation Period"), shall use commercially reasonable efforts to obtain all such Assignment Consents; *provided, however*, that nothing in this Section 2.5(a) shall require any of the Pfizer Parties or any of their Affiliates to modify any of its respective rights in a manner adverse to any of the Pfizer Parties or any of their Affiliates or to pay any fee or other payment, or incur any Liability, cost or out-of-pocket expense in connection with the efforts set forth in this Section 2.5(a), with any such Liabilities, costs or out-of-pocket expenses to be borne by NewCo. To the extent such Assignment Consents are obtained during the Cooperation Period, the Pfizer Parties shall assign to NewCo or its designee such Non-Assignable Assets. Following any such assignment, such assets shall be deemed Purchased Assets for purposes of this Agreement.

(b) During the Cooperation Period, the Pfizer Parties shall cooperate with NewCo in any commercially reasonable arrangement reasonably designed to provide NewCo or its designee with the net benefits of the Non-Assignable Assets after the Closing as if the appropriate Assignment Consents had been obtained, including by granting rights and establishing arrangements whereby NewCo or its designee shall undertake the work necessary to perform under Assigned Contracts, *provided, however*, that none of the Pfizer Parties shall be required to (i) undertake any work that would constitute a breach of the Assigned Contracts, (ii) modify any of its respective rights in a manner adverse to the Pfizer Parties or (iii) incur any Liability, cost or out-of-pocket expense in connection therewith; *provided further*, that such benefits shall be calculated net of documented out-of-pocket additional costs in connection therewith (including Taxes). To the extent the benefits of a

Non-Assignable Asset are made available to NewCo during the Cooperation Period, NewCo shall perform, at the direction of the applicable Pfizer Party, the obligations of such Pfizer Party under such Non-Assignable Asset and assume all Liabilities related thereto, and economically bear any out-of-pocket additional costs in connection with such Non-Assignable Asset (including Taxes). After the Cooperation Period, the Pfizer Parties shall continue to be subject to the obligations set forth in Section 9.2.

2.6 Shared Contracts. Each Pfizer Party shall use reasonable best efforts prior to the Closing to cooperate with NewCo in NewCo's efforts to enter into a new Contract related to the Purchased Programs with the counterparty to each Shared Contract on substantially the same terms and conditions as exist under such Shared Contract, in each case as of the Closing; *provided*, *however*, that nothing in this Section 2.6 shall require any of the Pfizer Parties or any of their Affiliates to modify any of its respective rights in a manner adverse to any of the Pfizer Parties or any of their Affiliates or to pay any fee or other payment, or incur any Liability, cost or out-of-pocket expense, in connection with the efforts set forth in this Section 2.6, with any such Liabilities, costs or out-of-pocket expenses to be borne by NewCo. The Pfizer Parties shall keep NewCo reasonably informed and shall consult with NewCo in good faith in connection with any material actions taken with respect to any Shared Contract in furtherance of this Section 2.6 prior to Closing. Any Shared Contract for which the replacement Contract described in this Section 2.6 could not be entered into prior to the Closing shall be a Non-Assignable Asset subject to Section 2.5(b).

ARTICLE 3

CONSIDERATION FOR TRANSFER

3.1 Consideration. As consideration for the Pfizer Parties' sale to NewCo of the Purchased Assets, NewCo shall (a) issue to Pfizer 3,187,772 shares of Series A-1 Preferred Stock (the "Equity Consideration"); (b) assume at the Closing and subsequently, in due course in accordance with the terms applicable thereto, timely pay, perform and discharge the Assumed Liabilities and (c) subject to ARTICLE 14, make such payments as are required pursuant to ARTICLE 5 if, as and when due and payable thereunder (collectively, the "Consideration").

3.2 Withholding Taxes. NewCo (and its agents), the Pfizer Parties (and their agents), and any other applicable withholding agent shall be entitled to deduct and withhold from any consideration payable or otherwise deliverable pursuant to this Agreement such amounts as may be required to be deducted or withheld therefrom under any provision of federal, state, local or foreign Tax law or under any applicable Law and to request any necessary Tax forms, including Form W-9 or the appropriate series of Form W-8, as applicable, or any similar information. Prior to withholding any amount, the applicable withholding agent shall provide written notice to the Person to whom such amounts would otherwise have been paid, together with reasonably sufficient details regarding the nature of the relevant withholding Tax. If any reduction of or exemption from such Tax is available, the withholding agent shall cooperate with the Person to whom such amounts would otherwise have been paid to the extent commercially reasonable to obtain any such reduction or exemption. To the extent such amounts are so deducted or withheld and properly remitted to the appropriate Governmental Authority, such amounts shall be treated for all purposes under this Agreement as having been paid to the Person to whom such amounts would otherwise have been paid.

ARTICLE 4

CLOSING AND CLOSING DELIVERIES

4.1 Closing; Time and Place. The closing of the Transactions (the "Closing") shall occur at the offices of Ropes & Gray LLP, Prudential Tower, 800 Boylston Street, Boston, Massachusetts (or, if agreed by the parties, electronically through the exchange of documents), at 10:00 A.M. Eastern time on the date that is two (2) Business Days after the day on which all of the conditions to closing set forth in ARTICLE 11 are satisfied or waived (other than conditions that are intended to be satisfied at the Closing but subject to the satisfaction or waiver of such conditions), which is expected to be on or about April 6, 2018 or at such other date, time or place as the parties may agree (the "Closing Date").

4.2 Deliveries by Pfizer Parties. At the Closing, Pfizer shall, or shall cause the Pfizer Subsidiaries to, deliver, each of the following items, duly executed and delivered by the applicable Pfizer Party or Pfizer Parties:

(a) Contribution, Assignment and Assumption and Bill of Sale. A Contribution, Assignment and Assumption and Bill of Sale covering all of the applicable Purchased Assets and Assumed Liabilities, substantially in the form attached hereto as Exhibit B (the "General Assignment and Bill of Sale");

(b) Intellectual Property Assignments. A patent assignment (the "Patent Assignment") substantially in the form attached hereto as Exhibit C, for all of the Patents included in the Pfizer Assigned IP Rights;

(c) Patent and Know-How License Agreement. A patent and know-how license agreement, substantially in the form attached hereto as Exhibit D, pursuant to which, in part, (i) the Pfizer Parties will grant certain non-exclusive and exclusive licenses to NewCo under the Group 3 Pfizer IP Rights and certain other Intellectual Property Rights of Pfizer, and (ii) NewCo will grant certain non-exclusive and exclusive licenses to the Pfizer Parties under certain of the Intellectual Property Rights of NewCo (the "Patent and Know-How License Agreement");

(d) Transition Services Agreement. A transition services agreement, substantially in the form attached hereto as Exhibit E (the "Transition Services Agreement"), obligating the Pfizer Parties and certain of their Affiliates to provide certain transition services to NewCo and certain of its Affiliates for the period following the Closing set forth therein;

(e) Investors' Rights Agreement. A shareholder rights agreement among Pfizer, NewCo and the Other Investors, substantially in the form attached hereto as Exhibit F (the "Investors' Rights Agreement");

(f) Preferred Stock Purchase Agreement. A preferred stock purchase agreement among Pfizer, NewCo, the Other Investors, and the Founders substantially in the form attached hereto as Exhibit H-1, provided that if Gilead Sciences, Inc. or its Affiliate enters into an Equity Commitment Letter with respect to a funding commitment

of [***] prior to Closing, such preferred stock purchase agreement shall be in the form attached hereto as Exhibit H-2 (in either case, the "Preferred Stock Purchase Agreement");

(g) Right of First Refusal and Co-Sale Agreement. A right of first refusal and co-sale agreement among Pfizer, NewCo, the Other Investors and the Founders, substantially in the form attached hereto as Exhibit I (the "Right of First Refusal and Co-Sale Agreement").

(h) Voting Agreement. A voting agreement among Pfizer, NewCo, the Other Investors and the Founders, substantially in the form attached hereto as Exhibit J (the "Voting Agreement").

(i) Books and Records. The Books and Records;

(j) FIRPTA Documentation. From each of Pfizer and Rinat Neuroscience Corp., a duly executed certificate of non-foreign status, dated as of the Closing Date, in form and substance reasonably satisfactory to NewCo, and conforming to the requirements of Treasury Regulations Section 1.1445-2(b)(2), stating that each of Pfizer and Rinat Neuroscience Corp. is not a "foreign person" as defined in Section 1445 of the Code;

(k) Form W-9. From each of Pfizer and Rinat Neuroscience Corp., an original, properly completed and duly executed IRS Form W-9 (Rev. November 2017) executed on behalf of Pfizer and Rinat Neuroscience Corp., as applicable, by a duly authorized representative; and

(l) Certificate of Representations and Warranties. A certificate executed on behalf of Pfizer by an officer of Pfizer, certifying as to the matters in Section 11.1(a).

4.3 Deliveries by NewCo. At the Closing, NewCo shall deliver the following items, duly executed by NewCo as applicable:

(a) Consideration. The Equity Consideration;

(b) General Assignment and Bill of Sale. The General Assignment and Bill of Sale;

(c) Patent Assignment. The Patent Assignment;

(d) Patent and Know-How License Agreement. The Patent and Know-How License Agreement;

(e) Transition Services Agreement. The Transition Services Agreement;

(f) Investors' Rights Agreement. The Investors' Rights Agreement;

(g) Preferred Stock Purchase Agreement. The Preferred Stock Purchase Agreement;

(h) Right of First Refusal and Co-Sale Agreement. The Right of First Refusal and Co-Sale Agreement;

(i) Voting Agreement. The Voting Agreement; and

(j) Certificate of Representations and Warranties. A certificate executed on behalf of NewCo by an officer of NewCo, certifying as to the matters in Section 11.2(a).

ARTICLE 5

MILESTONES, ROYALTIES AND OTHER FINANCIAL OBLIGATIONS

5.1 Post-Closing Financial Obligations.

(a) Payments Upon Regulatory Approval. Subject to the remainder of this Section 5.1(a), on a Pfizer Target-by-Pfizer Target basis, NewCo will pay Pfizer the amounts set forth below within [***] days following the first occurrence of the event described in row (i), (ii), (iii) or (iv) of Table A, as applicable (such event, a "Milestone Event") that is achieved by NewCo or any of its Affiliates or any Sublicensee (each amount, a "Milestone Payment").

Table A: Milestone Events and Payments

	Event	**Milestone Payment**
[***]	[***]	[***]
[***]	[***]	[***]
[***]	[***]	[***]
[***]	[***]	[***]

Each of the Milestone Payments set forth in Table A above will be payable only once for each applicable Pfizer Target (if at all), irrespective of how many Products Targeting such

Pfizer Target achieve the applicable Milestone Event. For clarity, no payments are due hereunder for any CD52 Product.

(b) Sales Milestone Payments. On a Pfizer Target-by-Pfizer Target basis, other than for Early Stage Targets (i.e., for all Developed Pfizer Targets, the ROR1 Target and the CD19 Target), NewCo will pay Pfizer the following one-time payments (each, a "Sales Milestone Payment") when aggregate Territory Annual Net Sales of all Products Targeting such Pfizer Target (other than an Early Stage Target), in any Calendar Year during the Term (the "Total Annual Net Sales") first reach the respective thresholds indicated below for the [***] such Pfizer Targets for which such threshold is achieved:

Table B: Sales Milestone Payments

Total Annual Net Sales	Sales Milestone Payment
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

NewCo will make any Sales Milestone Payment payable with respect to a Calendar Year within [***] days after the end of the applicable Calendar Year, and such payment will be accompanied by a report identifying the applicable Pfizer Target and applicable Products, the Annual Net Sales of such Products, and the amount payable to Pfizer under this Section 5.1(b). Each of the Sales Milestone Payments set forth in Table B above will be payable one time only for each applicable Pfizer Target, regardless of the number of times the corresponding Total Annual Net Sales levels are achieved with respect to such Target. In the event more than one of the Total Annual Net Sales levels set forth in Table B above are achieved in the same Calendar Year, each applicable Sales Milestone Payment will become due and payable to Pfizer. For clarity, no sales based milestone payments will be payable with respect to any Products Targeting any Early Stage Target, or with respect to CD52 Products.

(c) Royalty Payments.

(i) Royalties for Products Targeting CD19 and ROR1 Targets. On a Product-by-Product and country-by-country basis, NewCo will pay Pfizer royalties equal to [***] percent ([***]%) of Annual Net Sales of Products Targeting the CD19 Target or the ROR1 Target during the applicable Royalty Term for each such Product in such country, subject to adjustment as provided under Section 5.1(c)(iv).

(ii) Royalties for Royalty-Bearing Products. On a Royalty-Bearing Product-by-Royalty-Bearing Product and country-by-country basis, NewCo will pay Pfizer royalties for each Royalty-Bearing Product (other than Products

Targeting the CD19 Target and the ROR1 Target, which are addressed under subsection (i) above), on a tiered marginal royalty rate basis as set forth below (the "Marginal Royalty Rates") based on the annual aggregate Royalty Territory-wide Net Sales of such Royalty-Bearing Product during each Calendar Year of the applicable Royalty Term for each such Royalty-Bearing Product in such country (each, the "Annual Net Sales"), subject to adjustment as provided under Section 5.1(c)(iv):

Table C: Marginal Royalty Rates

Annual Net Sales of a Royalty-Bearing Product	Marginal Royalty Rate (% of Annual Net Sales)
Annual Net Sales above $[***], up to $[***] million	[***]%
Annual Net Sales including and above $[***], up to $[***]	[***]%
Annual Net Sales including and above $[***]	[***]%

Each Marginal Royalty Rate set forth in Table C above will apply only to that portion of the Net Sales of such Royalty-Bearing Product in the Territory during a given Calendar Year that falls within the indicated range.

(iii) Royalties for Other Royalty-Bearing Products. On an Other Royalty-Bearing Product-by-Other Royalty-Bearing Product and country-by-country basis, NewCo will pay Pfizer royalties equal to [***] percent ([***]%) of Net Sales of Other Royalty-Bearing Products during the applicable Royalty Term for each such Other Royalty-Bearing Product in such country in the Territory.

(iv) Adjustments.

(A) Third Party Intellectual Property. Except with respect to any amounts payable by NewCo under Section 2.6 of the Patent and Know-How License Agreement or any amounts payable to Ablexis, LLC, Aliva Biopharmaceuticals, Inc. or any Affiliate thereof pursuant to the Ablexis Agreement or any new agreement entered into with respect to the Ablexis Antibodies, NewCo shall have the right to offset up to [***] percent ([***]%) of the royalty payments actually paid to a Third Party by NewCo, its Affiliates, or its Sublicensees on the sales of a Royalty-Bearing Product in a country in the Royalty Territory with respect to any license to intellectual property owned or controlled by such Third Party that is necessary or useful for development, manufacture, use or sale of such Royalty-Bearing Product in such country in the Royalty Territory against royalties otherwise payable by NewCo to Pfizer under subsection (i) or (ii) above for such Royalty-Bearing Product in such country; provided, however, that the maximum reduction under this subsection (A) in the amount of royalties otherwise payable hereunder for such Royalty-Bearing Product shall be capped at

(B) [***] percent ([***]%), subject to subsection (B) below. If, but for the proviso in the preceding sentence, the calculation of any deduction hereunder would have the effect of reducing a royalty payment made by NewCo by more than [***] percent ([***]%), then such deduction amount in excess of [***] percent ([***]%) will be applied to one or more subsequent royalty payments until the full amount that NewCo would have been entitled to deduct with respect to such deduction (absent the foregoing limitation) is deducted. Prior to applying any offset under this Section 5.1(c)(iv)(A), NewCo shall inform Pfizer in advance that amounts paid to a Third Party will be so offset against royalties owed to Pfizer in consideration for a license to intellectual property owned or controlled by such Third Party for the development, manufacture, use or sale of the applicable Royalty-Bearing Product in the applicable country.

(C) Non-Exclusive Group 3 Patents, Non-Exclusive Know-How Patents, Non-Exclusive Group 3 Know-How. If a Royalty-Bearing Product is (1) not Covered by a Valid Claim of any Assigned Patent, Key Assigned Contract Patent, Exclusive Group 3 Patent, Exclusive Know-How Patent or an Arising Patent that is an Arising Patent under clause (b) of the "Arising Patent" definition in Section 1.1 (with respect to an Assigned Patent or Exclusive Group 3 Patent) and (2) does not incorporate and is not made, discovered, developed or derived from the use of Exclusive Group 3 Know-How, or any Know-How included in the Pfizer Assigned IP Rights, then, notwithstanding Section 5.1(c)(ii), the royalty rate payable by NewCo for such Product under this Agreement shall be, on a country-by-country basis, equal to [***] percent ([***]%) of Net Sales of such Royalty-Bearing Product during the applicable Royalty Term in such country.

(D) Floor. The royalty rates set forth in Sections 5.1(c)(i) and (ii) may not be reduced for a given country in the Royalty Territory by application of the adjustments set forth in Section 5.1(c)(iv)(A) in the aggregate to less than the greater of (1) [***] percent ([***]%) of Net Sales and (2) [***] percent ([***]%) of the applicable royalty rate of Net Sales set forth in Sections 5.1(c)(i) or (ii).

(v) Third Party Payment Obligations. NewCo will be solely responsible for all obligations (including any milestone, royalty or other obligations that relate to the Products) under the Assigned Contracts arising as of or after the Closing Date and NewCo's other existing or future agreements with Third Parties. For the avoidance of doubt, no such obligations under the Assigned Contracts may be offset pursuant to Section 5.1(c)(iv) against royalties or any other payments owed to Pfizer under this Agreement.

(d) Reports and Payments.

(i) Royalty Statements and Payments. Within [***] days of the end of each Calendar Quarter, NewCo will deliver to Pfizer a report setting forth, for such Calendar Quarter, the following information, on a Product-by-Product, Target-by- Target, country-by-country and Territory-wide basis: (A) Net Sales of each Product for each Target, (B) the type of permitted deductions from

(ii) gross sales to determine Net Sales and the total amount of such deductions; (C) the calculation of the royalties due to Pfizer for such Calendar Quarter, and (D) the royalty due hereunder for the sale of each such Product. NewCo will remit to Pfizer the total royalty due for the sale of all Products during the applicable Calendar Quarter at the time each such report is delivered.

(iii) Currency. As applicable, Net Sales that are recorded in local currencies other than United States dollars will be translated into United States dollars in a manner consistent with NewCo's normal practices used to prepare its audited financial statements for external reporting purposes, provided that such practices use a widely accepted source of published exchange rates.

(iv) Blocked Currency. If by applicable Law in a country or region, conversion into United States dollars or transfer of funds of a convertible currency to the United States becomes restricted, forbidden or substantially delayed, then NewCo shall promptly notify Pfizer and, thereafter, amounts accrued in such country or region shall be paid to Pfizer (or its designee) in such country or region in local currency by deposit in a local bank designated by Pfizer and to the credit of Pfizer.

(v) Method of Payment. Each payment hereunder will be made by electronic transfer in immediately available funds via either a bank wire transfer, an ACH (automated clearing house) mechanism, or any other means of electronic funds transfer, at Pfizer's election, to such bank account as Pfizer will designate in writing to NewCo at least [***] days before the payment is due.

(vi) Late Payments. Interest on any late payment by NewCo shall accrue from the date such payment was originally due at a rate equal to [***] percent ([***]%) above the prime rate of interest as reported in the Wall Street Journal on the date payment was due. Such interest shall be computed on the basis of a year of 360 days for the actual number of days payment is delinquent.

(vii) Record Keeping. NewCo will keep and will cause its Affiliates, licensees and Sublicensees to keep, books and accounts of record in connection with the sale of Products in sufficient detail to permit accurate determination of all figures necessary for verification of royalties and Sales Milestone Payments to be paid hereunder. NewCo and its Affiliates will maintain such records for a period of at least [***] years after the end of the Calendar Quarter in which they were generated, or such longer period as is required by applicable Law.

(viii) Audits. Upon [***] days prior notice from Pfizer, NewCo will permit, and will cause its Affiliates and Sublicensees to permit, an independent certified public accounting firm of nationally recognized standing selected by Pfizer and reasonably acceptable to NewCo, to examine, at Pfizer's sole expense, the relevant books and records of NewCo, its Affiliates and Sublicensees who are Sellers for the sole purpose of verifying the amounts reported by NewCo in accordance with Section 5.1 and the payment of royalties and Sales Milestone

(ix) Payments hereunder. An audit by Pfizer under this Section 5.1(d)(viii) will occur not more than once in any Calendar Year and will be limited to the pertinent books and records for any Calendar Year ending not more than [***] years before the date of the request. The accounting firm will be provided access to such books and records at the facility(ies) of NewCo, its Affiliates or Sublicensees, as applicable, where such books and records are normally kept and such examination will be conducted during normal business hours. NewCo or the applicable Sublicensee may require the accounting firm to sign a reasonably acceptable non-disclosure agreement before providing the accounting firm with access to facilities or records. Upon completion of the audit, the accounting firm will provide both Pfizer and NewCo a written report disclosing any discrepancies in the reports submitted by NewCo or the royalties or Sales Milestone Payments paid by NewCo, and, in each case, the specific details concerning any discrepancies. Such accounting firm shall not disclose NewCo's Confidential Information to Pfizer, except to the extent such disclosure is necessary to verify the accuracy of the reports furnished by NewCo in accordance with Section 5.1 or the amount of payments by NewCo under this Agreement, in which case Pfizer's obligations with respect to such Confidential Information shall be subject to Section 9.6.

(x) Underpayments/Overpayments. If such accounting firm concludes that additional royalties or Sales Milestone Payments were due to Pfizer, then NewCo will pay to Pfizer the additional royalties or Sales Milestone Payments within [***] days of the date NewCo receives such accountant's written report. Further, if the amount of such underpayments exceeds more than [***percent ([***]%) of the amount that was properly payable to Pfizer, then NewCo will reimburse Pfizer for Pfizer's reasonable documented out-of-pocket costs in connection with the audit. If such accounting firm concludes that NewCo overpaid royalties or Sales Milestone Payments to Pfizer, then such overpayments will be credited against future amounts payable by NewCo to Pfizer under this Section 5.1, or, if no further payments are to be made to Pfizer under this Agreement, Pfizer shall promptly repay such overpayment.

(xi) Confidentiality. Notwithstanding any provision of this Agreement to the contrary all reports and financial information of NewCo or its Affiliates' Sublicensees which are provided to or subject to review by Pfizer under this Section 5.1 will be deemed to be NewCo's Confidential Information and subject to the provisions of Section 9.6.

5.2 Diligence and Post-Closing Obligations.

(a) Generally. Subject to Section 5.2(b) below, NewCo will have sole authority over and control of the development, manufacture, seeking and obtaining Regulatory Approval and commercialization of Products in the Territory and will retain final decision-making authority with respect thereto.

(b) Diligence.

(i) Development and Regulatory Approval. NewCo shall use Commercially Reasonable Efforts to develop, and to file for and seek to obtain Regulatory Approval for Royalty-Bearing Products in and for the United States and for Royalty-Bearing Products other than the Servier Products, the European Union (including for such purpose, the United Kingdom), which such obligation shall remain in effect until the tenth anniversary of the Closing Date.

(ii) Commercialization. On a Product-by-Product and country-by-country basis, NewCo will use Commercially Reasonable Efforts to commercialize each Product in each country in the applicable Royalty Territory in which Regulatory Approval for such Product has been obtained.

(iii) Compliance with Law and Procedures. NewCo will perform all development, Regulatory Approval and commercialization activities relating to Products in compliance with all applicable Laws.

(iv) Diligence Reports.

(A) NewCo shall deliver to Pfizer a written report summarizing material development and Regulatory Approval activities undertaken by or on behalf of NewCo with respect to the Products and Purchased Programs and a reasonably detailed summary of all results and data stemming from such development activities (each, a "Development Update"). NewCo shall deliver such Development Updates (x) within [***] days of the end of each Calendar Quarter during the period from the Closing Date until [***] anniversary of the Closing Date; and (y) every [***] thereafter until Regulatory Approval of the first Product, and (z) [***], thereafter, until [***] anniversary of such initial Regulatory Approval.

(B) Beginning on or before January 1 of the Calendar Year following the Calendar Year in which Regulatory Approval of the first Product is received, NewCo shall provide written reports to Pfizer on an annual basis, summarizing material commercial activities undertaken by or on behalf of NewCo with respect to such Product and any other Products.

(C) Upon at least [***] days' notice from Pfizer, NewCo shall arrange for representatives of NewCo to meet in person with Pfizer, no more than [***] per twelve (12) month period and following delivery of any of the above reports, to discuss the contents of such report and any prior report.

ARTICLE 6

REPRESENTATIONS AND WARRANTIES OF PFIZER

Subject to the terms of this Agreement and except as set forth in the corresponding sections or subsections of the disclosure schedules attached hereto, Pfizer represents and warrants to NewCo as of the date of this Agreement as follows:

6.1 Organization. Pfizer is a corporation duly incorporated, validly existing and in good standing under the Laws of the State of Delaware. Each of the other Pfizer Parties is a legal entity duly organized, validly existing and in good standing (where such concept is recognized under applicable Law) under the Laws of its respective jurisdiction of organization. Each Pfizer Party is duly qualified or licensed, and has, or has a license to, all Governmental Approvals necessary, to do business and is in good standing (where such concept is recognized under applicable Law) and authorized to do business under the Laws in each jurisdiction in which the property owned, leased or operated by it or the nature of the business conducted by it makes such approvals, qualification or licensing necessary, except where the failure to be so qualified or licensed or to have such power, authority or approvals or be in good standing has not had, and would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

6.2 Power and Authority Relative to this Agreement.

(a) Each Pfizer Party has the requisite corporate or limited liability company power and authority to carry out the provisions of this Agreement and/or the other Transaction Agreements, as applicable. The execution, delivery and performance of this Agreement and the other Transaction Agreements, as applicable, by each Pfizer Party and the consummation of the Transactions have been duly and validly authorized by each Pfizer Party's board of directors (or similar governing body).

(b) This Agreement has been duly and validly executed and delivered by Pfizer and is enforceable against Pfizer in accordance with its terms, except as such enforcement may be subject to applicable bankruptcy, reorganization, insolvency, moratorium or other similar Laws affecting creditors' rights generally and the availability of equitable relief (the "Enforceability Exceptions").

(c) As of the Closing, each of the other Transaction Agreements to which a Pfizer Party is a party will have been duly and validly executed and delivered by such applicable Pfizer Party and will be enforceable against such Pfizer Party in accordance with its terms, subject to the Enforceability Exceptions.

6.3 Consents; No Violation.

(a) Other than as set forth on Schedule 6.3, no authorization, consent, Order, license, permit or approval of, or registration, declaration, notice or filing with, any Governmental Authority is necessary, under applicable Law, for the consummation by the Pfizer Parties of the Transactions other than such authorizations, consents, Orders, licenses, permits, approvals, registrations, declarations, notices and filings (i) as have already been

obtained or (ii) the failure of which to be obtained would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(b) The execution and delivery by the Pfizer Parties of this Agreement and the other Transaction Agreements, as applicable, does not, and the consummation of the Transactions and compliance with the provisions hereof will not, (i) result in any violation of, or default (with or without notice or lapse of time, or both) under, or give rise to a right of termination, cancellation, first offer, first refusal, modification or acceleration of any obligation or to the loss of a benefit under any Key Assigned Contract or other Assigned Contract binding upon any Pfizer Party by which or to which any of the Purchased Assets are bound or subject, or result in the creation of Liens, other than Permitted Liens, in each case, upon any of the Purchased Assets or the conduct of the Purchased Programs, (ii) conflict with or result in any violation of any provision of the respective Organizational Documents of any Pfizer Party or (iii) violate any applicable Laws to which any Pfizer Party is subject, except as, with respect to clause (i) or (iii), would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

6.4 Permits. Schedule 6.4 describes (a) each material Permit held by a Pfizer Party in connection with such Pfizer Party's operation of the Purchased Programs (the "Purchased Programs Permits"), and (b) the Governmental Authority responsible for issuing such Purchased Programs Permit. All Purchased Programs Permits are valid and in full force and effect, and are not subject to any administrative or judicial Proceeding that would reasonably be expected to result in any modification, termination or revocation thereof and, to the knowledge of the Pfizer Parties, no suspension or cancellation of any such Purchased Programs Permit is threatened by a Governmental Authority in writing. The Pfizer Parties are in compliance in all material respects with the terms and requirements of all Purchased Programs Permits.

6.5 Compliance with Laws.

(a) The Pfizer Parties are in compliance in all material respects with all Laws, including Regulatory Laws, and Governmental Approvals applicable to the conduct of the Purchased Programs as conducted as of the date of this Agreement, including the nonclinical and clinical testing, manufacture, storage, distribution, marketing, pricing, packaging, labeling and sale of the Products in the United States, as applicable. All such Governmental Approvals are valid and in full force and effect without any contingency, restriction or limitation other than which would immaterially impair the conduct of the Purchased Programs.

(b) The Pfizer Parties are in compliance in all material respects with all Orders of any Governmental Authority to which they are subject, including any corporate integrity agreement, including all programmatic, operational and reporting requirements, in each case, applicable to the Purchased Programs, the Purchased Assets or the Assumed Liabilities.

(c) Since January 1, 2016, neither the Pfizer Parties nor, to the knowledge of the Pfizer Parties, any employee or contractor of the Pfizer Parties, has made any voluntary or self-disclosure to any Governmental Authority regarding any potential non-compliance

in any material respect with any Governmental Approval, Orders of any Governmental Authority, or Law, in each case applicable to the Purchased Programs, the Purchased Assets or the Assumed Liabilities.

(d) Neither Pfizer nor any of its Affiliates, nor any of its or their respective officers or employees (i) has made an untrue statement of material fact or fraudulent statement to the FDA or any other Governmental Authority responsible for enforcement or oversight with respect to healthcare Laws with respect to the development of any Product, (ii) has failed to disclose a material fact required to be disclosed to the FDA or any other Governmental Authority responsible for enforcement or oversight with respect to healthcare Laws with respect to the development of any Product, or (iii) committed an act, made a statement, or failed to make a statement with respect to the development of any Product that, at the time such disclosure was made, would reasonably be expected to provide a basis for the FDA to invoke its policy respecting "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities", set forth in 56 Fed. Reg. 46191 (September 10, 1991) and any amendments thereto or any analogous laws or policies outside the United States.

(e) No Pfizer employee or, to Pfizer's knowledge, any agent who worked on the development or manufacture of any Product has committed any act, made any statement or failed to make any statement that would reasonably be expected to provide a basis for the FDA or any other Governmental Authority to invoke its policy with respect to "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities" set forth in 56 Fed. Reg. 46191 (September 10, 1991) and any amendments thereto. No Pfizer employee or, to Pfizer's knowledge, any agent who worked on the development or manufacture of any Product has been convicted of any crime or engaged in any conduct that would reasonably be expected to result, or has resulted, in (i) debarment under 21 U.S.C. Section 335a or any similar state Law, or (ii) exclusion under 42 U.S.C. Section 1320a-7 or any similar state Law.

6.6 Absence of Certain Changes. Since December 31, 2017, (a) no event has occurred or arisen that has had, or would reasonably be expected to have, a Material Adverse Effect, (b) the Purchased Programs have been conducted in the ordinary course of business in all material respects and (c) except as set forth on the disclosure schedules attached hereto, there has not been any:

(i) Sale, lease or other disposition of any Purchased Asset, other than in the ordinary course of business, or the creation of any Lien on any Purchased Asset, except for Permitted Liens;

(ii) Termination of any Key Assigned Contract;

(iii) Increase by the Pfizer Parties of the salaries, bonuses or other compensation to any Prospective Employee, other than in the ordinary course of business;

(iv) Adoption of, amendment to or increase in the payments to or benefits under any Covered Benefit Plan in which any of the Prospective Employees participates, other than in the ordinary course of business; or

(v) Contract by Pfizer to do any of the foregoing.

6.7 Tax Matters.

(a) Each Pfizer Party has prepared and timely filed (taking into account any valid extension of time within which to file) all income Tax Returns and all other material Tax Returns required to be filed by it in respect of the Purchased Programs, the Purchased Assets, and the Transferred Employees, and all such Tax Returns are true, complete and accurate in all material respects. No extension of time within which to file any such Tax Returns that has not been filed has been requested or granted, other than such extensions filed in the ordinary course of business.

(b) Each Pfizer Party has timely paid all material amounts of all Taxes due, payable and owing by it (whether or not shown on any Tax Return), except for such Taxes for which adequate reserves have been established, in respect of the Purchased Programs, the Purchased Assets, and the Transferred Employees.

(c) Each Pfizer Party has complied in all material aspects with all applicable Laws relating to the payment, collection, withholding and remittance of material amounts of all Taxes (including information reporting requirements in respect thereof) in respect of the Purchased Programs, the Purchased Assets, and the Transferred Employees, including with respect to payments made to or received from any employee, independent contractor, creditor, customer, stockholder or other Third Party.

(d) None of the Pfizer Parties has waived or extended any statute of limitations with respect to material amounts of Taxes or agreed to any extensions of time with respect to a Tax assessment or deficiency which waiver or extension is still in effect, in each case in respect of any Purchased Program, Purchased Asset, or Transferred Employee.

(e) No deficiencies or proposed assessments for material amounts of Taxes in respect of the Purchased Programs, the Purchased Assets, or the Transferred Employees have been claimed, proposed or assessed by any Governmental Authority in writing except for deficiencies which have been fully satisfied by payment, settled or withdrawn.

(f) There are no audits, suits, examinations, investigations or other Proceedings pending or threatened in writing in respect of material amounts of any Taxes or material Tax matters in respect of any of the Purchased Programs, the Purchased Assets, or the Transferred Employees. None of the Pfizer Parties has received a written ruling from any Tax Authority in respect of any Purchased Program, Purchased Asset, or Transferred Employee. There are no Liens for Taxes on any of the Purchased Programs or Purchased Assets other than statutory liens for current Taxes not yet due and payable.

(g) None of the Pfizer Parties (i) is a party to any agreement or arrangement relating to the sharing, indemnification or allocation of any Tax or Tax asset (other than

(A) an agreement or arrangement solely between or among Pfizer, and/or any other Affiliate of Pfizer and (B) any Tax sharing, indemnification or allocation provisions in agreements entered into in the ordinary course of business and not primarily relating to Taxes) or (ii) has any Liability for Taxes of any person (other than the Pfizer and/or any other Affiliate of Pfizer) under Treasury Regulations Section 1.1502-6 (or any analogous or similar provision of state, local or foreign Law), as transferee, successor, by contract, or otherwise.

(h) None of the Pfizer Parties has participated in any "listed transaction" within the meaning of Treasury Regulations Section 1.6011-4(b)(2) (or any analogous or similar provision of state, local or foreign Law).

(i) None of the Purchased Assets is a "United States real property interest" within the meaning of Section 897(c)(1) of the Code and the Treasury Regulations thereunder other than Purchased Assets that are owned and transferred by Pfizer Parties that are not "foreign persons" within the meaning of Section 1445 of the Code (and each such Pfizer Party has delivered a duly executed non-foreign affidavit in accordance with Section 4.2(j)).

(j) No claim has been made by a Tax Authority in writing in a jurisdiction where a Pfizer Party does not file Tax Returns in respect of any Purchased Program, Purchased Asset, or Transferred Employee, that such Pfizer Party is or may subject to taxation by that jurisdiction in respect of such Purchased Program, Purchased Asset, or Transferred Employee.

(k) Neither the execution of this Agreement nor the consummation of the transactions contemplated hereby, either alone or in conjunction with any other event (whether contingent or otherwise) will, with respect to any Prospective Employee, result in the payment of any "parachute payment" (within the meaning of Section 280G of the Code) that is subject to the imposition of an excise Tax under Section 4999 of the Code or that would not be deductible by reason of Section 280G of the Code.

Notwithstanding any other provision of this Agreement, (i) the representations and warranties contained in this Section 6.7 constitute the sole and exclusive representations and warranties of the Pfizer Parties in this ARTICLE 6 relating to any Taxes or Tax Returns and (ii) nothing in this Agreement shall be construed as providing a representation or warranty with respect to the existence, amount, expiration date or limitations on (or availability of) any Tax attribute (including methods of accounting) of the Pfizer Parties for taxable periods (or portions thereof) beginning after the Closing Date.

6.8 Prospective Employees; Employee Benefits.

(a) The Pfizer Parties have provided to NewCo an accurate and complete list as of the Effective Date of: (i) the job title, full or part-time status, business unit, base compensation, target bonus percentage, fringe benefits, eligibility for equity, hire date, status as exempt or non-exempt (under applicable overtime regulations), and location of all current employees who NewCo will be obligated to offer employment to pursuant to

Article 10 (the "Prospective Employees"). As of the Effective Date, no Prospective Employee is on a leave of absence of any kind. As of the date hereof, no Prospective Employee has given notice to any of the Pfizer Parties of such employee's termination of employment or request for a leave of absence. To the knowledge of the Pfizer Parties, no Prospective Employee intends to terminate his or her employment with any of the Pfizer Parties or request or take a leave of absence prior to the Effective Date, or intends to terminate his or her employment with NewCo within six (6) months following the Effective Date.

(b) The Pfizer Parties are currently, and for the past three (3) years, have been, in material compliance with all applicable Laws respecting employment, discrimination in employment, terms and conditions of employment, wages, hours and occupational safety and health with respect to the Prospective Employees. There are no Proceedings pending or, to the knowledge of the Pfizer Parties, threatened, between any of the Pfizer Parties and any of the Prospective Employees before any Governmental Authority. To the knowledge of the Pfizer Parties, no Prospective Employee is in material violation of any (i) employment, non-disclosure, confidentiality or consulting agreement with any of the Pfizer Parties, or (ii) non-competition agreement, non-solicitation agreement, non-disclosure agreement or similar restrictive covenant with a former employer relating to the right of any such Person to be employed by or provide services to the Pfizer Parties because of the nature of the business conducted or presently proposed to be conducted by the Pfizer Parties.

(c) No Prospective Employee is represented by a labor union or other employee representative body, and, to the knowledge of the Pfizer Parties, there are no activities or proceedings filed by any labor union or other employee representative body as of the date hereof to organize any of the Prospective Employees.

(d) Schedule 6.8(d) contains an accurate and complete list of all Pfizer Benefit Plans (i)(A) under which any Prospective Employee or any beneficiary thereof participates and (B) where, pursuant to ARTICLE 10 hereof, NewCo is either agreeing to provide similar benefits under a NewCo benefit plan or assume any costs arising under any such Pfizer Benefit Plan; or (ii) under which NewCo or any of its Affiliates would reasonably be expected to have any material Liability (each such plan, a "Covered Benefit Plan"). With respect to each Covered Benefit Plan in which any Prospective Employee currently participates, the Pfizer Parties have made available to NewCo complete and accurate copies of the following: (i) in the case of any Covered Benefit Plan that is a severance plan (including the Pfizer Separation Plan), the plan document and all amendments thereto; (ii) in the case of any Covered Benefit Plan not identified in clause (i) a summary of the material terms thereof or a copy of the most recent summary plan description; and (iii) if applicable, the most recent determination or opinion letter received from the IRS. No Covered Benefit Plan is maintained, sponsored, contributed to, or required to be contributed to by the Pfizer Parties primarily for the benefit of employees outside of the United States.

(e) Each Covered Benefit Plan has been maintained, funded and administered in compliance with its own terms and in compliance in all material respects with the

provisions of applicable Laws, including ERISA and the Code. No Covered Benefit Plan which is a defined benefit plan had, as of the most recent measurement date, an "adjusted funding target attainment percentage," as defined in Section 436 of the Code, that was less than 80%. No Covered Benefit Plan has an "accumulated funding deficiency," whether or not waived, or is subject to a lien for unpaid contributions under Section 303(k) of ERISA or Section 430(k) of the Code.

(f) Each Covered Benefit Plan that is intended to qualify under Section 401(a) of the Code is subject to a favorable determination or opinion letter from the IRS and, to the knowledge of the Pfizer Parties, no act or omission has occurred that would reasonably be expected to adversely affect the qualified status of any such Covered Benefit Plan.

(g) Other than as set forth on Schedule 6.8(g), no Prospective Employee participates in any Covered Benefit Plan that is: (i) a "multiemployer plan" within the meaning of Section 3(37) or Section 4001(a)(4) of ERISA; or (ii) a benefit plan that is subject to Title IV of ERISA or the funding requirements of Section 302 of ERISA or Section 412 of the Code.

(h) Other than as set forth on Schedule 6.8(h) or as provided in ARTICLE 10, neither the execution of this Agreement nor the consummation of the transactions contemplated hereby, either alone or in conjunction with any other event (whether contingent or otherwise) will, with respect to any Prospective Employee: (i) result in any payment or benefit becoming payable, or required to be provided, by any of the Pfizer Parties to any such individual (other than payment of earned and unpaid wages, accrued vacation or paid time off in connection with the termination of any Transferred Employee by a Pfizer Party in connection with the Closing); (ii) result in the forgiveness of any indebtedness of any such individual; or (iii) increase the amount of any benefit or compensation otherwise payable or required to be provided, by any of the Pfizer Parties to any such individual; or (iv) result in the acceleration of the vesting or timing of payment of any compensation or benefits payable by any of the Pfizer Parties to or in respect of any such individual.

(i) Other than the Prospective Employees, there are no employees of any of the Pfizer Parties, and there are no employees of any of the Pfizer Parties who are employed outside of the United States, who are wholly or mainly assigned to the Purchased Programs or dedicate a material percentage of his or her services to the Purchased Programs.

(j) Notwithstanding any other provision of this Agreement, the representations and warranties contained in Section 6.6(c)(iv), Section 6.7, this Section 6.8, Section 6.9(k)-(l) and Section 6.13(e) constitute the sole and exclusive representations and warranties relating to employees and employee benefit plans.

6.9 Intellectual Property.

(a) With respect to the Pfizer Assigned IP Rights, Schedule 6.9 sets forth, in each case as of the date hereof, an accurate and complete list of all U.S. and foreign: (i) Patents including the patent number or application serial number for each jurisdiction in

which the Patent has been filed, the date filed or issued; (ii) applications and registrations for Trademarks, including the application serial number or registration number, for each country, province and state; (iii) domain names; and (iv) registered Copyrights applications and registrations, including the number and date of registration for each country, province and state, in which a Copyright has been registered (clauses (i) through (iv), collectively the "Purchased Programs Registered Intellectual Property").

(b) No exclusive licenses of any Pfizer Assigned IP Rights, any Group 3 Pfizer IP Rights, or, to Pfizer's knowledge, no exclusive licenses of any Key Assigned Contract Patent, are granted by Pfizer Parties to Third Parties.

(c) The issued patents included in the Pfizer Assigned IP Rights and the Group 3 Pfizer IP Rights and to Pfizer's knowledge, in the Key Assigned Contract Patents, are in effect and subsisting.

(d) Immediately prior to the Closing Date, the Pfizer Parties will be (i) the sole and exclusive owner of the Pfizer Assigned IP Rights and the Group 3 Pfizer IP Rights, or (ii) the holder of a valid right or exclusive license to use the Pfizer Assigned IP Rights, which right or license may be assigned to NewCo hereunder without the consent of any Third Party or, if such consent is required, such consent will have been received prior to the Closing Date.

(e) The Pfizer Assigned IP Rights, the Group 3 Pfizer IP Rights and, to Pfizer's knowledge, the Key Assigned Contract Patents, are free and clear of any Liens, other than Permitted Liens.

(f) To Pfizer's knowledge, no person has infringed or is infringing any Pfizer Assigned IP Rights, Group 3 Pfizer IP Rights or Key Assigned Contract Patents, or has otherwise misappropriated or is otherwise misappropriating any Know-How within the Pfizer Assigned IP Rights or Group 3 Pfizer IP Rights.

(g) To Pfizer's knowledge, there are no claims pending or threatened by the Pfizer Parties against any Person, nor have the Pfizer Parties sent any written notice to any Person, regarding actual or potential infringement, dilution, misappropriation or other unauthorized use of any Pfizer Assigned IP Rights, Key Assigned Contract Patents or Group 3 Pfizer IP Rights.

(h) As of the Closing Date, to Pfizer's knowledge, (i) there are no adverse Third Party actions or claims pending against the Pfizer Parties by any Person in any court, arbitration or by or before any Governmental Authority or, to Pfizer's knowledge, any written adverse Third Party allegations, in any such case to the effect that the manufacture, use, promotion, marketing or sale of the Products constitutes an infringement or misappropriation of the intellectual property rights of such Person, and (ii) none of the Pfizer Assigned IP Rights or Group 3 Pfizer IP Rights or any Key Assigned Contract Patent is involved in any litigation or inventorship challenge, reissue, interference, reexamination, *inter partes* review, opposition, cancellation proceeding, or other post-grant proceeding.

(i) Each of the Patents within the Pfizer Assigned IP Rights, Key Assigned Contract Patents, and Group 3 Pfizer IP Rights properly identifies, to Pfizer's knowledge, each and every inventor of the claims thereof as determined in accordance with the law of the Territory in which such Patents with the Pfizer Assigned IP Rights, Key Assigned Contract Patents or Group 3 Pfizer IP Rights is issued or pending.

(j) To Pfizer's knowledge, all material prior art of which the Pfizer Parties were aware during the pendency of any application currently in substantive prosecution relating to any issued patent in the Pfizer Assigned IP Rights, Key Assigned Contract Patents or Group 3 Pfizer IP Rights owned by a Pfizer Party was properly filed with the patent authorities in the territory in which such application was pending. For all Pfizer Assigned IP Rights, Group 3 Pfizer IP Rights and, to Pfizer's knowledge, the Key Assigned Contract Patents, the Pfizer Parties have met their duty of candor as and if required under 37 C.F.R. 1.56 and complied with analogous Law outside the United States requiring disclosure of references.

(k) Each current and former employee and individual contractor of the Pfizer Parties who is or was involved, to Pfizer's knowledge, in the creation or development of any Pfizer Assigned IP Rights or Group 3 Pfizer IP Rights owned by a Pfizer Party has executed and delivered (and to the Pfizer Parties' knowledge, is in compliance with) an employment or consulting agreement containing nondisclosure, assignment, and non-solicitation provisions.

(l) To Pfizer's knowledge, none of the Prospective Employees is obligated under any agreement, commitment, judgment, decree or order that would materially conflict with the Purchased Programs as conducted. The Pfizer Parties are not using, and, to Pfizer's knowledge, it will not be necessary to use, in connection with the Purchased Programs (i) any inventions of any of their past or present employees or individual contractors made prior to or outside the scope of their employment or consulting agreement by the Pfizer Parties that have not been assigned, licensed or otherwise transferred to a Pfizer Party or (ii) any confidential information or trade secret of any former employer of any such employee or contractors that has not been assigned, licensed or otherwise transferred to a Pfizer Party.

6.10 Purchased Assets.

(a) The Pfizer Parties are the sole and exclusive owners of and have good and valid title to, or valid and subsisting leasehold interests in, all of the Purchased Assets constituting tangible personal property other than Permitted Liens. The Pfizer Parties have all requisite corporate power and authority to conduct and carry on the Purchased Programs as they are now being conducted.

(b) The Purchased Assets, the Intellectual Property Rights licensed pursuant to the Key Assigned Contracts and the Group 3 Pfizer IP Rights, together with any of the rights and licenses granted or provided to NewCo pursuant to the Patent and Know-How License Agreement and the services to be provided under the Transition Services Agreement, as well as the transactions contemplated hereby and thereby, constitute in the

aggregate all the assets necessary to conduct the Purchased Programs in substantially the same manner in all material respects as conducted as of the Effective Date.

6.11 Investigations; Litigation. Since January 1, 2016 (a) there have been no material Proceedings relating to potential breaches, misappropriations or other violations of Law pending, alleged or, to the knowledge of Pfizer, threatened with respect to any Pfizer Party and (b) there have been no material Orders of any Governmental Authority imposed upon any Pfizer Party, in each case with respect to the Purchased Programs or the Transactions.

6.12 Inventory. The Purchased Inventory consists of a quality and quantity usable in the ordinary course of business consistent with past practice except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect and (a) are not excessive in light of the normal operating requirements of the Purchased Programs and (b) are adequate for the conduct of the Purchased Programs in substantially the same manner in all material respects as conducted as of the Effective Date.

6.13 Assigned Contracts.

(a) The Pfizer Parties have made available to NewCo prior to the date of this Agreement a complete, legible and correct copy of each Assigned Contract as in effect on the date of this Agreement. None of the Pfizer Parties is in material breach of or default under the terms of any Assigned Contract and, to the knowledge of the Pfizer Parties, no other party to an Assigned Contract is in material breach of or default under the terms of any Assigned Contract, and there is no event occurring as a direct or reasonably foreseeable result of any Pfizer Party's action or inaction or, to the knowledge of any Pfizer Party, through the action or inaction of any Third Party that with notice or the lapse of time or both would constitute a material breach of or default under the terms of any Assigned Contract. Each Assigned Contract is a legal, valid and binding obligation of the Pfizer Party that is party thereto and, to the knowledge of the Pfizer Parties, of each other party thereto, and is in full force and effect, subject to the Enforceability Exceptions.

(b) Except as set forth in Schedule 6.13(b), no approval, consent or waiver of any Person is needed to continue any Assigned Contract in full force and effect following the consummation of the Transactions.

(c) None of the Pfizer Parties has received written notice from any Person since January 1, 2017 regarding any actual or alleged violation or breach of, or default under, any of the Assigned Contracts or stating that such Person intends to terminate, cancel or make any material change to any Assigned Contract, in each case that would be material to the conduct of the Purchased Programs taken as a whole. Other than as contemplated herein in connection with the Transactions, there are no pending renegotiations or amendments of any of the Assigned Contracts that would be material to the conduct of the Purchased Programs taken as a whole.

(d) The Purchased Programs as conducted by the Pfizer Parties as of the Effective Date do not rely upon or use rights under any Contract that has expired or been terminated that would be material to the Purchased Programs taken as a whole.

(e) The Pfizer Parties are not a party to, bound by or subject to any Contract exclusively relating to the Purchased Programs or the Purchased Assets that are material to the Purchased Programs taken as a whole, except for (i) the Assigned Contracts, (ii) any Contract for employment of Prospective Employees or Covered Benefit Plan, (iii) any Contract relating to the use or ownership of any real property and (iv) those Contracts described on Schedule 6.13(e).

6.14 Finders or Brokers. Other than Centerview Partners LLC, no Pfizer Party has retained any broker or finder or incurred any Liability for any brokerage fees, commissions or finders fees with respect to this Agreement or the Transactions.

6.15 Accredited Investor. For purposes of the issuance of the Equity Consideration at Closing, Pfizer represents that it is an "accredited investor" as such term is defined in Rule 501 under the Securities Act of 1933.

6.16 No Other Representations and Warranties. Except for the representations and warranties contained in this ARTICLE 6 (including the related portions of the disclosure schedules attached hereto), the General Assignment and Bill of Sale, the Patent Assignment and Section 7 of the Patent and Know-How License Agreement, neither Pfizer nor any other Person has made or makes any other express or implied representation or warranty, either written or oral, on behalf of Pfizer, including any representation or warranty as to the accuracy or completeness of any information regarding the Purchased Programs and the Purchased Assets furnished or made available to NewCo and its Representatives or as to the future revenue, profitability or success of the Purchased Programs.

ARTICLE 7

REPRESENTATIONS AND WARRANTIES OF NEWCO

Subject to the terms of this Agreement and except as set forth in the corresponding sections or subsections of the disclosure schedules attached hereto, NewCo represents and warrants to Pfizer as of the date of this Agreement as follows:

7.1 Organization.

(a) NewCo is a corporation duly organized, validly existing and in good standing under the Laws of the State of Delaware and has all requisite corporate power and authority to carry on its business as now conducted and as presently proposed to be conducted. Except as set forth on Schedule 7.1(a), NewCo is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify would have a material adverse effect on NewCo's ability to consummate the Transactions.

(b) NewCo has made available to Pfizer prior to the date of this Agreement a true and complete copy of its certificate of incorporation and bylaws that are currently in effect (together, the "Initial NewCo Organizational Documents"). Prior to the Closing, NewCo shall have filed the Restated Certificate with the Delaware Secretary of State and amended and restated its bylaws (the "Restated Bylaws") and at the Closing and immediately after the Closing, the Restated Certificate and the Restated Bylaws (together,

the "Post-Closing NewCo Organizational Documents") shall be in full force and effect and NewCo shall not be in violation of their provisions.

7.2 Capitalization.

(a) Immediately prior to the Closing, the authorized capital of NewCo shall consist, of:

(i) 20,000,000 shares of Common Stock, 5,000,000 shares of which are issued and outstanding immediately prior to the Closing. All of the outstanding shares of Common Stock have been duly authorized, are fully paid and non-assessable and were issued in compliance with all applicable federal and state securities laws. NewCo holds no Common Stock in its treasury.

(ii) 11,743,987 shares of Class A Preferred Stock, par value $0.001, of which: (A) 7,557,990 shares have been designated Series A Preferred Stock; and (B) 4,185,997 shares have been designated Series A-1 Preferred Stock, none of which shall be issued and outstanding immediately prior to the Closing. The rights, privileges and preferences of the Equity Consideration are as stated in the Restated Certificate and as provided by the Delaware General Corporation Law. NewCo holds no Preferred Stock in its treasury.

(b) NewCo has reserved 1,000,000 shares of Common Stock for issuance to officers, directors, employees and consultants of NewCo pursuant to its 2017 Equity Incentive Plan duly adopted by NewCo's board of directors and approved by NewCo's stockholders (the "Stock Plan"), all of which remain available for issuance to officers, directors, employees and consultants pursuant to the Stock Plan. NewCo has furnished to Pfizer complete and accurate copies of the Stock Plan and forms of agreements to be used thereunder. Promptly following the Closing, the NewCo's board of directors shall amend the Stock Plan to provide for a share reserve equal to 10% of the fully diluted capitalization of NewCo (including the 1,000,000 shares of Common Stock reserved for issuance pursuant to this Section 7.2(b)) as of the Closing.

(c) Schedule 7.2(c) sets forth the capitalization of NewCo immediately following the Closing including the number of shares of the following, if any: (i) issued and outstanding Common Stock, including, with respect to restricted Common Stock, vesting schedule and repurchase price; (ii) granted stock options, including vesting schedule and exercise price; (iii) shares of Common Stock reserved for future award grants under the Stock Plan; (iv) each series of Preferred Stock; and (v) warrants or stock purchase rights, if any. Except for (A) the conversion privileges of the Preferred Stock to be issued under the Preferred Stock Purchase Agreement, (B) the issuance of Preferred Stock pursuant to the Preferred Stock Purchase Agreement, (C) the rights provided in Section 4 of the Investors' Rights Agreement, and (D) the securities and rights described in Schedule 7.2(c), as of the Closing, there will be no outstanding options, warrants, rights (including conversion or preemptive rights and rights of first refusal or similar rights) or agreements, orally or in writing, to purchase or acquire from NewCo any shares of Common Stock or Preferred Stock, or any securities convertible into or exchangeable for shares of Common

Stock or Preferred Stock. As of the Closing, all outstanding shares of the Common Stock and all shares of Common Stock underlying outstanding options will be subject to (i) a right of first refusal in favor of NewCo first, and the holders of the Class A Preferred Stock second, upon any proposed transfer (other than transfers for estate planning purposes); and (ii) a lock-up or market standoff agreement of not less than 180 days following NewCo's initial public offering pursuant to a registration statement filed with the Securities and Exchange Commission under the Securities Act of 1933.

(d) As of the Closing, none of NewCo's stock purchase agreements or stock option documents will contain a provision for acceleration of vesting (or lapse of a repurchase right) or other changes in the vesting provisions or other terms of such agreement or understanding upon the occurrence of any event or combination of events, including without limitation in the case where the Stock Plan is not assumed in an acquisition. NewCo has never adjusted or amended the exercise price of any stock options previously awarded, whether through amendment, cancellation, replacement grant, repricing, or any other means. NewCo has no obligation (contingent or otherwise) to purchase or redeem any of its capital stock.

(e) 409A. NewCo believes in good faith that any "nonqualified deferred compensation plan" (as such term is defined under Section 409A(d)(1) of the Code and the guidance thereunder) under which NewCo makes, is obligated to make or promises to make, payments (each, a "409A Plan") complies in all material respects, in both form and operation, with the requirements of Section 409A of the Code and the guidance thereunder. To the knowledge of NewCo, no payment to be made under any 409A Plan is, or will be, subject to the penalties of Section 409A(a)(1) of the Code.

7.3 Subsidiaries. NewCo does not currently own or control, directly or indirectly, any interest in any other corporation, partnership, trust, joint venture, limited liability company, association or other business entity. NewCo is not a participant in any joint venture, partnership or similar arrangement.

7.4 Power and Authority Relative to this Agreement. All corporate action required to be taken by the NewCo's Board of Directors and stockholders in order to authorize NewCo to enter into this Agreement and the Transaction Agreements, and to issue the Equity Consideration at the Closing and the Common Stock issuable upon conversion of the Equity Consideration, has been taken. All action on the part of the officers of the NewCo necessary for the execution and delivery of this Agreement and the Transaction Agreements, the performance of all obligations of NewCo under this Agreement and the Transaction Agreements to be performed as of the Closing, and the issuance and delivery of the Equity Consideration has been taken. This Agreement and the Transaction Agreements, when executed and delivered by NewCo, shall constitute valid and legally binding obligations of NewCo, enforceable against NewCo in accordance with their respective terms, except as such enforcement may be subject to the Enforceability Exceptions.

7.5 No Consent. Other than as set forth on Schedule 7.5, no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local Governmental Authority is required on the part of NewCo in connection with the consummation by NewCo of the Transactions, except for (i) the filing of the Restated

Certificate, which will have been filed as of the Closing and (ii) filings pursuant to Regulation D of the Securities Act and applicable state securities laws, which will be made in a timely manner. The execution and delivery by NewCo of this Agreement and the other Transaction Agreements, as applicable, does not, and the consummation of the Transactions and compliance with the provisions hereof will not result in a violation or default of any provisions of the Initial NewCo Organizational Documents or the Post-Closing NewCo Organizational Documents.

7.6 Investigations; Litigation. There is no claim, action, suit, proceeding, arbitration, complaint, charge or investigation pending or to NewCo's knowledge, currently threatened: (i) against NewCo or any officer, director, Key Employee or Founder of NewCo; (ii) that questions the validity of this Agreement or the Transaction Agreements or the right of NewCo to enter into them, or to consummate the transactions contemplated by this Agreement or the Transaction Agreements; or (iii) to NewCo's knowledge, that would reasonably be expected to have, either individually or in the aggregate, a material adverse effect on NewCo's ability to consummate the Transactions. Neither NewCo nor, to NewCo's knowledge, any of its officers, directors, Key Employees or Founders is a party or is named as subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality (in the case of officers, directors, Key Employees or Founders such as would affect NewCo). There is no action, suit, proceeding or investigation by NewCo pending or which NewCo intends to initiate. The foregoing includes, without limitation, actions, suits, proceedings or investigations pending or threatened in writing (or any basis therefor known to NewCo) involving the prior employment of any of the NewCo's employees, their services provided in connection with NewCo's business, any information or techniques allegedly proprietary to any of their former employers or their obligations under any agreements with prior employers.

7.7 Finders or Brokers. NewCo has not retained any broker or finder or incurred any Liability for any brokerage fees, commissions or finders fees with respect to this Agreement or the Transactions.

7.8 Solvency. Immediately after giving effect to the Transactions, NewCo shall be solvent and shall: (a) be able to pay its debts as they become due; and (b) have adequate capital to carry on its business. No transfer of property is being made and no obligation is being incurred in connection with the transactions contemplated hereby with the intent to hinder, delay or defraud either present or future creditors of Pfizer or NewCo. In connection with the Transactions, NewCo has not incurred, nor plans to incur, debts beyond its ability to pay as they become absolute and matured.

7.9 Funding. NewCo hereby represents and warrants that (i) on or before the Effective Date, NewCo shall have entered into the equity commitment letters with each of the Other Investors, which are attached hereto as Exhibit G (such letters, the "Equity Commitment Letters"), and pursuant to which the Other Investors have collectively committed to provide an aggregate of two hundred sixty-five million dollars ($265,000,000) of funding to NewCo on the terms and subject to the conditions set forth in the Equity Commitment Letters (the "Financing"), and (ii) that none of the Equity Commitment Letters has been amended, modified, terminated or withdrawn and that each of the Equity Commitment Letters is in full force and effect.

7.10 Valid Issuance of Shares. The Class A Preferred Stock, when issued, sold and delivered in accordance with the terms and for the consideration set forth in this Agreement, will be validly issued, fully paid and non-assessable and free of restrictions on transfer other than restrictions on transfer under the Restated Certificate, the Restated Bylaws or the Financing Agreements, applicable state and federal securities laws and liens or encumbrances created by or imposed by a purchaser under the Preferred Stock Purchase Agreement. Assuming the accuracy of the representations of Pfizer in Section 4 of the Preferred Stock Purchase Agreement and subject to the filings described in the Voting Agreement, the Class A Preferred Stock will be issued in compliance with all applicable federal and state securities laws. The Common Stock issuable upon conversion of the Class A Preferred Stock has been duly reserved for issuance, and upon issuance in accordance with the terms of the Restated Certificate, will be validly issued, fully paid and non-assessable and free of restrictions on transfer other than restrictions on transfer under the Restated Certificate, the Restated Bylaws or the Financing Agreements, applicable federal and state securities laws and liens or encumbrances created by or imposed by a purchaser under the Preferred Stock Purchase Agreement. Based in part upon the representations of Pfizer in Section 4 of the Preferred Stock Purchase Agreement and in the Voting Agreement, the Common Stock issuable upon conversion of the Class A Preferred Stock will be issued in compliance with all applicable federal and state securities laws.

7.11 Compliance with Other Instruments. NewCo is not in violation or default: (i) of any provisions of the Initial NewCo Organizational Documents, (ii) of any instrument, judgment, order, writ or decree, (iii) under any note, indenture or mortgage, or (iv) under any lease, agreement, contract or purchase order to which it is a party or by which it is bound that is required to be listed on the disclosure schedules attached hereto, or (v) to NewCo's knowledge, of any provision of federal or state statute, rule or regulation applicable to NewCo. The execution, delivery and performance of the Transaction Agreements and the consummation of the transactions contemplated by the Transaction Agreements will not result in any such violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either: (i) a default under any such provision, instrument, judgment, order, writ, decree, contract or agreement; or (ii) an event which results in the creation of any lien, charge or encumbrance upon any assets of NewCo or the suspension, revocation, forfeiture, or nonrenewal of any material permit or license applicable to NewCo.

7.12 Agreements; Actions.

(a) Except for the Transaction Agreements and this Agreement, there are no agreements, understandings, instruments, contracts or proposed transactions to which NewCo is a party or by which it is bound that involve: (i) obligations (contingent or otherwise) of, or payments to, NewCo in excess of $50,000, (ii) the license of any patent, copyright, trademark, trade secret or other proprietary right to or from NewCo, (iii) the grant of rights to manufacture, produce, assemble, license, market, or sell its products to any other Person that limit NewCo's exclusive right to develop, manufacture, assemble, distribute, market or sell its products, (iv) indemnification by NewCo with respect to infringements of proprietary rights, or (v) any other material restriction on the operation of NewCo's business.

(b) NewCo has not: (i) declared or paid any dividends, or authorized or made any distribution upon or with respect to any class or series of its capital stock, (ii) incurred any indebtedness for money borrowed or incurred any other liabilities individually in excess of $50,000 or in excess of $100,000 in the aggregate, (iii) made any loans or advances to any Person, other than ordinary advances for travel expenses, or (iv) sold, exchanged or otherwise disposed of any of its assets or rights, other than the sale of its inventory in the ordinary course of business. For the purposes of (a) and (b) of this Section 7.12, all indebtedness, liabilities, agreements, understandings, instruments, contracts and proposed transactions involving the same Person (including Persons that NewCo has reason to believe are affiliated with each other) shall be aggregated for the purpose of meeting the individual minimum dollar amounts of such subsection.

(c) NewCo is not a guarantor or indemnitor of any indebtedness of any other Person.

7.13 Certain Transactions.

(a) Other than: (i) standard employee benefits generally made available to all employees, (ii) standard director and officer indemnification agreements approved by NewCo's board of directors, and (iii) the purchase of shares of NewCo's capital stock and the issuance of options to purchase shares of NewCo's Common Stock, in each instance, approved in the written minutes or written consents of NewCo's board of directors (previously provided to Pfizer and the Other Investors or their counsel), there are no agreements, understandings or proposed transactions between NewCo and any of its officers, directors, consultants, Founders or Key Employees, or any Affiliate thereof.

(b) NewCo is not indebted, directly or indirectly, to any of its directors, officers, Founders or employees or to their respective spouses or children or to any Affiliate of any of the foregoing, other than in connection with expenses or advances of expenses incurred in the ordinary course of business or employee relocation expenses and for other customary employee benefits made generally available to all employees. None of NewCo's directors, officers, Founders or employees, or any members of their immediate families, or any Affiliate of the foregoing are, directly or indirectly, indebted to NewCo or have any: (i) material commercial, industrial, banking, consulting, legal, accounting, charitable or familial relationship with any of NewCo's customers, suppliers, service providers, joint venture partners, licensees and competitors; (ii) direct or indirect ownership interest in any firm or corporation with which NewCo is affiliated or with which NewCo has a business relationship, or any firm or corporation which competes with NewCo except that directors, officers, employees or stockholders of NewCo may own stock in (but not exceeding 2% of the outstanding capital stock of) publicly traded companies that may compete with NewCo; or (iii) financial interest in any contract with NewCo.

7.14 Rights of Registration and Voting Rights. Except as provided in the Investors' Rights Agreement, to be entered into prior to or at the Closing, NewCo is not under any obligation to register under the Securities Act of 1933 any of its currently outstanding securities or any securities issuable upon exercise or conversion of its currently outstanding securities. To NewCo's knowledge, except as contemplated in the Equity Commitment Letters or the Voting Agreement,

to be entered into prior to or at the Closing, no stockholder of NewCo has entered into any agreements with respect to the voting of capital shares of NewCo.

7.15 Material Liabilities. NewCo has no liability or obligation, absolute or contingent (individually or in the aggregate), except: (i) obligations and liabilities incurred after the date of incorporation in the ordinary course of business that are not material, individually or in the aggregate, and (ii) obligations under contracts made in the ordinary course of business that would not be required to be reflected in financial statements prepared in accordance with GAAP. NewCo maintains and will continue to maintain a standard system of accounting established and administered in accordance with GAAP.

7.16 Changes. Since the date of incorporation there has not been:

(a) any damage, destruction or loss, whether or not covered by insurance, that would have a Material Adverse Effect;

(b) any waiver or compromise by NewCo of a valuable right or of a material debt owed to it;

(c) any satisfaction or discharge of any lien, claim, or encumbrance or payment of any obligation by NewCo, except in the ordinary course of business and the satisfaction or discharge of which would not have a Material Adverse Effect;

(d) any material change to a material contract or agreement by which NewCo or any of its assets is bound or subject;

(e) any material change in any compensation arrangement or agreement with any employee, officer, director or stockholder;

(f) any resignation or termination of employment of any officer or Key Employee of NewCo;

(g) any mortgage, pledge, transfer of a security interest in, or lien, created by NewCo, with respect to any of its material properties or assets, except liens for taxes not yet due or payable and liens that arise in the ordinary course of business and do not materially impair NewCo's ownership or use of such property or assets;

(h) any loans or guarantees made by NewCo to or for the benefit of its employees, officers or directors, or any members of their immediate families, other than travel advances and other advances made in the ordinary course of its business;

(i) any declaration, setting aside or payment or other distribution in respect of any of NewCo's capital stock, or any direct or indirect redemption, purchase, or other acquisition of any of such stock by NewCo;

(j) any sale, assignment or transfer of any NewCo Intellectual Property that could reasonably be expected to result in a Material Adverse Effect;

(k) any other event or condition of any character, other than events affecting the economy of NewCo's industry generally, that could reasonably be expected to result in a Material Adverse Effect; or

(l) any arrangement or commitment by NewCo to do any of the things described in this Section 7.16.

7.17 Employee Matters.

(a) As of the date hereof, NewCo employs three full-time employees and no part-time employees and engages no consultants or independent contractors. Schedule 7.17(a) sets forth a detailed description of all compensation, including salary, bonus, severance obligations and deferred compensation paid or payable for each officer, employee, consultant and independent contractor of NewCo who received annualized compensation in excess of $100,000 for the fiscal year ended December 31, 2017 or is anticipated to receive annualized compensation in excess of that amount for the fiscal year ending December 31, 2018.

(b) None of its employees is obligated under any contract (including licenses, covenants or commitments of any nature) or other agreement, or subject to any judgment, decree or order of any court or administrative agency, that would materially interfere with such employee's ability to promote the interest of NewCo or that would conflict with NewCo's business. Neither the execution or delivery of the Transaction Agreements, nor the carrying on of NewCo's business by the employees of NewCo, nor the conduct of NewCo's business as now conducted and as presently proposed to be conducted, will, to NewCo's knowledge, conflict with or result in a breach of the terms, conditions, or provisions of, or constitute a default under, any contract, covenant or instrument under which any such employee is now obligated.

(c) NewCo is not delinquent in payments to any of its employees, consultants, or independent contractors for any wages, salaries, commissions, bonuses, or other direct compensation for any service performed for it to the date hereof or amounts required to be reimbursed to such employees, consultants or independent contractors. NewCo has complied in all material respects with all applicable state and federal equal employment opportunity laws and with other laws related to employment, including those related to wages, hours, worker classification and collective bargaining. NewCo has withheld and paid to the appropriate governmental entity or is holding for payment not yet due to such governmental entity all amounts required to be withheld from employees of NewCo and is not liable for any arrears of wages, taxes, penalties or other sums for failure to comply with any of the foregoing.

(d) To NewCo's knowledge, no Key Employee intends to terminate employment with NewCo or is otherwise likely to become unavailable to continue as a Key Employee. NewCo does not have a present intention to terminate the employment of any of the foregoing. The employment of each employee of NewCo is terminable at the will of NewCo. Except as set forth in Schedule 7.17(d) or as required by law, upon termination of the employment of any such employees, no severance or other payments will become due.

Except as set forth in Schedule 7.17(d), NewCo has no policy, practice, plan or program of paying severance pay or any form of severance compensation in connection with the termination of employment services.

(e) NewCo has not made any representations regarding equity incentives to any officer, employee, director or consultant that are inconsistent with the share amounts and terms set forth in the minutes of meetings of NewCo's board of directors.

(f) Schedule 7.17(f) of the Disclosure Schedule sets forth each employee benefit plan maintained, established or sponsored by NewCo, or which NewCo participates in or contributes to, which is subject to ERISA. NewCo has made all required contributions and has no liability to any such employee benefit plan, other than liability for health plan continuation coverage described in Part 6 of Title I(B) of ERISA, and has complied in all material respects with all applicable laws for any such employee benefit plan.

(g) To NewCo's knowledge, none of the Key Employees, Founders or directors of NewCo has been: (i) subject to voluntary or involuntary petition under the federal bankruptcy laws or any state insolvency law or the appointment of a receiver, fiscal agent or similar officer by a court for his or her business or property; (ii) convicted in a criminal proceeding or named as a subject of a pending criminal proceeding (excluding traffic violations and other minor offenses); (iii) subject to any order, judgment or decree (not subsequently reversed, suspended, or vacated) of any court of competent jurisdiction permanently or temporarily enjoining him or her from engaging, or otherwise imposing limits or conditions on his or her engagement in any securities, investment advisory, banking, insurance, or other type of business or acting as an officer or director of a public company; or (iv) found by a court of competent jurisdiction in a civil action or by the United States Securities and Exchange Commission or the Commodity Futures Trading Commission to have violated any federal or state securities, commodities, or unfair trade practices law, which such judgment or finding has not been subsequently reversed, suspended, or vacated.

7.18 Tax Returns and Payments. There are no federal, state, county, local or foreign taxes due and payable by NewCo which have not been timely paid. There are no accrued and unpaid federal, state, county, local or foreign taxes of NewCo which are due, whether or not assessed or disputed. There have been no examinations or audits of any tax returns or reports by any applicable federal, state, local or foreign governmental agency. NewCo has duly and timely filed all federal, state, county, local and foreign tax returns required to have been filed by it and there are in effect no waivers of applicable statutes of limitations with respect to taxes for any year.

7.19 Insurance. NewCo has in full force and effect insurance policies concerning such casualties as would be reasonable and customary for companies like NewCo with extended coverage, sufficient in amount (subject to reasonable deductions) to allow it to replace any of its properties that might be damaged or destroyed.

7.20 Employee Agreements. Each current and former employee, consultant and officer of NewCo has executed an agreement with NewCo regarding confidentiality and proprietary information substantially in the form or forms delivered to the counsel for Pfizer and the Other

Investors (the "Confidential Information Agreements"). No current or former Key Employee has excluded works or inventions from his or her assignment of inventions pursuant to such Key Employee's Confidential Information Agreement. NewCo is not aware that any of its Key Employees is in violation of any agreement covered by this Section 7.20.

7.21 Permits. Except as set forth on Schedule 7.21, NewCo has all franchises, permits, licenses and any similar authority necessary for the conduct of its business, the lack of which could reasonably be expected to have a Material Adverse Effect. NewCo is not in default in any material respect under any of such franchises, permits, licenses or other similar authority.

7.22 Corporate Documents. The Restated Certificate and the Restated Bylaws are in the form provided to Pfizer and the Other Investors. The copy of the minute books of NewCo provided to Pfizer and the Other Investors contains minutes of all meetings of directors and stockholders and all actions by written consent without a meeting by the directors and stockholders since the date of incorporation and accurately reflects in all material respects all actions by the directors (and any committee of directors) and stockholders with respect to all transactions referred to in such minutes.

7.23 Foreign Corrupt Practices Act. Neither NewCo nor any of its directors, officers, employees or agents have, directly or indirectly, made, offered, promised or authorized any payment or gift of any money or anything of value to or for the benefit of any "foreign official" (as such term is defined in the U.S. Foreign Corrupt Practices Act of 1977, as amended (the "FCPA")), foreign political party or official thereof or candidate for foreign political office for the purpose of: (i) influencing any official act or decision of such official, party or candidate, (ii) inducing such official, party or candidate to use his, her or its influence to affect any act or decision of a foreign governmental authority, or (iii) securing any improper advantage, in the case of (i), (ii) and (iii) above in order to assist NewCo or any of its affiliates in obtaining or retaining business for or with, or directing business to, any person. Neither NewCo nor any of its directors, officers, employees or agents have made or authorized any bribe, rebate, payoff, influence payment, kickback or other unlawful payment of funds or received or retained any funds in violation of any law, rule or regulation. NewCo further represents that it has maintained, and has caused each of its affiliates to maintain, systems of internal controls (including, but not limited to, accounting systems, purchasing systems and billing systems) and written policies to ensure compliance with the FCPA or any other applicable anti-bribery or anti-corruption law, and to ensure that all books and records of NewCo accurately and fairly reflect, in reasonable detail, all transactions and dispositions of funds and assets. Neither NewCo nor, to NewCo's knowledge, any of its officers, directors or employees are the subject of any allegation, voluntary disclosure, investigation, prosecution or other enforcement action related to the FCPA or any other anti-corruption law.

7.24 Data Privacy. In connection with its collection, storage, transfer (including, without limitation, any transfer across national borders) and/or use of any personally identifiable information from any individuals, including, without limitation, any customers, prospective customers, employees and/or other third parties (collectively "Personal Information"), NewCo is and has been in compliance in all material respects with all applicable laws in all relevant jurisdictions, NewCo's privacy policies and the requirements of any contract or codes of conduct to which NewCo is a party. NewCo has commercially reasonable physical, technical, organizational and administrative security measures and policies in place to protect all Personal

Information collected by it or on its behalf from and against unauthorized access, use and/or disclosure. To the extent NewCo maintains or transmits protected health information, as defined under 45 C.F.R. § 160.103, NewCo is in compliance with the applicable requirements of the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, including all rules and regulations promulgated thereunder. NewCo is and has been in compliance in all material respects with all laws relating to data loss, theft and breach of security notification obligations.

7.25 Non-Reliance. Except for the representations and warranties contained in ARTICLE 6 of this Agreement (including the related portions of the disclosure schedules attached hereto), the General Assignment and Bill of Sale, the Patent Assignment, and Section 7 of the Patent and Know-How License Agreement, neither Pfizer nor any of its agents, employees or representatives have made, nor are any of them making any representation or warranty, written or oral, express or implied, in respect of the Purchased Programs and the Purchased Assets, including any representations and warranties about the accuracy or completeness of any information or documents previously provided, and any such other representations and warranties are hereby expressly disclaimed. NewCo expressly acknowledges and agrees that neither NewCo nor any of NewCo's agents, employees or representatives is relying on any other representation or warranty of Pfizer or any of its agents, employees or representatives, including regarding the accuracy or completeness of any such other representations and warranties or the omission of any material information, whether express or implied.

ARTICLE 8

PRE-CLOSING COVENANTS

8.1 Conduct of the Purchased Programs Prior to Closing.

(a) From the date of this Agreement until the Closing, except as otherwise permitted by this Agreement, set forth in Schedule 8.1, consented to by NewCo in writing (which consent shall not be unreasonably withheld or delayed) or directed, directly or indirectly, by NewCo, Pfizer agrees to use (and to cause each Pfizer Party to use) commercially reasonable efforts to:

(i) maintain in effect all Pfizer Assigned IP Rights and Governmental Approvals and applications and registrations included in the Pfizer Assigned IP Rights and Governmental Approvals in the ordinary course of business consistent with past practice;

(ii) maintain all Purchased Inventory and physical Purchased Assets in its present repair, order and condition in the ordinary course of business consistent with past practice, except for depletion and ordinary wear and tear;

(iii) perform its obligations in all material respects under the Assigned Contracts;

(iv) maintain and perform material obligations under Governmental Approvals and materially comply with all applicable Laws relating the Purchased Programs and the Purchased Assets;

(v) keep in full force and effect all material rights relating to the Purchased Programs; and

(vi) continue to operate, conduct, further develop and advance the Purchased Programs in the ordinary course of business, consistent with past practices.

(b) From the date of this Agreement until the Closing (or, with respect to clause (ix), the Employee Transfer Date), except as otherwise permitted by this Agreement, set forth in Schedule 8.1, consented to by NewCo in writing (which consent shall not be unreasonably withheld or delayed) or directed, directly or indirectly, by NewCo, Pfizer will not (and Pfizer will cause each of its Affiliates not to):

(i) pledge, sell, lease, transfer, license (exclusive or non-exclusive), assign, impair, dispose of or otherwise make subject to a Lien (other than any Permitted Liens) any Purchased Asset outside of the ordinary course of business consistent with past practice, other than the sale of Purchased Inventory or obsolete, worn-out or excess equipment or assets in the ordinary course of business consistent with past practice;

(ii) cancel or waive any material claims or rights that relate to the Purchased Assets or commence, settle, or agree to settle any Proceeding with any Governmental Authority or other Person relating to the Purchased Programs or any Purchased Asset or any Assumed Liability;

(iii) transfer, assign or grant any license (exclusive or non-exclusive) or sublicense of any rights under or with respect to any Pfizer Assigned IP Rights or Group 3 Pfizer IP Rights other than non-exclusive licenses in the ordinary course of business consistent with past practice;

(iv) change, amend or otherwise modify, or waive any material claims or rights under, or terminate any Assigned Contract that has a value, payment or other obligations in excess of $[***] individually or $[***] in the aggregate;

(v) enter into any Contract in connection with the Purchased Programs with an obligation or value in excess of $[***] individually or $[***] in the aggregate;

(vi) make any write down in the value of the Purchased Inventory and physical Purchased Assets, except as required by applicable Law or GAAP;

(vii) abandon or permit the lapse of, as applicable, any Pfizer Assigned IP Rights to the extent that Pfizer or any of its Affiliates controls prosecution and maintenance of such Pfizer Assigned IP Rights;

(viii) take any action related to the Purchased Programs which would adversely affect, or impede or impair, the ability of the parties hereto, to consummate the Transactions;

(ix) hire or terminate the employment of any Prospective Employee (other than for cause), increase any Prospective Employee's salary or benefits or alter any Prospective Employee's responsibilities (other than, in each case, (A) annual salary increases in the ordinary course of business or (B) increases in benefits under any Covered Benefit Plan in the ordinary course of business or (C) increases required by Law or the terms of a Covered Benefit Plan); or

(x) agree, whether in writing or otherwise, to do any of the foregoing.

8.2 Access to Information. From the date of this Agreement until the Closing or the earlier termination of this Agreement pursuant to its terms, Pfizer and its Affiliates shall (a) permit NewCo and its Representatives to have reasonable access to all books, records (including Tax records), contracts and documents exclusively pertaining to the Purchased Programs or the Purchased Assets and (b) furnish NewCo with all financial, operating and other data and information related exclusively to the Purchased Programs (including copies thereof) as NewCo may reasonably request; *provided, however*, that Pfizer shall not be required to permit any inspection or other access, or to disclose any information that in the reasonable judgment of Pfizer would: (i) result in the disclosure of any Trade Secrets, (ii) violate any obligation of Pfizer with respect to confidentiality entered into prior to the date of this Agreement, (iii) violate or result in the loss or material impairment of any information subject to the attorney-client privilege or the attorney work product doctrine, (iv) cause competitive harm to any Pfizer Party, (v) violate any Law or (vi) result in disclosure of the Consolidated Returns. Any such access will be provided or conducted during normal business hours upon reasonable advance notice to Pfizer, under the reasonable supervision of Pfizer's personnel and in such a manner as not to interfere with the normal operations of Pfizer and its Affiliates. All requests by NewCo for access pursuant to this Section 8.2 shall be submitted or directed exclusively to such individual or individuals as Pfizer may designate in writing from time to time (including in response to NewCo's request). Prior to the Closing, without the prior written consent of Pfizer, which will not be unreasonably withheld or delayed, none of NewCo or any of its Affiliates shall contact any employees of, suppliers to, or any other Person with a material business relationship with Pfizer or its Affiliates regarding the Purchased Programs. NewCo shall, and shall cause its Affiliates to, abide by the terms of the Confidential Disclosure Agreement with respect to any access or information provided pursuant to this Section 8.2 or otherwise, in accordance with the terms of such Confidential Disclosure Agreement.

8.3 Commercially Reasonable Efforts. Subject to the terms and conditions of this Agreement, from the date of this Agreement to the Closing, or the earlier termination of this Agreement pursuant to its terms, each party hereto shall cooperate with the other party hereto and use (and shall cause their respective Affiliates to use) their respective commercially reasonable

efforts to promptly take, or cause to be taken, all actions, and do, or cause to be done, all things, necessary, proper or advisable to cause the conditions to Closing set forth in ARTICLE 11 to be satisfied (but not waived) as promptly as practicable. In furtherance and not in limitation of the covenants of the parties contained in this Section 8.3, each of the parties hereto shall use its reasonable best efforts to resolve such objections, if any, as may be asserted by a Governmental Authority in any jurisdiction in which information on consultation obligations are required by applicable Laws to consummate the Transactions.

8.4 Consents. Without limiting the provisions of Section 8.3, on or prior to the Closing Date, each of the Pfizer Parties shall use its respective commercially reasonable efforts to obtain all Consents and make and deliver all filings and notices listed on Schedule 8.4(a), and NewCo shall use commercially reasonable efforts to obtain all Consents and make and deliver all filings and notices listed on Schedule 8.4(b), *provided*, *however*, that nothing in this Section 8.4 shall require any of the Pfizer Parties or any of their Affiliates to modify any of its respective rights in a manner adverse to any of the Pfizer Parties or any of their Affiliates or to pay any fee or other payment, or incur any Liability, cost or out-of-pocket expense in connection with the efforts set forth in this Section 8.4, with any such Liabilities, costs or out-of-pocket expenses to be borne by NewCo.

8.5 Exclusive Dealing.

(a) From the date of this Agreement until the earlier of (i) the termination of this Agreement pursuant to its terms or (ii) the Closing, the Pfizer Parties, the Pfizer Parties' Subsidiaries and their respective Representatives shall not, without the prior written consent of NewCo, directly or indirectly, (x) solicit, knowingly encourage or initiate any contact concerning the submission of any inquiry, proposal or offer from any entity or person (other than NewCo) or (y) participate in any discussions or negotiations or enter into any agreement with, or provide any additional non-public information to, any entity or person (other than NewCo), in each case relating to a sale of all or any material part of the Purchased Programs or Purchased Assets (whether by way of merger, purchase of capital stock, purchase of assets, granting of licenses or similar transaction or a sale of a Subsidiary of Pfizer that holds or owns all or any material part of the Purchased Programs or Purchased Assets).

(b) From the date of this Agreement until the Closing, the Pfizer Parties, their Affiliates and their respective Representatives shall cease all discussions with any Person (other than NewCo) regarding any of the matters covered by this Section 8.5, including terminating any such Person's access to the Pfizer Parties' electronic data room, and shall promptly cause their Representatives to request the return or destruction of all non-public information concerning the Purchased Programs and/or the Purchased Assets that has been furnished to any person or entity with whom a confidentiality agreement was entered into at any point within the 12-month period immediately prior to the Effective Date. The Pfizer Parties acknowledge and agree, for itself and each of the persons and entities referred to above, that any remedy at law for breach of the covenants of this Section 8.5 would be inadequate, and in addition to any other relief which may be available, NewCo will be entitled to temporary and permanent injunctive relief without the necessity of proving actual damages and without regard to the adequacy of any remedy at law.

8.6 Financing.

(a) NewCo and its Affiliates shall use their reasonable best efforts to obtain the Financing, including by using their reasonable best efforts to deliver all documents and instruments reasonably necessary to satisfy the conditions set forth in the Equity Commitment Letter and otherwise seeking to cause the conditions set forth in the Equity Commitment Letter to be fulfilled in accordance with its terms. If at any time it becomes likely (as determined in the reasonable judgment of NewCo) that NewCo and its Affiliates will be unable for any reason to consummate the Financing, NewCo and its Affiliates shall use their reasonable best efforts to seek alternative financing.

(b) NewCo and its Affiliates shall not amend, modify or change any of the conditions in the Equity Commitment Letter in a manner that would reasonably be expected to materially delay or prevent the Closing without the prior written consent of Pfizer, such consent not to be unreasonably withheld, conditioned or delayed, and, subject to the satisfaction of all the conditions to the Closing set forth in this Agreement, NewCo and its Affiliates shall draw down on the financing referred to in the Equity Commitment Letter when the conditions set forth in the Equity Commitment Letter are satisfied.

8.7 Pre-Closing Cooperation. From the date of this Agreement until the earlier of Closing or termination of this Agreement pursuant to Section 13.1, each party shall, and shall cause its Affiliates and their respective directors, officers, employees and other Representatives to, from time to time, at the reasonable request of the other party, cooperate with the other party and use reasonable best efforts to facilitate the transactions contemplated by the Transaction Agreements, provided, however, that any access or furnishing of information shall be conducted during normal business hours, under the supervision of the other party's personnel and in such a manner as not unreasonably to interfere with the normal operations of the other party. Notwithstanding anything to the contrary in this Agreement, the other party shall not be required to disclose any information to the requesting party or its Representatives if such disclosure would, in the other party's good faith determination, (i) jeopardize any attorney-client or other legal privilege or (ii) contravene any applicable Laws, fiduciary duty or binding agreement entered into prior to the date hereof.

8.8 Conduct of NewCo Prior to Closing. From the date of this Agreement until the Closing, except as consented to by Pfizer in writing, NewCo will not issue any Common Stock, Series A Preferred Stock or any other equity security of NewCo except as expressly contemplated by this Agreement or the Preferred Stock Purchase Agreement or amend or enter into any side letter or similar agreement with respect to, waive any provision of, or otherwise modify in any respect any of the Equity Commitment Letters.

ARTICLE 9

POST-CLOSING COVENANTS

9.1 Cooperation. After the Closing, upon the reasonable request of NewCo and at NewCo's expense for any costs or expense of Third Parties, Pfizer shall, and shall cause each other Pfizer Party to, (i) use reasonable best efforts during the Cooperation Period following the Closing to (a) execute and deliver any and all further materials, documents and instruments of conveyance, transfer or assignment as may reasonably be requested by NewCo to effect, record or verify the

transfer to and vesting in NewCo of such Pfizer Party's right, title and interest in and to the Purchased Assets, free and clear of all Liens other than the Permitted Liens, in accordance with the terms of this Agreement, (b) deliver physical possession of the Purchased Assets to NewCo, (c) cooperate with reasonable requests from NewCo to assist in an orderly transfer of supplier relationships involving the Purchased Programs to NewCo, and (ii) use commercially reasonable efforts to perform the post-Closing covenants set forth on Schedule 9.1; *provided*, *however*, that nothing in this Section 9.1 shall require any Pfizer Party or its Affiliates to modify any of its respective rights in a manner adverse to such party or any of their Affiliates or to pay any fee or other payment, or incur any Liability, cost or out-of-pocket expense in connection with the efforts set forth in this Section 9.1, with any such Liabilities, costs or out-of-pocket expenses to be borne by NewCo. After the Closing, each Pfizer Party shall promptly deliver to NewCo any mail, packages, orders, inquiries and other communications addressed to such Pfizer Party and to the extent relating to the Purchased Programs.

9.2 Return of Assets; Transfer of Purchased Assets.

(a) If, for any reason after the Closing, any asset is ultimately determined to be an Excluded Asset or NewCo is found to be in possession of any Excluded Asset or subject to an Excluded Liability, (i) NewCo shall return or transfer and convey (without further consideration) to the appropriate Pfizer Party, and such Pfizer Party shall accept or assume, as applicable, such asset or Excluded Liability; (ii) the appropriate Pfizer Party shall assume (without further consideration) any Liabilities associated with such assets or Excluded Liabilities; and (iii) NewCo and the appropriate Pfizer Party shall execute such documents or instruments of conveyance or assumption and take such further acts which are reasonably necessary or desirable to effect the transfer of such asset or Excluded Liability back to the Pfizer Party.

(b) In the event that any Purchased Asset or Assumed Liability is discovered by Pfizer or any of its Affiliates or identified to Pfizer in writing by NewCo at any time after the Closing Date, possession or ownership of which has not been transferred to, or assumed by (without further consideration), either NewCo or its Affiliates at such time, the Pfizer Parties shall promptly take such steps as may be required to transfer, or cause to be transferred, such Purchased Assets or Assumed Liabilities to NewCo, subject to Section 2.5 and otherwise in accordance with the terms of this Agreement, at no additional charge to NewCo or its Affiliates, and NewCo or its Affiliates shall accept such Purchased Assets or assume such Assumed Liabilities, as the case may be.

9.3 Records and Documents. For a period of [***] years after the Closing, at the other party's request, each party shall provide the other party and its Representatives with access to and the right to make copies of those records and documents to the extent related to the Purchased Programs (possession of which is retained by a Pfizer Party or transferred to NewCo, as applicable), as may be reasonably necessary in connection with any Third Party litigation, or the conduct of any audit or investigation by a Governmental Authority. Notwithstanding anything to the contrary in this Section 9.3, Pfizer or the Pfizer Parties, as applicable, shall provide to NewCo reasonable access to, and the right to make copies of, Tax Returns that relate primarily to the Purchased Programs or the Purchased Assets, and NewCo shall not have access or the right to

9.4 make copies of any other Tax Returns *provided*, that in no event shall Pfizer or the Pfizer Parties, as applicable, provide access to Consolidated Returns.

9.5 Bulk Sales Waiver. NewCo hereby waives compliance by each Pfizer Party with any applicable bulk sales Laws in connection with the Transactions.

9.6 Confidentiality.

(a) Definitions. "Confidential Information" shall mean: (a) all non-public or proprietary information (including Know-How) that is disclosed by or on behalf of a party (the "Disclosing Party") (or any of its Affiliates) to the other party (the "Receiving Party", each a "Party" for purposes of this Section 9.5) or any of its Representatives pursuant to or in connection with this Agreement or the Confidential Disclosure Agreement or the Patent and Know-How License Agreement (including the terms thereof); and (b) all other non-public or proprietary information (including Know-How) that is expressly deemed in this Agreement or the Patent and Know-How License Agreement to be Confidential Information, whether or not disclosed by or on behalf of a party (or any of its Affiliates) to the other party, any of its Affiliates or any of their respective employees, agents or contractors, in each case ((a) or (b)), without regard as to whether any of the foregoing is marked "confidential" or "proprietary," or in oral, written, graphic or electronic form. The terms of this Agreement shall be deemed to be both parties' Confidential Information. Pfizer's Confidential Information shall include all such information disclosed in connection with NewCo's due diligence investigation of the Purchased Programs, the Purchased Assets and the evaluation of the Transactions, including pursuant to Section 8.2; provided that, subject to the Patent and Know-How License Agreement, all Know-How (including unpublished patent applications) included in the Pfizer Assigned IP Rights, and all Confidential Information contained in or exclusively related to the Assigned Contracts, the Books and Records and the Other Assets shall, as between Pfizer and NewCo, be deemed to be NewCo's Confidential Information as of the Closing Date, such that NewCo shall be deemed to be the Disclosing Party with respect thereto, Pfizer shall be deemed to be the Receiving Party with respect thereto, and Section 9.6(b)(i) below shall not apply to such Confidential Information.

(b) Exclusions. Information shall not be deemed to be Confidential Information of the Disclosing Party to the extent that the Receiving Party can demonstrate:

(i) through competent evidence that such information is known by the Receiving Party at the time of its receipt who is not known by the Receiving Party to be under an obligation of confidentiality, and not through a prior disclosure by the Disclosing Party;

(ii) that such information is in the public domain before its receipt from the Disclosing Party, or thereafter enters the public domain through no breach of this Agreement by the Receiving Party;

(iii) that such information is subsequently disclosed to the Receiving Party by a Third Party who is not known by the Receiving Party to be under an obligation of confidentiality to the Disclosing Party; or

(iv) through competent evidence that such information is discovered or developed by or on behalf of the Receiving Party independently and without use of or reference to any Confidential Information received from the Disclosing Party.

(c) Duty of Confidence. Subject to the other provisions of this Section 9.5, for a period of [***] years after the Closing Date:

(i) The Receiving Party shall maintain in confidence and otherwise safeguard the Disclosing Party's Confidential Information in the same manner and with the same protections as the Receiving Party maintains its own confidential information, but in any event no less than reasonable efforts;

(ii) the Receiving Party may only use any such Confidential Information for the purposes of performing its obligations or exercising its rights under the Transaction Agreements;

(iii) the Receiving Party may only disclose the Disclosing Party's Confidential Information to its Affiliates (and, in the case of NewCo as the Receiving Party, its licensees and sublicensees) and its and their respective Representatives, in each case to the extent reasonably necessary for the purposes of performing its obligations or exercising its rights under this Agreement; provided that such Persons are bound by legally enforceable obligations to maintain the confidentiality of the Confidential Information in a manner consistent with the confidentiality provisions of this Agreement.

(d) Authorized Disclosures. Notwithstanding the obligations set forth in this Section 9.6, the Receiving Party may disclose the Disclosing Party's Confidential Information to the extent:

(i) such disclosure is reasonably necessary: (A) to the Receiving Party's Representatives (including attorneys, independent accountants or financial advisors) for the sole purpose of enabling such Representatives to provide advice to such Receiving Party, provided that in each such case such recipients are bound by confidentiality and non-use obligations that are at least as restrictive as those contained in this Agreement; or (B) to actual or bona fide potential investors, potential acquirors, licensees or other financial, development or commercial partners solely for the purpose of evaluating or carrying out an actual or potential investment, acquisition or collaboration, provided that in each such case such recipients are bound by confidentiality and non-use obligations at least as restrictive as those contained in the Agreement;

(ii) such disclosure is to a Governmental Authority and necessary or desirable (A) to obtain or maintain INDs, Regulatory Approvals or Price Approval for any product (subject to the limitations of any license grant to the Receiving

(iii) Party related to the use of such Confidential Information), within the Territory, or (B) in order to respond to inquiries, requests or investigations by such Governmental Authority relating to Products or this Agreement;

(iv) such disclosure is required by Law, judicial or administrative process, provided that, except for disclosures governed by the last two sentences of Section 9.6(e) below, the Receiving Party, to the extent legally permitted, shall promptly inform the Disclosing Party of such required disclosure and provide the Disclosing Party an opportunity to challenge or limit the disclosure obligations, provided that Confidential Information that is disclosed pursuant to subsection (ii) above or this subsection (iii) shall remain otherwise subject to the confidentiality and non-use provisions of this Section 9.6 (provided that such disclosure is not a public disclosure), and the Receiving Party shall cooperate with and reasonably assist the Disclosing Party if the Disclosing Party seeks a protective order or other remedy in respect of any such disclosure. In any event, the Receiving Party shall furnish only that portion of the Confidential Information which, in the advice of the Receiving Party's legal counsel, is responsive to such requirement or request;

(v) such disclosure is reasonably necessary to exercise its right to prepare, file, prosecute, maintain and extend Patents in a manner consistent with the Patent and Know-How License Agreement, including any obligation to cooperate with the Disclosing Party therein; or

(vi) necessary in order to enforce its rights under the Agreement; or

(vii) in the case of Pfizer as the Receiving Party, with respect to Know-How in the Pfizer Assigned IP Rights which is other than that within the Group 1 Pfizer IP Rights, to the extent useful or necessary to exercise and enjoy the rights in and to such Transferred Pfizer Know-How granted to Pfizer under the Patent and Know-How License Agreement.

(e) SEC Filings and Other Disclosures. Either Party may disclose the terms of this Agreement and make any other public written disclosure regarding the existence of, or performance under, this Agreement, to the extent required, in the reasonable advice of such Party's legal counsel, to comply with (i) applicable Law, including the rules and regulations promulgated by the United States Securities and Exchange Commission or (ii) any equivalent Governmental Authority, securities exchange or securities regulator in any country in the Territory. Before disclosing this Agreement or any of the terms hereof pursuant to this Section 9.6(e), the parties will consult with one another on the terms of this Agreement to be redacted in making any such disclosure, with the Party making such disclosure providing reasonable advance notice, and giving consideration to the timely comments of the other Party. Further, if a Party discloses this Agreement or any of the terms hereof in accordance with this Section 9.6(e), such Party will, at its own expense, seek such confidential treatment of confidential portions of this Agreement and such other terms as it reasonably determines, giving consideration to the comments of the other Party pursuant to the preceding sentence.

9.7 Non-Solicitation of Employees.

(a) For a period of [***] after the Closing Date, without the prior written consent of Pfizer, NewCo shall not, and shall cause its Affiliates not to, solicit for employment or engagement or hire or engage as a consultant or independent contractor any of the employees, independent contractors or consultants of any Pfizer Party or any Affiliate of any Pfizer Party as of the Closing Date; *provided that* NewCo and its Affiliates shall not be restricted by this Section 9.7(a) from making any general solicitation for employees or public advertising of employment opportunities (including through the use of employment agencies) not specifically directed at any such persons and hiring persons who apply for employment as a direct result of such general solicitation or public advertising.

(b) For a period of [***] after the Closing Date, without the prior written consent of NewCo, Pfizer shall not, and shall cause its Affiliates not to, solicit for employment or engagement or hire or engage as a consultant or independent contractor any of the employees, independent contractors or consultants of NewCo as of the Closing Date; *provided that* Pfizer and its Affiliates shall not be restricted by this Section 9.7(b) from making any general solicitation for employees or public advertising of employment opportunities (including through the use of employment agencies) not specifically directed at any such persons and hiring persons who apply for employment as a direct result of such general solicitation or public advertising.

(c) It is the understanding of the parties that the scope of the covenants contained in Section 9.7 as to time and area covered, are reasonable and necessary to protect the goodwill, confidential information, rights and other legitimate interests of the Pfizer Parties. It is the parties' intention that these covenants be enforced to the greatest extent (but to no greater extent) in time, area, and degree of participation as is permitted by applicable Laws. The parties further agree that, in the event that any provision of Section 9.7 shall be determined judicially to be unenforceable by reason of its being extended over too great a time or too great a range of activities, such provision shall be deemed to be modified to permit its enforcement to the maximum extent permitted by Law. The parties further agree that (i) in addition and not in the alternative to any other remedies available to it, Pfizer shall be entitled to preliminary and permanent injunctive relief against any breach or threatened breach by NewCo or any of its Affiliates of any such covenants, without having to post bond, together with an award of its reasonable attorneys' fees incurred in enforcing its rights hereunder, (ii) the restricted period applicable to NewCo and its Affiliates shall be tolled, and shall not run, during the period of any breach by NewCo or its Affiliates of any such covenants, and (iii) no breach of any provision of this Agreement shall operate to extinguish NewCo's obligation to comply with this Section 9.7.

9.8 Worker Notification Laws Matters. Without limiting NewCo's obligations under Article 10 hereof, NewCo shall not, within ninety (90) days after the Employee Transfer Date, involuntarily or constructively terminate the employment (including by making such adverse changes to terms and conditions of employment that would constitute either such termination under any applicable Worker Notification Law) of more than forty (40) of the Transferred Employees or any other employees who work in the same facility, office or location as any of the Transferred

9.9 Employees. As of the Employee Transfer Date, the Pfizer Parties will provide NewCo with a list by date and location of the number of employees who work in a facility, office or location where any of the Prospective Employees will be based following the Employee Transfer Date and whose employment was involuntarily terminated by any of the Pfizer Parties within the ninety (90) days preceding the Employee Transfer Date.

9.10 [Reserved].

9.11 Reporting of Pfizer Financial Information. From and after the Effective Date, Pfizer shall (a) cooperate with NewCo or its Affiliates and their respective accountants and auditors by providing access to information, books, and records related to the Purchased Assets and Purchased Programs as NewCo may reasonably request in connection with the preparation by NewCo or its Affiliates of historical and pro forma financial statements related to the Purchased Assets and Purchased Programs as may be required to be included in any filing made by NewCo or any of its Affiliates under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, and the regulations promulgated thereunder, including Regulation S-X and (b) without limiting the foregoing, shall provide NewCo with such information as is required for NewCo or its Affiliates to prepare audited "carve out" financial statements related to the Purchased Assets and Purchased Programs, for the two (2) fiscal years prior to the Effective Date (or such shorter period as agreed to by NewCo) and information requested by NewCo and reasonably necessary to prepare any applicable pro forma financial information required to be filed by NewCo with the United States Securities and Exchange Commission. Such cooperation shall include, as applicable, (i) the signing of management representation letters to the extent required in connection with any such audit performed by NewCo's auditors, (ii) providing NewCo or its Affiliates and their respective accountants and auditors with access to management representation letters (specifically limited to portions thereof that are directly related to the Purchased Assets) and (iii) directing Pfizer's accountants, auditors, and counsel to reasonably cooperate with NewCo or its Affiliates and its accountants, auditors, and counsel in connection with the preparation and audit of any financial information to be provided under this Section 9.11 (Reporting of Pfizer Financial Information), *provided, however,* that nothing herein shall require Pfizer to make available to NewCo or its Affiliates or their respective accountants and auditors (i) management representation letters provided by Pfizer to Pfizer's accountants and auditors that do not relate to the Purchased Assets, (ii) any communications between Pfizer and its accountants and auditors, (iii) any information prior to June 17, 2014 or following the Closing Date, (iv) any information related to valuation analyses performed by Pfizer or its Affiliates or their respective accountants, auditors or consultants or (v) any information other than historical financial information stored in Pfizer's electronic financial recording systems in the ordinary course of business. NewCo will be responsible for all costs and expenses incurred by Pfizer or its Affiliates in connection with the generation of financial information as set forth herein, including personnel-, facility- and equipment-related costs and expenses, professional fees, external "carve out" audit fees, consents, and any other fees or expenses, whether out-of-pocket or otherwise, associated with amendments and/or revisions required to support NewCo's or its Affiliates' United States Securities and Exchange Commission disclosure obligations. Notwithstanding anything to the contrary in this Agreement, in no event shall Pfizer or the Pfizer Parties, as applicable, provide access to Consolidated Returns.

ARTICLE 10

EMPLOYEES

10.1 Employees and Employee Benefits.

(a) Not later than five (5) Business Days prior to the anticipated Employee Transfer Date, NewCo shall offer, or cause one of its Affiliates to offer, employment to each Prospective Employee who is then employed by a Pfizer Party, including each Prospective Employee who is then on a leave under a Pfizer Party's short-term or long-term disability plan or under the U.S. federal Family and Medical Leave Act or leave under any other U.S. federal or state Law or other approved leave of absence (other than an unpaid personal leave) (each, an "Inactive Employee"), commencing on the Employee Transfer Date (or, in the case of any Inactive Employee, on the date provided below) in accordance with the terms of this Section 10.1, including Section 10.1(b). NewCo will provide Pfizer with a copy of the form of offer of employment at least five (5) Business Days in advance of its distribution to any Prospective Employee and will consider in good faith any comments that Pfizer may have on such form. Each Prospective Employee who is offered and accepts employment with NewCo or one of its Affiliates shall be referred to in this Agreement as a "Transferred Employee". With respect to any Inactive Employee who accepts an offer of employment, such Inactive Employee shall become a Transferred Employee as of the date such Inactive Employee has been cleared for, and presents himself or herself to NewCo for active employment on or prior to the six (6) month anniversary of the Employee Transfer Date (or such longer period as required by applicable Law).

(b) NewCo shall provide, or shall cause an Affiliate of NewCo to provide to each Transferred Employee, and the terms of each offer of employment shall provide for, for a period of one (1) year following the Employee Transfer Date (the "Continuation Period") (i) an annual base salary or base wage rate, target annual bonus, commission rate and severance benefits, in each case, that are no less favorable than the Transferred Employee's annual base salary or base wage rate, target annual bonus, commission rate and severance benefits (except as provided in the last sentence of Section 10.1(g) and Section 10.1(i)) as of immediately prior to the Employee Transfer Date and (ii) other employee benefits (excluding equity-based compensation, defined benefits pursuant to qualified and nonqualified retirement plans, nonqualified deferred compensation plans, retiree medical benefits and other retiree health and welfare arrangements and the "retirement savings contribution" under the Pfizer Savings Plan) that are, in aggregate, materially comparable to those provided under a Covered Benefit Plan disclosed on Schedule 6.8(d) to the Transferred Employee as of immediately prior to the Employee Transfer Date.

(c) For each Prospective Employee that is not a Transferred Employee, the Pfizer Parties may elect to terminate the employment of each Prospective Employee effective as of the Employee Transfer Date (or in the case of any Prospective Employee who is then on a leave of absence, the date such Prospective Employee returns to active employment), and shall take all actions reasonably necessary to cause each Prospective Employee to cease active participation under all Pfizer Benefit Plans as of the Employee

Transfer Date (or in the case of any Prospective Employee who is on a leave of absence as contemplated hereby, the date such Prospective Employee returns to active employment), or such other date as is required under the terms of the relevant Pfizer Benefit Plan or applicable Law.

(d) Pfizer shall be solely responsible for, and shall pay at the time or times due or required by applicable Law, all obligations or Liabilities, including, without limitation, hourly pay, commission, bonus, salary, accrued vacation or paid time-off, fringe benefits, pension or profit sharing benefits, or severance payments and benefits or other termination pay under the Pfizer Benefit Plans or applicable Law, arising out of or relating to the termination of the employment of the Prospective Employees by the Pfizer Parties.

(e) Pfizer and its Affiliates shall retain responsibility for and continue to pay all expenses and benefits under the Pfizer Savings Plan and all medical, dental, health, hospital, life insurance and disability expenses and benefits with respect to claims incurred under the Pfizer Benefit Plans prior to the Closing Date by Prospective Employees and their eligible beneficiaries, as determined under the terms of the applicable Pfizer Benefit Plan. Pfizer and its Affiliates shall remain solely responsible for all workers compensation claims of any Prospective Employee to the extent arising out of conditions having a date of injury prior to the Closing Date. NewCo shall have responsibility for workers compensation claims of Transferred Employees to the extent arising out of conditions having a date of injury on or after the Closing Date. Pfizer and its Affiliates also shall be solely responsible for satisfying the continuation coverage requirements of Section 4980B of the Code for all individuals who are "M&A qualified beneficiaries" as such term is defined in Treasury Regulations Section 54.4980B-9. NewCo shall be responsible for providing such continuation coverage in respect of any Transferred Employee or qualified beneficiary of a Transferred Employee, in either case, who incurs a qualifying event after the Closing Date.

(f) On and following the Employee Transfer Date, each employee benefit plan sponsored by NewCo or any Affiliate of NewCo in which any Transferred Employee is eligible to participate shall credit each such Transferred Employee with his or her service with a Pfizer Party or any Affiliate of a Pfizer Party for all purposes (other than for purposes of equity-based compensation or benefit accrual under any qualified or nonqualified retirement plan) to the extent such service was credited under the corresponding Pfizer Benefit Plan in which such Transferred Employee participated prior to the Employee Transfer Date (if there is a comparable NewCo benefit plan); *provided that* (i) such credit shall be conditioned on receipt by NewCo of evidence of such service (e.g., payroll or plan records), and (ii) such recognition of service shall not operate to duplicate any benefits with respect to any Transferred Employee. Without limiting the generality of the foregoing, on and following the Employee Transfer Date, with respect to any group health plan under which any Transferred Employee is eligible to receive benefits from NewCo or any Affiliate of NewCo, NewCo will, or will cause the applicable Affiliate of NewCo to, (x) use commercially reasonable efforts to waive or cause the insurance carrier or professional employer organization plan sponsor to waive any pre-existing condition or actively-at-work requirements or limitations and eligibility waiting periods (to the extent such requirements or limitations or waiting periods did not apply to the Transferred

Employee and his or her eligible dependents under a comparable Pfizer Benefit Plan as of immediately prior to the Employee Transfer Date), and (y) give the Transferred Employee credit, for the plan year in which the Employee Transfer Date occurs, toward any applicable deductibles, co-insurance and annual out-of-pocket limits for expenses actually incurred during the plan year in which the Employee Transfer Date occurs as if such amounts had been paid under such group health plan, subject to any restrictions imposed by the professional employer organization plan sponsor.

(g) NewCo (or an Affiliate of NewCo) shall make available to Transferred Employees within a reasonable time following the Employee Transfer Date (but in no event more than ninety (90) days) participation in a cash or deferred arrangement, as described in Section 401(k) of the Code (the "NewCo 401(k) Plan"), which permits Transferred Employees to roll over their account balances from the Pfizer Savings Plan, without regard to eligibility and waiting periods. NewCo will use commercially reasonable efforts to cause the third party plan administrator for the NewCo 401(k) Plan to permit Transferred Employees to roll over any outstanding participant loans into the NewCo 401(k) Plan. In the event that rollover of an outstanding participant loan is not possible prior to the deadline for repayment of the loan, NewCo agrees to provide a Transferred Employee with a bridge loan (subject to similar loan terms under such Transferred Employee's existing loan) to the extent necessary to avoid an early distribution penalty tax. Notwithstanding the foregoing, neither Section 10.1(b) nor Section 10.1(g) shall be interpreted to require NewCo to provide or maintain any specific investment alternative (including the Pfizer stock funds) as an investment alternative in the NewCo 401(k) Plan, or to guarantee any distribution alternative provided for in the Pfizer Savings Plan.

(h) On or within a reasonable time following the Employee Transfer Date, the Pfizer Parties shall pay to each Transferred Employee a prorated portion of such individual's annual target bonus for 2018. On or within a reasonable time following December 31, 2018, NewCo shall pay to each Transferred Employee who remains employed as of December 31, 2018 an annual bonus for 2018, which bonus shall be no less than a prorated portion of such individual's annual target bonus for 2018. The prorated bonuses described in this Section 10.1(h) shall be prorated based on the number of days during 2018 during which the Transferred Employee was (i) employed by the Pfizer Parties prior to the Closing Date, for the prorated bonuses payable by the Pfizer Parties or (ii) for the prorated bonuses payable by NewCo, by the Pfizer Parties and NewCo on and after the Closing Date.

(i) With respect to any Transferred Employee whose employment is terminated during the Continuation Period by NewCo and such termination qualifies as either a "Performance-Related Termination" or "Involuntary Termination" that would be eligible for severance benefits under Section 3.1 of the Pfizer Separation Plan, NewCo shall provide (i) salary continuation severance benefits to such Transferred Employee which are at least as favorable as those that would have been payable to such Transferred Employee in respect of a termination of employment under the Pfizer Separation Plan; and (ii) in the case of an Involuntary Termination, company-paid COBRA premiums for the "Severance Pay Duration Period" (as such term is defined in the Pfizer Separation Plan).

(j) The parties shall cooperate with each other to give effect to the provisions set forth in this Section 10.1. Without limiting the foregoing, in order to secure an orderly and effective transition of the employee benefit arrangements for Transferred Employees and their respective beneficiaries and dependents, the Pfizer Parties and NewCo shall cooperate, both before and after each of the Closing and the Employee Transfer Date, and subject to applicable Laws, regarding the exchange of information related to the Transferred Employees, including employment records and benefits information.

10.2 No Benefit to Employees Intended. Nothing contained in this Agreement, express or implied, is intended to confer upon any Person not a party hereto any right, benefit or remedy of any nature whatsoever, including any right to employment or continued employment for any period of time by reason of this Agreement, or any right to a particular term or condition of employment. Notwithstanding anything to the contrary contained in this Agreement, no provision of this Agreement is intended to, or does, constitute the establishment of, or an amendment to, any employee benefit plan.

ARTICLE 11

CONDITIONS TO CLOSING

11.1 Conditions to NewCo's Obligation to Close. The obligations of NewCo to consummate the Transactions shall be subject to the satisfaction, on or prior to the Closing Date, of each of the following conditions, any of which may be waived by NewCo in writing:

(a) Representations, Warranties and Covenants. (i) The representations and warranties of Pfizer in this Agreement, other than the representations and warranties contained in Section 6.1 (Organization), Section 6.2 (Power and Authority Relative to this Agreement) or Section 6.14 (Finders or Brokers) (collectively, the "Pfizer Fundamental Representations") shall be true and correct in all respects as of the Closing Date (or, to the extent such representations and warranties speak as of a specific date or time, they shall be true in all respects as of such date or time), interpreted without giving effect to the words "Material Adverse Effect," "materially" or "material" or to any qualifications based on such terms, except for such inaccuracies under such representations and warranties which, taken together in their entirety, would not reasonably be expected to result in a Material Adverse Effect; (ii) the Pfizer Fundamental Representations shall be true and correct in all respects as of the Closing (or, to the extent such representations and warranties speak as of a specific date or time, they shall be true in all respects as of such date or time); and (iii) the Pfizer Parties shall have performed, in all material respects, all covenants and obligations in this Agreement required to be performed by any of the Pfizer Parties on or prior to the Closing.

(b) No Material Adverse Effect. Since the date of this Agreement, there shall not have occurred and be continuing any event, change or effect that has had, individually or in the aggregate, a Material Adverse Effect.

(c) Consents. All approvals, consents and waivers listed on Schedule 11.1(c) shall have been received, and executed counterparts thereof shall have been delivered to NewCo at or prior to the Closing.

(d) Deliveries. The Pfizer Parties shall have delivered to NewCo all of the documents, agreements and other items set forth in Section 4.2.

11.2 Conditions to Pfizer's Obligation to Close. The obligations of the Pfizer Parties to consummate the Transactions shall be subject to the satisfaction, on or prior to the Closing Date, of each of the following conditions, any of which may be waived by Pfizer in writing:

(a) Representations, Warranties and Covenants. (i) The representations and warranties of NewCo in this Agreement, other than the representations and warranties contained Section 7.1 (Organization), Section 7.2 (Capitalization), Section 7.4 (Power and Authority Relative to this Agreement) or Section 7.7 (Finders or Brokers) (collectively, the "NewCo Fundamental Representations") shall be true and correct in all respects as of the Closing Date (or, to the extent such representations and warranties speak as of a specific date or time, they shall be true in all respects as of such date or time), interpreted without giving effect to the words "Material Adverse Effect," "materially" or "material" or to any qualifications based on such terms, except for such inaccuracies under such representations and warranties which, taken together in their entirety, would not reasonably be expected to result in a material adverse effect on NewCo's ability to consummate the Transactions; and (ii) the NewCo Fundamental Representations shall be true and correct in all respects as of the Closing (or, to the extent such representations and warranties speak as of a specific date or time, they shall be true in all respects as of such date or time); and (iii) NewCo and the Other Investors shall have performed, in all material respects, all covenants and obligations in this Agreement required to be performed by any of NewCo and the Other Investors on or prior to the Closing.

(b) Deliveries. NewCo shall have delivered to Pfizer all of the documents, agreements and other items set forth in Section 4.3.

(c) Receipt of Funds. Simultaneous with the Closing and in accordance with the terms and conditions of the Equity Commitment Letters, NewCo shall receive immediately available funds in the full amount of each Other Investor's cash portion of the purchase price due at the Closing (as defined in the Preferred Stock Purchase Agreement) for the shares of Class A Preferred Stock being purchased pursuant to the Preferred Stock Purchase Agreement as set forth opposite such Other Investor's name in the "Purchase Price Due at Closing" column on Exhibit A thereto.

11.3 Conditions to Obligations of Each Party to Close. The respective obligations of each party to this Agreement to consummate the Transactions shall be subject to the satisfaction, on or prior to the Closing Date, of each of the following conditions, which may be waived by mutual consent of Pfizer and NewCo, in writing:

(a) No Legal Impediments to Closing. There shall not be in effect any Order issued by any Governmental Authority preventing the consummation of the Transactions or that makes the consummation of the Transactions illegal.

ARTICLE 12

TAX MATTERS

12.1 Allocation of Consideration. Following the Closing Date, Pfizer shall prepare a proposed allocation of the applicable Consideration (for Tax purposes) among the Purchased Assets in accordance with Proposed Treasury Regulations Section 1.351-2(b). Pfizer and NewCo shall provide such cooperation and information to each other as the other may reasonably request to prepare and comment on the proposed allocation. To the extent NewCo disagrees with the proposed allocation, NewCo shall notify Pfizer in writing of any disagreement with the proposed allocation, and NewCo and Pfizer shall attempt in good faith to resolve the disagreement. If NewCo agrees with the proposed allocation prepared by Pfizer, or if NewCo and Pfizer resolve any disagreement regarding the proposed allocated, the parties shall report, act and file their respective Tax Returns in accordance with the allocation of Consideration as agreed to pursuant to this Section 12.1 and any adjustments thereto. In the event of any adjustment to Consideration, Pfizer and NewCo agree to cooperate in good faith to revise and amend the final allocation in accordance with the procedures set forth in this Section 12.1.

12.2 Intended Tax Treatment; Cooperation; Allocation of Taxes.

(a) It is intended that the transactions contemplated by this Agreement, taken together with the transactions contemplated by the Preferred Stock Purchase Agreement, shall be treated as an exchange described in Section 351 of the Code with "boot," and the parties hereto shall report the Transactions consistent with such Tax treatment on their income Tax Returns unless otherwise required by Law or pursuant to the good faith resolution of a Tax contest.

(b) NewCo and the Pfizer Parties agree to furnish or cause to be furnished to each other, upon request, as promptly as practicable, such information and assistance relating to the Purchased Programs, Purchased Assets, and the Assumed Liabilities (including reasonable access to Books and Records) as is reasonably necessary for the filing of all Tax Returns, the making of any election relating to Taxes, the preparation for any audit by any Tax Authority, and the prosecution or defense of any claim or Proceeding relating to any Tax; *provided*, *however*, that nothing in this Agreement shall require the Pfizer Parties to provide or otherwise make available to NewCo a copy of their Consolidated Return. NewCo and the Pfizer Parties agree to cooperate with each other in the conduct of any audit or other Proceeding relating to Taxes involving the Purchased Programs, the Purchased Assets or the Assumed Liabilities. NewCo agrees to cooperate with and provide the Pfizer Parties with financial information relating to the Purchased Programs, Purchased Assets, and the Assumed Liabilities at Closing as needed to enable Pfizer Parties to comply with GAAP (including any information necessary for the conduct of a third-party valuation).

(c) The applicable Pfizer Party shall be responsible for and shall pay any Excluded Taxes. In respect of Purchased Assets or in connection with the conduct of the Purchased Programs, NewCo shall be responsible for and shall pay any Taxes arising or resulting from or in connection with the conduct of the Purchased Programs or the ownership of any of the Purchased Assets, in each case attributable to any Post-Closing Tax Period. Taxes described in the first two sentences of this Section 12.2(c) and Transfer Taxes shall be timely paid, and all applicable filings, reports and returns shall be filed, as provided by applicable Law. The paying party shall be entitled to reimbursement from the non-paying party in accordance with this Section 12.2(c) or Section 12.2(e), as applicable. Upon payment of any such Tax, the paying party shall present a statement to the non-paying party setting forth the amount of reimbursement to which the paying party is entitled under this Section 12.2(c) or Section 12.2(e), as applicable, together with supporting evidence as is reasonably necessary to calculate the amount to be reimbursed. If within ten (10) calendar days after receipt of such a statement, the non-paying party notifies the paying party in writing that such amount is not reasonable, the parties will negotiate in good faith to resolve such dispute. If the parties fail to resolve such dispute within thirty (30) calendar days, then within five (5) days after the end of such 30-day period they shall choose a "big four" independent accounting firm mutually acceptable to NewCo and Pfizer (the "Tax Referee") and the Tax Referee shall as promptly as practicable determine whether the amount of reimbursement was reasonable and, if not reasonable, shall appropriately revise it. If the non-paying party does not respond to the statement within ten (10) calendar days, or upon resolution of the disputed items, the amount of reimbursement (as such may have been adjusted) shall be binding on the paying and non-paying parties. The non-paying party shall make the reimbursement promptly but in no event later than ten (10) calendar days after the presentation of such statement if undisputed, or if disputed, after final determination by the Tax Referee. Any payment not made within such time shall bear interest from the due date for such payment until, but excluding, the date of payment at a rate per annum equal to [***]. Such interest shall be payable at the same time as the payment to which it relates and shall be calculated daily on the basis of a year of 365 days and the actual number of days elapsed, without compounding.

(d) All Transfer Taxes incurred in connection with the Transactions shall be borne by NewCo (provided, for the avoidance of doubt, that the Pfizer Parties shall indirectly bear a share of such Transfer Taxes by reason of their ownership interest in NewCo). The appropriate party will prepare and file all necessary Tax Returns and other documentation with respect to Transfer Taxes and, if required by applicable Laws, the other party will (and will cause its Affiliates to) join in the execution of any such Tax Returns and other documentation. To the extent permitted pursuant to applicable Law, the Pfizer Parties and NewCo will use Commercially Reasonable Efforts to minimize or avoid Transfer Taxes, if any, arising out of the transactions contemplated by this Agreement.

(e) In the case of any Tax period that includes (but does not end on) the Closing Date (a "Straddle Period"), the amount of Excluded Taxes with respect to the Purchased Programs or the Purchased Assets for a Straddle Period that are, in each case based upon or measured by net income or gain that relate to a Pre-Closing Tax Period will be

(f) determined based on an interim closing of the books as of the close of business on the Closing Date; *provided*, *however*, that exemptions, allowances or deductions that are calculated on an annual basis (such as deductions for depreciation and real estate taxes) will be apportioned between the Pre-Closing Tax Period and the Post-Closing Tax Period on a daily basis. The amount of Excluded Taxes with respect to the Purchased Assets or the Purchased Programs for a Straddle Period that are not based upon or measured by net income or gain (other than Transfer Taxes) that relate to a Pre-Closing Tax Period will be deemed to be the amount of such Tax for the entire taxable period multiplied by a fraction, the numerator of which is the number of days in the Pre-Closing Tax Period and the denominator of which is the number of days in such Straddle Period. Notwithstanding the forgoing, items attributable to any action taken by NewCo on the Closing Date after the Closing that is neither expressly contemplated by this Agreement nor in the ordinary course of business will not be attributable to a Pre-Closing Tax Period.

12.3 Tax Contests.

(a) NewCo and the Pfizer Parties agree to cooperate and to cause their Subsidiaries to cooperate with each other to the extent reasonably required after the Closing Date in connection with any Proceedings conducted by Tax Authorities relating to any Taxes with respect to or in relation to any Purchased Asset (each a "Tax Contest"). NewCo and the Pfizer Parties shall provide timely written notices to each other of any Tax Contest relating to the Purchased Assets for taxable periods for which any other party hereto may have a responsibility under this Agreement, or otherwise; *provided that* failure to so notify the other party will not relieve any party of liability that it may have under this Agreement except to the extent the other party is actually prejudiced by such failure. Such notice shall include a copy of the relevant portion of any correspondence received from the relevant Tax Authority and describe in reasonable detail the nature of such Tax Contest.

(b) The Pfizer Parties shall, at their expense, have the right to conduct and control in good faith the defense of any Tax Contest for (i) a Straddle Period with respect to so much of such Tax Contest that could reasonably be expected to affect the Pfizer Parties' Tax Liability, rights to refunds or indemnification obligations under this Agreement or (ii) a Pre-Closing Tax Period; *provided*, *however* that with respect to any such Tax Contest described in clause (i) that could reasonably be expected to affect NewCo's Tax Liability, rights to refunds or indemnification obligations under this Agreement (and that does not relate to a Consolidated Return): (i) NewCo shall have the right to participate in all such Tax Contests, which will include participation in meetings with Tax Authorities and review and comment on written submissions to Tax Authorities, and (ii) the Pfizer Parties shall not settle such Tax Contest without the prior written consent of NewCo, which consent will not be unreasonably withheld, conditioned or delayed. For the avoidance of doubt, the Pfizer Parties shall have the exclusive right to control all matters relating to a Consolidated Return. Notwithstanding anything herein to the contrary, no party hereto shall have the right to conduct and control the defense of, or have participation rights with respect to, any Tax Contest with respect to income Tax Returns of the other party (or its Affiliates).

(c) This Section 12.3 shall govern the control of Tax Contests, rather than Section 14.4.

ARTICLE 13

TERMINATION

13.1 Termination of Agreement. This Agreement may be terminated and the Transactions may be abandoned at any time prior to the Closing:

(a) by the mutual written consent of NewCo and Pfizer;

(b) by NewCo, if (i) Pfizer is in breach of any provision of this Agreement such that the condition to Closing set forth in Section 11.1(a) would not be satisfied as of the time of such breach, and such breach shall not have been cured within thirty (30) days of receipt by such party of written notice from NewCo of such breach and (ii) NewCo is not, on the date of termination, in breach of any provision of this Agreement such that the conditions to Closing set forth in Section 11.2(a) would not be satisfied as of the Closing;

(c) by Pfizer, if (i) NewCo is in breach of any provision of this Agreement such that the condition to Closing set forth in Section 11.2(a) would not be satisfied as of the time of such breach, and such breach shall not have been cured within thirty (30) days of receipt by such party of written notice from Pfizer of such breach and (ii) Pfizer is not, on the date of termination, in breach of any provision of this Agreement such that the conditions to Closing set forth in Section 11.1(a) would not be satisfied as of the Closing;

(d) by either NewCo or Pfizer, if the Closing has not occurred on or prior to May 1, 2018 (the "Drop-Dead Date") for any reason; *provided, however*, that the rights to terminate this Agreement under this Section 13.1(d) shall not be available to any party whose breach of any covenants or agreements contained in this Agreement has been the cause of, or resulted in, the failure of the Closing Date to occur on or before the Drop-Dead Date; and

(e) by either NewCo or Pfizer, if there shall be any final non-appealable Order that permanently enjoins or otherwise prohibits consummation of the Transactions such that the condition to Closing set forth in Section 11.3(a) would not be satisfied as of the Closing; *provided, however*, that the rights to terminate this Agreement under this Section 13.1(e) shall not be available to any party whose breach of any covenants or agreements contained in this Agreement has been the cause of, or resulted in, the Order.

Any party desiring to terminate this Agreement shall give written notice of such termination to the other parties.

13.2 Effect of Termination. If this Agreement is terminated in accordance with Section 13.1, all obligations of the parties hereunder shall terminate, except for the obligations set forth in this ARTICLE 13 (Termination), Sections 9.6 (Confidentiality), 15.1 (Expenses), 15.5 (Governing Law), and 15.6 (Jurisdiction; Waiver of Jury Trial); *provided, however*, that nothing herein shall relieve any party from Liability for any willful breach of this Agreement or fraud.

ARTICLE 14

INDEMNIFICATION

14.1 Indemnification by Pfizer. Subject to the limitations set forth in this ARTICLE 14, from and after the Closing, Pfizer shall indemnify, defend and hold harmless NewCo and its officers, directors, agents, employees, shareholders and Affiliates (collectively, the "NewCo Indemnified Persons") from and against any and all Damages imposed on, or indirectly incurred by, without duplication, such NewCo Indemnified Person (collectively, "NewCo Damages") arising out of, relating to or resulting from (a) any breach of or inaccuracy in a representation or warranty of any Pfizer Party contained in this Agreement, as of the Closing Date; (b) any breach of a covenant of a Pfizer Party contained in this Agreement or breach of the terms and conditions of the Patent and Know-How License Agreement, including any practice of Intellectual Property Rights by Pfizer, its licensees or sublicensees outside of the scope of the licenses granted to Pfizer under the Patent and Know-How License Agreement; and (c) any Excluded Liability.

14.2 Indemnification by NewCo. Subject to the limitations set forth in this ARTICLE 14, from and after the Closing, NewCo shall indemnify, defend and hold harmless the Pfizer Parties and their respective officers, directors, agents, employees and Affiliates (collectively, the "Pfizer Indemnified Persons") from and against any and all Damages (collectively, "Pfizer Damages") arising out of, relating to or resulting from (a) any breach of or inaccuracy in a representation or warranty of NewCo contained in this Agreement; (b) any breach of a covenant of NewCo or any of its Affiliates contained in this Agreement or breach of the terms and conditions of the Patent and Know-How License Agreement, including any practice of Intellectual Property Rights by NewCo or its Sublicensees outside of the scope of the licenses granted to NewCo under the Patent and Know-How License Agreement; (c) any Assumed Liability; and (d) Taxes of NewCo for all Post-Closing Tax Periods; provided that the payment by NewCo shall equal the amount of Pfizer Damages multiplied by the Pfizer Damages Fraction. "Pfizer Damages Fraction" shall mean a fraction whose numerator is one and whose denominator is equal to one minus the fraction of the shares of Equity Consideration held by the Pfizer Parties and their Affiliates at the time when such Pfizer Damages are due and payable (excluding all shares of Class A Preferred Stock that were purchased by the Pfizer Parties pursuant to the Preferred Stock Purchase Agreement), calculated assuming the conversion of all outstanding shares Class A Preferred Stock at the then applicable conversion rate.

14.3 Time for Claims. No claim may be made or suit instituted seeking indemnification pursuant to Sections 14.1(a) or 14.2(a) unless a written notice describing such claim in reasonable detail in light of the circumstances then known to the Indemnitee is provided to the Indemnitor prior to the eighteen (18) month anniversary of the Closing Date; *provided*, *however*, that claims arising out of, relating to or resulting from a breach of or inaccuracy in (a) any of the Pfizer Fundamental Representations or the NewCo Fundamental Representations may be made until the third (3rd) anniversary of the Closing Date and (b) Section 6.7 (Tax Matters) may be made until thirty (30) days after expiration of applicable statutes of limitations. Claims for indemnification pursuant to any other provision of Section 14.1 or Section 14.2 are not subject to the limitations set forth in this Section 14.3.

14.4 Procedures for Indemnification. Except as otherwise provided in Section 12.3, promptly after receipt by a party entitled to indemnification under Sections 14.1 or 14.2 or any other provision of this Agreement (the "Indemnitee") of written notice of the assertion or the commencement of any Proceeding with respect to any matter referred to in Sections 14.1 or 14.2 or in any other applicable provision of this Agreement, the Indemnitee shall give written notice describing such claim or Proceeding in reasonable detail in light of the circumstances then known to the Indemnitee to the party obligated to indemnify Indemnitee (the "Indemnitor"), and thereafter shall keep the Indemnitor reasonably informed with respect thereto; *provided*, *however*, that failure of the Indemnitee to keep the Indemnitor reasonably informed as provided herein shall not relieve the Indemnitor of its obligations hereunder except to the extent that the Indemnitor is prejudiced thereby. If any Proceeding is commenced against any Indemnitee by a Third Party, the Indemnitor shall be entitled to participate in such Proceeding and assume the defense thereof at the Indemnitor's sole expense; *provided*, *however*, that the Indemnitor shall not have the right to assume the defense of any Proceeding if (a) the Indemnitee shall have one or more legal or equitable defenses available to it which are different from or in addition to those available to the Indemnitor, and, in the reasonable opinion of outside counsel to the Indemnitee, counsel for the Indemnitor could not adequately represent the interests of the Indemnitee because such interests would be in conflict with those of the Indemnitor; (b) such Proceeding is reasonably likely to have a material adverse effect on any other matter beyond the scope or limits of the indemnification obligation of the Indemnitor; or (c) the Indemnitor shall not have assumed the defense of the Proceeding in a timely fashion (but in any event within thirty (30) days of notice of such Proceeding). If the Indemnitor, shall assume the defense of any Proceeding, the Indemnitee shall be entitled to participate in any Proceeding at its expense, and the Indemnitor shall not settle such Proceeding unless the settlement shall include as an unconditional term thereof the giving by the claimant or the plaintiff of a full and unconditional release of the Indemnitee, from all Liability with respect to the matters that are subject to such Proceeding, or otherwise shall have been approved by the Indemnitee, such approval not to be unreasonably withheld, conditioned or delayed.

14.5 Limitations on Indemnification.

(a) Notwithstanding anything herein to the contrary, Pfizer shall not be obligated to indemnify any NewCo Indemnified Person under Section 14.1: (i) unless the aggregate of all NewCo Damages exceeds $[***] (the "Deductible"), in which case the NewCo Indemnified Persons shall be entitled to recover all NewCo Damages only to the extent such NewCo Damages exceed the Deductible or (ii) to the extent that the aggregate of all NewCo Damages exceeds $[***] (the "Cap"); *provided*, *however*, the Cap and Deductible shall not apply to nor count towards any Pfizer indemnification obligation (A) arising out of, relating to or resulting from fraud by any Pfizer Party, or arising out of, relating to or resulting under Sections 14.1(b) or (c) or (B) arising out of, relating to or resulting from a breach of or inaccuracy in any Pfizer Fundamental Representation.

(b) Notwithstanding anything herein to the contrary, NewCo shall not be obligated to indemnify any Pfizer Indemnified Person under Section 14.2: (i) unless the aggregate of all Pfizer Damages exceeds the Deductible, in which case the Pfizer Indemnified Persons shall be entitled to recover all Pfizer Damages only to the extent such

(c) Pfizer Damages exceed the Deductible, which Pfizer Damages shall not be counted against the Deductible, or (ii) to the extent that the aggregate of all Pfizer Damages exceeds the Cap; *provided*, *however*, that the Cap and the Deductible shall not apply to nor count towards any NewCo indemnification obligation (A) arising out of, relating to or resulting from fraud by NewCo or arising out of, relating to or resulting under Sections 14.2(b), (c) or (d), or (B) arising out of, relating to or resulting from a breach of or inaccuracy in any NewCo Fundamental Representation.

(d) All indemnification payments under this Agreement shall be treated as adjustments to the Consideration for all Tax purposes unless Laws require otherwise.

(e) LIMITATION OF LIABILITY, DISCLAIMER OF CERTAIN DAMAGES. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, NEITHER PARTY WILL BE LIABLE TO THE OTHER FOR ANY SPECIAL, PUNITIVE, EXEMPLARY OR NOT REASONABLY FORESEEABLE DAMAGES OR ANY LOSS OF REVENUE OR PROFITS OR DIMINUTION IN VALUE OR SPECULATIVE DAMAGES THAT ARISE OUT OF OR RELATE TO THIS AGREEMENT OR THE PATENT AND KNOW-HOW LICENSE AGREEMENT OR THE PERFORMANCE OR BREACH HEREOF OR THEREOF; PROVIDED, HOWEVER, THAT THE FOREGOING SHALL NOT BE CONSTRUED TO PRECLUDE RECOVERY IN RESPECT OF ANY LOSS DIRECTLY INCURRED OR SUFFERED FROM THIRD PARTY CLAIMS.

14.6 Third Party Contributors. The amount of any and all Damages for which indemnification is provided pursuant to this ARTICLE 14 shall be net of any amounts actually received by the Indemnitee with respect to such Damages (i) under insurance policies after giving effect to any deductible, retention or equivalent loss rated premium adjustment and any costs or expenses incurred in recovering such insurance proceeds and (ii) otherwise from any Third Party (including any Tax Authority).

14.7 Duty to Mitigate. Each Indemnitee shall take, and shall cause its Affiliates to take, all reasonable steps to mitigate any Damages upon becoming aware of any event or circumstance that would reasonably be expected to, or does, give rise thereto, including incurring costs only to the minimum extent necessary to remedy the breach that gives rise to the Damages.

14.8 Satisfaction by Equity Consideration; Set-off. Pfizer, at its election (which election can be made in Pfizer's sole and absolute discretion, subject to Section 14.4), shall be permitted to satisfy Pfizer's indemnification obligations for NewCo Damages (a) by the cancellation of shares of Class A Preferred Stock owned by Pfizer (an "Equity Consideration Cancellation"), with such Equity Consideration Cancellation occurring such that $[***] of indemnified NewCo Damages shall be deemed satisfied for each share of Class A Preferred Stock cancelled; and/or (b) by setting off such amounts due against amounts payable to Pfizer pursuant to Sections 5.1(a), 5.1(b) or 5.1(c) (each of clauses (a) and (b) of this Section 14.8, the "Set-off"); or (c) any combination of clause (a) and (b). Notwithstanding anything to the contrary in this Section 14.8, any indemnification obligation of Pfizer for NewCo Damages arising out of, relating to or resulting from fraud, any Excluded Liability, Section 14.1(b) to the extent of a willful breach or any breach of or inaccuracy in any Pfizer Fundamental Representation shall be satisfied by Pfizer in cash, by

14.9 wire transfer of immediately available funds, to the applicable NewCo Indemnified Persons. Nothing in this Section 14.8 shall be construed to increase Pfizer's indemnification obligations beyond such indemnification obligations that are otherwise provided for in this ARTICLE 14.

14.10 Qualifications. For purposes of determining the amount of any Damages that are the subject matter of a claim for indemnification under this Agreement, each representation and warranty in this Agreement will be read without regard and without giving effect to the term "material," "Material Adverse Effect" or "material adverse effect" or similar qualifiers (fully as if any such word or phrase were deleted from such representation and warranty).

14.11 Remedies Exclusive.

(a) Except as set forth in Section 14.11(b), the parties hereto expressly agree that from and after the Closing (i) the provisions of this ARTICLE 14 shall be the exclusive remedy for all claims of breach or indemnification pursuant to this Agreement and the Patent and Know-How License Agreement and (ii) in furtherance of the foregoing, each party hereby waives, to the fullest extent permitted by Law, any and all rights, claims and causes of action for any breach of any representation, warranty, covenant or agreement set forth herein or otherwise relating to the subject matter of this Agreement it may have against the other party hereto and their Affiliates and each of their respective Representatives arising under or based upon any Law, except pursuant to the indemnification provisions set forth in this ARTICLE 14.

(b) The limitations set forth in Section 14.11(a) shall not apply to (i) claims of fraud that are proven and upon which a judgment entered in the involved Proceeding is expressly based, (ii) claims brought by NewCo arising from a Pfizer Party's willful breach of Section 9.5, (iii) claims brought by a Pfizer Party arising from NewCo's breach of its payment obligations under Sections 5.1(a), 5.1(b) or 5.1(c), or NewCo's material breach of any of its obligations under Sections 5.2(b)(i) or 5.2(b)(ii) or (iv) claims to equitable relief to which any Person shall be entitled pursuant to Section 15.13; *provided*, *that*, for the avoidance of doubt, in the case of clauses (i), (ii), (iii) and (iv), the parties hereto shall have all remedies available under this Agreement or otherwise at Law without giving effect to any of the limitations or waivers contained herein, except, with respect to clause (iii), for the limitations in Section 14.5(d).

14.12 Remedies Cumulative. The rights of the NewCo Indemnified Persons and Pfizer Indemnified Persons under this ARTICLE 14 are cumulative, and each NewCo Indemnified Person and Pfizer Indemnified Person will have the right in any particular circumstance, in its sole discretion, to enforce any provision of this ARTICLE 14 without regard to the availability of a remedy under any other provision of this ARTICLE 14.

ARTICLE 15

MISCELLANEOUS PROVISIONS

15.1 Expenses. Whether or not the Transactions are consummated, unless otherwise indicated expressly herein, each party shall pay its own costs and expenses in connection with this Agreement and the Transactions, including the fees and expenses of its advisers, accountants and legal counsel.

15.2 Entire Agreement. This Agreement, including the exhibits and disclosure schedules specifically referred to herein, the Transaction Agreements and the Confidential Disclosure Agreement constitute the entire agreement between and among the parties hereto with regard to the subject matter hereof, and supersede all prior agreements and understandings with regard to such subject matter. In the event of any inconsistency between the statements in this Agreement and those in the exhibits and disclosure schedules specifically referred to herein or in any other Transaction Agreements or the Confidential Disclosure Agreement (other than an exception expressly set forth as such in the disclosure schedules) the statements in this Agreement will control.

15.3 Amendment, Waivers and Consents. This Agreement shall not be changed or modified, in whole or in part, except by supplemental agreement or amendment signed by the parties. Any party may waive compliance by any other party with any of the covenants or conditions of this Agreement, but no waiver shall be binding unless executed in writing by the party making the waiver. No waiver of any provision of this Agreement shall be deemed, or shall constitute, a waiver of any other provision, whether or not similar, nor shall any waiver constitute a continuing waiver. Any consent under this Agreement shall be in writing and shall be effective only to the extent specifically set forth in such writing.

15.4 Successors and Assigns. This Agreement shall bind and inure to the benefit of the parties hereto and their respective successors and permitted assigns, *provided*, *however*, that no party hereto may assign any right or obligation hereunder without the prior written consent of all other parties hereto. Notwithstanding the foregoing, (a) Pfizer may assign this Agreement or all of its rights or obligations hereunder to any other Pfizer Party or their wholly owned Affiliates without NewCo's prior written consent (but with notice to NewCo and provided that no such assignment shall relieve Pfizer of its obligations hereunder), *provided that* (i) any such assignment does not impose additional Taxes or costs on NewCo (or its Affiliates) or otherwise materially delay or impede Closing, and (ii) the assignee promptly provides NewCo with such documentation as may be prescribed by applicable Law or reasonably requested by NewCo to determine NewCo's Tax withholding and reporting obligations in respect of payments to such assignee under this Agreement; and (b) NewCo may assign this Agreement to, (i) after Closing, any financing source as collateral, (ii) after Closing, any purchaser or licensor of substantially all of the assets of NewCo; or (iii) after Closing, the surviving entity in any merger, consolidation, share exchange or reorganization involving NewCo, in each case of clause (i), (ii) or (iii), only to the extent otherwise expressly authorized pursuant to the terms of the Investors' Rights Agreement and the Restated Certificate. Any permitted assignee shall assume all assigned obligations of its assignor under this Agreement.

15.5 Governing Law. The rights and obligations of the parties shall be governed by, and this Agreement shall be interpreted, construed and enforced in accordance with, the Laws of the State of Delaware, excluding its conflict of laws rules to the extent such rules would apply the Law of another jurisdiction.

15.6 Jurisdiction; Waiver of Jury Trial.

(a) Any judicial Proceeding brought against any of the parties to this Agreement or any dispute arising out of this Agreement or related hereto shall be brought in the courts of the State of Delaware, or in the United States District Court for the District of Delaware, and, by execution and delivery of this Agreement, each of the parties to this Agreement accepts the exclusive jurisdiction of such courts, and irrevocably agrees to be bound by any judgment rendered thereby in connection with this Agreement. The foregoing consents to jurisdiction shall not constitute general consents to service of process in the State of Delaware for any purpose except as provided above and shall not be deemed to confer rights on any Person other than the parties to this Agreement. Each of the parties to this Agreement agrees that service of any process, summons, notice or document by U.S. mail to such party's address for notice hereunder shall be effective service of process for any Proceeding in Delaware with respect to any matters for which it has submitted to jurisdiction pursuant to this Section 15.6(a).

(b) EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM (WHETHER BASED ON CONTRACT, TORT, EQUITY OR OTHERWISE) ARISING OUT OF OR RELATING TO OR IN CONNECTION WITH THIS AGREEMENT OR THE ACTIONS OF ANY PARTY HERETO IN THE NEGOTIATION, ADMINISTRATION, PERFORMANCE OR ENFORCEMENT HEREOF OR THEREOF. EACH PARTY HERETO (I) CONSENTS TO TRIAL WITHOUT A JURY OF ANY SUCH PROCEEDINGS, (II) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF THE OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (III) ACKNOWLEDGES THAT IT AND THE OTHER PARTY HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 15.6(b).

15.7 Rules of Construction. The parties acknowledge that each party has read and negotiated the language used in this Agreement. The parties agree that, because each party participated in negotiating and drafting this Agreement, no rule of construction shall apply to this Agreement which construes ambiguous language in favor of or against any party by reason of that party's role in drafting this Agreement.

15.8 Severability. If any provision of this Agreement, as applied to either party or to any circumstance, is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect without said provision.

15.9 Exhibits and Schedules. All exhibits and disclosure schedules attached hereto shall be deemed to be a part of this Agreement and are fully incorporated in this Agreement by this reference.

15.10 Notices. Unless otherwise expressly provided herein, all notices, requests, demands, claims and other communications required or permitted to be delivered, given or otherwise provided for hereunder shall be in writing. All such written notices shall be sent in the manner indicated below to the applicable address, facsimile number or electronic mail address, and will be deemed effective as indicated below:

(a) if sent by personal delivery or by courier, upon delivery;

(b) if sent by facsimile transmission, upon the sender's receipt of confirmation of good transmission;

(c) if sent by electronic mail, upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement); or

(d) if sent by certified or registered mail or the equivalent (return receipt requested), upon delivery or attempted delivery;

provided, *however*, that in any such case, if delivered later than 5:00 p.m. (New York time) on any Business Day, delivery will be deemed to occur on the next Business Day.

If to NewCo at:

689 5th Avenue, 12th Floor
New York, NY 10022
Attention: Secretary
Email:
Phone:
Fax:

With copies (which shall not constitute notice) to:

Cooley LLP
3175 Hanover Street
Palo Alto, CA 94304
Attention: Barbara Kosacz
Email: bkosacz@cooley.com
Fax: 650-849-7400

If to any of the Pfizer Parties at:

Pfizer Inc.
235 East 42nd Street
New York, NY 10017
Attention: Executive Vice President and General Counsel
Email:

With copies (which shall not constitute notice) to:

Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, MA 02199
Attention: Paul Kinsella
Email: Paul.Kinsella@ropesgray.com
Fax: 617-235-0822

or to such other address, facsimile number or electronic mail address as each party may designate for itself by notice given in accordance with this paragraph.

15.11 Rights of Parties. Nothing in this Agreement, whether express or implied, other than the rights of the NewCo Indemnified Persons and Pfizer Indemnified Persons pursuant to ARTICLE 14 is intended to confer any rights or remedies under or by reason of this Agreement on any persons other than the parties to it and their respective successors and permitted assigns, nor is anything in this Agreement intended to relieve or discharge the Liability of any third person to any party to this Agreement, nor shall any provision give any third person any right of subrogation or action over or against any party to this Agreement.

15.12 Public Announcements. No public announcement or disclosure (including any general announcement to employees, customers or suppliers) will be made by any party with respect to the subject matter of this Agreement, the Transactions or the Transaction Agreements without the prior written consent of Pfizer and NewCo; *provided that*, the provisions of this Section 15.12 shall not prohibit (a) NewCo from making public announcements or other disclosures after Closing regarding Products and related programs in the ordinary course of business or to comply with securities laws, (b) any disclosure required by any applicable Laws (in which case the disclosing party will provide the other parties with the opportunity to review and comment in advance of such disclosure) or (c) any disclosure made in connection with the enforcement of any right or remedy relating to this Agreement or any Transaction Agreement or the Transactions. NewCo further agrees that it will not, and it will cause each of its Affiliates to, not without the prior written consent of Pfizer, use in advertising, publicity or otherwise the name of Pfizer or any partner or employee of Pfizer, nor any trade name, trademark, trade device, service mark, symbol or any abbreviation, contraction or simulation thereof owned by Pfizer or any of its Affiliates.

15.13 Specific Performance. Notwithstanding anything in Section 14.10 to the contrary, the parties hereto agree that irreparable damage would occur and that the parties would not have any adequate remedy at Law in the event that the obligations of the parties to effect, on the terms and conditions set forth herein, the Closing and the other covenants and agreements set forth in this Agreement, including ARTICLE 3, ARTICLE 4, ARTICLE 5, ARTICLE 8 and ARTICLE 9, were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties shall be entitled to an injunction or injunctions to prevent such (and only such) actual or threatened breaches of this Agreement and to enforce specifically (without proof of actual Damages or harm, and not subject to any requirement for the securing or posting of any bond in connection therewith) such terms and provisions of this Agreement, this being in addition to any other remedy to which they are entitled at law or in equity, including money Damages.

15.14 Counterparts. This Agreement may be signed in any number of counterparts, including electronic scan copies thereof delivered by electronic mail, each of which shall be deemed an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

[Signature Pages Follow]

IN WITNESS WHEREOF, each of the parties has caused this Agreement to be executed on its behalf by their respective officers thereunto duly authorized all as of the date first written above

PFIZER INC.

By: /s/ G. Mikael Dolsten
Name: G. Mikael Dolsten
Title: President, Worldwide, Research & Development

[Signature Page to Asset Contribution Agreement]

ALLOGENE THERAPEUTICS, INC.

By: /s/ Joshua A Kazam
Name: Joshua A Kazam
Title: President

[Signature Page to Asset Contribution Agreement]

Exhibit 10.9

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

TRANSITION SERVICES AGREEMENT

TABLE OF CONTENTS

TRANSITION SERVICES AGREEMENT

This TRANSITION SERVICES AGREEMENT (this "Agreement") is made and entered into as of the 6th day of April, 2018 (the "Effective Date") between Pfizer, Inc., a Delaware corporation ("Pfizer"), and Allogene Therapeutics, Inc., a Delaware corporation ("NewCo") (each, a "Party" and together, the "Parties").

W I T N E S E T H:

WHEREAS, Pfizer and NewCo are parties to that certain Asset Contribution Agreement, dated as of April 2nd, 2018 (as it may be amended or supplemented, the "Contribution Agreement"), and have agreed, pursuant to the Contribution Agreement, to enter into certain ancillary agreements, including this Agreement; and

WHEREAS, pursuant to this Agreement, Pfizer shall render, or cause its Affiliates or, to the extent permitted hereunder, Third Parties to render, certain services on an interim basis after the Closing with respect to NewCo's operation of the Purchased Programs, subject to and in accordance with the terms of this Agreement.

NOW, THEREFORE, in consideration of the foregoing, the representations, warranties, covenants and agreements contained herein, and other good and valuable consideration, the adequacy and receipt of which is hereby acknowledged, the Parties hereby agree as follows:

ARTICLE I

DEFINITIONS

Section 1.1 Definitions. Capitalized terms used in this Agreement shall have the meanings ascribed to such terms in this Agreement, including as specified in this Section 1.1. Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to such terms in the Contribution Agreement.

"Administrative Charge" has the meaning set forth in Section 4.1(c).

"Agreement" has the meaning set forth in the preamble to this Agreement and includes all exhibits attached hereto which are hereby incorporated herein by reference.

"Assignee Party" has the meaning set forth in Section 4.1(c).

"Assigning Party" has the meaning set forth in Section 4.1(c).

"Baseline Exhibit A" has the meaning set forth in Section 2.1(a).

"Breaching Party" has the meaning set forth in Section 7.2(a).

"Change of Control" means, with respect to NewCo, (a) a merger or consolidation of NewCo with a Third Party which results in the voting securities of NewCo outstanding immediately prior thereto ceasing to represent at least fifty percent (50%) of the combined voting power of the surviving entity immediately after such merger or consolidation, (b) a transaction or series of related transactions in which a Third Party, together with its Affiliates, becomes the owner of more than fifty percent (50%) of the combined voting power of NewCo's outstanding securities other than through issuances by NewCo of securities of NewCo in a bona fide financing transaction or series of related bona fide financing transactions, or (c) the sale, lease, license or other transfer to a Third Party of all or substantially all of NewCo's assets or business.

"Change Notice" has the meaning set forth in Section 2.3(a).

"Compliance Concern" has the meaning set forth in Section 2.8(a).

"Confidential Information" has the meaning set forth in Section 6.1.

"Contribution Agreement" has the meaning set forth in the recitals to this Agreement.

"Day-1 Readiness Plan" has the meaning set forth in Section 2.5.

"Effective Date" has the meaning set forth in the preamble to this Agreement.

"Excluded Services" has the meaning set forth in Section 2.1(a).

"Exit Costs" means documented out-of-pocket costs and expenses to Third Parties incurred by or on behalf of Pfizer and its Affiliates in connection with the conclusion, disentanglement, remediation or shutdown of any Services to NewCo, including planning and executing the migration of the Services to NewCo or a Third Party service provider, joint migration planning, data extraction, final data migration, contract breakage costs or non-cancellable commitments made to, or in respect of, personnel or third party service providers, subcontractors and consultants, prepaid expenses related to the terminated Service, temporary staffing needs, and decommissioning or removal of any changes made, to facilitate the provision and transition of Services. For clarity, Exit Costs shall not include payments for rent or use of the Facilities after NewCo exits the Facilities as provided for in Section 2.3(c)(ii).

"Facilities" has the meaning set forth in Section 2.3(c)(ii).

"FTE" means the equivalent of the work of a full-time individual for a twelve (12)-Month period.

"FTE Rate" means, (a) with respect to non-scientific Finance, Facilities and Business Technology employees, a rate of [***] Dollars ($[***] per FTE per year, and (b) with respect to all other employees, a rate of [***] Dollars ($[***]) per FTE per year, in each case ((a) and (b)) assuming [***] hours per year for an FTE.

"Indemnitee" has the meaning set forth in Section 5.2(a).

"Indemnitor" has the meaning set forth in Section 5.2(a).

"Interim Period" has the meaning set forth in the definition of "Prospective Employee Services" below in this Section 1.1.

"Key Employee" has the meaning set forth in Section 2.2(c).

"Month" means a calendar month.

"NewCo" has the meaning set forth in the preamble to this Agreement.

"Non-Breaching Party" has the meaning set forth in Section 7.2(a).

"Out-of-Pocket Costs" has the meaning set forth in Section 3.1(b).

"Party" or "Parties" has the meaning set forth in the preamble to this Agreement.

"Pfizer" has the meaning set forth in the preamble to this Agreement.

"Pfizer Indemnified Parties" has the meaning set forth in Section 5.1(b).

"Prospective Employees" means all current employees of the Pfizer Parties who NewCo will be obligated to offer employment to pursuant to Article 10 of the Contribution Agreement.

"Prospective Employee Services" means the Services to be provided by the Prospective Employees, as set forth on (and subject to the terms and conditions of) Exhibit E hereto, which Services shall be provided during the period commencing on the Effective Date and ending on the earliest to occur of (a) the date on which the last Prospective Employee's employment with the Pfizer Parties terminates, (b) the Employee Transfer Date (as such term is defined in the Contribution Agreement), and (c) the Services Start Date (such period, the "Interim Period").

"Service Fees" has the meaning set forth in Section 3.1(a).

"Service Function Lead" has the meaning set forth in Section 2.4(b).

"Service Noncompliance" has the meaning set forth in Section 2.2(a).

"Service Period" has the meaning set forth in Section 2.1(a).

"Services" has the meaning set forth in Section 2.1(a).

"Services Start Date" means the date on which the Services (other than the Prospective Employee Services) commence hereunder, which shall be the date on which NewCo begins implementation of the Day-1 Readiness Plan.

"Set-Up Costs" means documented out-of-pocket costs and expenses to Third Parties incurred by or on behalf of Pfizer or its Affiliates in connection with preparation activities to make the Services available to NewCo.

"Term" has the meaning set forth in Section 7.1.

"Termination Request" has the meaning set forth in Section 2.3(a).

"Transfer Taxes" has the meaning set forth in Section 3.2(b).

"TSA Lead" has the meaning set forth in Section 2.4(b).

"TSA Executives" mean [***], in the case of Pfizer, and [***], in the case of NewCo.

"VAT" means (a) any tax imposed in compliance with the VAT Directive and (b) any other tax of a similar nature, whether imposed in a member state of the European Union in substitution for, or levied in addition to, such tax referred to in clause (a), or imposed elsewhere.

"VAT Directive" means the European Council Directive of 28 November 2006 on the common system of value added tax (EC Directive 2006/112).

Section 1.2 Interpretation. Except as otherwise explicitly specified to the contrary, (a) references to a Section, Article, Exhibit or Schedule mean a Section or Article of, or Schedule or Exhibit to, this Agreement, unless another agreement is specified, (b) the word "including" (in its various forms) means "including without limitation," (c) references to a particular statute or regulation include all rules and regulations thereunder and any predecessor or successor statute, rules or regulation, in each case as amended or otherwise modified from time to time, (d) words in the singular or plural form include the plural and singular form, respectively, (e) references to a particular Person include such Person's successors and assigns to the extent not prohibited by this Agreement, (f) "extent" in the phrase "to the extent" means the degree to which a subject or other thing extends, and such phrase does not mean simply "if," (g) the headings contained in this Agreement, in any Exhibit or Schedule hereto and in the table of contents to this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement, (h) the words "will" and "shall" shall be interpreted to have the same meaning, (i) unless otherwise specifically provided for herein, the term "or" shall not be deemed to be exclusive and (j) references to "$" shall mean U.S. dollars.

ARTICLE II

SERVICES; STANDARD OF PERFORMANCE

Section 2.1 Services.

(a) Subject to the terms and conditions of this Agreement, (i) beginning on the Services Start Date and for the applicable periods specified in Exhibit A under the heading "Service Period" (each such period, a "Service Period"), Pfizer shall provide, or cause to be provided, to NewCo the services identified in Exhibit A at the FTE Rate, which exhibit shall be

[***] = CONFIDENTIAL TREATMENT REQUESTED

finalized by the Services Start Date, as such Exhibit A may be supplemented or amended from time to time in accordance with the provisions of this Agreement, and (ii) during the Interim Period, Pfizer shall provide, or cause to be provided, the Prospective Employee Services in accordance with Exhibit E hereto (the Prospective Employee Services and the Services identified in Exhibit A are collectively referred to herein as the "Services"). The number of FTEs for each Service per Month set forth on Exhibit A that is finalized by the Parties as of the Services Start Date shall be referred to herein as the "Baseline Exhibit A," which Baseline Exhibit A may reflect fluctuating FTE requirements for each Service during each Month of the Term, as such Baseline Exhibit A may be amended from time to time during the Term in accordance with Section 2.3(a)(i). Notwithstanding anything to the contrary herein, unless otherwise agreed by the Parties, the Services shall exclude the services identified in Exhibit B (the "Excluded Services"). The provision of any Excluded Services by Pfizer shall be discontinued as of the Services Start Date.

(b) The Services shall only be used by or on behalf of or for the benefit of NewCo, and only to the extent such Services are used in connection with the operation of the Purchased Programs, and shall not be used by NewCo for any other purpose or (except as expressly permitted in accordance with Section 2.3 or as set forth in Exhibit A as the same may be supplemented or amended from time to time in accordance with the provisions of this Agreement) in any other manner (including as to volume, amount, level, frequency or location, as applicable) than the purpose or manner in which such Services were used by Pfizer and its Affiliates in connection with the operation of the Purchased Programs as of immediately prior to the Effective Date. NewCo shall not resell, license or otherwise permit the use by any other Person of any of the Services, except to the extent contemplated hereunder (e.g., transfer of materials to a Third Party designated by NewCo). For the avoidance of doubt, any use by any Person other than NewCo of any of the Services (whether on behalf of NewCo, for the benefit of NewCo, or otherwise) shall be subject to Pfizer's prior written consent, not to be unreasonably withheld, conditioned or delayed.

(c) Pfizer shall have no obligation to provide, or cause to be provided, Services to any Person other than NewCo or any Affiliate or Third Party designee of NewCo in accordance with the terms and conditions set forth herein, including the requirements of Section 2.1(b). Except as expressly provided in Section 2.3 or set forth in Exhibit A as the same may be supplemented or amended from time to time in accordance with the provisions of this Agreement, Pfizer shall have no obligation to provide, or cause to be provided, Services other than for the benefit of the Purchased Programs, and shall not be required to provide such Services within a greater scope than, in a greater volume than, or at locations other than, such Services were provided by Pfizer and its Affiliates to the Purchased Programs in the ordinary course as of immediately prior to the Effective Date. Pfizer shall have no obligation to provide, or cause to be provided, Services to the extent that any changes are made to the Purchased Programs that, in Pfizer's reasonable judgment, make commercially impracticable the provision of such Services. Without limiting the generality of the foregoing, the Services are not intended to (and shall not) include assistance for NewCo's (or its Affiliates') mergers, acquisitions, consolidations, reorganizations or similar transactions, or for changes not in the ordinary course of business of the Purchased Programs consistent with past practice.

Section 2.2 Standard of Performance.

(a) Pfizer shall use commercially reasonable efforts to provide the Services with such skill, quality and care as is consistent in all material respects with the level of skill, quality and care provided for the Purchased Programs immediately prior to the Effective Date, and in compliance with the terms and conditions of this Agreement and all applicable Laws. For the purposes of this Agreement, the term "Service Noncompliance" shall mean Pfizer's failure to provide any of the Services or Pfizer's failure to perform the Services in accordance with or in the manner set forth in Section 2.2, in each case after receipt of written notice from NewCo specifying the details of such noncompliance and Pfizer's failure to cure such noncompliance as soon as reasonably practicable but not later than [***] days after Pfizer's receipt of such notice; provided that, notwithstanding the foregoing, a Service Noncompliance shall not be deemed to have occurred if Pfizer is unable to provide the Services as a result of (i) the divestiture of any assets or the transfer of any personnel by Pfizer or its Affiliates to NewCo pursuant to the Contribution Agreement, (ii) a Force Majeure Event, or (iii) NewCo's breach of this Agreement. Solely with respect to the provision of the Services, and without limiting NewCo's rights and remedies set forth herein for a breach by Pfizer of any other provision of this Agreement, neither Pfizer nor its Affiliates shall be deemed to be in breach of this Agreement unless and until such breach constitutes Service Noncompliance.

(b) Performance through Affiliates. Pfizer shall have the right to perform its obligations under this Agreement through its Affiliates, and each of the foregoing may hire Third Party service providers, subcontractors and consultants to perform any of the Services for no additional charge to NewCo beyond the Service Fees. Pfizer and its Affiliates may not hire Third Party service providers, subcontractors or consultants to perform any of the Services if the payments to such Third Parties will be charged to NewCo as Out-of-Pocket Costs, without the prior written consent of NewCo (not to be unreasonably withheld). Any delegation by Pfizer or its Affiliates of performance to a Third Party service provider, subcontractor or consultant shall not relieve Pfizer of responsibility for the provision of the Services to NewCo in accordance with this Agreement and Pfizer shall remain liable for the performance of any obligations hereunder that it delegates to a Third Party service provider, subcontractor or consultant. Neither Pfizer nor its Affiliates, nor any other Person on their behalf, makes any representations or warranties, express or implied, with respect to any Services provided by a Third Party service provider, subcontractor or consultant.

(c) As between the Parties, except as set forth herein or otherwise mutually agreed by the Parties in writing, Pfizer shall have sole discretion and authority with respect to designating, employing, assigning, compensating and discharging personnel, Third Party service providers, subcontractors and consultants in connection with the performance of the Services. In addition, subject to resignations, employee-initiated (voluntary) transfers or reassignments or terminations in accordance with Pfizer's human resources policies, Pfizer shall utilize each of the Pfizer employees listed in Exhibit C (each a "Key Employee") to perform the same Services as such Key Employee provided for Pfizer with respect to the Purchased Programs prior to the Effective Date for a period of time of [***] months following the Services Start Date, and Pfizer shall not diminish or alter (through transfer, reassignment or otherwise) the scope of any Services or any obligations with respect to the Services performed by any Key Employee prior to completion of the applicable Services and expiration of the Service Period applicable to the

Services assigned to such Key Employee, without the prior written consent of NewCo. For the avoidance of doubt, any extension of such [***] month period with respect to any Key

Employee shall be in Pfizer's sole discretion. Notwithstanding anything to the contrary herein, unless otherwise mutually agreed by the Parties in writing, in no event shall Pfizer be obligated under this Agreement to acquire any equipment or technology, expand or modify any facilities or incur any capital expenditures, in each case unless Pfizer agrees, in its sole discretion, to do so and NewCo agrees to bear all related costs and expenses that are agreed upon in writing in advance by NewCo.

Section 2.3 Service Changes

(a) Change in Scope or Volume or Termination of Services by NewCo. If NewCo desires to change the scope or volume of any Service beyond the scope or volume of such Service as defined in the Baseline Exhibit A, or if NewCo desires to terminate any Service, NewCo shall provide a written notice to Pfizer's TSA Lead for such change in the scope or volume of a Service or for such termination of a Service ("Change Notice") at least [***] days before the proposed effective date of such change or termination, and at least [***] days prior to the next scheduled monthly meeting set forth in Section 2.4(c).

(i) Change in Scope or Volume by NewCo.

(1) *Reduction in Scope or Volume*. If a Change Notice calls for a change in the Baseline Exhibit A for any given Month(s) to reduce the number of FTEs performing any Service in such Month(s), the Parties will discuss the reduction at the next scheduled monthly meeting set forth in Section 2.4(c) and, unless NewCo withdraws the Change Notice at such meeting, the Parties shall amend the Baseline Exhibit A to reflect such reduction in the applicable Month(s), and the modified Baseline Exhibit A for such Month and corresponding reduction in FTEs shall go into effect in the applicable Month(s) noted in the Change Notice but no earlier than the first day of the Month following [***] days after the Change Notice (e.g., if a Change Notice is given on February 10th the modifications to Exhibit A with respect to the applicable Month(s) could go into effect on or after [***]).

(2) *Increase in Scope or Volume*. If a Change Notice calls for a change in the Baseline Exhibit A for any given Month(s) to increase the number of FTEs performing a Service in any such Month(s), then the Parties shall discuss such request at the next scheduled monthly meeting set forth in Section 2.4(c), including any incremental costs associated therewith, and Pfizer shall reasonably consider such request, provided that Pfizer shall not be obligated to provide such excess FTEs. If Pfizer is able to provide, and is in agreement with providing, such excess FTEs, then unless NewCo withdraws the Change Notice, the Parties shall amend the Baseline Exhibit A for such Month to reflect such increase and the modified Baseline Exhibit A and corresponding increase in FTEs shall go into effect on the first day of the applicable Month(s) noted in the Change Notice.

(ii) Termination by NewCo. If a Change Notice calls for termination of a Service, in whole or in part, prior to the end of the applicable Service Period then, unless

a "Withdrawal Notice" is timely delivered to Pfizer as set forth below, (A) the applicable Service shall end on the first day of the Month commencing [***] days after the Change Notice (e.g., [***] if the Change Notice is given on February 10th) or such other date as may be specified in the Change Notice (provided such other date shall be not earlier than [***] days after the date of the Change Notice), (B) the Parties shall amend Exhibit A to delete such Service as of such date, and (C) this Agreement shall be of no further force and effect with respect to such Service, except as provided in the last sentence of this subsection (ii). Within [***] days following receipt of a Change Notice that calls for termination of Service(s), Pfizer shall provide NewCo with written notice (a "Response Notice") regarding whether the termination of the applicable Service(s), in Pfizer's reasonable judgment, will require the termination or partial termination of, or otherwise affect the performance of, any other Services. With respect to any Response Notice, NewCo may withdraw its Change Notice by delivering a written notice (a "Withdrawal Notice") to Pfizer within [***] days following the receipt of such Response Notice from Pfizer. If NewCo timely delivers a Withdrawal Notice, the applicable Change Notice shall be deemed withdrawn, the applicable Service(s) shall not be affected and the foregoing (A) – (C) shall not apply with respect to such Service(s). If NewCo does not timely deliver a Withdrawal Notice, the applicable Change Notice will be final, binding and irrevocable and Pfizer may terminate any and all such other Services, in whole or in part, as set forth in the Response Notice as if such other Services were set forth in the applicable Change Notice, and the Parties shall amend Exhibit A accordingly. Upon termination of a Service pursuant to this subsection (ii) of Section 2.3(a), Pfizer's obligation to provide, and NewCo's obligation to pay for, such terminated Service beyond the applicable termination date will end; provided that (1) NewCo shall pay Pfizer (or its applicable Affiliate) for all accrued and unpaid charges and liabilities for such terminated Service, and (2) NewCo shall reimburse Pfizer (or its applicable Affiliate) for all Exit Costs incurred by or on behalf of Pfizer or its Affiliates in connection with such termination, in each case in accordance with Article III.

(b) Service Change by Pfizer. Pfizer may from time to time make changes to the Services provided to NewCo, (i) if Pfizer is making similar changes in the performance of services similar to such Service for itself or its Affiliates, (ii) if such changes are required by applicable Law, (iii) such changes are necessitated by the sale of the Purchased Programs to NewCo or the other transactions contemplated by the Contribution Agreement (including the extraction of the Purchased Programs from Pfizer's continuing operations) or (iv) such changes would not reasonably be expected to have a material adverse effect on the provision of such Service; provided that, with respect to the foregoing clauses (i) – (iv), Pfizer shall provide NewCo with prior notice as promptly as practicable of any such changes that materially reduce the standard of care or level of any Service provided to NewCo hereunder, and NewCo shall have the right to consent to any such change. For the avoidance of doubt, if Pfizer notifies NewCo of its intent to make a change that materially reduces the standard of care or level of a Service and NewCo declines to consent to such change, Pfizer shall not be liable for any Service Non-Compliance to the extent that such non-compliance results from Pfizer's inability to make such change. Any incremental costs and expenses incurred by or on behalf of Pfizer or its Affiliates in making any such change to the Services pursuant to clause the foregoing clauses (i) – (iii) of this subsection (b) shall be borne by NewCo (and such costs and expenses shall be deemed to be Out-of-Pocket Costs hereunder requiring NewCo's pre-approval). For clarity, such

costs and expenses shall be only that portion of costs that are directly attributable to the Services, and NewCo shall not bear any costs or expenses of changes that are applicable to anything other than the Services provided to NewCo hereunder. Without limiting the generality of the foregoing, NewCo acknowledges and agrees that the provision of the Services is subject to any modifications, changes and enhancements that Pfizer may implement to its information technology services in the ordinary course, subject to the foregoing notification and consent (with respect to Out-of-Pocket Costs) requirements.

(c) Services and Facilities Extensions.

(i) Services. If NewCo desires to extend the term of any Service beyond the Service Period of such Service as provided in Exhibit A, and if, on or before August 31, 2018, NewCo provides Pfizer with a written forecast reflecting the extension of any Service Period in 2019 for a period of up to [***] months beyond the applicable Service Period set forth in Exhibit A (the "Extension Period") then the terms of the applicable Service(s) shall be extended for the duration of the Extension Period as reflected in NewCo's written forecast. For the avoidance of doubt, any such extension of an applicable Service Period for 2019 beyond [***] months that is reflected in a written forecast on or before August 31, 2018 shall be treated as a second (or third, as applicable) extension pursuant to Schedule 2.3(c), however, the terms of Schedule 2.3(c) shall not apply to the [***] month Extension Period reflected in NewCo's written forecast. Notwithstanding NewCo's provision of a written forecast reflecting the extension of any Service during an Extension Period in 2019, NewCo shall have the right to terminate the applicable Service at any time in accordance with Section 2.3(a)(ii) and, in that event, the terms of Section 2.3(a)(ii) shall apply; provided, that NewCo shall also be obligated to pay the Service Fees that would have been due and owing during the Extension Period at the time such Service Fees would be payable had the applicable Service not been terminated pursuant to Section 2.3(a)(ii). If NewCo desires to extend the term of any Service beyond the Service Period of such Service as provided in Exhibit A and such extension is not reflected in a written forecast provided by NewCo to Pfizer on or before August, 31, 2018, then NewCo shall provide a written request to Pfizer's TSA Lead for extension not less than [***] days prior to the proposed effective date of such extension, and Pfizer shall only be obligated to provide such extension in the applicable Service Period as described in, and in accordance with, the terms and conditions of Schedule 2.3(d), including all applicable surcharges listed thereon. During the term of any Service that is extended beyond the Service Period provided in Exhibit A, Pfizer shall provide the same level of resources, including FTEs, for the applicable extended Service as Pfizer provided for such Service immediately prior to the extended Service Period unless NewCo has given a Change Notice in accordance with Section 2.3(a)(i), in which case Pfizer shall provide the level of resources as provided in the Change Notice.

(ii) Facilities. Pfizer shall provide to NewCo Pfizer's CEF Facility and a portion of Pfizer's CID Facility, as set forth in Exhibit D hereto (each, a "Facility" and collectively, the "Facilities") and shall perform all Services as set forth in Exhibit A relating to the Facilities for a period of up to eighteen (18) months following the Services Start Date. Unless NewCo terminates occupancy of the applicable Facility, Pfizer shall

charge NewCo the pass-through rent for [***] months after the Services Start Date, without surcharge. NewCo may terminate occupancy of each Facility by providing [***] days' prior written notice to Pfizer. On and after the effective date of NewCo's termination of occupancy of a Facility, NewCo shall have no further obligation to pay pass-through rent or any Service Fees or other charges relating to the Facility, except with respect to any Exit Fees that become due or payable.

Section 2.4 Services Operations.

(a) Third Party Terms and Conditions; Consents. The Services provided by Pfizer through Third Party service providers, subcontractors or consultants, or using Third Party assets, including Intellectual Property Rights, shall be subject to the terms and conditions of agreements between Pfizer and such Third Parties, if any, that are applicable to the provision of the Services, including, as applicable, the receipt of any consent, authorization, order or approval of, or any exemption by, any Third Party if and to the extent required to be obtained or made by Pfizer (or its Affiliates or its or their Third Party service providers, subcontractors or consultants) for the provision of the Services. Pfizer shall inform NewCo in writing of any and all such Third Party agreements and the terms and conditions of such agreements that are applicable to the provision of the Services, including any consent, authorization, order, approval or exemption required to be obtained or made by Pfizer (or its Affiliates or its or their Third Party service providers, subcontractors or consultants) and, if applicable, any costs or expenses that must be incurred to pay for such consent, authorization, order, approval or exemption (including, if applicable for the assignment of a license or other rights to NewCo, or for the purchase or licensing of any Intellectual Property Rights or other assets to provide the Services to NewCo). Pfizer shall use its commercially reasonable efforts to obtain if requested by NewCo, and NewCo shall, cooperate with and assist Pfizer (or its Affiliates or its or their Third Party service providers, subcontractors or consultants) in so obtaining any such consents, authorizations, orders, approvals and/or exemptions; provided that if any costs or expenses must be incurred to pay for such consent, authorization, order, approval or exemption, or for the assignment of a license or other rights to NewCo, or for the acquisition (by purchase or licensing) of any Intellectual Property Rights or other assets to provide the Services to NewCo, and provided that Pfizer has informed NewCo in advance of such costs and expenses and NewCo has requested that Pfizer obtain the relevant consent, authorization, order, approval or exemption, or the assignment of such license or other rights to NewCo, or the acquisition of such Intellectual Property Rights or other assets, such costs and expenses shall be borne by NewCo (and such costs and expenses shall be deemed to be Out-of-Pocket Costs hereunder requiring NewCo's pre-approval). If Pfizer is unable to obtain any required consents, authorizations, orders, approvals or exemptions, or is unable to effect any required assignments, purchases or licenses, then Pfizer shall inform NewCo of such inability and, at the request of NewCo, the Parties shall use commercially reasonable efforts to (a) negotiate in good faith reasonable modifications to the Services such that such consents, authorizations, orders, approvals, exemptions, assignments, purchases or licenses are not required and (b) implement such modifications, provided that Pfizer shall inform NewCo of any costs and expenses that will be incurred in order to implement such modifications and NewCo may withdraw its request to make any such modifications. Any costs and expenses incurred by or on behalf of Pfizer or its Affiliates with respect to such modifications that are requested (and not withdrawn) by NewCo, of which Pfizer has informed NewCo in advance, shall be borne by NewCo (and such costs and expenses shall be deemed to

be Out-of-Pocket Costs hereunder requiring NewCo's pre-approval). Pfizer shall not be deemed to be in breach of this Agreement, or have any liability to NewCo, as a result of any non-performance of, or other effect upon, any applicable Service(s) resulting directly from any such failure to obtain any such consent, authorization, order, approval or exemption, or to effect any such assignment, purchase or license, provided that Pfizer has used commercially reasonable efforts to obtain or effect the same. If any consent, authorization, order, approval, exemption, assignment, purchase or license is required to be obtained or made with respect to any Third Party relationship of NewCo for the receipt of Services, NewCo shall be solely responsible for obtaining or making any such consent, authorization, order, approval, exemption, assignment, purchase or license at its sole cost and expense.

(b) TSA Leads. Each Party shall designate an individual to be the primary liaison between the Parties for the provision and receipt of, and the eventual transfer of responsibility for, the Services, and to serve as such Party's representation with respect to matters of operational management, day-to-day administration, quality assurance and process information, in each case, as applicable to the Services (each, a "TSA Lead"). Each Party shall also designate individuals to be the primary representatives of such Party with respect to individual functional areas of the Services, which functional areas shall include pharmaceutical sciences, clinical pharmacology, oncology, lab operations, translational oncology, clinical operations, regulatory safety, project management, drug safety, real estate (including EH&S), information technology, procurement, finance, manufacturing/supply and human resources (each, a "Service Function Lead"). These functional areas may be updated from time to time by mutual agreement of the Parties. For clarity, one individual may serve as the Service Function Lead with respect to one or more functional areas, but each functional area shall be assigned by each Party a designated Service Function Lead. The Parties agree that any issues arising under this Agreement in relation to a particular Service will be raised first by and between the Service Function Leads responsible for the function area of the relevant Service before being referred to the TSA Leads. Either Party may replace its TSA Lead or any Service Function Lead with an individual who has a comparable level of responsibility within its respective organization. Each Party shall provide written notice of its TSA Lead and Service Function Leads to the other Party promptly following the execution of this Agreement and promptly following any changes to such Party's TSA Lead or any Service Function Lead, in each case in accordance with Section 9.1.

(c) Meetings. The TSA Leads, or their respective designees, shall meet monthly before the fifteenth (15th) day of the month (and at such other times as the TSA Leads elect) in person, telephonically or as they otherwise agree during the Term to discuss any changes in the Services and any issues arising under this Agreement that have not been resolved by the Service Function Leads and the need for any modifications or additions hereto. Promptly following the conclusion of each month, but in any event no later than the [***] day after the end of each Month, Pfizer's TSA Lead shall provide (i) a report reflecting a good-faith estimate on an aggregate FTE basis of Pfizer's utilization for each Service during the prior month, together with (ii) a copy of the invoice for the Service Fees due and owing for the prior month, and at least [***] days prior to the date of such monthly meeting, NewCo's TSA Lead shall provide any applicable Change Notices to be discussed at such monthly meeting, and a non-binding rolling development plan, which shall include the number of FTEs anticipated to be required to perform each Service during the [***] Month period following the Services Start Date, which, for the avoidance of doubt, shall reflect any anticipated extension requests.

[***] = CONFIDENTIAL TREATMENT REQUESTED

Section 2.5 Day-1 Readiness Assistance. NewCo shall develop a written readiness plan for transition of services, unrelated to the Services set forth in Exhibit A (the "Day-1 Readiness Plan") which sets forth NewCo's plan to transition each such service, and Pfizer shall provide reasonable consultation with respect thereto; provided that, in the event that NewCo requests that Pfizer provide greater than [***] FTE hours of consultation services after the Effective Date with respect to the Day-1 Readiness Plan, NewCo shall pay for any FTE hours for the applicable consulting employees above such threshold at the FTE Rate. The Day-1 Readiness Plan shall include a description of NewCo's expectations for managing such services after the completion of the transition, and any reasonable assistance that NewCo expects to request from Pfizer in order to achieve such expected end state. The Day-1 Readiness Plan shall be provided by NewCo to Pfizer after Effective Date and shall be implemented by NewCo on or around [***] days after the Effective Date. During the Interim Period, Pfizer shall continue to employ the Prospective Employees to conduct the Prospective Employee Services at NewCo's Cost in accordance with Exhibit E hereto. NewCo shall inform Pfizer of any developments or changes that would reasonably be expected to impair NewCo's ability to adhere to the Day-1 Readiness Plan. Pfizer shall, upon NewCo's request, provide NewCo with assistance reasonably necessary to transition such services to NewCo in accordance with the Day-1 Readiness Plan; provided, that NewCo shall be ultimately responsible for transitioning such services. The specific transition assistance and timing thereof shall be as mutually agreed by the Parties (which agreement shall not be unreasonably withhold by either Party) and Pfizer shall not charge NewCo for such transition assistance, provided that Pfizer shall have no obligation to provide such transition assistance beyond [***] days following the Services Start Date. Such transition assistance may include providing information regarding specific services and the systems, software and data formats and data organization being used for such Services, coordination and other reasonable assistance with test runs of replacement systems and processes (but not development of such systems and processes), and other reasonable access to relevant information; provided that Pfizer shall not be obligated to provide day-1 readiness assistance that (a) Pfizer cannot provide using its then-current ordinary course resources and capabilities in accordance with all Pfizer internal policies and procedures, giving due consideration to its and its Affiliates' other obligations and commitments, or (b) NewCo is reasonably able to provide to itself or can reasonably obtain from Third Party service providers, subcontractors or consultants. Notwithstanding anything to the contrary herein, in no event shall Pfizer or its Affiliates be required to provide any such assistance following the expiration of the Term.

Section 2.6 Pfizer Status as Independent Contractor. In providing the Services hereunder, Pfizer, its Affiliates and its and their Third Party service providers, subcontractors and consultants shall act solely as independent contractors. Nothing herein shall constitute or be construed to be or create in any way or for any purpose a partnership, joint venture, joint-employer or principal-agent relationship between the Parties. Neither Party nor any of its Affiliates, employees or agents shall have any power or authority to control the activities or operations of the other Party or its Affiliates, or to bind or commit the other Party or its Affiliates. In providing the Services hereunder, Pfizer's and its Affiliates' employees and agents shall not be considered employees or agents of NewCo or its Affiliates, or jointly employed by Pfizer and NewCo, nor shall Pfizer's or its Affiliates' employees or agents be eligible for or entitled to any compensation, benefits or perquisites (including severance) given or extended to any of NewCo's or its Affiliates' employees (without limiting any such amounts that constitute fees or costs and expenses payable pursuant to Article III hereunder).NewCo shall be solely

[***] = CONFIDENTIAL TREATMENT REQUESTED

responsible for the operation of its business and the decisions and actions taken in connection therewith, and nothing contained herein shall impose any liability or obligation on Pfizer or its Affiliates with respect thereto.

Section 2.7 Access and Cooperation; Reliance.

(a) NewCo agrees that it shall timely provide to Pfizer, at no cost to Pfizer, access to personnel, facilities, systems, assets, information and books and records, and shall timely provide decisions, approvals and acceptances, in each case as reasonably requested by Pfizer in order to enable Pfizer to perform its obligations under this Agreement in a timely and efficient manner.

(b) Without limiting the foregoing in this Section 2.7, each Party shall, and shall cause its Affiliates to, use commercially reasonable efforts to cooperate with the other Party in all matters relating to the provision and receipt of the Services and to minimize the expense, distraction and disturbance to each Party, and shall perform all obligations hereunder in good faith and in accordance with principles of fair dealing. Such cooperation shall include (i) the execution and delivery of such further instruments or documents as may be reasonably requested by the other Party to enable the full performance of each Party's obligations hereunder and (ii) notifying the other Party in advance of any changes to a Party's operating environment or personnel, and working with the other Party to minimize the effect of such changes.

(c) In connection with the performance of this Agreement, each Party, its Affiliates and its and their Third Party service providers, subcontractors and consultants shall be entitled to rely upon the genuineness, validity and truthfulness of any document, instrument or other writing presented by or on behalf of the other Party or its Affiliates. Neither Party, nor its Affiliates, nor any of its or their Third Party service providers, subcontractors or consultants shall be liable for any impairment in the performance of their obligations hereunder or for the failure to perform their obligations hereunder to the extent caused directly by (i) the failure to receive information, materials or access from the other Party or its Affiliates pursuant to this Section 2.7, either timely or at all, (ii) their receiving inaccurate or incomplete information from or on behalf of the other Party or any of its Affiliates, or (iii) any other failure by the other Party or its Affiliates to comply with any terms and conditions of this Agreement.

Section 2.8 Compliance.

(a) Pfizer shall not be obligated to provide any Service to the extent that the provision of such Service by Pfizer, any of its Affiliates or any of its or their Third Party service providers, subcontractors or consultants, including any of the foregoing persons' officers, directors, employees, agents or representatives, would conflict with or violate (i) any applicable Laws, including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act 2010, or (ii) any applicable and material policies or procedures of Pfizer or any of its Affiliates that are provided in writing to NewCo. In the event that Pfizer determines in good faith that the provision of a specific Service is likely to violate clause (i) or (ii) above (a "Compliance Concern"), Pfizer shall provide prompt written notice to NewCo describing in reasonable detail the nature of the Compliance Concern and, if Pfizer intends to suspend provision of the Service, indicating the expected duration of such suspension, and Pfizer may suspend the provision of

such Service. During any such suspension period, NewCo shall have no obligation to pay the Service Fees with respect to the suspended Service, provided that, NewCo's failure to pay such fees shall be deemed a termination of such Service in accordance with Section 2.3(a)(ii). NewCo will not be liable for any Exit Costs, including any early termination costs, such as costs associated with infrastructure abandonment or other stranded costs, for such suspended Service. Pfizer shall not be responsible for any failure to provide Services to the extent that such failure is pursuant to a suspension of a Service that is in accordance with this Section 2.8(a).

(i) Pfizer and NewCo shall confer in good faith to determine whether the Compliance Concern can be resolved and the suspension of such Service lifted. Pfizer and NewCo shall pursue the mutual objective of limiting the scope and duration of any such suspension. NewCo shall take any interim measures to the extent applicable to NewCo that are reasonably necessary to address the Compliance Concern and are requested by Pfizer (e.g., by replacing a suspect intermediary or reassigning a suspect employee), and shall certify to Pfizer that such measures have been implemented. All interim measures shall remain in place until and unless the Parties mutually agree, on the basis of their reasonable investigation, that the Compliance Concern is resolved.

(ii) In the event that any Service has been suspended under this Section 2.8(a), upon receipt of written notification of the implementation of interim measures and approval by Pfizer of such interim measures and the resolution of such Compliance Concern to Pfizer's satisfaction, Pfizer shall resume the provision of such Service, and shall continue to provide such Service without interruption in reliance on NewCo's interim measures. NewCo shall at all times comply with all applicable Laws in connection with the Services.

(b) NewCo shall follow the policies, procedures and practices that are applicable to the Services and followed by Pfizer and its Affiliates, including those in effect immediately prior to the Effective Date, and any changes to such policies, procedures and practices applicable to the Services following the Effective Date, including those relating to continuity of business, computer and network security measures and data encryption, provided in each case that Pfizer provides copies of such policies, procedures and practices and any changes thereto in writing in advance to NewCo.

ARTICLE III

COMPENSATION

Section 3.1 Compensation.

(a) NewCo shall pay to Pfizer (or its applicable Affiliate) a monthly fee for each Service provided to NewCo hereunder in accordance with the allocated fees for each such Service as set forth in Exhibit A, as may be amended from time to time in accordance with the provisions of this Agreement (including amendments to Exhibit A pursuant to Section 2.3), including any applicable extension surcharges as set forth on Schedule 2.3(d) (collectively, the "Service Fees"). In addition, if and as applicable in accordance with the provisions of this Agreement, NewCo shall pay to Pfizer (i) Set-Up Costs, (ii) Exit Costs, and (iii) the

Administrative Charge (as set forth in Section 3.1(d) below). Notwithstanding anything to the contrary herein, if NewCo hires any Pfizer employee who was providing Services prior to being hired by NewCo, then NewCo shall only be responsible for paying the amount of the Service Fees attributable to such employee for the period prior to being hired by NewCo, and the amount of Service Fees invoiced to NewCo for the month in which such employee is hired by NewCo shall be reduced accordingly.

(b) NewCo shall reimburse Pfizer (or its applicable Affiliate) for all documented out-of-pocket costs and expenses that are approved in advance in writing by NewCo, including any such pre-approved license fees, royalties, payments to Third Party service providers, subcontractors and consultants and reasonable travel expenses, as incurred by or on behalf of Pfizer (or such Affiliate) in connection with the provision of the Services (collectively, "Out-of-Pocket Costs"). All Out-of-Pocket Costs shall be in addition to the Service Fees.

(c) The Parties agree that Service Fees (which, for clarity, do not include Set- Up Costs, Exit Costs, or Out-of-Pocket Costs), shall be subject to a [***] percent ([***]%) administrative charge each month (the "Administrative Charge").

(d) It is the intent of the Parties that the Service Fees set forth on Exhibit A reasonably approximate the direct cost (excluding Out-of-Pocket Costs) of providing the Services (e.g., the salary and benefits of each FTE providing Services), without any intent to cause Pfizer (or its applicable Affiliate) to make a profit or incur a loss. Subject to the foregoing, if at any time Pfizer believes that the Service Fee for a specific Service on Exhibit A is materially insufficient to compensate it (or its applicable Affiliate) for the cost of providing such Service, or NewCo believes that the Service Fee for a specific Service on Exhibit A materially overcompensates Pfizer (or its applicable Affiliate) for such Service, such Party shall promptly notify the other Party through their respective TSA Leads, and the Parties will commence good faith negotiations toward an agreement in writing as to the appropriate course of action with respect to the pricing of such Service for future periods. Without limiting the foregoing, the Parties acknowledge and agree that additional employee hiring or retention costs or expenses not reflected on Exhibit A may be incurred by Pfizer or its Affiliates to retain or employ necessary contract employees to provide the Services, which costs and expenses shall be borne by NewCo (and such costs and expenses shall be deemed Out-of-Pocket Costs, and subject to NewCo's prior consent). This Article III shall not limit any other obligation of NewCo to reimburse costs or expenses of Pfizer and its Affiliates pursuant to other provisions of this Agreement.

Section 3.2 Taxes.

(a) All payments made under this Agreement are exclusive of VAT, which shall be added thereon as applicable. Where VAT is properly added to a payment made under this Agreement, or in the event of any amendment to VAT legislation or if for any other reason the sums invoiced without VAT in accordance with this Agreement become subject to VAT, the Party (or its applicable Affiliate) making such payment shall pay the amount of VAT only on receipt of a valid tax invoice issued in accordance with the laws and regulations of the country in which the VAT is chargeable.

[***] = CONFIDENTIAL TREATMENT REQUESTED

(b) NewCo shall be responsible for all goods and services, value added, sales, use, gross receipts, business, transfer, consumption, VAT and other similar taxes, levies and charges (which excludes, for the avoidance of doubt, any taxes imposed on or measured by net income (however denominated) franchise taxes, or branch profits taxes), together with interest, penalties and additions thereto ("Transfer Taxes"), imposed by applicable taxing authorities attributable to any payment hereunder, whether or not such Transfer Taxes are shown on any invoices; provided, however, that NewCo shall not be responsible for any incremental Transfer Taxes arising but for as a result of a delegation or assignment by Pfizer of its rights or obligations hereunder to any Affiliates of Pfizer or Third Parties (unless the delegation or assignment was made with the prior written consent of NewCo, which written consent makes specific reference to this Section 3.2(b)). If Pfizer or any of its Affiliates is required to pay any part of such Transfer Taxes that are the responsibility of NewCo, Pfizer shall provide NewCo with an original or certified copy of an official receipt, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to NewCo, confirming such payment, and NewCo shall reimburse Pfizer, its applicable Affiliate or Third Party assignee for such Transfer Taxes. Each Party shall, and shall cause its Affiliates (and Third Party service providers, subcontractors or consultants, if any, to the extent practicable) to, use commercially reasonable efforts to avail itself of any available exemption from, or reduction in, any such Transfer Taxes and to commercially reasonably cooperate with the other Party in providing any commercially reasonable information or documentation that may be necessary to obtain such exemption or reduction.

(c) If Pfizer or NewCo determines that applicable Law requires that an amount in respect of any taxes, levies or charges be withheld from any payment to Pfizer or any of its Affiliates under this Agreement, it shall promptly notify the other Party of such required withholding and NewCo shall withhold (or cause to be withheld) such taxes, levies or charges and pay (or cause to be paid) such withheld amounts over to the applicable taxing authority in accordance with the requirements of the applicable Law, and except in the case of any Transfer Tax that is the responsibility of NewCo under Section 3.2(b), any amount so withheld and paid over to the applicable taxing authority shall be treated as having been paid to Pfizer, its Affiliate or Third Party assignee, as applicable, and NewCo shall not be required to pay any additional amount as a result of or in respect of such withholding. NewCo shall provide Pfizer, its Affiliate or Third Party assignee with an original or certified copy of an official receipt, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to such party, confirming such payment. Pfizer shall, and shall cause its Affiliates (and Third Party service providers, subcontractor or consultants, if any, to the extent practicable) to, reasonably cooperate with NewCo to determine whether any such withholding applies to the Services, and if so, shall further cooperate to minimize applicable withholding taxes. NewCo shall provide Pfizer, its Affiliates or Third Party assignees with any commercially reasonable cooperation or assistance as may be necessary to enable such party to claim exemption from, or a reduction in the rate of, any withholding taxes (including, without limitation, pursuant to any applicable double taxation or similar treaty), to receive a refund of such withholding taxes or to claim a tax credit therefor.

Section 3.3 Payment Terms. Unless otherwise specified on Exhibit A, and except with respect to the Prospective Employee Services (the payment terms for which are addressed on Exhibit E hereto), Pfizer shall invoice NewCo for the Service Fee for each of the

Services provided in a month within [***] days after the end of such Month. In addition, if applicable, Pfizer shall invoice NewCo any Out-of-Pocket Costs, Set-Up Costs, Exit Costs, and Administrative Charges, incurred, on a rolling basis at the end of each Pfizer accounting period. NewCo shall pay Pfizer all undisputed amounts due hereunder within [***] days from the date of Pfizer's invoice. All such invoices shall be delivered to NewCo at [***], or as NewCo shall later designate by written notice to Pfizer. Any correspondence or payments concerning such invoices shall be made to Pfizer at: Pfizer, Inc., [***], *Attention*: [***] or as Pfizer shall later designate by written notice to NewCo. Any dispute regarding invoiced amounts shall be resolved in accordance with Article VIII; provided that, NewCo shall not have the right to withhold payment of any such amounts pending resolution of such dispute. There shall be no right of set-off or counterclaim with respect to any claim, debt or obligation against payments to Pfizer or any of its Affiliates under this Agreement.

Section 3.4 Interest. Interest on any late payment by NewCo shall accrue from the date such payment was originally due at a rate equal to [***] percent ([***]%) above the Prime Rate of interest as reported in the Wall Street Journal on the date payment was due. Such interest shall be computed on the basis of a year of 360 days for the actual number of days payment is delinquent.

Section 3.5 Currency. As applicable, services that are recorded in local currencies other than United States dollars will be translated into United States dollars in a manner consistent with Pfizer's normal practices used to prepare its audited financial statements for external reporting purposes, provided that such practices use a widely accepted source of published exchange rates.

ARTICLE IV

INTELLECTUAL PROPERTY

Section 4.1 Ownership of Intellectual Property.

(a) Ownership. Except as expressly provided in Section 4.1(b), no license, title, ownership or other Intellectual Property Rights or proprietary rights are transferred to NewCo, its Affiliates or Representatives pursuant to this Agreement, and Pfizer retains all such rights, title, ownership and other interest in its information technology systems, platforms, applications and all other software, hardware, systems and resources it uses to provide the Services. Except as expressly provided below in this Section 4.1(a) and in Section 4.1(b), as between the Parties, Pfizer shall be the sole and exclusive owner of, and nothing in this Agreement shall be deemed to grant NewCo, its Affiliates or Representatives any right, title, license, leasehold or other interest in or to, any Intellectual Property Rights, ideas, concepts, techniques, inventions, processes, systems, works of authorship, facilities, floor space, resources, special programs, functionalities, interfaces, computer hardware or software, documentation or other work product developed, created, modified, improved, used or relied upon by Pfizer, its Affiliates or Representatives in connection with the Services or the performance of Pfizer's or its Affiliates' obligations hereunder (collectively, "Work Product") and, for the avoidance of doubt,

no such Work Product shall be considered a work made for hire within the meaning of Title 17 of the United States Code.

(b) Deliverables Arising During Provision of Services. Notwithstanding anything to the contrary in Section 4.1(a), all data (including raw data, processed data and data summaries), analyses (including analyses of data), results, tests, reports and deliverables (interim or final) solely relating to the Purchased Programs, the Purchased Assets or any Product that are collected, generated or created by or on behalf of NewCo (including by Pfizer, its Affiliates and/or its or their Third Party service providers, subcontractors or consultants) and that arise out of, or result from or are collected, generated or created in the course of performing any Services following the Effective Date (collectively, "NewCo Deliverables") shall be owned by NewCo and Pfizer shall provide all NewCo Deliverables to NewCo promptly after such NewCo Deliverables are so collected, generated or created. For clarity, Pfizer shall own data (including raw data, processed data and data summaries), analyses (including analyses of data), results, tests, and reports that are collected, generated or created in providing the Services that do not solely relate to the Purchased Programs, the Purchased Assets or any Product, including to the extent not related thereto, such data that relates to the operation of Pfizer's business other than the Purchased Programs or to the Excluded Assets (the "Pfizer Deliverables"). Pfizer hereby grants to NewCo a worldwide, royalty-free, fully paid-up, perpetual, irrevocable license, with the right to sublicense through multiple tiers, to use the Pfizer Deliverables to the extent necessary to exploit the Purchased Assets and the operation of the Purchased Programs, including for the development, manufacture, use, sale, offer for sale, import and other exploitation of any Product.

(c) Assignment of Intellectual Property Rights. To the extent that any right, title or interest in, to or under any Intellectual Property Rights vests in either Party or its Affiliates, by operation of law or otherwise, in contravention of Section 4.1(a) or Section 4.1(b), such Party (the "Assigning Party") hereby assigns, and shall cause its Affiliates to assign, perpetually and irrevocably, to the other Party or its designee (the "Assignee Party") all such right, title and interest throughout the world in, to and under such Intellectual Property Rights, free and clear of all Liens and other encumbrances, without the need for any further action by any Party or its Affiliates and hereby waives, and shall cause its Affiliates to waive, any ownership in the foregoing in favor of the Assignee Party if such assignment does not take effect immediately for any reason. The Assigning Party shall, and shall cause its Affiliates to, execute any and all assignments and other documents necessary to perfect, register or record the Assignee Party's right, title, and interest in, to and under such Intellectual Property Rights. The Assigning Party further agrees to, and shall cause its applicable Affiliates to, execute all further documents and assignments and take all further actions as may be necessary to perfect the Assignee Party's title to such Intellectual Property Rights or to register such Assignee Party as the exclusive owner of any applicable registrable rights.

(d) Except as set forth in Section 4.1(a) and Section 4.1(b), Pfizer, on the one hand, and NewCo, on the other hand, retains all right, title and interest in, to and under their respective Intellectual Property Rights, and except as set forth in Section 4.1(a), Section 4.2(a) and Section 4.2(b), no license or other right, express or implied, is granted to either Party or its Affiliates with respect to the other Party's or its Affiliates' Intellectual Property Rights under this Agreement.

(e) The Parties agree that neither Party or its Affiliates will remove any trademark or copyright notices, proprietary markings, trademarks or other indicia of ownership of the other Party or its Affiliates from any materials of the other Party or its Affiliates, except as required, if at all, by the Patent and Know-How License Agreement.

Section 4.2 License Grants.

(a) Pfizer hereby grants to NewCo a non-exclusive, non-sublicensable, non-transferable, royalty-free and fully paid-up (subject to the terms hereof), limited license to use Intellectual Property Rights to the extent owned or controlled by Pfizer and used by Pfizer in connection with providing the Services, solely for the purpose of, and solely to the extent and for the duration required for, NewCo to receive the Services.

(b) NewCo hereby grants to Pfizer a non-exclusive, non-sublicensable (except to Affiliates of Pfizer for the purposes of providing the Services), non-transferable, royalty-free and fully paid-up, limited license to use Intellectual Property Rights to the extent owned or controlled by NewCo solely for the purpose of, and solely to the extent and for the duration required for, Pfizer to provide the Services.

(c) The licenses granted in this Section 4.2 shall expire upon the earlier of the expiration of the Term or the end of the Service Period for the applicable Service subject to such license (or, if earlier, the date on which the Service subject to such license is terminated).

Section 4.3 Compliance with Pfizer Policies. At all times during the Term, NewCo shall comply, and shall cause its Affiliates, sublicensees and agents to comply, with the Pfizer Compliance Policies set forth in Sections 4.3(a) through 4.3(c) below, provided that Pfizer has provided NewCo with copies of such Pfizer Compliance Policies.

(a) Pfizer Corporate Policies. While connected to Pfizer resources, and having access to Pfizer systems and information, NewCo and its agents must remain in compliance with Pfizer's Corporate Policies, including Corporate Policies 401, 403, 404, 901 and 903, provided Pfizer provides NewCo with copies of such Corporate Policies. This includes policies with respect to appropriately safeguarding Pfizer information, unauthorized use and transfer of Pfizer information, the prohibition on the use of unauthorized software and devices, and bypassing security controls.

(b) Recognizing NewCo's commitment to enforcing the relevant Pfizer Corporate Policies to the extent provided to NewCo in writing by Pfizer, NewCo will disseminate, implement and require compliance with such Corporate Policies and use related education tools provided by Pfizer to all relevant NewCo employees and contractors. NewCo will cooperate with Pfizer's audit of such implementation, support and cooperate in any Pfizer Global Security's investigation of transgression or other compliance incidents, and will enforce sanctions consistent with Pfizer's then-existing practices. Repeated incidents will be taken as evidence of lack of support and non-enforcement of the relevant Corporate Policies, which can lead to immediate and potentially permanent disconnection of the Pfizer network and government-imposed fines.

(c) Controls on the use of Pfizer network.

(i) No devices, equipment or instruments of any kind are to be connected to the Pfizer network without the written consent of the Pfizer TSA Lead and the Pfizer BT TSA Lead. No devices, equipment or instruments will be permitted to simultaneously be connected to Pfizer networks and NewCo networks in a manner that would create a connection between the two networks. Any unauthorized attempts to do so will lead to immediate, and potentially permanent, disconnection from the Pfizer network.

(ii) No NewCo employees or vendors will be permitted to bypass the Pfizer- established VPN service to gain access to the Pfizer network, nor will such employees or vendors be permitted to use a "remote desktop" connection (e.g. "GoToMyPC" or "Chrome Remote Desktop") to access a computer connected to Pfizer's network that could enable browsing of Pfizer's internal network.

(iii) Devices or interconnectivity that bypass Pfizer's security measures and controls, or that threaten the operation, stability or integrity of the Pfizer network are strictly prohibited. This includes any communication device(s) directly or indirectly connected to the Pfizer network that permit access to the Pfizer network, including connection to any computer, workstation or device that has the ability to access the Pfizer network.

(d) Co-existence of Pfizer network and NewCo's own network. The Parties agree that, over the Term of this Agreement, NewCo will be providing its own information systems network for its employees and ongoing operations, and linking its own provisioned laptops, equipment, instruments and printers. NewCo's network solutions are to be designed, created and implemented independent of Pfizer's resources on NewCo's own network. Neither NewCo, nor its agents, partners or service providers, are permitted to browse, scan, test or perform discovery of any kind on the Pfizer network without the express knowledge of, approval by and coordination with Pfizer BT during the Term. Any unauthorized attempts to do so will lead to immediate and potentially permanent disconnection of the Pfizer network.

(i) The Services are designed to maintain continuity and transition for conveyed and approved NewCo colleagues. Pfizer will not build, nor support any future NewCo systems, services or solutions. NewCo IT systems, services or solutions will not be permitted to be hosted within a Pfizer data center nor be active on the Pfizer network, except for network access for approved Third Party SaaS-based applications. For clarity, all conveyed and Pfizer approved NewCo colleagues shall be permitted to access approved Third Party SaaS-based applications from Pfizer devices and Pfizer's network.

(ii) No new entanglements or significant infrastructure will be hosted on NewCo's behalf (e.g. no new Active Directory domain or NewCo email systems).

(iii) No data interfaces will be created between Pfizer and NewCo systems.

(iv) Any NewCo-implemented network will maintain full "air gap" separation from Pfizer's network. Pfizer's and NewCo's networks may never be connected to one another at any time.

(v) Neither NewCo nor its agents shall use equipment that can be used to bridge the Pfizer's and NewCo's independent networks.

(vi) Neither NewCo nor its agents shall use any tools that search for devices or map the structure of Pfizer's network in any circumstance (e.g. to create an inventory of NewCo-owned equipment).

ARTICLE V

INDEMNIFICATION

Section 5.1 Indemnification.

(a) Indemnification by Pfizer. Subject to the limitations set forth in this Article V, and notwithstanding anything to the contrary in, and without limiting the indemnification provisions set forth in, the Contribution Agreement or any other Transaction Agreements, Pfizer agrees to indemnify and hold harmless NewCo and its Affiliates from and against any and all Damages that NewCo or its Affiliate actually suffers or incurs to the extent resulting from (i) the grossly negligent act or omission or willful misconduct of Pfizer or any of its Affiliates in connection with the provision of the Services or (ii) a material breach by Pfizer or any of its Affiliates of any covenant or agreement contained in this Agreement.

(b) Indemnification by NewCo. Subject to the limitations set forth in this Article V, and notwithstanding anything to the contrary in, and without limiting the indemnification provisions set forth in, the Contribution Agreement or any other Transaction Agreements, NewCo agrees to indemnify and hold harmless Pfizer and its Affiliates from and against any and all Damages that Pfizer or its Affiliate actually suffers or incurs to the extent resulting from (x) the provision (or use by NewCo) of the Services, except to the extent that such Damages result from (i) the grossly negligent act or omission or willful misconduct of Pfizer or any of its Affiliates in connection with the provision of the Services or (ii) a material breach by Pfizer or any of its Affiliates of any covenant or agreement contained in this Agreement or (y) a material breach by NewCo or any of its Affiliates of any covenant or agreement contained in this Agreement.

Section 5.2 Indemnification Procedures.

(a) Procedures for Indemnification. Except as otherwise provided in Section 5.2, promptly after receipt by a party entitled to indemnification under Sections 5.1(a) or 5.1(b) or any other provision of this Agreement (the "Indemnitee") of written notice of the assertion or the commencement of any Proceeding with respect to any matter referred to in Sections 5.1(a) or 5.1(b) or in any other applicable provision of this Agreement, the Indemnitee shall give written notice describing such claim or Proceeding in reasonable detail in light of the circumstances then known to the Indemnitee to the Party obligated to indemnify Indemnitee (the "Indemnitor"), and thereafter shall keep the Indemnitor reasonably informed with respect thereto; *provided*, *however*, that failure of the Indemnitee to keep the Indemnitor reasonably informed as provided herein shall not relieve the Indemnitor of its obligations hereunder except to the extent that the Indemnitor is prejudiced thereby.

(b) If any Proceeding is commenced against any Indemnitee by a Third Party, the Indemnitor shall be entitled to participate in such Proceeding and assume the defense thereof at the Indemnitor's sole expense; *provided, however*, that the Indemnitor shall not have the right to assume the defense of any such Proceeding if (a) the Indemnitee shall have one or more legal or equitable defenses available to it which are different from or in addition to those available to the Indemnitor, and, in the reasonable opinion of outside counsel to the Indemnitee, counsel for the Indemnitor could not adequately represent the interests of the Indemnitee because such interests would be in conflict with those of the Indemnitor; (b) such Proceeding is reasonably likely to have a material adverse effect on any other matter beyond the scope or limits of the indemnification obligation of the Indemnitor; or (c) the Indemnitor shall not have assumed the defense of the Proceeding in a timely fashion (but in any event within [***] days of notice of such Proceeding). If the Indemnitor assumes the defense of any Proceeding, the Indemnitee shall be entitled to participate in any Proceeding at its expense, and the Indemnitor shall not settle such Proceeding unless the settlement shall include as an unconditional term thereof the giving by the claimant or the plaintiff of a full and unconditional release of the Indemnitee, from all Liability with respect to the matters that are subject to such Proceeding, or otherwise shall have been approved by the Indemnitee, such approval not to be unreasonably withheld, conditioned or delayed.

Section 5.3 Third Party Contributors. The amount of any and all Damages for which indemnification is provided pursuant to this Article V shall be net of any amounts actually received by the Indemnitee with respect to such Damages (i) under insurance policies after giving effect to any deductible, retention or equivalent loss rated premium adjustment and any costs or expenses incurred in recovering such insurance proceeds and (ii) otherwise from any Third Party (including any Tax Authority).

Section 5.4 No Right of Set-Off. Neither Pfizer, on the one hand, nor NewCo, on the other hand, shall have any right to set off any Damages under this Article V against any payments to be made by such Party or Parties pursuant to this Agreement, the Contribution Agreement or any other agreement among the Parties, including any Transaction Agreements.

Section 5.5 Other Indemnities. This Article V is in addition to, and not in limitation of, any indemnification provisions set forth in the Contribution Agreement or any other Transaction Agreement. Sole Remedy/Waiver Except as otherwise set forth herein, and except with respect to claims seeking specific performance or other equitable relief or claims of fraud that are proven and upon which a judgment entered in the involved Proceeding is expressly based, the Parties acknowledge and agree that (i) the provisions of this Article V shall be the exclusive remedy for all claims of breach or indemnification pursuant to this Agreement and (ii) in furtherance of the foregoing, each party hereby waives, to the fullest extent permitted by Law, any and all rights, claims and causes of action for any breach of any representation, warranty, covenant or agreement set forth herein or otherwise relating to the subject matter of this Agreement it may have against the other party hereto and their Affiliates and each of their respective Representatives arising under or based upon any Law, except pursuant to the indemnification provisions set forth in this Article V.

Section 5.6 Mitigation; Limitation on Liability

(a) Each Indemnitee shall take, and shall cause its Affiliates to take, all reasonable steps to mitigate any Damages upon becoming aware of any event or circumstance that would reasonably be expected to, or does, give rise thereto, including incurring costs only to the minimum extent necessary to remedy the breach that gives rise to the Damages.

(b) Notwithstanding anything to the contrary herein, the Contribution Agreement or any other Transaction Agreement, and without limiting Section 5.6 or Section 5.7(a), except for liability for fraud, Pfizer's maximum liability to NewCo for Pfizer's or its Affiliates' Service Noncompliance, or any other matter relating to the Services or this Agreement, shall not exceed, in the aggregate, the total amount of Service Fees paid by NewCo; provided, that, if the liability of Pfizer and/or its Affiliates with respect to this Agreement exceeds the Service Fees paid by NewCo as of a particular time, NewCo shall be entitled to recover against Pfizer to the extent of additional Service Fees paid after such time.

(c) Notwithstanding anything in this Agreement or the Contribution Agreement to the contrary, except in the case of fraud, in no event shall either Party be liable to the other Party hereunder for any consequential damages, special damages, incidental or indirect damages, loss of revenue or profits, diminution in value, damages based on multiple of revenue or earnings or other performance metric, loss of business reputation, punitive and exemplary damages or any similar damages arising or resulting from or relating to this Agreement or any of the Services, whether such action is based on warranty, contract, tort (including negligence or strict liability) or otherwise.

(d) EACH PARTY ACKNOWLEDGES AND AGREES THAT ALL SERVICES ARE PROVIDED ON AN "AS-IS" BASIS AND THAT PFIZER AND ITS AFFILIATES MAKE NO EXPRESS OR IMPLIED REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THIS AGREEMENT, THE SERVICES TO BE PROVIDED UNDER THIS AGREEMENT OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY, SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT OF ANY FIRMWARE, SOFTWARE OR HARDWARE PROVIDED OR USED HEREUNDER, AND ANY REPRESENTATIONS OR WARRANTIES ARISING FROM COURSE OF DEALING, COURSE OF PERFORMANCE OR TRADE USAGE, AND ALL SUCH REPRESENTATIONS AND WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.

ARTICLE VI

CONFIDENTIALITY

Section 6.1 Confidentiality.

(a) Definition. "Confidential Information" shall mean: (a) all non-public or proprietary information (including Know-How) that is disclosed by or on behalf of a Party (the "Disclosing Party") (or any of its Affiliates) to the other Party (the "Receiving Party") or any of its Representatives pursuant to or in connection with this Agreement; and (b) all other non-public or proprietary information (including Know-How) that is expressly deemed in this Agreement to be Confidential Information, whether or not disclosed by or on behalf of a party (or any of its

Affiliates) to the other Party, any of its Affiliates or any of their respective employees, agents or contractors, in each case ((a) or (b)), without regard as to whether any of the foregoing is marked "confidential" or "proprietary," or in oral, written, graphic or electronic form. The terms of this Agreement shall be deemed to be both parties' Confidential Information. Notwithstanding the foregoing, all Deliverables shall be deemed to be the Confidential Information of NewCo, such that NewCo shall be deemed the Disclosing Party and Pfizer shall be deemed the Receiving Party of all Deliverables and Section 6.1(b)(i) shall not apply with respect to Deliverables.

(b) **Exclusions**. Information shall not be deemed to be Confidential Information of the Disclosing Party to the extent that the Receiving Party can demonstrate through competent evidence that such information:

(i) is known by the Receiving Party at the time of its receipt without an obligation of confidentiality, and not through a prior disclosure by the Disclosing Party;

(ii) is in the public domain before its receipt from the Disclosing Party, or thereafter enters the public domain through no breach of this Agreement by the Receiving Party;

(iii) is subsequently disclosed to the Receiving Party by a Third Party who may lawfully do so and is not under an obligation of confidentiality to the Disclosing Party; or

(iv) is discovered or developed by or on behalf of the Receiving Party independently and without use of or reference to any Confidential Information received from the Disclosing Party.

Any combination of features or disclosures shall not be deemed to fall within the foregoing exclusions merely because individual features are published or available to the general public or in the rightful possession of the Receiving Party unless the combination itself and principle of operation are published or available to the general public or in the rightful possession of the Receiving Party.

(c) Duty of Confidence. Subject to the other provisions of this Section 6.1, for a period of [***] years after the Effective Date:

(i) The Receiving Party shall maintain in confidence and otherwise safeguard the Disclosing Party's Confidential Information in the same manner and with the same protections as the Receiving Party maintains its own confidential information, but in any event no less than reasonable efforts;

(ii) the Receiving Party may only use any such Confidential Information for the purposes of performing its obligations or exercising its rights under this Agreement; and

(iii) the Receiving Party may only disclose the Disclosing Party's Confidential Information to its Affiliates (and, in the case of Company as the

Receiving Party, its licensees and sublicensees) and its and their respective Representatives, in each case to the extent reasonably necessary for the purposes of performing its obligations or exercising its rights under this Agreement; provided that such Persons are bound by legally enforceable obligations to maintain the confidentiality of the Confidential Information in a manner consistent with the confidentiality provisions of this Agreement.

(d) Authorized Disclosures. Notwithstanding the obligations set forth in this Article VI, the Receiving Party may disclose the Disclosing Party's Confidential Information to the extent:

(i) such disclosure is reasonably necessary to the Receiving Party's Representatives (including attorneys, independent accountants or financial advisors) for the sole purpose of enabling such Representatives to provide advice to such Party, provided that in each such case such recipients are bound by confidentiality and non-use obligations that are at least as restrictive as those contained in this Agreement;

(ii) such disclosure is to a Governmental Authority and necessary or desirable (A) to obtain or maintain INDs, Regulatory Approvals or Price Approval for any Product within the Territory, or (B) in order to respond to inquiries, requests or investigations by such Governmental Authority relating to Products or this Agreement; or

(iii) such disclosure is required by Law, judicial or administrative process, provided that, except for disclosures governed by the last two sentences of subsection (e) below, the Receiving Party shall promptly inform the Disclosing Party of such required disclosure and provide the Disclosing Party an opportunity to challenge or limit the disclosure obligations, provided that Confidential Information that is disclosed pursuant to subsection (ii) above or this subsection

(iv) shall remain otherwise subject to the confidentiality and non-use provisions of this Section 6.1 (provided that such disclosure is not a public disclosure), and the Receiving Party shall cooperate with and reasonably assist the Disclosing Party if the Disclosing Party seeks a protective order or other remedy in respect of any such disclosure. In any event, the Receiving Party shall furnish only that portion of the Confidential Information which, in the opinion of the Receiving Party's legal counsel, is responsive to such requirement or request;

(e) SEC Filings and Other Disclosures. Either Party may disclose the terms of this Agreement and make any other public written disclosure regarding the existence of, or performance under, this Agreement, to the extent required, in the reasonable opinion of such Party's legal counsel, to comply with (i) applicable Law, including the rules and regulations promulgated by the United States Securities and Exchange Commission or (ii) any equivalent Governmental Authority, securities exchange or securities regulator in any country in the Territory. Before disclosing this Agreement or any of the terms hereof pursuant to this Section 6.1(e), the parties will consult with one another on the terms of this Agreement to be redacted in making any such disclosure, with the Party making such disclosure providing as much advance

notice as is reasonably practicable under the circumstances, and giving consideration to the timely comments of the other Party. Further, if a Party discloses this Agreement or any of the terms hereof in accordance with this Section 6.1(e), such Party will, at its own expense, seek such confidential treatment of confidential portions of this Agreement and such other terms as it reasonably determines, giving consideration to the comments of the other Party pursuant to the preceding sentence.

ARTICLE VII

TERM; TERMINATION

Section 7.1 Term. The term of this Agreement (the "Term") will commence on the Effective Date and end on the earlier to occur of (a) the last date on which Pfizer is obligated to provide any Service to NewCo pursuant to this Agreement, (b) the termination of this Agreement pursuant to Section 7.2 and (c) the mutual written agreement of the Parties to terminate this Agreement (and all Services hereunder) in its entirety.

Section 7.2 Termination. Subject to Section 2.2, either Party (the "Non-Breaching Party") may terminate this Agreement at any time upon prior written notice to the other Party if the other Party (the "Breaching Party") has materially breached or materially failed (other than pursuant to Section 9.12) to perform any of its covenants or agreements under this Agreement, and such breach or failure shall have continued without cure for a period of sixty (60) days after receipt by the Breaching Party of a written notice of such failure from the Non-Breaching Party seeking to terminate this Agreement; provided that a non-payment by NewCo for a Service provided by Pfizer in accordance with this Agreement that is not the subject of a good faith dispute or otherwise being withheld in accordance with Section 3.3 shall be deemed a material breach of and material failure to perform NewCo's covenants and agreements for purposes of this Agreement giving rise to Pfizer's termination right under this Section 7.2, and such non-payment breach shall be subject to a ten (10) Business Day cure period after written notice of such non-payment breach.

Section 7.3 Effect of Termination. Upon the expiration or termination of this Agreement pursuant to this Article VII, this Agreement shall cease to have further force and effect, and neither Party shall have any liability or obligation to the other Party with respect to this Agreement; provided that:

(a) termination or expiration of this Agreement for any reason shall not release a Party from any liability or obligation that already has accrued as of the effective date of such termination or expiration, as applicable, or which may be payable under this Agreement as a direct result of such termination or expiration (including any Out-of-Pocket Costs, Exit Costs or otherwise); and

(b) Article V (*Indemnification*), Article VI (*Confidentiality*) and Article IX (*Miscellaneous*) shall survive any termination or expiration of this Agreement and shall remain in full force and effect.

ARTICLE VIII

DISPUTE RESOLUTION

Section 8.1 Dispute Resolution. Prior to the initiation of legal proceedings, the Parties shall attempt to resolve any dispute arising out of or in connection with this Agreement or the transactions contemplated hereby informally as follows:

(a) The Parties shall first attempt in good faith to resolve all disputes on a local level, through their respective Service Function Leads and TSA Leads, and shall attempt to initiate such efforts within two (2) Business Days after receipt of notice of any such dispute. If the Service Function Leads and TSA Leads are unable to resolve the dispute within ten (10) Business Days, either Party may refer the dispute for resolution to the TSA Executives upon notice to the other Party.

(b) Within five (5) Business Days of a notice under Section 8.1(a) referring a dispute for resolution by the TSA Executives, each Party's TSA Leads (or other employees) shall prepare and provide to its Senior Manager summaries of the relevant information and background of the dispute, along with any appropriate supporting documentation. The TSA Executives will confer as often as they deem reasonably necessary in order to gather and exchange information, discuss the dispute and negotiate in good faith in an effort to resolve the dispute without the need for any formal proceedings. Either Party may replace its TSA Executive with an individual who has a comparable level of responsibility within its respective organization upon written notice to the other Party in accordance with Section 9.1.

(c) In the event of a payment dispute regarding invoiced amounts or a dispute regarding NewCo's withholding of payments pursuant to Section 3.3 (in connection with a dispute regarding invoiced amounts or the existence of a Service Noncompliance or whether Pfizer, its Affiliate or any Third Party is materially underperforming the Services) (any such dispute, a "Section 3.3 Dispute") which the Parties are not able to resolve pursuant to Section 8.1(a) or Section 8.1(b), then such Section 3.3 Dispute shall be resolved through binding "baseball" arbitration as provided in this Section 8.1(c). Following failure of the Parties to resolve a Section 3.3 Dispute pursuant to Section 8.1(a) or Section 8.1(b), either Party may request baseball arbitration under this Section 8.1(c) and, thereafter, the Parties shall meet and discuss in good faith and agree on a single expert with relevant experience and expertise or, if the Parties cannot agree on such expert within twenty (20) days of a Party's request for baseball arbitration, then such expert shall be appointed by the Director of the New York City office of the American Arbitration Association. Within thirty (30) days after the appointment of such expert, each Party will submit its proposed resolution of the Section 3.3 Dispute to the expert. The expert will be instructed to select one of the Parties' proposed resolutions within thirty (30) days following the receipt of both such proposed resolutions and to select the proposed resolution that he or she believes, taken as a whole, is the most fair and reasonable to the Parties in light of the totality of the circumstances, consistent with the intention underlying this Agreement. The expert will be limited to selecting only one or the other of the proposed resolutions submitted by the Parties without modification. The decision of the expert, which shall be in writing and delivered to both Parties, shall be final, binding, and unappealable. The

fees of the expert and costs and expenses of the baseball arbitration will be borne by the Party whose proposed resolution is not selected by the expert

(d) Legal proceedings may not be initiated until at least ten (10) Business Days after the receipt by a Party of a notice under Section 8.1(a) referring a dispute to the TSA Executives. For clarity, Section 3.3 Disputes will not be resolved through legal proceedings and, instead, shall be resolved pursuant to Section 8.1(c).

ARTICLE IX

MISCELLANEOUS PROVISIONS

Section 9.1 Expenses. Unless otherwise indicated expressly herein, each party shall pay its own costs and expenses in connection with this Agreement, including the fees and expenses of its advisers, accountants and legal counsel.

Section 9.2 Entire Agreement. This Agreement, including the exhibits and disclosure schedules specifically referred to herein, the Contribution Agreement, the other Transaction Agreements and the Confidential Disclosure Agreement constitute the entire agreement between and among the parties hereto with regard to the subject matter hereof, and supersede all prior agreements and understandings with regard to such subject matter. In the event of any inconsistency between the statements in this Agreement and those in the exhibits and disclosure schedules specifically referred to herein or in any other Transaction Agreements or the Confidential Disclosure Agreement (other than an exception expressly set forth as such in the disclosure schedules) the statements in this Agreement will control. In the event of a conflict between the terms of this Agreement and the terms of Exhibit A with respect to any applicable Service, the terms of Exhibit A shall govern and control with respect to such Service unless explicitly provided for otherwise in this Agreement. In the event of a conflict between the terms of this Agreement and the Contribution Agreement, the terms of the Contribution Agreement shall govern and control.

Section 9.3 Amendment, Waivers and Consents. This Agreement shall not be changed or modified, in whole or in part, except by supplemental agreement or amendment signed by the parties. Any party may waive compliance by any other party with any of the covenants or conditions of this Agreement, but no waiver shall be binding unless executed in writing by the party making the waiver. No waiver of any provision of this Agreement shall be deemed, or shall constitute, a waiver of any other provision, whether or not similar, nor shall any waiver constitute a continuing waiver. Any consent under this Agreement shall be in writing and shall be effective only to the extent specifically set forth in such writing.

Section 9.4 Assignment. Neither Party may assign this Agreement or any rights, benefits or obligations under or relating to this Agreement, in each case whether by operation of law or otherwise, without the other Party's prior written consent (which shall not be unreasonably withheld); provided that either Party may assign its rights and obligations under this Agreement to one or more of its Affiliates (provided that such Affiliate remains at all times during the Term an Affiliate of such Party) without the other

Party's consent; provided, further, that no such assignment shall release the assigning Party from its obligations under this Agreement. For purposes of this Agreement, a Change of Control of NewCo shall be deemed an assignment of this Agreement. In the event of a permitted assignment, this Agreement shall be binding upon and inure to the benefit of the Parties and their respective permitted successors and permitted assigns. Any attempted assignment that contravenes the terms of this Agreement shall be void *ab initio* and of no force or effect. Except with respect to the NewCo Indemnified Parties and the Pfizer Indemnified Parties solely with respect to Article V or as expressly set forth herein, nothing in this Agreement, express or implied, is intended to confer upon any Person other than NewCo, Pfizer or their successors or permitted assigns any rights or remedies under or by reason of this Agreement.

Section 9.5 Governing Law. The rights and obligations of the parties shall be governed by, and this Agreement shall be interpreted, construed and enforced in accordance with, the Laws of the State of Delaware, excluding its conflict of laws rules to the extent such rules would apply the Law of another jurisdiction.

Section 9.6 Jurisdiction. Subject to Section 8.1, any judicial Proceeding brought against any of the parties to this Agreement or any dispute arising out of this Agreement or related hereto shall be brought in the courts of the State of Delaware, or in the United States District Court for the District of Delaware, and, by execution and delivery of this Agreement, each of the Parties to this Agreement accepts the exclusive jurisdiction of such courts, and irrevocably agrees to be bound by any judgment rendered thereby in connection with this Agreement. The foregoing consents to jurisdiction shall not constitute general consents to service of process in the State of Delaware for any purpose except as provided above and shall not be deemed to confer rights on any Person other than the parties to this Agreement. Each of the parties to this Agreement agrees that service of any process, summons, notice or document by U.S. mail to such Party's address for notice hereunder shall be effective service of process for any Proceeding in Delaware with respect to any matters for which it has submitted to jurisdiction pursuant to this Section 9.6. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ALL RIGHT TO TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM (WHETHER BASED ON CONTRACT, TORT, EQUITY OR OTHERWISE) ARISING OUT OF OR RELATING TO OR IN CONNECTION WITH THIS AGREEMENT OR THE ACTIONS OF ANY PARTY HERETO IN THE NEGOTIATION, ADMINISTRATION, PERFORMANCE OR ENFORCEMENT HEREOF OR THEREOF. EACH PARTY HERETO (I) CONSENTS TO TRIAL WITHOUT A JURY OF ANY SUCH PROCEEDINGS, (II) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF THE OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (III) ACKNOWLEDGES THAT IT AND THE OTHER PARTY HAVE BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 9.6.

Section 9.7 Rules of Construction. The parties acknowledge that each party has read and negotiated the language used in this Agreement. The parties agree that, because each party participated in negotiating and drafting this Agreement, no rule of construction shall apply to this Agreement which construes ambiguous language in favor of or against any party by reason of that party's role in drafting this Agreement.

Section 9.8 Headings. The heading references herein and the table of contents hereto are for convenience purposes only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof.

Section 9.9 Severability. If any provision of this Agreement, as applied to either party or to any circumstance, is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect without said provision.

Section 9.10 Notices.Unless otherwise expressly provided herein, all notices, requests, demands, claims and other communications required or permitted to be delivered, given or otherwise provided for hereunder shall be in writing. All such written notices shall be sent in the manner indicated below to the applicable address, facsimile number or electronic mail address, and will be deemed effective as indicated below:

(a) if sent by personal delivery or by courier, upon delivery;

(b) if sent by facsimile transmission, upon the sender's receipt of confirmation of good transmission;

(c) if sent by electronic mail, upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement); or

(d) if sent by certified or registered mail or the equivalent (return receipt requested), upon delivery or attempted delivery;

provided, however, that in any such case, if delivered later than 5:00 p.m. (New York time) on any Business Day, delivery will be deemed to occur on the next Business Day.

If to NewCo at:

Allogene Therapeutics, Inc.
689 5th Avenue, 12th Floor
New York, NY 10022
Attention: Secretary

Email:
Phone:
Fax:

With copies (which shall not constitute notice) to:

Cooley LLP
3175 Hanover Street
Palo Alto, CA 94304
Attention: Barbara Kosacz
Email: bkosacz@cooley.com
Fax: 650-849-7400

If to Pfizer at:

Pfizer Inc.
R&D Business Development
235 East 42nd Street
New York, NY 10017
Attention: R&DBD Contract Notice

With copies (which shall not constitute notice) to:

Pfizer Inc.
Pfizer Legal Division
235 East 42nd Street
New York, NY 10017
Attention: Chief Counsel, R&D
Fax:

Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, MA 02199
Attention: Paul Kinsella
Email: Paul.Kinsella@ropesgray.com
Fax: 617-235-0822

or to such other address, facsimile number or electronic mail address as each party may designate for itself by notice given in accordance with this paragraph.

Section 9.11 Affiliate Status. To the extent that a Party is required hereunder to take certain action with respect to entities designated in this Agreement as such Party's Affiliates, such obligation shall apply to such entities only during such period of time that such entities are Affiliates of such Party. To the extent that this Agreement requires an Affiliate of any Party to take or omit to take any action, such obligation includes the obligation of such Party to cause such Affiliate to take or omit to take such action.

Section 9.12 Force Majeure. Pfizer shall not be liable for any failure to perform or any delay in performing, and Pfizer shall not be deemed to be in breach or default of any of its covenants, agreements or obligations set forth in this Agreement and no Service Noncompliance shall be deemed to occur, if, to the extent and for so long as such failure or delay is due to any force majeure, including but not limited to natural disasters, including earthquakes, hurricanes, tsunamis, floods, fires, storms, typhoons, lightning, hail storms, blizzards, tornadoes, droughts, cyclones, arctic frosts, mudslides, wildfires, manmade disasters, acts of God, pandemics or other weather-related or natural conditions, the commencement, occurrence, continuation or intensification of any war (whether or not declared), sabotage, armed hostilities, civil unrest, military attacks or acts of terrorism (including cyberattack or otherwise) or declaration of national emergency, civil disturbance, strike, lockout, labor shortage, slowdown, riot, energy shortage, Governmental Order or compliance with applicable Law, embargo, acts of any Governmental Authority, systems failure, malfunction or disruption, Internet, electrical, power or other utilities failure, malfunction or disruption, act or omission of any Third Party, or any other event, cause or occurrence beyond the reasonable control of Pfizer which is not due to Pfizer's or its Affiliate's fault or negligence and could not be avoided by reasonable diligence (a "Force Majeure Event"). In the event of any such Force Majeure Event, Pfizer's covenants, agreements and obligations under this Agreement shall be postponed for such time as its performance is suspended or delayed on account thereof. Pfizer will notify NewCo in writing upon learning of the occurrence of any such event. Upon the cessation of such event, Pfizer will use commercially reasonable efforts to resume its performance with the least practicable delay.

Section 9.13 Counterparts. This Agreement may be signed in any number of counterparts, including electronic scan copies thereof delivered by electronic mail, each of which shall be deemed an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

[*Signature page follows*]

IN WITNESS WHEREOF, the Parties have duly executed this Agreement as of the date first written above.

PFIZER, INC.

By: /s/ G. Mikael Dolsten
Name: G. Mikael Dolsten
Title: President, Worldwide Research & Development

ALLOGENE THERAPEUTICS, INC.

By: /s/ David M. Tanen
Name: David M. Tanen
Title: Secretary

Exhibit A

Services Provided by Pfizer

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

Exhibit B

Excluded Services

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

The foregoing Excluded Services shall not alter or diminish any obligation of Pfizer or its Affiliates to provide NewCo with factual information concerning the above matters to which NewCo is expressly entitled under the Transaction Agreements.

Exhibit C

Key Employees

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

Schedule 2.3(c)

Service Extensions Terms

Service extensions pursuant to Section 2.3(c)(i): Each extension beyond the Service Periods listed in Exhibit A that is requested by NewCo pursuant to Section 2.3(c)(i) (and not otherwise addressed by Section 2.3(c)) will be limited to defined periods and may accrue service extension surcharges, each as described in further detail in the table below based on two types of services included within this agreement:

[***]

[***] = CONFIDENTIAL TREATMENT REQUESTED

Exhibit E

SERVICES OF THE PROSPECTIVE EMPLOYEES

1. Each Prospective Employee shall perform Services for NewCo substantially similar to those which such Prospective Employee performed for the Pfizer Parties immediately prior to the Closing, or such other Services as mutually agreed by the Parties in writing. Unless otherwise agreed by the Parties in writing, each Prospective Employee shall provide Services at the location at which he or she performed services for the Pfizer Parties immediately prior to the Closing. Notwithstanding the foregoing, the Services shall immediately terminate with respect to any Prospective Employee whose employment with the Pfizer Parties ceases for any reason and Pfizer will have no obligation to replace any such Prospective Employee (and, for the avoidance of doubt, in no event will the failure to provide such Services be deemed a Service Noncompliance).

2. Pfizer shall inform the Prospective Employees that, during the Interim Period, their job duties shall consist of performing Services for the benefit of Newco and of following the lawful instructions of Newco with respect to the performance of the day-to-day delivery of those Services to the extent consistent with this Agreement. Notwithstanding the foregoing sentence, the relevant Pfizer Party shall be the sole employer of the Prospective Employees during the Interim Period.

3. During the Interim Period, the Pfizer Parties shall be responsible for (a) timely paying each Prospective Employee's compensation, and providing any benefits, statutory or otherwise, earned by such Prospective Employee, in each case in accordance with the applicable Pfizer Benefit Plan and applicable Law and (b) timely paying or deducting from the compensation and/or benefits of such Prospective Employee, as the case may be, and remitting to the appropriate Governmental Authority, such sums as may be required to be paid by an employer or deducted or withheld from such Prospective Employee's compensation and/or benefits under the provisions of any applicable Law, including without limitation social security, unemployment and income taxes.

4. NewCo shall be responsible for reimbursement to Pfizer of Pfizer's actual amounts incurred for the costs set forth in paragraph 3 above for each Prospective Employee. Pfizer shall invoice NewCo twice monthly for such costs promptly following the 1st and 15th calendar days of each Month during the Interim Period. NewCo shall pay Pfizer all undisputed amounts due hereunder within [***] days from the date of Pfizer's invoice. All such invoices shall be delivered to NewCo at [***], or as NewCo shall later designate by written notice to Pfizer. Any correspondence or payments concerning such invoices shall be made to Pfizer at: Pfizer, Inc., [***], Attention: [***], or as Pfizer shall later designate by written notice to NewCo. Any dispute regarding invoiced amounts shall be resolved in accordance with Article VIII of the Agreement; provided that, NewCo shall not have the right to withhold payment of any such amounts pending resolution of such dispute. There shall be no right of set-off or counterclaim with respect to any claim, debt or obligation against payments to Pfizer or any of its Affiliates under this Exhibit E to the Agreement.

[***] = CONFIDENTIAL TREATMENT REQUESTED

5. The Parties agree that the Services described in this Exhibit E (i) do not require the Pfizer Parties to include any NewCo employees or consultants as participants in any Pfizer Benefit Plan, and (ii) do not require the Pfizer Parties to amend any of its employee benefit plans.

6. The Parties further agree that this Exhibit E is intended for the sole benefit of the Parties and shall not create any legal or equitable right, benefit or remedy of any nature whatsoever, including any third-party beneficiary right, (i) in any Prospective Employee or any other Person, including without limitation any right to employment or continued employment or any term or condition of employment with any Pfizer Party, NewCo or any Affiliate of either. Nothing in this Agreement, express or implied, shall (a) be construed as an amendment to or adoption of any Pfizer Benefit Plan or any other employee benefit or compensation plan, program or arrangement of any Pfizer Party, NewCo or any Affiliate of either, or (b) interfere with or limit the ability of any Pfizer Party, NewCo or any Affiliate of either to amend, modify or terminate any Pfizer Benefit Plan or any other employee benefit or compensation plan, program or arrangement or to limit the ability of any Pfizer Party to terminate the employment of any Prospective Employee, subject to the terms of Section 6.6 of the Contribution Agreement.

Exhibit 10.10

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 406 OF THE SECURITIES ACT OF 1933, AS AMENDED.

April 2, 2018
Allogene Therapeutics, Inc.
689 5th Avenue, 12th Floor
New York, NY 10022
Attention: Secretary
Email:
Phone:
Fax:

RE: Option for Rights to Retained Territory

Ladies and Gentlemen:

Reference is made to that certain Asset Contribution Agreement, dated as of the date hereof, entered into by and between Pfizer Inc. ("Pfizer"), on the one hand, and Allogene Therapeutics, Inc. ("NewCo"), on the other hand, relating to the sale by Pfizer and certain of its subsidiaries to NewCo of certain assets related to the Purchased Programs in the Territory (as those terms are defined therein) (the "Agreement"). Terms used but not defined in this letter shall have the meaning set forth in the Agreement.

In partial consideration for those certain milestone and royalty payments that may be made by NewCo to Pfizer pursuant to Article 5 of the Agreement, if the Territory is expanded to include all countries of the world Pfizer hereby offers and grants to NewCo an exclusive option (the "Option") to amend the Agreement and the Patent and Know-How License Agreement as follows:

(i) The definition of "Territory" in the Agreement shall be amended, such that, upon the exercise of the Option, the definition of "Territory" in the Agreement would be revised to read as follows:

""Territory" shall mean worldwide.";

(ii) (A) the definition of Group 1 Pfizer IP Rights (and Schedule 2.1(c)(1) to the Agreement) shall be amended such that, upon the exercise of the Option, it would include the Patents set forth on Exhibit A-1 hereto, (B) the definition of Group 2 Pfizer IP Rights (and Schedule 2.1(c)(2) to the Agreement) shall be amended such that, upon the exercise of the Option, it would include the Patents set forth on Exhibit A-2 hereto; and (C) the definition of Group 3 Pfizer IP Rights (and Schedule 4.2(c) to the Agreement) shall be amended such that, upon the exercise of the Option, the Exclusive Group 3A Patents and the Exclusive Group 3B Patents referred to therein would include the Patents set forth on Exhibit A-3 hereto, in each case ((A), (B) and (C)), with respect to all countries outside of the Territory as currently defined in the Agreement (all such countries outside of the Territory as currently defined in the Agreement referred to herein as the "Retained

Territory" and the Patents set forth on Exhibit A-1 and Exhibit A-2 and Exhibit A-3 hereto are referred to herein collectively as the "Retained Patents"); and

(iii) (A) the Exclusive Group 3A Patents (as such term is defined in the Patent and Know-How License Agreement) (and listed in Schedule 1.7 to the Patent and Know-How License Agreement) shall be amended such that, upon the exercise of the Option, it would include the Patents set forth on Exhibit B-1 hereto; and (B) the Exclusive Group 3B Patents (as such term is defined in the Patent and Know-How License Agreement) (and Schedule 1.8 to the Patent and Know-How License Agreement) shall be amended such that, upon the exercise of the Option, it would include the Patents set forth on Exhibit B-2 hereto.

NewCo may exercise the Option, in whole or in part with respect to one or more countries in the Retained Territory, at any time during the twelve (12) year period following the Closing, so long as the Agreement has not been terminated prior to Closing by a Party pursuant to the terms thereof (such period, the "Option Period"), by executing and delivering to Pfizer an executed Option Exercise Notice, in the form attached hereto as Exhibit C (an "Option Exercise Notice"), at:

Pfizer Inc.
235 East 42nd Street
New York, NY 10017
Attention: Executive Vice President and General Counsel
Email:

With copies (which shall not constitute notice) to:

Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, MA 02199
Attention: Paul Kinsella
Email: Paul.Kinsella@ropesgray.com
Fax: 617-235-0822

Notwithstanding the foregoing, as applicable:

NewCo's exercise of the Option and the corresponding amendment to the Agreement and to the Patent and Know-How License Agreement provided herein shall become effective only upon the later of (i) the date that NewCo countersigns this letter (the "Option Letter") and delivers a copy to Pfizer (by physical or electronic delivery pursuant to the notice provision of Section 15.10 of the Agreement), (ii) the Closing, (iii) the date that NewCo delivers to Pfizer an Option Exercise Notice, and (iv) should NewCo's exercise of the Option hereunder require clearance by any Governmental Authority (as such term is defined in the Agreement), the date that such Governmental Authority provides clearance for inclusion of any applicable jurisdiction of the Retained

Territory in the transaction contemplated by the Agreement (the "Amendment Effective Date").

Additionally, should such clearance by a Governmental Authority be required:

Pfizer and NewCo agree that they shall, and shall cause their respective Affiliates to, maintain the competitive conditions existing as of the date of NewCo's exercise of the Option between them in the Retained Territory pending such clearance. The foregoing obligation shall include, with respect to any activities in the commercial markets in which Pfizer and NewCo (or their respective Affiliates) would be operating in the Retained Territory following NewCo's exercise of the Option under the transaction contemplated by the Agreement, that Pfizer and NewCo (and their respective Affiliates) shall not (a) transfer any Retained Patents or any related assets in the Retained Territory or in connection with the Retained Territory market, (b) exercise any influence on each other with respect to the Retained Territory and the Retained Territory market, and (c) exchange any commercially sensitive information with respect to the Retained Territory and the Retained Territory market, in each case during the period pending such clearance.

For so long as the Option remains in effect, except as consented to by NewCo in writing, Pfizer will not (and to cause each Pfizer Party not to) pledge, transfer, license (exclusive or non-exclusive), assign, impair, dispose of or otherwise make subject to a Lien (other than any Permitted Liens) any of the Retained Patents. During the Option Period, Pfizer shall be responsible for continuing the Prosecution (as such term is defined in the Patent and Know-How License Agreement) of all Patents set forth in Exhibits A-1, A-2, and A-3 hereto (the "Option Patents"), provided that NewCo shall reimburse Pfizer for its reasonable out of pocket expenses, including outside counsel and patent office fees, incurred in connection therewith no later than thirty (30) days of receipt of an invoice from Pfizer with respect thereto (the "Reimbursement Date"). Notwithstanding the foregoing, if NewCo fails to reimburse all or any portion of such expenses prior to any Reimbursement Date, Pfizer shall no longer be responsible for the Prosecution of the Option Patents and may cease such Prosecution in its sole discretion. For the avoidance of doubt, Pfizer may use outside counsel at its sole discretion for such Prosecution. Pfizer will keep NewCo advised on the status of the preparation, filing, and Prosecution of all such Patents and will consult and reasonably cooperate with NewCo with respect to the Prosecution thereof, including by (i) allowing NewCo a reasonable opportunity and reasonable time to review and comment regarding relevant communications to Pfizer and drafts of any material responses or other proposed filings by Pfizer before any applicable filings are submitted to any relevant patent office or Governmental Authority in the Retained Territory, and (ii) reflecting any reasonable comments offered by NewCo in any final filings submitted by Pfizer to any relevant patent office or Governmental Authority.

This Option Letter is governed by the internal laws of the State of Delaware, without regard to its conflict of laws principles.

[Remainder of page intentionally left blank]

This option Letter may be signed in any number of counterparts, including electronic scan copies thereof delivered by electronic mail, each of which shall be deemed and original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

Sincerely,

PFIZER INC.

By: /s/ G. Mikael Dolsten
Name: G. Mikael Dolsten
Title: President, Worldwide Research & Development

AGREED AND ACCEPTED:

ALLOGENE THERAPEUTICS, INC.

By: _____
Name: _____
Title: _____

This option Letter may be signed in any number of counterparts, including electronic scan copies thereof delivered by electronic mail, each of which shall be deemed and original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

Sincerely,

PFIZER INC.

By: _____
Name: _____
Title: _____

AGREED AND ACCEPTED:

ALLOGENE THERAPEUTICS, INC.

By: /s/ Joshua A Kazam
Name: Joshua A Kazam
Title: President

Exhibit A-1

[***]

Exhibit A-2

[***]

Exhibit A-3

[***]

[***] = CERTAIN CONFIDENTIAL INFORMATION OMITTED

Exhibit B-1

[***]

Exhibit B-2

[***]

[***] = CERTAIN CONFIDENTIAL INFORMATION OMITTED

Exhibit C
Form of Exercise Notice

Pfizer Inc.
235 East 42nd Street
New York, NY 10017
Attn: Executive Vice President and General Counsel

Reference is made to that certain Option Letter, dated as of April 2, 2018, entered into by and between Pfizer Inc. ("Pfizer"), on the one hand, and Allogene Therapeutics, Inc. ("NewCo"), on the other hand (the "Option Letter"). Terms used but not defined in this letter shall have the meaning set forth in the Option Letter.

Pursuant to the Option Letter, NewCo hereby exercises the Option with respect to the following regions, countries and/or continents within the Retained Territory:

_____
_____

Sincerely,

Allogene Therapeutics, Inc.

By: _____
Name: _____
Title: _____

BRITANNIA POINTE GRAND BUSINESS PARK

LEASE

This Lease (the "**Lease**"), dated as of the Execution Date set forth in Section 1 of the Summary of Basic Lease Information (the "**Summary**"), below, is made by and between **BRITANNIA POINTE GRAND LIMITED PARTNERSHIP**, a Delaware limited partnership ("**Landlord**"), and **ALLOGENE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**"). Landlord and Tenant may each be referred to in this Lease individually as a "**Party**" and collectively as the "**Parties**."

SUMMARY OF BASIC LEASE INFORMATION

TERMS OF LEASE		DESCRIPTION
1.	Execution Date:	August 1, 2018
2.	Premises (Article 1).	
2.1	Building:	That certain building containing approximately 68,072 rentable square feet of space ("**RSF**") located at: 210 East Grand Avenue South San Francisco, California 94080
2.2	Premises:	Approximately 68,072 rentable square feet of space consisting of the entire Building, as further set forth in **Exhibit A** to the Lease.
3.	Lease Term (Article 2).	
3.1	Length of Term:	Approximately ten (10) years, commencing on the Rent Commencement Date.
3.2	Rent Commencement Date:	The earlier to occur of (i) the date upon which Tenant first commences to conduct business in the Premises (other than the "Early Occupancy Premises," as that term is defined in Section 1.3 below), and (ii) March 1, 2019.
3.3	Lease Expiration Date:	The day prior to the tenth (10th) anniversary of the Rent Commencement Date.

4. Base Rent (Article 3):

Lease Year	Annualized Base Rent	Monthly Installment of Base Rent	Approximate Monthly Base Rent per Rentable Square Foot
1 (months 1 through 6)	$2,062,581.60	$171,881.80	$ 5.05
1 (months 7 through 12)	$4,125,163.20	$343,763.60	$ 5.05
2	$4,269,543.91	$355,795.33	$ 5.23
3	$4,418,977.95	$368,248.16	$ 5.41
4	$4,573,642.18	$381,136.85	$ 5.60
5	$4,733,719.65	$394,476.64	$ 5.79
6	$4,899,399.84	$408,283.32	$ 6.00
7	$5,070,878.84	$422,573.24	$ 6.21
8	$5,248,359.59	$437,363.30	$ 6.43
9	$5,432,052.18	$452,671.02	$ 6.65
10	$5,622,174.01	$468,514.50	$ 6.88

* Note that for the first six (6) months of the Lease Term, Tenant's Base Rent obligation has been calculated as if the Premises contained only 34,036 rentable square feet. Such calculation shall not affect Tenant's right to use the entire Premises, or Tenant's obligations under this Lease with respect to the entire Premises, including without limitation, Tenant's obligation to pay Tenant's Share of Direct Expenses with respect to the Premises which shall be as provided in Section 6 of this Summary, all in accordance with the terms and conditions of this Lease.

5. Tenant Improvement Allowance (**Exhibit B**): An amount equal to $75.00 per rentable square foot of the Premises (*i.e.*, $5,105,400.00).

6. Tenant's Share (Article 4): One hundred percent (100%).

7.	Permitted Use (Article 5):	The Premises shall be used only for general office, biotechnology and pharmaceutical research and development, engineering, manufacturing of company products, lab scale manufacturing and laboratory and vivarium uses, including administrative offices and other lawful uses reasonably related to or incidental to such specified uses, all (i) consistent with first class life sciences and pharmaceutical projects in South San Francisco, California ("**First Class Life Sciences Projects**"), and (ii) in compliance with, and subject to, applicable laws and the terms of this Lease.
8.	Letter of Credit (Article 21):	$937,029.00.
9.	Parking (Article 28):	2.6 unreserved parking spaces for every 1,000 rentable square feet of the Premises, subject to the terms of Article 28 of the Lease.
10.	Address of Tenant (Section 29.18):	Allogene Therapeutics, Inc. Attn: General Counsel 270 Littlefield Avenue South San Francisco, CA 94080 notices@allogene.com and Advisors LLP 11911 San Vicente Boulevard Suite 265 Los Angeles, California 90049 Attention: Jordan Fishman
11.	Address of Landlord (Section 29.18):	See Section 29.18 of the Lease.
12.	Brokers (Section 29.24):	Kidder Mathews and CBRE, Inc.

1. PREMISES, BUILDING, PROJECT, AND COMMON AREAS

1.1 **Premises, Building, Project and Common Areas**.

1.1.1 **The Premises**. Landlord hereby leases to Tenant and Tenant hereby leases from Landlord the premises set forth in Section 2.2 of the Summary (the "**Premises**"). The outline of the Premises is set forth in **Exhibit A** attached hereto. The outline of the "Building" and the "Project," as those terms are defined in Section 1.1.2, are further depicted on the Site Plan attached hereto as **Exhibit A**. The Parties agree that the lease of the Premises is upon and subject to the terms, covenants and conditions herein set forth, and Tenant covenants as a material part of the consideration for this Lease to keep and perform each and all of such terms, covenants and conditions by it to be kept and performed. The Parties hereby acknowledge that the purpose of **Exhibit A** is to show the approximate location of the Premises only, and such Exhibit is not meant to constitute an agreement, representation or warranty as to the construction of the Premises, the precise area thereof or the specific location of the "Common Areas," as that term is defined in Section 1.1.3, below, or the elements thereof or of the accessways to the Premises or the "Project," as that term is defined in Section 1.1.2, below, and that the square footage of the Premises shall be as set forth in Section 2.1 of the Summary of Basic Lease Information. Except as specifically set forth in this Lease and in the Tenant Work Letter attached hereto as **Exhibit B** (the "**Tenant Work Letter**"), Landlord shall not be obligated to provide or pay for any improvement work or services related to the improvement of the Premises. Tenant also acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty regarding the condition of the Premises, the Building or the Project or with respect to the suitability of any of the foregoing for the conduct of Tenant's business, except as specifically set forth in this Lease and the Tenant Work Letter. Landlord shall deliver the Premises to Tenant fully decommissioned, in good, vacant, broom clean condition, and otherwise in substantially the same condition as of the date of this Lease, in compliance with all laws, with the roof water-tight and with the plumbing, electrical systems, fire sprinkler system, elevator system, lighting, air conditioning, heating, and all other building systems serving the Premises in good operating condition and repair, and with all required occupancy permits (or equivalent final permit signoffs) relating to the Base Building (and not any specific Tenant Improvements) on or before the Rent Commencement Date. Notwithstanding anything in this Lease to the contrary, in connection with the foregoing Landlord shall, at Landlord's sole cost and expense (which shall not be deemed an "Operating Expense," as that term is defined in Section 4.2.4), repair or replace any failed or inoperable portion of the Building systems serving the Premises during the first two (2) years of the initial Lease term ("**Warranty Period**"), provided that the need to repair or replace was not caused by the misuse, misconduct, damage, destruction, omissions, and/or negligence of Tenant, its subtenants and/or assignees, if any, or any company which is acquired, sold or merged with Tenant (collectively, "**Tenant Damage**"), or by any modifications, Alterations or improvements constructed by or on behalf of Tenant. Landlord shall coordinate such work with Tenant and shall utilize commercially reasonable efforts to perform the same in a manner designed to minimize interference with Tenant's use of the Premises. To the extent repairs which Landlord is required to make pursuant to this Section 1.1.1 are necessitated in part by Tenant Damage, then Tenant shall reimburse Landlord for an equitable proportion of the cost of such repair. Landlord will be responsible for causing the exterior of the Building, the existing Building entrances, and all exterior Common Areas (including required striping and handicapped spaces in the parking areas) to be in compliance with Applicable Laws, to the extent required to allow the legal occupancy of the Premises or completion of the Tenant Improvements.

1.1.2 **The Building and The Project**. The Premises constitutes the entire building set forth in Section 2.1 of the Summary (the "**Building**"). The Building is part of an office/laboratory project currently known as "Britannia Pointe Grand Business Park." The term "**Project**," as used in this Lease, shall mean (i) the Building and the Common Areas, (ii) the land (which is improved with landscaping, parking facilities and other improvements) upon which the Building and the Common Areas are located, (iii) the other office/laboratory buildings located at Britannia Pointe Grand Business Park, and the land upon which such adjacent office/laboratory buildings are located, and (iv) at Landlord's discretion, any additional real property, areas, land, buildings or other improvements added thereto outside of the Project (provided that any such additions do not increase Tenant's obligations under this Lease).

1.1.3 **Common Areas**. Tenant shall have the non-exclusive right to use in common with other tenants in the Project, and subject to the rules and regulations referred to in Article 5, those portions of the Project which are provided, from time to time, for use in common by Landlord, Tenant and any other tenants of the Project (such areas, together with such other portions of the Project designated by Landlord, in its discretion, are collectively

referred to herein as the "**Common Areas**"). Landlord shall maintain and operate the Common Areas, including all sprinkler and other systems serving the Common Areas, in a first class manner, and the use thereof shall be subject to such rules, regulations and restrictions as Landlord may reasonably make from time to time. Landlord reserves the right to close temporarily, make alterations or additions to, or change the location of elements of the Project and the Common Areas, provided that such closures, alterations, additions or changes shall not unreasonably interfere with Tenant's use of such Common Areas and provided, further, that in connection therewith Landlord shall use commercially reasonable efforts to minimize any interference with Tenant's use of and access to the Premises and parking areas.

1.2 **Rentable Square Feet of Premises**. The rentable square footage of the Premises is hereby deemed to be as set forth in Section 2.2 of the Summary, and shall not be subject to measurement or adjustment during the Lease Term.

1.3 **Beneficial Occupancy of Portion of Premises**. Tenant shall have the right to occupy those certain portions of the Premises containing (i) 17,583 rentable square feet of space on the third (3rd) floor of the Building, the exact location of which shall be reasonably and mutually agreed upon by Landlord and Tenant, and (ii) 4,917 rentable square feet of space on the first (1st) floor of the Building, the exact location of which shall be reasonably and mutually agreed upon by Landlord and Tenant (the "**Early Occupancy Premises**") prior to the Rent Commencement Date, provided that (A) Tenant shall give Landlord at least five (5) business days' prior notice of any such occupancy of the Early Occupancy Premises, (B) a temporary certificate of occupancy shall have been issued by the appropriate governmental authorities for the Early Occupancy Premises, and (C) all of the terms and conditions of the Lease shall apply, other than Tenant's obligation to pay "Base Rent," as that term is defined in Article 3 below, (though Tenant shall be required to pay "Tenant's Share" of the annual "Direct Expenses," as those terms are defined in Article 4, below and utilities costs for the Early Occupancy Premises during the occupancy thereof), as though the Rent Commencement Date had occurred (although the Rent Commencement Date shall not actually occur until the occurrence of the same pursuant to the terms of the second sentence of this Article 2) upon such occupancy of the Early Occupancy Premises by Tenant. If Tenant moves personnel from the Early Occupancy Premises to another portion of the Premises prior to the Rent Commencement Date in order to facilitate construction in the Early Occupancy Premises, the occupancy of such other portion of the Premises prior to the Rent Commencement Date shall not trigger the Rent Commencement Date pursuant to the terms of Section 3.2 of the Summary, provided that in connection with the foregoing Tenant shall not occupy more than 22,500 rentable square feet of space for the Permitted Use prior to the Rent Commencement Date and Tenant shall give Landlord at least five (5) business days' prior written notice of any such change in the constitution of the Early Occupancy Premises. Landlord and Tenant shall cooperate in the event Landlord needs to relocate the Early Occupancy Premises to other space in the Building in connection with the Landlord's Work, and any such relocations shall not decrease the size of the Early Occupancy Premises and the new location within the Building shall be reasonably and mutually agreed upon by Landlord and Tenant.

1.4 **Right of First Offer**. Subject to the terms and conditions of this Section 1.4, Landlord hereby grants to the named Tenant in this Lease (the "**Original Tenant**") and its "Permitted Assignees", as that term is defined in Section 14.8, below, an ongoing right of first offer with respect to all of the rentable space in the building located at 220 East Grand Avenue, South San Francisco, California 94080 (the "**First Offer Space**"). Notwithstanding the foregoing, such first offer right of Tenant shall commence only following the expiration or earlier termination of the existing leases of the First Offer Space (including renewals of any such lease, irrespective of whether any such renewal is currently set forth in such lease or is subsequently granted or agreed upon, and regardless of whether such renewal is consummated pursuant to a lease amendment or a new lease). Such right of first offer shall be subordinate to all rights of other tenants of the Project, which rights relate to the First Offer Space and are set forth in leases of space in the Project existing as of the date hereof, including, without limitation, any expansion, first offer, first refusal, first negotiation and other rights, regardless of whether such rights are executed strictly in accordance with their respective terms or pursuant to a lease amendment or a new lease (the "**Superior Rights**"). Notwithstanding any contrary provision in the lease of any Superior Right Holder, such rights of any Superior Right Holder shall continue to be Superior Rights in the event that such Superior Right Holder's lease is renewed or otherwise modified (and irrespective of whether any such renewal is currently set forth in such lease or is subsequently granted or agreed upon, and regardless of whether such renewal is consummated pursuant to a lease amendment or a new lease). All such tenants of the First Offer Space, all such third party tenants in the Project holding Superior Rights, and all tenants under "Intervening Leases," as that term is defined in Section 1.4.5, below, are collectively referred to as the "**Superior Right Holders**". Tenant's right of first offer shall be on the terms and conditions set forth in this Section 1.4.

1.4.1 **Procedure for Offer**. Subject to the terms of this Section 1.4, Landlord shall notify Tenant (the "**First Offer Notice**") from time to time when the First Offer Space or any portion thereof will become available for lease to third parties, subject to the rights of any Superior Right Holder. Pursuant to such First Offer Notice, Landlord shall offer to lease to Tenant the then available First Offer Space, and such First Offer Notice shall include the base rent, allowance amounts if any, length of term, and other economic terms on which Landlord would be willing to lease the First Offer Space to Tenant (the "**Fundamental Terms**"). The First Offer Notice shall describe the space so offered to Tenant and the base rent, and other fundamental material economic terms upon which Landlord is willing to lease such space to Tenant.

1.4.2 **Procedure for Acceptance**. If Tenant wishes to exercise Tenant's right of first offer with respect to the space described in the First Offer Notice, then within ten (10) days of delivery of the First Offer Notice to Tenant, Tenant shall deliver notice to Landlord (the "**First Offer Exercise Notice**") of Tenant's election to exercise its right of first offer with respect to the entire space described in the First Offer Notice on the terms contained in such notice. If Tenant does not so notify Landlord within such ten (10) day period, then Landlord shall be free to lease the space described in the First Offer Notice to anyone to whom Landlord desires on any terms Landlord desires; provided, that (i) prior to entering a lease with a third party tenant on economic terms which, on a net effective, present value basis, are more than 7% more favorable to the tenant than the terms contained in the First Offer Notice, Landlord shall first deliver a revised First Offer Notice to Tenant on such more favorable terms in accordance with the procedure set forth above; and (ii) if Landlord shall fail to lease the First Offer Space which is offered to Tenant for a period of six (6) months (which shall be extended by up to three (3) additional months during any period that Landlord is in active negotiations to lease such space), then Landlord shall again be obligated to deliver to Tenant a First Offer Notice in accordance with the terms of this Section 1.4 (any lease of such space to a third party executed within such time period shall be an Intervening Lease). Notwithstanding anything to the contrary contained herein, Tenant must elect to exercise its right of first offer, if at all, with respect to all of the space offered by Landlord to Tenant at any particular time, and Tenant may not elect to lease only a portion thereof.

1.4.3 **Construction In First Offer Space**. Unless the Fundamental Terms provided to Tenant for the First Offer Space otherwise specify, Tenant shall take the First Offer Space in its "as is" condition, and the construction of improvements in the First Offer Space shall comply with the terms of Article 8 of this Lease. For the avoidance of doubt, if the Fundamental Terms include a tenant improvement allowance or a turn-key build out, Tenant shall receive the same allowance or turn-key build out, as applicable.

1.4.4 **Amendment to Lease**. If Tenant timely exercises Tenant's right to lease the First Offer Space as set forth herein, then Landlord and Tenant shall within thirty (30) days thereafter execute an amendment to the Lease for such First Offer Space upon the terms and conditions as set forth in the First Offer Notice and this Section 1.4. The rentable square footage of any First Offer Space leased by Tenant shall be determined by Landlord in accordance with Landlord's then current standard of measurement for the Building. Tenant shall commence payment of rent for the First Offer Space, and the term of Tenant's lease of the First Offer Space shall commence, upon the date set forth in the First Offer Notice (taking into consideration any applicable construction period) (the "**First Offer Commencement Date**") and shall terminate on the date set forth in the First Offer Notice.

1.4.5 **Termination of Right of First Offer**. Tenant's rights under this Section 1.4 shall be personal to the Original Tenant or a Permitted Assignee and may only be exercised by the Original Tenant (and not any other assignee, sublessee or other transferee of the Original Tenant's interest in the Lease) if the Original Tenant or a Permitted Assignee occupies not less than sixty-six percent (66%) of the Premises. The right of first offer granted herein shall not terminate as to particular First Offer Space upon the failure by Tenant to exercise its right of first offer with respect to such First Offer Space as offered by Landlord and Landlord shall re-offer such space to Tenant upon the expiration or earlier termination of any lease (an "Intervening Lease") entered into by Landlord following Tenant's failure to timely exercise its right to lease the First Offer Space, subject, however, to Landlord's right to renew any such Intervening Lease, irrespective of whether any such renewal is initially set forth in such lease or is subsequently granted or agreed upon, and regardless of whether any such renewal is exercised strictly in accordance with its terms or pursuant to a lease amendment or a new lease. In addition, any expansion or similar rights granted under an

Intervening Lease shall be deemed to be "Superior Rights", and the tenant under any Intervening Lease shall be a "Superior Right Holder". Tenant shall not have the right to lease First Offer Space, as provided in this Section 1.4, if, as of the date of the attempted exercise of any right of first offer by Tenant, or, at Landlord's option, as of the scheduled date of delivery of such First Offer Space to Tenant, Tenant is in default under the Lease**,** or Tenant has previously been in default under the Lease more than twice during the Lease Term (beyond the expiration of any applicable notice and cure period set forth in the Lease).

2. LEASE TERM; OPTION TERM

2.1 **Lease Term**. The terms and provisions of this Lease shall be effective as of the Execution Date. The term of this Lease (the "**Lease Term**") shall be as set forth in Section 3.1 of the Summary, shall commence on the date set forth in Section 3.2 of the Summary (the "**Rent Commencement Date**"), and shall terminate on the date set forth in Section 3.3 of the Summary (the "**Lease Expiration Date**") unless this Lease is sooner terminated as hereinafter provided. For purposes of this Lease, the term "**Lease Year**" shall mean each consecutive twelve (12) month period during the Lease Term. At any time during the Lease Term, Landlord may deliver to Tenant a notice in the form as set forth in **Exhibit C**, attached hereto, as a confirmation only of the information set forth therein, which Tenant shall execute and return to Landlord within ten (10) business days of receipt thereof.

2.2 **Option Term**.

2.2.1 **Option Right**. Landlord hereby grants to the Original Tenant and its "Permitted Assignees", as that term is defined in Section 14.8, below, or any other assignee approved by Landlord pursuant to the terms of Section 14 below (any such Permitted Assignee or assignee approved by Landlord is referred to as an "**Approved Assignee**"), one (1) option to extend the Lease Term for a period of seven (7) years (the "**Option Term**"), which option shall be irrevocably exercised only by written notice delivered by Tenant to Landlord not more than twelve (12) months nor less than nine (9) months prior to the expiration of the initial Lease Term, provided that the following conditions **(**the "**Option Conditions**") are satisfied: (i) as of the date of delivery of such notice, Tenant is not in default under this Lease, after the expiration of any applicable notice and cure period; (ii) Tenant has not previously been in default under this Lease, after the expiration of any applicable notice and cure period, more than twice in the twelve (12) month period prior to the date of Tenant's attempted exercise; and (iii) the Lease then remains in full force and effect. Landlord may, at Landlord's option, exercised in Landlord's sole and absolute discretion, waive any of the Option Conditions in which case the option, if otherwise properly exercised by Tenant, shall remain in full force and effect. Upon the proper exercise of such option to extend, and provided that Tenant satisfies all of the Option Conditions (except those, if any, which are waived by Landlord), the Lease Term, as it applies to the Premises, shall be extended for a period of seven (7) years. The rights contained in this Section 2.2 shall be personal to Original Tenant and any Approved Assignees, and may be exercised by Original Tenant or such Approved Assignees (and not by any other assignee, sublessee or other "Transferee," as that term is defined in Section 14.1 of this Lease, of Tenant's interest in this Lease).

2.2.2 **Option Rent**. The annual Rent payable by Tenant during the Option Term (the "**Option Rent**") shall be equal to the "Fair Rental Value," as that term is defined below, for the Premises as of the commencement date of the Option Term. The "**Fair Rental Value**," as used in this Lease, shall be equal to the annual rent per rentable square foot (including additional rent and considering any "base year" or "expense stop" applicable thereto), including all escalations, at which tenants (pursuant to leases consummated within the twelve (12) month period preceding the first day of the Option Term), are leasing non-sublease, non-encumbered, non-equity space that is not significantly greater or smaller in size than the subject space, with a comparable level of improvements (excluding any property that Tenant would be allowed to remove from the Premises at the termination of this Lease), for a comparable lease term, in an arm's length transaction, which comparable space is located in the "Comparable Buildings," as that term is defined in this Section 2.2.2 (transactions satisfying the foregoing criteria shall be known as the "**Comparable Transactions**"), taking into consideration the following concessions (the "**Concessions**"): (a) rental abatement concessions, if any, being granted such tenants in connection with such comparable space; (b) tenant improvements or allowances provided or to be provided for such comparable space, and taking into account the value, if any, of the existing improvements in the subject space, such value to be based upon the age, condition, design, quality of finishes and layout of the improvements and the extent to which the same can be utilized by a general office/lab user other than Tenant; and (c) other reasonable monetary concessions being granted such tenants in

connection with such comparable space. The Concessions shall be reflected in the effective rental rate (which effective rental rate shall take into consideration the total dollar value of such Concessions as amortized on a straight-line basis over the applicable term of the Comparable Transaction (in which case such Concessions evidenced in the effective rental rate shall not be granted to Tenant)) payable by Tenant. The term "**Comparable Buildings**" shall mean the Building and those other life sciences buildings that are comparable to the Building in terms of age (based upon the date of completion of construction or major renovation of to the building), quality of construction, level of services and amenities, size and appearance, and are located in South San Francisco, California and the surrounding commercial area.

2.2.3 **Determination of Option Rent**. In the event Tenant timely and appropriately exercises an option to extend the Lease Term, Landlord shall notify Tenant of Landlord's determination of the Option Rent within thirty (30) days following Landlord's receipt of Tenant's exercise notice. If Tenant, on or before the date which is ten (10) business days following Landlord's receipt of Tenant's exercise notice, fails to accept or object to Landlord's determination of the Option Rent, Tenant's right to extend this Lease pursuant to this Section 2.2 shall be of no further force or effect. If Tenant, on or before the date that is ten (10) business days following the date upon which Tenant receives Landlord's determination of the Option Rent, objects to Landlord's determination of the Option Rent, then Landlord and Tenant shall attempt to agree upon the Option Rent using their best good-faith efforts. If Landlord and Tenant fail to reach agreement within ten (10) business days following Tenant's objection to the Option Rent (the "**Outside Agreement Date**"), then Tenant shall have the right to withdraw its exercise of the option by delivering written notice thereof to Landlord within five (5) business days thereafter, in which event Tenant's right to extend this Lease pursuant to this Section 2.2 shall be of no further force or effect. If Tenant does not withdraw its exercise of the extension option, each Party shall make a separate determination of the Option Rent, as the case may be, within ten (10) business days after the Outside Agreement Date, and such determinations shall be submitted to arbitration in accordance with Sections 2.2.3.1 through 2.2.3.7.

2.2.3.1 Landlord and Tenant shall each appoint one arbitrator who shall be a real estate appraiser who shall have been active over the five (5) year period ending on the date of such appointment in the appraisal of other class A life sciences buildings located in the South San Francisco market area. The determination of the arbitrators shall be limited solely to the issue of whether Landlord's or Tenant's submitted Option Rent is the closest to the actual Option Rent, taking into account the requirements of Section 2.2.2, as determined by the arbitrators. Each such arbitrator shall be appointed within fifteen (15) days after the Outside Agreement Date. Landlord and Tenant may consult with their selected arbitrators prior to appointment and may select an arbitrator who is favorable to their respective positions. The arbitrators so selected by Landlord and Tenant shall be deemed "**Advocate Arbitrators**."

2.2.3.2 The two (2) Advocate Arbitrators so appointed shall be specifically required pursuant to an engagement letter within ten (10) days of the date of the appointment of the last appointed Advocate Arbitrator to agree upon and appoint a third arbitrator ("**Neutral Arbitrator**") who shall be qualified under the same criteria set forth hereinabove for qualification of the two Advocate Arbitrators, except that neither the Landlord or Tenant or either Parties' Advocate Arbitrator may, directly or indirectly, consult with the Neutral Arbitrator prior or subsequent to his or her appearance. The Neutral Arbitrator shall be retained via an engagement letter jointly prepared by Landlord's counsel and Tenant's counsel.

2.2.3.3 The three arbitrators shall, within thirty (30) days of the appointment of the Neutral Arbitrator, reach a decision as to whether the Parties shall use Landlord's or Tenant's submitted Option Rent, and shall notify Landlord and Tenant thereof.

2.2.3.4 The decision of the majority of the three arbitrators shall be binding upon Landlord and Tenant.

2.2.3.5 If either Landlord or Tenant fails to appoint an Advocate Arbitrator within fifteen (15) days after the Outside Agreement Date, then either Party may petition the presiding judge of the Superior Court of San Mateo County to appoint such Advocate Arbitrator subject to the criteria in Section 2.2.3.1, or if he or she refuses to act, either Party may petition any judge having jurisdiction over the Parties to appoint such Advocate Arbitrator.

2.2.3.6 If the two (2) Advocate Arbitrators fail to agree upon and appoint the Neutral Arbitrator, then either Party may petition the presiding judge of the Superior Court of San Mateo County to appoint the Neutral Arbitrator, subject to criteria in Section 2.2.3.1, or if he or she refuses to act, either Party may petition any judge having jurisdiction over the Parties to appoint such arbitrator.

2.2.3.7 The cost of the arbitration shall be paid by Landlord and Tenant equally.

2.2.3.8 In the event that the Option Rent shall not have been determined pursuant to the terms hereof prior to the commencement of the Option Term, Tenant shall be required to pay the Option Rent initially provided by Landlord to Tenant, and upon the final determination of the Option Rent, the payments made by Tenant shall be reconciled with the actual amounts of Option Rent due, and the appropriate Party shall make any corresponding payment to the other Party within thirty (30) days thereafter.

3. BASE RENT Tenant shall pay, without prior notice or demand, to Landlord at the at such place as Landlord may from time to time designate in writing, by a check for currency that, at the time of payment, is legal tender for private or public debts in the United States of America, base rent ("Base Rent") as set forth in Section 4 of the Summary, payable in equal monthly installments as set forth in Section 4 of the Summary in advance on or before the first day of each and every calendar month during the Lease Term, commencing on the Rent Commencement Date, without any setoff or deduction whatsoever. The Base Rent for the first full month of the Lease Term shall be paid promptly after Parties' full execution and delivery of this Lease. If any Rent payment date (including the Rent Commencement Date) falls on a day of the month other than the first day of such month or if any payment of Rent is for a period that is shorter than one month, the Rent for any fractional month shall accrue on a daily basis for the period from the date such payment is due to the end of such calendar month or to the end of the Lease Term at a rate per day that is equal to 1/365 of the applicable annual Rent. All other payments or adjustments required to be made under the terms of this Lease that require proration on a time basis shall be prorated on the same basis.

4. ADDITIONAL RENT

4.1 **General Terms**.

4.1.1 **Direct Expenses; Additional Rent**. In addition to paying the Base Rent specified in Article 3 of this Lease, Tenant shall pay "**Tenant's Share**" of the annual "**Direct Expenses**," as those terms are defined in Sections 4.2.6 and 4.2.2, respectively, allocable to the Building as described in Section 4.3. Such payments by Tenant, together with any and all other amounts payable by Tenant to Landlord pursuant to the terms of this Lease, are hereinafter collectively referred to as the "**Additional Rent**", and the Base Rent and the Additional Rent are herein collectively referred to as "**Rent**." All amounts due under this Article 4 as Additional Rent shall be payable for the same periods and in the same manner as the Base Rent. Without limitation on other obligations of Tenant which survive the expiration of the Lease Term, the obligations of Tenant to pay the Additional Rent provided for in this Article 4 shall survive the expiration of the Lease Term.

4.1.2 **Triple Net Lease**. Landlord and Tenant acknowledge that, to the extent provided in this Lease, it is their intent and agreement that this Lease be a "**TRIPLE NET**" lease and that as such, the provisions contained in this Lease are intended to pass on to Tenant or reimburse Landlord for the costs and expenses reasonably associated with this Lease, the Building and the Project, and Tenant's operation therefrom to the extent provided in this Lease. To the extent such costs and expenses payable by Tenant cannot be charged directly to, and paid by, Tenant, such costs and expenses shall be paid by Landlord but reimbursed by Tenant as Additional Rent.

4.2 **Definitions of Key Terms Relating to Additional Rent**. As used in this Article 4, the following terms shall have the meanings hereinafter set forth:

4.2.1 Intentionally Deleted.

4.2.2 "**Direct Expenses**" shall mean "**Operating Expenses**" and "**Tax Expenses**."

4.2.3 "**Expense Year**" shall mean each calendar year in which any portion of the Lease Term falls, through and including the calendar year in which the Lease Term expires, provided that Landlord, upon notice to Tenant, may change the Expense Year from time to time to any other twelve (12) consecutive month period, and, in the event of any such change, Tenant's Share of Direct Expenses shall be equitably adjusted for any Expense Year involved in any such change.

4.2.4 "**Operating Expenses**" shall mean all expenses, costs and amounts of every kind and nature which Landlord pays or accrues during any Expense Year with respect to the ownership, management, maintenance, security, repair, replacement, restoration or operation of the Project, or any portion thereof. Without limiting the generality of the foregoing, Operating Expenses shall specifically include any and all of the following: (i) the cost of supplying utilities (to the extent not separately metered), the cost of operating, repairing and maintaining the utility, mechanical, sanitary, storm drainage, and elevator systems, and the cost of maintenance and service contracts in connection therewith; (ii) the cost of licenses, certificates, permits and inspections and the reasonable cost of contesting any governmental enactments that are reasonably likely to increase Operating Expenses during the Lease Term, and the costs incurred in connection with a governmentally mandated transportation system management program or similar program; (iii) the cost of all insurance carried by Landlord in connection with the Project and Premises as reasonably determined by Landlord; (iv) the cost of landscaping, relamping, and all supplies, tools, equipment and materials used in the operation, repair and maintenance of the Project, or any portion thereof; (v) the cost of parking area operation, repair, restoration, and maintenance; (vi) management and/or incentive fees, consulting fees, legal fees and accounting fees, of all contractors and consultants in connection with the management, operation, maintenance and repair of the Project; (vii) payments under any equipment rental agreements; (viii) subject to item (f), below, wages, salaries and other compensation and benefits, including taxes levied thereon, of all persons engaged in the operation, maintenance and security of the Project; (ix) costs under any easement pertaining to the sharing of costs by the Project; (x) subject to clause (xiii) below, operation, repair, maintenance and replacement of all systems and equipment and components thereof of the Project; (xi) the cost of janitorial, alarm, security and other services, replacement of wall and floor coverings, ceiling tiles and fixtures in Common Areas, maintenance and replacement of curbs and walkways, repair to roofs and re-roofing; (xii) amortization (including interest on the unamortized cost) over such period of time as Landlord shall reasonably determine, of the cost of acquiring or the rental expense of personal property used in the maintenance, operation and repair of the Project, or any portion thereof; (xiii) the cost of capital improvements or other capital expenditures incurred in connection with the Project including in connection with the repair or replacement of all systems and equipment and components thereof of the Project) that are (A) intended to effect economies in the operation or maintenance of the Project, or any portion thereof, or to reduce current or future Operating Expenses or to enhance the safety or security of the Project or its occupants, (B) required to comply with present or anticipated conservation programs, (C) replacements or modifications of nonstructural items located in the Common Areas required to keep the Common Areas in good order or condition, (D) required under any governmental law or regulation which become effective after the Rent Commencement Date, or (E) for replacement of Building Systems as permitted under Section 7.4 below; provided, however, that any capital expenditure shall be amortized (including reasonable interest on the amortized cost) over the reasonable useful life of such capital item and the amount includible in Operating Expenses shall be limited to the monthly amortized cost thereof; and (xiv) costs, fees, charges or assessments imposed by, or resulting from any mandate imposed on Landlord by, any federal, state or local government for fire and police protection, trash removal, community services, or other services that do not constitute "Tax Expenses" as that term is defined in Section 4.2.5, (xv) payments under any easement, license, operating agreement, declaration, restrictive covenant, or instrument pertaining to the sharing of costs by the Building, including any covenants, conditions and restrictions affecting the property, and reciprocal easement agreements affecting the property, any parking licenses, and any agreements with transit agencies affecting the Property (collectively, "**Underlying Documents**"). Notwithstanding the foregoing, for purposes of this Lease, Operating Expenses shall not, however, include:

(a) costs, including legal fees, space planners' fees, advertising and promotional expenses (except as otherwise set forth above), and brokerage fees incurred in connection with the original construction or development, or original or future leasing of the Project, and costs, including permit, license and inspection costs, incurred with respect to the installation of tenant improvements made for new tenants initially occupying space in the Project after the Rent Commencement Date or incurred in renovating or otherwise improving, decorating, painting or redecorating vacant space for tenants or other occupants of the Project (excluding, however, such costs relating to any common areas of the Project or parking facilities);

(b) except as set forth in items (xii), (xiii), and (xiv) above, depreciation, interest and principal payments on mortgages and other debt costs, if any, penalties and interest;

(c) costs for which the Landlord is reimbursed by any tenant or occupant of the Project or by insurance by its carrier or any tenant's carrier or by anyone else, electric power costs for which any tenant directly contracts with the local public service company and costs of utilities and services provided to other tenants that are not provided to Tenant;

(d) any bad debt loss, rent loss, or reserves for bad debts or rent loss or other reserves to the extent not used in the same year;

(e) costs associated with the operation of the business of the partnership or entity that constitutes the Landlord, as the same are distinguished from the costs of operation of the Project (which shall specifically include, but not be limited to, accounting costs associated with the operation of the Project). Costs associated with the operation of the business of the partnership or entity that constitutes the Landlord include costs of partnership accounting and legal matters, costs of defending any lawsuits with any mortgagee (except as the actions of the Tenant may be in issue), costs of selling, syndicating, financing, mortgaging or hypothecating any of the Landlord's interest in the Project, and costs incurred in connection with any disputes between Landlord and its employees, between Landlord and Project management, or between Landlord and other tenants or occupants;

(f) the wages and benefits of any employee who does not devote substantially all of his or her employed time to the Project unless such wages and benefits are prorated to reflect time spent on operating and managing the Project vis-a-vis time spent on matters unrelated to operating and managing the Project; provided, that in no event shall Operating Expenses for purposes of this Lease include wages and/or benefits attributable to personnel above the level of Project manager;

(g) amount paid as ground rental for the Project by the Landlord;

(h) except for a property management fee not to exceed three percent (3%) of gross revenues, overhead and profit increment paid to the Landlord, and any amounts paid to the Landlord or to subsidiaries or affiliates of the Landlord for services in the Project to the extent the same exceeds the costs of such services rendered by qualified, first-class unaffiliated third parties on a competitive basis;

(i) any compensation paid to clerks, attendants or other persons in commercial concessions operated by the Landlord (other than as direct reimbursement for costs that, if incurred directly by Landlord, would properly be included in Operating Expenses);

(j) rentals and other related expenses incurred in leasing air conditioning systems, elevators or other equipment that if purchased the cost of which would be excluded from Operating Expenses as a capital cost, except equipment not affixed to the Project that is used in providing engineering, janitorial or similar services and, further excepting from this exclusion such equipment rented or leased to remedy or ameliorate an emergency condition in the Project;

(k) all items and services for which Tenant or any other tenant in the Project reimburses Landlord or which Landlord provides selectively to one or more tenants (other than Tenant) without reimbursement;

(l) any costs expressly excluded from Operating Expenses elsewhere in this Lease;

(m) rent for any office space occupied by Project management personnel;

(n) costs arising from the gross negligence or willful misconduct of Landlord in connection with this Lease; and

(o) costs incurred to comply with laws relating to the removal or remediation of hazardous material (as defined under applicable law) from the Building or Project, and any costs of fines or penalties relating to the presence of hazardous material in, on, under or about the Building or Project, in each case to the extent not brought into the Building or Premises by Tenant or any Tenant Parties;

(p) costs to correct any construction defect in the Project or to remedy any violation of a covenant, condition, restriction, underwriter's requirement or law that exists as of the Rent Commencement Date;

(q) capital costs occasioned by casualties or condemnation.

(r) legal fees, accountants' fees (other than normal bookkeeping expenses) and other expenses incurred in connection with disputes of tenants or other occupants of the Project or associated with the enforcement of the terms of any leases with tenants or the defense of Landlord's title to or interest in the Project or any part thereof;

(s) costs incurred due to a violation by Landlord or any other tenant of the Project of the terms and conditions of a lease;

(t) costs incurred in connection with the construction of any additional buildings in the Project; and

(u) self-insurance retentions.

4.2.5 **Taxes**.

4.2.5.1 "**Tax Expenses**" shall mean all federal, state, county, or local governmental or municipal taxes, fees, charges or other impositions of every kind and nature, whether general, special, ordinary or extraordinary (including, without limitation, real estate taxes, general and special assessments, transit taxes, leasehold taxes or taxes based upon the receipt of rent, including gross receipts or sales taxes applicable to the receipt of rent, unless required to be paid by Tenant, personal property taxes imposed upon the fixtures, machinery, equipment, apparatus, systems and equipment, appurtenances, furniture and other personal property used in connection with the Project, or any portion thereof), that Landlord shall pay or accrue during any Expense Year (without regard to any different fiscal year used by such governmental or municipal authority) because of or in connection with the ownership, leasing and operation of the Project, or any portion thereof.

4.2.5.2 Tax Expenses shall include any: (i) tax on the rent, right to rent or other income from the Project, or any portion thereof, or as against the business of leasing the Project, or any portion thereof; (ii) assessment, tax, fee, levy or charge in addition to, or in substitution, partially or totally, of any assessment, tax, fee, levy or charge previously included within the definition of real property tax; (iii) assessment, tax, fee, levy, or charge allocable to or measured by the area of the Premises or the Rent payable hereunder, including any business or gross income tax or excise tax with respect to the receipt of such rent, or upon or with respect to the possession, leasing, operating, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises, or any portion thereof; and (iv) Any assessment, tax, fee, levy or charge, upon this transaction or any document to which Tenant is a party, creating or transferring an interest or an estate in the Premises or the improvements thereon.

4.2.5.3 Any reasonable costs and expenses (including reasonable attorneys' and consultants' fees) incurred in attempting to protest, reduce or minimize Tax Expenses shall be included in Tax Expenses in the Expense Year such expenses are incurred. Tax refunds shall be credited against Tax Expenses and refunded to Tenant regardless of when received, based on the Expense Year to which the refund is applicable, provided that in no event shall the amount to be refunded to Tenant for any such Expense Year exceed the total amount paid by Tenant as Additional Rent under this Article 4 for such Expense Year. If Tax Expenses for any period during the Lease Term or any extension thereof are increased after payment thereof for any reason, including, without limitation, error or reassessment by applicable governmental or municipal authorities, Tenant shall pay Landlord upon demand Tenant's Share of any such increased Tax Expenses. Notwithstanding anything to the contrary contained in this

Section 4.2.5, there shall be excluded from Tax Expenses (i) all excess profits taxes, franchise taxes, gift taxes, capital stock taxes, inheritance and succession taxes, transfer taxes, estate taxes, federal and state income taxes, and other taxes to the extent applicable to Landlord's net income (as opposed to rents, receipts or income attributable to operations at the Project), (ii) any items included as Operating Expenses, (iii) any items paid by Tenant under Section 4.5, (iv) assessments in excess of the amount that would be payable if such assessment expense were paid in installments over the longest permitted term; (v) taxes imposed on land and improvements other than the Project; (vi) tax increases resulting from the improvement of any of the Project for the sole use of other occupants; and (vii) any penalties or interest thereon due to Landlord's late or non-payment of any taxes.

4.2.5.4 At Tenant's request, and provided that it is then deemed advisable by Landlord in the exercise of Landlord's reasonable business judgment (i.e., Landlord has a reasonable expectation of success of such appeal), Landlord shall bring or cause to be brought an application or proceeding for reduction of the assessed valuation of the Building or Project, as applicable, in order to reduce Tax Expenses.

4.2.6 "**Tenant's Share**" shall mean the percentage set forth in Section 6 of the Summary.

4.3 **Allocation of Direct Expenses**. The Parties acknowledge that the Building is a part of a multi-building project and that the costs and expenses incurred in connection with the Project (i.e., the Direct Expenses) should be shared between the Building and the other buildings in the Project. Accordingly, as set forth in Section 4.2, Direct Expenses (which consist of Operating Expenses and Tax Expenses) are determined annually for the Project as a whole, and a portion of the Direct Expenses, which portion shall be determined by Landlord on an equitable basis, shall be allocated to the Building (as opposed to other buildings in the Project). Such portion of Direct Expenses allocated to the Building shall include all Direct Expenses attributable solely to the Building and a pro rata portion of the Direct Expenses attributable to the Project as a whole, and shall not include Direct Expenses attributable solely to other buildings in the Project. Notwithstanding the foregoing, the parties agree that costs included in Direct Expenses that are related to the Project amenities center shall be allocated on a proportional basis to the entire currently planned Project, regardless of whether the entire planned Project has been or is completed.

4.4 **Calculation and Payment of Additional Rent**. Commencing on the Rent Commencement Date, Tenant shall pay to Landlord, in the manner set forth in Section 4.4.1, and as Additional Rent, Tenant's Share of Direct Expenses for each Expense Year during the Lease Term.

4.4.1 **Statement of Actual Direct Expenses and Payment by Tenant**. Landlord shall give to Tenant within five (5) months following the end of each Expense Year, a statement (the "**Statement**") that shall reasonably itemize the Direct Expenses incurred or accrued for such preceding Expense Year, and that shall indicate the amount of Tenant's Share of Direct Expenses. Upon receipt of the Statement for each Expense Year commencing or ending during the Lease Term, Tenant shall pay, with its next installment of Base Rent due that is at least thirty (30) days thereafter, the full amount of Tenant's Share of Direct Expenses for such Expense Year, less the amounts, if any, paid during such Expense Year as "**Estimated Direct Expenses**," as that term is defined in Section 4.4.2, below, and if Tenant paid more as Estimated Direct Expenses than the actual Tenant's Share of Direct Expenses, Tenant shall receive a credit in the amount of Tenant's overpayment against Rent next due under this Lease. The failure of Landlord to timely furnish the Statement for any Expense Year shall not prejudice Landlord or Tenant from enforcing its rights under this Article 4. Even though the Lease Term has expired and Tenant has vacated the Premises, when the final determination is made of Tenant's Share of Direct Expenses for the Expense Year in which this Lease terminates, Tenant shall pay to Landlord such amount within thirty (30) days, and if Tenant paid more as Estimated Direct Expenses than the actual Tenant's Share of Direct Expenses, Landlord shall, within thirty (30) days, deliver a check payable to Tenant in the amount of the overpayment. The provisions of this Section 4.4.1 shall survive the expiration or earlier termination of the Lease Term. Notwithstanding the immediately preceding sentence, Tenant shall not be responsible for Tenant's Share of any Direct Expenses attributable to any Expense Year that is first billed to Tenant more than two (2) calendar years after the earlier of the expiration of the applicable Expense Year or the Lease Expiration Date, provided that in any event Tenant shall be responsible for Tenant's Share of Direct Expenses levied by any governmental authority or by any public utility companies at any time following the Lease Expiration Date that is attributable to any Expense Year (provided that Landlord delivers Tenant a bill for such amounts within two (2) years following Landlord's receipt of the bill therefor).

4.4.2 **Statement of Estimated Direct Expenses.** In addition, Landlord shall give Tenant a yearly expense estimate statement (the "**Estimate Statement**") that shall set forth Landlord's reasonable estimate (the "**Estimate**") of what the total amount of Direct Expenses for the then-current Expense Year shall be and the estimated Tenant's Share of Direct Expenses (the "**Estimated Direct Expenses**"). The failure of Landlord to timely furnish the Estimate Statement for any Expense Year shall not preclude Landlord from enforcing its rights to collect any Estimated Direct Expenses under this Article 4, nor shall Landlord be prohibited from revising any Estimate Statement or Estimated Direct Expenses theretofore delivered to the extent necessary. Thereafter, Tenant shall pay, with its next installment of Base Rent due that is at least thirty (30) days thereafter, a fraction of the Estimated Direct Expenses for the then-current Expense Year (reduced by any amounts paid pursuant to the last sentence of this Section 4.4.2). Such fraction shall have as its numerator the number of months that have elapsed in such current Expense Year, including the month of such payment, and twelve (12) as its denominator. Until a new Estimate Statement is furnished (which Landlord shall have the right to deliver to Tenant at any time), Tenant shall pay monthly, with the monthly Base Rent installments, an amount equal to one-twelfth (1/12) of the total Estimated Direct Expenses set forth in the previous Estimate Statement delivered by Landlord to Tenant.

4.5 **Taxes and Other Charges for Which Tenant Is Directly Responsible**. Tenant shall be liable for and shall pay ten (10) days before delinquency, taxes levied against Tenant's equipment, furniture, fixtures and any other personal property located in or about the Premises. If any such taxes on Tenant's equipment, furniture, fixtures and any other personal property are levied against Landlord or Landlord's property or if the assessed value of Landlord's property is increased by the inclusion therein of a value placed upon such equipment, furniture, fixtures or any other personal property and if Landlord pays the taxes based upon such increased assessment, which Landlord shall have the right to do regardless of the validity thereof but only under proper protest if requested by Tenant, Tenant shall upon demand repay to Landlord the taxes so levied against Landlord or the proportion of such taxes resulting from such increase in the assessment, as the case may be.

4.6 **Landlord's Books and Records**. Within one hundred eighty (180) days after receipt by Tenant of a Statement, if Tenant disputes the amount of Additional Rent set forth in the Statement, a member of Tenant's finance department, or an independent certified public accountant (which accountant is a member of a nationally recognized accounting firm and is not working on a contingency fee basis) ("**Tenant's Accountant**"), designated and paid for by Tenant, may, after reasonable notice to Landlord and at reasonable times, inspect Landlord's records with respect to the Statement at Landlord's offices, provided that there is no existing Event of Default and Tenant has paid all amounts required to be paid under the applicable Estimate Statement and Statement, as the case may be. In connection with such inspection, Tenant and Tenant's agents must agree in advance to follow Landlord's reasonable rules and procedures regarding inspections of Landlord's records, and shall execute a commercially reasonable confidentiality agreement regarding such inspection. Tenant's failure to dispute the amount of Additional Rent set forth in any Statement within one hundred eighty (180) days of Tenant's receipt of such Statement shall be deemed to be Tenant's approval of such Statement and Tenant, thereafter, waives the right or ability to dispute the amounts set forth in such Statement. If after such inspection, Tenant still disputes such Additional Rent, a determination as to the proper amount shall be made, at Tenant's expense, by an independent certified public accountant (the "**Accountant**") selected by Landlord and subject to Tenant's reasonable approval; provided that if such Accountant determines that Direct Expenses were overstated by more than five percent (5%), then the cost of the Accountant and the cost of such determination shall be paid for by Landlord, and Landlord shall reimburse Tenant for the cost of Tenant's Accountant (provided that such cost shall be a reasonable market cost for such services). Tenant hereby acknowledges that Tenant's sole right to inspect Landlord's books and records and to contest the amount of Direct Expenses payable by Tenant shall be as set forth in this Section 4.6, and (except as set forth in the next succeeding sentence) Tenant hereby waives any and all other rights pursuant to applicable law to inspect such books and records and/or to contest the amount of Direct Expenses payable by Tenant.

5. USE OF PREMISES

5.1 **Permitted Use**. Tenant shall use the Premises solely for the Permitted Use set forth in Section 7 of the Summary and Tenant shall not use or permit the Premises or the Project to be used for any other purpose or purposes whatsoever without the prior written consent of Landlord, which may be withheld in Landlord's sole discretion.

5.2 **Prohibited Uses**. Tenant further covenants and agrees that Tenant shall not use or permit any person or persons to use, the Premises or any part thereof for any use or purpose in violation of the laws of the United States of America, the State of California, or the ordinances, regulations or requirements of the local municipal or county governing body or other lawful authorities having jurisdiction over the Project) including, without limitation, any such laws, ordinances, regulations or requirements relating to hazardous materials or substances, as those terms are defined by applicable laws now or hereafter in effect. Landlord shall have the right to impose reasonable, nondiscriminatory and customary rules and regulations regarding the use of the Project that do not unreasonably interfere with Tenant's use of the Premises, as reasonably deemed necessary by Landlord with respect to the orderly operation of the Project, and Tenant shall comply with such reasonable rules and regulations. Tenant shall not do or permit anything to be done in or about the Premises that will in any way obstruct or interfere with the rights of other tenants or occupants of the Building, or injure or annoy them or use or allow the Premises to be used for any unlawful purpose, nor shall Tenant cause, maintain or permit any nuisance in, on or about the Premises. Tenant shall comply with, and Tenant's rights and obligations under the Lease and Tenant's use of the Premises shall be subject and subordinate to, all recorded easements, covenants, conditions, and restrictions now or hereafter affecting the Project, so long as the same do not unreasonably interfere with Tenant's use of the Premises or parking rights or materially increase Tenant's obligations or decrease Tenant's rights under this Lease.

5.3 **Hazardous Materials**.

5.3.1 **Tenant's Obligations**.

5.3.1.1 **Prohibitions**. As a material inducement to Landlord to enter into this Lease with Tenant, Tenant has fully and accurately completed Landlord's Pre-Leasing Environmental Exposure Questionnaire (the "**Environmental Questionnaire**"), which is attached as **Exhibit E**. Tenant agrees that except for those chemicals or materials, and their approximate quantities listed on the Environmental Questionnaire (as the same may be updated from time to time as provided below) or any similar chemicals or materials used for substantially the same purposes in substitution thereof in compliance with applicable law, neither Tenant nor Tenant's employees, contractors and subcontractors of any tier, entities with a contractual relationship with Tenant (other than Landlord), or any entity acting as an agent or sub-agent of Tenant (collectively, "**Tenant's Agents**") will produce, use, store or generate any "Hazardous Materials," as that term is defined below, on, under or about the Premises, nor cause any Hazardous Material to be brought upon, placed, stored, manufactured, generated, blended, handled, recycled, used or "Released," as that term is defined below, on, in, under or about the Premises. If any information provided to Landlord by Tenant on the Environmental Questionnaire, or otherwise relating to information concerning Hazardous Materials is intentionally false, incomplete, or misleading in any material respect, the same shall be deemed a default by Tenant under this Lease. Upon Landlord's request (but no more than once each Lease Year), or in the event of any material change in Tenant's use of Hazardous Materials in the Premises, Tenant shall deliver to Landlord an updated Environmental Questionnaire. Tenant shall notify Landlord prior to using any Hazardous Materials in the Premises not described on the initial Environmental Questionnaire, and such use shall be subject to all of the provisions of this Lease. Tenant shall not install or permit Tenant's Agents to install any underground storage tank on the Premises. For purposes of this Lease, "**Hazardous Materials**" means all flammable explosives, petroleum and petroleum products, waste oil, radon, radioactive materials, toxic pollutants, asbestos, polychlorinated biphenyls ("**PCBs**"), medical waste, chemicals known to cause cancer or reproductive toxicity, pollutants, contaminants, hazardous wastes, toxic substances or related materials, including without limitation any chemical, element, compound, mixture, solution, substance, object, waste or any combination thereof, that is or may be hazardous to human health, safety or to the environment due to its radioactivity, ignitability, corrosiveness, reactivity, explosiveness, toxicity, carcinogenicity, infectiousness or other harmful or potentially harmful properties or effects, or defined as, regulated as or included in, the definition of "hazardous substances," "hazardous wastes," "hazardous materials," or "toxic substances" under any Environmental Laws. For purposes of this Lease, "**Release**" or "**Released**" or "**Releases**" shall mean any release, deposit, discharge, emission, leaking, spilling, seeping, migrating, injecting, pumping, pouring, emptying, escaping, dumping, disposing, or other movement of Hazardous Materials into the environment. Landlord acknowledges that Tenant will be installing and using fume hoods in the Premises and that emissions of Hazardous Materials into the air in compliance with all Environmental Laws shall not be considered Releases.

5.3.1.2 **Notices to Landlord**. Tenant shall notify Landlord in writing as soon as possible but in no event later than five (5) days after (i) the occurrence of any actual, alleged or threatened Release of any

Hazardous Material in, on, under, from, about or in the vicinity of the Premises (whether past or present), regardless of the source or quantity of any such Release, or (ii) Tenant becomes aware of any regulatory actions, inquiries, inspections, investigations, directives, or any cleanup, compliance, enforcement or abatement proceedings (including any threatened or contemplated investigations or proceedings) relating to or potentially affecting the Premises, or (iii) Tenant becomes aware of any claims by any person or entity relating to any Hazardous Materials in, on, under, from, about or in the vicinity of the Premises, whether relating to damage, contribution, cost recovery, compensation, loss or injury. Collectively, the matters set forth in clauses (i), (ii) and (iii) above are hereinafter referred to as "**Hazardous Materials Claims**". Tenant shall promptly forward to Landlord copies of all orders, notices, permits, applications and other communications and reports in connection with any Hazardous Materials Claims. Additionally, Tenant shall promptly advise Landlord in writing of Tenant's discovery of any occurrence or condition on, in, under or about the Premises that could subject Tenant or Landlord to any liability, or restrictions on ownership, occupancy, transferability or use of the Premises under any "Environmental Laws," as that term is defined below. Tenant shall not enter into any legal proceeding or other action, settlement, consent decree or other compromise with respect to any Hazardous Materials Claims without first notifying Landlord of Tenant's intention to do so and affording Landlord the opportunity to join and participate, as a party if Landlord so elects, in such proceedings and in no event shall Tenant enter into any agreements that are binding on Landlord or the Premises without Landlord's prior written consent. Landlord shall have the right to appear at and participate in, any and all legal or other administrative proceedings concerning any Hazardous Materials Claim. For purposes of this Lease, "**Environmental Laws**" means all applicable present and future laws relating to the protection of human health, safety, wildlife or the environment, including (i) all requirements pertaining to reporting, licensing, permitting, investigation and/or remediation of emissions, discharges, Releases, or threatened Releases of Hazardous Materials, whether solid, liquid, or gaseous in nature, into the air, surface water, groundwater, or land, or relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport, or handling of Hazardous Materials; and (ii) all requirements pertaining to the health and safety of employees or the public. Environmental Laws include, but are not limited to, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 USC § 9601, et seq., the Hazardous Materials Transportation Authorization Act of 1994, 49 USC § 5101, et seq., the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, and Hazardous and Solid Waste Amendments of 1984, 42 USC § 6901, et seq., the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, 33 USC § 1251, et seq., the Clean Air Act of 1966, 42 USC § 7401, et seq., the Toxic Substances Control Act of 1976, 15 USC § 2601, et seq., the Safe Drinking Water Act of 1974, 42 USC §§ 300f through 300j, the Occupational Safety and Health Act of 1970, as amended, 29 USC § 651 et seq., the Oil Pollution Act of 1990, 33 USC § 2701 et seq., the Emergency Planning and Community Right-To-Know Act of 1986, 42 USC § 11001 et seq., the National Environmental Policy Act of 1969, 42 USC § 4321 et seq., the Federal Insecticide, Fungicide and Rodenticide Act of 1947, 7 USC § 136 et seq., California Carpenter-Presley-Tanner Hazardous Substance Account Act, California Health & Safety Code §§ 25300 et seq., Hazardous Materials Release Response Plans and Inventory Act, California Health & Safety Code, §§ 25500 et seq., Underground Storage of Hazardous Substances provisions, California Health & Safety Code, §§ 25280 et seq., California Hazardous Waste Control Law, California Health & Safety Code, §§ 25100 et seq., and any other state or local law counterparts, as amended, as such applicable laws, are in effect as of the Rent Commencement Date, or thereafter adopted, published, or promulgated.

5.3.1.3 **Releases of Hazardous Materials**. If any Release of any Hazardous Material in, on, under, from or about the Premises shall occur at any time during the Lease Term caused by Tenant or Tenant's Agents, in addition to notifying Landlord as specified above, Tenant, at its own sole cost and expense, shall (i) promptly and timely comply with any and all reporting requirements imposed pursuant to any and all Environmental Laws, (ii) provide a written certification to Landlord indicating that Tenant has complied with all applicable reporting requirements, (iii) take any and all necessary investigation, corrective and remedial action in accordance with any and all applicable Environmental Laws, utilizing an environmental consultant approved by Landlord, all in accordance with the provisions and requirements of this Section 5.3, including Section 5.3.4, and (iv) take any such additional investigative, remedial and corrective actions as Landlord shall in its reasonable discretion deem necessary such that the Premises are remediated to the condition existing prior to such Release.

5.3.1.4 **Indemnification**.

5.3.1.4.1 **In General**. Without limiting in any way Tenant's obligations under any other provision of this Lease, Tenant shall be solely responsible for and shall protect, defend, indemnify

and hold the Landlord Parties harmless from and against any and all third party claims, judgments, losses, damages, costs, expenses, penalties, enforcement actions, taxes, fines, remedial actions, liabilities (including actual attorneys' fees, litigation, arbitration and administrative proceeding costs, expert and consultant fees and laboratory costs) including, without limitation, consequential damages and sums paid in settlement of claims, which arise during or after the Lease Term, whether foreseeable or unforeseeable, that arise during or after the Lease Term in whole or in part, foreseeable or unforeseeable, directly or indirectly arising out of or attributable to the Release of Hazardous Materials in, on, under or about the Premises by Tenant or Tenant's Agents.

5.3.1.4.2 **Limitations**. Notwithstanding anything in Section 5.3.1.4, above, to the contrary, Tenant's indemnity of Landlord as set forth in Section 5.3.1.4, above, shall not be applicable to claims based upon Hazardous Materials not Released by Tenant or Tenant's Agents.

5.3.1.4.3 **Landlord Indemnity**. Under no circumstance shall Tenant be liable for, and Landlord shall indemnify, defend, protect and hold harmless Tenant and Tenant's Agents from and against, all third party losses, costs, claims, liabilities and damages (including attorneys' and consultants' fees) arising out of any Hazardous Materials that exist in, on or about the Project as of the date hereof, or Hazardous Material Released by Landlord or any Landlord Parties. Landlord will provide Tenant with any Hazardous Material reports relating to the Building or Project that Landlord has in its possession, or control. The provision of such reports shall be for informational purposes only, and Landlord does not make any representation or warranty as to the correctness or completeness of any such reports.

5.3.1.5 **Compliance with Environmental Laws**. Without limiting the generality of Tenant's obligation to comply with applicable laws as otherwise provided in this Lease, Tenant shall, at its sole cost and expense, comply with all Environmental Laws related to the use of Hazardous Materials by Tenant and Tenant's Agents. Tenant shall obtain and maintain any and all necessary permits, licenses, certifications and approvals appropriate or required for the use, handling, storage, and disposal of any Hazardous Materials used, stored, generated, transported, handled, blended, or recycled by Tenant on the Premises. Landlord shall have a continuing right, without obligation, to require Tenant to obtain, and to review and inspect any and all such permits, licenses, certifications and approvals, together with copies of any and all Hazardous Materials management plans and programs, any and all Hazardous Materials risk management and pollution prevention programs, and any and all Hazardous Materials emergency response and employee training programs respecting Tenant's use of Hazardous Materials. Upon request of Landlord (but no more than once every Lease Year, unless Landlord shall have reasonable grounds to believe that Tenant is not in compliance with its covenants under this Section 5.3), Tenant shall deliver to Landlord a narrative description explaining the nature and scope of Tenant's activities involving Hazardous Materials and certifying to Tenant's compliance with all Environmental Laws and the terms of this Lease.

5.3.2 **Assurance of Performance**.

5.3.2.1 **Environmental Assessments In General**. Landlord may, but shall not be required to, engage from time to time such contractors as Landlord determines to be appropriate (and which are reasonably acceptable to Tenant) to perform environmental assessments of a scope reasonably determined by Landlord (an "**Environmental Assessment**") to ensure Tenant's compliance with the requirements of this Lease with respect to Hazardous Materials.

5.3.2.2 **Costs of Environmental Assessments**. All costs and expenses incurred by Landlord in connection with any such Environmental Assessment initially shall be paid by Landlord; provided that if any such Environmental Assessment shows that Tenant has failed to comply with the provisions of this Section 5.3, then all of the costs and expenses of such Environmental Assessment shall be reimbursed by Tenant as Additional Rent within thirty (30) days after receipt of written demand therefor.

5.3.3 **Tenant's Obligations upon Surrender**. At the expiration or earlier termination of the Lease Term, Tenant, at Tenant's sole cost and expense, shall: (i) cause an Environmental Assessment of the Premises to be conducted in accordance with Section 15.3; (ii) cause all Hazardous Materials brought onto the Premises by Tenant or Tenant's Agents to be removed from the Premises and disposed of in accordance with all Environmental

Laws and as necessary to allow the Premises to be used for the purposes allowed as of the Execution Date; and (iii) cause to be removed all containers installed or used by Tenant or Tenant's Agents to store any Hazardous Materials on the Premises, and cause to be repaired any damage to the Premises caused by such removal.

5.3.4 **Clean-up**.

5.3.4.1 **Environmental Reports; Clean-Up**. If any written report, including any report containing results of any Environmental Assessment (an "**Environmental Report**") shall indicate (i) the presence of any Hazardous Materials as to which Tenant has a removal or remediation obligation under this Section 5.3, and (ii) that as a result of same, the investigation, characterization, monitoring, assessment, repair, closure, remediation, removal, or other clean-up (the "**Clean-up**") of any Hazardous Materials is required, Tenant shall prepare and submit to Landlord within thirty (30) days after receipt of the Environmental Report a comprehensive plan, subject to Landlord's written approval, specifying the actions to be taken by Tenant to perform the Clean-up so that the Premises are restored to the conditions required by this Lease. Upon Landlord's approval of the Clean-up plan, Tenant shall, at Tenant's sole cost and expense, without limitation on any rights and remedies of Landlord under this Lease, promptly implement such plan with a consultant reasonably acceptable to Landlord and proceed to Clean-Up Hazardous Materials in accordance with all applicable laws. If, within thirty (30) days after receiving a copy of such Environmental Report, Tenant fails either (a) to complete such Clean-up, or (b) with respect to any Clean-up that cannot be completed within such thirty-day period, fails to proceed with diligence to prepare the Clean-up plan and complete the Clean-up as promptly as practicable, then Landlord shall have the right, but not the obligation, and without waiving any other rights under this Lease, to carry out any Clean-up recommended by the Environmental Report or required by any governmental authority having jurisdiction over the Premises, and recover all of the costs and expenses thereof from Tenant as Additional Rent, payable within thirty (30) days after receipt of written demand therefor.

5.3.4.2 **No Rent Abatement**. Tenant shall continue to pay all Rent due or accruing under this Lease during any Clean-up, and shall not be entitled to any reduction, offset or deferral of any Base Rent or Additional Rent due or accruing under this Lease during any such Clean-up.

5.3.4.3 **Surrender of Premises**. Tenant shall complete any Clean-up prior to surrender of the Premises upon the expiration or earlier termination of this Lease. Tenant shall obtain and deliver to Landlord a letter or other written determination from the overseeing governmental authority confirming that the Clean-up has been completed in accordance with all requirements of such governmental authority and that no further response action of any kind is required for the unrestricted use of the Premises ("**Closure Letter**"). Upon the expiration or earlier termination of this Lease, Tenant shall also be obligated to close all permits obtained in connection with Hazardous Materials used by Tenant or Tenant's Agents in accordance with applicable laws.

5.3.4.4 **Failure to Timely Clean-Up**. Should any Clean-up for which Tenant is responsible not be completed, or should Tenant not receive the Closure Letter and any governmental approvals required under Environmental Laws in conjunction with such Clean-up prior to the expiration or earlier termination of this Lease, then, commencing on the later of the termination of this Lease and three (3) business days after Landlord's delivery of notice of such failure and that it elects to treat such failure as a holdover, Tenant shall be liable to Landlord as a holdover tenant (as more particularly provided in Article 16) until Tenant has fully complied with its obligations under this Section 5.3.

5.3.5 **Confidentiality**. Unless compelled to do so by applicable law, valid order of a court or judicial or administrative process, Tenant agrees that Tenant shall not disclose, discuss, disseminate or copy any information, data, findings, communications, conclusions and reports regarding the environmental condition of the Premises to any third party (other than Tenant's consultants, attorneys, property managers, employees, shareholders and potential and actual investors, lenders, business and merger partners, subtenants and assignees that have a need to know such information), including any governmental authority, without the prior written consent of Landlord. In the event Tenant reasonably believes that disclosure is compelled by applicable law, valid order of a court or judicial or administrative process, it shall, to the extent legally permitted, provide Landlord ten (10) days' advance notice of disclosure of confidential information so that Landlord may attempt to obtain a protective order. Tenant may additionally release such information to bona fide prospective purchasers or lenders, subject to any such parties' written agreement to be bound by the terms of this Section 5.3.

5.3.6 **Landlord's Obligations**. Unless compelled to do so by applicable law, valid order of a court or judicial or administrative process, Landlord agrees that Landlord shall not disclose, discuss, disseminate or copy any information, data, findings, communications, conclusions or reports regarding the environmental condition of the Premises (including any information, data, findings, communications or conclusions included in any Environmental Questionnaire) to any third party (other than Landlord's consultants, attorneys, property managers, employees, shareholders and potential and actual investors, lenders, business and merger partners, that have a need to know such information), including any governmental authority, without the prior written consent of Tenant. In the event Landlord reasonably believes that disclosure is compelled by applicable law, valid order of a court or judicial or administrative process, it shall, to the extent legally permitted, provide Tenant ten (10) days' advance notice of disclosure of confidential information so that Tenant may attempt to obtain a protective order. Landlord may additionally release such information to bona fide prospective purchasers or lenders, subject to any such parties' written agreement to be bound by the terms of this Section 5.3.

5.3.7 **Copies of Environmental Reports**. Within thirty (30) days of receipt thereof, Tenant shall provide Landlord with a copy of any and all environmental assessments, audits, studies and reports regarding Tenant's activities with respect to the Premises, or ground water beneath the Land, or the environmental condition or Clean-up thereof. Tenant shall be obligated to provide Landlord with a copy of such materials without regard to whether such materials are generated by Tenant or prepared for Tenant, or how Tenant comes into possession of such materials, unless doing so would result in a breach of any contractual obligation of Tenant to a third party.

5.3.8 **Signs, Response Plans, Etc**. Tenant shall be responsible for posting on the Premises any signs required under applicable Environmental Laws with respect to the use of Hazardous Materials by Tenant or Tenant's Agents. Tenant shall also complete and file any business response plans or inventories required by any applicable laws. Tenant shall concurrently file a copy of any such business response plan or inventory with Landlord.

5.3.9 **Survival**. Each covenant, agreement, representation, warranty and indemnification made by Tenant set forth in this **Section 5.3** shall survive the expiration or earlier termination of this Lease and shall remain effective until all of Tenant's obligations under this **Section 5.3** have been completely performed and satisfied.

6. SERVICES AND UTILITIES

6.1 **In General**. Landlord will be responsible, at Tenant's sole cost and expense (subject to the terms of Section 4.2.4, above), for making heating, ventilation and air-conditioning, electricity, and water available to the Premises. It is the Parties' expectation that all utilities to the Premises will be separately metered at the Premises and shall be paid directly by Tenant. Landlord shall not provide janitorial, telephone services or interior security services for the Premises. Tenant shall be solely responsible for performing all janitorial services and other cleaning of the Premises, all in compliance with applicable laws. The janitorial and cleaning of the Premises shall be adequate to maintain the Premises in a manner consistent with First Class Life Sciences Projects.

Tenant shall cooperate fully with Landlord at all times and abide by all reasonable regulations and requirements that Landlord may reasonably prescribe for the proper functioning and protection of the HVAC, electrical, mechanical and plumbing systems. Provided that Landlord provides and maintains and keeps in continuous service utility connections to the Project, including electricity, gas, water and sewage connections, Landlord shall have no obligation to provide any services or utilities to the Building, including heating, ventilation and air-conditioning, electricity, water, telephone, janitorial and interior Building security services, except as set forth in this Section 6.1.

6.2 **Tenant Payment of Utilities Costs**. It is the Parties' expectation that all utilities (including electricity, gas, sewer and water) will be separately metered or sub-metered to the Premises and will be paid directly by Tenant. After the Rent Commencement Date such utilities shall either be contracted for and paid directly by Tenant to the applicable utility provider or, if, after the Rent Commencement Date, any utilities to the Building are not separately metered to the Premises, then Tenant shall pay to Landlord, within thirty (30) days after billing, an equitable portion of the Building utility costs, based on Tenant's proportionate use thereof. In connection with the foregoing,

Landlord shall install separate meters on the Building Systems as a part of Landlord's construction of the Base Building, and Tenant shall install separate meters on the systems installed in the Premises as part of the Tenant Improvements pursuant to the Work Letter.

6.3 **Interruption of Use**. Tenant agrees that Landlord shall not be liable for damages, by abatement of Rent or otherwise, for failure to furnish or delay in furnishing any service or utility (including telephone and telecommunication services, UPS services, or other laboratory services or utilities), or for any diminution in the quality or quantity thereof, when such failure or delay or diminution is occasioned, in whole or in part, by breakage, repairs, replacements, or improvements, by any strike, lockout or other labor trouble, by inability to secure electricity, gas, water, or other fuel at the Building or Project after reasonable effort to do so, by any riot or other dangerous condition, emergency, accident or casualty whatsoever, by act or default of Tenant or other parties, or by any other cause; and such failures or delays or diminution shall never be deemed to constitute an eviction or disturbance of Tenant's use and possession of the Premises or relieve Tenant from paying Rent or performing any of its obligations under this Lease, except as set forth below. Notwithstanding the foregoing, Landlord shall be liable for damages to the extent caused by the negligence or willful misconduct of Landlord or the Landlord Parties, provided that Landlord shall not be liable under any circumstances for injury to, or interference with, Tenant's business, including loss of profits, however occurring, through or in connection with or incidental to a failure to furnish any of the services or utilities as set forth in this Article 6.

6.4 **Energy Performance Disclosure Information**. Tenant hereby acknowledges that Landlord may be required to disclose certain information concerning the energy performance of the Building pursuant to California Public Resources Code Section 25402.10 and the regulations adopted pursuant thereto (collectively the "**Energy Disclosure Requirements**"). Tenant hereby acknowledges prior receipt of the Data Verification Checklist, as defined in the Energy Disclosure Requirements (the "**Energy Disclosure Information**"), and agrees that Landlord has timely complied in full with Landlord's obligations under the Energy Disclosure Requirements. Tenant acknowledges and agrees that (i) Landlord makes no representation or warranty regarding the energy performance of the Building or the accuracy or completeness of the Energy Disclosure Information, (ii) the Energy Disclosure Information is for the current occupancy and use of the Building and that the energy performance of the Building may vary depending on future occupancy and/or use of the Building, and (iii) Landlord shall have no liability to Tenant for any errors or omissions in the Energy Disclosure Information. If and to the extent not prohibited by applicable laws, Tenant hereby waives any right Tenant may have to receive the Energy Disclosure Information, including any right Tenant may have to terminate this Lease as a result of Landlord's failure to disclose such information. Further, Tenant hereby releases Landlord from any and all losses, costs, damages, expenses and/or liabilities relating to, arising out of and/or resulting from the Energy Disclosure Requirements, including any liabilities arising as a result of Landlord's failure to disclose the Energy Disclosure Information to Tenant prior to the execution of this Lease. Tenant's acknowledgment of the AS-IS condition of the Premises pursuant to the terms of this Lease shall be deemed to include the energy performance of the Building. Tenant further acknowledges that pursuant to the Energy Disclosure Requirements, Landlord may be required in the future to disclose information concerning Tenant's energy usage to certain third parties, including prospective purchasers, lenders and tenants of the Building (the "**Tenant Energy Use Disclosure**"). Tenant hereby (A) consents to all such Tenant Energy Use Disclosures, and (B) acknowledges that Landlord shall not be required to notify Tenant of any Tenant Energy Use Disclosure. Further, Tenant hereby releases Landlord from any and all losses, costs, damages, expenses and liabilities relating to, arising out of and/or resulting from any Tenant Energy Use Disclosure. The terms of this Section 6.3 shall survive the expiration or earlier termination of this Lease.

6.5 **Emergency Generator**. Landlord and Tenant hereby acknowledge that there is an existing generator currently serving the Premises ("**Emergency Generator**") and the adjacent building located at 220 East Grand Avenue, and Tenant shall have the right to connect to the Emergency Generator for up to Tenant's Share of the electrical capacity which is available for use by tenants and provided by such Emergency Generator. Tenant's use of the Emergency Generator shall be at Tenant's sole risk, and Tenant acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty regarding the Emergency Generator. Except to the extent caused by the gross negligence or willful misconduct of Landlord, or any Landlord Parties, Tenant hereby waives any claims against Landlord or any Landlord Parties resulting from Tenant's use of the Emergency Generator, or any failure of the Emergency Generator to operate as designed, and agrees that Landlord shall not be liable for any damages resulting from any failure in operation of the Emergency Generator, including, without limitation any injury or damage to, or interference with, Tenant's business, including but not limited to, loss of profits, loss of rents or other revenues, loss

of business opportunity, loss of goodwill or loss of use, or loss to equipment, inventory, scientific research, scientific experiments, laboratory animals, products, specimens, samples, and/or scientific, business, accounting and other records of every kind and description kept at the Premises and any and all income derived or derivable therefrom. Tenant acknowledges that Operating Expenses shall include Landlord's costs incurred in maintaining and operating the Emergency Generator (including all permit costs and fees).

6.6 **Additional Services**. Landlord and Tenant hereby acknowledge and agree that the Building has clean dry air, house vacuum and deionized water services available for use by Tenant, provided that Tenant hereby acknowledges that the use of the same is on a first come, first served basis, any systems utilized by Tenant shall be provided in their presently existing, as-is condition, such use is subject to Landlord's reasonable rules and regulations with respect to the same. In the event Tenant utilized such services such use shall be at Tenant's sole cost and expense (including any start up fees in connection therewith) and Tenant shall be the sole party responsible for maintaining such systems and Landlord shall not be responsible for any maintenance or repair thereof. Tenant shall notify Landlord of its election to utilize any of the services set forth in this Section 6.6 on or before October 1, 2018.

7. REPAIRS

7.1 **Tenant Repair Obligations**. Tenant shall, throughout the Term, at its sole cost and expense, maintain, repair, replace and improve as required, the Premises in a good standard of maintenance, repair and replacement as required, and in good and sanitary condition, all in accordance with the standards of First Class Life Sciences Projects, except for Landlord Repair Obligations, whether or not such maintenance, repair, replacement or improvement is required in order to comply with applicable Laws ("**Tenant's Repair Obligations**"), including the following: (1) intentionally deleted; (2) interior and exterior doors, door frames and door closers; (3) interior lighting (including light bulbs and ballasts); (4) the plumbing, sewer, drainage, electrical, fire protection, elevator, escalator, life safety and security systems and equipment, existing heating, ventilation and air-conditioning systems, and all other mechanical, electrical and communications systems and equipment (collectively, the "**Building Systems**"), including (i) any specialty or supplemental Building Systems installed by or for Tenant and (ii) all electrical facilities and equipment, including lighting fixtures, lamps, fans and any exhaust equipment and systems, electrical motors and all other appliances and equipment of every kind and nature located in, upon or about the Premises; (5) all communications systems serving the Premises; (6) all of Tenant's security systems in or about or serving the Premises; (7) Tenant's signage; (8) interior demising walls and partitions (including painting and wall coverings), equipment, floors, and any roll-up doors, ramps and dock equipment; and (9) the non-structural portions of the roof of the Building, including the roof membrane and coverings. Tenant shall additionally be responsible, at Tenant's sole cost and expense, to furnish all expendables, including light bulbs, paper goods and soaps, used in the Premises, and, to the extent that Landlord notifies Tenant in writing of its intention to no longer arrange for such monitoring, cause the fire alarm systems serving the Premises to be monitored by a monitoring or protective services firm approved by Landlord in writing.

7.2 **Service Contracts**. All Building Systems, including HVAC, elevators, main electrical, plumbing and fire/life-safety systems, shall be maintained, repaired and replaced by Tenant (i) in a commercially reasonable first-class condition, (ii) in accordance with any applicable manufacturer specifications relating to any particular component of such Building Systems, (iii) in accordance with applicable Laws. Tenant shall contract with a qualified, experienced professional third party service companies (a "**Service Contract**"). Tenant shall regularly, in accordance with commercially reasonable standards, generate and maintain preventive maintenance records relating to each Building's mechanical and main electrical systems, including life safety, elevators and the central plant ("Preventative Maintenance Records"). In addition, upon Landlord's request, Tenant shall deliver a copy of all current Service Contracts to Landlord and/or a copy of the Preventative Maintenance Records.

7.3 **Landlord's Right to Perform Tenant's Repair Obligations**. Tenant shall notify Landlord in writing at least thirty (30) days prior to performing any material Tenant's Repair Obligations, including any Tenant's Repair Obligation that affects the Building Systems or are reasonably anticipated to cost more than $100,000.00. Upon receipt of such notice from Tenant, Landlord shall have the right to either (i) perform such material Tenant's Repair Obligation by delivering notice of such election to Tenant within thirty (30) days following receipt of Tenant's notice, and Tenant shall pay Landlord the reasonable and documented cost thereof (including Landlord's reasonable supervision fee) within thirty (30) days after receipt of an invoice therefor, or (ii) require Tenant to perform such

Tenant's Repair Obligation at Tenant's sole cost and expense. If Tenant fails to perform any Tenant's Repair Obligation within a reasonable time period, as reasonably determined by Landlord, then Landlord may, but need not, following delivery of notice to Tenant of such election, make such Tenant Repair Obligation, and Tenant shall pay Landlord the cost thereof, (including Landlord's reasonable supervision fee) within thirty (30) days after receipt of an invoice therefor.

7.4 **Landlord Repair Obligations**. Landlord shall be responsible for repairs to the exterior walls, glass, windows, window frames, window casements (including the repairing, resealing, cleaning and replacing of both interior and exterior windows) foundation and roof and skylights of the Building, the structural portions of the floors of the Building, and for the maintenance of the load bearing and exterior walls of the Building, including any painting, sealing, patching and waterproofing of such walls (the "**Landlord Repair Obligation**"); provided, however, that if such repairs or maintenance are due to the negligence or willful misconduct of Tenant, Landlord shall nevertheless make such repairs or perform such maintenance at Tenant's expense, or, if covered by Landlord's insurance, Tenant shall only be obligated to pay any deductible in connection therewith. Landlord, at Landlord's sole cost and expense, shall be required to perform all improvements which are "capital in nature" (defined below) which are part of Tenant's Repair Obligations, provided that Landlord may include in Operating Expenses the amortized cost of such replacement items (amortized over the reasonable useful life). The term "**capital in nature**" as used in this Lease shall mean any expenditure which would normally be "capitalized," as opposed to "expensed," under sound real estate accounting and management principles, as reasonably determined, and is made for the replacement (as opposed to regular maintenance and repair) of all or a portion of an existing Building System that is non-functioning or at the end of its useful life. Tenant shall provide written notice to Landlord in the event it reasonably believes that any such capital improvements are required during the Lease Term. When Landlord makes in improvement which is capital in nature, to the extent reasonably practicable and prudent, Landlord shall competitively bid the work related to such improvement. Notwithstanding the foregoing, Tenant shall be responsible for the entire cost of improvements which are capital in nature which: (i) are necessitated by, but only to the extent necessitated by, the negligence or willful misconduct of the "Tenant Parties" as that term is defined in Section 10.1, below; (ii) are necessitated by, in whole or in part, but only to the extent necessitated by Tenant's failure to improve, maintain, service, repair or replace the Premises per the Tenant Repair Obligations as required in this Lease; (iii) are caused, in whole or in part, but only to the extent caused, by any breach by Tenant of this Article 7; or (iv) are modifications required to comply with Applicable Laws, but were triggered solely by Tenant's Alterations, the Tenant Improvements, or use of the Premises for other than the Permitted Use.

8. ADDITIONS AND ALTERATIONS

8.1 **Landlord's Consent to Alterations**. Tenant may not make any improvements, alterations, additions or changes to the Premises or any mechanical, plumbing or HVAC facilities or systems pertaining to the Premises (collectively, the "**Alterations**") without first procuring the prior written consent of Landlord to such Alterations, which consent shall be requested by Tenant not less than ten (10) business days prior to the commencement thereof, and which consent shall not be unreasonably withheld, conditioned or delayed by Landlord, provided it shall be deemed reasonable for Landlord to withhold its consent to any Alteration that adversely affects the structural portions or the systems or equipment of the Building or is visible from the exterior of the Building. Notwithstanding the foregoing, Tenant shall be permitted to make Alterations following ten (10) business days' notice to Landlord (as to Alterations costing more than $10,000 only), but without Landlord's prior consent, to the extent that such Alterations (i) do not affect the building systems or equipment (other than minor changes such as adding or relocating electrical outlets and thermostats), (ii) are not visible from the exterior of the Building, and (iii) cost less than $100,000.00 for a particular job of work. The construction of the Tenant Improvements to the Premises shall be governed by the terms of the Tenant Work Letter and not the terms of this Article 8.

8.2 **Manner of Construction**. Landlord may impose, as a condition of its consent to any and all Alterations or repairs of the Premises or about the Premises, such requirements as Landlord in its reasonable discretion may deem desirable, including, but not limited to, the requirement that upon Landlord's request, Tenant shall, at Tenant's expense, remove such Alterations upon the expiration or any early termination of the Lease Term; provided, however, that Landlord may not require Tenant to remove any Alterations which are otherwise consistent with typical tenant improvements in the biotechnology or pharmaceutical industries. Tenant shall construct such Alterations and perform such repairs in a good and workmanlike manner, in conformance with any and all applicable federal, state,

county or municipal laws, rules and regulations and pursuant to a valid building permit, issued by the city in which the Building is located (or other applicable governmental authority). Tenant shall not use (and upon notice from Landlord shall cease using) contractors, services, workmen, labor, materials or equipment that, in Landlord's reasonable judgment, would disturb labor harmony with the workforce or trades engaged in performing other work, labor or services in or about the Building or the Common Areas. Upon completion of any Alterations, Tenant shall deliver to Landlord final lien waivers from all contractors, subcontractors and materialmen who performed such work. In addition to Tenant's obligations under Article 9, upon completion of any Alterations, Tenant agrees to cause a Notice of Completion to be recorded in the office of the Recorder of the County of San Mateo in accordance with Section 3093 of the Civil Code of the State of California or any successor statute, and Tenant shall deliver to the Project construction manager a reproducible copy of the "**as built**" drawings of the Alterations as well as all permits, approvals and other documents issued by any governmental agency in connection with the Alterations.

8.3 **Payment for Improvements**. In connection with any Alterations that affect the Building systems (other than minor changes such as adding or relocating electrical outlets and thermostats), or that have a cost in excess of $100,000, , Tenant shall reimburse Landlord for Landlord's reasonable, actual, out-of-pocket costs and expenses actually incurred in connection with Landlord's review of such work.

8.4 **Construction Insurance**. In addition to the requirements of Article 10, in the event that Tenant makes any Alterations, prior to the commencement of such Alterations, Tenant shall provide Landlord with evidence that Tenant or Tenant's contractor carries "**Builder's All Risk**" insurance (to the extent that the cost of such work shall exceed $50,000) in an amount approved by Landlord covering the construction of such Alterations, and such other insurance as Landlord may reasonably require, it being understood and agreed that all of such Alterations shall be insured by Landlord pursuant to Article 10 immediately upon completion thereof. In addition, Tenant's contractors and subcontractors shall be required to carry Commercial General Liability Insurance in an amount approved by Landlord and otherwise in accordance with the requirements of Article 10. In connection with Alterations with a cost in excess of $250,000, Landlord may, in its reasonable discretion, require Tenant to obtain a lien and completion bond or some alternate form of security satisfactory to Landlord in an amount sufficient to ensure the lien-free completion of such Alterations and naming Landlord as a co-obligee.

8.5 **Landlord's Property**. All Alterations, improvements, fixtures, equipment and/or appurtenances that may be installed or placed in or about the Premises, from time to time, shall be at the sole cost of Tenant and all Alterations and improvements, shall be and become the property of Landlord and remain in place at the Premises following the expiration or earlier termination of this Lease. Notwithstanding the foregoing, Landlord may, by written notice to Tenant given at the time it consents to an Alteration, require Tenant, at Tenant's expense, to remove any Alterations within the Premises and to repair any damage to the Premises and Building caused by such removal; provided, however, that Landlord may not require Tenant to remove any Tenant Improvements shown in the Final Working Drawings or any Alternations consistent with the improvements shown in the Final Working Drawings, or any Alterations which are otherwise consistent with typical tenant improvements in the biotechnology or pharmaceutical industries. If Tenant fails to complete such removal and/or to repair any damage caused by the removal of any Alterations, Landlord may do so and may charge the cost thereof to Tenant. Tenant hereby protects, defends, indemnifies and holds Landlord harmless from any liability, cost, obligation, expense or claim of lien in any manner relating to the installation, placement, removal or financing of any such Alterations, improvements, fixtures and/or equipment in, on or about the Premises, which obligations of Tenant shall survive the expiration or earlier termination of this Lease. Notwithstanding the foregoing, except to the extent the same are paid for by the Tenant Improvement Allowance, the items set forth in **Exhibit G** attached hereto (the "**Tenant's Property**") shall at all times be and remain Tenant's property. **Exhibit G** may be updated from time to time by agreement of the Parties. Tenant may remove the Tenant's Property from the Premises at any time, provided that Tenant repairs all damage caused by such removal. Landlord shall have no lien or other interest in the Tenant's Property.

9. COVENANT AGAINST LIENS Tenant shall keep the Project and Premises free from any liens or encumbrances arising out of the work performed, materials furnished or obligations incurred by or on behalf of Tenant, and shall protect, defend, indemnify and hold Landlord harmless from and against any third party claims, liabilities, judgments or costs (including reasonable attorneys' fees and costs) arising out of same or in connection therewith. Except as to Alterations as to which no notice is required under the second sentence of Section 8.1, Tenant shall give Landlord notice at least ten (10) business days prior to the commencement of any such work on the Premises (or such

additional time as may be necessary under applicable laws) to afford Landlord the opportunity of posting and recording appropriate notices of non-responsibility (to the extent applicable pursuant to then applicable laws). Tenant shall remove any such lien or encumbrance by bond or otherwise within ten (10) business days after notice by Landlord, and if Tenant shall fail to do so, Landlord may pay the amount necessary to remove such lien or encumbrance, without being responsible for investigating the validity thereof.

10. INSURANCE

10.1 **Indemnification and Waiver**. Except as provided in Section 10.5 or to the extent due to the negligence, willful misconduct or violation of this Lease by Landlord or the Landlord Parties, Tenant hereby assumes all risk of damage to property in, upon or about the Premises from any cause whatsoever (including, but not limited to, any personal injuries resulting from a slip and fall in, upon or about the Premises) and agrees that Landlord, its partners, subpartners and their respective officers, agents, servants, employees, and independent contractors (collectively, "**Landlord Parties**") shall not be liable for, and are hereby released from any responsibility for, any damage either to person or property or resulting from the loss of use thereof, which damage is sustained by Tenant or by other persons claiming through Tenant. Tenant shall indemnify, defend, protect, and hold harmless the Landlord Parties from any and all loss, cost, damage, expense and liability (including without limitation court costs and reasonable attorneys' fees) incurred in connection with or arising from any cause in, on or about the Premises (including, but not limited to, a slip and fall), any acts, omissions or negligence of Tenant or of any person claiming by, through or under Tenant, or of the contractors, agents, servants, employees, invitees, guests or licensees of Tenant or any such person, in, on or about the Project or any breach of the terms of this Lease, either prior to, during, or after the expiration of the Lease Term, provided that the terms of the foregoing indemnity and release shall not apply to the negligence or willful misconduct of Landlord or its agents, employees, contractors, licensees or invitees, or Landlord's violation of this Lease. Should Landlord be named as a defendant in any suit brought against Tenant in connection with or arising out of Tenant's occupancy of the Premises, Tenant shall pay to Landlord its costs and expenses incurred in such suit, including its actual professional fees such as reasonable appraisers', accountants' and attorneys' fees. Notwithstanding anything to the contrary in this Lease, Landlord shall not be released or indemnified from, and shall indemnify, defend, protect and hold harmless Tenant, its agents and employees, from, all losses, damages, liabilities, demands, claims, actions, attorneys' fees, costs and expenses arising from the negligence or willful misconduct of Landlord or its agents, contractors, licensees or invitees, or a violation of Landlord's obligations or representations under this Lease. The provisions of this Section 10.1 shall survive the expiration or sooner termination of this Lease with respect to any claims or liability arising in connection with any event occurring prior to such expiration or termination.

10.2 **Tenant's Compliance With Landlord's Property Insurance**. Landlord shall insure the Building, Tenant Improvements and any Alterations during the Lease Term against loss or damage under an "all risk" property insurance policy on a full replacement cost basis, with commercially reasonable deductibles. Such coverage shall be in such amounts, from such companies, and on such other terms and conditions, as Landlord may from time to time reasonably determine. Additionally, at the option of Landlord, such insurance coverage may include the risks of earthquakes and/or flood damage and additional hazards, a rental loss endorsement and one or more loss payee endorsements in favor of the holders of any mortgages or deeds of trust encumbering the interest of Landlord in the Building or the ground or underlying lessors of the Building, or any portion thereof. The costs of such insurance shall be included in Operating Expenses, subject to the terms of Section 4.2.4. Tenant shall, at Tenant's expense, comply with all insurance company requirements pertaining to the use of the Premises. If Tenant's conduct or use of the Premises causes any increase in the premium for such insurance policies then Tenant shall reimburse Landlord for any such increase. Tenant, at Tenant's expense, shall comply with all rules, orders, regulations or requirements of the American Insurance Association (formerly the National Board of Fire Underwriters) and with any similar body. Notwithstanding anything to the contrary in this Lease, Tenant shall not be required to comply with or cause the Premises to comply with any laws, rules, regulations or insurance requirements requiring the construction of alterations unless such compliance is necessitated solely due to Tenant's particular use of the Premises. Landlord shall also keep in full force and effect a policy of Commercial General Liability Insurance protecting Landlord against claims for bodily injury and property damage arising out of Landlord's ownership, use, occupancy or maintenance of the Building and the Common Areas. Such insurance shall be on an occurrence basis and shall include limits of liability not less than those required of Tenant under Section 10.3.

10.3 **Tenant's Insurance**. Tenant shall maintain the following coverages in the following amounts during the Lease Term (except Tenant shall carry the insurance described in Section 10.3.1 during any period in which it enters the Premises).

10.3.1 Commercial General Liability Insurance on an occurrence form covering the insured against claims of bodily injury and property damage (including loss of use thereof) arising out of Tenant's operations, and contractual liabilities including a contractual coverage for limits of liability (which limits may be met together with umbrella liability insurance) of not less than:

Bodily Injury and	$4,000,000 each occurrence
Property Damage Liability	$4,000,000 annual aggregate
Personal Injury Liability	$3,000,000 each occurrence
	$3,000,000 annual aggregate

10.3.2 Property Insurance covering all office furniture, business and trade fixtures, office and lab equipment, free-standing cabinet work, movable partitions, merchandise and all other items of Tenant's property on the Premises installed by, for, or at the expense of Tenant. Such insurance shall be written on an "**all risks**" of physical loss or damage basis, for the full replacement cost value (subject to reasonable deductible amounts) new without deduction for depreciation of the covered items and in amounts that meet any co-insurance clauses of the policies of insurance and shall include coverage for damage or other loss caused by fire or other peril including, but not limited to, vandalism and malicious mischief, theft, water damage (excluding flood), including sprinkler leakage, bursting or stoppage of pipes, and explosion, and providing business interruption coverage for a period of ninety (90) days.

10.3.3 Business Income Interruption for ninety (90) days plus Extra Expense insurance in such amounts as will reimburse Tenant for actual direct or indirect loss of earnings attributable to the risks outlined in Section 10.3.2 above.

10.3.4 Worker's Compensation and Employer's Liability or other similar insurance pursuant to all applicable state and local statutes and regulations. The policy shall include a waiver of subrogation in favor of Landlord, its employees, Lenders and any property manager or partners.

10.4 **Form of Policies**. The minimum limits of policies of insurance required of Tenant under this Lease shall in no event limit the liability of Tenant under this Lease. Such insurance shall (i) name Landlord, its subsidiaries and affiliates, its property manager (if any) and any other party the Landlord so specifies, as an additional insured on the liability insurance, including Landlord's managing agent, if any; (ii) be issued by an insurance company having a rating of not less than A-:VII in Best's Insurance Guide or that is otherwise acceptable to Landlord and authorized to do business in the State of California; and (iv) be primary insurance as to all claims thereunder and provide that any insurance carried by Landlord is excess and is non-contributing with any insurance required of Tenant. Tenant shall not cause said insurance to be canceled unless thirty (30) days' prior written notice shall have been given to Landlord and any mortgagee of Landlord (unless such cancellation is the result of non-payment of premiums, in which case note less than five (5) days' notice shall be provided). Tenant shall deliver said policy or policies or certificates thereof to Landlord on or before the Rent Commencement Date and at least ten (10) days before the expiration dates thereof. In the event Tenant shall fail to procure such insurance, or to deliver such policies or certificate, Landlord may, at its option, procure such policies for the account of Tenant, and the cost thereof shall be paid to Landlord within five (5) days after delivery to Tenant of bills therefor.

10.5 **Subrogation**. Landlord and Tenant hereby agree to look solely to, and seek recovery only from, their respective insurance carriers in the event of a property or business interruption loss to the extent that such coverage is agreed to be provided hereunder, notwithstanding the negligence of either Party. Notwithstanding anything to the contrary in this Lease, the Parties each hereby waive all rights and claims against each other for such losses, and waive all rights of subrogation of their respective insurers. The Parties agree that their respective insurance policies do now, or shall, contain the waiver of subrogation.

10.6 **Additional Insurance Obligations**. Tenant shall carry and maintain during the entire Lease Term, at Tenant's sole cost and expense, increased amounts of the insurance required to be carried by Tenant pursuant to this Article 10 and such other reasonable types of insurance coverage and in such reasonable amounts covering the Premises and Tenant's operations therein, as may be reasonably requested by Landlord or Landlord's lender, but in no event in excess of the amounts and types of insurance then being required by landlords of buildings comparable to and in the vicinity of the Building.

11. DAMAGE AND DESTRUCTION

11.1 **Repair of Damage to Premises by Landlord**. Tenant shall promptly notify Landlord of any damage to the Premises resulting from fire or any other casualty. If the Premises or any Common Areas serving or providing access to the Premises shall be damaged by fire or other casualty, Landlord shall use reasonable efforts to notify Tenant within sixty (60) days after the date of discovery of the damage whether Landlord will restore the Premises and Common Areas and, in Landlord's reasonable judgment, the time period within which the restoration can be completed. If Landlord elects to restore Premises and Common Areas, Landlord shall promptly and diligently, subject to reasonable delays for insurance adjustment or other matters beyond Landlord's reasonable control, and subject to all other terms of this Article 11, restore the Premises and such Common Areas. Such restoration shall be to substantially the same condition of the Premises and the Common Areas prior to the casualty, except for modifications required by zoning and building codes and other laws or any other modifications to the Common Areas deemed desirable by Landlord, which are consistent with the character of the Project, provided that access to the Premises shall not be materially impaired and Landlord's repair shall include the Tenant Improvements and Tenant's Alterations installed in the Premises. Landlord shall not be liable for any inconvenience or annoyance to Tenant or its visitors, or injury to Tenant's business resulting in any way from such damage or the repair thereof; provided however, that if such fire or other casualty shall have damaged the Premises or Common Areas necessary to Tenant's occupancy, and the damaged portions of the Premises are not occupied by Tenant as a result thereof, then during the time and to the extent the Premises are unfit for occupancy, the Rent shall be abated in proportion to the ratio that the amount of rentable square feet of the Premises which is unfit for occupancy for the purposes permitted under this Lease bears to the total rentable square feet of the Premises.

11.2 **Landlord's Option to Repair**. Notwithstanding the terms of Section 11.1, Landlord may elect not to rebuild and/or restore the Premises, Building and/or Project, and instead terminate this Lease, by notifying Tenant in writing of such termination within sixty (60) days after the date of discovery of the damage, such notice to include a termination date giving Tenant sixty (60) days to vacate the Premises, but Landlord may so elect only if the Building shall be damaged by fire or other casualty or cause, and one or more of the following conditions is present: (i) in Landlord's reasonable judgment, repairs cannot reasonably be completed within one (1) year after the date of discovery of the damage (when such repairs are made without the payment of overtime or other premiums); (ii) the damage is due to a risk that Landlord is not required to insure under this Lease, and the cost of restoration exceed five percent (5%) of the replacement cost of the Building (unless Tenant agrees to pay any uninsured amount in excess of such five percent (5%)); or (iii) the damage occurs during the last twelve (12) months of the Lease Term and will take more than sixty (60) days to restore.

11.3 **Tenant's Option to Terminate.** Notwithstanding anything to the contrary in Section 11.1 or 11.2, if (a) the damage occurs during the last twelve (12) months of the Lease Term, and will take more than sixty (60) days to restore, or (b) in the reasonable judgment of Landlord, the repairs cannot be completed within eight (8) months days after the date of discovery of the damage (or are not in fact completed within nine (9) months after the date of discovery of the damage), Tenant may elect, no earlier than sixty (60) days after the date of the damage and not later than ninety (90) days after the date of such damage, or within thirty (30) days after such repairs are not timely completed, to terminate this Lease by written notice to Landlord effective as of the date specified in the notice, which date shall not be less than thirty (30) days nor more than sixty (60) days after the date such notice is given by Tenant.

11.4 **Waiver of Statutory Provisions**. The provisions of this Lease, including this Article 11, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Premises, the Building or the Project, and any statute or regulation of the State of California, including, Sections 1932(2) and 1933(4) of the California Civil Code, with respect to any rights or obligations concerning damage or destruction in the absence of an express agreement between the Parties, and any other statute or regulation, now or hereafter in effect, shall have no application to this Lease or any damage or destruction to all or any part of the Premises, the Building or the Project.

12. NONWAIVER No provision of this Lease shall be deemed waived by either Party unless expressly waived in a writing signed thereby. The waiver by either Party of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of any subsequent breach of same or any other term, covenant or condition herein contained. The subsequent acceptance of Rent hereunder by Landlord shall not be deemed to be a waiver of any preceding breach by Tenant of any term, covenant or condition of this Lease, other than the failure of Tenant to pay the particular Rent so accepted, regardless of Landlord's knowledge of such preceding breach at the time of acceptance of such Rent. No acceptance of a lesser amount than the Rent herein stipulated shall be deemed a waiver of Landlord's right to receive the full amount due, nor shall any endorsement or statement on any check or payment or any letter accompanying such check or payment be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the full amount due. No receipt of monies by Landlord from Tenant after the termination of this Lease shall in any way alter the length of the Lease Term or of Tenant's right of possession hereunder, or after the giving of any notice shall reinstate, continue or extend the Lease Term or affect any notice given Tenant prior to the receipt of such monies, it being agreed that after the service of notice or the commencement of a suit, or after final judgment for possession of the Premises, Landlord may receive and collect any Rent due, and the payment of said Rent shall not waive or affect said notice, suit or judgment.

13. CONDEMNATION If the whole or any part of the Premises shall be taken by power of eminent domain or condemned by any competent authority for any public or quasi-public use or purpose, or if any adjacent property or street shall be so taken or condemned, or reconfigured or vacated by such authority in such manner as to require the use or reconstruction of any part of the Premises, or if Landlord shall grant a deed or other instrument in lieu of such taking by eminent domain or condemnation, Landlord shall have the option to terminate this Lease effective as of the date possession is required to be surrendered to the authority. If more than twenty percent (20%) of the rentable square feet of the Premises is taken, or if access to the Premises is substantially impaired, in each case for a period in excess of one hundred eighty (180) days, Tenant shall have the option to terminate this Lease effective as of the date possession is required to be surrendered to the authority. Tenant shall not because of such taking assert any claim against Landlord or the authority for any compensation because of such taking and Landlord shall be entitled to the entire award or payment in connection therewith, except that Tenant shall have the right to file any separate claim available to Tenant for any taking of Tenant's personal property and fixtures belonging to Tenant and removable by Tenant upon expiration of the Lease Term pursuant to the terms of this Lease, for moving expenses, for the unamortized value of any improvements paid for by Tenant and for the Lease "bonus value", so long as such claims are payable separately to Tenant. All Rent shall be apportioned as of the date of such termination. If any part of the Premises shall be taken, and this Lease shall not be so terminated, the Rent shall be proportionately abated. Tenant hereby waives any and all rights it might otherwise have pursuant to Section 1265.130 of The California Code of Civil Procedure. Notwithstanding anything to the contrary contained in this Article 13, in the event of a temporary taking of all or any portion of the Premises for a period of one hundred and eighty (180) days or less, then this Lease shall not terminate but the Base Rent and the Additional Rent shall be abated for the period of such taking in proportion to the ratio that the amount of rentable square feet of the Premises taken bears to the total rentable square feet of the Premises. Landlord shall be entitled to receive the entire award made in connection with any such temporary taking.

14. ASSIGNMENT AND SUBLETTING

14.1 **Transfers**. Tenant shall not, without the prior written consent of Landlord, assign, mortgage, pledge, hypothecate, encumber, or permit any lien to attach to, or otherwise transfer, this Lease or any interest hereunder, permit any assignment, or other transfer of this Lease or any interest hereunder by operation of law, sublet the Premises or any part thereof, or enter into any license or concession agreements or otherwise permit the occupancy or use of the Premises or any part thereof by any persons other than Tenant and its employees and contractors (all of the foregoing are hereinafter sometimes referred to collectively as "**Transfers**" and any person to whom any Transfer is made or sought to be made is hereinafter sometimes referred to as a "**Transferee**"). If Tenant desires Landlord's consent to any Transfer, Tenant shall notify Landlord in writing, which notice (the "**Transfer Notice**") shall include (i) the proposed effective date of the Transfer, which shall not be less than thirty (30) days nor more than one hundred eighty (180) days after the date of delivery of the Transfer Notice, (ii) a description of the portion of the Premises to be transferred (the "**Subject Space**"), (iii) all of the terms of the proposed Transfer and the consideration therefor,

including calculation of the "**Transfer Premium**", as that term is defined in Section 14.3 below, in connection with such Transfer, the name and address of the proposed Transferee, and a copy of all existing executed and/or proposed documentation pertaining to the proposed Transfer, and (iv) current financial statements of the proposed Transferee certified by an officer, partner or owner thereof, and any other information reasonably required by Landlord that will enable Landlord to determine the financial responsibility, character, and reputation of the proposed Transferee, nature of such Transferee's business and proposed use of the Subject Space. Any Transfer made without Landlord's prior written consent shall, at Landlord's option, be null, void and of no effect, and shall, at Landlord's option, constitute a default by Tenant under this Lease. Whether or not Landlord consents to any proposed Transfer, Tenant shall pay Landlord's reasonable review and processing fees, as well as any reasonable professional fees (including attorneys', accountants', architects', engineers' and consultants' fees) incurred by Landlord (not to exceed $3,500 in the aggregate for any particular Transfer), within thirty (30) days after written request by Landlord.

14.2 **Landlord's Consent**. Landlord shall not unreasonably withhold, condition or delay its consent to any proposed Transfer of the Subject Space to the Transferee on the terms specified in the Transfer Notice. Without limitation as to other reasonable grounds for withholding consent, the Parties hereby agree that it shall be reasonable under this Lease and under any applicable law for Landlord to withhold consent to any proposed Transfer where one or more of the following apply:

14.2.1 The Transferee is of a character or reputation or engaged in a business which is not consistent with the quality of the Building or the Project;

14.2.2 The Transferee is either a governmental agency or instrumentality thereof;

14.2.3 The Transferee is not a party of reasonable financial worth and/or financial stability in light of the responsibilities to be undertaken in connection with the Transfer on the date consent is requested; or

14.2.4 The proposed Transfer would cause a violation of another lease for space in the Project, or would give an occupant of the Project a right to cancel its lease.

If Landlord consents to any Transfer pursuant to the terms of this Section 14.2 (and does not exercise any recapture rights Landlord may have under Section 14.4), Tenant may within six (6) months after Landlord's consent, but not later than the expiration of said six-month period, enter into such Transfer of the Premises or portion thereof, upon substantially the same terms and conditions as are set forth in the Transfer Notice furnished by Tenant to Landlord pursuant to Section 14.1, provided that if there are any changes in the terms and conditions from those specified in the Transfer Notice such that Landlord would initially have been entitled to refuse its consent to such Transfer under this Section 14.2, Tenant shall again submit the Transfer to Landlord for its approval and other action under this Article 14 (including Landlord's right of recapture, if any, under Section 14.4). Notwithstanding anything to the contrary in this Lease, if Tenant or any proposed Transferee claims that Landlord has unreasonably withheld or delayed its consent under Section 14.2 or otherwise has breached or acted unreasonably under this Article 14, their sole remedies shall be a suit for contract damages (other than damages for injury to, or interference with, Tenant's business including loss of profits, however occurring) or declaratory judgment and an injunction for the relief sought, and Tenant hereby waives all other remedies, including any right at law or equity to terminate this Lease, on its own behalf and, to the extent permitted under all applicable laws, on behalf of the proposed Transferee.

14.3 **Transfer Premium**. If Landlord consents to a Transfer, as a condition thereto, which the Parties hereby agree is reasonable, Tenant shall pay to Landlord fifty percent (50%) of any "**Transfer Premium**," as that term is defined in this Section 14.3, received by Tenant from such Transferee. "**Transfer Premium**" shall mean all rent, additional rent or other consideration payable by such Transferee in connection with the Transfer in excess of the Rent and Additional Rent payable by Tenant under this Lease during the term of the Transfer on a per rentable square foot basis if less than all of the Premises is transferred, and after deduction of (i) any costs of improvements made to the Subject Space in connection with such Transfer, (ii) free rent or rent abatement provided in connection with such Transfer, (iii) brokerage commissions paid in connection with such Transfer, and (iv) reasonable legal fees incurred in connection with such Transfer, in each case amortized over the remaining Term of this Lease. "**Transfer Premium**" shall also include, but not be limited to, key money, bonus money or other cash consideration paid by Transferee to Tenant in connection with such Transfer, and any payment in excess of fair market value for services

rendered by Tenant to Transferee or for assets, fixtures, inventory, equipment, or furniture transferred by Tenant to Transferee in connection with such Transfer. The determination of the amount of Landlord's applicable share of the Transfer Premium shall be made on a monthly basis as rent or other consideration is received by Tenant under the Transfer.

14.4 **Landlord's Option as to Subject Space**. Notwithstanding anything to the contrary contained in this Article 14, in the event Tenant contemplates a Transfer other than to a Permitted Transferee that, together with all prior Transfers then remaining in effect, would cause fifty percent (50%) or more of the Premises to be Transferred for more than fifty percent (50%) of the then remaining Lease Term (taking into account any extension of the Lease Term that has irrevocably exercised by Tenant), Tenant shall give Landlord notice (the "**Intention to Transfer Notice**") of such contemplated Transfer (whether or not the contemplated Transferee or the terms of such contemplated Transfer have been determined). The Intention to Transfer Notice shall specify the portion of and amount of rentable square feet of the Premises which Tenant intends to Transfer in the subject Transfer (the "**Contemplated Transfer Space**"), the contemplated date of commencement of the Contemplated Transfer (the "**Contemplated Effective Date**"), and the contemplated length of the term of such contemplated Transfer. Thereafter, Landlord shall have the option, by giving written notice to Tenant within thirty (30) days after receipt of any Intention to Transfer Notice, to recapture the Contemplated Transfer Space. Such recapture shall cancel and terminate this Lease with respect to such Contemplated Transfer Space as of the Contemplated Effective Date, and this Lease shall remain in effect with respect to the balance of the Premises not so recaptured. In the event of a recapture by Landlord, if this Lease shall be canceled with respect to less than the entire Premises, the Rent reserved herein shall be prorated on the basis of the number of rentable square feet retained by Tenant in proportion to the number of rentable square feet contained in the Premises, and this Lease as so amended shall continue thereafter in full force and effect, and upon request of either Party, the Parties shall execute written confirmation of the same. If Landlord declines, or fails to elect in a timely manner, to recapture such Contemplated Transfer Space under this Section 14.4, then, subject to the other terms of this Article 14, for a period of nine (9) months (the "**Nine Month Period**") commencing on the last day of such thirty (30) day period, Landlord shall not have any right to recapture the Contemplated Transfer Space with respect to any Transfer made during the Nine Month Period, provided that any such Transfer is substantially on the terms set forth in the Intention to Transfer Notice, and provided further that any such Transfer shall be subject to the remaining terms of this Article 14. If such a Transfer is not so consummated within the Nine Month Period (or if a Transfer is so consummated, then upon the expiration of the term of any Transfer of such Contemplated Transfer Space consummated within such Nine Month Period), Tenant shall again be required to submit a new Intention to Transfer Notice to Landlord with respect any contemplated Transfer, as provided above in this Section 14.4. Tenant shall not be required to provide a separate Intention to Transfer Notice and Tenant's request for Landlord's consent to a Transfer shall satisfy Tenant's obligations in this Section 14.4.

14.5 **Effect of Transfer**. If Landlord consents to a Transfer, (i) the terms and conditions of this Lease shall in no way be deemed to have been waived or modified, (ii) such consent shall not be deemed consent to any further Transfer by either Tenant or a Transferee, (iii) Tenant shall deliver to Landlord, promptly after execution, an original executed copy of all documentation pertaining to the Transfer in form reasonably acceptable to Landlord, (iv) Tenant shall furnish upon Landlord's request a complete statement, certified by an independent certified public accountant, or Tenant's chief financial officer, setting forth in detail the computation of any Transfer Premium Tenant has derived and shall derive from such Transfer, and (v) no Transfer relating to this Lease or agreement entered into with respect thereto, whether with or without Landlord's consent, shall relieve Tenant or any guarantor of this Lease from any liability under this Lease, including in connection with the Subject Space. Landlord or its authorized representatives shall have the right at all reasonable times to audit the books, records and papers of Tenant relating to any Transfer, and shall have the right to make copies thereof. If the Transfer Premium respecting any Transfer shall be found understated, Tenant shall, within thirty (30) days after demand, pay the deficiency, and if understated by more than five percent (5%), Tenant shall pay Landlord's costs of such audit.

14.6 **Additional Transfers**. For purposes of this Lease, the term "**Transfer**" shall also include if Tenant is a partnership, the withdrawal or change, voluntary, involuntary or by operation of law, of fifty percent (50%) or more of the partners, or transfer of fifty percent (50%) or more of partnership interests, within a twelve (12)-month period, or the dissolution of the partnership without immediate reconstitution thereof.

14.7 **Occurrence of Default**. Any Transfer hereunder shall be subordinate and subject to the provisions of this Lease, and if this Lease shall be terminated during the term of any Transfer, Landlord shall have the right to: (i) treat such Transfer as cancelled and repossess the Subject Space by any lawful means, or (ii) require that such Transferee attorn to and recognize Landlord as its landlord under any such Transfer. If Tenant shall be in default under this Lease, Landlord is hereby irrevocably authorized, as Tenant's agent and attorney-in-fact, to direct any Transferee to make all payments under or in connection with the Transfer directly to Landlord (which Landlord shall apply towards Tenant's obligations under this Lease) until such default is cured. Such Transferee shall rely on any representation by Landlord that Tenant is in default hereunder, without any need for confirmation thereof by Tenant. Upon any assignment, the assignee shall assume in writing all obligations and covenants of Tenant thereafter to be performed or observed under this Lease. No collection or acceptance of rent by Landlord from any Transferee shall be deemed a waiver of any provision of this Article 14 or the approval of any Transferee or a release of Tenant from any obligation under this Lease, whether theretofore or thereafter accruing. In no event shall Landlord's enforcement of any provision of this Lease against any Transferee be deemed a waiver of Landlord's right to enforce any term of this Lease against Tenant or any other person. If Tenant's obligations hereunder have been guaranteed, Landlord's consent to any Transfer shall not be effective unless the guarantor also consents to such Transfer.

14.8 **Non-Transfers**. Notwithstanding anything to the contrary contained in this Article 14, (i) an assignment or subletting of all or a portion of the Premises to an affiliate of Tenant (an entity that is controlled by, controls, or is under common control with, Tenant), (ii) an assignment of the Premises to an entity that acquires all or substantially all of the assets or interests (partnership, stock or other) of Tenant, or (iii) an assignment of the Premises to an entity that is the resulting entity of a merger or consolidation of Tenant with another entity (collectively, a "**Permitted Transferee**"), shall not be deemed a Transfer under this Article 14 (and for the avoidance of doubt, Sections 14.2, 14.3 and 14.4. shall not apply to such Transfer), provided that (A) Tenant notifies Landlord of any such assignment or sublease and promptly supplies Landlord with any documents or information requested by Landlord regarding such assignment or sublease or such affiliate, (B) such assignment or sublease is not a subterfuge by Tenant to avoid its obligations under this Lease, (C) such Permitted Transferee shall be of a character and reputation consistent with the quality of the Building, and (D) such Permitted Transferee described in subpart (ii) or (iii) above shall have a tangible net worth (not including goodwill as an asset) computed in accordance with generally accepted accounting principles ("**Net Worth**") at least equal to the Net Worth of Tenant on the day immediately preceding the effective date of such assignment or sublease. An assignee of Tenant's entire interest that is also a Permitted Transferee may also be known as a "**Permitted Assignee**". "**Control**," as used in this Section 14.8, shall mean the ownership, directly or indirectly, of at least fifty-one percent (51%) of the voting securities of, or possession of the right to vote, in the ordinary direction of its affairs, of at least fifty-one percent (51%) of the voting interest in, any person or entity. No such permitted assignment or subletting shall serve to release Tenant from any of its obligations under this Lease.

14.9 **Allowed Subleases.** Notwithstanding any contrary provision of this Article 14, Tenant shall have the right without the payment of a Transfer Premium, and without the receipt of Landlord's consent, but on prior notice to Landlord, to permit the occupancy of up to 5,000 square feet of the Premises, to any individual(s) or entities with an ongoing business relationship with Tenant (collectively, "**Tenant's Occupants**") on and subject to the following conditions: (i) all such individuals or entities shall be of a character and reputation consistent with the quality of the Building and Project; (ii) no individual or entity shall occupy a separately demised portion of the Premises or which contains an entrance to such portion of the Premises other than the primary entrance to the Premises; and (iii) such occupancy shall not be a subterfuge by Tenant to avoid its obligations under this Lease or the restrictions on Transfers pursuant to this Article 14. Tenant shall promptly supply Landlord with any documents or information reasonably requested by Landlord regarding any such individuals or entities. Any occupancy permitted under this Section 14.9 shall not be deemed a Transfer under this Article 14. Notwithstanding the foregoing, no such occupancy shall relieve Tenant from any obligations or liability under this Lease.

15. SURRENDER OF PREMISES; OWNERSHIP AND REMOVAL OF TRADE FIXTURES

15.1 **Surrender of Premises**. No act or thing done by Landlord or any agent or employee of Landlord during the Lease Term shall be deemed to constitute an acceptance by Landlord of a surrender of the Premises unless such intent is specifically acknowledged in writing by Landlord. The delivery of keys to the Premises to Landlord or any agent or employee of Landlord shall not constitute a surrender of the Premises or effect a termination of this Lease, whether or not the keys are thereafter retained by Landlord, and notwithstanding such delivery Tenant shall be

entitled to the return of such keys at any reasonable time upon request until this Lease shall have been properly terminated. The voluntary or other surrender of this Lease by Tenant, whether accepted by Landlord or not, or a mutual termination hereof, shall not work a merger, and at the option of Landlord shall operate as an assignment to Landlord of all subleases or subtenancies affecting the Premises or terminate any or all such sublessees or subtenancies.

15.2 **Removal of Tenant Property by Tenant**. Upon the expiration of the Lease Term, or upon any earlier termination of this Lease, Tenant shall, subject to the provisions of this Article 15, quit and surrender possession of the Premises to Landlord in as good order and condition as when Tenant took possession and as thereafter improved by Landlord and/or Tenant, reasonable wear and tear, damage caused by casualty, repairs required as a result of condemnation, and repairs that are specifically made the responsibility of Landlord hereunder excepted. Upon such expiration or termination, Tenant shall, without expense to Landlord, remove or cause to be removed from the Premises all debris and rubbish, and such items of furniture, equipment, free-standing cabinet work, movable partitions (but not demountable walls) and other articles of personal property owned by Tenant or installed or placed by Tenant at its expense in the Premises, and such similar articles of any other persons claiming under Tenant, as Landlord may, in its sole discretion, require to be removed, and Tenant shall repair at its own expense all damage to the Premises and Building resulting from such removal.

15.3 **Environmental Assessment**. In connection with its surrender of the Premises, Tenant shall submit to Landlord, at least fifteen (15) days prior to the expiration date of this Lease (or in the event of an earlier termination of this Lease, as soon as reasonably possible following such termination), an environmental Assessment of the Premises by a competent and experienced environmental engineer or engineering firm reasonably satisfactory to Landlord (pursuant to a contract approved by Landlord and providing that Landlord can rely on the Environmental Assessment). If such Environmental Assessment reveals that remediation or Clean-up is required under any Environmental Laws that Tenant is responsible for under this Lease, Tenant shall submit a remediation plan prepared by a recognized environmental consultant and shall be responsible for all costs of remediation and Clean-up, as more particularly provided in Section 5.3.

15.4 **Condition of the Building and Premises Upon Surrender**. In addition to the above requirements of this Article 15, upon the expiration of the Lease Term, or upon any earlier termination of this Lease, Tenant shall, surrender the Premises and Building with Tenant having complied with all of Tenant's obligations under this Lease, including those relating to improvement, repair, maintenance, compliance with law, testing and other related obligations of Tenant set forth in Article 7. In the event that the Building and Premises shall be surrendered in a condition that does not comply with the terms of this Section 15.4, because Tenant failed to comply with its obligations set forth in Lease, then following thirty (30) days' notice to Tenant, during which thirty (30) day period Tenant shall have the right to cure such noncompliance, Landlord shall be entitled to expend all reasonable costs in order to cause the same to comply with the required condition upon surrender and Tenant shall promptly reimburse Landlord for all such costs upon notice and, commencing on the later of the termination of this Lease and three (3) business days after Landlord's delivery of notice of such failure and that it elects to treat such failure as a holdover, Tenant shall be deemed during the period that Tenant or Landlord, as the case may be, perform obligations relating to the Surrender Improvements to be in holdover under Article 16.

16. HOLDING OVER If Tenant holds over after the expiration of the Lease Term or earlier termination thereof, with the express or implied consent of Landlord, such tenancy shall be from month-to-month only, and shall not constitute a renewal hereof or an extension for any further term. If Tenant holds over after the expiration of the Lease Term of earlier termination thereof, without the express or implied consent of Landlord, such tenancy shall be deemed to be a tenancy by sufferance only, and shall not constitute a renewal hereof or an extension for any further term. In either case, Base Rent shall be payable at a monthly rate equal to one hundred fifty percent (150%) of the Base Rent applicable during the last rental period of the Lease Term under this Lease. Such month-to-month tenancy or tenancy by sufferance, as the case may be, shall be subject to every other applicable term, covenant and agreement contained herein. Nothing contained in this Article 16 shall be construed as consent by Landlord to any holding over by Tenant, and Landlord expressly reserves the right to require Tenant to surrender possession of the Premises to Landlord as provided in this Lease upon the expiration or other termination of this Lease. The provisions of this Article 16 shall not be deemed to limit or constitute a waiver of any other rights or remedies of Landlord provided herein or at law. If Tenant fails to surrender the Premises upon the termination or expiration of this Lease, in addition

to any other liabilities to Landlord accruing therefrom, Tenant shall protect, defend, indemnify and hold Landlord harmless from all loss, costs (including reasonable attorneys' fees) and liability resulting from such failure, including, without limiting the generality of the foregoing, any claims made by any succeeding tenant founded upon such failure to surrender and any lost profits to Landlord resulting therefrom.

17. ESTOPPEL CERTIFICATES Within ten (10) business days following a request in writing by Landlord, Tenant shall execute, acknowledge and deliver to Landlord an estoppel certificate, which, as submitted by Landlord, shall be substantially in the form of Exhibit D, attached hereto (or such other form as may be reasonably required by any prospective mortgagee or purchaser of the Project, or any portion thereof), indicating therein any exceptions thereto that may exist at that time, and shall also contain any other information reasonably requested by Landlord or Landlord's mortgagee or prospective mortgagee. Any such certificate may be relied upon by any prospective mortgagee or purchaser of all or any portion of the Project. Tenant shall execute and deliver whatever other instruments may be reasonably required for such purposes. At any time during the Lease Term, in connection with a sale or financing of the Building by Landlord, Landlord may require Tenant to provide Landlord with its most recent annual financial statement and annual financial statements of the preceding two (2) years, if Tenant is not at the time of Landlord's request publicly listed on a nationally-recognized stock exchange or market. Such statements shall be prepared in accordance with generally accepted accounting principles and, if such is the normal practice of Tenant, shall be audited by an independent certified public accountant. Landlord shall hold such statements confidential. Failure of Tenant to timely execute, acknowledge and deliver such estoppel certificate or other instruments shall constitute an acceptance of the Premises and an acknowledgment by Tenant that statements included in the estoppel certificate are true and correct, without exception.

18. SUBORDINATION Landlord hereby represents and warrants to Tenant that the Project is not currently subject to any ground lease, or to the lien of any mortgage or deed of trust. This Lease shall be subject and subordinate to all future ground or underlying leases of the Building or Project and to the lien of any mortgage, trust deed or other encumbrances now or hereafter in force against the Building or Project or any part thereof, if any, and to all renewals, extensions, modifications, consolidations and replacements thereof, and to all advances made or hereafter to be made upon the security of such mortgages or trust deeds, unless the holders of such mortgages, trust deeds or other encumbrances, or the lessors under such ground lease or underlying leases, require in writing that this Lease be superior thereto. The subordination of this Lease to any such future ground or underlying leases of the Building or Project or to the lien of any mortgage, trust deed or other encumbrances, shall be subject to Tenant's receipt of a commercially reasonable subordination, non-disturbance, and attornment agreement in favor of Tenant. Tenant covenants and agrees in the event any proceedings are brought for the foreclosure of any such mortgage or deed in lieu thereof (or if any ground lease is terminated), to attorn, without any deductions or set-offs whatsoever, to the lienholder or purchaser or any successors thereto upon any such foreclosure sale or deed in lieu thereof (or to the ground lessor), if so requested to do so by such purchaser or lienholder or ground lessor, and to recognize such purchaser or lienholder or ground lessor as the lessor under this Lease, provided such lienholder or purchaser or ground lessor shall agree to accept this Lease and not disturb Tenant's occupancy, so long as Tenant timely pays the rent and observes and performs the terms, covenants and conditions of this Lease to be observed and performed by Tenant. Landlord's interest herein may be assigned as security at any time to any lienholder. Tenant shall, within ten (10) days of request by Landlord, execute such further instruments or assurances as Landlord may reasonably deem necessary to evidence or confirm the subordination or superiority of this Lease to any such mortgages, trust deeds, ground leases or underlying leases. Tenant waives the provisions of any current or future statute, rule or law which may give or purport to give Tenant any right or election to terminate or otherwise adversely affect this Lease and the obligations of the Tenant hereunder in the event of any foreclosure proceeding or sale.

19. DEFAULTS; REMEDIES

19.1 **Events of Default**. The occurrence of any of the following shall constitute a default of this Lease by Tenant:

19.1.1 Any failure by Tenant to pay any Rent or any other charge required to be paid under this Lease, or any part thereof, when due unless such failure is cured within five (5) business days after written notice; or

19.1.2 Except where a specific time period is otherwise set forth for Tenant's performance in this Lease, in which event the failure to perform by Tenant within such time period shall be a default by Tenant under this Section 19.1.2, any failure by Tenant to observe or perform any other provision, covenant or condition of this Lease to be observed or performed by Tenant where such failure continues for thirty (30) days after written notice thereof from Landlord to Tenant; provided that if the nature of such default is such that the same cannot reasonably be cured within a thirty (30) day period, Tenant shall not be deemed to be in default if it diligently commences such cure within such period and thereafter diligently proceeds to rectify and cure such default; or

19.1.3 Abandonment or vacation of all or a substantial portion of the Premises by Tenant while Tenant is in default under this Lease; or

19.1.4 The failure by Tenant to observe or perform according to the provisions of Articles 5, 14, 17 or 18 of this Lease where such failure continues for more than four (4) business days after notice from Landlord.

19.2 **Remedies Upon Default**. Upon the occurrence and during the continuance of any event of default by Tenant, Landlord shall have, in addition to any other remedies available to Landlord at law or in equity (all of which remedies shall be distinct, separate and cumulative), the option to pursue any one or more of the following remedies, each and all of which shall be cumulative and nonexclusive, without any notice or demand whatsoever.

19.2.1 Terminate this Lease, in which event Tenant shall immediately surrender the Premises to Landlord, and if Tenant fails to do so, Landlord may, without prejudice to any other remedy that it may have for possession or arrearages in rent, enter upon and take possession of the Premises and expel or remove Tenant and any other person who may be occupying the Premises or any part thereof, without being liable for prosecution or any claim or damages therefor; and Landlord may recover from Tenant the following:

(i) The worth at the time of award of the unpaid rent that has been earned at the time of such termination; plus

(ii) The worth at the time of award of the amount by which the unpaid rent that would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(iii) The worth at the time of award of the amount by which the unpaid rent for the balance of the Lease Term after the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(iv) Any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or that in the ordinary course of things would be likely to result therefrom, specifically including, in each case to the extent allocable to the remaining Lease Term, brokerage commissions and advertising expenses incurred to obtain a new tenant, expenses of remodeling the Premises or any portion thereof for a new tenant, whether for the same or a different use, and any special concessions made to obtain a new tenant; and

(v) At Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by applicable law.

The term "**rent**" as used in this Section 19.2 shall be deemed to be and to mean all sums of every nature required to be paid by Tenant pursuant to the terms of this Lease, whether to Landlord or to others. As used in Sections 19.2.1(i) and (ii), the "worth at the time of award" shall be computed by allowing interest at the rate set forth in Article 25, but in no case greater than the maximum amount of such interest permitted by law. As used in Section 19.2.1(iii), the "**worth at the time of award**" shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus one percent (1%).

19.2.2 Landlord shall have the remedy described in California Civil Code Section 1951.4 (lessor may continue lease in effect after lessee's breach and abandonment and recover rent as it becomes due, if lessee has

the right to sublet or assign, subject only to reasonable limitations). Accordingly, if Landlord does not elect to terminate this Lease on account of any default by Tenant, Landlord may, from time to time, without terminating this Lease, enforce all of its rights and remedies under this Lease, including the right to recover all rent as it becomes due.

19.2.3 Landlord shall at all times have the rights and remedies (which shall be cumulative with each other and cumulative and in addition to those rights and remedies available under Sections 19.2.1 and 19.2.2, or any law or other provision of this Lease), without prior demand or notice except as required by applicable law, to seek any declaratory, injunctive or other equitable relief, and specifically enforce this Lease, or restrain or enjoin a violation or breach of any provision hereof.

19.3 **Subleases of Tenant**. If Landlord elects to terminate this Lease on account of any default by Tenant, as set forth in this Article 19, Landlord shall have the right to terminate any and all subleases, licenses, concessions or other consensual arrangements for possession entered into by Tenant and affecting the Premises or may, in Landlord's sole discretion, succeed to Tenant's interest in such subleases, licenses, concessions or arrangements. In the event of Landlord's election to succeed to Tenant's interest in any such subleases, licenses, concessions or arrangements, Tenant shall, as of the date of notice by Landlord of such election, have no further right to or interest in the rent or other consideration receivable thereunder.

19.4 **Efforts to Relet**. No re-entry, repairs, maintenance, changes, alterations and additions, appointment of a receiver to protect Landlord's interests hereunder, or any other action or omission by Landlord shall be construed as an election by Landlord to terminate this Lease or Tenant's right to possession, or to accept a surrender of the Premises, nor shall same operate to release Tenant in whole or in part from any of Tenant's obligations hereunder, unless express written notice of such intention is sent by Landlord to Tenant.

19.5 **Landlord Default**.

19.5.1 **General**. Notwithstanding anything to the contrary set forth in this Lease, Landlord shall not be in default in the performance of any obligation required to be performed by Landlord pursuant to this Lease unless Landlord fails to perform such obligation within thirty (30) days after the receipt of notice from Tenant specifying in detail Landlord's failure to perform; provided, however, if the nature of Landlord's obligation is such that more than thirty (30) days are required for its performance, then Landlord shall not be in default under this Lease if it shall commence such performance within such thirty (30) day period and thereafter diligently pursue the same to completion. Upon any such default by Landlord under this Lease, Tenant may, except as otherwise specifically provided in this Lease to the contrary, exercise any of its rights provided at law or in equity.

19.5.2 **Abatement of Rent**. In the event that Tenant is prevented from using, and does not use, the Premises or any portion thereof, as a result of (i) any repair, maintenance or alteration performed by Landlord, or which Landlord failed to perform, after the Rent Commencement Date and required by this Lease, or (ii) any failure to provide services, utilities or access to the Premises as required by this Lease, each as a direct result of Landlord's, negligence or willful misconduct or breach of this Lease (and except to the extent such failure is caused in whole or in part by the action or inaction of Tenant) (any such set of circumstances as set forth in items (i) or (ii), above, to be known as an "**Abatement Event**"), then Tenant shall give Landlord notice of such Abatement Event, and if such Abatement Event continues for five (5) consecutive business days after Landlord's receipt of any such notice (the "**Eligibility Period**"), then the Base Rent, Tenant's Share of Direct Expenses, and Tenant's obligation, if any, to pay for parking (to the extent not utilized by Tenant) shall be abated or reduced, as the case may be, after expiration of the Eligibility Period for such time that Tenant continues to be so prevented from using, and does not use for the normal conduct of Tenant's business, the Premises or a portion thereof, in the proportion that the rentable area of the portion of the Premises that Tenant is prevented from using, and does not use, bears to the total rentable area of the Premises; provided, however, in the event that Tenant is prevented from using, and does not use, a portion of the Premises for a period of time in excess of the Eligibility Period and the remaining portion of the Premises is not sufficient to allow Tenant to effectively conduct its business therein, and if Tenant does not effectively conduct its business from such remaining portion, then for such time after expiration of the Eligibility Period during which Tenant is so prevented from effectively conducting its business therein, the Base Rent and Tenant's Share of Direct Expenses for the entire Premises and Tenant's obligation to pay for parking shall be abated for such time as Tenant continues to be so prevented from using, and does not use, the Premises. If, however, Tenant reoccupies any portion of the Premises

during such period, the Rent allocable to such reoccupied portion, based on the proportion that the rentable area of such reoccupied portion of the Premises bears to the total rentable area of the Premises, shall be payable by Tenant from the date Tenant reoccupies such portion of the Premises. To the extent an Abatement Event is caused by an event covered by Articles 5, 11 or 13 of this Lease, then Tenant's right to abate rent shall be governed by the terms of such Article 5, 11 or 13, as applicable, and the Eligibility Period shall not be applicable thereto. Except as provided in this Section 19.5.2, nothing contained herein shall be interpreted to mean that Tenant is excused from paying Rent due hereunder.

20. COVENANT OF QUIET ENJOYMENT Landlord covenants that Tenant, on paying the Rent, charges for services and other payments herein reserved and on keeping, observing and performing all the other terms, covenants, conditions, provisions and agreements herein contained on the part of Tenant to be kept, observed and performed, within the notice and cure periods provided for in this Lease, shall, during the Lease Term, peaceably and quietly have, hold and enjoy the Premises subject to the terms, covenants, conditions, provisions and agreements hereof without interference by any persons lawfully claiming by or through Landlord. The foregoing covenant is in lieu of any other covenant express or implied.

21. LETTER OF CREDIT

21.1 **Delivery of Letter of Credit**. Tenant shall deliver to Landlord, concurrently with Tenant's execution of this Lease, an unconditional, clean, irrevocable letter of credit (the "**L-C**") in the amount set forth in Section 8 of the Lease Summary (the "**L-C Amount**"), which L-C shall be issued by a money-center, solvent and nationally recognized bank (a bank that accepts deposits, maintains accounts, has a local San Francisco Bay Area office that will negotiate a letter of credit, and whose deposits are insured by the FDIC) reasonably acceptable to Landlord (such approved, issuing bank being referred to herein as the "**Bank**"), which Bank must have a rating from Standard and Poors Corporation of A- or better (or any equivalent rating thereto from any successor or substitute rating service selected by Landlord) and a letter of credit issuer rating from Moody's Investor Service of A3 or better (or any equivalent rating thereto from any successor rating agency thereto)) (collectively, the "**Bank's Credit Rating Threshold**"), and which L-C shall be in a form reasonably approved by Landlord. Tenant shall pay all expenses, points and/or fees incurred by Tenant in obtaining the L-C. The L-C shall (i) be "callable" at sight, irrevocable and unconditional, (ii) be maintained in effect, whether through renewal or extension, for the period commencing on the Execution Date and continuing until the date (the "**L-C Expiration Date**") that is no less than sixty (60) days after the expiration of the Lease Term as the same may be extended, and Tenant shall deliver a new L-C or certificate of renewal or extension to Landlord at least thirty (30) days prior to the expiration of the L-C then held by Landlord, without any action whatsoever on the part of Landlord, (iii) be fully assignable by Landlord, its successors and assigns, (iv) permit partial draws and multiple presentations and drawings, and (v) be otherwise subject to the Uniform Customs and Practices for Documentary Credits (1993-Rev), International Chamber of Commerce Publication #500, or the International Standby Practices-ISP 98, International Chamber of Commerce Publication #590. Landlord shall have the right to draw down an amount up to the face amount of the L-C if any of the following shall have occurred or be applicable: (A) such amount is due to Landlord under the terms and conditions of this Lease, and has not been paid within applicable notice and cure periods (or, if Landlord is prevented by law from providing notice, within the period for payment set forth in this Lease, plus applicable cure periods, assuming that notice is deemed delivered on the first business day following the expiration of the period for payment set forth in this Lease), or (B) Tenant has filed a voluntary petition under the U. S. Bankruptcy Code or any state bankruptcy code (collectively, "**Bankruptcy Code**"), or (C) an involuntary petition has been filed against Tenant under the Bankruptcy Code that is not dismissed within thirty (30) days, or (D) this Lease has been rejected, or is deemed rejected, under Section 365 of the U.S. Bankruptcy Code, following the filing of a voluntary petition by Tenant under the Bankruptcy Code, or the filing of an involuntary petition against Tenant under the Bankruptcy Code, or (E) the Bank has notified Landlord that the L-C will not be renewed or extended through the L-C Expiration Date, and Tenant has not provided a replacement L-C that satisfies the requirements of this Lease at least thirty (30) days prior to such expiration, or (F) Tenant is placed into receivership or conservatorship, or becomes subject to similar proceedings under Federal or State law, or (G) Tenant executes an assignment for the benefit of creditors, or (H) if (1) any of the Bank's Fitch Ratings (or other comparable ratings to the extent the Fitch Ratings are no longer available) have been reduced below the Bank's Credit Rating Threshold, or (2) there is otherwise a material adverse change in the financial condition of the Bank, and Tenant has failed to provide Landlord with a replacement letter of credit, conforming in all respects to the requirements of this Article 21 (including the requirements placed on the issuing Bank more particularly set forth in this Section 21.1), in the amount of the

applicable L-C Amount, within ten (10) business days following Landlord's written demand therefor (with no other notice or cure or grace period being applicable thereto, notwithstanding anything in this Lease to the contrary) (each of the foregoing being an "**L-C Draw Event**"). The L-C shall be honored by the Bank regardless of whether Tenant disputes Landlord's right to draw upon the L-C. In addition, in the event the Bank is placed into receivership or conservatorship by the Federal Deposit Insurance Corporation or any successor or similar entity, then, effective as of the date such receivership or conservatorship occurs, said L-C shall be deemed to fail to meet the requirements of this Article 21, and, within ten (10) business days following Landlord's notice to Tenant of such receivership or conservatorship (the "**L-C FDIC Replacement Notice**"), Tenant shall replace such L-C with a substitute letter of credit from a different issuer (which issuer shall meet or exceed the Bank's Credit Rating Threshold and shall otherwise be acceptable to Landlord in its reasonable discretion) and that complies in all respects with the requirements of this Article 21. If Tenant fails to replace such L-C with such conforming, substitute letter of credit pursuant to the terms and conditions of this Section 21.1, then, notwithstanding anything in this Lease to the contrary, Landlord shall have the right to declare Tenant in default of this Lease for which there shall be no notice or grace or cure periods being applicable thereto (other than the aforesaid ten (10) business day period). Tenant shall be responsible for the payment of any and all Tenant's and Bank's costs incurred with the review of any replacement L-C, which replacement is required pursuant to this Section or is otherwise requested by Tenant. In the event of an assignment by Tenant of its interest in this Lease (and irrespective of whether Landlord's consent is required for such assignment), the acceptance of any replacement or substitute letter of credit by Landlord from the assignee shall be subject to Landlord's prior written approval, in Landlord's reasonable discretion, and the actual and reasonable attorney's fees incurred by Landlord in connection with such determination shall be payable by Tenant to Landlord within thirty (30) days of billing.

21.2 **Application of L-C**. Tenant hereby acknowledges and agrees that Landlord is entering into this Lease in material reliance upon the ability of Landlord to draw upon the L-C upon the occurrence of any L-C Draw Event. In the event of any L-C Draw Event, Landlord may, but without obligation to do so, and without notice to Tenant (except in connection with an L-C Draw Event under Section 21.1(H)), draw upon the L-C, in part or in whole, in the amount necessary to cure any such L-C Draw Event and/or to compensate Landlord for any and all damages of any kind or nature sustained or that Landlord reasonably estimates that it will sustain resulting from Tenant's default of this Lease or other L-C Draw Event and/or to compensate Landlord for any and all damages arising out of, or incurred in connection with, the termination of this Lease, including, without limitation, those specifically identified in Section 1951.2 of the California Civil Code. The use, application or retention of the L-C, or any portion thereof, by Landlord shall not prevent Landlord from exercising any other right or remedy provided by this Lease or by any applicable law, it being intended that Landlord shall not first be required to proceed against the L-C, and such L-C shall not operate as a limitation on any recovery to which Landlord may otherwise be entitled. Tenant agrees and acknowledges that (i) the L-C constitutes a separate and independent contract between Landlord and the Bank, (ii) Tenant is not a third party beneficiary of such contract, (iii) Tenant has no property interest whatsoever in the L-C or the proceeds thereof, and (iv) in the event Tenant becomes a debtor under any chapter of the Bankruptcy Code, Tenant is placed into receivership or conservatorship, and/or there is an event of a receivership, conservatorship or a bankruptcy filing by, or on behalf of, Tenant, neither Tenant, any trustee, nor Tenant's bankruptcy estate shall have any right to restrict or limit Landlord's claim and/or rights to the L-C and/or the proceeds thereof by application of Section 502(b)(6) of the U. S. Bankruptcy Code or otherwise.

21.3 **Maintenance of L-C by Tenant**. If, as a result of any drawing by Landlord of all or any portion of the L-C, the amount of the L-C shall be less than the L-C Amount, Tenant shall, within ten (10) business days thereafter, provide Landlord with additional letter(s) of credit in an amount equal to the deficiency, and any such additional letter(s) of credit shall comply with all of the provisions of this Article 21. Tenant further covenants and warrants that it will neither assign nor encumber the L-C or any part thereof and that neither Landlord nor its successors or assigns will be bound by any such assignment, encumbrance, attempted assignment or attempted encumbrance. Without limiting the generality of the foregoing, if the L-C expires earlier than the L-C Expiration Date, Landlord will accept a renewal thereof (such renewal letter of credit to be in effect and delivered to Landlord, as applicable, not later than thirty (30) days prior to the expiration of the L-C), which shall be irrevocable and automatically renewable as above provided through the L-C Expiration Date upon substantially the same terms as the expiring L-C or such other terms as may be acceptable to Landlord in its reasonable discretion. If Tenant exercises its option to extend the Lease Term pursuant to Section 2.2 then, not later than thirty (30) days prior to the commencement of the Option Term, Tenant shall deliver to Landlord a new L C or certificate of renewal or extension evidencing the L-C Expiration Date

as thirty (30) days after the expiration of the Option Term. However, if the L-C is not timely renewed, or if Tenant fails to maintain the L-C in the amount and in accordance with the terms set forth in this Article 21, Landlord shall have the right to present the L-C to the Bank in accordance with the terms of this Article 21, and the proceeds of the L-C shall be applied by Landlord against any Rent payable by Tenant under this Lease that is not paid when due and/or to pay for all losses and damages that Landlord has suffered or that Landlord reasonably estimates that it will suffer as a result of any breach or default by Tenant under this Lease. In the event Landlord elects to exercise its rights as provided above, (I) any unused proceeds shall constitute the property of Landlord (and not Tenant's property or, in the event of a receivership, conservatorship, or a bankruptcy filing by, or on behalf of, Tenant, property of such receivership, conservatorship or Tenant's bankruptcy estate) and need not be segregated from Landlord's other assets, and (II) Landlord agrees to pay to Tenant within thirty (30) days after the L-C Expiration Date the amount of any proceeds of the L-C received by Landlord and not applied against any Rent payable by Tenant under this Lease that was not paid when due or used to pay for any losses and/or damages suffered by Landlord (or reasonably estimated by Landlord that it will suffer) as a result of any breach or default by Tenant under this Lease; provided, however, that if prior to the L-C Expiration Date a voluntary petition is filed by Tenant, or an involuntary petition is filed against Tenant by any of Tenant's creditors, under the Bankruptcy Code, then Landlord shall not be obligated to make such payment in the amount of the unused L-C proceeds until either all preference issues relating to payments under this Lease have been resolved in such bankruptcy or reorganization case or such bankruptcy or reorganization case has been dismissed. If Landlord draws on the L-C due to Tenant's failure to timely renew or provide a replacement L-C, such failure shall not be considered a default under this Lease and Landlord shall return such cash proceeds upon Tenant's presentation of a replacement L-C that satisfies the requirements of this Lease, subject to reasonable satisfaction of any preference risk to Landlord.

21.4 **Transfer and Encumbrance**. The L-C shall also provide that Landlord may, at any time and without notice to Tenant and without first obtaining Tenant's consent thereto, transfer (one or more times) its entire interest in and to the L-C to another party, person or entity, provided such transfer is in connection with the assignment by Landlord of its rights and interests in and to this Lease. In the event of a transfer of Landlord's interest in under this Lease, Landlord shall transfer the L-C to the transferee and thereupon Landlord shall, without any further agreement between the Parties, be released by Tenant from all liability therefor, and it is agreed that the provisions hereof shall apply to every transfer or assignment of the whole of said L-C to a new landlord. In connection with any such transfer of the L-C by Landlord, Tenant shall, at Tenant's sole cost and expense, execute and submit to the Bank such applications, documents and instruments as may be necessary to effectuate such transfer and, Tenant shall be responsible for paying the Bank's transfer and processing fees in connection therewith; provided that, Landlord shall have the right (in its sole discretion), but not the obligation, to pay such fees on behalf of Tenant, in which case Tenant shall reimburse Landlord within ten (10) business days after Tenant's receipt of an invoice from Landlord therefor.

21.5 **L-C Not a Security Deposit**. Landlord and Tenant (1) acknowledge and agree that in no event or circumstance shall the L-C or any renewal thereof or substitute therefor or any proceeds thereof be deemed to be or treated as a "security deposit" under any law applicable to security deposits in the commercial context, *including Section 1950.7 of the California Civil Code, as such Section now exists or as it may be hereafter amended or succeeded* (the "**Security Deposit Laws"**), (2) acknowledge and agree that the L-C (including any renewal thereof or substitute therefor or any proceeds thereof) is not intended to serve as a security deposit, and the Security Deposit Laws shall have no applicability or relevancy thereto, and (3) waive any and all rights, duties and obligations that any such Party may now, or in the future will, have relating to or arising from the Security Deposit Laws. *Tenant hereby* irrevocably waives and relinquishes *the provisions of Section 1950.7 of the California Civil Code and* any successor statute, and all other provisions of law, now or hereafter in effect, that (x) establish the time frame by which a landlord must refund a security deposit under a lease, and/or (y) provide that a landlord may claim from a security deposit only those sums reasonably necessary to remedy defaults in the payment of rent, to repair damage caused by a tenant or to clean the premises, it being agreed that Landlord may, in addition, claim those sums specified in this Article 21 and/or those sums reasonably necessary to (a) compensate Landlord for any loss or damage caused by Tenant's breach of this Lease, including any damages Landlord suffers following termination of this Lease, and/or (b) compensate Landlord for any and all damages arising out of, or incurred in connection with, the termination of this Lease, including those specifically identified in Section 1951.2 of the California Civil Code. Tenant agrees not to interfere in any way with any payment to Landlord of the proceeds of the L-C, either prior to or following a "draw" by Landlord of all or any portion of the L-C, regardless of whether any dispute exists between Tenant and Landlord as to Landlord's right to draw down all or any portion of the L-C. No condition or term of this Lease shall be deemed to render the L-C conditional and thereby afford the Bank a justification for failing to honor a drawing upon such L-C in a timely manner. Tenant shall not request or instruct the Bank of any L-C to refrain from paying sight draft(s) drawn under such L-C.

21.6 **Remedy for Improper Drafts**. Tenant's sole remedy in connection with the improper presentment or payment of sight drafts drawn under any L-C shall be the right to obtain from Landlord a refund of the amount of any sight draft(s) that were improperly presented or the proceeds of which were misapplied, and reasonable actual out-of-pocket attorneys' fees, provided that at the time of such refund, Tenant increases the amount of such L-C to the amount (if any) then required under the applicable provisions of this Lease. Tenant acknowledges that the presentment of sight drafts drawn under any L-C, or the Bank's payment of sight drafts drawn under such L-C, could not under any circumstances cause Tenant injury that could not be remedied by an award of money damages, and that the recovery of money damages would be an adequate remedy therefor. In the event Tenant shall be entitled to a refund as aforesaid and Landlord shall fail to make such payment within ten (10) business days after demand, Tenant shall have the right to deduct the amount thereof from the next installment(s) of Base Rent.

22. COMMUNICATIONS AND COMPUTER LINE Tenant may install, maintain, replace, remove or use any communications or computer wires and cables serving the Premises (collectively, the "Lines"), provided that Tenant shall use an experienced and qualified contractor approved in writing by Landlord, and comply with all of the other provisions of Articles 7 and 8. Tenant shall pay all costs in connection therewith. Tenant shall not be obligated to remove any Lines located in or serving the Premises upon the expiration or earlier termination of this Lease.

23. SIGNS

23.1 **Exterior Signage**. Subject to Landlord's prior written approval, which shall not be unreasonably withheld, conditioned or delayed, and provided all signs are in keeping with the quality, design and style of the Building and Project, Tenant, at its sole cost and expense, may install (i) identification signage on the existing monument sign located at the exterior of the Building near the Project entry as shown on **Exhibit H** attached hereto, and a Building top sign (subject to Landlord's prior review and approval, receipt of all required approvals and in compliance with rules and regulations from the applicable governmental authority), (ii) internal directional, suite entry and lobby identification signage and directory (collectively, "**Tenant Signage**"); provided, however, in no event shall Tenant's Signage include an "Objectionable Name," as that term is defined in Section 23.3, of this Lease. All such signage shall be subject to Tenant's obtaining all required governmental approvals. All permitted signs shall be maintained by Tenant at its expense in a first-class and safe condition and appearance. Upon the expiration or earlier termination of this Lease, Tenant shall remove all of its signs at Tenant's sole cost and expense. The graphics, materials, color, design, lettering, lighting, size, illumination, specifications and exact location of Tenant's Signage (collectively, the "**Sign Specifications**") shall be subject to the prior written approval of Landlord, which approval shall not be unreasonably withheld, conditioned or delayed, and shall be consistent and compatible with the quality and nature of the Project. Tenant hereby acknowledges that, notwithstanding Landlord's approval of Tenant's Signage, Landlord has made no representation or warranty to Tenant with respect to the probability of obtaining all necessary governmental approvals and permits for Tenant's Signage. In the event Tenant does not receive the necessary governmental approvals and permits for Tenant's Signage, Tenant's and Landlord's rights and obligations under the remaining terms of this Lease shall be unaffected. Except as required by applicable law, Landlord shall not install any other signage on the Building. If Landlord elects to install a multi-tenant identification sign at the entrance to the Project, Tenant shall be entitled to install its name on such sign (subject to availability on a pro-rata basis based on the relative square footages leased by the tenants of the Project), at Tenant's sole cost and expense.

23.2 **Objectionable Name**. Tenant's Signage shall not include a name or logo that relates to an entity that is of a character or reputation, or is associated with a political faction or orientation, that is inconsistent with the quality of the Project, or that would otherwise reasonably offend a landlord of the Comparable Buildings (an "**Objectionable Name**"). The parties hereby agree that the following name, or any reasonable derivation thereof, shall be deemed not to constitute an Objectionable Name: "Allogene Therapeutics, Inc."

23.3 **Prohibited Signage and Other Items**. Any signs, notices, logos, pictures, names or advertisements that are installed and that have not been separately approved by Landlord may be removed without notice by Landlord at the sole expense of Tenant. Landlord may in its reasonable discretion require the removal of any signs, window coverings, or blinds (even if the same are located behind the Landlord-approved window coverings for the Building), or other items reasonably visible from the exterior of the Premises or Building.

24. COMPLIANCE WITH LAW Tenant shall not do anything or suffer anything to be done in or about the Premises or the Project that will in any way conflict with any law, statute, ordinance or other governmental rule, regulation or requirement now in force or that may hereafter be enacted or promulgated. At its sole cost and expense, Tenant shall promptly comply with all such governmental measures pertaining to Tenant's use of the Premises. Should any standard or regulation now or hereafter be imposed on Landlord or Tenant by a state, federal or local governmental body charged with the establishment, regulation and enforcement of occupational, health or safety standards for employers, employees, landlords or tenants, then Tenant agrees, at its sole cost and expense, to comply promptly with such standards or regulations. Tenant shall be responsible, at its sole cost and expense, to make all alterations to the Building and Premises as are required to comply with the governmental rules, regulations, requirements or standards described in this Article 24 pertaining to Tenant's use of the Premises. The judgment of any court of competent jurisdiction or the admission of Tenant in any judicial action, regardless of whether Landlord is a party thereto, that Tenant has violated any of said governmental measures, shall be conclusive of that fact as between Landlord and Tenant. Tenant's obligations under this Article 24 are subject to the limitation in Section 10.2. For purposes of Section 1938 of the California Civil Code, Landlord hereby discloses to Tenant, and Tenant hereby acknowledges, that the Project, Building and Premises have not undergone inspection by a Certified Access Specialist (CASp). As required by Section 1938(e) of the California Civil Code, Landlord hereby states as follows: "A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises." In furtherance of the foregoing, Landlord and Tenant hereby agree as follows: (a) any CASp inspection requested by Tenant shall be conducted, at Tenant's sole cost and expense, by a CASp approved in advance by Landlord; and (b) Tenant shall be responsible, at Tenant's sole cost and expense, to make any modifications to the Premises that it deems to be required as a result of any such CASp inspection.

25. **LATE CHARGES** If any installment of Rent or any other sum due from Tenant shall not be received by Landlord or Landlord's designee within five (5) business days after Tenant's receipt of written notice from Landlord that said amount is delinquent, then Tenant shall pay to Landlord a late charge equal to five percent (5%) of the overdue amount plus any reasonable attorneys' fees incurred by Landlord by reason of Tenant's failure to pay Rent and/or other charges when due hereunder. The late charge shall be deemed Additional Rent and the right to require it shall be in addition to all of Landlord's other rights and remedies hereunder or at law and shall not be construed as liquidated damages or as limiting Landlord's remedies in any manner. In addition to the late charge described above, any Rent or other amounts owing hereunder that are not paid within ten (10) business days after Tenant's receipt of written notice that said amount is delinquent shall bear interest from the date when due until paid at a rate per annum equal to the lesser of (i) the annual "Bank Prime Loan" rate cited in the Federal Reserve Statistical Release Publication G.13(415), published on the first Tuesday of each calendar month (or such other comparable index as Landlord and Tenant shall reasonably agree upon if such rate ceases to be published) plus four (4) percentage points, and (ii) the highest rate permitted by applicable law.

26. LANDLORD'S RIGHT TO CURE DEFAULT; PAYMENTS BY TENANT

26.1 **Landlord's Cure**. All covenants and agreements to be kept or performed by Tenant under this Lease shall be performed by Tenant at Tenant's sole cost and expense and without any reduction of Rent, except to the extent, if any, otherwise expressly provided herein. If Tenant shall fail to perform any obligation under this Lease, and such failure shall continue in excess of the time allowed under Section 19.1.2, unless a specific time period is otherwise stated in this Lease, Landlord may, but shall not be obligated to, make any such payment or perform any such act on Tenant's part without waiving its rights based upon any default of Tenant and without releasing Tenant from any obligations hereunder.

26.2 **Tenant's Reimbursement**. Except as may be specifically provided to the contrary in this Lease, Tenant shall pay to Landlord, upon delivery by Landlord to Tenant of statements therefor: (i) sums equal to expenditures reasonably made and obligations incurred by Landlord in connection with the remedying by Landlord of Tenant's defaults pursuant to the provisions of Section 26.1; (ii) sums equal to all losses, costs, liabilities, damages and expenses referred to in Article 10; and (iii) subject to Section 29.21, sums equal to all expenditures made and obligations incurred by Landlord in collecting or attempting to collect the Rent or in enforcing or attempting to enforce any rights of Landlord under this Lease or pursuant to law, including all reasonable legal fees and other amounts so expended. Tenant's obligations under this Section 26.2 shall survive the expiration or sooner termination of the Lease Term.

27. ENTRY BY LANDLORD Landlord reserves the right upon twenty four (24) hours' prior notice to Tenant (except in the case of an emergency) to enter the Premises at all reasonable times to (i) inspect them; (ii) show the Premises to prospective purchasers, or to current or prospective mortgagees, ground or underlying lessors or insurers or, during the last nine (9) months of the Lease Term, to prospective tenants; (iii) post notices of non-responsibility (to the extent applicable pursuant to then applicable law); or (iv) repair the Premises or the Building, or for structural repairs to the Building or the Building's systems and equipment as provided under this Lease. Landlord may make any such entries without the abatement of Rent, except as otherwise provided in this Lease, and may take such reasonable steps as required to accomplish the stated purposes. In an Emergency, Landlord shall have the right to use any means that Landlord may deem proper to open the doors in and to the Premises. Any entry into the Premises by Landlord in the manner hereinbefore described shall not be deemed to be a forcible or unlawful entry into, or a detainer of, the Premises, or an actual or constructive eviction of Tenant from any portion of the Premises. Landlord shall use commercially reasonable efforts to minimize any interference with Tenant's use of or access to the Premises in connection with any such entry and shall comply with Tenant's reasonable security measures. Without limiting the foregoing, except in an emergency, Landlord shall not enter into any portion of the Premises identified to Landlord as an area containing sensitive business information unless accompanied by a representative of Tenant. Landlord shall hold confidential any information regarding Tenant's business that it may learn as a result of any such entry.

28. TENANT PARKING Tenant shall have the right, without the payment of any parking charge or fee (other than as a reimbursement of operating expenses to the extent allowed pursuant to the terms or Article 4), commencing on the Rent Commencement Date, to use the amount of parking set forth in Section 9 of the Summary, in the on-site parking lot and garage that serves the Building. Tenant shall abide by all reasonable rules and regulations that are prescribed from time to time for the orderly operation and use of the parking facility where the parking passes are located (including any sticker or other identification system established by Landlord and the prohibition of vehicle repair and maintenance activities in the parking facilities) and for the dedicated parking spaces, and shall cooperate in seeing that Tenant's employees and visitors also comply with such rules and regulations. Tenant's use of the Project parking facility and dedicated parking spaces shall be at Tenant's sole risk and Tenant acknowledges and agrees that Landlord shall have no liability whatsoever for damage to the vehicles of Tenant, its employees and/or visitors, or for other personal injury or property damage or theft relating to or connected with the parking rights granted herein or any of Tenant's, its employees' and/or visitors' use of the parking facilities.

29. MISCELLANEOUS PROVISIONS

29.1 **Interpretation**. The words "**Landlord**" and "**Tenant**" as used herein shall include the plural as well as the singular. The necessary grammatical changes required to make the provisions hereof apply either to corporations or partnerships or individuals, men or women, as the case may require, shall in all cases be assumed as though in each case fully expressed. The captions of Articles and Sections are for convenience only and shall not be deemed to limit, construe, affect or alter the meaning of such Articles and Sections. In this Lease, unless otherwise specified: (a) the words "include" and "including" shall be construed to be followed by the words "without limitation"; (b) the word "or" shall not be deemed to be used in the exclusive sense and shall instead be used in the inclusive sense to mean "and/or"; (c) words such as "herein", "hereof", and "hereunder" refer to this Lease as a whole and not merely to the particular provision in which such words appear; and (d) except as otherwise indicated, all references in this Lease to "Articles," "Sections" and "Exhibits" are intended to refer to Articles of this Lease, Sections of this Lease and Exhibits to this Lease.

29.2 **Binding Effect**. Subject to all other provisions of this Lease, each of the covenants, conditions and provisions of this Lease shall extend to and shall, as the case may require, bind or inure to the benefit not only of Landlord and of Tenant, but also of their respective heirs, personal representatives, successors or assigns, provided this clause shall not permit any assignment by Tenant contrary to the provisions of Article 14 of this Lease.

29.3 **No Air Rights**. No rights to any view or to light or air over any property, whether belonging to Landlord or any other person, are granted to Tenant by this Lease. If at any time any windows of the Premises are temporarily darkened or the light or view therefrom is obstructed by reason of any repairs, improvements, maintenance or cleaning in or about the Project, the same shall be without liability to Landlord and without any reduction or diminution of Tenant's obligations under this Lease.

29.4 **Modification of Lease**. Should any current or prospective mortgagee or ground lessor for the Building or Project require a modification of this Lease, which modification will not cause an increased cost or expense to Tenant or in any other way materially and adversely change the rights and obligations of Tenant hereunder or interfere with Tenant's use of the Premises, then and in such event, Tenant agrees that this Lease may be so modified and agrees to execute whatever documents are reasonably required therefor and to deliver the same to Landlord within ten (10) business days following a request therefor. At the request of Landlord or any mortgagee or ground lessor, Tenant agrees to execute a short form of Lease and deliver the same to Landlord within ten (10) business days following the request therefor.

29.5 **Transfer of Landlord's Interest**. Tenant acknowledges that Landlord has the right to transfer all or any portion of its interest in the Project or Building and in this Lease, and Tenant agrees that in the event of any such transfer, Landlord shall automatically be released from all liability under this Lease and Tenant agrees to look solely to such transferee for the performance of Landlord's obligations hereunder accruing after the date of transfer provided such transferee shall have fully assumed and agreed in writing to be liable for all obligations of this Lease to be performed by Landlord, including the return of any security deposit, and Tenant shall attorn to such transferee.

29.6 **Prohibition Against Recording**. Except as provided in Section 29.4 of this Lease, neither this Lease, nor any memorandum, affidavit or other writing with respect thereto, shall be recorded by Tenant or by anyone acting through, under or on behalf of Tenant.

29.7 **Landlord's Title**. Landlord's title is and always shall be paramount to the title of Tenant. Nothing herein contained shall empower Tenant to do any act which can, shall or may encumber the title of Landlord.

29.8 **Relationship of Parties**. Nothing contained in this Lease shall be deemed or construed by the parties hereto or by any third party to create the relationship of principal and agent, partnership, joint venturer or any association between Landlord and Tenant.

29.9 **Payment under Protest**. If Tenant in good faith disputes any amounts billed by Landlord, other than (i) Base Rent, (ii) Tenant's Share of Direct Expenses (as to which Tenant may exercise its rights under Section 4.6, above), Tenant may make payment of such amounts under protest, and reserve all of its rights with respect to such amounts (the "**Disputed Amounts**"). Landlord and Tenant shall meet and confer to discuss the Disputed Amounts and attempt, in good faith, to resolve the particular dispute. If, despite such good faith efforts, Landlord and Tenant are unable to reach agreement regarding the Disputed Amounts, either party may submit the matter to binding arbitration under the JAMS Streamlined Arbitration Rules & Procedures. The non-prevailing party, as determined by JAMS, will be responsible to pay all fees and costs incurred in connection with the JAMS procedure, as well as all other costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party. This Section 29.9 shall not apply to claims relating to Landlord's exercise of any unlawful detainer rights pursuant to California law or rights or remedies used by Landlord to gain possession of the Premises or terminate Lessee's right of possession to the Premises.

29.10 **Time of Essence**. Time is of the essence with respect to the performance of every provision of this Lease in which time of performance is a factor.

29.11 **Partial Invalidity**. If any term, provision or condition contained in this Lease shall, to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term, provision or condition to persons or circumstances other than those with respect to which it is invalid or unenforceable, shall not be affected thereby, and each and every other term, provision and condition of this Lease shall be valid and enforceable to the fullest extent possible permitted by law.

29.12 **No Warranty**. In executing and delivering this Lease, Tenant has not relied on any representations, including, but not limited to, any representation as to the amount of any item comprising Additional Rent or the amount of the Additional Rent in the aggregate or that Landlord is furnishing the same services to other tenants, at all, on the same level or on the same basis, or any warranty or any statement of Landlord which is not set forth herein or in one or more of the exhibits attached hereto.

29.13 **Landlord Exculpation**. The liability of Landlord or the Landlord Parties to Tenant for any default by Landlord under this Lease or arising in connection herewith or with Landlord's operation, management, leasing, repair, renovation, alteration or any other matter relating to the Project or the Premises shall be limited solely and exclusively to the interest of Landlord in the Project, including any rental, condemnation, sales and insurance proceeds received by Landlord or the Landlord Parties in connection with the Project, Building or Premises. No Landlord Parties (other than Landlord) shall have any personal liability therefor, and Tenant hereby expressly waives and releases such liability on behalf of itself and all persons claiming by, through or under Tenant. The limitations of liability contained in this Section 29.13 shall inure to the benefit of Landlord's and the Landlord Parties' present and future partners, beneficiaries, officers, directors, trustees, shareholders, agents and employees, and their respective partners, heirs, successors and assigns. Under no circumstances shall any present or future partner of Landlord (if Landlord is a partnership), or trustee or beneficiary (if Landlord or any partner of Landlord is a trust), have any liability for the performance of Landlord's obligations under this Lease. Notwithstanding any contrary provision herein, neither Landlord nor the Landlord Parties shall be liable under any circumstances for injury or damage to, or interference with, Tenant's business, including loss of profits, loss of rents or other revenues, loss of business opportunity, loss of goodwill or loss of use, in each case, however occurring, or loss to inventory, scientific research, scientific experiments, laboratory animals, products, specimens, samples, and/or scientific, business, accounting and other records of every kind and description kept at the premises and any and all income derived or derivable therefrom.

29.14 **Entire Agreement**. It is understood and acknowledged that there are no oral agreements between the Parties affecting this Lease and this Lease constitutes the Parties' entire agreement with respect to the leasing of the Premises and supersedes and cancels any and all previous negotiations, arrangements, brochures, agreements and understandings, if any, between the Parties or displayed by Landlord to Tenant with respect to the subject matter thereof, and none thereof shall be used to interpret or construe this Lease. None of the terms, covenants, conditions or provisions of this Lease can be modified, deleted or added to except in writing signed by the Parties.

29.15 **Right to Lease**. Landlord reserves the absolute right to effect such other tenancies in the Project as Landlord in the exercise of its sole business judgment shall determine to best promote the interests of the Building or Project. Tenant does not rely on the fact, nor does Landlord represent, that any specific tenant or type or number of tenants shall, during the Lease Term, occupy any space in the Project.

29.16 **Force Majeure**. Any prevention, delay or stoppage due to strikes, lockouts, labor disputes, acts of God, acts of war, terrorist acts, inability to obtain services, labor, or materials or reasonable substitutes therefor, governmental actions, civil commotions, fire or other casualty, and other causes beyond the reasonable control of the Party obligated to perform, except with respect to the obligations imposed with regard to Rent and other charges to be paid by Tenant pursuant to this Lease (collectively, a "**Force Majeure**"), notwithstanding anything to the contrary contained in this Lease, shall excuse the performance of such Party for a period equal to any such prevention, delay or stoppage and, therefore, if this Lease specifies a time period for performance of an obligation of either Party, that time period shall be extended by the period of any delay in such Party's performance caused by a Force Majeure, provided, however, the foregoing delays shall not apply to Tenant's termination rights hereunder.

29.17 **Waiver of Redemption by Tenant**. Tenant hereby waives, for Tenant and for all those claiming under Tenant, any and all rights now or hereafter existing to redeem by order or judgment of any court or by any legal process or writ, Tenant's right of occupancy of the Premises after any termination of this Lease.

29.18 **Notices**. All notices, demands, statements, designations, approvals or other communications (collectively, "**Notices**") given or required to be given by either Party to the other hereunder or by law shall be in writing, shall be (A) sent by United States certified or registered mail, postage prepaid, return receipt requested ("**Mail**"), (B) delivered by a nationally recognized overnight courier, or (C) delivered personally. Any Notice shall be sent, transmitted, or delivered, as the case may be, to Tenant at the appropriate address set forth in Section 10 of the Summary, or to such other place as Tenant may from time to time designate in a Notice to Landlord, or to Landlord at the addresses set forth below, or to such other places as Landlord may from time to time designate in a Notice to Tenant. Any Notice will be deemed given (i) three (3) business days after the date it is posted if sent by Mail, (ii) the date the overnight courier delivery is made, or (iii) the date personal delivery is made. As of the Execution Date, any Notices to Landlord must be sent, transmitted, or delivered, as the case may be, to the following addresses:

HCP, Inc.
1920 Main Street, Suite 1200
Irvine, CA 92614
Attn: Legal Department

HCP Life Science Estates
950 Tower Lane, Suite 1650
Foster City, CA 94404

and

Allen Matkins Leck Gamble Mallory & Natsis LLP
1901 Avenue of the Stars, Suite 1800
Los Angeles, California 90067
Attention: Anton N. Natsis, Esq.

29.19 **Joint and Several**. If there is more than one tenant, the obligations imposed upon Tenant under this Lease shall be joint and several.

29.20 **Authority**. If Tenant is a corporation, trust or partnership, Tenant hereby represents and warrants that Tenant is a duly formed and existing entity qualified to do business in the State of California and that Tenant has full right and authority to execute and deliver this Lease and that each person signing on behalf of Tenant is authorized to do so.

29.21 **Attorneys' Fees**. In the event that either Landlord or Tenant should bring suit for the possession of the Premises, for the recovery of any sum due under this Lease, or because of the breach of any provision of this Lease or for any other relief against the other, then all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing Party therein shall be paid to the prevailing Party by the other Party, which obligation on the part of the other Party shall be deemed to have accrued on the date of the commencement of such action and shall be enforceable whether or not the action is prosecuted to judgment.

29.22 **Governing Law; WAIVER OF TRIAL BY JURY**. This Lease and all claims relating to or arising out of this Lease or the breach thereof shall be governed by and construed in accordance with the laws of the State of California without reference to its conflict of laws principles. IN ANY ACTION OR PROCEEDING ARISING HEREFROM, LANDLORD AND TENANT HEREBY CONSENT TO (I) THE JURISDICTION OF ANY COMPETENT COURT WITHIN THE STATE OF CALIFORNIA, (II) SERVICE OF PROCESS BY ANY MEANS AUTHORIZED BY CALIFORNIA LAW, AND (III) IN THE INTEREST OF SAVING TIME AND EXPENSE, TRIAL WITHOUT A JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM BROUGHT BY EITHER OF THE PARTIES HERETO AGAINST THE OTHER OR THEIR SUCCESSORS IN RESPECT OF ANY MATTER ARISING OUT OF OR IN CONNECTION WITH THIS LEASE, THE RELATIONSHIP OF LANDLORD AND TENANT, TENANT'S USE OR OCCUPANCY OF THE PREMISES, AND/OR ANY CLAIM FOR INJURY OR DAMAGE, OR ANY EMERGENCY OR STATUTORY REMEDY. IN THE EVENT LANDLORD COMMENCES ANY SUMMARY PROCEEDINGS OR ACTION FOR NONPAYMENT OF BASE

RENT OR ADDITIONAL RENT, TENANT SHALL NOT INTERPOSE ANY COUNTERCLAIM OF ANY NATURE OR DESCRIPTION (UNLESS SUCH COUNTERCLAIM SHALL BE MANDATORY) IN ANY SUCH PROCEEDING OR ACTION, BUT SHALL BE RELEGATED TO AN INDEPENDENT ACTION AT LAW.

29.23 **Submission of Lease**. Submission of this instrument for examination or signature by Tenant does not constitute a reservation of, option for or option to lease, and it is not effective as a lease or otherwise until execution and delivery by both Landlord and Tenant.

29.24 **Brokers**. Landlord and Tenant hereby warrant to each other that they have had no dealings with any real estate broker or agent in connection with the negotiation of this Lease, excepting only the real estate brokers or agents specified in Section 12 of the Summary (the "**Brokers**"), and that they know of no other real estate broker or agent who is entitled to a commission in connection with this Lease. Each Party agrees to indemnify and defend the other Party against and hold the other Party harmless from any and all claims, demands, losses, liabilities, lawsuits, judgments, costs and expenses (including reasonable attorneys' fees) with respect to any leasing commission or equivalent compensation alleged to be owing on account of any dealings with any real estate broker or agent, other than the Brokers, occurring by, through, or under the indemnifying Party. Landlord shall pay the commission owned to the Brokers in connection with this Lease pursuant to a separate written agreement. The terms of this Section 29.24 shall survive the expiration or earlier termination of the Lease Term.

29.25 **Independent Covenants**. This Lease shall be construed as though the covenants herein between Landlord and Tenant are independent and not dependent and Tenant hereby expressly waives the benefit of any statute to the contrary and agrees that if Landlord fails to perform its obligations set forth herein, Tenant shall not be entitled to make any repairs or perform any acts hereunder at Landlord's expense or to any setoff of the Rent or other amounts owing hereunder against Landlord.

29.26 **Project or Building Name, Address and Signage**. Landlord shall have the right at any time to change the name and/or address of the Project or Building (and Landlord shall reimburse Tenant its actual, reasonable costs incurred as a result of such change, if any) and, subject to Section 23.1, to install, affix and maintain any and all signs on the exterior and on the interior of the Project as Landlord may, in Landlord's sole discretion, desire. Tenant shall not use the name of the Project or Building or use pictures or illustrations of the Project or Building in advertising or other publicity or for any purpose other than as the address of the business to be conducted by Tenant in the Premises, without the prior written consent of Landlord.

29.27 **Counterparts**. This Lease may be executed in counterparts with the same effect as if both parties hereto had executed the same document. Both counterparts shall be construed together and shall constitute a single lease.

29.28 **Good Faith**. Except (i) for matters for which there is a standard of consent or discretion specifically set forth in this Lease; (ii) matters that could have an adverse effect on the Building Structure or the Building Systems, or that could affect the exterior appearance of the Building, or (iii) matters covered by Article 4 (Additional Rent), or Article 19 (Defaults; Remedies) (collectively, the "**Excepted Matters**"), any time the consent of Landlord or Tenant is required, such consent shall not be unreasonably withheld or delayed, and, except with regard to the Excepted Matters, whenever this Lease grants Landlord or Tenant the right to take action, exercise discretion, establish rules and regulations or make an allocation or other determination, Landlord and Tenant shall act reasonably and in good faith.

29.29 **Development of the Project**.

29.29.1 **Subdivision**. Landlord reserves the right to subdivide all or a portion of the buildings and Common Areas, so long as the same does not interfere with Tenant's use of or access to the Premises or Tenant's parking rights. Tenant agrees to execute and deliver, upon demand by Landlord and in the form requested by Landlord, any additional documents needed to conform this Lease to the circumstances resulting from a subdivision and any all maps in connection therewith, so long as the same does not increase Tenant's obligations or decrease Tenant's rights under this Lease. Notwithstanding anything to the contrary set forth in this Lease, the separate ownership of any buildings and/or Common Areas by an entity other than Landlord shall not affect the calculation of Direct Expenses or Tenant's payment of Tenant's Share of Direct Expenses.

29.29.2 **Construction of Property and Other Improvements**. Tenant acknowledges that portions of the Project may be under construction following Tenant's occupancy of the Premises, and that such construction may result in levels of noise, dust, obstruction of access, etc. that are in excess of that present in a fully constructed project. Landlord shall use commercially reasonable efforts to minimize the impact of such construction. Tenant hereby waives any and all rent offsets or claims of constructive eviction that may arise in connection with such construction, so long as the same does not interfere with Tenant's use of or access to the Premises or Tenant's parking rights.

29.30 **No Violation**. Tenant hereby warrants and represents that neither its execution of nor performance under this Lease shall cause Tenant to be in violation of any agreement, instrument, contract, law, rule or regulation by which Tenant is bound, and Tenant shall protect, defend, indemnify and hold Landlord harmless against any claims, demands, losses, damages, liabilities, costs and expenses, including reasonable attorneys' fees and costs, arising from Tenant's breach of this warranty and representation.

29.31 **Transportation Management**. Tenant shall fully comply with all present or future programs intended to manage parking, transportation or traffic in and around the Project and/or the Building, and in connection therewith, Tenant shall take responsible action for the transportation planning and management of all employees located at the Premises by working directly with Landlord, any governmental transportation management organization or any other transportation-related committees or entities. Such programs may include, without limitation: (i) restrictions on the number of peak-hour vehicle trips generated by Tenant; (ii) increased vehicle occupancy; (iii) implementation of an in-house ridesharing program and an employee transportation coordinator; (iv) working with employees and any Project, Building or area-wide ridesharing program manager; (v) instituting employer-sponsored incentives (financial or in-kind) to encourage employees to rideshare; and (vi) utilizing flexible work shifts for employees.

[signatures contained on following page]

IN WITNESS WHEREOF, Landlord and Tenant have caused this Lease to be executed the day and date first above written.

LANDLORD:

BRITANNIA POINTE GRAND LIMITED PARTNERSHIP,
a Delaware limited partnership

By: HCP-Pointe Grand, Incorporated
its general partner

By: /s/ Scott Bohn
Name: Scott Bohn
Its: Vice President

TENANT:

ALLOGENE THERAPEUTICS, INC.,
a Delaware corporation

By: /s/ David D. Chang
David D. Chang
Print Name

Its: CEO

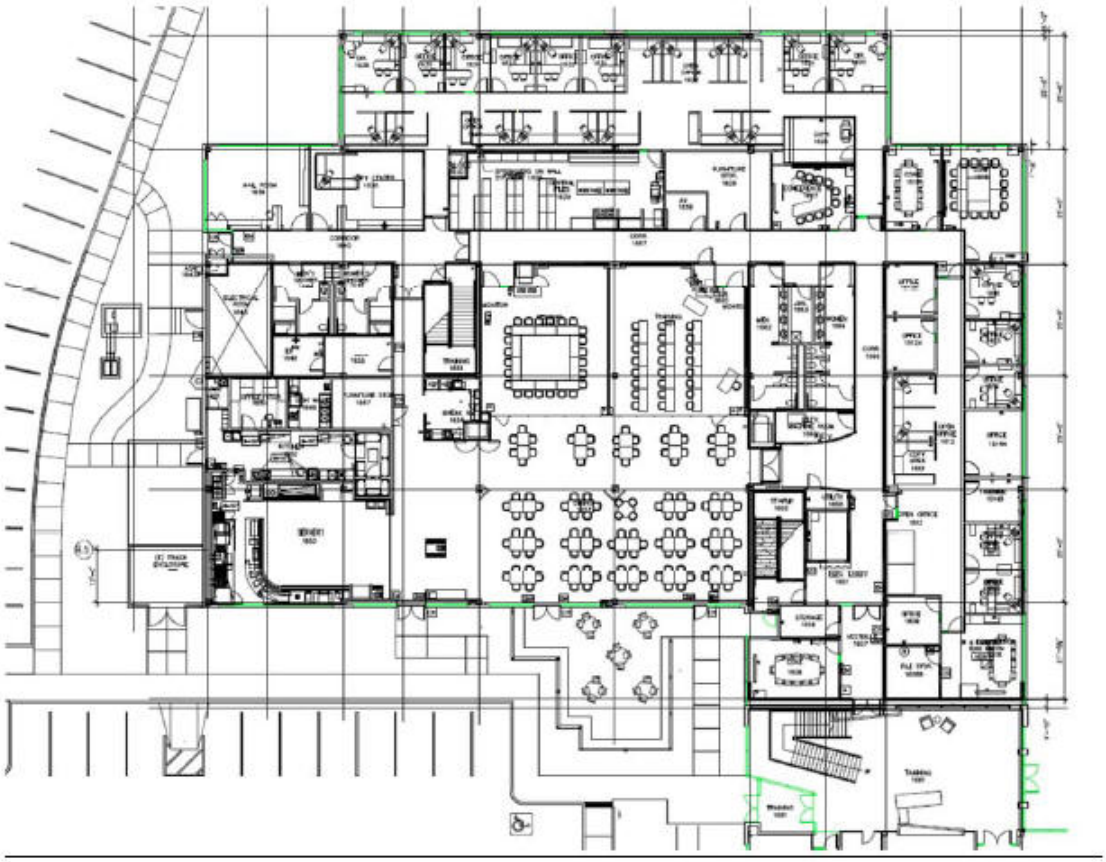
By: /s/ Eric Schmidt
Eric Schmidt
Print Name

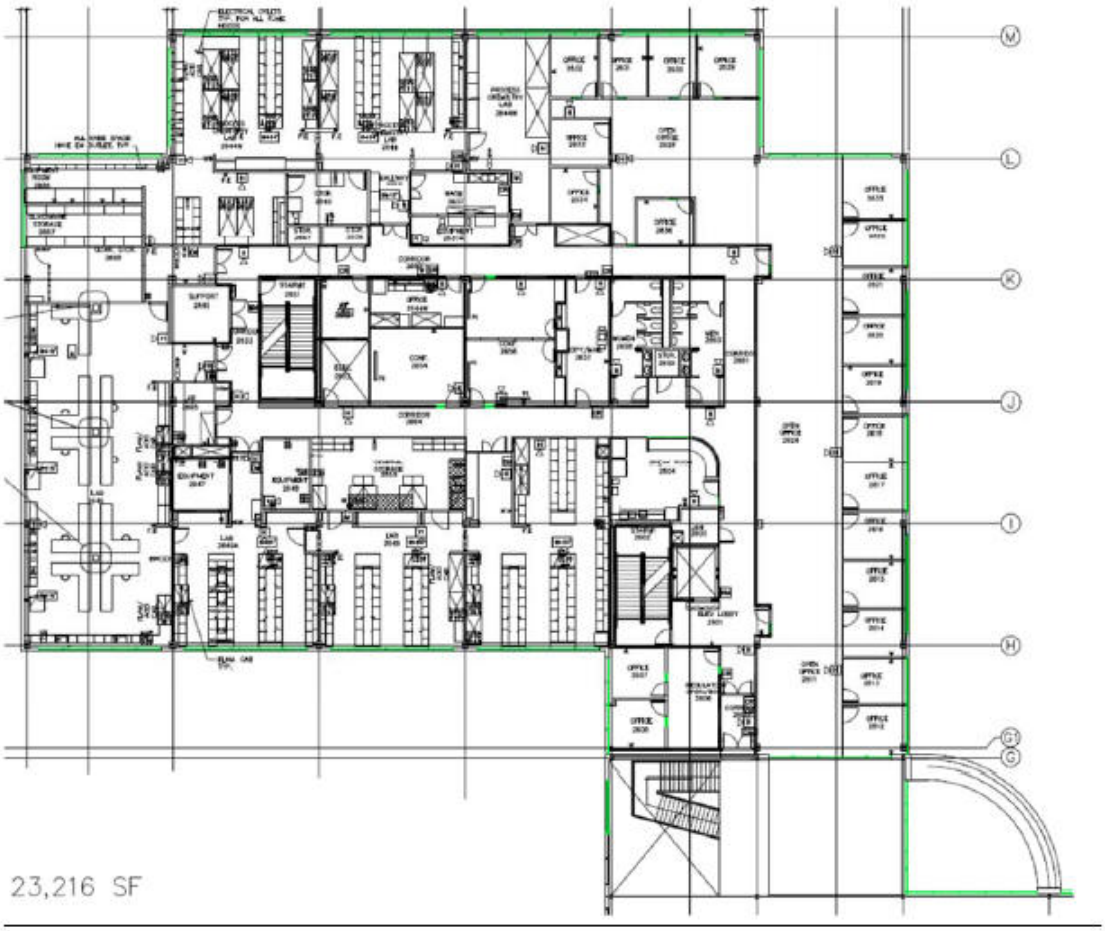
Its: CFO

EXHIBIT A

BRITANNIA POINTE GRAND BUSINESS PARK

OUTLINE OF PREMISES




23,216 SF

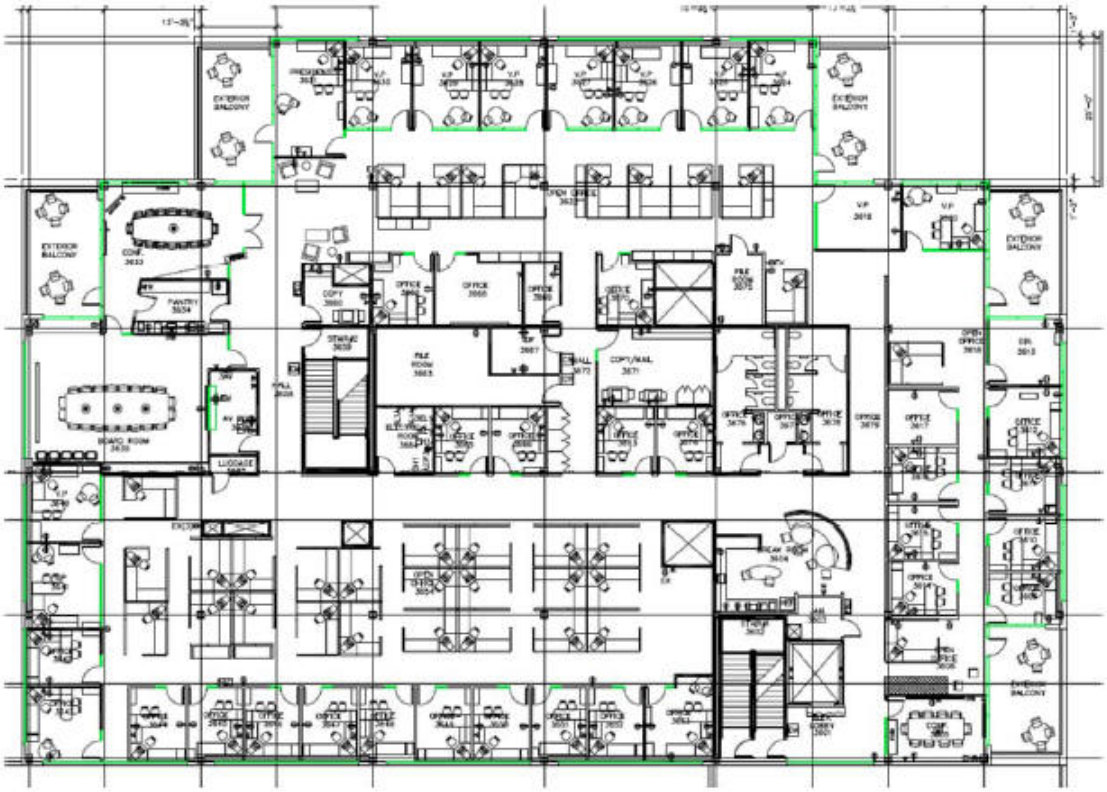


EXHIBIT A-1

BRITANNIA POINTE GRAND BUSINESS PARK

PROJECT SITE PLAN

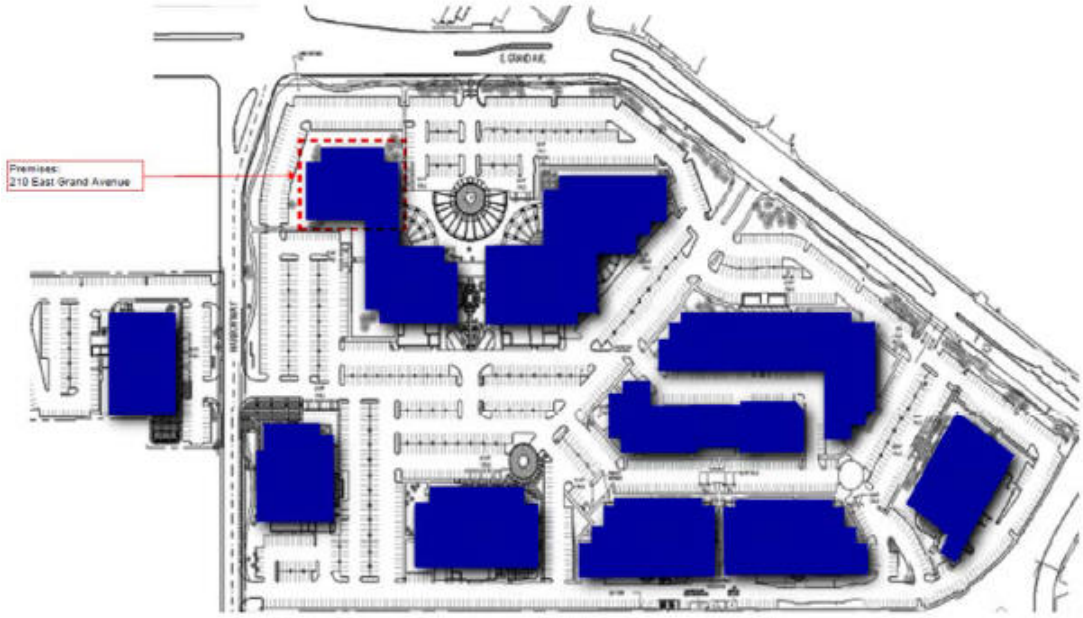


EXHIBIT B

BRITANNIA POINTE GRAND BUSINESS PARK

TENANT WORK LETTER

This Tenant Work Letter shall set forth the terms and conditions relating to the initial improvement of the Premises for Tenant following the date of this Lease. This Tenant Work Letter is essentially organized chronologically and addresses the issues of construction, in sequence, as such issues will arise during construction in the Premises.

SECTION 1

CONDITION OF PREMISES; LANDLORD WORK

1.1 **Condition of Premises**. Tenant acknowledges that Tenant shall accept the Premises in their existing, "as-is" condition on the date of delivery thereof to Tenant. Except for the "Landlord's Work" discussed in Section 1.2 below and the payment of the Tenant Improvement Allowance as provided in Section 2, below, Landlord shall have no obligation to make or pay for any improvements to the Premises.

1.2 **Landlord's Work**. Landlord shall, at Landlord's sole cost and expense, utilizing Building standard methods, materials, components, and finishes in good and workmanlike manner and in compliance with all Applicable Laws, (i) cause the construction of a Building standard shipping and receiving area on the ground floor of the Building in the location shown on Schedule 1 attached hereto, (ii) install a new Building standard freight elevator to serve the Building, and (iii) provided that Tenant continues to utilize existing entrances for required means of egress from the Building, Landlord will be responsible for making modifications to the exterior of the Building, the existing Building entrances, and all exterior Common Areas (including required striping and handicapped spaces in the parking areas) as required to cause such areas to be in compliance with ADA and parking requirements, to the extent required to allow the legal occupancy of the Premises as proven by procurement of necessary approvals from the City of South San Francisco (collectively, the "**Landlord's Work**"). Landlord shall utilize commercially reasonable efforts to perform the Landlord's Work as soon as reasonably practicable, although Tenant acknowledges some portions of the Landlord's Work shall not be completed prior to the Rent Commencement Date. Tenant hereby acknowledges that Landlord may perform all or portions of such Landlord's Work concurrently with the construction of the Tenant Improvements by Tenant and during the Lease Term, and Landlord and Tenant shall cooperate (and shall cause their respective contractors, subcontractors and agents to cooperate) with each other in good faith in order that the work being performed by each party may be completed without material interference with the completion of the work being completed by the other party and without increase in cost to the other party. Tenant hereby acknowledges that Landlord shall be permitted to perform the Landlord's Work during Tenant's occupancy of the Premises. Notwithstanding such occupancy of the Premises during the performance of the Landlord's Work, Landlord shall be permitted to perform the Landlord's Work during normal business hours, and Tenant shall provide a clear working area for such work, if necessary (including, but not limited to, the moving of furniture, fixtures and Tenant's property away from the area in which Landlord is performing the Landlord's Work). Further, Tenant shall cooperate with all reasonable Landlord requests made in connection with or related to Landlord's completion of the Landlord's Work. Tenant hereby agrees that the performance of the Landlord's Work in the Premises shall in no way constitute a constructive eviction of Tenant nor entitle Tenant to any abatement of rent. Landlord shall have no responsibility or for any reason be liable to Tenant for any direct or indirect injury to or interference with Tenant's business arising from the Landlord's Work, nor shall Tenant be entitled to any compensation or damages from Landlord for loss of use of the whole or any part of the Premises or of Tenant's personal property or improvements resulting from the Landlord's Work or Landlord's actions (or the actions of Landlord's contractors, employees and/or agents) in connection with the Landlord's Work, or for any inconvenience or annoyance occasioned by the Landlord's Work or Landlord's actions (or the actions of Landlord's contractors, employees and/or agents) in connection with the Landlord's Work, subject to the terms of Section 19.5.2 above. Landlord shall use commercially reasonable efforts to perform the Landlord's Work in a manner designed to minimize interference with Tenant's normal business operations in the Premises, and in connection therewith, construction activities that are reasonably anticipated to be disruptive to Tenant are to be conducted after normal business hours. Such activities to be performed after normal business hours include, but are not limited to: shooting drywall screwing, hammering, loud cutting, painting, staining, sanding, welding and soldering.

SECTION 2

TENANT IMPROVEMENTS

2.1 **Tenant Improvement Allowance**. Commencing as of the Execution Date, Tenant shall be entitled to use the "Tenant Improvement Allowance", as defined in Section 5 of the Summary to this Lease, for the costs relating to the initial design and construction of Tenant's improvements, which are permanently affixed to the Premises or which are "Tenant Improvement Allowance Items," as that term is defined in Section 2.2.1, below (collectively, the "**Tenant Improvements**"). In no event shall Landlord be obligated to make disbursements pursuant to this Tenant Work Letter or otherwise in connection with Tenant's construction of the Tenant Improvements or any Tenant Improvement Allowance Items, as defined below, in a total amount which exceeds the sum of the Tenant Improvement Allowance. All Tenant Improvements for which the Tenant Improvement Allowance has been made available shall be deemed Landlord's property under the terms of the Lease; provided, however, Landlord may, by written notice to Tenant given concurrently with Landlord's approval of the "Final Working Drawings", as that term is defined in Section 3.3, below, require Tenant, prior to the end of the Lease Term, or given following any earlier termination of this Lease, at Tenant's expense, to remove any Tenant Improvements and to repair any damage to the Premises and Building caused by such removal and return the affected portion of the Premises to a Building standard general office condition, provided, however, that Landlord may not require Tenant to remove any Alterations which are otherwise consistent with typical tenant improvements in the biotechnology or pharmaceutical industries. Landlord hereby acknowledges and agrees that the following do not need to be removed if installed: clean suites, and any office space. Any portion of the Tenant Improvement Allowance that is not disbursed or allocated for disbursement by February 28, 2020, shall revert to Landlord and Tenant shall have no further rights with respect thereto.

2.2 **Disbursement of the Tenant Improvement Allowance**.

2.2.1 **Tenant Improvement Allowance Items**. Except as otherwise set forth in this Tenant Work Letter, the Tenant Improvement Allowance and Additional Improvement Allowance shall be disbursed by Landlord only for the following items and costs (collectively the "**Tenant Improvement Allowance Items**"):

2.2.1.1 Payment of all reasonable fees of the "Architect" and the "Engineers," as those terms are defined in Section 3.1 of this Tenant Work Letter, project management fees, and payment of the fees incurred by, and the cost of documents and materials supplied by, Landlord and Landlord's consultants in connection with the preparation and review of the "Construction Drawings," as that term is defined in Section 3.2 of this Tenant Work Letter;

2.2.1.2 The payment of plan check, permit and license fees relating to construction of the Tenant Improvements;

2.2.1.3 The payment for all demolition and removal of existing improvements in the Premises;

2.2.1.4 The cost of construction of the Tenant Improvements, including, without limitation, testing and inspection costs, costs incurred for removal of existing furniture, fixtures or equipment in the Premises, hoisting and trash removal costs, costs to purchase and install in the Premises equipment customarily incorporated into laboratory improvements or laboratory utility systems, including, without limitation, UPS, DI Systems, boilers, air compressors, glass/cage washers and autoclaves, painting, and contractors' fees and general conditions;

2.2.1.5 The cost of any changes in the Base Building when such changes are required by the Construction Drawings (including if such changes are due to the fact that such work is prepared on an unoccupied basis), such cost to include all direct architectural and/or engineering fees and expenses incurred in connection therewith;

2.2.1.6 The cost of any changes to the Construction Drawings or Tenant Improvements required by all applicable building codes (the "**Code**");

2.2.1.7 Sales and use taxes;

2.2.1.8 Subject to Section 2.2, above, all other actual out-of-pocket costs expended by Landlord in connection with the construction of the Tenant Improvements, including, without limitation, costs expended by Landlord pursuant to Section 4.1.1 of this Tenant Work Letter, below.

2.2.2 **Disbursement of Tenant Improvement Allowance**. During the construction of the Tenant Improvements, Landlord shall make monthly disbursements of the Tenant Improvement Allowance and Additional Improvement Allowance, if applicable, for Tenant Improvement Allowance Items for the benefit of Tenant and shall authorize the release of monies for the benefit of Tenant as follows.

2.2.2.1 **Monthly Disbursements**. On or before the fifth (5th) day of each calendar month, during the design and construction of the Tenant Improvements (or such other date as Landlord may designate), Tenant shall deliver to Landlord: (i) a request for reimbursement of amounts paid to the "Contractor," as that term is defined in Section 4.1.1 of this Tenant Work Letter, approved by Tenant, in a form to be provided by Landlord, showing the schedule, by trade, of percentage of completion of the Tenant Improvements in the Premises, detailing the portion of the work completed and the portion not completed; (ii) invoices from all of "Tenant's Agents," as that term is defined in Section 4.1.2 of this Tenant Work Letter, for labor rendered and materials for the Premises; (iii) executed mechanic's lien releases, as applicable, from all of Tenant's Agents which shall comply with the appropriate provisions, as reasonably determined by Landlord, of California Civil Code Sections 8132, 8134, 8136 and 8138; and (iv) all other information reasonably requested by Landlord. As between Landlord and Tenant only, Tenant's request for payment shall be deemed Tenant's acceptance and approval of the work furnished and/or the materials supplied as set forth in Tenant's payment request. Within forty-five (45) days thereafter, Landlord shall deliver a check to Tenant made payable to Tenant in payment of the lesser of: (A) the amounts so requested by Tenant as set forth in this Section 2.2.2.1, above (or, subject to the terms of Section 4.2.1, below, a percentage thereof), and (B) the balance of any remaining available portion of the Tenant Improvement Allowance and Additional Improvement Allowance, if applicable, provided that Landlord does not dispute any request for payment based on non-compliance of any work with the "Approved Working Drawings," as that term is defined in Section 3.5 below, or due to any substandard work. Landlord's payment of such amounts shall not be deemed Landlord's approval or acceptance of the work furnished or materials supplied as set forth in Tenant's payment request.

2.2.2.2 **Final Deliveries**. Following the completion of construction of the Tenant Improvements, Tenant shall deliver to Landlord properly executed final mechanic's lien releases in compliance with both California Civil Code Section 8134 and either Section 8136 or Section 8138 from all of Tenant's Agents, and a certificate certifying that the construction of the Tenant Improvements in the Premises has been substantially completed. Tenant shall record a valid Notice of Completion in accordance with the requirements of Section 4.3 of this Tenant Work Letter.

2.2.2.3 **Other Terms**. Landlord shall only be obligated to make disbursements from the Tenant Improvement Allowance and Additional Improvement Allowance, if applicable, to the extent costs are incurred by Tenant for Tenant Improvement Allowance Items. All Tenant Improvement Allowance Items for which the Tenant Improvement Allowance and Additional Improvement Allowance have been made available shall be deemed Landlord's property under the terms of this Lease.

2.4 **Building Standards**. The quality of Tenant Improvements shall be in keeping with the existing improvements in the Premises.

2.5 **Additional Tenant Improvement Allowance**. In addition to the Tenant Improvement Allowance, Tenant shall have the right, by written notice to Landlord given on or before February 28, 2020, to use up to $25.00 per rentable square foot of the Premises (i.e., up to $1,701,800.00) (the "**Additional TI Allowance**") towards the payment of the costs of the Tenant Improvement Allowance Items. In the event Tenant exercises its right to use all or any portion of the Additional TI Allowance, Tenant shall be required to pay Landlord, commencing on Rent Commencement Date (the "**Additional Payment Commencement Date**"), the "Additional TI Allowance Payment," as that term is defined below, in consideration of Landlord provision of the Additional TI Allowance. The "**Additional TI Allowance Payment**" shall be determined as the missing component of an annuity, which annuity shall have (i) the amount of the Additional TI Allowance utilized by Tenant as the present value amount, (ii) a number equal to the number of full calendar months then remaining in the Lease Term as the number of payments, (iii) a monthly interest factor equal to seventy-five one-hundredths percent (0.75%), which is equal to nine percent (9%) divided by twelve (12) months per year, and (iv) the Additional TI Allowance Payment as the missing component of the annuity. Following the calculation of the Additional TI Allowance Payment, Landlord and Tenant will enter into a lease amendment to confirm the amount thereof. Any portion of the Tenant Improvement Allowance that is not disbursed or allocated for disbursement by February 28, 2020, shall revert to Landlord and Tenant shall have no further rights with respect thereto.

SECTION 3

CONSTRUCTION DRAWINGS

3.1 **Selection of Architect**. Tenant shall retain an architect/space planner (the "**Architect**") approved in advance by Landlord (which approval shall not be unreasonably withheld) to prepare the Final Space Plan and Final Working Drawings as provided in Section 3.2 and 3.3, below. Rios Clemente Hale Studios is hereby approved as Architect if selected by Tenant. Tenant shall retain the engineering consultants or design/build subcontractors designated by Tenant and reasonably approved in advance by Landlord (the "**Engineers**") to prepare all plans and engineering working drawings relating to the structural, mechanical, electrical, plumbing, HVAC, lifesafety, and sprinkler work in the Premises, which work is not part of the Base Building. CRB is hereby approved as Tenant's laboratory process engineer and laboratory consultant. All such plans and drawings shall comply with the reasonable industry standard drawing format and specifications, and shall be subject to Landlord's reasonable approval. Tenant and Architect shall verify, in the field, the dimensions and conditions as shown on the relevant portions of the Base Building plans, and Tenant and Architect shall be solely responsible for the same, and Landlord shall have no responsibility in connection therewith. Landlord's review of any plans or drawings as set forth in this Section 3, shall be for its sole purpose and shall not imply Landlord's review of the same, or obligate Landlord to review the same, for quality, design, Code compliance or other like matters.

3.2 **Final Space Plan**. Tenant shall supply Landlord with four (4) copies signed by Tenant of its final space plan for the Premises before any architectural working drawings or engineering drawings have been commenced. The final space plan (the "**Final Space Plan**") shall include a layout and designation of all offices, labs, rooms and other partitioning, their intended use, and equipment to be contained therein. Landlord may request clarification or more specific drawings for special use items not included in the Final Space Plan. Landlord shall advise Tenant within five (5) business days after Landlord's receipt of the Final Space Plan for the Premises if the same is unsatisfactory or incomplete in any respect. If Tenant is so advised, Tenant shall promptly cause the Final Space Plan to be revised to correct any deficiencies or other matters Landlord may reasonably require. If Landlord fails to respond to the Final Space Plan within the five (5) business day period set forth above, Tenant may send Landlord a notice setting forth such failure and warning that a continuing failure to respond may result in a "deemed approval" (the "**Final Space Plan Reminder Notice**"). If Landlord fails to respond to the Final Space Plan within two (2) business days after receipt of the Final Space Plan Reminder Notice, such portion of the Final Space Plan shall be deemed approved by Landlord.

3.3 **Final Working Drawings**. After the Final Space Plan has been approved by Landlord, Tenant shall supply the Engineers with a complete listing of standard and non-standard equipment and specifications, including, without limitation, Title 24 calculations, electrical requirements and special electrical receptacle requirements for the Premises, to enable the Engineers and the Architect to complete the "Final Working Drawings" (as that term is defined below) in the manner as set forth below. Upon the approval of the Final Space Plan by Landlord and Tenant, Tenant shall promptly cause the Architect and the Engineers to complete the architectural and engineering drawings for the Premises, and Architect shall compile a fully coordinated set of architectural, structural, mechanical, electrical and plumbing working drawings in a form which is sufficiently complete to allow all of Tenant's Agents to bid on the work and to obtain all applicable permits (collectively, the "**Final Working Drawings**") and shall submit the same to Landlord for Landlord's approval, which shall not be unreasonably withheld, conditioned, or delayed. Tenant shall supply Landlord with four (4) copies signed by Tenant of such Final Working Drawings. Landlord shall advise Tenant within ten (10) business days after Landlord's receipt of the Final Working Drawings for the Premises if the same is unsatisfactory or incomplete in any respect. If Tenant is so advised, Tenant shall promptly cause the Final Working Drawings to be revised in accordance with such review and any disapproval of Landlord in connection therewith. If Landlord fails to respond to the Final Construction Documents within the ten (10) business day period set forth above, Tenant may send Landlord a notice setting forth such failure and warning that a continuing failure to respond may result in a "deemed approval" (the "**Final Construction Documents Reminder Notice**"). If Landlord fails to respond to the Final Construction Documents within five (5) business days after receipt of the Final Construction Documents Reminder Notice, such portion of the Final Construction Documents shall be deemed approved by Landlord.

3.5 **Approved Working Drawings**. The Final Working Drawings shall be approved by Landlord (the "**Approved Working Drawings**") prior to the commencement of construction of the Premises by Tenant. Concurrently with Tenant's delivery of the Final Working Drawings to Landlord for Landlord's approval, Tenant may submit the same to the appropriate municipal authorities for all applicable building permits, provided that Tenant shall

have the right to submit to the City a coordinated set of drawings, complete to the extent required to commence the plan check, the first phase in the permitting process (the "**Permit Set**"), prior to approval of the Final Construction Documents by Landlord (and Tenant acknowledges that Landlord shall not be responsible for any delays or costs incurred by Tenant in the event that Landlord requires revisions to the Final Working Drawings after the date of such submission of plans to the City by Tenant). Tenant hereby agrees that neither Landlord nor Landlord's consultants shall be responsible for obtaining any building permit or certificate of occupancy for the Premises and that obtaining the same shall be Tenant's responsibility; provided, however, that Landlord shall cooperate with Tenant in executing permit applications and performing other ministerial acts reasonably necessary to enable Tenant to obtain any such permit or certificate of occupancy. No changes, modifications or alterations in the Approved Working Drawings may be made without the prior written consent of Landlord, which shall not be unreasonably withheld, conditioned, or delayed.

SECTION 4

CONSTRUCTION OF THE TENANT IMPROVEMENTS

4.1 **Tenant's Selection of Contractors**.

4.1.1 **The Contractor; Landlord's Project Manager**. Tenant shall retain a licensed general contractor, approved in advance by Landlord, to construct the Tenant Improvements ("**Contractor**"). Hathaway, Landmark, Novo, The Core Group, and XL are hereby approved as Contractor if one of these firms is selected by Tenant. Landlord's approval of the Contractor shall not be unreasonably withheld. Landlord shall retain Project Management Advisors, Inc. ("**PMA**") as a third party project manager for construction oversight of the Tenant Improvements on behalf of Landlord, and Tenant shall pay a fee to Landlord with respect to the PMA services equal to the greater of (i) $4,190.00 per month of the design and construction of the Tenant Improvements, and (ii) $1.58 per rentable square foot of the Premises. The PMA fee shall be a Tenant Improvement Allowance Item payable by Landlord from the Tenant Improvement Allowance.

4.1.2 **Tenant's Agents**. All subcontractors, laborers, materialmen, and suppliers used by Tenant (such subcontractors, laborers, materialmen, and suppliers, and the Contractor to be known collectively as "**Tenant's Agents**"). The subcontractors used by Tenant, but not any laborers, materialmen, and suppliers, must be approved in writing by Landlord, which approval shall not be unreasonably withheld, conditioned, or delayed. If Landlord does not approve any of Tenant's proposed subcontractors, Tenant shall submit other proposed subcontractors for Landlord's written approval.

4.2 **Construction of Tenant Improvements by Tenant's Agents**.

4.2.1 **Construction Contract; Cost Budget**. Tenant shall engage the Contractor under a commercially reasonable and customary construction contract (collectively, the "**Contract**"). Prior to the commencement of the construction of any phase of the Tenant Improvements, and after Tenant has accepted all bids for the Tenant Improvements, Tenant shall provide Landlord with a detailed breakdown, by trade, of the final costs to be incurred or which have been incurred in connection with the design and construction of the relevant phase of the Tenant Improvements to be performed by or at the direction of Tenant or the Contractor, which costs form a basis for the estimated total costs of the work of the relevant phase of the Tenant Improvements (each, a "**Final Budget**"). Any costs of design and construction of the Tenant Improvements in excess of the Tenant Improvement Allowance shall be paid by Tenant out of its own funds once the Tenant Improvement Allowance is exhausted, but Tenant shall continue to provide Landlord with the documents described in Sections 2.2.2.1(i), (ii), (iii) and (iv) of this Tenant Work Letter, above, for Landlord's approval, prior to Tenant paying such costs.

4.2.2 **Tenant's Agents**.

4.2.2.1 **Compliance with Drawings and Schedule**. Tenant's and Tenant's Agent's construction of the Tenant Improvements shall comply with the following: (i) the Tenant Improvements shall be constructed in strict accordance with the Approved Working Drawings; and (ii) Tenant's Agents shall submit schedules of all work relating to the Tenant's Improvements to Contractor and Contractor shall, within five (5) business days of receipt thereof, inform Tenant's Agents of any changes which are necessary thereto, and Tenant's Agents shall adhere to such corrected schedule.

4.2.2.2 **Indemnity**. The indemnities of each of the parties that are set forth in Section 10 of the Lease shall apply to the activities of the parties under this Tenant Work Letter

4.2.2.2 **Requirements of Tenant's Agents**. Each of Tenant's Agents shall guarantee to Tenant and for the benefit of Landlord that the portion of the Tenant Improvements for which it is responsible shall be free from any defects in workmanship and materials for a period of not less than one (1) year from the date of substantial completion of the work under the Contract ("**Substantial Completion**"). Each of Tenant's Agents shall be responsible for the replacement or repair, without additional charge, of all work done or furnished in accordance with its contract that shall become defective within one (1) year after Substantial Completion. The correction of such work shall include, without additional charge, all additional expenses and damages incurred in connection with such removal or replacement of all or any part of the Tenant Improvements, and/or the Building and/or common areas that may be damaged or disturbed thereby. All such warranties or guarantees as to materials or workmanship of or with respect to the Tenant Improvements shall be contained in the Contract or subcontract and shall be written such that such guarantees or warranties shall inure to the benefit of both Landlord and Tenant, as their respective interests may appear, and can be directly enforced by either. Tenant covenants to give to Landlord any assignment or other assurances which may be necessary to effect such right of direct enforcement.

4.2.2.4 **Insurance Requirements**.

4.2.2.4.1 **General Coverages**. The Contractor and major subcontractors shall carry the following insurance with insurers having a minimum A.M. best rating of A- VIII or better (i) worker's compensation insurance covering the Contractor's or major subcontractor's respective employees with a waiver of subrogation in favor of Landlord and the property manager, (ii) general liability insurance with a limit of not less than $1,000,000 per occurrence and $2,000,000 general aggregate, including products/completed operations and contractual coverage, and including Landlord and its property manager as additional insureds, and (ii) if the cost of such Tenant Improvements exceeds $100,000 in the aggregate, then Builders Risk insurance covering the construction of the Tenant Improvements, and such policy shall include Landlord as an additional insured. Other Tenant's Agents shall carry reasonable amounts of insurance as reasonably approved by Landlord.

4.2.2.4.2 **Intentionally Omitted**.

4.2.2.4.3 **General Terms**. Certificates for all insurance carried pursuant to this Section 4.2.2.4 shall be delivered to Landlord before the commencement of construction of the Tenant Improvements and before the Contractor's equipment is moved onto the site. All such policies of insurance must contain a provision that the company writing said policy will endeavor to give Landlord thirty (30) days prior written notice of any cancellation or lapse of the effective date or any reduction in the amounts of such insurance. In the event that the Tenant Improvements are damaged by any cause during the course of the construction thereof, Tenant shall immediately repair the same at Tenant's sole cost and expense. Tenant's Agents shall maintain all of the foregoing insurance coverage in force until the Tenant Improvements are fully completed, except for any Products and Completed Operation Coverage insurance required by Landlord, which is to be maintained for ten (10) years following completion of the work. Such insurance shall provide that it is primary insurance as respects the owner and that any other insurance maintained by owner is excess and noncontributing with the insurance required hereunder. The requirements for the foregoing insurance shall not derogate from the provisions for indemnification of Landlord by Tenant under Section 4.2.2.2 of this Tenant Work Letter.

4.2.2 **Governmental Compliance**. The Tenant Improvements shall comply in all respects with the following: (i) all state, federal, city or quasi-governmental laws, codes, ordinances and regulations, as each may apply according to the rulings of the controlling public official, agent or other person; (ii) applicable standards of the American Insurance Association (formerly, the National Board of Fire Underwriters) and the National Electrical Code; and (iii) building material manufacturer's specifications.

4.2.4 **Inspection by Landlord**. Landlord shall have the right to inspect the Tenant Improvements at all times, provided however, that Landlord's failure to inspect the Tenant Improvements shall in no event constitute a waiver of any of Landlord's rights hereunder nor shall Landlord's inspection of the Tenant Improvements constitute Landlord's approval of the same. Should Landlord reasonably disapprove any portion of the Tenant Improvements, on the grounds that the construction is defective or fails to comply with the Approved Working Drawings, Landlord shall notify Tenant in writing of such disapproval and shall specify the items disapproved. Any such defects or deviations shall be rectified by Tenant at no expense to Landlord, provided however, that in the event Landlord determines that a defect or deviation exists that might adversely affect the mechanical, electrical, plumbing, heating, ventilating and air conditioning or life-safety systems of the Building, the structure or exterior appearance of

the Building or any other tenant's use of such other tenant's leased premises, Landlord may, take such action as Landlord reasonably deems necessary, at Tenant's expense and without incurring any liability on Landlord's part, to correct any such defect, deviation and/or matter, including, without limitation, causing the cessation of performance of the construction of the Tenant Improvements until such time as the defect, deviation and/or matter is corrected to Landlord's reasonable satisfaction.

4.2.5 **Meetings**. Commencing upon the execution of this Lease, Tenant shall hold weekly meetings at a reasonable time, with the Architect and the Contractor regarding the progress of the preparation of Construction Drawings and the construction of the Tenant Improvements, and Landlord and/or its agents shall receive prior notice of, and shall have the right to attend, all such meetings, and, upon Landlord's request, certain of Tenant's Agents shall attend such meetings. In addition, minutes shall be taken at all such meetings, a copy of which minutes shall be promptly delivered to Landlord. One such meeting each month shall include the review of Contractor's current request for payment.

4.3 **Notice of Completion; Copy of Record Set of Plans**. Within ten (10) days after completion of construction of the Tenant Improvements, Tenant shall cause a valid Notice of Completion to be recorded in the office of the Recorder of the county in which the Building is located in accordance with Section 8182 of the Civil Code of the State of California or any successor statute, and shall furnish a copy thereof to Landlord upon such recordation. If Tenant fails to do so, Landlord may execute and file the same on behalf of Tenant as Tenant's agent for such purpose, at Tenant's sole cost and expense. At the conclusion of construction, (i) Tenant shall cause the Architect and Contractor (*x*) to update the Approved Working Drawings as necessary to reflect all changes made to the Approved Working Drawings during the course of construction, (*y*) to certify to the best of their knowledge that the "record-set" of as-built drawings are true and correct, which certification shall survive the expiration or termination of this Lease, and (*z*) to deliver to Landlord two (2) sets of copies of such record set of drawings (hard copy and CAD files) within ninety (90) days following issuance of a certificate of occupancy for the Premises, and (ii) Tenant shall deliver to Landlord a copy of all warranties, guaranties, and operating manuals and information relating to the improvements, equipment, and systems in the Premises. Within fifteen (15) days after request by Tenant following the Substantial Completion of the Tenant Improvements, Landlord will acknowledge its approval of the Tenant Improvements (provided that such approval has been granted) by placing its signature on a Contractor's Certificate of Substantial Completion fully executed by the Architect, Contractor and Tenant. Landlord's approval shall not create any contingent liabilities for Landlord with respect to any latent quality, design, Code compliance or other like matters that may arise subsequent to Landlord's approval.

SECTION 5

RENT COMMENCEMENT DATE DELAYS

5.1 Rent Commencement Date Delays. The Rent Commencement Date shall occur as provided in Section 2.1 of this Lease and Section 3.2 of the Summary, provided that the Rent Commencement Date shall be extended by the number of days of actual delay of the Substantial Completion of the Tenant Improvements in the Premises to the extent caused by a "Rent Commencement Date Delay," as that term is defined, below, but only to the extent such Rent Commencement Date Delay causes the Substantial Completion of the Tenant Improvements to occur after March 1, 2019. As used herein, the term "**Rent Commencement Date Delay**" shall mean only a "Force Majeure Delay" or a "Landlord Caused Delay," as those terms are defined below in this Section 5.1 of this Tenant Work Letter. As used herein, the term "**Force Majeure Delay**" shall mean only an actual delay resulting from a "Force Majeure" as defined in Section 29.16 of the Lease, and including any inability of Tenant to obtain building permits required in connection with the construction of the Tenant Improvements to the extent caused by a delay beyond the period of time customarily required for the issuance of similar permits for improvements of the nature and scope of the Tenant Improvements in the City of South San Francisco (and not related to the specific design of the Tenant Improvements or other matters being presented by Tenant). As used in this Tenant Work Letter, "**Landlord Caused Delay**" shall mean actual delays to the extent resulting from the acts or omissions of Landlord including, but not limited to (i) failure of Landlord to timely approve or disapprove any Construction Drawings in the time periods specified above; (ii) delays due to the acts or failures to act of Landlord or Landlord Parties with respect to payment of the Tenant Improvement Allowance (except as otherwise allowed under this Tenant Work Letter) and/or cessation of work as a result thereof, or any other breach of the terms of the Lease or this Tenant Work Letter by Landlord; (iv) the presence of any hazardous materials in violation of applicable Law or Landlord's failure to complete the removal work specified in Section 5.2.4 of the Lease; or (iv) other provisions of the Lease specifying Landlord Delays.

5.2 Determination of Rent Commencement Date Delay. If Tenant contends that a Rent Commencement Date Delay has occurred, Tenant shall notify Landlord in writing of (i) the event which constitutes such Rent Commencement Date Delay and (ii) the date upon which such Rent Commencement Date Delay is anticipated to end. If such actions, inaction or circumstance described in the Notice set forth in (i) above of this Section 5.2 of this Tenant Work Letter (the "**Delay Notice**") are not cured by Landlord within one (1) business day of Landlord's receipt of the Delay Notice and if such action, inaction or circumstance otherwise qualify as a Rent Commencement Date Delay, then a Rent Commencement Date Delay shall be deemed to have occurred commencing as of the date of Landlord's receipt of the Delay Notice and ending as of the date such delay ends.

5.3 Definition of Substantial Completion of the Tenant Improvements. For purposes of this Section 5, "**Substantial Completion of the Tenant Improvements**" shall mean completion of construction of the Tenant Improvements in the Premises pursuant to the Approved Construction Drawings, with the exception of any punch list items, and Tenant's receipt of a certificate of occupancy or its legal equivalent allowing legal occupancy of the Premises.

SECTION 6

MISCELLANEOUS

6.1 **Intentionally Omitted**.

6.2 **Tenant's Representative**. Tenant has designated Laura Whelan with Savills Studley as its sole representatives with respect to the matters set forth in this Tenant Work Letter, who shall each have full authority and responsibility to act on behalf of the Tenant as required in this Tenant Work Letter.

6.3 **Landlord's Representative**. Landlord has designated Jeff Marcowitz with PMA, as its sole representatives with respect to the matters set forth in this Tenant Work Letter, who, until further notice to Tenant, shall have full authority and responsibility to act on behalf of the Landlord as required in this Tenant Work Letter.

6.4 **Time is of the Essence in This Tenant Work Letter**. Unless otherwise indicated, all references herein to a "number of days" shall mean and refer to calendar days. If any item requiring approval is timely disapproved by Landlord, the procedure for preparation of the document and approval thereof shall be repeated until the document is approved by Landlord.

6.5 **Tenant's Lease Default**. Notwithstanding any provision to the contrary contained in the Lease or this Tenant Work Letter, if any default by Tenant under the Lease or this Tenant Work Letter occurs at any time on or before the substantial completion of the Tenant Improvements and such default remains uncured ten (10) days following Landlord's notice of such default to Tenant, then in addition to all other rights and remedies granted to Landlord pursuant to the Lease, Landlord shall have the right to withhold payment of all or any portion of the Tenant Improvement Allowance until such time as such default is cured and/or Landlord may, without any liability whatsoever, cause the cessation of construction of the Tenant Improvements until such time as such default is cured (in which case, Tenant shall be responsible for any delay in the substantial completion of the Tenant Improvements and any costs occasioned thereby).

6.6 **Miscellaneous Charges**. Neither Tenant nor Tenant's Agents nor the Contractor or subcontractors shall be charged for the use of parking at the Building, HVAC, electricity, water, or, during normal construction hours, freight elevator and/or loading docks during the construction of the Tenant Improvements (until the Rent Commencement Date), and Tenant's initial move-in over a weekend, provided that the foregoing shall not limit Tenant's payment of Tenant's Share of Direct Expenses for the Early Occupancy Premises pursuant to the terms of Section 1.3 of this Lease.

SCHEDULE 1

LOCATION OF SHIPPING AND RECEIVING AREA

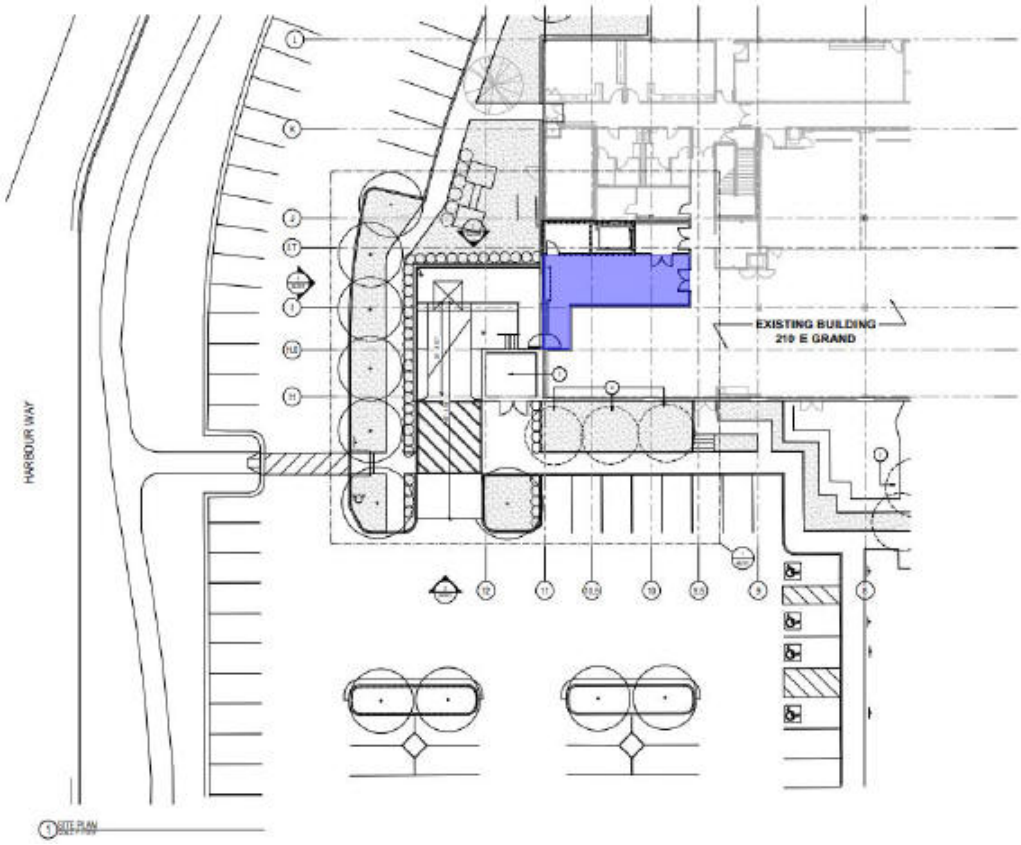


EXHIBIT C

BRITANNIA POINTE GRAND BUSINESS PARK

NOTICE OF LEASE TERM DATES

To: _____
_____
_____
_____

Re: Lease dated , 20 between , a ("**Landlord**"), and , a ("**Tenant**") concerning Suite on floor(s) of the building located at , California.

Gentlemen:

In accordance with the Lease (the "**Lease**"), we wish to advise you and/or confirm as follows:

1. The Lease Term shall commence on or has commenced on for a term of ending on .
2. Rent commenced to accrue on , in the amount of .
3. If the Rent Commencement Date is other than the first day of the month, the first billing will contain a pro rata adjustment. Each billing thereafter, with the exception of the final billing, shall be for the full amount of the monthly installment as provided for in the Lease.
4. Your rent checks should be made payable to at .
5. The number of rentable/usable square feet within the Premises is approximately square feet.
6. Tenant's Share of the Building is 100%, subject to Section 6 of the Summary of Basic Lease Information.

"Landlord":

_____,
a _____

By: _____
Its: _____

Agreed to and Accepted as
of , 200 .

"Tenant":

_____

a _____

By: _____

Its: _____

EXHIBIT D

BRITANNIA POINTE GRAND BUSINESS PARK

FORM OF TENANT'S ESTOPPEL CERTIFICATE

The undersigned as Tenant under that certain Lease (the "**Lease**") made and entered into as of , 20 by and between as Landlord, and the undersigned as Tenant, for Premises consisting of the entire office building located at , California, certifies as follows:

1. Attached hereto as **Exhibit A** is a true and correct copy of the Lease and all amendments and modifications thereto. The documents contained in **Exhibit A** represent the entire agreement between the Parties as to the Premises.

2. The undersigned currently occupies the Premises described in the Lease, the Lease Term commenced on , and the Lease Term expires on , and the undersigned has no option to terminate or cancel the Lease or to purchase all or any part of the Premises, the Building and/or the Project, except as expressly set forth in the Lease.

3. Base Rent became payable on .

4. The Lease is in full force and effect and has not been modified, supplemented or amended in any way except as provided in **Exhibit A**.

5. Tenant has not transferred, assigned, or sublet any portion of the Premises nor entered into any license or concession agreements with respect thereto except as follows:

6. Intentionally deleted.

7. All monthly installments of Base Rent, all Additional Rent and all monthly installments of estimated Additional Rent have been paid when due through . The current monthly installment of Base Rent is $.

8. To Tenant's actual knowledge, without inquiry, all conditions of the Lease to be performed by Landlord necessary to the enforceability of the Lease have been satisfied and Landlord is not in default thereunder. In addition, the undersigned has not delivered any notice to Landlord regarding a default by Landlord thereunder. The Lease does not require Landlord to provide any rental concessions or to pay any leasing brokerage commissions except as expressly set forth therein.

9. No rental has been paid more than thirty (30) days in advance and no security has been deposited with Landlord except as provided in the Lease. Neither Landlord, nor its successors or assigns, shall in any event be liable or responsible for, or with respect to, the retention, application and/or return to Tenant of any security deposit paid to any prior landlord of the Premises, whether or not still held by any such prior landlord, unless and until the party from whom the security deposit is being sought, whether it be a lender, or any of its successors or assigns, has actually received for its own account, as landlord, the full amount of such security deposit.

10. To Tenant's actual knowledge, without inquiry, as of the date hereof, there are no existing defenses or offsets, or, to the undersigned's knowledge, claims or any basis for a claim, that the undersigned has against Landlord.

11. If Tenant is a corporation or partnership, Tenant hereby represents and warrants that Tenant is a duly formed and existing entity qualified to do business in California and that Tenant has full right and authority to execute and deliver this Estoppel Certificate and that each person signing on behalf of Tenant is authorized to do so.

12. There are no actions pending against the undersigned under the bankruptcy or similar laws of the United States or any state.

13. Tenant is in compliance with all federal, state and local laws, ordinances, rules and regulations affecting its use of the Premises, including those laws, ordinances, rules or regulations relating to hazardous or toxic materials. Tenant has never knowingly permitted its agents, employees or contractors to engage in the generation, manufacture, treatment, use, storage, disposal or discharge of any hazardous, toxic or dangerous waste, substance or material in, on, under or about the Project or the Premises or any adjacent premises or property in violation of any federal, state or local law, ordinance, rule or regulation.

14. To the undersigned's actual knowledge, all tenant improvement work to be performed by Landlord under the Lease has been completed in accordance with the Lease and has been accepted by the undersigned and all reimbursements and allowances due to the undersigned under the Lease in connection with any tenant improvement work have been paid in full. To Tenant's actual knowledge, all work (if any) in the common areas required by the Lease to be completed by Landlord has been completed and all parking spaces required by the Lease have been furnished and/or all parking ratios required by the Lease have been met.

The undersigned acknowledges that this Estoppel Certificate may be delivered to Landlord or to a prospective mortgagee or prospective purchaser, and acknowledges that said prospective mortgagee or prospective purchaser will be relying upon the statements contained herein in making the loan or acquiring the property of which the Premises are a part and that receipt by it of this certificate is a condition of making such loan or acquiring such property.

Executed at on the day of , 20 .

"Tenant":

_____,
a _____

By: _____
Its: _____

By: _____
Its: _____

EXHIBIT E

BRITANNIA POINTE GRAND BUSINESS PARK

ENVIRONMENTAL QUESTIONNAIRE

ENVIRONMENTAL QUESTIONNAIRE
FOR COMMERCIAL AND INDUSTRIAL PROPERTIES

Tenant Name: **ALLOGENE THERAPEUTICS, INC.**
Lease Address: **210 East Grand Avenue, South San Francisco, California 94080**
Lease Type (check correct box – *right click to properties*): ☒ **Primary Lease/Lessee**
☐ **Sublease from:** _____

Instructions: The following questionnaire is to be completed by the Lessee representative with knowledge of the planned operations for the specified building/location. Please print clearly and attach additional sheets as necessary.

1.0 PROCESS INFORMATION

Describe planned site use, including a brief description of manufacturing processes and/or pilot plants planned for this site, if any.

Research & Preclinical Laboratories.
Small rodent vivarium. Manufacturing of allogeneic T cell therapy products; QC lab.

2.0 HAZARDOUS MATERIALS – OTHER THAN WASTE

Will (or are) non-waste hazardous materials be/being used or stored at this site? If so, continue with the next question. If not, go to Section 3.0.

2.1 Are any of the following materials handled on the Property? ☒ Yes ☐ No

[*A material is handled if it is used, generated, processed, produced, packaged, treated, stored, emitted, discharged, or disposed.]* If YES, check *(right click to properties)* the applicable correct Fire Code hazard categories below.

☐ Combustible dusts/fibers	☐ Explosives	☒ Flammable liquids
☒ Combustible liquids (e.g., oils)	☒ Compressed gas - inert	☐ Flammable solids/pyrophorics
☐ Cryogenic liquids - inert	☒ Compressed gas - flammable/pyrophoric	☐ Organic peroxides
☐ Cryogenic liquids - flammable	☒ Compressed gas - oxidizing	☐ Oxidizers - solid or liquid
☐ Cryogenic liquids - oxidizing	☐ Compressed gas - toxic	☐ Reactives - unstable or water reactive
☒ Corrosives - solid or liquid	☐ Compressed gas - corrosive	☒ Toxics - solid or liquid

2-2. For all materials checked in Section 2.1 above, please list the specific material(s), use(s), and quantities of each used or stored on the site in the table below; or attach a separate inventory. *NOTE: If proprietary, the constituents need not be named but the hazard information and volumes are required.*

Material/ Chemical	Physical State (Solid, Liquid, or Gas)	Container Size	Number of Containers Used & Stored	Total Quantity	Units (pounds for solids, gallons or liters for liquids, & cubic feet for gases)
Ethanol 70%	Liquid	Varies from 500ML to	Multiple	4	Gallons
CO2	Compressed Gas	125			
Oxygen	Compressed Gas	125			
Argon	Compressed Gas	125			

2-3. Describe the planned storage area location(s) for the materials in Section 2-2 above. Include site maps and drawings as appropriate.

Flammable Liquid Cabinet inside labs.

2-4. Other hazardous materials. Check below (*right click to properties)* if applicable. *NOTE: If either of the latter*

two are checked (BSL-3 and/or radioisotope/radiation), be advised that not all lease locations/cities or lease agreements allow these hazards; and if either of these hazards are planned, additional information will be required with copies of oversight agency authorizations/licenses as they become available.

☒ Risk Group 2/Biosafety Level-2 Biohazards ☐ Risk Group 3/Biosafety Level-3 Biohazards ☐ Radioisotopes/Radiation

3.0 HAZARDOUS WASTE (i.e., REGULATED CHEMICAL WASTE)

Are (or will) hazardous wastes (be) generated? ☒ Yes ☐ No

If YES, continue with the next question. If not, skip this section and go to section 4.0.

3.1 Are or will any of the following hazardous (CHEMICAL) wastes generated, handled, or disposed of (where applicable and allowed) on the property?

☒ Liquids ☐ Process sludges ☐ PCBs

☒ Solids ☐ Metals ☒ wastewater

3-2. List and estimate the quantities of hazardous waste identified in Question 3-1 above.

HAZRDOUS (CHEMICAL) WASTE GENERATED	SOURCE	WASTE TYPE: RCRA listed (federal)	WASTE TYPE: Non-RCRA (Calif-ornia ONLY or recycle)	APPROX. MONTHLY QUANTITY with units	DISPOSITION [e.g., off-site landfill, incineration, fuel blending scrap metal; wastewater neutralization (onsite or off-site)]
Trypan Blue	Cell Counting Instrument	☐	☐	500mL	Offsite neutralization
DD PCR Oil Droplet	DD PCR	☐	☐	500mL	Offsite neutralization
		☐	☐		
		☐	☐		
		☐	☐		

3-3. Waste characterization by: Process knowledge ☒ EPA lab analysis ☐ Both ☐

3-4. Please include name, location, and permit number (e.g. EPA ID No.) for transporter and disposal facility if applicable. Attach separate pages as necessary. *If not yet known, write "TBD."*

Hazardous Waste Transporter/Disposal Facility Name	Facility Location	Transporter (T) or Disposal (D) Facility	Permit Number
Veolia			

3-5. Are pollution controls or monitoring employed in the process to prevent or minimize the release of wastes into the environment? *NOTE: This does NOT mean fume hoods; examples include air scrubbers, cyclones, carbon or HEPA filters at building exhaust fans, sedimentation tanks, pH neutralization systems for wastewater, etc.* ☒ Yes ☐ No

If YES, please list/describe:
HEPA Filters

4.0 OTHER REGULATED WASTE (i.e., REGULATED BIOLOGICAL WASTE, referred to as "Medical Waste" in California)

4-1. Will (or do) you generate medical waste? ☒ Yes ☐ No If NO, skip to Section 5.0.

4-2. Check the types of waste that will be generated, all of which fall under the California Medical Waste Act:

☒ Contaminated sharps (i.e., if contaminated with [3] Risk Group 2 materials)	☒ Animal carcasses	☐ Pathology waste known or suspected to be contaminated with [3] Risk Group 2 pathogens)
☒ Red bag biohazardous waste (i.e., with [3] Risk Group 2 materials) for autoclaving	☒ Human or non-human primate blood, tissues, etc. (e.g., clinical specimens)	☐ Trace Chemotherapeutic Waste and/or Pharmaceutical waste NOT otherwise regulated as RCRA chemical waste

4-3. What vendor will be used for off-site autoclaving and/or incineration?
Veolia

4-5. Do you have a Medical Waste Permit for this site? ☐ Yes ☐ No, not required.
☒ No, but an application will be submitted.

5.0 UNDERGROUND STORAGE TANKS (USTS) & ABOVEGROUND STORAGE TANKS (ASTS)

5-1. Are underground storage tanks (USTs), aboveground storage tanks (ASTs), or associated pipelines used for the storage of petroleum products, chemicals, or liquid wastes present on site (lease renewals) or required for planned operations (new tenants)? ☐ Yes ☒ No

NOTE: If you will have your own diesel emergency power generator, then you will have at least one AST! [NOTE: If a backup generator services multiple tenants, then the landlord usually handles the permits.]

If NO, skip to section 6.0. If YES, please describe capacity, contents, age, type of the USTs or ASTs, as well any associated leak detection/spill prevention measures. Please attach additional pages if necessary.

UST or AST	Capacity (gallons)	Contents	Year Installed	Type (Steel, Fiberglass, etc.)	Associated Leak Detection / Spill Prevention Measures*

*NOTE: The following are examples of leak detection / spill prevention measures: integrity testing, inventory reconciliation, leak detection system, overfill spill protection, secondary containment, cathodic protection.

5-2. Please provide copies of written tank integrity test results and/or monitoring documentation, if available.

5-3. Is the UST/AST registered and permitted with the appropriate regulatory agencies? ☐ Yes ☐ No, not yet

If YES, please attach a copy of the required permit(s). *See Section 7-1 for the oversight agencies that issue permits, with the exception of those for diesel emergency power generators which are permitted by the local Air Quality District (Bay Area Air Quality Management District = BAAQMD; or San Diego Air Pollution Control District = San Diego APCD).*

5-4. If this Questionnaire is being completed for a lease renewal, and if any of the USTs/ASTs have leaked, please state the substance released, the media(s) impacted (e.g., soil, water, asphalt, etc.), the actions taken, and all remedial responses to the incident.

_____

_____

_____

5-5. If this Questionnaire is being completed for a lease renewal, have USTs/ASTs been removed from the Property?
☐ Yes ☐ No

If YES, please provide any official closure letters or reports and supporting documentation (e.g., analytical test results, remediation report results, etc.).

5-6. For Lease renewals, are there any above or below ground pipelines on site used to transfer chemicals or wastes?
☐ Yes ☐ No

For new tenants, are installations of this type required for the planned operations? ☐ Yes ☐ No

If YES to either question in this section 5-6, please describe.

_____

_____

_____

6.0 ASBESTOS CONTAINING BUILDING MATERIALS

Please be advised that an asbestos survey may have been performed at the Property. If provided, please review the information that identifies the locations of known asbestos containing material or presumed asbestos containing material. All personnel and appropriate subcontractors should be notified of the presence of these materials, and informed not to disturb these materials. Any activity that involves the disturbance or removal of these materials must be done by an appropriately trained individual/contractor.

7.0 OTHER REGULATORY PERMITS/REQUIREMENTS

7-1. Does the operation have or require an industrial wastewater permit to discharge into the local National Pollutant Discharge Elimination System (NPDES)? *[Example: This applies when wastewater from equipment cleaning is routed through a pH neutralization system prior to discharge into the sanitary or lab sewer for certain pharmaceutical manufacturing wastewater; etc.]* Permits are obtained from the regional sanitation district that is treating wastewater.

☐ Yes ☒ No ☐ No, but one will be prepared and submitted to the Landlord property management company.

If so, please attach a copy of this permit or provide it later when it has been prepared.

7-2. Has a Hazardous Materials Business Plan (HMBP) been developed for the site and submitted via the State of California Electronic Reporting System (CERS)? *[NOTE: The trigger limits for having to do this are ³ 200 cubic feet if any one type of compressed gas(except for carbon dioxide and inert simple asphyxiant gases, which have a higher trigger limit of ³ 1,000 cubic feet); ³ 55 gallons if any one type of hazardous chemical liquid; and ³500 pounds of any one type of hazardous chemical solid. So a full-sixe gas cylinder and a 260-liter of liquid nitrogen are triggers! Don't forget the diesel fuel in a backup emergency generator if the diesel tank size is ³ 55 gallons and it is permitted under the tenant (rather than under the landlord).]* NOTE: Each local Certified Unified Program Agency (CUPA) in California governs the HMBP process so start there. Examples: the CUPA for cities in San Mateo County is the County Environmental Health Department; the CUPA for the City of Hayward, CA is the Hayward Fire Department; the CUPA for Mountain View is the Mountain View Fire Department; and, the CUPA for San Diego is the County of San Diego Hazardous Materials Division (HMD),

☐ Yes ☒ No, not required. ☐ No, but one will be prepared and submitted, and a copy will be provided to the landlord property management company.

If one has been completed, please attach a copy. Continue to provide updated versions as they are completed. This is a legal requirement in that State law requires that the owner/operator of a business located on leased or rented real property shall notify, in writing, the owner of the property that the business is subject to and is in compliance with the Hazardous Materials Business Plan requirements (Health and Safety Code Chapter 6.95 Section 25505.1).

7-3. NOTE: Please be advised that if you are involved in any tenant improvements that require a construction permit, you will be asked to provide the local city with a Hazardous Materials Inventory Statement (HMIS) to ensure that your hazardous chemicals fall within the applicable Fire Code fire control area limits for the applicable construction occupancy of the particular building. The HMIS will include much of the information listed in Section 2-2. Neither the landlord nor the landlord's property management company expressly warrants that the inventory provided in Section 2-2 will necessarily meet the applicable California Fire Code fire control area limits for building occupancy, especially in shared tenant occupancy situations. It is the responsibility of the tenant to ensure that a facility and site can legally handle the intended operations and hazardous materials desired/ needed for its operations, but the landlord is happy to assist in this determination when possible.

CERTIFICATION

I am familiar with the real property described in this questionnaire. By signing below, I represent and warrant that the answers to the above questions are complete and accurate to the best of my knowledge. I also understand that Lessor will rely on the completeness and accuracy of my answers in assessing any environmental liability risks associated with the property.

Signature: **/s/ Veer Bhavnagri**
Name: **Veer Bhavnagri**
Title: **General Counsel**

Date: **8/1/18**

Telephone: **310-570-3070**

EXHIBIT F

FORM OF LETTER OF CREDIT

(Letterhead of a money center bank acceptable to the Landlord)

FAX NO. [(__) SWIFT: [Insert No., if any]	__-__]	[Insert Bank Name And Address] DATE OF ISSUE: _____
BENEFICIARY: [Insert Beneficiary Name And Address]		APPLICANT: [Insert Applicant Name And Address] LETTER OF CREDIT NO. _____
EXPIRATION _____ AT OUR COUNTERS	DATE:	AMOUNT AVAILABLE: USD[Insert Dollar Amount] (U.S. DOLLARS [Insert Dollar Amount])

LADIES AND GENTLEMEN:

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. _____ IN YOUR FAVOR FOR THE ACCOUNT OF [Insert Tenant's Name], A [Insert Entity Type], UP TO THE AGGREGATE AMOUNT OF USD[Insert Dollar Amount] ([Insert Dollar Amount] U.S. DOLLARS) EFFECTIVE IMMEDIATELY AND EXPIRING ON (Expiration Date) AVAILABLE BY PAYMENT UPON PRESENTATION OF YOUR DRAFT AT SIGHT DRAWN ON [Insert Bank Name] WHEN ACCOMPANIED BY THE FOLLOWING DOCUMENT(S):

1. THE ORIGINAL OF THIS IRREVOCABLE STANDBY LETTER OF CREDIT AND AMENDMENT(S), IF ANY.

2. BENEFICIARY'S SIGNED STATEMENT PURPORTEDLY SIGNED BY AN AUTHORIZED REPRESENTATIVE OF [Insert Landlord's Name], A [Insert Entity Type] ("LANDLORD") STATING THE FOLLOWING:

"THE UNDERSIGNED HEREBY CERTIFIES THAT THE LANDLORD, EITHER (A) UNDER THE LEASE (DEFINED BELOW), OR (B) AS A RESULT OF THE TERMINATION OF SUCH LEASE, HAS THE RIGHT TO DRAW DOWN THE AMOUNT OF USD _____ IN ACCORDANCE WITH THE TERMS OF THAT CERTAIN OFFICE LEASE DATED [Insert Lease Date], AS AMENDED (COLLECTIVELY, THE "LEASE"), OR SUCH AMOUNT CONSTITUTES DAMAGES OWING BY THE TENANT TO BENEFICIARY RESULTING FROM THE BREACH OF SUCH LEASE BY THE TENANT THEREUNDER, OR THE TERMINATION OF SUCH LEASE, AND SUCH AMOUNT REMAINS UNPAID AT THE TIME OF THIS DRAWING."

OR

"THE UNDERSIGNED HEREBY CERTIFIES THAT WE HAVE RECEIVED A WRITTEN NOTICE OF [Insert Bank Name]'S ELECTION NOT TO EXTEND ITS STANDBY LETTER OF CREDIT NO. _____ AND HAVE NOT RECEIVED A REPLACEMENT LETTER OF CREDIT WITHIN AT LEAST THIRTY (30) DAYS PRIOR TO THE PRESENT EXPIRATION DATE."

OR

"THE UNDERSIGNED HEREBY CERTIFIES THAT BENEFICIARY IS ENTITLED TO DRAW DOWN THE FULL AMOUNT OF LETTER OF CREDIT NO. _____ AS THE RESULT OF THE FILING OF A VOLUNTARY PETITION UNDER THE U.S. BANKRUPTCY CODE OR A STATE BANKRUPTCY CODE BY THE TENANT UNDER THAT CERTAIN OFFICE LEASE DATED [Insert Lease Date], AS AMENDED (COLLECTIVELY, THE "LEASE"), WHICH FILING HAS NOT BEEN DISMISSED AT THE TIME OF THIS DRAWING."

OR

"THE UNDERSIGNED HEREBY CERTIFIES THAT BENEFICIARY IS ENTITLED TO DRAW DOWN THE FULL AMOUNT OF LETTER OF CREDIT NO. _____ AS THE RESULT OF AN INVOLUNTARY PETITION HAVING BEEN FILED UNDER THE U.S. BANKRUPTCY CODE OR A STATE BANKRUPTCY CODE AGAINST THE TENANT UNDER THAT CERTAIN OFFICE LEASE DATED [Insert Lease Date], AS AMENDED (COLLECTIVELY, THE "LEASE"), WHICH FILING HAS NOT BEEN DISMISSED AT THE TIME OF THIS DRAWING."

OR

"THE UNDERSIGNED HEREBY CERTIFIES THAT BENEFICIARY IS ENTITLED TO DRAW DOWN THE FULL AMOUNT OF LETTER OF CREDIT NO. _____ AS THE RESULT OF THE REJECTION, OR DEEMED REJECTION, OF THAT CERTAIN OFFICE LEASE DATED [Insert Lease Date], AS AMENDED, UNDER SECTION 365 OF THE U.S. BANKRUPTCY CODE."

SPECIAL CONDITIONS:

PARTIAL DRAWINGS AND MULTIPLE PRESENTATIONS MAY BE MADE UNDER THIS STANDBY LETTER OF CREDIT, PROVIDED, HOWEVER, THAT EACH SUCH DEMAND THAT IS PAID BY US SHALL REDUCE THE AMOUNT AVAILABLE UNDER THIS STANDBY LETTER OF CREDIT.

ALL INFORMATION REQUIRED WHETHER INDICATED BY BLANKS, BRACKETS OR OTHERWISE, MUST BE COMPLETED AT THE TIME OF DRAWING. [Please Provide The Required Forms For Review, And Attach As Schedules To The Letter Of Credit.]

ALL SIGNATURES MUST BE MANUALLY EXECUTED IN ORIGINALS.

ALL BANKING CHARGES ARE FOR THE APPLICANT'S ACCOUNT.

IT IS A CONDITION OF THIS STANDBY LETTER OF CREDIT THAT IT SHALL BE DEEMED AUTOMATICALLY EXTENDED WITHOUT AMENDMENT FOR A PERIOD OF ONE YEAR FROM THE PRESENT OR ANY FUTURE EXPIRATION DATE, UNLESS AT LEAST SIXTY (60) DAYS PRIOR TO THE EXPIRATION DATE WE SEND YOU NOTICE BY NATIONALLY RECOGNIZED OVERNIGHT COURIER SERVICE THAT WE ELECT NOT TO EXTEND THIS LETTER OF CREDIT FOR ANY SUCH ADDITIONAL PERIOD. SAID NOTICE WILL BE SENT TO THE ADDRESS INDICATED ABOVE, UNLESS A CHANGE OF ADDRESS IS OTHERWISE NOTIFIED BY YOU TO US IN WRITING BY RECEIPTED MAIL OR COURIER. ANY NOTICE TO US WILL BE DEEMED EFFECTIVE ONLY UPON ACTUAL RECEIPT BY US AT OUR DESIGNATED OFFICE. IN NO EVENT, AND WITHOUT FURTHER NOTICE FROM OURSELVES, SHALL THE EXPIRATION DATE BE EXTENDED BEYOND A FINAL EXPIRATION DATE OF ____ (60 days from the Lease Expiration Date).

THIS LETTER OF CREDIT MAY BE TRANSFERRED SUCCESSIVELY IN WHOLE OR IN PART ONLY UP TO THE THEN AVAILABLE AMOUNT IN FAVOR OF A NOMINATED TRANSFEREE ("TRANSFEREE"), ASSUMING SUCH TRANSFER TO SUCH TRANSFEREE IS IN COMPLIANCE WITH ALL APPLICABLE U.S. LAWS AND REGULATIONS. AT THE TIME OF TRANSFER, THE ORIGINAL LETTER OF CREDIT AND ORIGINAL AMENDMENT(S) IF ANY, MUST BE SURRENDERED TO US TOGETHER WITH OUR TRANSFER FORM (AVAILABLE UPON REQUEST) AND PAYMENT OF OUR CUSTOMARY TRANSFER FEES, WHICH FEES SHALL BE PAYABLE BY APPLICANT (PROVIDED THAT BENEFICIARY MAY, BUT SHALL NOT BE OBLIGATED TO, PAY SUCH FEES TO US ON BEHALF OF APPLICANT, AND SEEK REIMBURSEMENT THEREOF FROM APPLICANT). IN CASE OF ANY TRANSFER UNDER THIS LETTER OF CREDIT, THE DRAFT AND ANY REQUIRED STATEMENT MUST BE EXECUTED BY THE TRANSFEREE AND WHERE THE BENEFICIARY'S NAME APPEARS WITHIN THIS STANDBY LETTER OF CREDIT, THE TRANSFEREE'S NAME IS AUTOMATICALLY SUBSTITUTED THEREFOR.

ALL DRAFTS REQUIRED UNDER THIS STANDBY LETTER OF CREDIT MUST BE MARKED: ''DRAWN UNDER [Insert Bank Name] STANDBY LETTER OF CREDIT NO. _____."

WE HEREBY AGREE WITH YOU THAT IF DRAFTS ARE PRESENTED TO [Insert Bank Name] UNDER THIS LETTER OF CREDIT AT OR PRIOR TO [Insert Time – (*e.g.*, 11:00 AM)], ON A BUSINESS DAY, AND PROVIDED THAT SUCH DRAFTS PRESENTED CONFORM TO THE TERMS AND CONDITIONS OF THIS LETTER OF CREDIT, PAYMENT SHALL BE INITIATED BY US IN IMMEDIATELY AVAILABLE FUNDS BY OUR CLOSE OF BUSINESS ON THE SUCCEEDING BUSINESS DAY. IF DRAFTS ARE PRESENTED TO [Insert Bank Name] UNDER THIS LETTER OF CREDIT AFTER [Insert Time – (*e.g.*, 11:00 AM)], ON A BUSINESS DAY, AND PROVIDED THAT SUCH DRAFTS CONFORM WITH THE TERMS AND CONDITIONS OF THIS LETTER OF CREDIT, PAYMENT SHALL BE INITIATED BY US IN IMMEDIATELY AVAILABLE FUNDS BY OUR CLOSE OF BUSINESS ON THE SECOND SUCCEEDING BUSINESS DAY. AS USED IN THIS LETTER OF CREDIT, "BUSINESS DAY" SHALL MEAN ANY DAY OTHER THAN A SATURDAY, SUNDAY OR A DAY ON WHICH BANKING INSTITUTIONS IN THE STATE OF CALIFORNIA ARE AUTHORIZED OR REQUIRED BY LAW TO CLOSE. IF THE EXPIRATION DATE FOR THIS LETTER OF CREDIT SHALL EVER FALL ON A DAY WHICH IS NOT A BUSINESS DAY THEN SUCH EXPIRATION DATE SHALL AUTOMATICALLY BE EXTENDED TO THE DATE WHICH IS THE NEXT BUSINESS DAY.

PRESENTATION OF A DRAWING UNDER THIS LETTER OF CREDIT MAY BE MADE ON OR PRIOR TO THE THEN CURRENT EXPIRATION DATE HEREOF BY HAND DELIVERY, COURIER SERVICE, OVERNIGHT MAIL, OR FACSIMILE. PRESENTATION BY FACSIMILE TRANSMISSION SHALL BE BY TRANSMISSION OF THE ABOVE REQUIRED SIGHT DRAFT DRAWN ON US TOGETHER WITH THIS LETTER OF CREDIT TO OUR FACSIMILE NUMBER, [Insert Fax Number – (__) __-__], ATTENTION: [Insert Appropriate Recipient], WITH TELEPHONIC CONFIRMATION OF OUR RECEIPT OF SUCH FACSIMILE TRANSMISSION AT OUR TELEPHONE NUMBER [Insert Telephone Number – (__) __-__] OR TO SUCH OTHER FACSIMILE OR TELEPHONE NUMBERS, AS TO WHICH YOU HAVE RECEIVED WRITTEN NOTICE FROM US AS BEING THE APPLICABLE SUCH NUMBER. WE AGREE TO NOTIFY YOU IN WRITING, BY NATIONALLY RECOGNIZED OVERNIGHT COURIER SERVICE, OF ANY CHANGE IN SUCH DIRECTION. ANY FACSIMILE PRESENTATION PURSUANT TO THIS PARAGRAPH SHALL ALSO STATE THEREON THAT THE ORIGINAL OF SUCH SIGHT DRAFT AND LETTER OF CREDIT ARE BEING REMITTED, FOR DELIVERY ON THE NEXT BUSINESS DAY, TO [Insert Bank Name] AT THE APPLICABLE ADDRESS FOR PRESENTMENT PURSUANT TO THE PARAGRAPH FOLLOWING THIS ONE.

WE HEREBY ENGAGE WITH YOU THAT ALL DOCUMENT(S) DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS STANDBY LETTER OF CREDIT WILL BE DULY HONORED IF DRAWN AND PRESENTED FOR PAYMENT AT OUR OFFICE LOCATED AT [Insert Bank Name], [Insert Bank Address], ATTN: [Insert Appropriate Recipient], ON OR BEFORE THE EXPIRATION DATE OF THIS CREDIT, (Expiration Date).

IN THE EVENT THAT THE ORIGINAL OF THIS STANDBY LETTER OF CREDIT IS LOST, STOLEN, MUTILATED, OR OTHERWISE DESTROYED, WE HEREBY AGREE TO ISSUE A DUPLICATE ORIGINAL HEREOF UPON RECEIPT OF A WRITTEN REQUEST FROM YOU AND A CERTIFICATION BY YOU (PURPORTEDLY SIGNED BY YOUR AUTHORIZED REPRESENTATIVE) OF THE LOSS, THEFT, MUTILATION, OR OTHER DESTRUCTION OF THE ORIGINAL HEREOF.

EXCEPT SO FAR AS OTHERWISE EXPRESSLY STATED HEREIN, THIS STANDBY LETTER OF CREDIT IS SUBJECT TO THE "INTERNATIONAL STANDBY PRACTICES" (ISP 98) INTERNATIONAL CHAMBER OF COMMERCE (PUBLICATION NO. 590).

Very truly yours,

(Name of Issuing Bank)

By: _____

EXHIBIT G

TENANT'S PROPERTY

The following items, to the extent (i) not purchased with the Tenant Improvement Allowance or Additional Improvement Allowance, and (ii) not tied into the Base Building systems, shall be deemed "Tenant's Property":

1. All moveable furniture and equipment that is not "built-in".
2. Moveable lab casework (other than "built-in" lab casework), including moveable lab benches.
3. Servers, server racks and back-up batteries.
4. Furniture.
5. Portable fume hoods.
6. Biosafety cabinets.
7. Glass Washes.

EXHIBIT H

LOCATION OF MONUMENT SIGNAGE

LEASE

BRITANNIA POINTE GRAND BUSINESS PARK

BRITANNIA POINTE GRAND LIMITED PARTNERSHIP,

a Delaware limited partnership,

as Landlord,

and

ALLOGENE THERAPEUTICS, INC.,

a Delaware corporation,

as Tenant.

Britannia Pointe Grand Limited Partnership
[Britannia Pointe Grand Business Park]
[Allogene Therapeutics, Inc.]

TABLE OF CONTENTS

INDEX

June 25, 2018

David Chang, M.D., Ph.D.

Re: Employment Letter of Agreement ("Agreement")

Dear David:

Allogene Therapeutics, Inc. ("Allogene" or the "Company") is pleased to offer you employment on the following terms and conditions.

1. Title; Reporting; Duties.

   (a) Your employment shall commence on June 25, 2018, or such other date as may be agreed to by you and Allogene (the "Start Date").

   (b) When you commence employment with Allogene, you shall be employed in the position of President and Chief Executive Officer and shall report directly to the Board of Directors of the Company (the "Board"). Subject to the direction of the Board, you shall have such powers and perform such duties as are customarily performed by the President and Chief Executive Officer of similarly situated companies in the United States, including specific powers or duties (that are reasonably consistent therewith) determined by the Board. Your consulting agreement with Allogene shall also terminate upon the commencement of employment.

   (c) You shall devote substantially all of your business time, attention and energies to the business and affairs of Allogene and shall not during the period of your employment be actively engaged in any other business activity, whether or not such business activity is pursued for gain, profit or other pecuniary advantage, that will materially interfere with the performance of your duties or your availability to perform such duties or that will adversely affect, or negatively reflect upon, Allogene. Notwithstanding the foregoing, you may continue to provide services to the entities set forth on Exhibit A, attached hereto and made a part hereof, in the capacity set forth thereon. Exhibit A may be amended from time to time by the parties.

   (d) Initially your duties will be performed from 270 Littlefield, South San Francisco, CA 94080. Reasonable out of pocket travel expenses incurred for visiting Allogene's offices prior to relocation to the San Francisco Bay Area as described in Section 5 will be reimbursed by Allogene. Should Allogene implement a travel policy, such policy shall supersede this Section 1(d) and shall govern the type of travel and reimbursement process.

(e) Notwithstanding the foregoing, the Company may change your title, position, duties, supervisor and work location from time to time as it deems appropriate.

2. Compensation.

(a) Base Salary. You shall receive base salary paid at the rate of $525,000 per year, payable in accordance with Allogene's payroll practices.

(b) Bonus. You will be eligible to earn an annual performance bonus at the sole discretion of the Company in an amount equal to a maximum of 45% of your base salary (the "Annual Bonus"). The Annual Bonus will be based upon the Company's assessment of your performance and the Company's attainment of targeted goals as set by the Company in its sole discretion. Following the close of each calendar year, the Company will determine whether you have earned an Annual Bonus, and the amount of any such bonus, based on the achievement of such goals. No amount of Annual Bonus is guaranteed, and you must be an employee on the Annual Bonus payment date to be eligible to receive an Annual Bonus. No partial or prorated bonuses will be provided (except as set forth below in this paragraph for calendar year 2018). The Annual Bonus, if earned, will be paid no later than March 15 of the calendar year after the applicable bonus year. For calendar year 2018, no later than March 15, 2019 and subject to your continued employment through date of payment, the Company will pay you a prorated portion of your individual annual target bonus for 2018, based on the number of days during 2018 from April 6, 2018.

(c) Withholding. Allogene shall withhold all applicable federal, state and local taxes and social security and such other amounts as may be required by law from all amounts payable under this Section 2.

3. Options.

(a) On or within sixty (60) days following your Start Date you shall be granted a stock option (the "Option") to purchase 372,500 shares of Allogene's common stock, par value $0.001 per share (the "Common Stock") (the "Option Shares") pursuant to the Company's 2017 Equity Incentive Plan (the "Plan"). Such grant shall be evidenced by an option agreement (the "Option Agreement") to be entered into by and between you and the Company. The exercise price per Option Share will be equal to the fair market value per share of the Company's Common Stock as of the date that such Option is granted. The Option shall have a 10-year term and shall vest and become exercisable as follows: (i) 25% upon April 6, 2019 (the "Initial Vesting Date"); and thereafter (ii) the remaining unvested Options Shares shall vest in 36 substantially equal monthly installments as of the last calendar day of each month following the Initial Vesting Date.

(b) All Options shall be immediately exercisable with respect to one hundred percent (100%) of the Option Shares in exchange for restricted shares of Common Stock of the Company (the "Restricted Shares"); provided, however, that the Restricted Shares will be subject to vesting in accordance

with the schedule described above. Upon termination of your employment, the Company shall have the right to repurchase any Restricted Shares that have not vested as of such termination ("Unvested Shares") at a price equal to the exercise price per Option Share (the "Repurchase Right").

(c) In the event that your employment is terminated by the Company without Cause (as defined below) or by you for Good Reason (as defined below) at any time beginning on the date that is 90 days prior to the effective date of a Change of Control (as defined in the Plan) and ending on the date that is 12 months following the Change of Control, then (i) all unvested Restricted Stock and Option Shares shall immediately vest in full, and (ii) all Options will remain exercisable for a period of 90 calendar days following the date of such termination, after which time the Option shall expire; provided, however, that no such Option shall be exercisable after the expiration of its maximum term. In order to give effect to the foregoing provision, notwithstanding anything to the contrary set forth in any agreement governing an equity award regarding immediate forfeiture of unvested shares upon termination of service or the duration of post-termination of service exercise periods, following any termination of your employment, none of your equity incentive awards shall terminate with respect to any vested or unvested portion subject to such equity award before 90 days following such termination.

(d) For purposes of this Agreement:

(i) "Cause" will mean any one or more of the following: (A) commission of any felony or crime involving dishonesty; (B) participation in any fraud against the Company; (C) material breach of your contractual, statutory or common law duties to the Company (including violation of any provision or obligation under this Agreement); (D) your failure to satisfactorily perform your job duties as assigned by the Company; (E) intentional damage to any property of the Company; or (F) misconduct or other violation of Company policy that causes or reasonably could cause harm.

(ii) "Good Reason" shall mean (A) any material diminution by the Company of your title, duties, authority or Base Salary; (B) a material breach by the Company of any of the provisions contained in this Agreement, which, if capable of being cured, is not cured by the Company within 30 days after written notice thereof by you to the Company; or (C) relocation of your principal place of employment more than 50 miles from the South San Francisco area.

4. Relocation Allowance. We understand you will be relocating to the San Francisco Bay Area. In connection with that relocation you will receive a relocation advance payment in the amount of $250,000, payable within thirty (30) days after your employment Start Date. You shall receive an additional payment in the amount of $250,000 on the first anniversary of your Start Date (both payments are collectively referred to herein as the "Relocation Allowance"). The Relocation Allowance shall be subject to standard payroll deductions and withholdings and will be considered earned only if you relocate to the San Francisco Bay Area on or before December 31, 2018. You may use the Relocation Advance to pay for relocation expenses or

for any other purpose. If during the first or second year of your employment, (a) you resign your employment, or (b) the Company terminates your employment for Cause (as defined above), then you agree to return $250,000 to the Company within ten (10) days after your employment termination date.

5. Expenses. Allogene will reimburse you for all normal, usual and necessary expenses incurred in furtherance of the business and affairs of Allogene upon timely receipt by Allogene of appropriate vouchers or other proof of your expenditures and otherwise in accordance with any expense reimbursement and approval policy as may from time to time be adopted by Allogene.

6. Benefits.

   (a) As a regular full-time employee, you shall be entitled to participate in the employee benefits made available to similarly situated employees, in accordance with the terms of such benefits plans and programs and company policies. Information regarding these employee benefits is available upon request and in the official plan documents, summary plan descriptions, and applicable summaries. The Company, in its sole discretion, has the right to amend or terminate any benefit plan, program or Company policy at any time and without prior notice.

   (b) Vacation. During each year of your employment you shall be entitled to fifteen (15) days of paid time off in addition to company recognized holidays. Notwithstanding the foregoing, you shall not be entitled to take more than two (2) consecutive weeks of vacation without the prior written consent of the Company.

   (c) Paid Sick Leave. Upon hire, you will be credited with five (5) days of paid sick leave, which you may use during each calendar year for yourself or a family member for the diagnosis, care or treatment of an existing health condition or preventive care, or specified purposes set forth in the Company's policy if you are a victim of domestic violence, sexual assault, or stalking.

7. Representations and Warranties. You hereby represent and warrant as follows:

   (a) By accepting the Company's offer of employment, you represent that you have no agreements, relationships, or commitments with any other person or entity that conflict with your obligations to the Company.

   (b) You have the full right, power and legal capacity to enter and deliver this Agreement and to perform your duties and other obligations hereunder. This Agreement constitutes the legal, valid and binding obligation of the parties, enforceable against each in accordance with its terms. No approvals or consents of any persons or entitles are required for you to execute and deliver this Agreement or perform your duties and other obligations hereunder.

(c) You represent and warrant to the Company that you have not brought and shall not bring with you to the Company, or use in the performance of your duties, any materials or documents of any former employer that are not generally available to the public, unless you have obtained written authorization from the former employer for their possession and use and provided the Company with a copy thereof.

8. Conditions to Employment. This offer of employment is contingent upon, and your employment shall be subject to:

(a) completion of reference checks and background check, and may be contingent upon a drug screen, each to the reasonable satisfaction of Allogene; and

(b) satisfying the requirements of the Immigration Control and Reform Act, which may be accomplished by showing your proof of right to work in the U.S. within three days of commencing employment, and you agree to assist as needed at the Company's request to meet these conditions.

(c) execution of Allogene's form of Employee Confidential Information and Invention Assignment Agreement attached hereto as Exhibit A, which prohibits unauthorized use or disclosure of Allogene's proprietary information, among other obligations;

(d) Notwithstanding the foregoing, this offer may be withdrawn by Allogene at any time prior to its execution by the parties.

9. Employment-at-will and Termination. Your employment shall be at-will. Accordingly, you may terminate your employment with Allogene at any time and for any reason whatsoever, with or without advance notice, simply by notifying Allogene in writing. Similarly, Allogene may terminate your employment at any time and for any reason whatsoever, with or without cause or advance notice. This at-will relationship cannot be changed except in a writing signed by an authorized officer of the Company and you. The employment terms contained in this Agreement supersede any other agreements and promises made to you by Allogene or any representative on its behalf, whether oral, written or implied.

10. No Reliance by You on Promise or Representation Not in this Agreement. In accepting employment with Allogene and signing this Agreement, you agree that you are not relying on any representation, promise or inducement that has been made by Allogene or any representative on its behalf that is not explicitly stated in this Agreement. Allogene is not bound by and will not be liable for any representation, promise or inducement that is not explicitly stated in this Agreement.

11. Governing Law. The terms of this offer letter shall be governed by, and construed and interpreted in accordance with, the laws of the State of California without regard to such State's principles of conflict of laws, except as provided in Section 13.

12. Arbitration. To the maximum extent permitted by law, any dispute between the parties, including but not limited to those arising out of, or relating to, this Agreement, shall be exclusively decided by binding arbitration in accordance with the terms of the Arbitration Agreement, which is attached as Exhibit B and incorporated into this Agreement. The Federal Arbitration Act shall govern the interpretation, enforcement and all proceedings pursuant to the Arbitration Agreement. To the extent that the Federal Arbitration Act is inapplicable, the terms of the Arbitration Agreement shall be construed in accordance with California law.

13. Miscellaneous.

    (a) This Agreement, and your rights and obligations hereunder, may not be assigned. Allogene may assign its rights, together with its obligations, hereunder in connection with any sale, transfer or other disposition of all or substantially all of its business or assets, provided the assignee entity which succeeds to Allogene expressly assumes Allogene's obligations hereunder and complies with the terms of this Agreement.

    (b) This Agreement cannot be amended orally, or by any course of conduct or dealing, but only by a written agreement signed by the parties hereto. The Company's signatory must be an officer who is authorized by the Company to enter into such an amendment.

    (c) The failure of either party to insist upon the strict performance of any of the terms, conditions and provisions of this Agreement shall not be construed as a waiver or relinquishment of future compliance therewith, and such terms, conditions and provisions shall remain in full force and effect. No waiver of any term or condition of this Agreement on the part of either party shall be effective for any purpose whatsoever unless such waiver is in writing and signed by such party. If any provision of this offer letter agreement is determined to be invalid or unenforceable, in whole or in part, this determination shall not affect any other provision of this offer letter agreement and the provision in question shall be modified so as to be rendered enforceable in a manner consistent with the intent of the parties insofar as possible under applicable law.

    (d) This Agreement, including its Exhibits A and B, sets forth the entire agreement and understanding of the parties relating to the subject matter hereof, and supersedes all prior agreements, arrangements and understandings, written or oral, relating to the subject matter of the Agreement. This letter may be delivered and executed via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act or other applicable law) or other transmission method and shall be deemed to have been duly and validly delivered and executed and be valid and effective for all purposes.

14. Certification of Qualifications. By accepting employment, you certify that the information you provided to Allogene about your experience, education and other qualifications for employment has been accurate and complete.

If you wish to accept employment at Allogene under the terms described above, please sign and date this Agreement, and return it to me.

We look forward to your favorable reply and to a productive and enjoyable working relationship.

Sincerely,

/s/ Veer Bhavnagri
Veer Bhavnagri
Allogene Therapeutics, Inc.

Understood and Accepted:

/s/ David D. Chang — June 25, 2018
David Chang, M.D., Ph.D. — Date

EXHIBIT A

Vida Ventures, LLC: venture partner

Peloton Therapeutics, Inc: board

A2 Therapeutics, Inc: board

Kronos Bio, Inc: board and scientific advisor

EMPLOYEE CONFIDENTIAL INFORMATION AND INVENTION ASSIGNMENT AGREEMENT

In consideration of my employment or continued employment by Allogene Therapeutics, Inc., its direct and indirect subsidiaries, parents, affiliates, predecessors, successors and assigns (together "**Company**"), and the compensation and benefits provided to me now and during my employment with Company, I hereby enter into this Employee Confidential Information and Invention Assignment Agreement (the "**Agreement**"), which will be deemed effective as of the first day of my employment with the Company:

1. CONFIDENTIAL INFORMATION PROTECTIONS.

1.1 Recognition of Company's Rights; Nondisclosure. I understand and acknowledge that my employment by Company creates a relationship of confidence and trust with respect to Company's Confidential Information (as defined below) and that Company has a protectable interest therein. At all times during and after my employment, I will hold in confidence and will not disclose, use, lecture upon, or publish any of Company's Confidential Information, except as such disclosure, use or publication may be required in connection with my work for Company, or unless an officer of Company expressly authorizes such disclosure. I will obtain Company's written approval before publishing or submitting for publication any material (written, oral, or otherwise) that discloses and/or incorporates any Confidential Information. I hereby assign to Company any rights I may have or acquire in such Confidential Information and recognize that all Confidential Information shall be the sole and exclusive property of Company and its assigns. I will take all reasonable precautions to prevent the inadvertent accidental disclosure of Confidential Information. Notwithstanding the foregoing, pursuant to 18 U.S.C. Section 1833(b), I shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that: (1) is made in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney, and solely for the purpose of reporting or investigating a suspected violation of law; or (2) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

1.2 Confidential Information. The term "**Confidential Information**" shall mean any and all confidential knowledge, data or information of Company. By way of illustration but not limitation, "**Confidential Information**" includes (a) trade secrets, inventions, mask works, ideas, processes, formulas, software in source or object code versions, data, programs, other works of authorship, know-how, improvements, discoveries, developments, designs and techniques and any other proprietary technology and all Intellectual Property Rights therein (collectively, "**Inventions**") ; (b) information regarding research, development, new products, marketing and selling, business plans, budgets and unpublished financial statements, licenses, prices and costs, margins, discounts, credit terms, pricing and billing policies, quoting procedures, methods of obtaining business, forecasts, future plans and potential strategies, financial projections and business strategies, operational plans, financing and capital-raising plans, activities and agreements, internal services and operational manuals, methods of conducting Company business, suppliers and supplier information, and purchasing; (c) information regarding customers and potential customers of Company, including customer lists, names, representatives, their needs or desires with respect to the types of products or services offered by Company, proposals, bids, contracts and their contents and parties, the type and quantity of products and services provided or sought to be provided to customers and potential customers of Company and other non-public

information relating to customers and potential Customers; (d) information regarding any of Company's business partners and their services, including names; representatives, proposals, bids, contracts and their contents and parties, the type and quantity of products and services received by Company, and other non-public information relating to business partners; (e) information regarding personnel, employee lists, compensation, and employee skills; and (f) any other non-public information which a competitor of Company could use to the competitive disadvantage of Company. Notwithstanding the foregoing, it is understood that, at all such times, I am free to use information which is generally known in the trade or industry through no breach of this Agreement or other act or omission by me. Further, notwithstanding the foregoing or anything to the contrary in this Agreement or any other agreement between the Company and me, nothing in this Agreement shall limit my right to discuss my employment or report possible violations of law or regulation with any federal government agency or similar state or local agency or to discuss the terms and conditions of my employment with others to the extent expressly permitted by Section 7 of the National Labor Relations Act or to the extent that such disclosure is protected under the applicable provisions of law or regulation.

1.3 Third Party Information. I understand, in addition, that Company has received and in the future will receive from third parties their confidential and/or proprietary knowledge, data or information ("**Third Party Information**") subject to a duty on Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. During my employment and thereafter, I will hold Third Party Information in confidence and will not disclose to anyone (other than Company personnel who need to know such information in connection with their work for Company) or use, except in connection with my work for Company, Third Party Information unless expressly authorized by an officer of Company in writing.

1.4 No Improper Use of Information of Prior Employers and Others. During my employment by Company, I will not improperly use or disclose confidential information or trade secrets, if any, of any former employer or any other person to whom I have an obligation of confidentiality, and I will not bring onto the premises of Company any unpublished documents or any property belonging to any former employer or any other person to whom I have an obligation of confidentiality unless consented to in writing by that former employer or person.

2. ASSIGNMENTS OF INVENTIONS.

2.1 Definitions. As used in this Agreement, the term "**Intellectual Property Rights**" means all trade secrets, Copyrights, trademarks, mask work rights, patents and other intellectual property rights recognized by the laws of any jurisdiction or country; the term "**Copyright**" means the exclusive legal right to reproduce, perform, display, distribute and make derivative works of a work of authorship (as a literary, musical, or artistic work) recognized by the laws of any jurisdiction or country; and the term "**Moral Rights**" means all paternity, integrity, disclosure, withdrawal, special and any other similar rights recognized by the laws of any jurisdiction or country.

2.2 Excluded Inventions and Other Inventions. Attached hereto as **Attachment 1** is a list describing all existing Inventions, if any, that may relate to Company's business or actual or demonstrably anticipated research or development and that were made by me or acquired by me prior to the commencement of my employment with, and which are not to be assigned to, Company ("**Excluded Inventions**"). If no such list is attached, I represent and agree that it is because I have no rights in any existing Inventions that may relate to Company's business or actual or demonstrably anticipated research or development. For purposes of this Agreement, "**Other Inventions**" means Inventions in which I have or may have an interest, as of the commencement of my employment or thereafter, other than Company Inventions (defined below) and Excluded Inventions. I acknowledge and agree that if I use any Excluded Inventions or any Other Inventions in the scope of my employment, or if I include any Excluded Inventions or Other Inventions in any product or service of Company, or if my rights in any Excluded Inventions or Other Inventions may block or interfere with, or may otherwise be required

for, the exercise by Company of any rights assigned to Company under this Agreement, I will immediately so notify Company in writing. Unless Company and I agree otherwise in writing as to particular Excluded Inventions or Other Inventions, I hereby grant to Company, in such circumstances (whether or not I give Company notice as required above), a non-exclusive, perpetual, transferable, fully-paid and royalty-free, irrevocable and worldwide license, with rights to sublicense through multiple levels of sublicensees, to reproduce, make derivative works of, distribute, publicly perform, and publicly display in any form or medium, whether now known or later developed, make, have made, use, sell, import, offer for sale, and exercise any and all present or future rights in, such Excluded Inventions and Other Inventions. To the extent that any third parties have rights in any such Other Inventions, I hereby represent and warrant that such third party or parties have validly and irrevocably granted to me the right to grant the license stated above.

2.3 Assignment of Company Inventions. Inventions assigned to Company, or to a third party as directed by Company pursuant to Section 2.6, are referred to in this Agreement as "**Company Inventions**." Subject to Section 2.4 (Unassigned or Nonassignable Inventions) and except for Excluded Inventions set forth in **Attachment 1** and Other Inventions, I hereby assign to Company all my right, title, and interest in and to any and all Inventions (and all Intellectual Property Rights with respect thereto) made, conceived, reduced to practice, or learned by me, either alone or with others, during the period of my employment by Company. To the extent required by applicable Copyright laws, I agree to assign in the future (when any copyrightable Inventions are first fixed in a tangible medium of expression) my Copyright rights in and to such Inventions. Any assignment of Company Inventions (and all Intellectual Property Rights with respect thereto) hereunder includes an assignment of all Moral Rights. To the extent such Moral Rights cannot be assigned to Company and to the extent the following is allowed by the laws in any country where Moral Rights exist, I hereby unconditionally and irrevocably waive the enforcement of such Moral Rights, and all claims and causes of action of any kind against Company or related to Company's customers, with respect to such rights. I further acknowledge and agree that neither my successors-in-interest nor legal heirs retain any Moral Rights in any Company Inventions (and any Intellectual Property Rights with respect thereto).

2.4 Unassigned or Nonassignable Inventions. I recognize that this Agreement will not be deemed to require assignment of any Invention that is covered under California Labor Code section 2870(a) (the "**Specific Inventions Law**"), as detailed on Attachment 2.

2.5 Obligation to Keep Company Informed. During the period of my employment and for one (1) year after termination of my employment, I will promptly and fully disclose to Company in writing all Inventions authored, conceived, or reduced to practice by me, either alone or jointly with others. In addition, I will promptly disclose to Company all patent applications filed by me or on my behalf within one (1) year after termination of employment. At the time of each such disclosure, I will advise Company in writing of any Inventions that I believe fully qualify for protection under the provisions of the Specific Inventions Law; and I will at that time provide to Company in writing all evidence necessary to substantiate that belief. Company will keep in confidence and will not use for any purpose or disclose to third parties without my consent any confidential information disclosed in writing to Company pursuant to this Agreement relating to Inventions that qualify fully for protection under the Specific Inventions Law. I will preserve the confidentiality of any Invention that does not fully qualify for protection under the Specific Inventions Law.

2.6 Government or Third Party. I agree that, as directed by Company, I will assign to a third party, including without limitation the United States, all my right, title, and interest in and to any particular Company Invention.

2.7 Ownership of Work Product.

(a) I acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of my employment and which are protectable by Copyright are "works made for hire," pursuant to United States Copyright Act (17 U.S.C., Section 101).

(b) I agree that Company will exclusively own all work product that is made by me (solely or jointly with others) within the scope of my employment, and I hereby irrevocably and unconditionally assign to Company all right, title, and interest worldwide in and to such work product. I understand and agree that I have no right to publish on, submit for publishing, or use for any publication any work product protected by this Section, except as necessary to perform services for Company.

2.8 Enforcement of Intellectual Property Rights and Assistance. I will assist Company in every proper way to obtain, and from time to time enforce, United States and foreign Intellectual Property Rights and Moral Rights relating to Company Inventions in any and all countries. To that end I will execute, verify and deliver such documents and perform such other acts (including appearances as a witness) as Company may reasonably request for use in applying for, obtaining, perfecting, evidencing, sustaining and enforcing such Intellectual Property Rights and the assignment thereof. In addition, I will execute, verify and deliver assignments of such Intellectual Property Rights to Company or its designee, including the United States or any third party designated by Company. My obligation to assist Company with respect to Intellectual Property Rights relating to such Company Inventions in any and all countries will continue beyond the termination of my employment, but Company will compensate me at a reasonable rate after my termination for the time actually spent by me at Company's request on such assistance. In the event Company is unable for any reason, after reasonable effort, to secure my signature on any document needed in connection with the actions specified in this paragraph, I hereby irrevocably designate and appoint Company and its duly authorized officers and agents as my agent and attorney in fact, which appointment is coupled with an interest, to act for and in my behalf to execute, verify and file any such documents and to do all other lawfully permitted acts to further the purposes of the preceding paragraph with the same legal force and effect as if executed by me. I hereby waive and quitclaim to Company any and all claims, of any nature whatsoever, which I now or may hereafter have for infringement of any Intellectual Property Rights assigned under this Agreement to Company.

2.9 Incorporation of Software Code. I agree that I will not incorporate into any Company software or otherwise deliver to Company any software code licensed under the GNU General Public License or Lesser General Public License or any other license that, by its terms, requires or conditions the use or distribution of such code on the disclosure, licensing, or distribution of any source code owned or licensed by Company **except** in strict compliance with Company's policies regarding the use of such software.

3. RECORDS. I agree to keep and maintain adequate and current records (in the form of notes, sketches, drawings and in any other form that is required by Company) of all Confidential Information developed by me and all Company Inventions made by me during the period of my employment at Company, which records will be available to and remain the sole property of Company at all times.

4. DUTY OF LOYALTY DURING EMPLOYMENT. I agree that during the period of my employment by Company I will not, without Company's express written consent, directly or indirectly engage in any employment or business activity which is directly or indirectly competitive with, or would otherwise conflict with, my employment by Company.

5. NO SOLICITATION OF EMPLOYEES, CONSULTANTS, OR CONTRACTORS. I agree that during the period of my employment and for the one (1) year period after the date my employment ends for any reason, including but not limited to voluntary termination by me or involuntary termination by Company, I will not, as an officer, director, employee, consultant, owner, partner, or in any other capacity, either directly or through others, except on behalf of Company solicit, induce, encourage, or participate in soliciting, inducing or encouraging any employee, consultant, or independent contractor of Company to terminate his, her or its relationship with Company, even if I did not initiate the discussion or seek out the contact.

6. REASONABLENESS OF RESTRICTIONS.

6.1 I agree that I have read this entire Agreement and understand it. I agree that this Agreement does not prevent me from earning a living or pursuing my career. I agree that the restrictions contained in this Agreement are reasonable, proper, and necessitated by Company's legitimate business interests. I represent and agree that I am entering into this Agreement freely and with knowledge of its contents with the intent to be bound by the Agreement and the restrictions contained in it.

6.2 In the event that a court or arbitrator finds this Agreement, or any of its restrictions, to be ambiguous, unenforceable, or invalid, Company and I agree that the court or arbitrator will read the Agreement as a whole and interpret the restriction(s) at issue to be enforceable and valid to the maximum extent allowed by law.

6.3 If the court or arbitrator declines to enforce this Agreement in the manner provided in subsection 6.2, Company and I agree that this Agreement will be automatically modified to provide Company with the maximum protection of its business interests allowed by law and I agree to be bound by this Agreement as modified.

7. NO DISPARAGEMENT. I agree that, during my employment with the Company and after the termination of my employment for any reason, I will not disparage the Company, its officers, directors, managers, employees, consultants, shareholders, or agents, in any manner likely to be harmful to it or their business, business reputation or personal reputation. Notwithstanding the foregoing, nothing in this Agreement shall prohibit me from making truthful statements or disclosures required by applicable law, regulation or legal process; or requesting or receiving confidential legal advice. Nothing in this Agreement shall limit my right to make truthful statements in the proper performance of my job duties for the Company, discuss my employment, or report possible violations of law or regulation with the SEC, EEOC, DOL, NLRB, OSHA or other federal government agency or similar state or local agency, or to discuss the terms and conditions of my employment with others to the extent expressly permitted by Section 7 of the NLRA, or to the extent that such disclosure is protected under the applicable provisions of law or regulation, including but not limited to "whistleblower" statutes or other similar provisions that protect such disclosure.

8. NO CONFLICTING AGREEMENT OR OBLIGATION. I represent that my employment by Company does not and will not breach any agreement with any former employer or third party, including any noncompete agreement or any agreement to keep in confidence or refrain from using information acquired by me prior to my employment by Company. I further represent that I have not entered into, and will not enter into, any agreement, either written or oral, in conflict with my obligations under this Agreement.

9. RETURN OF COMPANY PROPERTY. Subject to the nondisclosure requirements of Section 1.1 above, upon termination of my employment or upon Company's request at any other time, I will deliver to Company any and all of Company's property and equipment and any and all drawings, notes, memoranda, specifications, devices, formulas and documents, together with all copies thereof, and any other material containing or disclosing any Company Inventions, Third Party Information or Confidential Information of Company. I agree that I will not copy, delete, or alter any information contained upon my Company computer or Company equipment before I return it to Company. In addition, if I have used any personal computer, server, or e-mail system to receive, store, review, prepare or transmit any Company information, including but not limited to, Confidential Information, I agree to provide the Company access to any such personal systems as reasonably requested to search for, copy and/or delete such information, and upon my employment termination I agree to provide Company with a computer-useable copy of all such Confidential Information and then permanently delete and expunge such Confidential Information from those systems; and I agree to provide Company access to my system as reasonably requested to verify that the necessary copying and/or deletion is completed. I further agree that any property situated on Company's premises and owned by Company, including disks and other storage media, filing cabinets or other work areas, is subject to inspection by Company's personnel at any time with or without notice. Prior to leaving, I will cooperate with Company in attending an exit interview and completing and signing Company's

Termination Certificate; however, my failure to sign and deliver the Termination Certificate shall in no way diminish my continuing obligations under this Agreement.

10. LEGAL AND EQUITABLE REMEDIES.

10.1 I agree that it may be impossible to assess the damages caused by my violation of this Agreement or any of its terms. I agree that any threatened or actual violation of this Agreement or any of its terms will constitute immediate and irreparable injury to Company, and Company will have the right to enforce this Agreement and any of its provisions by injunction, specific performance or other equitable relief, without bond and without prejudice to any other rights and remedies that Company may have for a breach or threatened breach of this Agreement.

10.2 In the event Company enforces this Agreement through a court or arbitration order, I agree that the restrictions of Sections 5 will remain in effect for a period of twelve (12) months from the effective date of the order enforcing the Agreement.

11. NOTICES. Any notices required or permitted under this Agreement will be given to Company at its headquarters location at the time notice is given, and to me at my address as listed on Company payroll, or at such other address as Company or I may designate by written notice to the other. Notice will be effective upon receipt or refusal of delivery. If delivered by certified or registered mail, notice will be considered to have been given five (5) business days after it was mailed, as evidenced by the postmark. If delivered by courier or express mail service, notice will be considered to have been given on the delivery date reflected by the courier or express mail service receipt.

12. NOTIFICATION OF NEW EMPLOYER. If I leave the employ of Company, I consent to the notification of my new employer of my rights and obligations under this Agreement, by Company providing a copy of this Agreement or otherwise.

13. GENERAL PROVISIONS.

13.1 Governing Law. This Agreement will be governed by and construed according to the laws of the State of New York as such laws are applied to agreements entered into and to be performed entirely within New York between New York residents.

13.2 Severability. In case any one or more of the provisions, subsections, or sentences contained in this Agreement will, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability will not affect the other provisions of this Agreement, and this Agreement will be construed as if such invalid, illegal or unenforceable provision had never been contained in this Agreement. If moreover, any one or more of the provisions contained in this Agreement will for any reason be held to be excessively broad as to duration, geographical scope, activity or subject, it will be construed by limiting and reducing it, so as to be enforceable to the extent compatible with the applicable law as it will then appear.

13.3 Successors and Assigns. This Agreement is for my benefit and the benefit of Company, its successors, assigns, parent corporations, direct and indirect subsidiaries, affiliates, and purchasers, and will be binding upon my heirs, executors, administrators and other legal representatives.

13.4 Survival. This Agreement shall survive the termination of my employment, regardless of the reason, and the assignment of this Agreement by Company to any successor in interest or other assignee.

13.5 Employment At-Will. I agree and understand that nothing in this Agreement will change my at-will employment status or confer any right with respect to continuation of employment by Company, nor will it interfere in any way with my right or Company's right to terminate my employment at any time, with or without cause or advance notice.

13.6 Waiver. No waiver by Company of any breach of this Agreement will be a waiver of any preceding or succeeding breach. No waiver by Company of any right under this Agreement will be construed as a waiver of any other right. Company will not be required to give notice to enforce strict adherence to all terms of this Agreement.

13.7 Export. I agree not to export, reexport, or transfer, directly or indirectly, any U.S. technical data acquired from Company or any products utilizing such data, in violation of the United States export laws or regulations.

13.8 Advice of Counsel. I ACKNOWLEDGE THAT, IN EXECUTING THIS AGREEME IT, I HAVE HAD THE OPPORTUNITY TO SEEK THE ADVICE OF INDEPENDENT LEGAL COUNSEL, AND I HAVE READ AND UNDERSTOOD ALL OF THE TERMS AND PROVISIONS OF THIS AGREEMENT. THIS AGREEMENT WILL NOT BE CONSTRUED AGAINST ANY PARTY BY REA ON OF THE DRAFTING OR PREPARATION OF THIS AGREEMENT.

13.9 Entire Agreement. The obligations pursuant to Sections 1 and 2 of this Agreement will apply to any time during which I was previously engaged, or am in the future engaged, by Company as a consultant (except Subsection 2.4 and 2.7(a)) or employee if no other agreement governs nondisclosure and assignment of inventions during such period. This Agreement is the final, complete and exclusive agreement of the parties with respect to the subject matter of this Agreement and supersedes and merges all prior discussions between us. No modification of or amendment to this Agreement, will be effective unless in writing and signed by the party to be charged. Any subsequent change or changes in my duties, salary or compensation will not affect the validity or scope of this Agreement.

This Agreement shall be effective as of the first day of my employment with the Company.

EMPLOYEE:

I HAVE READ, UNDERSTAND, AND ACCEPT THIS AGREEMENT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW IT WITH INDEPENDENT LEGAL COUNSEL. I HAVE ALSO COMPLETELY FILLED OUT ATTACHMENT 1.

/s/ David D. Chang

By: _____
Title: _____
Date: June 25, 2018

Address:

_____

COMPANY:

ACCEPTED AND AGREED:

/s/ Veer Bhavnagri

By: Veer Bhavnagri
Title: General Counsel
Date: June 25, 2018

Address:

270 Littlefield Ave
South San Francisco, CA 94080

ATTACHMENT 1

PRIOR INVENTIONS

TO: **Allogene Therapeutics, Inc.**

FROM: _____

DATE: _____

SUBJECT: Prior Inventions

1. Except as listed in Section 2 below, the following is a complete list of all inventions or improvements relevant to the subject matter of my employment by Allogene Therapeutics, Inc. ("**Company**") that have been made or conceived or first reduced to practice by me alone or jointly with others prior to my engagement by Company:

☐ No inventions or improvements.

☐ See below:

_____

_____

_____

☐ Additional sheets attached.

2. Due to a prior confidentiality agreement, I cannot complete the disclosure under Section 1 above with respect to inventions or improvements generally listed below, the intellectual property rights and duty of confidentiality with respect to which I owe to the following party(ies):

	Invention or Improvement	**Party(ies)**	**Relationship**
1.	_____	_____	
2.	_____	_____	
3.	_____	_____	

☐ Additional sheets attached.

ATTACHMENT 2

LIMITED EXCLUSION NOTIFICATION

This is to notify you in accordance with Section 2872 of the California Labor Code that the foregoing Agreement between you and Company does not require you to assign or offer to assign to Company any Invention that you develop entirely on your own time without using Company's equipment, supplies, facilities or trade secret information, except for those Inventions that either:

(a) Relate at the time of conception or reduction to practice to Company's business, or actual or demonstrably anticipated research or development; or

(b) Result from any work performed by you for Company.

To the extent a provision in the foregoing Agreement purports to require you to assign an Invention otherwise excluded from the preceding paragraph, the provision is against the public policy of this state and is unenforceable.

This limited exclusion does not apply to any patent or Invention covered by a contract between Company and the United States or any of its agencies requiring full title to such patent or Invention to be in the United States.

EXHIBIT C

MUTUAL AGREEMENT TO ARBITRATE CLAIMS

I recognize that disputes may arise between the Allogene Therapeutics, Inc. (the "**Company**") and me during or following my employment with the Company, and that those differences may or may not be related to my employment. I understand and agree that by entering into this Mutual Agreement to Arbitrate Claims ("**Agreement**"), I anticipate gaining the benefits of a speedy, less-formal, impartial, final and binding dispute-resolution procedure.

Except as provided in this Agreement, the Federal Arbitration Act shall govern the interpretation, enforcement and all proceedings pursuant to this Agreement. To the extent that the Federal Arbitration Act is inapplicable, the arbitration law of the state in which I work or last worked for the Company shall apply.

Claims Covered by the Agreement

The Company and I mutually consent to the resolution by arbitration of all claims or controversies ("claims"), past, present or future, whether or not arising out of my employment (or its termination), that the Company may have against me or that I (and no other party) may have against the Company or any of its service providers, including any Professional Employment Organization ("**PEO**") and the Company's and any such PEO's benefit plans or the plans' sponsors, fiduciaries, administrators, affiliates and agents, and/or all successors and assigns of any of them.

The only claims that are arbitrable are those that are justiciable under applicable federal, state or local law. Arbitrable claims include, but are not limited to: claims for wages or other compensation due; claims for breach of any contract or covenant (express or implied); tort claims; claims for harassment, retaliation or discrimination (including, but not limited to, race, sex, sexual orientation, religion, national origin, age, marital status, physical or mental disability or handicap, or medical condition); claims for benefits (except as provided below); and claims for violation of any federal, state, or other governmental law, statute, regulation, or ordinance (except as provided below).

Claims Not Covered by the Agreement

The Company and I agree that neither of us shall initiate or prosecute any lawsuit or administrative action in any way related to any claim covered by this Agreement, except that this Agreement does not prohibit the filing of or pursuit of relief through the following: (1) a court action for temporary equitable relief in aid of arbitration, where such an action is otherwise available by law, (2) an administrative charge to any federal, state or local equal opportunity or fair employment practices agency, (3) an administrative charge to the National Labor Relations Board, or (4) any other charge filed with or communication to a federal, state or local government office, official or agency (for numbers (2) through (4) collectively, a "**government complaint**").

The following claims are not covered by this Agreement: claims for workers' compensation or unemployment compensation benefits; claims that as a matter of law cannot be subject to arbitration; claims covered by (and defined in) the Franken Amendment, first enacted in Section 8116 of the Defense Appropriations Act of 2010, or any similar statute, regulation or executive order, including but not limited to Executive Order 13673 to the extent that any such statute, regulation or executive order is effective and applicable to this Agreement; and claims under an employee benefit or pension plan that specifies a different arbitration procedure.

To the maximum extent permitted by law, I hereby waive any right to bring on behalf of persons other than myself, or to otherwise participate with other persons in, any class or collective action. I understand, however, that to the maximum extent permitted by law I retain the right to bring claims in arbitration, including claims under the California Private Attorneys General Act ("PAGA"), for myself as an individual (and only for myself). If a court adjudicating a case involving the Company and me were to determine that there is an unwaivable right to bring a PAGA representative action, any such representative action shall be brought only in court, and not in arbitration.

Time Limits for Commencing Arbitration and Required Notice of All Claims

The Company and I agree that the aggrieved party must give written notice of any claim to the other party no later than the expiration of the statute of limitations (deadline for filing) that the law prescribes for the claim. Otherwise, the claim shall be deemed waived. The filing of a government complaint shall not extend the statute of limitations for presenting any claim to arbitration. I understand that the aggrieved party is encouraged to give written notice of any claim as soon as possible after the event or events in dispute so that arbitration of any differences may take place promptly.

Written notice to the Company, or its officers, directors, employees or agents, shall be sent to General Counsel, Allogene Therapeutics, Inc., at the Company's then-current headquarters address, which currently is 270 Littlefield Ave., South San Francisco, CA 94080. I will be given written notice at the last address recorded in my personnel file.

The written notice shall identify and describe the nature of all claims asserted, the facts upon which such claims are based, and the relief or remedy sought. The notice shall be sent to the other party by certified or registered mail, return receipt requested.

Representation

Any party may be represented by an attorney or other representative selected by the party.

Discovery

Each party shall have the right to take depositions of five fact witnesses and any expert witness designated by another party. Each party also shall have the right to make requests for production of documents to any party and to subpoena documents from third parties to the extent allowed by law. Requests for additional depositions or discovery may be made to the Arbitrator selected pursuant to this Agreement. The Arbitrator may grant such additional discovery if the Arbitrator finds that the party has demonstrated that it needs that discovery to adequately arbitrate the claim, taking into account the parties' mutual desire to have a speedy, less-formal, cost-effective dispute-resolution mechanism.

Designation of Witnesses

At least 30 days before the arbitration, the parties must exchange lists of witnesses, including any experts, and copies of all exhibits intended to be used at the arbitration.

Subpoenas

Each party shall have the right to subpoena witnesses and documents to the extent allowed by law, subject to any limitations the Arbitrator shall impose for good cause shown.

Place of Arbitration

The arbitration shall take place in the county (or comparable governmental unit) in which I am or was last employed by the Company, and no dispute affecting my rights or responsibilities shall be adjudicated in any other venue or forum.

Arbitration Procedures

The arbitration will be held under the auspices of the American Arbitration Association or JAMS (or any successor of either of them) ("**administrator**"). The party that did not initiate the claim shall designate the administrator. Regardless of which organization is designated to be the administrator, the arbitration shall be held in accordance with the JAMS Employment Arbitration Rules & Procedures (and no other rules), which are currently available at http://www.jamsadr.com/rules-employment-arbitration. I understand that the Company will supply me with a printed copy of those rules upon my request. The Arbitrator shall be either a retired judge, or an attorney who is experienced in employment law and licensed to practice law in the state in which the arbitration is convened (the "Arbitrator"), selected pursuant to JAMS rules or by mutual agreement of the parties.

The Arbitrator shall apply the substantive law (and the law of remedies, if applicable) of the state in which the claim arose, or federal law, or both, as applicable to the claim(s) asserted. The Arbitrator is without jurisdiction to apply any different substantive law or law of remedies. The Federal Rules of Evidence shall apply. The arbitration shall be final and binding upon the parties, except as provided in this Agreement.

The Arbitrator shall have jurisdiction to hear and rule on pre-hearing disputes and is authorized to hold pre-hearing conferences by telephone or in person, as the Arbitrator deems advisable. The Arbitrator shall have the authority to entertain a motion to dismiss and/or a motion for summary judgment by any party and shall apply the standards governing such motions under the Federal Rules of Civil Procedure.

Either party, at its expense in the first instance, may arrange and pay for a court reporter to provide a stenographic record of proceedings.

Should any party refuse or neglect to appear for, or participate in, the arbitration hearing, the Arbitrator shall have the authority to decide the dispute based upon whatever evidence is presented.

Either party upon its request shall be given leave to file a post-hearing brief. The time for filing such a brief shall be set by the Arbitrator.

The Arbitrator shall render an award and written opinion in the form typically rendered in labor arbitrations, normally no later than thirty (30) days from the date the arbitration hearing concludes or the post-hearing briefs (if requested) are received, whichever is later. The opinion shall include the factual and legal basis for the award.

Arbitration Fees and Costs

The Company will be responsible for paying any filing fee and the fees and costs of the Arbitrator; provided, however, that if I am the party initiating the claim, I will contribute an amount equal to the filing fee to initiate a claim in the court of general jurisdiction in the state in which I am (or was last) employed by the Company. Each party shall pay in the first instance its own litigation costs and attorneys' fees, if any. However, if any party prevails on a statutory claim which affords the prevailing party attorneys' fees and litigation costs, or if there is a written agreement providing for attorneys' fees and/or litigation costs, the Arbitrator shall rule upon a motion for attorneys' fees and/or litigation costs under the same standards a court would apply under the law applicable to the claim(s) at issue.

Reconsideration and Review

Either party shall have the right, within twenty (20) days of issuance of the Arbitrator's decision, to file with the Arbitrator (and the Arbitrator shall have jurisdiction to consider and rule upon) a motion to reconsider (accompanied by a supporting brief), and the other party shall have twenty (20) days from the date of the motion to respond. The Arbitrator thereupon shall reconsider the issues raised by the motion and, promptly, either confirm or change the decision, which (except as provided by law) shall then be final and conclusive upon the parties.

Either party may bring an action in any court of competent jurisdiction to compel arbitration under this Agreement and to enforce an arbitration award.

Interstate Commerce

I understand and agree that the Company is engaged in transactions involving interstate commerce and that my employment is related to that interstate commerce.

Survival of Agreement

This Agreement to arbitrate shall survive the termination of my employment and the expiration of any benefit plan.

Sole and Entire Agreement

This is the complete agreement between the parties on the subject hereof; provided, however, that if this Agreement for any reason is held to be unenforceable, then any prior arbitration agreement between the Company and me shall survive. No party is relying on any representations, oral or written, on the subject of the effect, enforceability or meaning of this Agreement, except as specifically set forth in this Agreement.

Construction and Severability

If any provision of this Agreement is adjudged to be void or otherwise unenforceable, in whole or in part, such adjudication shall not affect the validity of the remainder of the Agreement. All other provisions shall remain in full force and effect based on the parties' mutual intent to create a binding agreement to arbitrate their disputes.

Consideration

The promises by the Company and by me to arbitrate differences, rather than litigate them before courts or other bodies, provide consideration for each other.

Voluntary Agreement

I ACKNOWLEDGE THAT I HA VE CAREFULLY READ THIS AGREEMENT, THAT I UNDERSTAND ITS TERMS, THAT ALL UNDERSTANDINGS AND AGREEMENTS BETWEEN THE COMPANY AND ME RELATING TO THE SUBJECTS COVERED IN THE AGREEMENT ARE CONTAINED IN IT, AND THAT I HAVE ENTERED INTO THE AGREEMENT VOLUNTARILY AND NOT IN RELIANCE ON ANY PROMISES OR REPRESENTATIONS BY THE COMPANY OTHER THAN THOSE CONTAINED IN THIS AGREEMENT ITSELF.

I UNDERSTAND THAT BY SIGNING THIS AGREEMENT I AM GIVING UP MY RIGHT TO A JURY TRIAL.

I FURTHER ACKNOWLEDGE THAT I HA VE BEEN GIVEN THE OPPORTUNITY TO DISCUSS THIS AGREEMENT WITH MY PRIVATE LEGAL COUNSEL AND HAVE AVAILED MYSELF OF THAT OPPORTUNITY TO THE EXTENT I WISH TO DO SO.

Employee:	ALLOGENE THERAPEUTICS, INC.
/s/ David D. Chang	/s/ Veer Bhavnagri
Signature of Employee	Signature of Employee
David D. Chang	Veer Bhavnagri
Print Name of Employee	Print Name of Employee
June 25, 2018	June 25, 2018
Date	Date

June 11, 2018

Mr. Eric Schmidt

Re: Employment Letter of Agreement ("Agreement")

Dear Eric:

Allogene Therapeutics, Inc. ("Allogene" or the "Company") is pleased to offer you employment on the following terms and conditions.

1. Title; Reporting; Duties.

   (a) Your employment shall commence on June 18, 2018, or such other date as may be agreed to by you and Allogene (the "Start Date").

   (b) When you commence employment with Allogene, you shall be employed in the position of Chief Financial Officer, shall report directly to the Chief Executive Officer and shall perform the duties and responsibilities that the Company assigns to you.

   (c) You shall devote substantially all of your business time, attention and energies to the business and affairs of Allogene and shall not during the period of your employment be actively engaged in any other business activity, whether or not such business activity is pursued for gain, profit or other pecuniary advantage, that will materially interfere with the performance of your duties or your availability to perform such duties or that will adversely affect, or negatively reflect upon, Allogene. Notwithstanding the foregoing, you may continue to provide services to the entities set forth on Appendix A, attached hereto and made a part hereof, in the capacity set forth thereon. Appendix A may be amended from time to time by the parties; provided that the Company's consent to any amendment to Appendix A shall not be unreasonably withheld.

   (d) Initially your duties will be performed from New York, NY, provided, however, that you shall be required to spend up to 10 days per month (or such other period of time as may be agreed to between yourself and the Chief Executive Officer) working from the Company's headquarters located in or near South San Francisco, CA. Moreover, in your position as Chief Financial Officer, you understand and agree that frequent travel may be required, which could be substantial at times. Reasonable out of pocket travel expenses will be reimbursed by Allogene. Should Allogene implement a travel policy, such policy shall supersede this Section 1(d) and shall govern the type of travel and reimbursement process.

   (e) Notwithstanding the foregoing, the Company may change your title, position, duties, supervisor and work location from time to time as it deems appropriate.

2. Compensation.

   (a) Base Salary. You shall receive base salary paid at the rate of $375,000 per year, payable in accordance with Allogene's payroll practices.

(b) Bonus. You will be eligible to earn an annual performance bonus at the sole discretion of the Company in an amount equal to a maximum of 35% of your base salary (the "Annual Bonus"). The Annual Bonus will be based upon the Company's assessment of your performance and the Company's attainment of targeted goals as set by the Company in its sole discretion. Following the close of each calendar year, the Company will determine whether you have earned an Annual Bonus, and the amount of any such bonus, based on the achievement of such goals. No amount of Annual Bonus is guaranteed, and you must be an employee on the Annual Bonus payment date to be eligible to receive an Annual Bonus. No partial or prorated bonuses will be provided (except as set forth below in this paragraph for calendar year 2018). The Annual Bonus, if earned, will be paid no later than March 15 of the calendar year after the applicable bonus year. For calendar year 2018, no later than March 15, 2019 and subject to your continued employment through date of payment, the Company will pay you a prorated portion of your individual annual target bonus for 2018, based on the number of days employed by Allogene during 2018.

(c) Withholding. Allogene shall withhold all applicable federal, state and local taxes and social security and such other amounts as may be required by law from all amounts payable under this Section 2.

3. Options.

(a) On or within sixty (60) days following your Start Date you shall be granted a stock option (the "Option") to purchase 279,000 shares of Allogene's common stock, par value $0.001 per share (the "Common Stock") (the "Option Shares") pursuant to the Company's 2017 Equity Incentive Plan (the "Plan"). Such grant shall be evidenced by an option agreement (the "Option Agreement") to be entered into by and between you and the Company. The exercise price per Option Share will be equal to the fair market value per share of the Company's Common Stock as of the date that such Option is granted. The Option shall have a 10-year term and shall vest and become exercisable as follows: (i) 25% upon the first anniversary of your Start Date (the "Initial Vesting Date"); and thereafter (ii) the remaining unvested Options Shares shall vest in 36 substantially equal monthly installments as of the last calendar day of each month following the Initial Vesting Date.

(b) All Options shall be immediately exercisable with respect to one hundred percent (100%) of the Option Shares in exchange for restricted shares of Common Stock of the Company (the "Restricted Shares"); provided, however, that the Restricted Shares will be subject to vesting in accordance with the schedule described above. Upon termination of your employment, the Company shall have the right to repurchase any Restricted Shares that have not vested as of such termination ("Unvested Shares") at a price equal to the exercise price per Option Share (the "Repurchase Right").

(c) In the event that your employment is terminated by the Company without Cause (as defined below) or by you for Good Reason (as defined below) at any time beginning on the date that is 90 days prior to the effective date of a Change of Control (as defined in the Plan) and ending on the date that is 12 months following the Change of Control, then (i) all unvested Restricted Stock and Option Shares shall immediately vest in full, and (ii) all Options will remain exercisable for a

period of 90 calendar days following the date of such termination, after which time the Option shall expire; provided, however, that no such Option shall be exercisable after the expiration of its maximum term. In order to give effect to the foregoing provision, notwithstanding anything to the contrary set forth in any agreement governing an equity award regarding immediate forfeiture of unvested shares upon termination of service or the duration of post-termination of service exercise periods, following any termination of your employment, none of your equity incentive awards shall terminate with respect to any vested or unvested portion subject to such equity award before 90 days following such termination.

(d) For purposes of this Agreement:

(i) "Cause" will mean any one or more of the following: (A) commission of any felony or crime involving dishonesty; (B) participation in any fraud against the Company; (C) material breach of your contractual, statutory or common law duties to the Company (including violation of any provision or obligation under this Agreement); (D) your failure to satisfactorily perform your job duties as assigned by the Company; (E) intentional damage to any property of the Company; or (F) misconduct or other violation of Company policy that causes or reasonably could cause harm.

(ii) "Good Reason" shall mean (A) any material diminution by the Company of your title, duties, authority or Base Salary; or (B) a material breach by the Company of any of the provisions contained in this Agreement, which, if capable of being cured, is not cured by the Company within 30 days after written notice thereof by you to the Company.

4. Expenses. Allogene will reimburse you for all normal, usual and necessary expenses incurred in furtherance of the business and affairs of Allogene upon timely receipt by Allogene of appropriate vouchers or other proof of your expenditures and otherwise in accordance with any expense reimbursement and approval policy as may from time to time be adopted by Allogene.

5. Benefits.

(a) As a regular full-time employee, you shall be entitled to participate in the employee benefits made available to similarly situated employees, in accordance with the terms of such benefits plans and programs and company policies. Information regarding these employee benefits is available upon request and in the official plan documents, summary plan descriptions, and applicable summaries. The Company, in its sole discretion, has the right to amend or terminate any benefit plan, program or Company policy at any time and without prior notice.

(b) Vacation. During each year of your employment you shall be entitled to fifteen (15) days of paid time off in addition to company recognized holidays. Notwithstanding the foregoing, you shall not be entitled to take more than two (2) consecutive weeks of vacation without the prior written consent of the Company.

(c) Paid Sick Leave. Upon hire, you will be credited with five (5) days of paid sick leave, which you may use during each calendar year for yourself or a family member for the diagnosis, care or treatment of an existing health condition or preventive care, or specified purposes set forth in the Company's policy if you are a victim of domestic violence, sexual assault, or stalking.

6. Representations and Warranties. You hereby represent and warrant as follows:

   (a) By accepting the Company's offer of employment, you represent that other than as set forth on Appendix A you have no agreements, relationships, or commitments with any other person or entity that conflict with your obligations to the Company.

   (b) You have the full right, power and legal capacity to enter and deliver this Agreement and to perform your duties and other obligations hereunder. This Agreement constitutes the legal, valid and binding obligation of the parties, enforceable against each in accordance with its terms. No approvals or consents of any persons or entitles are required for you to execute and deliver this Agreement or perform your duties and other obligations hereunder.

   (c) You represent and warrant to the Company that you have not brought and shall not bring with you to the Company, or use in the performance of your duties, any materials or documents of any former employer that are not generally available to the public, unless you have obtained written authorization from the former employer for their possession and use and provided the Company with a copy thereof.

7. Conditions to Employment. This offer of employment is contingent upon, and your employment shall be subject to:

   (a) completion of reference checks and background check, and may be contingent upon a drug screen, each to the reasonable satisfaction of Allogene; and

   (b) satisfying the requirements of the Immigration Control and Reform Act, which may be accomplished by showing your proof of right to work in the U.S. within three days of commencing employment, and you agree to assist as needed at the Company's request to meet these conditions.

   (c) execution of Allogene's form of Employee Confidential Information and Invention Assignment Agreement attached hereto as Exhibit B, which prohibits unauthorized use or disclosure of Allogene's proprietary information, among other obligations;

   (d) Notwithstanding the foregoing, this offer may be withdrawn by Allogene at any time prior to its execution by the parties.

8. Employment-at-will and Termination. Your employment shall be at-will. Accordingly, you may terminate your employment with Allogene at any time and for any reason whatsoever, with or without advance notice, simply by notifying Allogene in writing. Similarly, Allogene may terminate your employment at any time and for any reason whatsoever, with or without cause or advance notice. This at-will relationship cannot be changed except in a writing signed by an authorized officer of the Company and you. The employment terms contained in this Agreement supersede any other agreements and promises made to you by Allogene or any representative on its behalf, whether oral, written or implied.

9. No Reliance by You on Promise or Representation Not in this Agreement. In accepting employment with Allogene and signing this Agreement, you agree that you are not relying on any representation, promise or inducement that has been made by Allogene or any representative on its behalf that is not explicitly stated in this Agreement. Allogene is not bound by and will not be liable for any representation, promise or inducement that is not explicitly stated in this Agreement.

10. Governing Law. The terms of this offer letter shall be governed by, and construed and interpreted in accordance with, the laws of the State of California without regard to such State's principles of conflict of laws, except as provided in Section 13.

11. Arbitration. To the maximum extent permitted by law, any dispute between the parties, including but not limited to those arising out of, or relating to, this Agreement, shall be exclusively decided by binding arbitration in accordance with the terms of the Arbitration Agreement, which is attached as Exhibit B and incorporated into this Agreement. The Federal Arbitration Act shall govern the interpretation, enforcement and all proceedings pursuant to the Arbitration Agreement. To the extent that the Federal Arbitration Act is inapplicable, the terms of the Arbitration Agreement shall be construed in accordance with California law.

12. Miscellaneous.

    (a) This Agreement, and your rights and obligations hereunder, may not be assigned. Allogene may assign its rights, together with its obligations, hereunder in connection with any sale, transfer or other disposition of all or substantially all of its business or assets, provided the assignee entity which succeeds to Allogene expressly assumes Allogene's obligations hereunder and complies with the terms of this Agreement.

    (b) This Agreement cannot be amended orally, or by any course of conduct or dealing, but only by a written agreement signed by the parties hereto. The Company's signatory must be an officer who is authorized by the Company to enter into such an amendment.

    (c) The failure of either party to insist upon the strict performance of any of the terms, conditions and provisions of this Agreement shall not be construed as a waiver or relinquishment of future compliance therewith, and such terms, conditions and provisions shall remain in full force and effect. No waiver of any term or condition of this Agreement on the part of either party shall be effective for any purpose whatsoever unless such waiver is in writing and signed by such party. If any provision of this offer letter agreement is determined to be invalid or unenforceable, in whole or in part, this determination shall not affect any other provision of this offer letter agreement and the provision in question shall be modified so as to be rendered enforceable in a manner consistent with the intent of the parties insofar as possible under applicable law.

    (d) This Agreement, including its Exhibits A and B, sets forth the entire agreement and understanding of the parties relating to the subject matter hereof, and supersedes all prior agreements, arrangements and understandings, written or oral, relating to the subject matter of the Agreement. This letter may be delivered and executed via facsimile, electronic mail (including pdf or any electronic signature

complying with the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act or other applicable law) or other transmission method and shall be deemed to have been duly and validly delivered and executed and be valid and effective for all purposes.

13. Certification of Qualifications. By accepting employment, you certify that the information you provided to Allogene about your experience, education and other qualifications for employment has been accurate and complete.

If you wish to accept employment at Allogene under the terms described above, please sign and date this Agreement, and return it to me.

We look forward to your favorable reply and to a productive and enjoyable working relationship.

This offer will be deemed withdrawn if not accepted by June 15, 2018.

Sincerely,

/s/ David Tanen
David Tanen
Allogene Therapeutics, Inc.

Understood and Accepted:

/s/ Eric Schmidt — 6/11/18
Eric Schmidt — Date

- Senior Advisor — Cowen and Company, LLC

EMPLOYEE CONFIDENTIAL INFORMATION AND INVENTION ASSIGNMENT AGREEMENT

In consideration of my employment or continued employment by Allogene Therapeutics, Inc., its direct and indirect subsidiaries, parents, affiliates, predecessors, successors and assigns (together "**Company**"), and the compensation and benefits provided to me now and during my employment with Company, I hereby enter into this Employee Confidential Information and Invention Assignment Agreement (the "**Agreement**"), which will be deemed effective as of the first day of my employment with the Company:

1. CONFIDENTIAL INFORMATION PROTECTIONS.

1.1 Recognition of Company's Rights; Nondisclosure. I understand and acknowledge that my employment by Company creates a relationship of confidence and trust with respect to Company's Confidential Information (as defined below) and that Company has a protectable interest therein. At all times during and after my employment, I will hold in confidence and will not disclose, use, lecture upon, or publish any of Company's Confidential Information, except as such disclosure, use or publication may be required in connection with my work for Company, or unless an officer of Company expressly authorizes such disclosure. I will obtain Company's written approval before publishing or submitting for publication any material (written, oral, or otherwise) that discloses and/or incorporates any Confidential Information. I hereby assign to Company any rights I may have or acquire in such Confidential Information and recognize that all Confidential Information shall be the sole and exclusive property of Company and its assigns. I will take all reasonable precautions to prevent the inadvertent accidental disclosure of Confidential Information. Notwithstanding the foregoing, pursuant to 18 U.S.C. Section 1833(b), I shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that: (1) is made in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney, and solely for the purpose of reporting or investigating a suspected violation of law; or (2) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

1.2 Confidential Information. The term "**Confidential Information**" shall mean any and all confidential knowledge, data or information of Company. By way of illustration but not limitation, "**Confidential Information**" includes (a) trade secrets, inventions, mask works, ideas, processes, formulas, software in source or object code versions, data, programs, other works of authorship, know-how, improvements, discoveries, developments, designs and techniques and any other proprietary technology and all Intellectual Property Rights therein (collectively, "**Inventions**"); (b) information regarding research, development, new products, marketing and selling, business plans, budgets and unpublished financial statements, licenses, prices and costs, margins, discounts, credit terms, pricing and billing policies, quoting procedures, methods of obtaining business, forecasts, future plans and potential strategies, financial projections and business strategies, operational plans, financing and capital-raising plans, activities and agreements, internal services and operational manuals, methods of conducting Company business, suppliers and supplier information, and purchasing; (c) information regarding customers and potential customers of Company, including customer lists, names, representatives, their needs or desires with respect to the types of products or services offered by Company, proposals, bids, contracts and their contents and parties, the type and quantity of products and services provided or sought to be provided to customers and potential customers of Company and other non-public

information relating to customers and potential Customers; (d) information regarding any of Company's business partners and their services, including names; representatives, proposals, bids, contracts and their contents and parties, the type and quantity of products and services received by Company, and other non-public information relating to business partners; (e) information regarding personnel, employee lists, compensation, and employee skills; and (f) any other non-public information which a competitor of Company could use to the competitive disadvantage of Company. Notwithstanding the foregoing, it is understood that, at all such times, I am free to use information which is generally known in the trade or industry through no breach of this Agreement or other act or omission by me. Further, notwithstanding the foregoing or anything to the contrary in this Agreement or any other agreement between the Company and me, nothing in this Agreement shall limit my right to discuss my employment or report possible violations of law or regulation with any federal government agency or similar state or local agency or to discuss the terms and conditions of my employment with others to the extent expressly permitted by Section 7 of the National Labor Relations Act or to the extent that such disclosure is protected under the applicable provisions of law or regulation.

1.3 Third Party Information. I understand, in addition, that Company has received and in the future will receive from third parties their confidential and/or proprietary knowledge, data or information ("Third Party Information") subject to a duty on Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. During my employment and thereafter, I will hold Third Party Information in confidence and will not disclose to anyone (other than Company personnel who need to know such information in connection with their work for Company) or use, except in connection with my work for Company, Third Party Information unless expressly authorized by an officer of Company in writing.

1.4 No Improper Use of Information of Prior Employers and Others. During my employment by Company, I will not improperly use or disclose confidential information or trade secrets, if any, of any former employer or any other person to whom I have an obligation of confidentiality, and I will not bring onto the premises of Company any unpublished documents or any property belonging to any former employer or any other person to whom I have an obligation of confidentiality unless consented to in writing by that former employer or person.

2. ASSIGNMENTS OF INVENTIONS.

2.1 Definitions. As used in this Agreement, the term "**Intellectual Property Rights**" means all trade secrets, Copyrights, trademarks, mask work rights, patents and other intellectual property rights recognized by the laws of any jurisdiction or country; the term "**Copyright**" means the exclusive legal right to reproduce, perform, display, distribute and make derivative works of a work of authorship (as a literary, musical, or artistic work) recognized by the laws of any jurisdiction or country; and the term "**Moral Rights**" means all paternity, integrity, disclosure, withdrawal, special and any other similar rights recognized by the laws of any jurisdiction or country.

2.2 Excluded Inventions and Other Inventions. Attached hereto as **Attachment 1** is a list describing all existing Inventions, if any, that may relate to Company's business or actual or demonstrably anticipated research or development and that were made by me or acquired by me prior to the commencement of my employment with, and which are not to be assigned to, Company ("**Excluded Inventions**"). If no such list is attached, I represent and agree that it is because I have no rights in any existing Inventions that may relate to Company's business or actual or demonstrably anticipated research or development. For purposes of this Agreement, "**Other Inventions**" means Inventions in which I have or may have an interest, as of the commencement of my employment or thereafter, other than Company Inventions (defined below) and Excluded Inventions. I acknowledge and agree that if I use any Excluded Inventions or any Other Inventions in the scope of my employment, or if I include any Excluded Inventions or Other Inventions in any product or service of Company, or if my rights in any Excluded Inventions or Other Inventions may

block or interfere with, or may otherwise be required for, the exercise by Company of any rights assigned to Company under this Agreement, I will immediately so notify Company in writing. Unless Company and I agree otherwise in writing as to particular Excluded Inventions or Other Inventions, I hereby grant to Company, in such circumstances (whether or not I give Company notice as required above), a non-exclusive, perpetual, transferable, fully-paid and royalty-free, irrevocable and worldwide license, with rights to sublicense through multiple levels of sublicensees, to reproduce, make derivative works of, distribute, publicly perform, and publicly display in any form or medium, whether now known or later developed, make, have made, use, sell, import, offer for sale, and exercise any and all present or future rights in, such Excluded Inventions and Other Inventions. To the extent that any third parties have rights in any such Other Inventions, I hereby represent and warrant that such third party or parties have validly and irrevocably granted to me the right to grant the license stated above.

2.3 Assignment of Company Inventions. Inventions assigned to Company, or to a third party as directed by Company pursuant to Section 2.6, are referred to in this Agreement as **"Company Inventions."** Subject to Section 2.4 (Unassigned or Nonassignable Inventions) and except for Excluded Inventions set forth in **Attachment 1** and Other Inventions, I hereby assign to Company all my right, title, and interest in and to any and all Inventions (and all Intellectual Property Rights with respect thereto) made, conceived, reduced to practice, or learned by me, either alone or with others, during the period of my employment by Company. To the extent required by applicable Copyright laws, I agree to assign in the future (when any copyrightable Inventions are first fixed in a tangible medium of expression) my Copyright rights in and to such Inventions. Any assignment of Company Inventions (and all Intellectual Property Rights with respect thereto) hereunder includes an assignment of all Moral Rights. To the extent such Moral Rights cannot be assigned to Company and to the extent the following is allowed by the laws in any country where Moral Rights exist, I hereby unconditionally and irrevocably waive the enforcement of such Moral Rights, and all claims and causes of action of any kind against Company or related to Company's customers, with respect to such rights. I further acknowledge and agree that neither my successors-in-interest nor legal heirs retain any Moral Rights in any Company Inventions (and any Intellectual Property Rights with respect thereto).

2.4 Unassigned or Nonassignable Inventions. I recognize that this Agreement will not be deemed to require assignment of any Invention that is covered under California Labor Code section 2870(a) (the **"Specific Inventions Law"**), as detailed on **Attachment 2**.

2.5 Obligation to Keep Company Informed. During the period of my employment and for one (1) year after termination of my employment, I will promptly and fully disclose to Company in writing all Inventions authored, conceived, or reduced to practice by me, either alone or jointly with others. In addition, I will promptly disclose to Company all patent applications filed by me or on my behalf within one (1) year after termination of employment. At the time of each such disclosure, I will advise Company in writing of any Inventions that I believe fully qualify for protection under the provisions of the Specific Inventions Law; and I will at that time provide to Company in writing all evidence necessary to substantiate that belief. Company will keep in confidence and will not use for any purpose or disclose to third parties without my consent any confidential information disclosed in writing to Company pursuant to this Agreement relating to Inventions that qualify fully for protection under the Specific Inventions Law. I will preserve the confidentiality of any Invention that does not fully qualify for protection under the Specific Inventions Law.

2.6 Government or Third Party. I agree that, as directed by Company, I will assign to a third party, including without limitation the United States, all my right, title, and interest in and to any particular Company Invention.

2.7 Ownership of Work Product.

(a) I acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of my employment and which are protectable by Copyright are "works made for hire," pursuant to United States Copyright Act (17 U.S.C., Section 101).

(b) I agree that Company will exclusively own all work product that is made by me (solely or jointly with others) within the scope of my employment, and I hereby irrevocably and unconditionally assign to Company all right, title, and interest worldwide in and to such work product. I understand and agree that I have no right to publish on, submit for publishing, or use for any publication any work product protected by this Section, except as necessary to perform services for Company.

2.8 Enforcement of Intellectual Property Rights and Assistance. I will assist Company in every proper way to obtain, and from time to time enforce, United States and foreign Intellectual Property Rights and Moral Rights relating to Company Inventions in any and all countries. To that end I will execute, verify and deliver such documents and perform such other acts (including appearances as a witness) as Company may reasonably request for use in applying for obtaining perfecting evidencing, sustaining and enforcing such Intellectual Property Rights and the assignment thereof. In addition, I will execute, verify and deliver assignments of such Intellectual Property Rights to Company or its designee, including the United States or any third party designated by Company. My obligation to assist Company with respect to Intellectual Property Rights relating to such Company Inventions in any and all countries will continue beyond the termination of my employment, but Company will compensate me at a reasonable rate after my termination for the time actually spent by me at Company's request on such assistance. In the event Company is unable for any reason, after reasonable effort, to secure my signature on any document needed in connection with the actions specified in this paragraph, I hereby irrevocably designate and appoint Company and its duly authorized officers and agents as my agent and attorney in fact, which appointment is coupled with an interest, to act for and in my behalf to execute, verify and file any such documents and to do all other lawfully permitted acts to further the purposes of the preceding paragraph with the same legal force and effect as if executed by me. I hereby waive and quitclaim to Company any and all claims, of any nature whatsoever, which I now or may hereafter have for infringement of any Intellectual Property Rights assigned under this Agreement to Company.

2.9 Incorporation of Software Code. I agree that I will not incorporate into any Company software or otherwise deliver to Company any software code licensed under the GNU General Public License or Lesser General Public License or any other license that, by its terms, requires or conditions the use or distribution of such code on the disclosure, licensing, or distribution of any source code owned or licensed by Company except in strict compliance with Company's policies regarding the use of such software.

3. RECORDS. I agree to keep and maintain adequate and current records (in the form of notes, sketches, drawings and in any other form that is required by Company) of all Confidential Information developed by me and all Company Inventions made by me during the period of my employment at Company, which records will be available to and remain the sole property of Company at all times.

4. DUTY OF LOYALTY DURING EMPLOYMENT. I agree that during the period of my employment by Company I will not, without Company's express written consent, directly or indirectly engage in any employment or business activity which is directly or indirectly competitive with, or would otherwise conflict with, my employment by Company.

5. NO SOLICITATION OF EMPLOYEES, CONSULTANTS, OR CONTRACTORS. I agree that during the period of my employment and for the one (1) year period after the date my employment ends for any reason, including but not limited to voluntary termination by me or involuntary termination by Company, I will not, as an officer, director, employee, consultant, owner, partner, or in any other capacity, either directly or through others, except on behalf of Company solicit, induce, encourage, or participate in soliciting, inducing or encouraging any employee, consultant, or independent contractor of Company to terminate his, her or its relationship with Company, even if I did not initiate the discussion or seek out the contact.

6. REASONABLENESS OF RESTRICTIONS.

6.1 I agree that I have read this entire Agreement and understand it. I agree that this Agreement does not prevent me from earning a living or pursuing my career. I agree that the restrictions contained in this Agreement are reasonable, proper, and necessitated by Company's legitimate business interests. I represent and agree that I am entering into this Agreement freely and with knowledge of its contents with the intent to be bound by the Agreement and the restrictions contained in it.

6.2 In the event that a court or arbitrator finds this Agreement, or any of its restrictions, to be ambiguous, unenforceable, or invalid, Company and I agree that the court or arbitrator will read the Agreement as a whole and interpret the restriction(s) at issue to be enforceable and valid to the maximum extent allowed by law.

6.3 If the court or arbitrator declines to enforce this Agreement in the manner provided in subsection 6.2, Company and I agree that this Agreement will be automatically modified to provide Company with the maximum protection of its business interests allowed by law and I agree to be bound by this Agreement as modified.

7. NO DISPARAGEMENT. I agree that, during my employment with the Company and after the termination of my employment for any reason, I will not disparage the Company, its officers, directors, managers, employees, consultants, shareholders, or agents, in any manner likely to be harmful to it or their business, business reputation or personal reputation. Notwithstanding the foregoing, nothing in this Agreement shall prohibit me from making truthful statements or disclosures required by applicable law, regulation or legal process; or requesting or receiving confidential legal advice. Nothing in this Agreement shall limit my right to make truthful statements in the proper performance of my job duties for the Company, discuss my employment, or report possible violations of law or regulation with the SEC, EEOC, DOL, NLRB, OSHA or other federal government agency or similar state or local agency, or to discuss the terms and conditions of my employment with others to the extent expressly permitted by Section 7 of the NLRA, or to the extent that such disclosure is protected under the applicable provisions of law or regulation, including but not limited to "whistleblower" statutes or other similar provisions that protect such disclosure.

8. NO CONFLICTING AGREEMENT OR OBLIGATION. I represent that my employment by Company does not and will not breach any agreement with any former employer or third party, including any noncompete agreement or any agreement to keep in confidence or refrain from using information acquired by me prior to my employment by Company. I further represent that I have not entered into, and will not enter into, any agreement, either written or oral, in conflict with my obligations under this Agreement.

9. RETURN OF COMPANY PROPERTY. Subject to the nondisclosure requirements of Section 1.1 above, upon termination of my employment or upon Company's request at any other time, I will deliver to Company any and all of Company's property and equipment and any and all drawings, notes, memoranda, specifications, devices, formulas and documents, together with all copies thereof, and any other material containing or disclosing any Company Inventions, Third Party Information or Confidential Information of Company. I agree that I will not copy, delete, or alter any information contained upon my Company computer or Company equipment before I return it to Company. In addition, if I have used any personal computer, server, or e-mail system to receive, store, review, prepare or transmit any Company information, including but not limited to, Confidential Information, I agree to provide the Company access to any such personal systems as reasonably requested to search for, copy and/or delete such information, and upon my employment termination I agree to provide Company with a computer-useable copy of all such Confidential Information and then permanently delete and expunge such Confidential Information from those systems; and I agree to provide Company access to my system as reasonably requested to verify that the necessary copying and/or deletion is completed. I further agree that any property situated on Company's premises and owned by Company, including disks and other storage media, filing cabinets or other work areas, is subject to inspection by Company's personnel at any time with or without notice. Prior to leaving, I will cooperate with Company in attending an exit interview and completing and signing Company's

Termination Certificate; however, my failure to sign and deliver the Termination Certificate shall in no way diminish my continuing obligations under this Agreement.

10. LEGAL AND EQUITABLE REMEDIES.

10.1 I agree that it may be impossible to assess the damages caused by my violation of this Agreement or any of its terms. I agree that any threatened or actual violation of this Agreement or any of its terms will constitute immediate and irreparable injury to Company, and Company will have the right to enforce this Agreement and any of its provisions by injunction, specific performance or other equitable relief, without bond and without prejudice to any other rights and remedies that Company may have for a breach or threatened breach of this Agreement.

10.2 In the event Company enforces this Agreement through a court or arbitration order, I agree that the restrictions of Sections 5 will remain in effect for a period of twelve (12) months from the effective date of the order enforcing the Agreement.

11. NOTICES. Any notices required or permitted under this Agreement will be given to Company at its headquarters location at the time notice is given, and to me at my address as listed on Company payroll, or at such other address as Company or I may designate by written notice to the other. Notice will be effective upon receipt or refusal of delivery. If delivered by certified or registered mail, notice will be considered to have been given five (5) business days after it was mailed, as evidenced by the postmark. If delivered by courier or express mail service, notice will be considered to have been given on the delivery date reflected by the courier or express mail service receipt.

12. NOTIFICATION OF NEW EMPLOYER. If I leave the employ of Company, I consent to the notification of my new employer of my rights and obligations under this Agreement, by Company providing a copy of this Agreement or otherwise.

13. GENERAL PROVISIONS.

13.1 Governing Law. This Agreement will be governed by and construed according to the laws of the State of New York as such laws are applied to agreements entered into and to be performed entirely within New York between New York residents.

13.2 Severability. In case any one or more of the provisions, subsections, or sentences contained in this Agreement will, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability will not affect the other provisions of this Agreement, and this Agreement will be construed as if such invalid, illegal or unenforceable provision had never been contained in this Agreement. If moreover, any one or more of the provisions contained in this Agreement will for any reason be held to be excessively broad as to duration, geographical scope, activity or subject, it will be construed by limiting and reducing it, so as to be enforceable to the extent compatible with the applicable law as it will then appear.

13.3 Successors and Assigns. This Agreement is for my benefit and the benefit of Company, its successors, assigns, parent corporations, direct and indirect subsidiaries, affiliates, and purchasers, and will be binding upon my heirs, executors, administrators and other legal representatives.

13.4 Survival. This Agreement shall survive the termination of my employment, regardless of the reason, and the assignment of this Agreement by Company to any successor in interest or other assignee.

13.5 Employment At-Will. I agree and understand that nothing in this Agreement will change my at-will employment status or confer any right with respect to continuation of employment by Company, nor will it interfere in any way with my right or Company's right to terminate my employment at any time, with or without cause or advance notice.

13.6 Waiver. No waiver by Company of any breach of this Agreement will be a waiver of any preceding or succeeding breach. No waiver by Company of any right under this Agreement will be construed as a waiver of any other right. Company will not be required to give notice to enforce strict adherence to all terms of this Agreement.

13.7 Export. I agree not to export, reexport, or transfer, directly or indirectly, any U.S. technical data acquired from Company or any products utilizing such data, in violation of the United States export laws or regulations.

13.8 Advice of Counsel. I ACKNOWLEDGE THAT, IN EXECUTING THIS AGREEMENT, I HAVE HAD THE OPPORTUNITY TO SEEK THE ADVICE OF INDEPENDENT LEGAL COUNSEL, AND I HAVE READ AND UNDERSTOOD ALL OF THE TERMS AND PROVISIONS OF THIS AGREEMENT. THIS AGREEMENT WILL NOT BE CONSTRUED AGAINST ANY PARTY BY REASON OF THE DRAFTING OR PREPARATION OF THIS AGREEMENT.

13.9 Entire Agreement. The obligations pursuant to Sections 1 and 2 of this Agreement will apply to any time during which I was previously engaged, or am in the future engaged, by Company as a consultant (except Subsection 2.4 and 2.7(a)) or employee if no other agreement governs nondisclosure and assignment of inventions during such period. This Agreement is the final, complete and exclusive agreement of the parties with respect to the subject matter of this Agreement and supersedes and merges all prior discussions between us. No modification of or amendment to this Agreement, will be effective unless in writing and signed by the party to be charged. Any subsequent change or changes in my duties, salary or compensation will not affect the validity or scope of this Agreement.

This Agreement shall be effective as of the first day of my employment with the Company.

EMPLOYEE:

I HAVE READ, UNDERSTAND, AND ACCEPT THIS AGREEMENT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW IT WITH INDEPENDENT LEGAL COUNSEL. I HAVE ALSO COMPLETELY FILLED OUT ATTACHMENT 1.

/s/ Eric Schmidt
(Signature)

By:

Title: Chief Financial Officer

Date: 6/11/18

Address:
270 Littlefield Ave.
South San Francisco, CA 94080

COMPANY:

ACCEPTED AND AGREED:

/s/ David Tanen
(Signature)

By: David Tanen

Title: Corporate Secretary

Date: 6/11/18

Address:
270 Littlefield Ave.
South San Francisco, CA 94080

ATTACHMENT 1

PRIOR INVENTIONS

TO: **Allogene Therapeutics, Inc.**

FROM: _____

DATE: _____

SUBJECT: Prior Inventions

1. Except as listed in Section 2 below, the following is a complete list of all inventions or improvements relevant to the subject matter of my employment by Allogene Therapeutics, Inc. ("**Company**") that have been made or conceived or first reduced to practice by me alone or jointly with others prior to my engagement by Company:

☐ No inventions or improvements.

☐ See below:

_____

_____

_____

☐ Additional sheets attached.

2. Due to a prior confidentiality agreement, I cannot complete the disclosure under Section 1 above with respect to inventions or improvements generally listed below, the intellectual property rights and duty of confidentiality with respect to which I owe to the following party(ies):

	Invention or Improvement	Party(ies)	Relationship
1.			
2.			
3.			

☐ Additional sheets attached.

ATTACHMENT 2

LIMITED EXCLUSION NOTIFICATION

This is to notify you in accordance with Section 2872 of the California Labor Code that the foregoing Agreement between you and Company does not require you to assign or offer to assign to Company any Invention that you develop entirely on your own time without using Company's equipment, supplies, facilities or trade secret information, except for those Inventions that either:

(a) Relate at the time of conception or reduction to practice to Company's business, or actual or demonstrably anticipated research or development; or

(b) Result from any work performed by you for Company.

To the extent a provision in the foregoing Agreement purports to require you to assign an Invention otherwise excluded from the preceding paragraph, the provision is against the public policy of this state and is unenforceable.

This limited exclusion does not apply to any patent or Invention covered by a contract between Company and the United States or any of its agencies requiring full title to such patent or Invention to be in the United States.

EXHIBIT C

MUTUAL AGREEMENT TO ARBITRATE CLAIMS

I recognize that disputes may arise between the Allogene Therapeutics, Inc. (the "**Company**") and me during or following my employment with the Company, and that those differences may or may not be related to my employment. I understand and agree that by entering into this Mutual Agreement to Arbitrate Claims ("**Agreement**"), I anticipate gaining the benefits of a speedy, less-formal, impartial, final and binding dispute-resolution procedure.

Except as provided in this Agreement, the Federal Arbitration Act shall govern the interpretation, enforcement and all proceedings pursuant to this Agreement. To the extent that the Federal Arbitration Act is inapplicable, the arbitration law of the state in which I work or last worked for the Company shall apply.

Claims Covered by the Agreement

The Company and I mutually consent to the resolution by arbitration of all claims or controversies ("**claims**"), past, present or future, whether or not arising out of my employment (or its termination), that the Company may have against me or that I (and no other party) may have against the Company or any of its service providers, including any Professional Employment Organization ("**PEO**") and the Company's and any such PEO' s benefit plans or the plans' sponsors, fiduciaries, administrators, affiliates and agents, and/or all successors and assigns of any of them.

The only claims that are arbitrable are those that are justiciable under applicable federal, state or local law. Arbitrable claims include, but are not limited to: claims for wages or other compensation due; claims for breach of any contract or covenant (express or implied); tort claims; claims for harassment, retaliation or discrimination (including, but not limited to, race, sex, sexual orientation, religion, national origin, age, marital status, physical or mental disability or handicap, or medical condition); claims for benefits (except as provided below); and claims for violation of any federal, state, or other governmental law, statute, regulation, or ordinance (except as provided below).

Claims Not Covered by the Agreement

The Company and I agree that neither of us shall initiate or prosecute any lawsuit or administrative action in any way related to any claim covered by this Agreement, except that this Agreement does not prohibit the filing of or pursuit of relief through the following: (1) a court action for temporary equitable relief in aid of arbitration, where such an action is otherwise available by law, (2) an administrative charge to any federal, state or local equal opportunity or fair employment practices agency, (3) an administrative charge to the National Labor Relations Board, or (4) any other charge filed with or communication to a federal, state or local government office, official or agency (for numbers (2) through (4) collectively, a "government complaint").

The following claims are not covered by this Agreement: claims for workers' compensation or unemployment compensation benefits; claims that as a matter of law cannot be subject to arbitration; claims covered by (and defined in) the Franken Amendment, first enacted in Section 8116 of the Defense Appropriations Act of 2010, or any similar statute, regulation or executive order, including but not limited to Executive Order 13673 to the extent that any such statute, regulation or executive order is effective and applicable to this Agreement; and claims under an employee benefit or pension plan that specifies a different arbitration procedure.

To the maximum extent permitted by law, I hereby waive any right to bring on behalf of persons other than myself, or to otherwise participate with other persons in, any class or collective action. I understand, however, that to the maximum extent permitted by law I retain the right to bring claims in arbitration, including claims under the California Private Attorneys General Act ("PAGA"), for myself as an individual (and only for myself). If a court adjudicating a case involving the Company and me were to determine that there is an unwaivable right to bring a PAGA representative action, any such representative action shall be brought only in court, and not in arbitration.

Time Limits for Commencing Arbitration and Required Notice of All Claims

The Company and I agree that the aggrieved party must give written notice of any claim to the other party no later than the expiration of the statute of limitations (deadline for filing) that the law prescribes for the claim. Otherwise, the claim shall be deemed waived. The filing of a government complaint shall not extend the statute of limitations for presenting any claim to arbitration. I understand that the aggrieved party is encouraged to give written notice of any claim as soon as possible after the event or events in dispute so that arbitration of any differences may take place promptly.

Written notice to the Company, or its officers, directors, employees or agents, shall be sent to General Counsel, Allogene Therapeutics, Inc., at the Company's then-current headquarters address, which currently is 270 Littlefield Ave., South San Francisco, CA 94080. I will be given written notice at the last address recorded in my personnel file.

The written notice shall identify and describe the nature of all claims asserted, the facts upon which such claims are based, and the relief or remedy sought. The notice shall be sent to the other party by certified or registered mail, return receipt requested.

Representation

Any party may be represented by an attorney or other representative selected by the party.

Discovery

Each party shall have the right to take depositions of five fact witnesses and any expert witness designated by another party. Each party also shall have the right to make requests for production of documents to any party and to subpoena documents from third parties to the extent allowed by law. Requests for additional depositions or discovery may be made to the Arbitrator selected pursuant to this Agreement. The Arbitrator may grant such additional discovery if the Arbitrator finds that the party has demonstrated that it needs that discovery to adequately arbitrate the claim, taking into account the parties' mutual desire to have a speedy, less-formal, cost-effective dispute-resolution mechanism.

Designation of Witnesses

At least 30 days before the arbitration, the parties must exchange lists of witnesses, including any experts, and copies of all exhibits intended to be used at the arbitration.

Subpoenas

Each party shall have the right to subpoena witnesses and documents to the extent allowed by law, subject to any limitations the Arbitrator shall impose for good cause shown.

Place of Arbitration

The arbitration shall take place in the county (or comparable governmental unit) in which I am or was last employed by the Company, and no dispute affecting my rights or responsibilities shall be adjudicated in any other venue or forum.

Arbitration Procedures

The arbitration will be held under the auspices of the American Arbitration Association or JAMS (or any successor of either of them) ("**administrator**"). The party that did not initiate the claim shall designate the administrator. Regardless of which organization is designated to be the administrator, the arbitration shall be held in accordance with the JAMS Employment Arbitration Rules & Procedures (and no other rules), which are currently available at http://www.jamsadr.com/rules-employment-arbitration. I understand that the Company will supply me with a printed copy of those rules upon my request. The Arbitrator shall be either a retired judge, or an attorney who is experienced in employment law and licensed to practice law in the state in which the arbitration is convened (the "Arbitrator"), selected pursuant to JAMS rules or by mutual agreement of the parties.

The Arbitrator shall apply the substantive law (and the law of remedies, if applicable) of the state in which the claim arose, or federal law, or both, as applicable to the claim(s) asserted. The Arbitrator is without jurisdiction to apply any different substantive law or law of remedies. The Federal Rules of Evidence shall apply. The arbitration shall be final and binding upon the parties, except as provided in this Agreement.

The Arbitrator shall have jurisdiction to hear and rule on pre-hearing disputes and is authorized to hold pre-hearing conferences by telephone or in person, as the Arbitrator deems advisable. The Arbitrator shall have the authority to entertain a motion to dismiss and/or a motion for summary judgment by any party and shall apply the standards governing such motions under the Federal Rules of Civil Procedure.

Either party, at its expense in the first instance, may arrange and pay for a court reporter to provide a stenographic record of proceedings.

Should any party refuse or neglect to appear for, or participate in, the arbitration hearing, the Arbitrator shall have the authority to decide the dispute based upon whatever evidence is presented.

Either party upon its request shall be given leave to file a post-hearing brief. The time for filing such a brief shall be set by the Arbitrator.

The Arbitrator shall render an award and written opinion in the form typically rendered in labor arbitrations, normally no later than thirty (30) days from the date the arbitration hearing concludes or the post-hearing briefs (if requested) are received, whichever is later. The opinion shall include the factual and legal basis for the award.

Arbitration Fees and Costs

The Company will be responsible for paying any filing fee and the fees and costs of the Arbitrator; provided, however, that if I am the party initiating the claim, I will contribute an amount equal to the filing fee to initiate a claim in the court of general jurisdiction in the state in which I am (or was last) employed by the Company. Each party shall pay in the first instance its own litigation costs and attorneys' fees, if any. However, if any party prevails on a statutory claim which affords the prevailing party attorneys' fees and litigation costs, or if there is a written agreement providing for attorneys' fees and/or litigation costs, the Arbitrator shall rule upon a motion for attorneys' fees and/or litigation costs under the same standards a court would apply under the law applicable to the claim(s) at issue.

Reconsideration and Review

Either party shall have the right, within twenty (20) days of issuance of the Arbitrator's decision, to file with the Arbitrator (and the Arbitrator shall have jurisdiction to consider and rule upon) a motion to reconsider (accompanied by a supporting brief), and the other party shall have twenty (20) days from the date of the motion to respond. The Arbitrator thereupon shall reconsider the issues raised by the motion and, promptly, either confirm or change the decision, which (except as provided by law) shall then be final and conclusive upon the parties.

Either party may bring an action in any court of competent jurisdiction to compel arbitration under this Agreement and to enforce an arbitration award.

Interstate Commerce

I understand and agree that the Company is engaged in transactions involving interstate commerce and that my employment is related to that interstate commerce.

Survival of Agreement

This Agreement to arbitrate shall survive the termination of my employment and the expiration of any benefit plan.

Sole and Entire Agreement

This is the complete agreement between the parties on the subject hereof; provided, however, that if this Agreement for any reason is held to be unenforceable, then any prior arbitration agreement between the Company and me shall survive. No party is relying on any representations, oral or written, on the subject of the effect, enforceability or meaning of this Agreement, except as specifically set forth in this Agreement.

Construction and Severability

If any provision of this Agreement is adjudged to be void or otherwise unenforceable, in whole or in part, such adjudication shall not affect the validity of the remainder of the Agreement. All other provisions shall remain in full force and effect based on the parties' mutual intent to create a binding agreement to arbitrate their disputes.

Consideration

The promises by the Company and by me to arbitrate differences, rather than litigate them before courts or other bodies, provide consideration for each other.

Voluntary Agreement

I ACKNOWLEDGE THAT I HAVE CAREFULLY READ THIS AGREEMENT, THAT I UNDERSTAND ITS TERMS, THAT ALL UNDERSTANDINGS AND AGREEMENTS BETWEEN THE COMPANY AND ME RELATING TO THE SUBJECTS COVERED IN THE AGREEMENT ARE CONTAINED IN IT, AND THAT I HAVE ENTERED INTO THE AGREEMENT VOLUNTARILY AND NOT IN RELIANCE ON ANY PROMISES OR REPRESENTATIONS BY THE COMPANY OTHER THAN THOSE CONTAINED IN THIS AGREEMENT ITSELF.

I UNDERSTAND THAT BY SIGNING THIS AGREEMENT I AM GIVING UP MY RIGHT TO A JURY TRIAL.

I FURTHER ACKNOWLEDGE IHA TI HAVE BEEN GIVEN THE OPPORTUNITY TO DISCUSS THIS AGREEMENT WITH MY PRIVATE LEGAL COUNSEL AND HAVE AVAILED MYSELF OF THAT OPPORTUNITY TO THE EXTENT I WISH TO DO SO.

Employee:	ALLOGENE THERAPEUTICS, INC.
/s/ Eric Schmidt	/s/ David Tanen
Signature of Employee	Signature of Authorized Company Representative
Eric Schmidt	Corporate Secretary
Print Name of Employee	Title of Representative
6/11/18	6/11/18
Date	Date

Exhibit 10.14

May 2, 2018

Alison Moore

Re: Employment Letter of Agreement ("Agreement")

Dear Alison:

Allogene Therapeutics, Inc. ("Allogene" or the "Company") is pleased to offer you employment on the following terms and conditions.

1. Title; Reporting; Duties.

   (a) Your employment shall commence on June 1, 2018, or such other date as may be agreed to by you and Allogene (the "Start Date").

   (b) When you commence employment with Allogene, you shall be employed in the position of Chief Technical Officer, shall report directly to the Chief Executive Officer, and shall perform the duties and responsibilities that the Company assigns to you.

   (c) You shall devote substantially all of your business time, attention and energies to the business and affairs of Allogene and shall not during the period of your employment be actively engaged in any other business activity, whether or not such business activity is pursued for gain, profit or other pecuniary advantage, that will materially interfere with the performance of your duties or your availability to perform such duties or that will adversely affect, or negatively reflect upon, Allogene.

   (d) Initially your duties will be performed from 270 Littlefield, South San Francisco, CA 94080. Reasonable out of pocket travel expenses incurred for visiting Allogene's offices prior to relocation to the San Francisco Bay Area as described in Section 5 will be reimbursed by Allogene. Should Allogene implement a travel policy, such policy shall supersede this Section 1(d) and shall govern the type of travel and reimbursement process.

   (e) Notwithstanding the foregoing, the Company may change your title, position, duties, supervisor and work location from time to time as it deems appropriate.

2. Compensation.

   (a) Base Salary. You shall receive base salary paid at the rate of $400,000 per year, payable in accordance with Allogene's payroll practices.

(b) Bonus. You will be eligible to earn an annual performance bonus at the sole discretion of the Company in an amount equal to a maximum of 35% of your base salary (the "Annual Bonus"). The Annual Bonus will be based upon the Company's assessment of your performance and the Company's attainment of targeted goals as set by the Company in its sole discretion. Following the close of each calendar year, the Company will determine whether you have earned an Annual Bonus, and the amount of any such bonus, based on the achievement of such goals. No amount of Annual Bonus is guaranteed, and you must be an employee on the Annual Bonus payment date to be eligible to receive an Annual Bonus. No partial or prorated bonuses will be provided (except that for calendar year 2018, any bonus will be based upon the time of your employment with the Company in 2018). The Annual Bonus, if earned, will be paid no later than March 15 of the calendar year after the applicable bonus year.

(c) Withholding. Allogene shall withhold all applicable federal, state and local taxes and social security and such other amounts as may be required by law from all amounts payable under this Section 2.

3. Options.

(a) On or within thirty (30) days following your Start Date you shall be granted a stock option (the "Option") to purchase 170,000 shares of Allogene's common stock, par value $0.001 per share (the "Common Stock") (the "Option Shares") pursuant to the Company's 2017 Equity Incentive Plan (the "Plan"). Such grant shall be evidenced by an option agreement (the "Option Agreement") to be entered into by and between you and the Company. The exercise price per Option Share will be equal to the fair market value per share of the Company's Common Stock as of the date that such Option is granted. The Option shall have a 10-year term and shall vest and become exercisable as follows: (i) 25% upon the first anniversary of your Start Date (the "Initial Vesting Date"); and thereafter (ii) the remaining unvested Options Shares shall vest in 36 substantially equal monthly installments as of the last calendar day of each month following the Initial Vesting Date.

(b) All Options shall be immediately exercisable with respect to one hundred percent (100%) of the Option Shares in exchange for restricted shares of Common Stock of the Company (the "Restricted Shares"); provided, however, that the Restricted Shares will be subject to vesting in accordance with the schedule described above. Upon termination of your employment, the Company shall have the right to repurchase any Restricted Shares that have not vested as of such termination ("Unvested Shares") at a price equal to the exercise price per Option Share (the "Repurchase Right").

(c) In the event that your employment is terminated without Cause (as defined below) at any time beginning on the date that is 90 days prior to the effective date of a Change of Control (as defined in the Plan) and ending on the date that is 12 months following the Change of Control, then (i) all

unvested Restricted Stock and Option Shares shall immediately vest in full, and (ii) all Options will remain exercisable for a period of 90 calendar days following the date of such termination, after which time the Option shall expire; provided, however, that no such Option shall be exercisable after the expiration of its maximum term. In order to give effect to the foregoing provision, notwithstanding anything to the contrary set forth in any agreement governing an equity award regarding immediate forfeiture of unvested shares upon termination of service or the duration of post-termination of service exercise periods, following any termination of your employment, none of your equity incentive awards shall terminate with respect to any vested or unvested portion subject to such equity award before 90 days following such termination.

4. Relocation Advance. We understand you will be relocating to the San Francisco Bay Area. In connection with that relocation you will receive a relocation advance payment in the amount of $100,000, subject to standard payroll deductions and withholdings, payable within thirty (30) days after your employment Start Date (the "Relocation Advance"). The Relocation Advance will be considered earned only if you relocate to the San Francisco Bay Area on or before December 31, 2018. You may use the Relocation Advance to pay for relocation expenses or for any other purpose. If within your first year of employment with the Company: (a) you resign your employment, or (b) the Company terminates your employment for Cause (as defined above), then you agree to pay back the entire amount of the Relocation Advance within ten (10) days after your employment termination date.

5. Expenses. Allogene will reimburse you for all normal, usual and necessary expenses incurred in furtherance of the business and affairs of Allogene upon timely receipt by Allogene of appropriate vouchers or other proof of your expenditures and otherwise in accordance with any expense reimbursement and approval policy as may from time to time be adopted by Allogene.

6. Benefits. As a regular full-time employee, you shall be entitled to participate in the employee benefits made available to similarly situated employees, in accordance with the terms of such benefits plans and programs and company policies. Information regarding these employee benefits is available upon request and in the official plan documents, summary plan descriptions, and applicable summaries. The Company, in its sole discretion, has the right to amend or terminate any benefit plan, program or Company policy at any time and without prior notice.

7. Representations and Warranties. You hereby represent and warrant as follows:

   (a) By accepting the Company's offer of employment, you represent that you have no agreements, relationships, or commitments with any other person or entity that conflict with your obligations to the Company.

   (b) You have the full right, power and legal capacity to enter and deliver this Agreement and to perform your duties and other obligations hereunder. This Agreement constitutes the legal, valid and binding obligation of the parties, enforceable against each in accordance with its terms. No approvals or consents of any persons or entitles are required for you to execute and deliver this Agreement or perform your duties and other obligations hereunder.

(c) You represent and warrant to the Company that you have not brought and shall not bring with you to the Company, or use in the performance of your duties, any materials or documents of any former employer that are not generally available to the public, unless you have obtained written authorization from the former employer for their possession and use and provided the Company with a copy thereof.

8. Conditions to Employment. This offer of employment is contingent upon, and your employment shall be subject to:

(a) completion of reference checks and background check, and may be contingent upon a drug screen, each to the reasonable satisfaction of Allogene; and

(b) satisfying the requirements of the Immigration Control and Reform Act, which may be accomplished by showing your proof of right to work in the U.S. within three days of commencing employment, and you agree to assist as needed at the Company's request to meet these conditions.

(c) execution of Allogene's form of Employee Confidential Information and Invention Assignment Agreement attached hereto as Exhibit A, which prohibits unauthorized use or disclosure of Allogene's proprietary information, among other obligations;

(d) Notwithstanding the foregoing, this offer may be withdrawn by Allogene at any time prior to its execution by the parties.

9. Employment-at-will and Termination. Your employment shall be at-will. Accordingly, you may terminate your employment with Allogene at any time and for any reason whatsoever, with or without advance notice, simply by notifying Allogene in writing. Similarly, Allogene may terminate your employment at any time and for any reason whatsoever, with or without cause or advance notice. This at-will relationship cannot be changed except in a writing signed by an authorized officer of the Company and you. The employment terms contained in this Agreement supersede any other agreements and promises made to you by Allogene or any representative on its behalf, whether oral, written or implied.

10. No Reliance by You on Promise or Representation Not in this Agreement. In accepting employment with Allogene and signing this Agreement, you agree that you are not relying on any representation, promise or inducement that has been made by Allogene or any representative on its behalf that is not explicitly stated in this Agreement. Allogene is not bound by and will not be liable for any representation, promise or inducement that is not explicitly stated in this Agreement.

11. Governing Law. The terms of this offer letter shall be governed by, and construed and interpreted in accordance with, the laws of the State of California without regard to such State's principles of conflict of laws, except as provided in Section 12.

12. Arbitration. To the maximum extent permitted by law, any dispute between the parties, including but not limited to those arising out of, or relating to, this Agreement, shall be exclusively decided by binding arbitration in accordance with the terms of the Arbitration Agreement, which is attached as Exhibit B and incorporated into this Agreement. The Federal Arbitration Act shall govern the interpretation, enforcement and all proceedings pursuant to the Arbitration Agreement. To the extent that the Federal Arbitration Act is inapplicable, the terms of the Arbitration Agreement shall be construed in accordance with California law.

13. Miscellaneous.

(a) This Agreement, and your rights and obligations hereunder, may not be assigned. Allogene may assign its rights, together with its obligations, hereunder in connection with any sale, transfer or other disposition of all or substantially all of its business or assets, provided the assignee entity which succeeds to Allogene expressly assumes Allogene's obligations hereunder and complies with the terms of this Agreement.

(b) This Agreement cannot be amended orally, or by any course of conduct or dealing, but only by a written agreement signed by the parties hereto. The Company's signatory must be an officer who is authorized by the Company to enter into such an amendment.

(c) The failure of either party to insist upon the strict performance of any of the terms, conditions and provisions of this Agreement shall not be construed as a waiver or relinquishment of future compliance therewith, and such terms, conditions and provisions shall remain in full force and effect. No waiver of any term or condition of this Agreement on the part of either party shall be effective for any purpose whatsoever unless such waiver is in writing and signed by such party. If any provision of this offer letter agreement is determined to be invalid or unenforceable, in whole or in part, this determination shall not affect any other provision of this offer letter agreement and the provision in question shall be modified so as to be rendered enforceable in a manner consistent with the intent of the parties insofar as possible under applicable law.

(d) This Agreement, including its Exhibits A and B, sets forth the entire agreement and understanding of the parties relating to the subject matter hereof, and supersedes all prior agreements, arrangements and understandings, written or oral, relating to the subject matter of the Agreement. This letter may be delivered and executed via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act or other applicable law) or other transmission method and shall be deemed to have been duly and validly delivered and executed and be valid and effective for all purposes.

14. Certification of Qualifications. By accepting employment, you certify that the information you provided to Allogene about your experience, education and other qualifications for employment has been accurate and complete.

If you wish to accept employment at Allogene under the terms described above, please sign and date this Agreement, and return it to me.

We look forward to your favorable reply and to a productive and enjoyable working relationship.

This offer will be deemed withdrawn if not accepted by May 15, 2018.

Sincerely,

/s/ David Tanen
David Tanen
Allogene Therapeutics, Inc.

Understood and Accepted:

/s/ Alison Moore	5/3/18
Alison Moore	Date

EXHIBIT A

Employee Confidential Information and Invention Assignment Agreement

EMPLOYEE CONFIDENTIAL INFORMATION AND INVENTION ASSIGNMENT AGREEMENT

In consideration of my employment or continued employment by Allogene Therapeutics, Inc., its direct and indirect subsidiaries, parents, affiliates, predecessors, successors and assigns (together **"Company"**), and the compensation and benefits provided to me now and during my employment with Company, I hereby enter into this Employee Confidential Information and Invention Assignment Agreement (the **"Agreement"**), which will be deemed effective as of the first day of my employment with the Company:

1. CONFIDENTIAL INFORMATION PROTECTIONS.

1.1 Recognition of Company's Rights; Nondisclosure. I understand and acknowledge that my employment by Company creates a relationship of confidence and trust with respect to Company's Confidential Information (as defined below) and that Company has a protectable interest therein. At all times during and after my employment, I will hold in confidence and will not disclose, use, lecture upon, or publish any of Company's Confidential Information, except as such disclosure, use or publication may be required in connection with my work for Company, or unless an officer of Company expressly authorizes such disclosure. I will obtain Company's written approval before publishing or submitting for publication any material (written, oral, or otherwise) that discloses and/or incorporates any Confidential Information. I hereby assign to Company any rights I may have or acquire in such Confidential Information and recognize that all Confidential Information shall be the sole and exclusive property of Company and its assigns. I will take all reasonable precautions to prevent the inadvertent accidental disclosure of Confidential Information. Notwithstanding the foregoing, pursuant to 18 U.S.C. Section 1833(b), I shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that: (1) is made in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney, and solely for the purpose of reporting or investigating a suspected violation of law; or (2) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

1.2 Confidential Information. The term **"Confidential Information"** shall mean any and all confidential knowledge, data or information of Company. By way of illustration but not limitation, **"Confidential Information"** includes (a) trade secrets, inventions, mask works, ideas, processes, formulas, software in source or object code versions, data, programs, other works of authorship, know-how, improvements, discoveries, developments, designs and techniques and any other proprietary technology and all Intellectual Property Rights therein (collectively, **"Inventions"**); (b) information regarding research, development, new products, marketing and selling, business plans, budgets and unpublished financial statements, licenses, prices and costs, margins, discounts, credit terms, pricing and billing policies, quoting procedures, methods of obtaining business, forecasts, future plans and potential strategies, financial projections and business strategies, operational plans, financing and capital-raising plans, activities and agreements, internal services and operational manuals, methods of conducting Company business, suppliers and supplier information, and purchasing; (c) information regarding customers and potential customers of Company, including customer lists, names, representatives, their needs or desires with respect to the types of products or services offered by Company, proposals, bids, contracts and their contents and parties, the type and quantity of products and services provided or sought to be provided to customers and potential customers of Company and other non-public information relating to customers and potential Customers; (d) information regarding any of Company's business partners and their services, including names; representatives, proposals, bids, contracts and their contents and parties, the type and quantity of products and services received by Company, and other non-public information relating

to business partners; (e) information regarding personnel, employee lists, compensation, and employee skills; and (f) any other non-public information which a competitor of Company could use to the competitive disadvantage of Company. Notwithstanding the foregoing, it is understood that, at all such times, I am free to use information which is generally known in the trade or industry through no breach of this Agreement or other act or omission by me. Further, notwithstanding the foregoing or anything to the contrary in this Agreement or any other agreement between the Company and me, nothing in this Agreement shall limit my right to discuss my employment or report possible violations of law or regulation with any federal government agency or similar state or local agency or to discuss the terms and conditions of my employment with others to the extent expressly permitted by Section 7 of the National Labor Relations Act or to the extent that such disclosure is protected under the applicable provisions of law or regulation.

1.3 Third Party Information. I understand, in addition, that Company has received and in the future will receive from third parties their confidential and/or proprietary knowledge, data or information (**"Third Party Information"**) subject to a duty on Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. During my employment and thereafter, I will hold Third Party Information in confidence and will not disclose to anyone (other than Company personnel who need to know such information in connection with their work for Company) or use, except in connection with my work for Company, Third Party Information unless expressly authorized by an officer of Company in writing.

1.4 No Improper Use of Information of Prior Employers and Others. During my employment by Company, I will not improperly use or disclose confidential information or trade secrets, if any, of any former employer or any other person to whom I have an obligation of confidentiality, and I will not bring onto the premises of Company any unpublished documents or any property belonging to any former employer or any other person to whom I have an obligation of confidentiality unless consented to in writing by that former employer or person.

2. ASSIGNMENTS OF INVENTIONS.

2.1 Definitions. As used in this Agreement, the term **"Intellectual Property Rights"** means all trade secrets, Copyrights, trademarks, mask work rights, patents and other intellectual property rights recognized by the laws of any jurisdiction or country; the term **"Copyright"** means the exclusive legal right to reproduce, perform, display, distribute and make derivative works of a work of authorship (as a literary, musical, or artistic work) recognized by the laws of any jurisdiction or country; and the term **"Moral Rights"** means all paternity, integrity, disclosure, withdrawal, special and any other similar rights recognized by the laws of any jurisdiction or country.

2.2 Excluded Inventions and Other Inventions. Attached hereto as **Attachment 1** is a list describing all existing Inventions, if any, that may relate to Company's business or actual or demonstrably anticipated research or development and that were made by me or acquired by me prior to the commencement of my employment with, and which are not to be assigned to, Company (**"Excluded Inventions"**). If no such list is attached, I represent and agree that it is because I have no rights in any existing Inventions that may relate to Company's business or actual or demonstrably anticipated research or development. For purposes of this Agreement, **"Other Inventions"** means Inventions in which I have or may have an interest, as of the commencement of my employment or thereafter, other than Company Inventions (defined below) and Excluded Inventions. I acknowledge and agree that if I use any Excluded Inventions or any Other Inventions in the scope of my employment, or if I include any Excluded Inventions or Other Inventions in any product or service of Company, or if my rights in any Excluded Inventions or Other Inventions may block or interfere with, or may otherwise be required for, the exercise by Company of any rights assigned to Company under this Agreement, I will immediately so notify Company in writing. Unless Company and I agree otherwise in writing as to particular Excluded Inventions or Other Inventions, I hereby grant to Company, in such circumstances (whether or not I give Company notice as required above), a non-exclusive, perpetual, transferable, fully-paid and royalty-free, irrevocable and worldwide license, with

rights to sublicense through multiple levels of sublicensees, to reproduce, make derivative works of, distribute, publicly perform, and publicly display in any form or medium, whether now known or later developed, make, have made, use, sell, import, offer for sale, and exercise any and all present or future rights in, such Excluded Inventions and Other Inventions. To the extent that any third parties have rights in any such Other Inventions, I hereby represent and warrant that such third party or parties have validly and irrevocably granted to me the right to grant the license stated above.

2.3 Assignment of Company Inventions. Inventions assigned to Company, or to a third party as directed by Company pursuant to Section 2.6, are referred to in this Agreement as **"Company Inventions**.**"** Subject to Section 2.4 (Unassigned or Nonassignable Inventions) and except for Excluded Inventions set forth in **Attachment 1** and Other Inventions, I hereby assign to Company all my right, title, and interest in and to any and all Inventions (and all Intellectual Property Rights with respect thereto) made, conceived, reduced to practice, or learned by me, either alone or with others, during the period of my employment by Company. To the extent required by applicable Copyright laws, I agree to assign in the future (when any copyrightable Inventions are first fixed in a tangible medium of expression) my Copyright rights in and to such Inventions. Any assignment of Company Inventions (and all Intellectual Property Rights with respect thereto) hereunder includes an assignment of all Moral Rights. To the extent such Moral Rights cannot be assigned to Company and to the extent the following is allowed by the laws in any country where Moral Rights exist, I hereby unconditionally and irrevocably waive the enforcement of such Moral Rights, and all claims and causes of action of any kind against Company or related to Company's customers, with respect to such rights. I further acknowledge and agree that neither my successors-in-interest nor legal heirs retain any Moral Rights in any Company Inventions (and any Intellectual Property Rights with respect thereto).

2.4 Unassigned or Nonassignable Inventions. I recognize that this Agreement will not be deemed to require assignment of any Invention that is covered under California Labor Code section 2870(a) (the "**Specific Inventions Law**"), as detailed on **Attachment 2**.

2.5 Obligation to Keep Company Informed. During the period of my employment and for one (1) year after termination of my employment, I will promptly and fully disclose to Company in writing all Inventions authored, conceived, or reduced to practice by me, either alone or jointly with others. In addition, I will promptly disclose to Company all patent applications filed by me or on my behalf within one (1) year after termination of employment. At the time of each such disclosure, I will advise Company in writing of any Inventions that I believe fully qualify for protection under the provisions of the Specific Inventions Law; and I will at that time provide to Company in writing all evidence necessary to substantiate that belief. Company will keep in confidence and will not use for any purpose or disclose to third parties without my consent any confidential information disclosed in writing to Company pursuant to this Agreement relating to Inventions that qualify fully for protection under the Specific Inventions Law. I will preserve the confidentiality of any Invention that does not fully qualify for protection under the Specific Inventions Law.

2.6 Government or Third Party. I agree that, as directed by Company, I will assign to a third party, including without limitation the United States, all my right, title, and interest in and to any particular Company Invention.

2.7 Ownership of Work Product.

(a) I acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of my employment and which are protectable by Copyright are "works made for hire," pursuant to United States Copyright Act (17 U.S.C., Section 101).

(b) I agree that Company will exclusively own all work product that is made by me (solely or jointly with others) within the scope of my employment, and I hereby irrevocably and unconditionally assign to Company all right, title, and interest worldwide in and to such work product. I understand and agree that I have no right to publish on, submit for publishing, or use for any publication any work product protected by this Section, except as necessary to perform services for Company.

2.8 Enforcement of Intellectual Property Rights and Assistance. I will assist Company in every proper way to obtain, and from time to time enforce, United States and foreign Intellectual Property Rights and Moral Rights relating to Company Inventions in any and all countries. To that end I will execute, verify and deliver such documents and perform such other acts (including appearances as a witness) as Company may reasonably request for use in applying for, obtaining, perfecting, evidencing, sustaining and enforcing such Intellectual Property Rights and the assignment thereof. In addition, I will execute, verify and deliver assignments of such Intellectual Property Rights to Company or its designee, including the United States or any third party designated by Company. My obligation to assist Company with respect to Intellectual Property Rights relating to such Company Inventions in any and all countries will continue beyond the termination of my employment, but Company will compensate me at a reasonable rate after my termination for the time actually spent by me at Company's request on such assistance. In the event Company is unable for any reason, after reasonable effort, to secure my signature on any document needed in connection with the actions specified in this paragraph, I hereby irrevocably designate and appoint Company and its duly authorized officers and agents as my agent and attorney in fact, which appointment is coupled with an interest, to act for and in my behalf to execute, verify and file any such documents and to do all other lawfully permitted acts to further the purposes of the preceding paragraph with the same legal force and effect as if executed by me. I hereby waive and quitclaim to Company any and all claims, of any nature whatsoever, which I now or may hereafter have for infringement of any Intellectual Property Rights assigned under this Agreement to Company.

2.9 Incorporation of Software Code. I agree that I will not incorporate into any Company software or otherwise deliver to Company any software code licensed under the GNU General Public License or Lesser General Public License or any other license that, by its terms, requires or conditions the use or distribution of such code on the disclosure, licensing, or distribution of any source code owned or licensed by Company **except** in strict compliance with Company's policies regarding the use of such software.

3. RECORDS. I agree to keep and maintain adequate and current records (in the form of notes, sketches, drawings and in any other form that is required by Company) of all Confidential Information developed by me and all Company Inventions made by me during the period of my employment at Company, which records will be available to and remain the sole property of Company at all times.

4. DUTY OF LOYALTY DURING EMPLOYMENT. I agree that during the period of my employment by Company I will not, without Company's express written consent, directly or indirectly engage in any employment or business activity which is directly or indirectly competitive with, or would otherwise conflict with, my employment by Company.

5. NO SOLICITATION OF EMPLOYEES, CONSULTANTS, OR CONTRACTORS. I agree that during the period of my employment and for the one (1) year period after the date my employment ends for any reason, including but not limited to voluntary termination by me or involuntary termination by Company, I will not, as an officer, director, employee, consultant, owner, partner, or in any other capacity, either directly or through others, except on behalf of Company solicit, induce, encourage, or participate in soliciting, inducing or encouraging any employee, consultant, or independent contractor of Company to terminate his, her or its relationship with Company, even if I did not initiate the discussion or seek out the contact.

6. REASONABLENESS OF RESTRICTIONS.

6.1 I agree that I have read this entire Agreement and understand it. I agree that this Agreement does not prevent me from earning a living or pursuing my career. I agree that the restrictions contained in this Agreement are reasonable, proper, and necessitated by Company's legitimate business interests. I represent and agree that I am entering into this Agreement freely and with knowledge of its contents with the intent to be bound by the Agreement and the restrictions contained in it.

6.2 In the event that a court or arbitrator finds this Agreement, or any of its restrictions, to be ambiguous, unenforceable, or invalid, Company and I agree that the court or arbitrator will read the Agreement as a whole and interpret the restriction(s) at issue to be enforceable and valid to the maximum extent allowed by law.

6.3 If the court or arbitrator declines to enforce this Agreement in the manner provided in subsection 6.2, Company and I agree that this Agreement will be automatically modified to provide Company with the maximum protection of its business interests allowed by law and I agree to be bound by this Agreement as modified.

7. NO DISPARAGEMENT. I agree that, during my employment with the Company and after the termination of my employment for any reason, I will not disparage the Company, its officers, directors, managers, employees, consultants, shareholders, or agents, in any manner likely to be harmful to it or their business, business reputation or personal reputation. Notwithstanding the foregoing, nothing in this Agreement shall prohibit me from making truthful statements or disclosures required by applicable law, regulation or legal process; or requesting or receiving confidential legal advice. Nothing in this Agreement shall limit my right to make truthful statements in the proper performance of my job duties for the Company, discuss my employment, or report possible violations of law or regulation with the SEC, EEOC, DOL, NLRB, OSHA or other federal government agency or similar state or local agency, or to discuss the terms and conditions of my employment with others to the extent expressly permitted by Section 7 of the NLRA, or to the extent that such disclosure is protected under the applicable provisions of law or regulation, including but not limited to "whistleblower" statutes or other similar provisions that protect such disclosure.

8. NO CONFLICTING AGREEMENT OR OBLIGATION. I represent that my employment by Company does not and will not breach any agreement with any former employer or third party, including any noncompete agreement or any agreement to keep in confidence or refrain from using information acquired by me prior to my employment by Company. I further represent that I have not entered into, and will not enter into, any agreement, either written or oral, in conflict with my obligations under this Agreement.

9. RETURN OF COMPANY PROPERTY. Subject to the nondisclosure requirements of Section 1.1 above, upon termination of my employment or upon Company's request at any other time, I will deliver to Company any and all of Company's property and equipment and any and all drawings, notes, memoranda, specifications, devices, formulas and documents, together with all copies thereof, and any other material containing or disclosing any Company Inventions, Third Party Information or Confidential Information of Company. I agree that I will not copy, delete, or alter any information contained upon my Company computer or Company equipment before I return it to Company. In addition, if I have used any personal computer, server, or e-mail system to receive, store, review, prepare or transmit any Company information, including but not limited to, Confidential Information, I agree to provide the Company access to any such personal systems as reasonably requested to search for, copy and/or delete such information, and upon my employment termination I agree to provide Company with a computer-useable copy of all such Confidential Information and then permanently delete and expunge such Confidential Information from those systems; and I agree to provide Company access to my system as reasonably requested to verify that the necessary copying and/or deletion is completed. I further agree that any property situated on Company's premises and owned by Company, including disks and other storage media, filing cabinets or other work areas, is subject to inspection by Company's personnel at any time with or without notice. Prior to leaving, I will cooperate with Company in attending an exit interview and completing and signing Company's Termination Certificate; however, my failure to sign and deliver the Termination Certificate shall in no way diminish my continuing obligations under this Agreement.

10. LEGAL AND EQUITABLE REMEDIES.

10.1 I agree that it may be impossible to assess the damages caused by my violation of this Agreement or any of its terms. I agree that any threatened or actual violation of this Agreement or any of its terms will constitute immediate and irreparable injury to Company, and Company will have the right to enforce this Agreement and any of its provisions by injunction, specific performance or other equitable

relief, without bond and without prejudice to any other rights and remedies that Company may have for a breach or threatened breach of this Agreement.

10.2 In the event Company enforces this Agreement through a court or arbitration order, I agree that the restrictions of Sections 5 will remain in effect for a period of twelve (12) months from the effective date of the order enforcing the Agreement.

11. NOTICES. Any notices required or permitted under this Agreement will be given to Company at its headquarters location at the time notice is given, and to me at my address as listed on Company payroll, or at such other address as Company or I may designate by written notice to the other. Notice will be effective upon receipt or refusal of delivery. If delivered by certified or registered mail, notice will be considered to have been given five (5) business days after it was mailed, as evidenced by the postmark. If delivered by courier or express mail service, notice will be considered to have been given on the delivery date reflected by the courier or express mail service receipt.

12. NOTIFICATION OF NEW EMPLOYER. If I leave the employ of Company, I consent to the notification of my new employer of my rights and obligations under this Agreement, by Company providing a copy of this Agreement or otherwise.

13. GENERAL PROVISIONS.

13.1 Governing Law. This Agreement will be governed by and construed according to the laws of the State of California as such laws are applied to agreements entered into and to be performed entirely within California between California residents.

13.2 Severability. In case any one or more of the provisions, subsections, or sentences contained in this Agreement will, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability will not affect the other provisions of this Agreement, and this Agreement will be construed as if such invalid, illegal or unenforceable provision had never been contained in this Agreement. If moreover, any one or more of the provisions contained in this Agreement will for any reason be held to be excessively broad as to duration, geographical scope, activity or subject, it will be construed by limiting and reducing it, so as to be enforceable to the extent compatible with the applicable law as it will then appear.

13.3 Successors and Assigns. This Agreement is for my benefit and the benefit of Company, its successors, assigns, parent corporations, direct and indirect subsidiaries, affiliates, and purchasers, and will be binding upon my heirs, executors, administrators and other legal representatives.

13.4 Survival. This Agreement shall survive the termination of my employment, regardless of the reason, and the assignment of this Agreement by Company to any successor in interest or other assignee.

13.5 Employment At-Will. I agree and understand that nothing in this Agreement will change my at-will employment status or confer any right with respect to continuation of employment by Company, nor will it interfere in any way with my right or Company's right to terminate my employment at any time, with or without cause or advance notice.

13.6 Waiver. No waiver by Company of any breach of this Agreement will be a waiver of any preceding or succeeding breach. No waiver by Company of any right under this Agreement will be construed as a waiver of any other right. Company will not be required to give notice to enforce strict adherence to all terms of this Agreement.

13.7 Export. I agree not to export, reexport, or transfer, directly or indirectly, any U.S. technical data acquired from Company or any products utilizing such data, in violation of the United States export laws or regulations.

13.8 Advice of Counsel. I ACKNOWLEDGE THAT, IN EXECUTING THIS AGREEMENT, I HAVE HAD THE OPPORTUNITY TO SEEK THE ADVICE OF INDEPENDENT LEGAL COUNSEL, AND I HAVE READ AND UNDERSTOOD ALL OF THE TERMS AND PROVISIONS OF THIS AGREEMENT. THIS AGREEMENT WILL NOT BE CONSTRUED AGAINST ANY PARTY BY REASON OF THE DRAFTING OR PREPARATION OF THIS AGREEMENT.

13.9 Entire Agreement. The obligations pursuant to Sections 1 and 2 of this Agreement will apply to any time during which I was previously engaged, or am in the future engaged, by Company as

a consultant (except Subsection 2.4 and 2.7(a)) or employee if no other agreement governs nondisclosure and assignment of inventions during such period. This Agreement is the final, complete and exclusive agreement of the parties with respect to the subject matter of this Agreement and supersedes and merges all prior discussions between us. No modification of or amendment to this Agreement, will be effective unless in writing and signed by the party to be charged. Any subsequent change or changes in my duties, salary or compensation will not affect the validity or scope of this Agreement.

This Agreement shall be effective as of the first day of my employment with the Company.

EMPLOYEE:
I HAVE READ, UNDERSTAND, AND ACCEPT THIS AGREEMENT AND HAVE BEEN GIVEN THE OPPORTUNITY TO REVIEW IT WITH INDEPENDENT LEGAL COUNSEL. I HAVE ALSO COMPLETELY FILLED OUT ATTACHMENT 1.

/s/ Alison Moore
(Signature)

By: Alison Moore
Title: Ph.D.
Date: 5/16/18
Address:

COMPANY:
ACCEPTED AND AGREED:

/s/ Veer Bhavnagri
(Signature)

By: Veer Bhavnagri
Title: General Counsel
Date: April 20, 2018
Address: 270 Littlefield Avenue, South San Francisco, CA 91361

ATTACHMENT 1

PRIOR INVENTIONS

TO: **Allogene Therapeutics, Inc.**

FROM: **Alison Moore**

DATE: **5/16/18**

SUBJECT: **Prior Inventions**

1. Except as listed in Section 2 below, the following is a complete list of all inventions or improvements relevant to the subject matter of my employment by Allogene Therapeutics, Inc. ("**Company**") that have been made or conceived or first reduced to practice by me alone or jointly with others prior to my engagement by Company:

☒ No inventions or improvements.

☐ See below:

_____

_____

_____

☐ Additional sheets attached.

2. Due to a prior confidentiality agreement, I cannot complete the disclosure under Section 1 above with respect to inventions or improvements generally listed below, the intellectual property rights and duty of confidentiality with respect to which I owe to the following party(ies):

	Invention or Improvement	Party(ies)	Relationship
1.			
2.			
3.			

☐ Additional sheets attached.

ATTACHMENT 2

LIMITED EXCLUSION NOTIFICATION

This is to notify you in accordance with Section 2872 of the California Labor Code that the foregoing Agreement between you and Company does not require you to assign or offer to assign to Company any Invention that you develop entirely on your own time without using Company's equipment, supplies, facilities or trade secret information, except for those Inventions that either:

(a) Relate at the time of conception or reduction to practice to Company's business, or actual or demonstrably anticipated research or development; or

(b) Result from any work performed by you for Company.

To the extent a provision in the foregoing Agreement purports to require you to assign an Invention otherwise excluded from the preceding paragraph, the provision is against the public policy of this state and is unenforceable.

This limited exclusion does not apply to any patent or Invention covered by a contract between Company and the United States or any of its agencies requiring full title to such patent or Invention to be in the United States.

EXHIBIT B

Arbitration Agreement

Arbitration Agreement

I recognize that disputes may arise between Allogene Therapeutics, Inc. (the "Company") and me during or following my employment with the Company, and that those disputes may or may not be related to my employment. The parties understand and agree that by entering into this Arbitration Agreement (the "Agreement"), they anticipate gaining the benefits of a speedy, impartial, final and binding dispute-resolution procedure.

The Company and I mutually consent to the resolution by arbitration of all claims or controversies ("claims"), past, present or future, whether or not arising out of my employment (or its termination), that the Company may have against me or that I (and no other party) may have against (1) the Company; (2) the Company's officers, directors, employees or agents in whatever capacity; (3) the Company's parent, subsidiary and affiliated entities; (4) the Company's benefit plans or the plans' sponsors, fiduciaries, administrators, affiliates and agents (except claims under an employee benefit or pension plan that specifies a different claims process; and/or (5) all successors and assigns of any of them. The Federal Arbitration Act (9 U.S.C., Sections 1-16) ("FAA") shall govern the interpretation, enforcement and all proceedings pursuant to this Agreement. To the extent that the Federal Arbitration Act is inapplicable, or held not to require arbitration of a particular claim or claims, the arbitration law of the state in which I work or last worked for the Company shall apply.

Arbitrable claims include, but are not limited to: claims for wages/other compensation due and any related claims; claims for breach of any contract or covenant (express or implied); tort claims; claims for retaliation; claims for harassment; claims for discrimination (including, but not limited to, race, sex, sexual orientation, religion, national origin, age, marital status, physical or mental disability or handicap, or medical condition); claims for benefits (except as noted above); and claims for violation of any federal, state, or other governmental law, statute, regulation, or ordinance. The following claims are not covered by this Agreement: claims for Workers' Compensation or Unemployment Insurance benefits; claims pending against the Company at the time I sign this Agreement in any forum; and claims that as a matter of law cannot be subject to arbitration.

Both the Company and I hereby waive the right to a trial by jury or judge, or by administrative proceeding, for any claim or dispute covered by this Agreement. Both the Company and I agree that neither of us shall initiate or prosecute any lawsuit in any way related to any claim covered by this Agreement to arbitrate, except that this Agreement does not prohibit the filing of or pursuit of relief through the following: (i) seeking temporary or preliminary injunction relief as is otherwise available by law, (ii) an administrative charge to any federal, state or local equal employment opportunity or fair employment practices agency, (iii) an administrative charge to the National Labor Relations Board, or (iv) any other charge filed with or communication to a federal, state or local government office, official or agency.

The arbitration will be held before a neutral arbitrator under the auspices of JAMS. The arbitration shall take place in the county (or comparable government unit) in which I am or was last employed by the Company, and, except as provided above, no dispute affecting my rights or responsibilities shall be adjudicated in any other venue or forum. The arbitration shall be held in accordance with its then-current Employment Arbitration Rules & Procedures (and no other JAMS rules), which are currently available at http://www.jamsadr.com/rules-employment-arbitration. I understand that the Company will provide me a written copy of those rules upon my request. The Arbitrator shall be either a retired judge, or an attorney who is experienced in employment law and licensed to practice law in the state in which the arbitration is convened (the "Arbitrator"), and shall be selected pursuant to the JAMS rules.

The Arbitrator shall apply the substantive law (and the law of remedies, if applicable) of the state in which the claim arose, or federal law, or both, as applicable to the claim(s) asserted. The Arbitrator is without jurisdiction to apply any different substantive law or law of remedies. The Federal Rules of Evidence shall apply. The Arbitrator shall have the power to award any types of legal or equitable relief that would be available under applicable law, shall have the authority to compel adequate discovery for the resolution of the dispute, and shall render an award and written opinion, which shall include the factual and legal basis for the award. The arbitration decision shall be final and binding upon the parties.

Questions regarding the enforceability, interpretation, scope, applicability or coverage of this Agreement (including whether an issue is subject to arbitration under this Agreement) shall be decided by the arbitrator. Likewise, procedural questions which grow out of the dispute and bear on the final disposition are also matters for the arbitrator. Pursuant to the FAA, issues of contract formation and enforcement relating to this Agreement shall be governed by and decided under the internal laws of the State of California, without regard to conflict of law rules.

The Company will be responsible for paying any filing fee and the fees and costs of the Arbitrator. Each party shall pay in the first instance its own litigation costs and attorneys' fees, if any. However, if any party prevails on a claim which affords the prevailing party attorneys' fees and/or litigation costs, then the Arbitrator shall rule upon a motion for attorneys' fees and/or litigation costs under the same standards a court would apply under the law applicable to the claim(s) at issue.

To the maximum extent permitted by law, all claims, disputes, or causes of action under this Agreement, whether by me or the Company, must be brought in an individual capacity, and shall not be brought as a plaintiff (or claimant) or class member in any purported class, collective, or representative proceeding; ***provided, however,*** that this Agreement shall not apply to any representative action under the California Private Attorney General Act ("PAGA"). The arbitrator may not consolidate the claims of more than one person or entity, and may not preside over any form of representative, collective or class proceeding. If a court adjudicating a case involving the Company and me were to determine that there is an unwaivable right to bring a class action, any such action shall be brought only in court, and not in arbitration.

The Company and I agree that any arbitration, including, without limitation, discovery, documents produced and/or entered into evidence, hearings, legal briefing and the final award, shall be confidential, although the final award may be disclosed as necessary to confirm the award and obtain entry of a final judgment by a court of competent jurisdiction. The Company and I further agree that we will execute written confidentiality agreements in order to ensure arbitration remains confidential.

This Agreement shall survive the termination of my employment and the expiration of any benefit plan. It can only be revoked by a writing signed by both the Company's General Counsel and me specifically stating the intent to revoke this Agreement.

This is the complete agreement of the parties on the subjects covered, and supersedes any prior or contemporaneous oral or written understandings on the subjects addressed in this Agreement; provided, however, that if this Agreement is held to be unenforceable for any reason, then any prior arbitration agreement between the Company and me shall survive. No party is relying on any representations, oral or written, on the subject of the effect, enforceability or meaning of this Agreement, except as specifically set forth in this Agreement. This Agreement only can be modified in a written agreement signed by the parties.

If any provision of this Agreement is adjudged to be void or otherwise unenforceable, in whole or in part, such adjudication shall not affect the validity of the remainder of the agreement. All other provisions shall remain in full force and effect.

I understand that nothing in this agreement affects the at-will nature of my employment with the Company, and that my employment may be terminated by either party, at any time, with or without cause or advance notice.

I acknowledge that I have carefully read this Agreement, that I understand its terms and that I have entered into the Agreement voluntarily and not in reliance of any promises or representations by the Company other than those contained in the Agreement. I understand that by signing this Agreement, I am giving up my right to a jury trial. Finally, I further acknowledge that I have been given the opportunity to discuss this Agreement with my own legal counsel.

Dated: 5/16/18

/s/ Alison Moore
Employee Signature

Alison Moore
Printed Name of Employee

Dated: April 20, 2018

COMPANY

By: /s/ Veer Bhavnagri
Veer Bhavnagri, General Counsel

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the caption “Experts” and to the use of our report dated August 10, 2018, in the Registration Statement (Form S-1) and related Prospectus of Allogene Therapeutics, Inc. for the registration of shares of its common stock.

/s/ Ernst & Young LLP

Redwood City, California
September 14, 2018