Allogene Therapeutics
CD19 Forum

May 19, 2021

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Caution should be exercised when interpreting results from separate trials involving separate product candidates. There are differences in the clinical trial design, patient populations, and the product candidates themselves, and the results from the clinical trials of autologous products may have no interpretative value on our existing or future results.

Except as required by law, we undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise. This Presentation shall not constitute an offer to sell or the solicitation of an offer to buy securities, nor shall there be any sale of securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

CD19 Forum Agenda

Topic	Speaker	Time
Introduction to the Event	**Christine Cassiano** Chief Communications Officer of Allogene	5 minutes
	Opening Patient Video	4 minutes
Making Allogeneic CAR T a Reality	**David Chang, M.D., Ph.D.** Chief Executive Officer, President and Co-Founder of Allogene	12 minutes
CD19 Program Overview	**Rafael Amado, M.D.** Executive Vice President, R&D and Chief Medical Officer of Allogene	5 minutes
A Focus on ALLO-501	**Frederick L. Locke, M.D.** Co-Leader, Moffitt Immuno-Oncology Program, Vice Chair and Associate Member Department of Blood and Marrow Transplant and Cellular Immunotherapy Moffitt Cancer Center	7 minutes
Preparing for a Pivotal Trial	**Rafael Amado, M.D.**	14 minutes
What the Future Holds for Allogeneic CAR T Therapy in Non-Hodgkin Lymphoma	**Moderator:** Rafael Amado, M.D. **Panelists:** **Frederick L. Locke, M.D.** **Michael Tees, M.D., M.P.H.** Associate Member Physician Colorado Blood Cancer Institute, Sarah Cannon Research Institute **Lazaros J. Lekakis, M.D.** Associate Professor of Clinical Medicine, Transplantation and Cellular Therapy Sylvester Cancer Center, University of Miami	26 minutes
Establishing New Standards	**Eric Schmidt, Ph.D.** Chief Financial Officer of Allogene	13 minutes
Panel Q&A (LIVE)	**Moderator: David Chang**	45 minutes

David Chang, M.D., Ph.D.

Making Allogeneic CAR T a Reality

Allogene THERAPEUTICS

Allogene: Leading the Field in Allogeneic Cell Therapy

3
years since inception

~280
employees

5
clinical trials planned in 2021, including four "firsts":
- First pivotal trial
- First solid tumor trial
- First combo trial
- First TurboCAR™ trial

1
singular focus on allogeneic cell therapy

4
foundational platform technologies:
- AlloCAR T
- TurboCAR
- iPSC
- Allogeneic manufacturing

Cell Forge 1

$964
million
in cash, cash equivalents and investments as of March 31, 2021

~95
based on reported data, more patients have been treated with Allogene's AlloCAR T therapies than any other allogeneic CAR T therapy in development

Allogene THERAPEUTICS

Innovating CAR T Therapies to Potentially Expand Access & Reduce Cost

Cost

- Scalable and efficient manufacturing
- Potential to treat 100+ patients from a single manufacturing run
- Opportunity to reduce ancillary cost of care associated with autologous therapy

Innovation

- Multiplex gene engineering/editing capabilities
- Opportunity for product optimization

Access

- Potential to treat all eligible patients
- Re-dosing, if needed
- No need for complex logistics or bridging therapy

Speed/Reliability

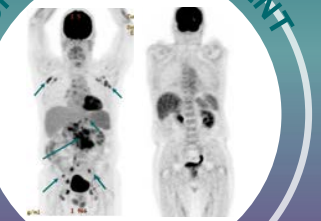
- “Off the shelf” for on demand treatment
- Less product variability, made from healthy T cells

Establishing a New Standard in CAR T Therapy

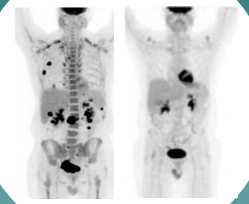
AlloCAR T ▶ Ability to treat all eligible patients ▶ Outpatient opportunity

36% 6-Month CR Rate

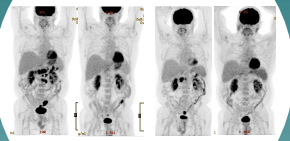
ONE TIME TREATMENT



CONSOLIDATED DOSING



RE-DOSING



HEMATOLOGIC

SOLID TUMORS

Autologous CAR T

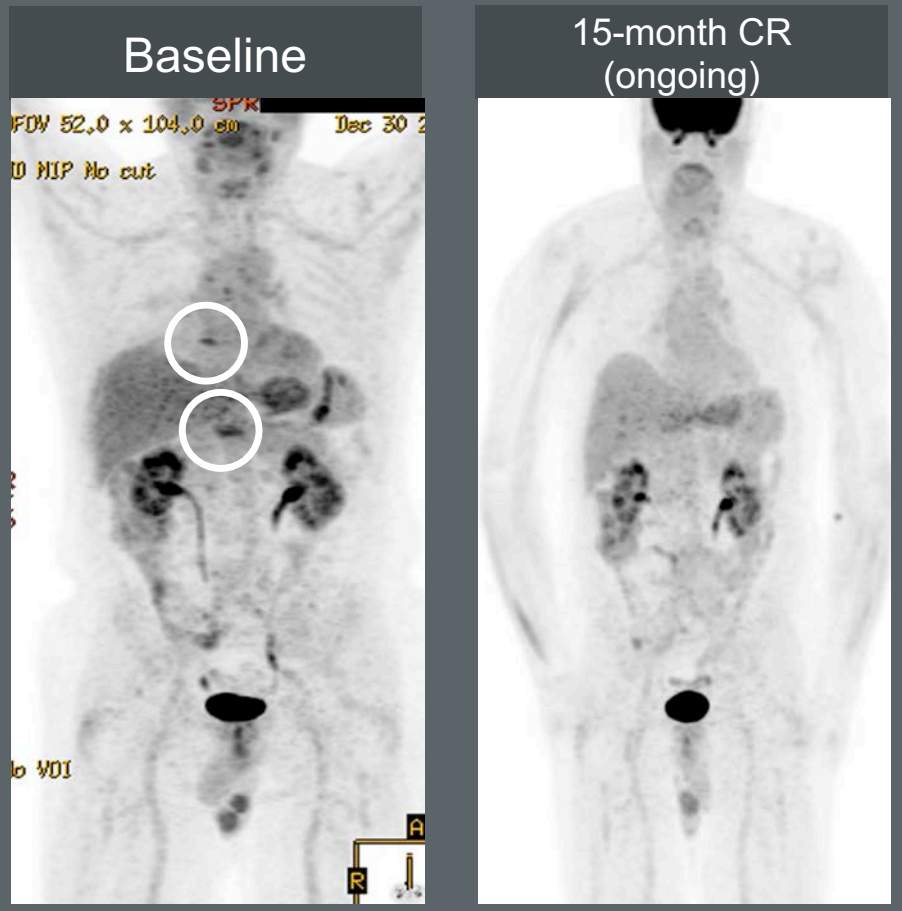
29-40% 6-Month CR Rate

AlloCAR T: Interim results from Phase 1 ALPHA trial of ALLO-501 of autologous CAR T naïve patients with R/R LBCL; based on a data cutoff as of April 19, 2021
Autologous: Yescarta 6-month CR rate (Locke, AACR 2017); Kymriah 6-month CR rate (Schuster, 2019); Breyanzi 6-month CR rate estimated based on the Breyanzi USPI

Allogene THERAPEUTICS

Case Study 1: Ongoing 15 Month CR with Single Infusion

ALPHA Study (ALLO-501)



BACKGROUND

73 yo with Stage IV DLBCL. Received 4 prior lines of therapy including autologous HSCT

- R-CHOP x 6
- R-ICE x 2
- Autologous HSCT
- Focal XRT

RESULT

- 120M CAR+ cells after lymphodepletion with Flu/Cy + ALLO-647 (90mg). No DLT.
- Complete response (CR) by D28, which is ongoing at M15

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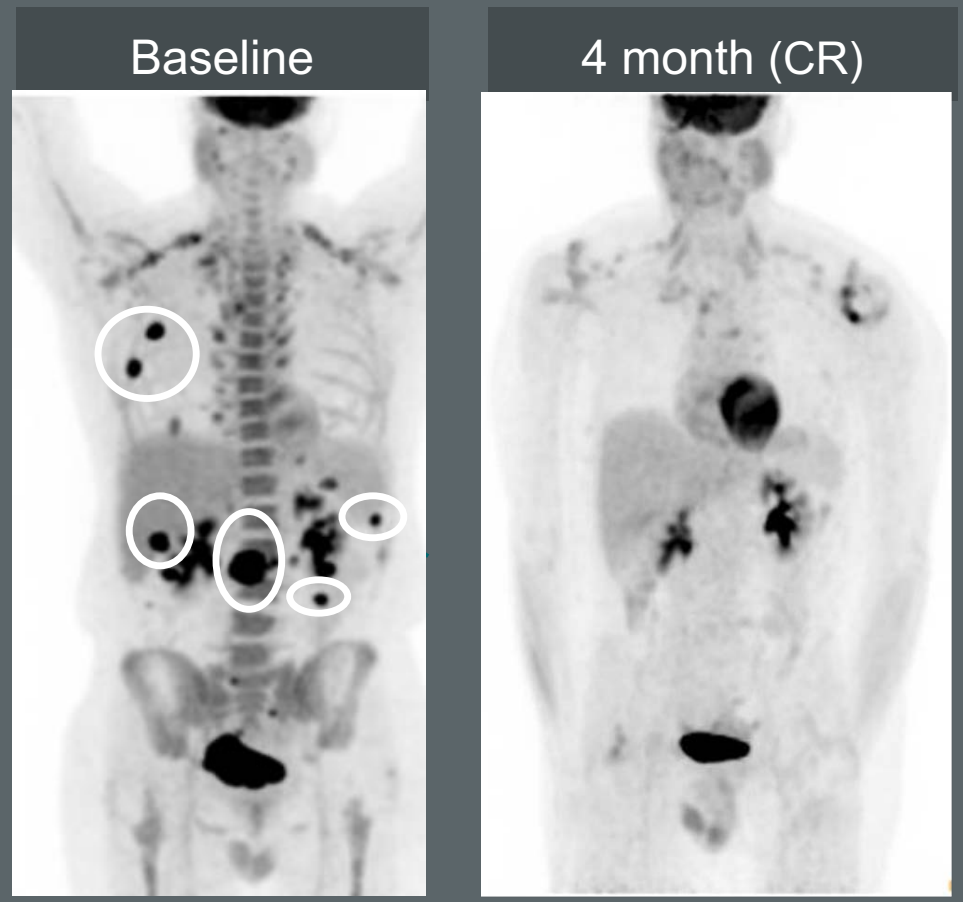
Case Study 2: Deepening the Response with Consolidation

ALPHA2 Study (ALLO-501A)



BACKGROUND

66 yo with Stage IV LBCL

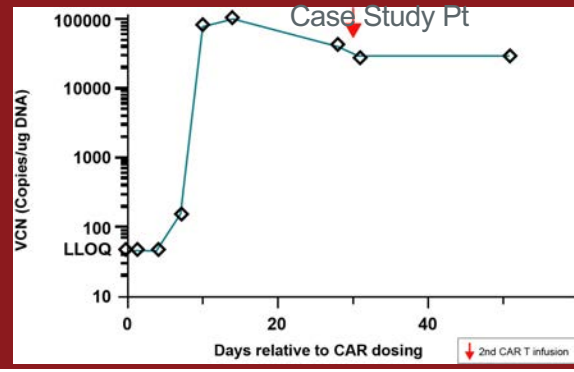
- IPI Score 4, Double Hit Lymphoma
- Received 2 prior lines of therapy

RESULT

- 1st Dose: 120M CAR+ cells after LD with Flu/Cy and ALLO-647 (60 mg)
- 2nd Dose: 120M CAR+ cells after LD with ALLO-647 (30mg) only on D30. No ALLO-501A related toxicity

RESPONSE

- PR after 1st Dose by D28
- CR after Consolidation by D56
- Extended CAR+ cell persistence



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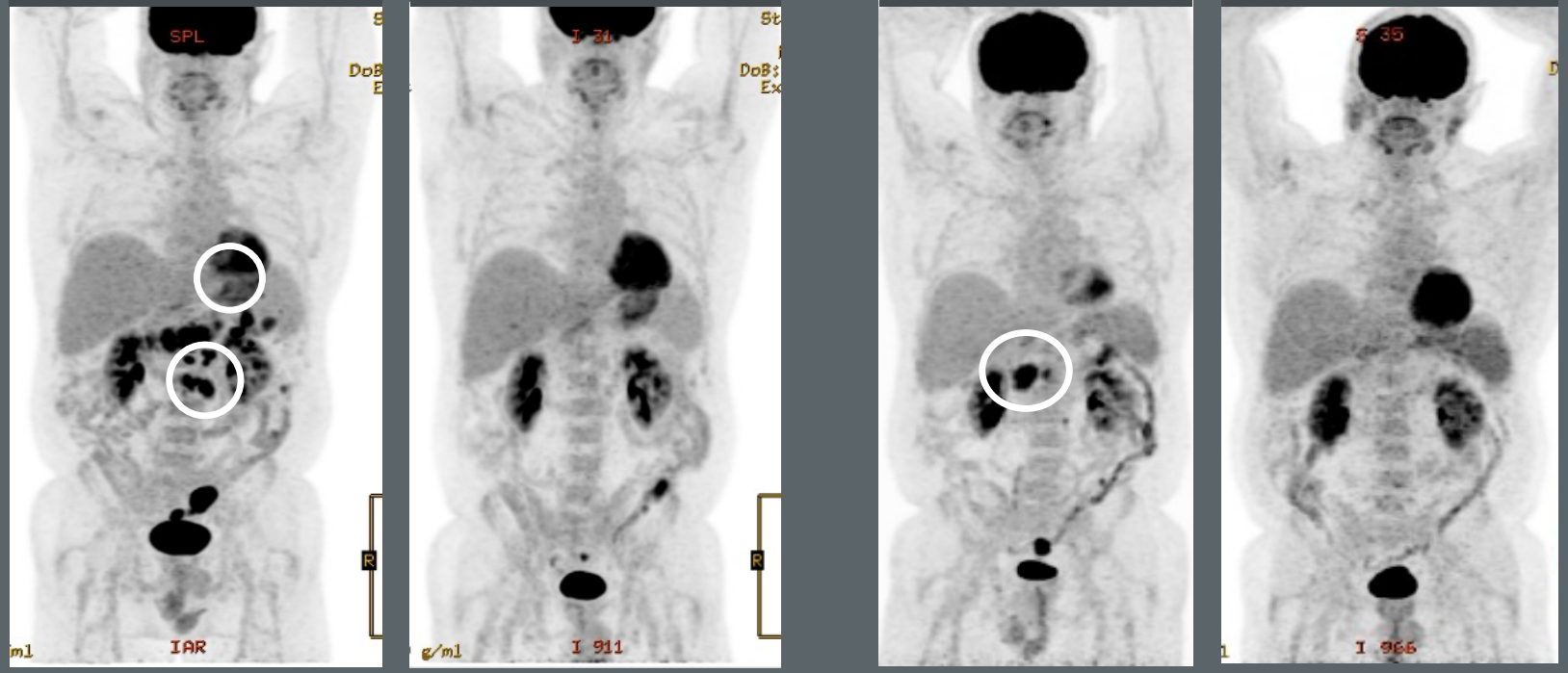
Case Study 3: Benefits of Redosing After Disease Progression

ALPHA Study (ALLO-501)

First ALLO-501 Treatment | **ALLO-501 Redosing**

Baseline	1 month (PR)	Recurrence	2 months Post-Redosing (CR)



BACKGROUND

62 yo with stage III FL

- Received 3 prior lines of therapy, refractory to last line of therapy

RESULTS

- A total of nearly 12 months on study before relapse
- 1st infusion: 120M CAR+ cells after Flu/Cy + ALLO-647 (39mg). PR lasting 1 month
- Re-dosing at month 3: 120M CAR+ cells after Flu/Cy + ALLO-647 (90mg). CR lasting 5.3 months
- No DLT and only Gr 1-2 AEs with either infusion

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Rapidly Advancing Allogeneic Pipeline For Vast Array of Tumors

CATEGORY		PROGRAM	PRE-CLINICAL	PHASE 1	PHASE 2/3[2]
Hematological Malignancies	CD19	***ALPHA*: ALLO-501 (NHL)[1]**			
	CD19	***ALPHA2*: ALLO-501A (NHL)[1]**			
	BCMA	***UNIVERSAL*: ALLO-715 (MM)**			
	BCMA	***UNIVERSAL*: ALLO-715 + nirogacestat (MM)[3]**			
	BCMA	***IGNITE*: ALLO-605 (TurboCAR™/MM)**			
		ALLO-316 (CD70/AML)			
		ALLO-819 (FLT3/AML)			
Solid Tumors		***TRAVERSE*: ALLO-316 (CD70/RCC)**			
		DLL3 (SCLC)			
		8 Undisclosed Targets			
Lymphodepletion Agent		**ALLO-647 (Anti-CD52 mAb)[4]**			

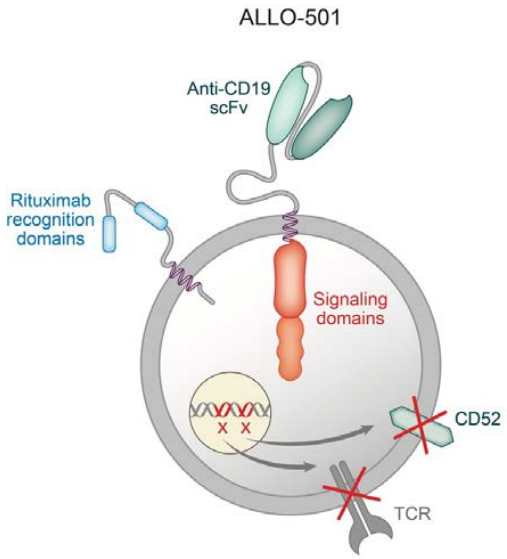
[1] Servier holds ex-US commercial rights
[2] Phase 3 may not be required if Phase 2 is registrational; Initiation for ALLO-501A Phase 2 trial expected 2H 2021
[3] Allogene Sponsored trial in combination with SpringWorks Therapeutics
[4] ALLO-647 intended to enable expansion and persistence of allogeneic CAR T product candidates

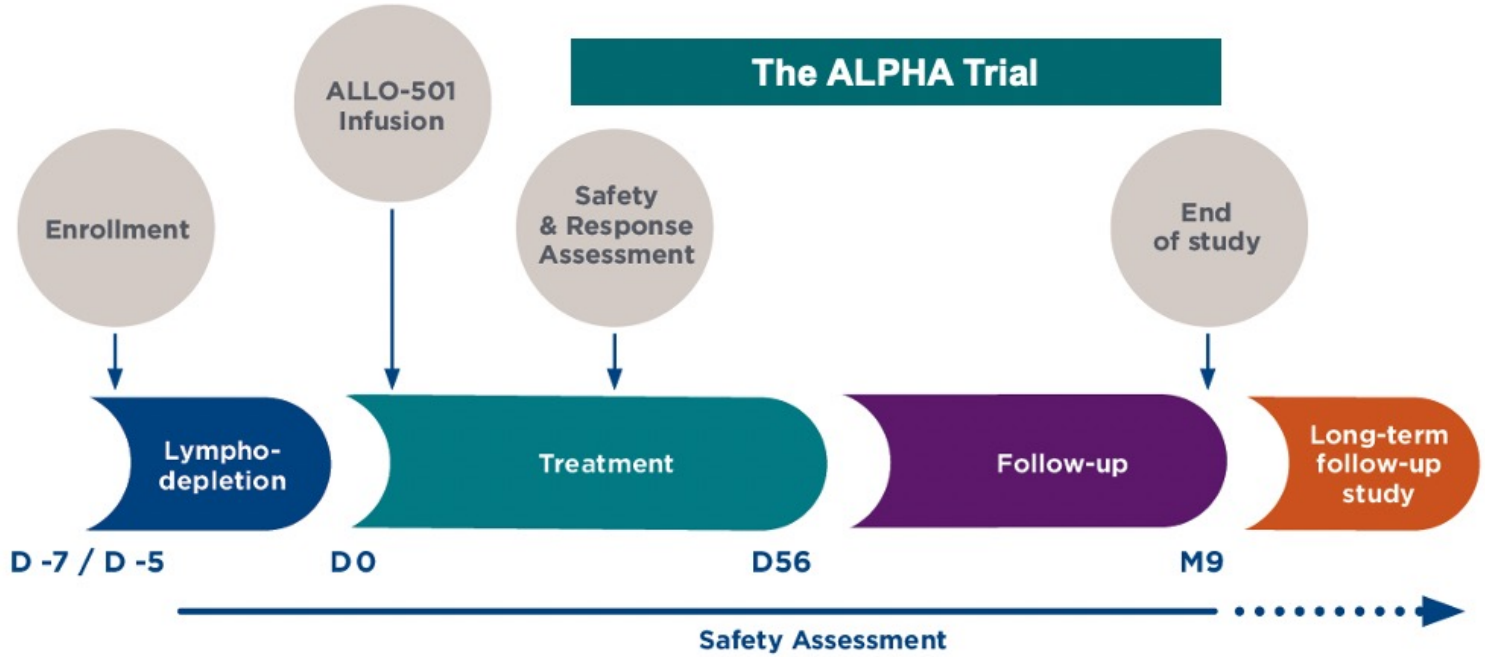
Allogene THERAPEUTICS

Rafael Amado, M.D.

CD19 Program Overview

ALLO-501: Most Advanced Study of Allogeneic Cell Therapy





Key Eligibility Criteria

- R/R LBCL or FL
- At least 2 prior lines of therapy, including an anthracycline and anti-CD20 mAb
- ECOG 0 or 1
- Prior autologous CAR T allowed if tumor remains CD19+ and patient had a CR ≥ 16 weeks

	DL1 (N=4)	DL2 (N=16)	DL3 (N=18)	Consolidation (N=3)
Cell Dose	40 x 10^6 CAR+ T cells	120 x 10^6 CAR+ T cells	360 x 10^6 CAR+ T cells	120 x 10^6 CAR+ T on D0, & D28 for ≥SD

1st Infusion: 60 mg ALLO-647 + Flu/Cy
2nd Infusion: 30 mg ALLO-647 only

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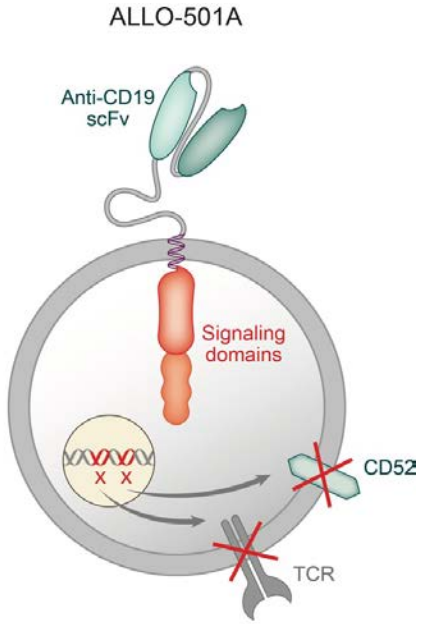
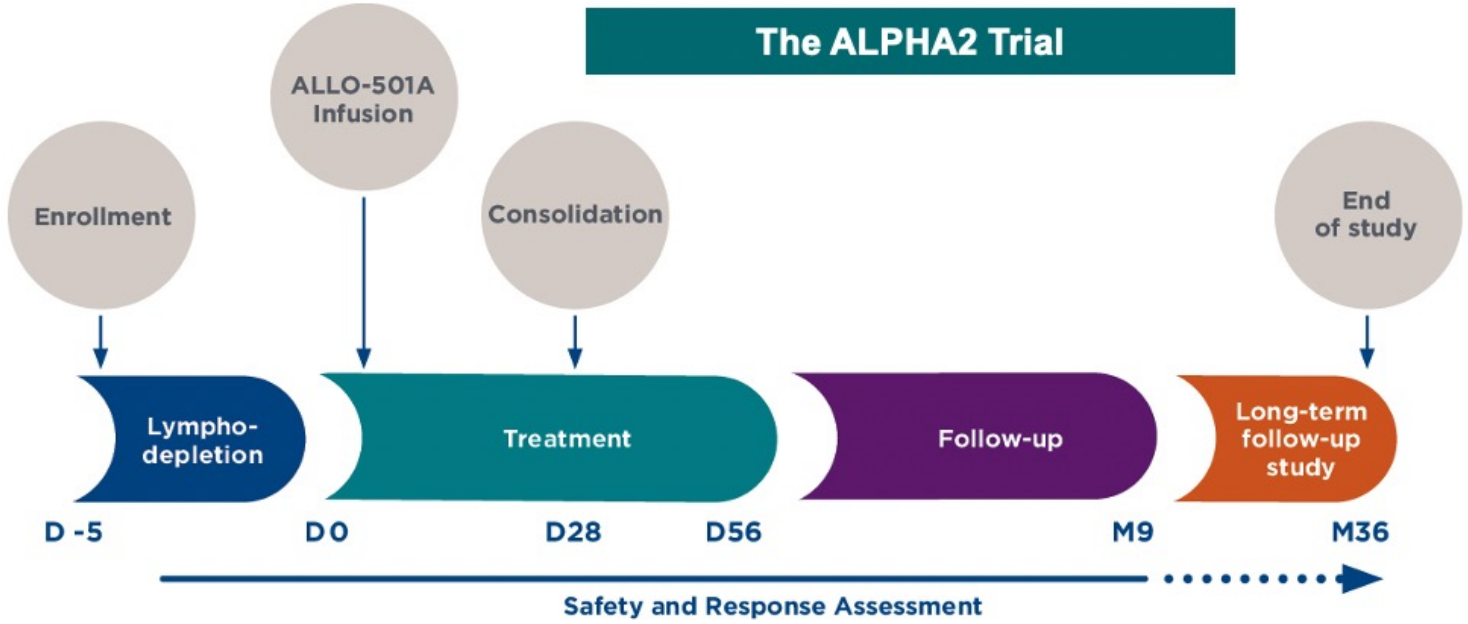
ALLO-501A: Replicate ALPHA to Advance to Pivotal Study





Key Eligibility Criteria

- R/R LBCL
- At least 2 prior lines of therapy, including an anthracycline and anti-CD20 mAb
- ECOG 0 or 1
- Prior autologous CAR T allowed if tumor remains CD19+ and patient had a CR ≥ 16 weeks

	DL1 (N=1)	DL2 (N=6)	DL2 Consolidation (N=5)
Cell Dose	40 x 10^6 CAR+ T cells	120 x 10^6 CAR+ T cells	120 x 10^6 CAR+ T on D0, & D28 for ≥SD

1st Infusion: 60 mg ALLO-647 + Flu/Cy
2nd Infusion: 30 mg ALLO-647 only

Allogene THERAPEUTICS

Key Questions in the ALLO-501 ALPHA Study

- ☑ Can ALLO-501 be successfully manufactured?
- ☑ Can ALLO-501 be safely administered without causing clinically relevant Graft vs. Host Disease?
- ☑ Can ALLO-647 be safely administered and allow a sufficient window of lymphodepletion to allow ALLO-501 expansion and persistence?
- ☑ Can ALLO-501 provide complete responses across multiple histologies?
- ☑ Can ALLO-501 provide durable responses?

MOFFITT CANCER CENTER

Frederick L. Locke, M.D.

Co-Leader, Moffitt Immuno-Oncology Program, Vice Chair and Associate Member; Department of Blood and Marrow Transplant and Cellular Immunotherapy

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ALPHA Trial Patient Disease Characteristics and Disposition

	DL1 40M (N=4)	DL2 120M (N=16)	DL3 360M (N=18)	Consol (N=3)	All patients (N=41)
Mean age (yrs)	56	62	57	60	59
Stage IV disease (%)	75	56	50	33	54
ECOG baseline of 0/1 (%)	75/25	50/44	28/72	67/33	44/54
Baseline LDH > ULN (%)	25	56	56	-	49
IPI score ≥3 (%)	25	50	50	-	44
Mean # prior regimens	3	4	4	6	4
Germinal center subtype (%)	50	6	39	33	27
Double or triple Hit (%)	-	13	22	33	17

ALPHA Patient Enrollment

Enrolled Patients: 42*

**1 patient was enrolled but removed before lymphodepletion due to acute kidney injury (ASCO 2020)*

Treated Patients: 41

CAR+ T cells Dose	LBCL (N=20)	FL (N=21)
40 x 10^6 CAR^+ T cells	3 (1 re-dosed)	1
120 x 10^6 CAR^+ T cells	8	8 (2 re-dosed)
360 x 10^6 CAR^+ T cells	9	9 (2 re-dosed)
Consolidation	-	3

Median and Mean Time from Enrollment to Start of Therapy: ***5 Days***

ALLO-501 Well Tolerated Safety in ALPHA Study

n (%)	ALLO-647 39 mg (N=11)		ALLO-647 60 mg (N=6)		ALLO-647 90 mg (N=24)		All patients (N=41)	
	All Gr	Gr 3+	All Gr	Gr 3+	All Gr	Gr 3+	All Gr	Gr 3+
IRR	5 (46)	-	3 (50)	-	18 (75)	1 (4)	26 (63)	1 (2)
CRS	2 (18)	-	1 (17)	-	8 (33)	-	11 (27)	-
ICANS	-	-	-	-	1 (4)	1 (4)	1 (2)	1 (2)
GvHD	-	-	-	-	-	-	-	-
Infection	7 (64)	1 (9)	1 (17)	1 (17)	17 (71)	8 (33)	25 (61)	10 (24)
SAE-TEAE/ ALLO-501	1 (9)	-	-	-	-	3 (13)	4 (10)	4 (10)

Data based on clinical database up through 19 Apr 2021.

Treatment emergent deaths without disease progression: fungal pneumonia (n=1); COVID-19, acquired in the community setting (n=2); arrythmia (n=1); stroke (n=1)

- No dose limiting toxicities or GvHD observed
- Only one (2%) Grade 3 Immune Effector Cell-Associated Neurotoxicity Syndrome (ICANS)
- CRS was mild to moderate in severity and manageable with standard guidelines
- Infection rates similar to that observed in autologous CAR T trials

ORR, CR and 6-Month CR on Par with Autologous CD19 CAR T

Response Rate for Autologous CAR T Naïve by Disease Subtype (mITT)

	LBCL	FL	All patients
	(N=11)	(N=21)	(N=32)
ORR n (%)	7 (64)	17 (81)	24 (75)
95% CI	31, 89	58, 95	57, 89
CR n (%)	5 (46)	11 (52)	16 (50)
95% CI	17, 77	30, 74	32, 68

- ITT and mITT results were nearly identical
  - ITT for LBCL was 58% (ORR) and 42% (CR)
  - ITT for FL identical

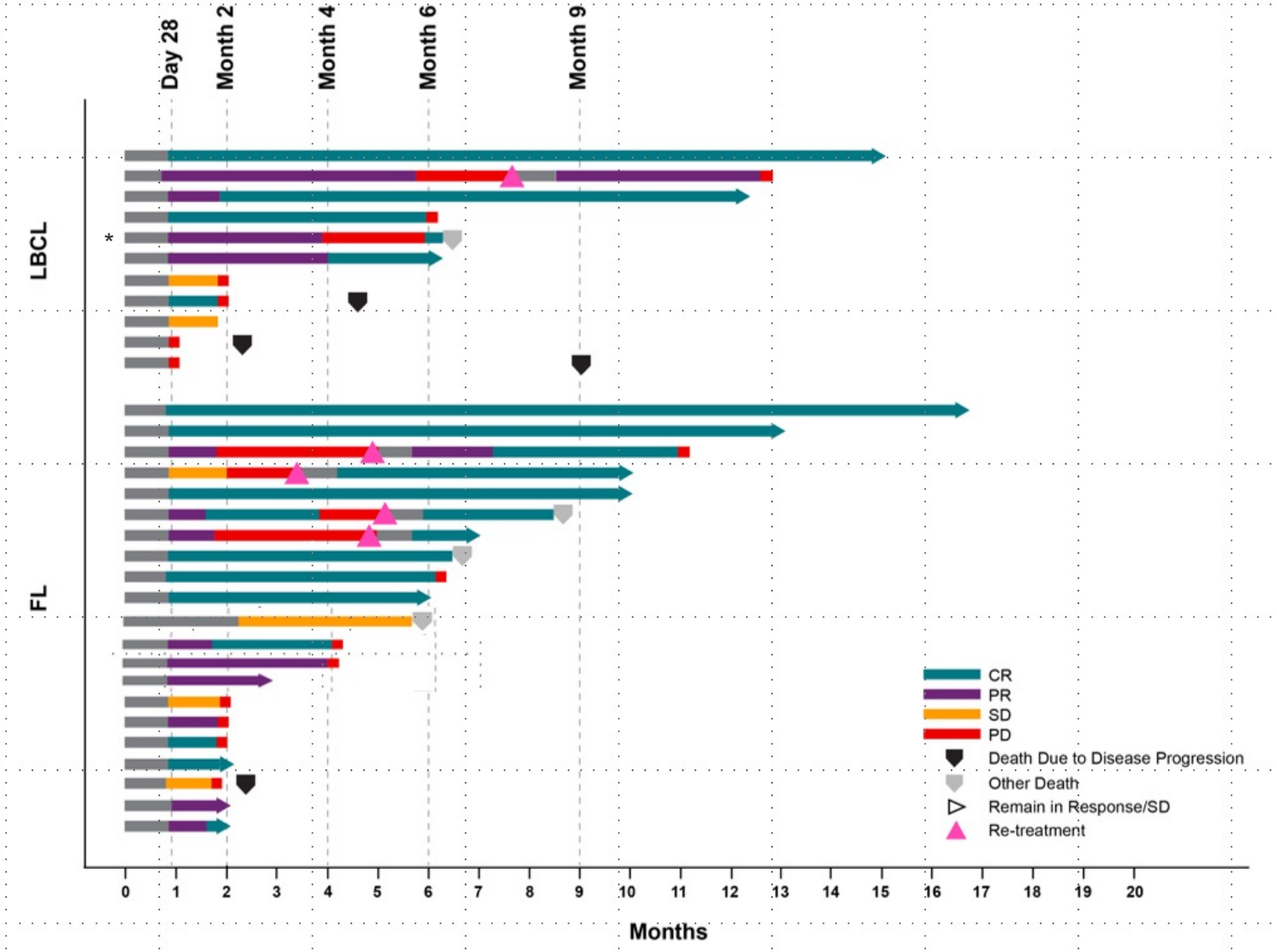
6 Month CR Rate

CAR T Naïve	mITT	ITT
LBCL (n=11/12)	4/11 (36%)	4/12 (33%)
FL (n=17/17)	4/17 (24%)	4/17 (24%)
FL and LBCL (n=28/29)	8/28 (29%)	8/29 (28%)

- LBCL 6-month CR rate after initial infusion similar to pivotal trials of autologous CAR T therapies (29% - 40%)*

*Autologous: Yescarta 6-month CR rate (Locke, AACR 2017); Kymriah 6-month CR rate (Schuster, 2019); Breyanzi 6-month CR rate estimated based on the Breyanzi USPI

ALLO-501: Deep Durable Responses in CAR T Naïve Patients



- Among the 5 LBCL pts who attained CR, 3 remain‡ in ongoing CR at 6, 12 and 15§ months
- 7 FL patients are in ongoing CR, with 3 past month 9, including one at month 12 and one at month 15
- Retreatment resulted in 4 FL patients attaining CR with 1 ongoing at month 7
- 3 patients in CR died while in response from non-lymphoma-related causes

‡At last protocol specified scan §Unaudited data up through 12 May 2021
*Due to the proximity of death post CR, this subject is not counted as a CR in the objective response and CR rates.
Includes deaths up to new anti-cancer therapy

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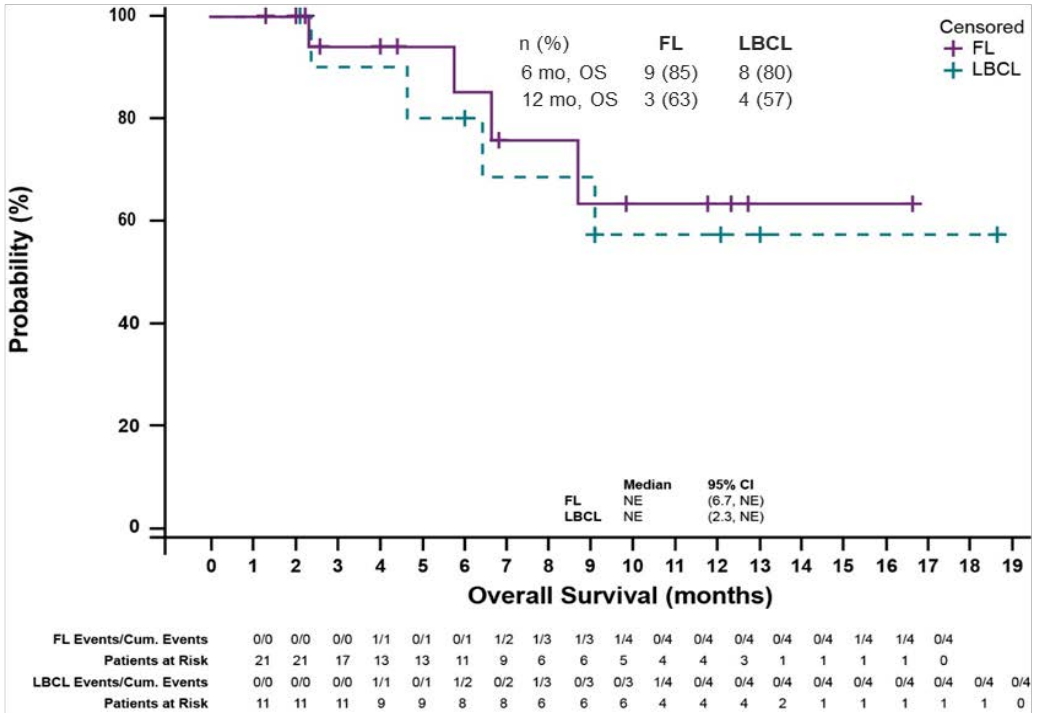
Re-Dosing Extended Treatment Failure Free Survival

Treatment Failure Free Survival

KM Estimate % (95% CI)	LBCL (N = 11)	FL (N = 21)	All patients (N = 32)
3 Month	61 (27, 84)	76 (48, 90)	71 (50, 84)
6 Month	61 (27, 84)	64 (36, 82)	63 (42, 78)

- Treatment-failure-free survival is defined as the time from the first dose of ALLO-501 to the last observed progression or death from any cause
- Re-dosing provides clinical benefit with an overall TFFS rate of 63% at 6 months

Kaplan-Meier Curves for Overall Survival (Autologous CAR T Naïve Patients by Subtype)



- The OS rate at 12 months is 63% and 57% for FL and LBCL, respectively (median not reached)

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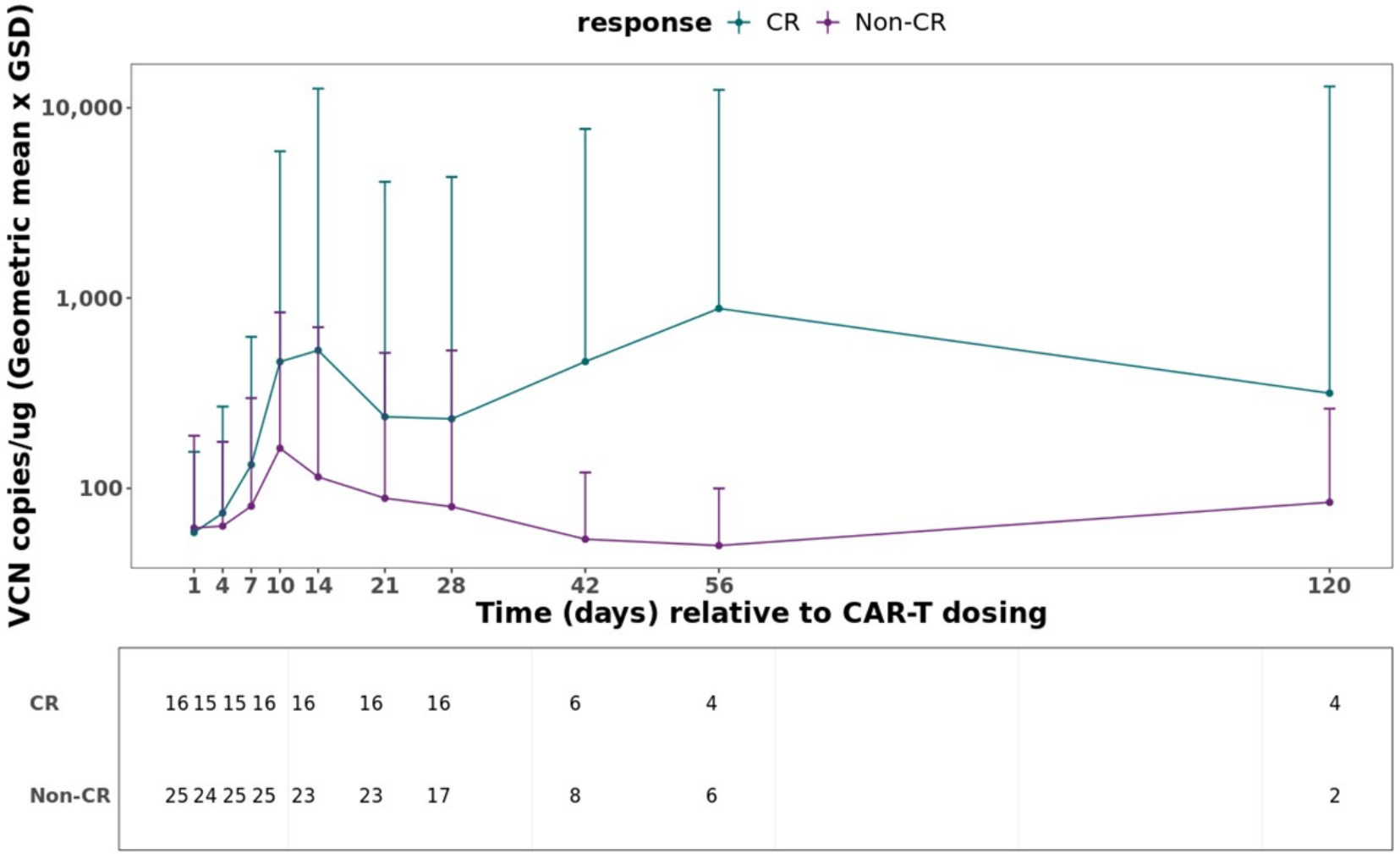
CAR T Expansion Persisted Up to 120 Days and Associated with CRs



- Greater expansion seen in patients who achieve a CR
- CAR T cells persist up until Day 120, and at higher levels in patients who achieve a CR
- Separation between the curve can be observed as early as Day 4, and widening thereafter

Allogene THERAPEUTICS

Conclusions

ALLO-501 produced deep and durable responses in patients with r/r NHL

- Highly Favorable ORR and CR rates of 75% and 50%, respectively in CAR T naïve patients
- 36% of Large B Cell Lymphoma patients in CR at month 6 following a single infusion
- Longest ongoing CR is 15+ months
- 98% of enrolled patients receiving ALLO-501 with a median/mean time of 5 days from enrollment to start of therapy. ITT results are nearly identical to mITT results
- No dose limiting toxicities or graft-vs-host disease and limited Immune Effector Cell-Associated Neurotoxicity Syndrome (ICANS) and Cytokine Release Syndrome (CRS)

Rafael Amado, M.D.

Preparing for a Pivotal Trial

Allogene THERAPEUTICS

ALLO-501A: Similar Efficacy and Safety in ALPHA Study

ORR for Autologous CAR Naïve Patients and Responders to Prior Autologous CAR Therapy

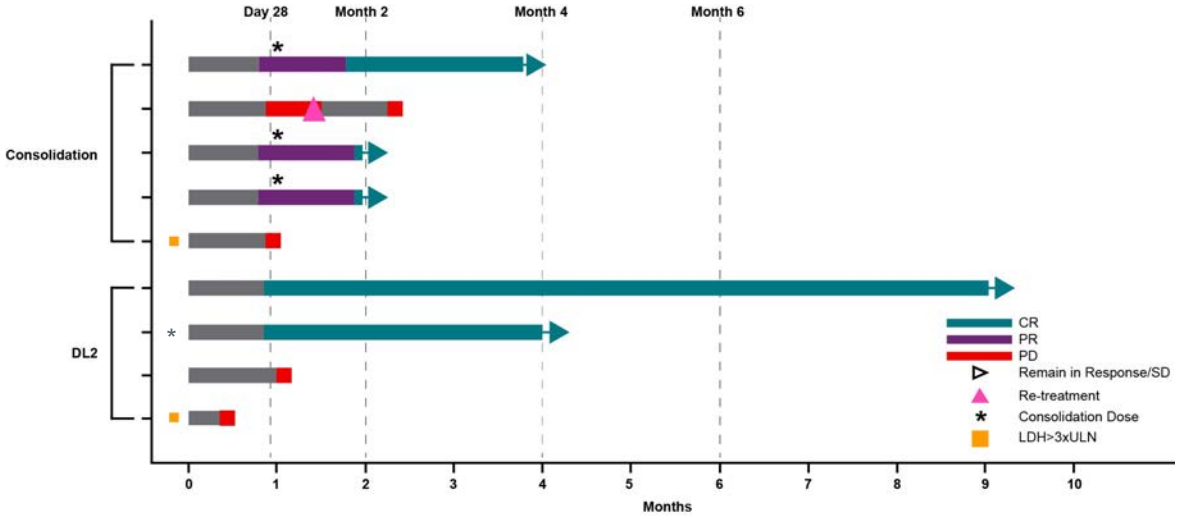
	DL2 (N=4)	Consolidation (N=5)	All patients‡ (N=9)
ORR n (%)	2 (50)	3 (60)	5 (56)
95% CI	7, 93	15, 95	21, 86
CR n (%)	2 (50)	3 (60)	5 (56)
95% CI	7, 93	15, 95	21, 86

Responses in Patients who Received Consolidation Across Studies

Study/disease	Time from 1st dose (months)	D28	D56	Month 4
ALPHA2/LBCL[a]	4.8	PD	PD	NA
ALPHA2/LBCL	4	PR	**CR**	CR
ALPHA2/LBCL[b]	3.7	PD	NA	NA
ALPHA2/LBCL	3	PR	**CR**	-
ALPHA2/LBCL	2	PR	**CR^**	-
ALPHA/FL	3	CR	CR	-
ALPHA/FL	2	PR	PR^	-
ALPHA/FL	2	PR	**CR^**	-

Dash (-) represents patients who have not yet reached the timepoint and only includes subjects that received their second consolidation dose
^ Clinical database data cutoff of 19 Apr 2021; additional unaudited data up through 12 May 2021 are included.
[a] Patient experienced PD at day 28 and underwent retreatment.
[b] Patient experienced PD and did not undergo further treatment with ALLO-501.

Swimmer Plot of Tumor Response to Study Treatment



* Patient received Yescarta, achieved a 16-week CR followed by relapsed

- 56% ORR and CR
- 75% ORR and 63% CR among patients (n=8) treated in the consolidation cohorts across ALPHA studies
- Re-expansion of CAR T cells seen after second CAR T dose

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ALLO-501A: Similar Efficacy and Safety in ALPHA Study

ALPHA2 Adverse Events of Special Interest

n (%)	DL1 40M (N=1)		DL2 120M (N=5)		Consolidation 120M +120M (N=6)		All patients (N=13^)	
	All Gr	Gr 3+	All Gr	Gr 3+	All Gr	Gr 3+	All Gr	Gr 3+
IRR	1 (100)	-	2 (40)	-	2 (33)	-	5 (39)	-
CRS	1 (100)	1 (100)	1 (20)	-	-	-	2 (15)	1 (8)
ICANS	-	-	-	-	-	-	-	-
GvHD	-	-	-	-	-	-	-	-
Infection	1 (100)	-	4 (80)	1 (20)	2 (33)	-	7 (54)	1 (8)
SAE-TEAE/ALLO-501A	-	-	1 (20)	-	-	-	1 (8)	-

^One subject was treated with ALLO-647 and not treated with ALLO-501A

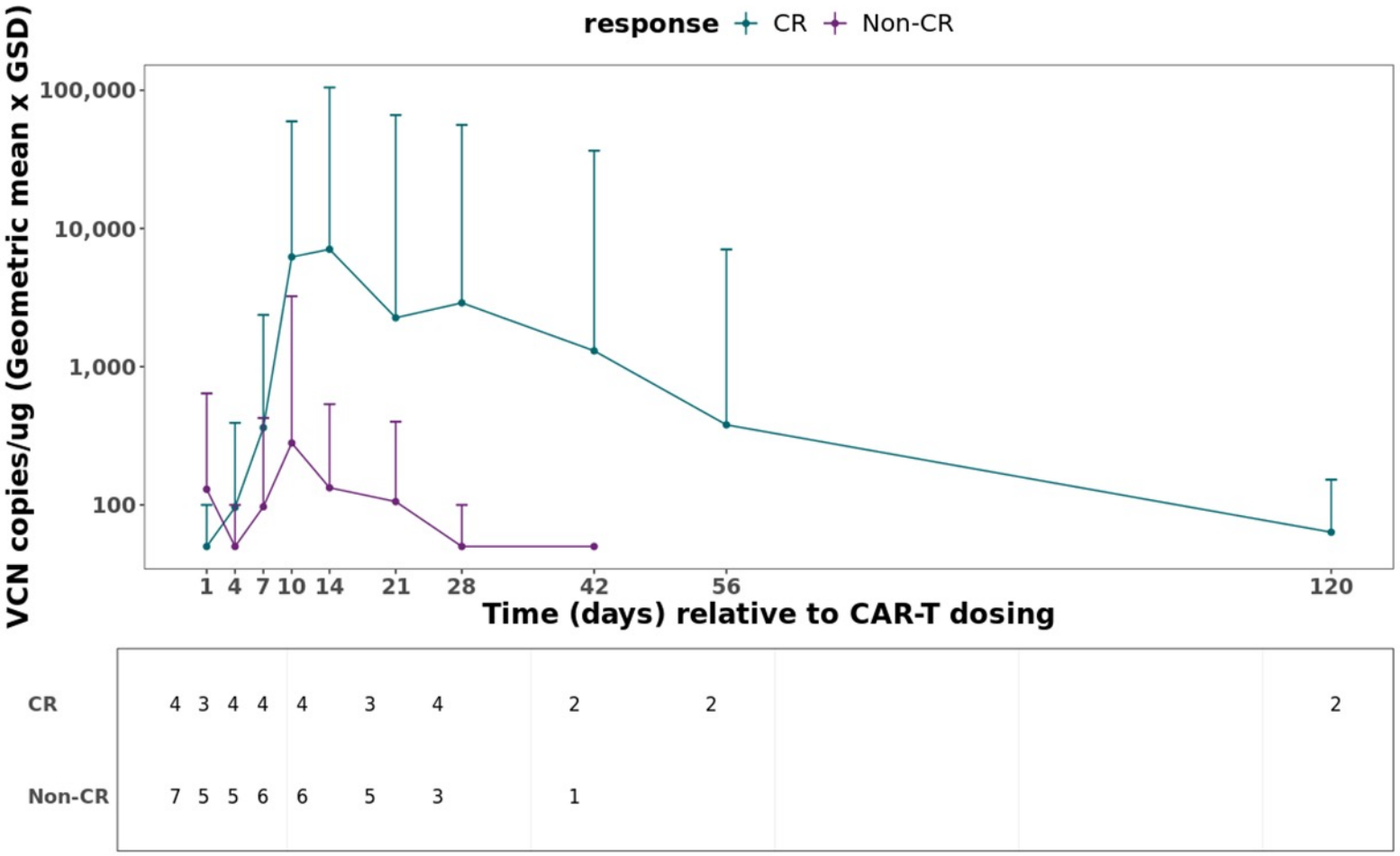
Gr 3+ Treatment Emergent AEs (Safety Analysis Set)

n (%)	DL1 (N=1)	DL2 (N=5)	Consolidation (N=6)	All patients (N=13^)
Pts with any TEAE	1 (100)	5 (100)	3 (50)	10 (77)
Neutropenia	-	5 (100)	3 (50)	9 (70)
Leukopenia	1 (100)	5 (100)	1 (17)	8 (62)
Lymphopenia	-	4 (80)	2 (33)	7 (54)
Thrombocytopenia	1 (100)	3 (60)	1 (17)	6 (46)
Anemia	1 (100)	4 (80)	-	5 (39)

^One subject was treated with ALLO-647 and not treated with ALLO-501A

- No patient experienced dose limiting toxicities (DLTs)
- Cytopenias were the most common adverse events
- No CRS, no ICANS, no DLTs, no dose reductions, and no related SAEs occurred in the consolidation arm

CAR T Expansion Persisted Up to 120 Days and Associated with Complete Responses



- Greater expansion observed in patients who achieve a CR
- CAR T cells persist up until Day 120 and at higher levels in patients who achieve a CR
- In comparison, the CAR T cells are present at much lower levels, and for a much shorter period of time, in the non-CR subjects

Geometric mean (SD)

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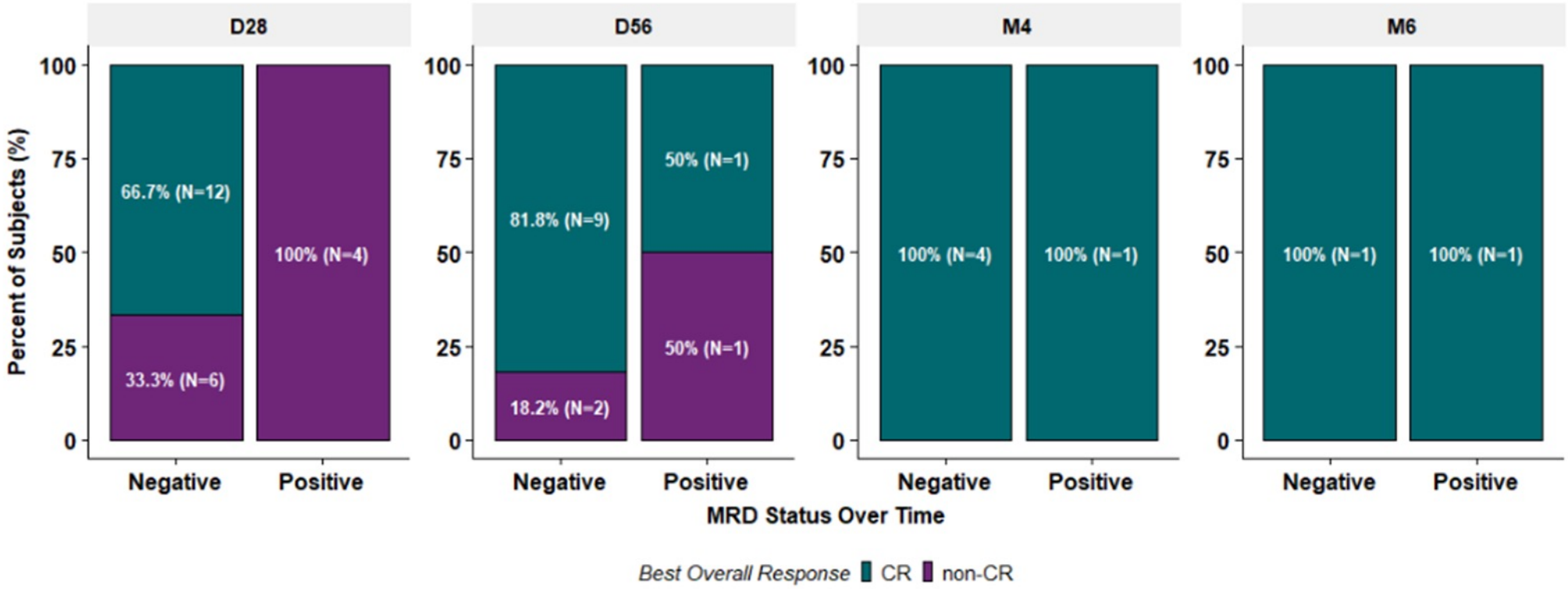
Minimal Residual Disease Assay Confirms Deep and Durable Response



Of all Day 28 MRD negative subjects, 66.67% achieved CR response; at Day 56 this improved to 81.8%; at Month 4, it further improved to 100%, and this rate was maintained at Month 6

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Safety and PK/PD of ALLO-647

An Anti-CD52 Antibody, with Flu/Cy for Lymphodepletion in Allogeneic CAR T Cell Therapy

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Background on ALLO-647 Based Lymphodepletion

- AlloCAR T holds much promise in addressing logistical and manufacturing challenges associated with autologous CAR T cell therapy
- Allogene's AlloCAR T platform uses TALEN®* gene editing to:
  - Knock out the TCRα constant gene for purposes of controlling GvHD
  - Edit out CD52, permitting the use of ALLO-647 to selectively deplete host T cells
- ALLO-647 is a humanized anti-CD52 monoclonal antibody used to selectively deplete CD52 positive host lymphocytes
- An analysis of three Allogene Phase I studies (ALPHA, ALPHA2, and the UNIVERSAL myeloma study) was performed in order to:
  - Evaluate the safety profile of ALLO-647 in combination with Flu/Cy
  - Better understand the PK/PD profile of ALLO-647-based lymphodepletion
  - Correlate ALLO-647 dosing with AlloCAR T expansion and probability of response

*Using TALEN® gene editing is a technology pioneered and controlled by Cellectis.

All Three Studies Enrolled Heavily Pre-Treated Patients

	Multiple Myeloma	NHL	
	UNIVERSAL (N=34)	ALPHA (N=41)	ALPHA2 (N=13)
Mean age (yrs)	63	59	55
Male/Female (%)	62/38	78/22	69/31
Stage III/IV disease (%)	15	93	69
ECOG baseline of 0/1 (%)	47 / 53	44/54	31/69
Mean # prior regimens (range)	6 (3, 11)	4 (2, 12)	3 (2,7)
High risk* (%)	44		
Extramedullary Disease (%)	21		
Baseline LDH > ULN (%)		49	69
IPI score ≥3 (%)		44	46
Germinal center subtype (%)		27	54
Double or triple hit (%)		17	46

*High risk in MM defined as presence of del 17p, t(4;14), or t(14;16)

Safety of ALLO-647 and Flu/Cy In Line with Standard Lymphodepletion

Adverse Events

n (%)

ALLO-647 Dose	MM: UNIVERSAL (N=34)			NHL: ALPHA (N=41) & ALPHA2 (N= 13)			
	39 mg (n=22)	60 mg (n=9)	90 mg (n=3)	39 mg (n=11)	60 mg (n=14)		90 mg (n=29)
					FCA60 & C (n=14)	C† (n=9)	
All TEAEs††	22 (100)	9 (100)	3 (100)	11 (100)	13 (93)	8 (89)	29 (100)
Grade ≥3 AEs	18 (82)	9 (100)	3 (100)	10 (91)	10 (71)	6 (67)	25 (86)
Serious AEs/ALLO-647	2 (9)	3 (33)	-	-	2 (14)	1 (11)	7 (24)
All Infection‡	12 (55)	6 (67)	1 (33)	7 (64)	4 (29)	3 (33)	21 (72)
Grade ≥3 Infection‡	5 (23)	4 (44)	-	1 (9)	2 (14)	1 (11)	8 (28)
IRR to ALLO-647	6 (27)	2 (22)	1 (33)	5 (45)	6 (43)	4 (44)	20 (69)
Grade ≥3 Hematologic AEs							
Anemia	7 (32)	2 (22)	-	2 (18)	3 (21)	-	12 (41)
Thrombocytopenia	6 (27)	3 (33)	1 (33)	3 (27)	5 (36)	2 (22)	14 (48)
Neutropenia	11 (50)	6 (67)	2 (67)	9 (82)	8 (57)	4 (44)	21 (72)

- Myelosuppression was observed as a consequence of lymphodepletion
- Consolidation (C) dosing was well tolerated

†C is a subset of FCA & 60 subjects that were enrolled to consolidation cohort. The consolidation cohort received ALLO 647 30 mg on day 29 in addition to initial FCA90.
††Number of patients with AEs occurring from the start of study drug up to subsequent anti-cancer therapy. For patients reporting more than one AE within a preferred term, only one AE with the maximum grade is reported.
‡All infections (bacterial, fungal, and viral) included.

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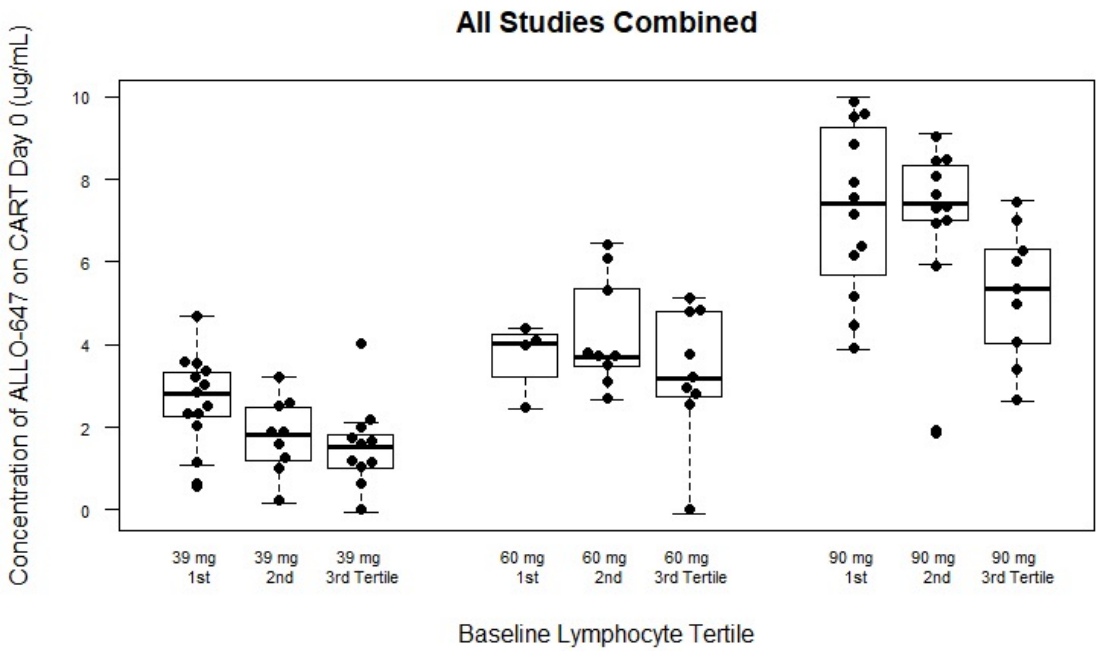
ALLO-647 Clearance Increased with Higher Baseline Lymphocyte Count

ALLO-647 Exhibits Target Mediated Drug Disposition



- Trend toward lower concentration with higher baseline lymphocyte count was observed across all dose levels

Incidence of ALLO-647 Treatment Emergent Anti Drug Antibodies (ADA)

ALLO-647 Dose	ADA (N)	C_{max} (ug/mL)	AUC (ug/mL*d)
39 mg	No (25)	5 (2)	37 (32)
	Yes (8)	4 (1)	28 (13)
60 mg	No (22)	8 (3)	63 (36)
90 mg	No (31)	15 (7)	127 (71)
	Yes (1)	16 (NA)	145 (NA)

Values in Table represent arithmetic mean (SD).

- ALPHA/ALPHA2 – no subjects developed treatment emergent ADA against ALLO-647
- UNIVERSAL – 26.4% of subjects developed ADAs
  - Did not affect systemic exposure

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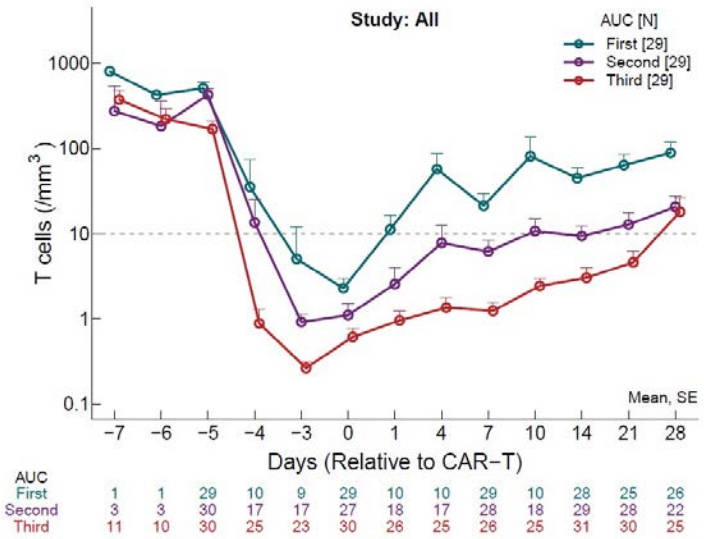
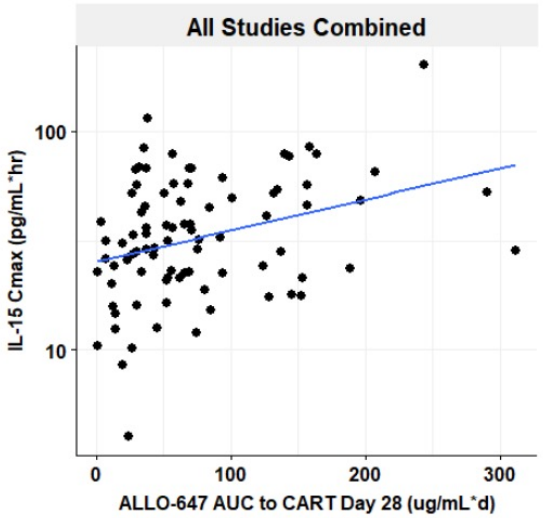
ALLO-647 Exposure Positively Associated with Depth and Duration of Lymphodepletion, IL15, and CAR T Expansion

Higher ALLO-647 Exposure Associated with Deeper/Longer Lymphodepletion



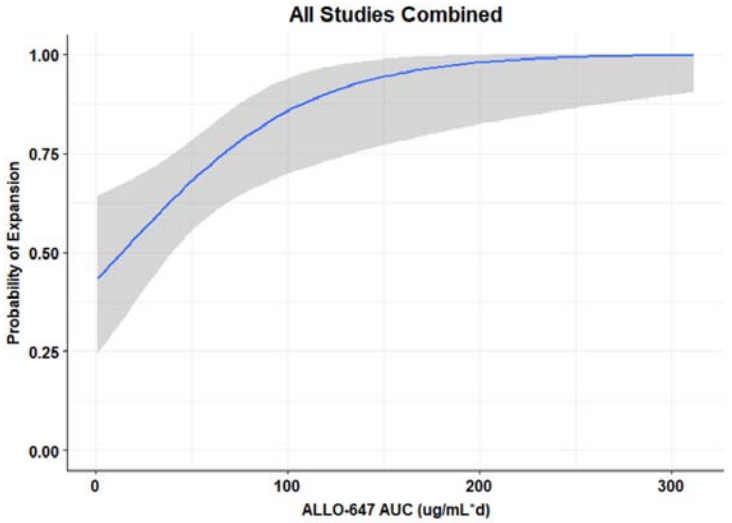
First, second and third represent tertiles.

Higher ALLO-647 Exposure Associated with Higher IL-15 Blood Levels*



*IL-15 C_{max} calculated from time of first ALLO-647 infusion to Day 7 post CAR T infusion.

ALLO-647 Associated with Probability of Expansion



Gray shaded area represents the 95% CI; Consolidation pts were excluded from this graph.

CD19 Program Conclusions

- Interim Phase 1 ALPHA2 Data Demonstrated Consistent Efficacy and Safety Profile for ALLO-501A Relative to ALLO-501
  - Confirmed profile of candidate intended for Phase 2 development
- ITT results nearly identical to mITT results reflecting ability to treat nearly every enrolled patient
- No Dose Limiting Toxicities or Graft-vs-Host Disease and Limited Immune Effector Cell-Associated Neurotoxicity Syndrome (ICANS) and Cytokine Release Syndrome (CRS)
- Consolidation Dosing Shows Early Promise with Four Patients Converting from Partial Response to CR Following Second Dose of ALLO-501/A
- Safety and PK/PD Data from Trials of ALLO-647 with Flu/Cy Across ALPHA, ALPHA2 and UNIVERSAL (Anti-BCMA ALLO-715 in Multiple Myeloma) Trials Demonstrated:
  - Manageable Safety Profile
  - Exposure-Dependent Deep Lymphodepletion
  - AlloCAR T Cell Expansion and Response

Planning the Pivotal Study Pathway

- Data provide strong support for advancing ALLO-501A into Phase 2 portion of ALPHA2
- Next Steps Include:
  - Collect additional data from consolidation arms of ALPHA and ALPHA2 studies
  - Finalize dose and schedule of ALLO-501A and lymphodepletion
  - Host regulatory discussions on trial design and conduct
- Pivotal strategy seeks to take advantage of unique aspects of AlloCAR T
  - Anticipate ability to deliver therapy to essentially all enrolled patients
  - Consider dosing in the outpatient setting
  - Potential to deploy a redosing strategy to increase number of patients who derive long-term benefit
  - Cell Forge 1 manufacturing to support Phase 2 trial

Initiation of Potential Pivotal Phase 2 Trial of ALLO-501A Planned for Late 2021

WHAT THE FUTURE HOLDS FOR

ALLOGENEIC CAR T THERAPY IN NON-HODGKIN LYMPHOMA

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Eric Schmidt, Ph.D.

Establishing New Standards in CAR T

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Surveying the Field: Assessing Allogeneic Cell Therapy Attributes

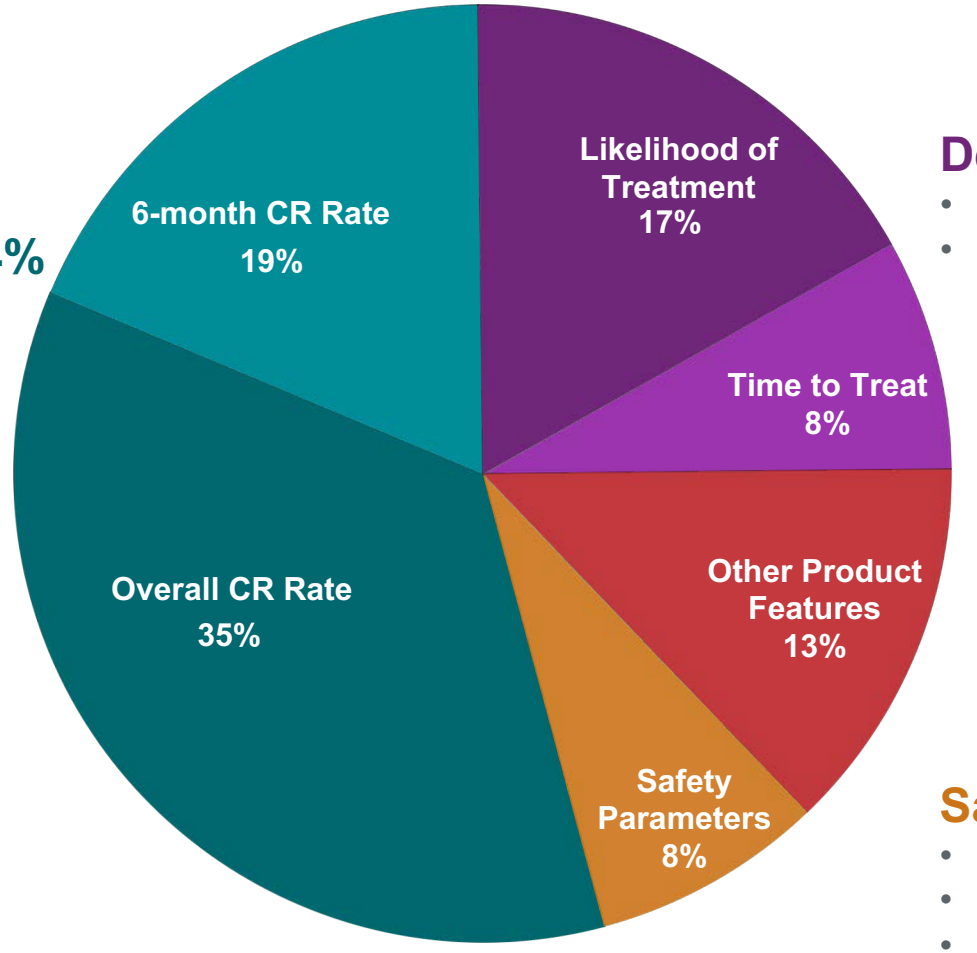
- Market research to assess the unique aspects of allogeneic CAR T and understand physician preference in LBCL
- Survey Conduct
  - Independent firm surveyed 200+ academic-affiliated hematologists/oncologists who treat LBCL
  - "Discrete Choice" methodology allows physicians to choose a preferred product profile for a given patient scenario
  - Product profiles were designed to mimic varying features associated with CAR T (autologous and allogeneic), bispecifics, and chemotherapy
  - Survey evaluated different features across a range of attributes including efficacy, safety, dosing parameters, and lymphodepletion

KEY QUESTIONS

1. How are the unique benefits of allogeneic valued?
2. Can benefits of an allogeneic therapy be leveraged to expand the market for cell therapy?
3. How do physicians view consolidated dosing?
4. How important is time to treatment?

Relative Importance of NHL Treatment Attributes

Efficacy Parameters: 54%
- Overall CR Rate
- CR Rate at Month 6



Delivery Parameters: 25%
- Likelihood Patient Receives Treatment
- Time Interval to Treatment

Other Product Attributes: 13%
- Lymphodepletion Regimen
- Dosing Schedule
- Requirement for Leukapheresis

Safety Parameters: 8%
- Infections
- Cytokine Release Syndrome (CRS)
- ICANS/CNS Toxicity

Allogene Market Research: Data on File

On Track to Compete in Efficacy

	ALLO-501[Y] Phase 1 Dose Escalation	KYMRIAH®# Phase 2 Pivotal	YESCARTA®* Phase 2 Pivotal	BREYANZI®+ Phase 2 Pivotal
ORR	64%	50% (label)	72% (label)	73%
Overall CR in LBCL (mITT)	46% (5/11)***	32% (label)	51% (label)	54% (104/192)
CR at 6 months in LBCL (mITT)	36%	29%	36%	~ 40%

Survey

- Both Overall CR rate and CR rate at Month 6 are important drivers of preference

ALPHA Trials

- 1x treatment capable of inducing deep and durable responses
- Upfront consolidation and re-dosing have potential to offer additional clinical benefit

Opportunity

- Activate unique levers to further improve efficacy beyond autologous therapies (consolidation, TurboCAR technology)
- Potential to expand commercial opportunity to more patients with re-dosing

Allogene Market Research: Data on File; See footnotes in consolidated slide #49
[Y] N=11 autocar naïve patients; rates based on the ongoing ALPHA trial with a cutoff date of 19 Apr 2021.
Yescarta 6-month CR rate (Locke, AACR 2017)
Kymriah 6-month CR rate (Schuster, 2019)
Breyanzi 6-month CR rate estimated based on the Breyanzi USPI

Ability To Treat All Eligible Patients is A Key Differentiating Factor

	ALLO-501[Y] Phase 1 Dose Escalation	KYMRIAH®# Phase 2 Pivotal	YESCARTA®* Phase 2 Pivotal	BREYANZI®+ Phase 2 Pivotal
CR in LBCL (mITT)	46% (5/11)***	32% (label)	51% (label)	54% (104/192)
CR in LBCL (ITT)	42% (5/12)	26%	48%	43%
% enrolled** or lymphodepleted^ but did not receive intended cell product	2% (1/42)****	33% (54/165)**	9% (10/111)**	36% (95/299)^

Survey

- Physicians noted a strong preference for an “off-the-shelf” therapy as a guarantee that their patients will be treated
- Preference decreased meaningfully when likelihood that a patient will be treated was less than 90%
- Time to onset of therapy was also a meaningful driver of physician preference
- No meaningful difference in likelihood of prescribing 1 vs. 2 doses of therapy

ALPHA Trial

- 98% of enrolled patients received treatment. Average time to start of treatment was 5 days.

Opportunity

- Provide all eligible patients with an off-the-shelf therapy
- Expand scope of CAR T therapy with rapid onset of dosing without need for leukapheresis or bridging chemotherapy

Allogene Market Research: Data on File; See footnotes in consolidated slide #49

[Y] N=11 autocar naïve patients

Leveraging Safety to Extend The Reach of CAR T

	ALLO-501[Y] Phase 1 Dose Escalation	KYMRIAH®# Phase 2 Pivotal	YESCARTA®* Phase 2 Pivotal	BREYANZI®+ Phase 2 Pivotal
CRS (Gr 3+, all patients)	0%	22%	13%	4%
Neuro Events (Gr3+, all patients)	3%	12%	31%	12%
Infection (Gr3+, all patients)	24%	20%	23%	19%

Survey

- Reluctance toward an anti-CD52 antibody stood in contrast to a lack of concern surrounding infectious risks
- Physician preference was insensitive to differences of up to 15% in Grade 3 Infection

ALPHA Trials

- Use of ALLO-647 based lymphodepletion does not appear to increase risk of Grade 3+ infection
- Across ALPHA and ALPHA2 there was no GvHD and one event each of Gr3 ICANS and Gr3 CRS

Opportunities

- Education on the risk/benefit of ALLO-647 may ameliorate negative bias
- Favorable overall safety profile creates opportunity to dose in the outpatient setting and penetrate community hospitals

Allogene Market Research: Data on File; See footnotes in consolidated slide #49
[Y] N=11 autocar naïve patients

Opportunity to Change the Way We “Think” About CAR T

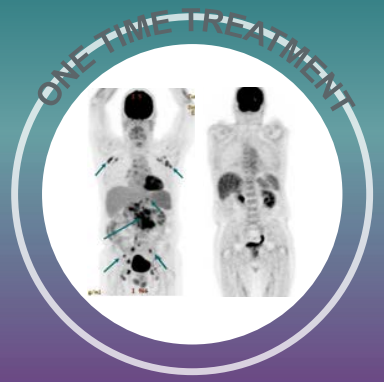
KEY QUESTIONS	PHYSICIAN PREFERENCE
1. How are the unique benefits of allogeneic valued?	Ability to optimize efficacy and treat all eligible patients with an off-the-shelf therapy are highly valued
2. Can benefits of an allogeneic therapy be leveraged to expand the market for cell therapy?	Yes, ease of dosing and favorable safety provide opportunity to reach outpatient and community settings
3. How do physicians view consolidated dosing?	Physicians comfortable providing either 1 or 2 doses of CAR T therapy
4. How important is time to treatment?	A higher likelihood of patients receiving treatment and faster time to onset can extend the reach of CAR T

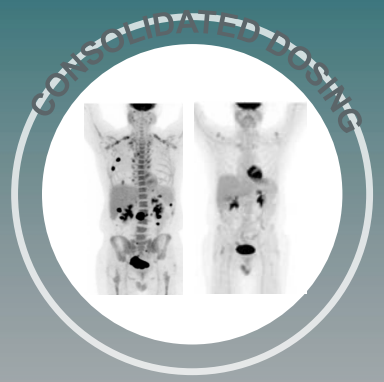
Allogene Market Research: Data on File

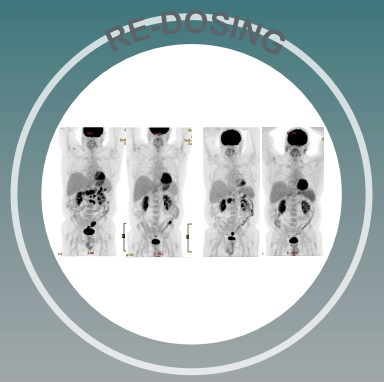
Establishing a New Standard in CAR T Therapy

AlloCAR T ▶ Ability to treat all eligible patients ▶ Outpatient opportunity

36% 6-Month CR Rate







Autologous CAR T

29-40% 6-Month CR Rate

AlloCAR T: Interim results from Phase 1 ALPHA trial of ALLO-501 of autologous CAR T naïve patients with R/R LBCL; based on a data cutoff as of April 19, 2021
Autologous: Yescarta 6-month CR rate (Locke, AACR 2017); Kymriah 6-month CR rate (Schuster, 2019); Breyanzi 6-month CR rate estimated based on the Breyanzi USPI

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Q&A

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The Next Revolution in Cell Therapy

Leading Today, Creating Tomorrow

ALLO-501 is an anti-CD19 allogeneic CAR T (AlloCAR T™) therapy being jointly developed under a collaboration agreement between Servier and Allogene based on an exclusive license granted by Cellectis to Servier. ALLO-501 uses Cellectis technologies. Servier grants to Allogene exclusive rights to ALLO-501 in the U.S. while Servier retains exclusive rights for all other countries.

ALLO-501 Competes Favorably Compared with Autologous CAR T

	ALLO-501 (LBCL N=11) Phase 1 Dose Escalation	KYMRIAH®# Phase 2 Pivotal	YESCARTA®* Phase 2 Pivotal	BREYANZI®+ Phase 2 Pivotal
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Neuro Events (Gr3+, all FL and LBCL)	3%	12%	31%	12%
Infection (Gr3+, all FL and LBCL)	24%	20%	23%	19%

KYMRIAH USPI. Patient population in the label includes: 78% - primary DLBCL not otherwise specified (NOS); 22% DLBCL following transformation from Follicular Lymphoma
*YESCARTA USPI & Schuster S et al NEJM 2019. Patient population in the label includes: 76% - DLBC; 16% - Transformed Follicular Lymphoma; 8% Primary Mediastinal Large B-cell Lymphoma.
+BREYANZI USPI. Patient population in label includes: 53% - de novo DLBCL; 25% DLBCL transformed from indolent Lymphoma; 14% high-grade B-cell Lymphoma; 7% Primary Mediastinal Large B-cell Lymphoma; 1% grade 3B Follicular Lymphoma
**Percent of patients who enrolled and did not receive intended cell product including out of spec products
***CAR T naïve patients (n=29); 11 DLBCL. For CR at 6 Month only 10 patients either reached Month 6 or discontinued/died or progressed. Safety population is N=38 (all patients, FL and DLBCL).
****Percent enrolled is based on total number enrolled (includes FL and LBCL) regardless of prior CAR T therapy
^Percent who underwent lymphodepletion but did not receive intended cell product including out of spec products
^^ Kymriah: estimated from Shuster, 2019, Figure 3B., Breyanzi: Abramson, ASH 2019

ALPHA Data Cutoff Date: April 19, 2021