The Next Revolution in Cell Therapy

Leading Today, Creating Tomorrow

41st Annual J.P. Morgan Health Care Conference

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Allogene THERAPEUTICS

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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, follow-up times, 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.

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Allogene: On a Mission for Patients

6 Foundational platform technologies

- AlloCAR T™
- TurboCAR™
- Cloak™ & Dagger™
- AlloCAR T manufacturing
- iPSC

Cell Forge 1

>175 Patients treated

Data from nearly as many patients with AlloCAR T as from key competitors combined

~350 employees

defining the field and writing the allogeneic CAR T playbook

$637 million

in cash, cash equivalents and investments as of September 30, 2022

1

singular focus on allogeneic cell therapy

The industry's **first** Potentially Pivotal Phase 2 allogeneic CAR T trial

Allogene THERAPEUTICS

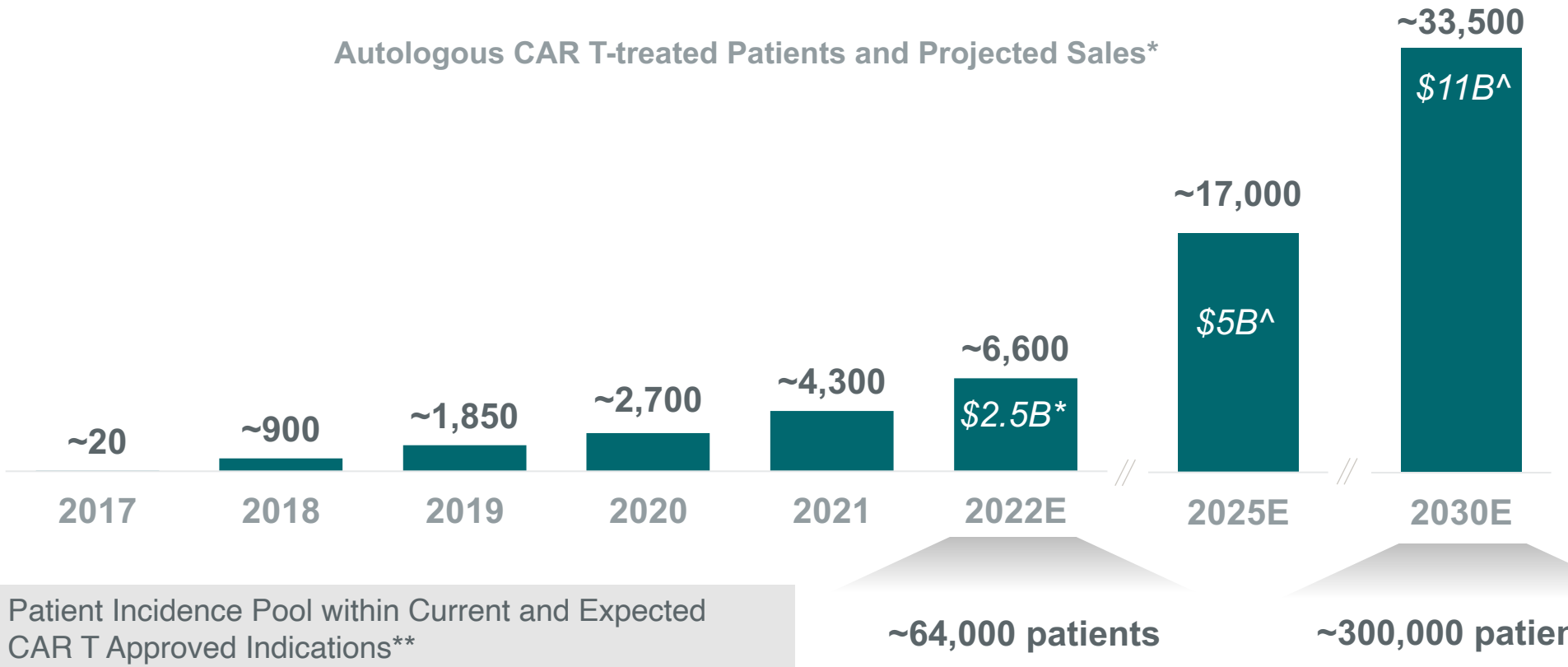
Replicating Success: Executing Breakthrough Pivotal Trials with CAR T Experience

Zachary Roberts, M.D., Ph.D.
Executive Vice President, Research & Development

- **Instil Bio**: Chief Medical Officer
- **Kite Pharma**: Vice President of Clinical Development
  - Study lead across multiple Zuma studies
  - Deep relationships with key investigators in US and EU
- **Amgen**: Medical Director, Hematology/Oncology
- **Dana-Farber Cancer Institute**: Hematology Oncology Fellowship
- **Massachusetts General**: Internal Medicine
- **University of Maryland**: M.D., Ph.D.

Allogene THERAPEUTICS

CAR T Sales Projected to Grow into an Expanding Market



~10%

of indicated patients** receive autologous CAR T therapy today

Patient Incidence Pool within Current and Expected CAR T Approved Indications**

~64,000 patients

~300,000 patients

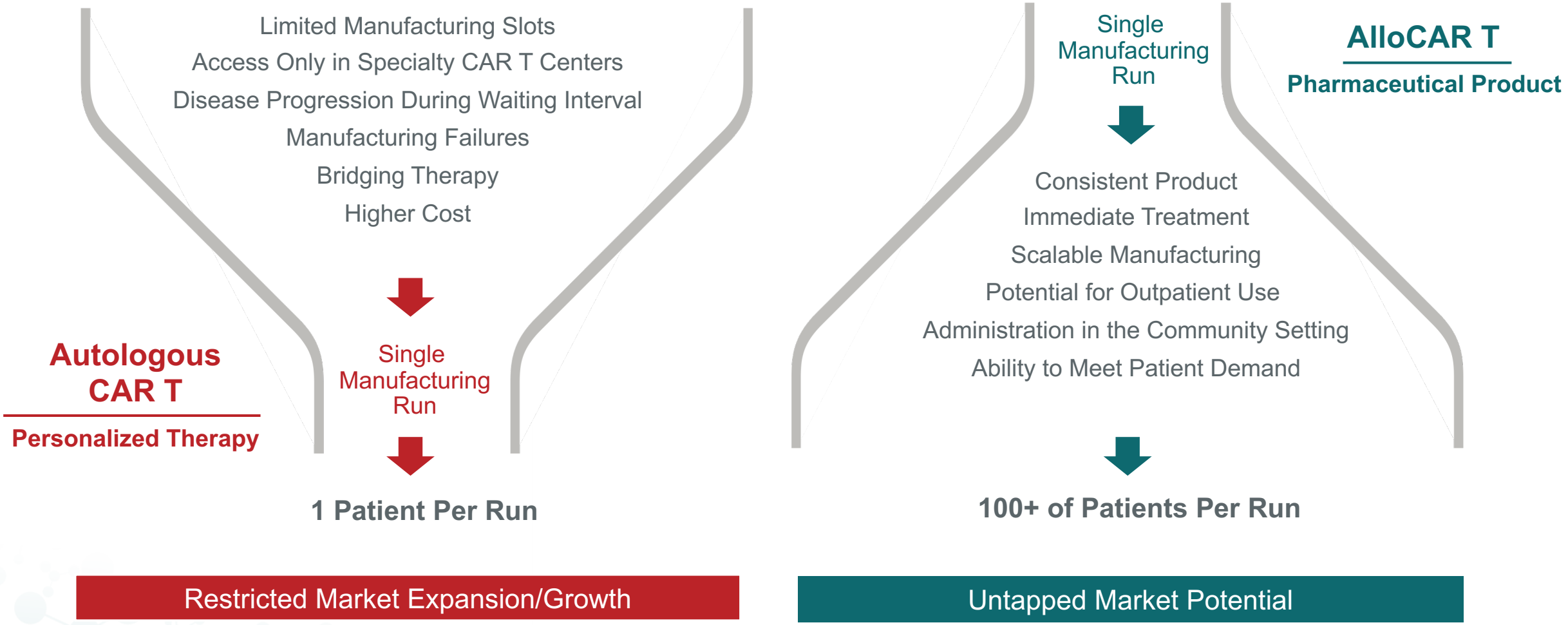
*2017-2022 estimated and rounded based on manufacturer-reported sales (w/Q4'22 projected at Q3'22 actual sales rate) and average $400K/patient assumption; 2025-2030 estimated and rounded based on Decision Resources Group sales and market share projections

**Decision Resources Group epidemiology for drug-treated incidence G7 markets, rounded and not necessarily reflecting specific medical eligibility criteria for autologous CAR T therapies; current indications defined as 2L/3L+ LBCL, 3L+ FL, r/r MCL, r/r Adult ALL, r/r/ Pediatric/Young Adult ALL, 5L+ MM; expected future indications represent Allogene assumptions on CAR T indications in 2030 and include 1L+ LBCL, 2L+ FL, r/r MCL, 1L+ MM

^ Decision Resources Group estimated autologous CAR T sales for 2L+ LBCL, 2L+ FL, 3L+ MCL and 3L+ MM in 2025 and 2L+ LBCL, 2L+ FL, 3L+ MCL, and 1L+ MM in 2030

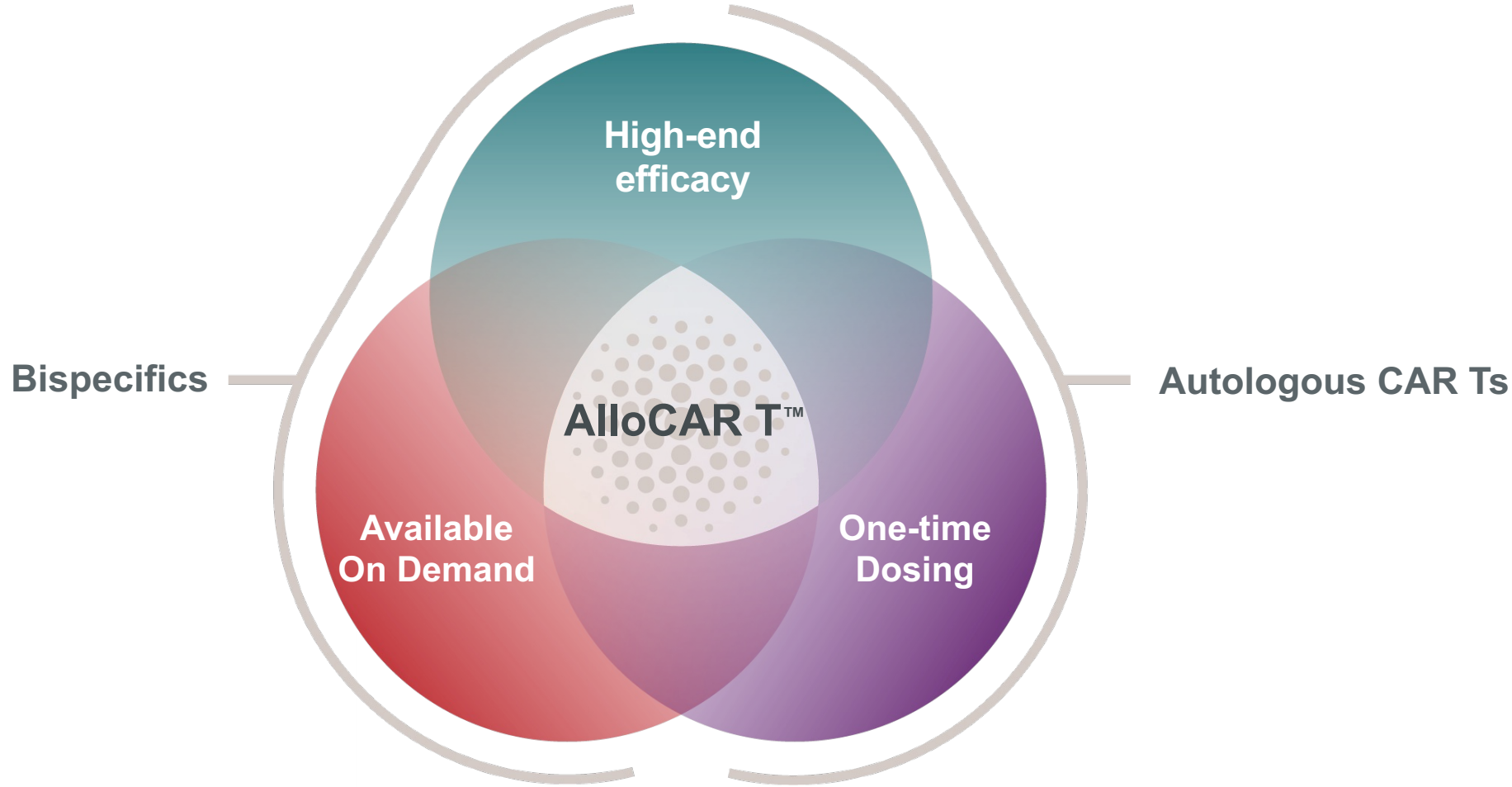
Allogene THERAPEUTICS

AlloCAR T: Potential to Break the Bottleneck in Cell Therapy



Allogene THERAPEUTICS

AlloCAR T Uniquely Positioned to Deliver Value to Patients



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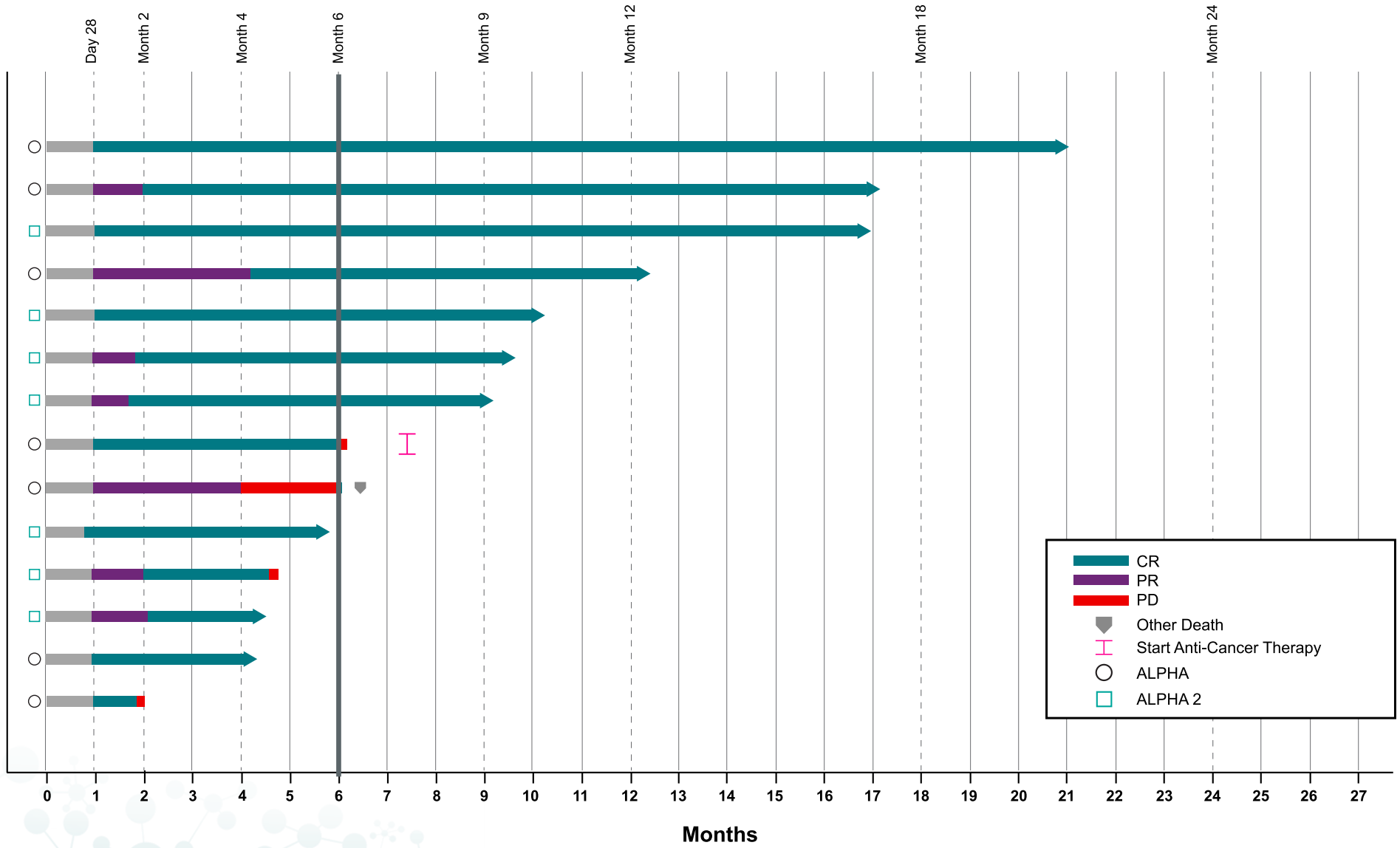
ASH 2021: LBCL Patients Who Achieved a Complete Response

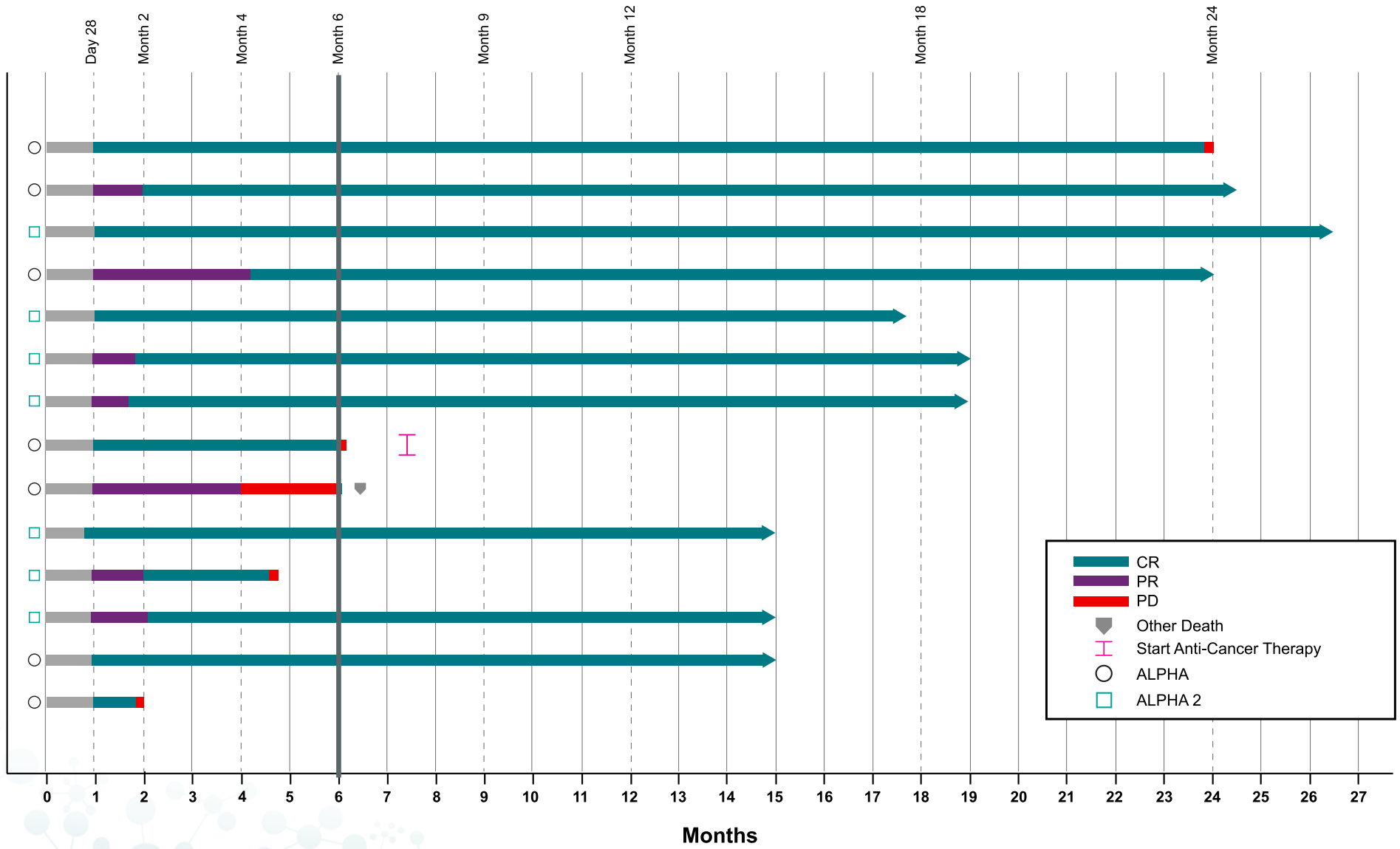


10 of 14 patients were in ongoing CR

Data Cutoff Date: October 18, 2021

Allogene THERAPEUTICS

Oct 2022 Update: Responses Remain Durable in LBCL with Additional Follow-Up



9 of 14 patients in ongoing CR

Data Cutoff Date: October 25, 2022

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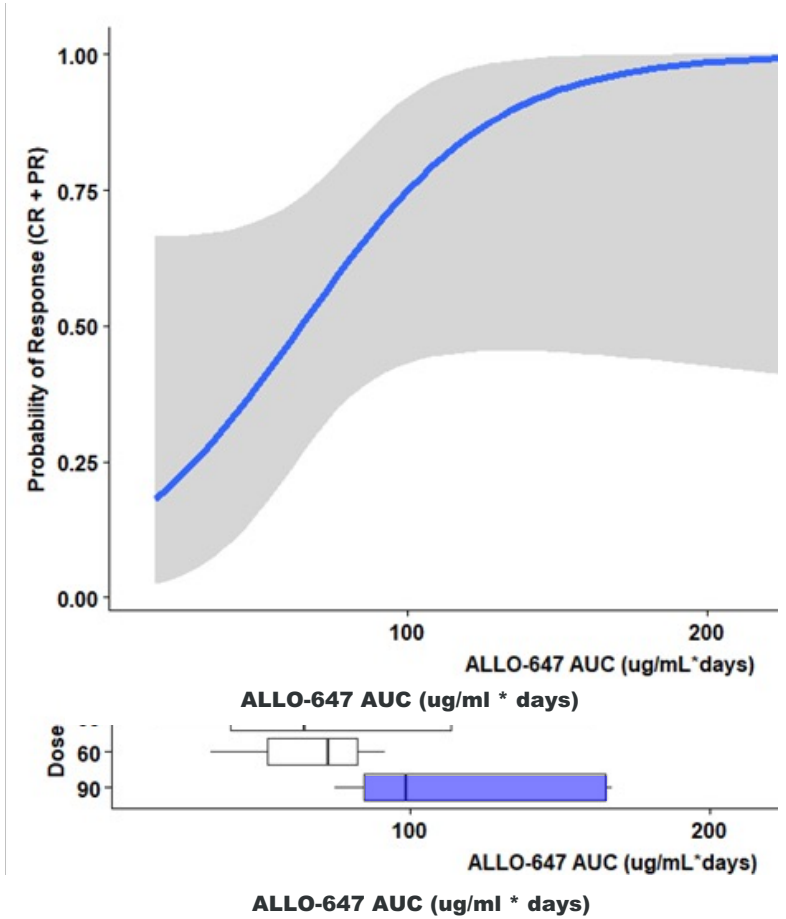
Proprietary ALLO-647 Based LD Improves the Likelihood of Response

ALLO-647 (anti-CD52 mAb) Prevents Premature Rejection of Allogeneic CAR T Cells

- AlloCAR T dosed with standard FC lymphodepletion results in limited response rate and durability
- ALLO-647 + FC (FCA) compared to FC alone* leads to significant CAR T cell expansion
- Data demonstrate dose response relationship between ALLO-647 and likelihood of response and cell expansion



*ASH 2018 Benjamin, R Abstract # 612

Allogene THERAPEUTICS

Deep & Advancing AlloCAR T Pipeline

	Target	Program	Trial name	Study population	Discovery	IND-enabling	Phase 1	Phase 2[1]	Approved	Designation	Next milestone
Hematologic Malignancies	CD19	ALLO-501A	ALPHA2	3+ Line LBCL						FTD RMAT	Target enrollment completion 1H 2024
	CD19	ALLO-501A + ALLO-647[2]	EXPAND	3+ Line LBCL							Initiation activities underway
	CD19	ALLO-501A	ALPHA3	2+ Line LBCL							Ph3 readiness in 2023
	CD19	CD19 - Next Generation									
	BCMA	ALLO-715	UNIVERSAL	5+ Line MM						RMAT ODD	Preparing for Ph2
	BCMA	ALLO-605[3]	IGNITE	5+ Line MM						FTD ODD	Reviewing Process Improvements
	CD70	ALLO-316		Heme Malignancies							
	FLT3	ALLO-819		AML							
Solid Tumors	CD70	ALLO-316	TRAVERSE	ccRCC						FTD	Cohort expansion 1H 2023
	CD70	ALLO-316		Basket Study							Determine histologies for inclusion
	DLL3	ALLO-213		SCLC							
	Claudin 18.2	ALLO-182		Gastric & Pancreatic Cancer							
		7 undisclosed targets									

[1]Phase 3 may not be required if Phase 2 is registrational; [2]ALLO-647 (anti-CD52 mAb) is intended to enable expansion and persistence of allogeneic CAR T product candidates; [3]TurboCAR™

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ALLO-501A: Multiple Parameters Optimized for Success

Potentially Pivotal Phase 2 in 3rd Line LBCL Ongoing; 2nd Line Phase 3 Readiness Expected in 2023

Phase 1 Optimized All Components

Lymphodepletion
- Identified ALLO-647 dose response relationship
- FC + 90mg ALLO-647 generally well tolerated

Cell Dosing
- 1x dosing similar efficacy as consolidation
- Convenience benefit

Manufacturing
- Alloy™ material demonstrates robust performance
- Phase 2 readiness complete

ALLO-501/501A manufactured with Alloy™ process material produced deep and durable responses

- 67% ORR and 58% CR rate with single cell dose and FCA90
  - 50% remained in CR at both 6 and 12 months
- Of the 9 patients treated with Alloy process material who achieved a CR at 6 months, 8 remain in remission with longest CR ongoing at 26+ months

Manageable Safety Profile:
- No DLTs, GvHD or ICANS
- Low grade CRS
- 17% prolonged Gr3+ cytopenia
- Grade 3+ infection rates similar to autologous CAR T trials

Data Cutoff Date: October 25, 2022

Allogene THERAPEUTICS

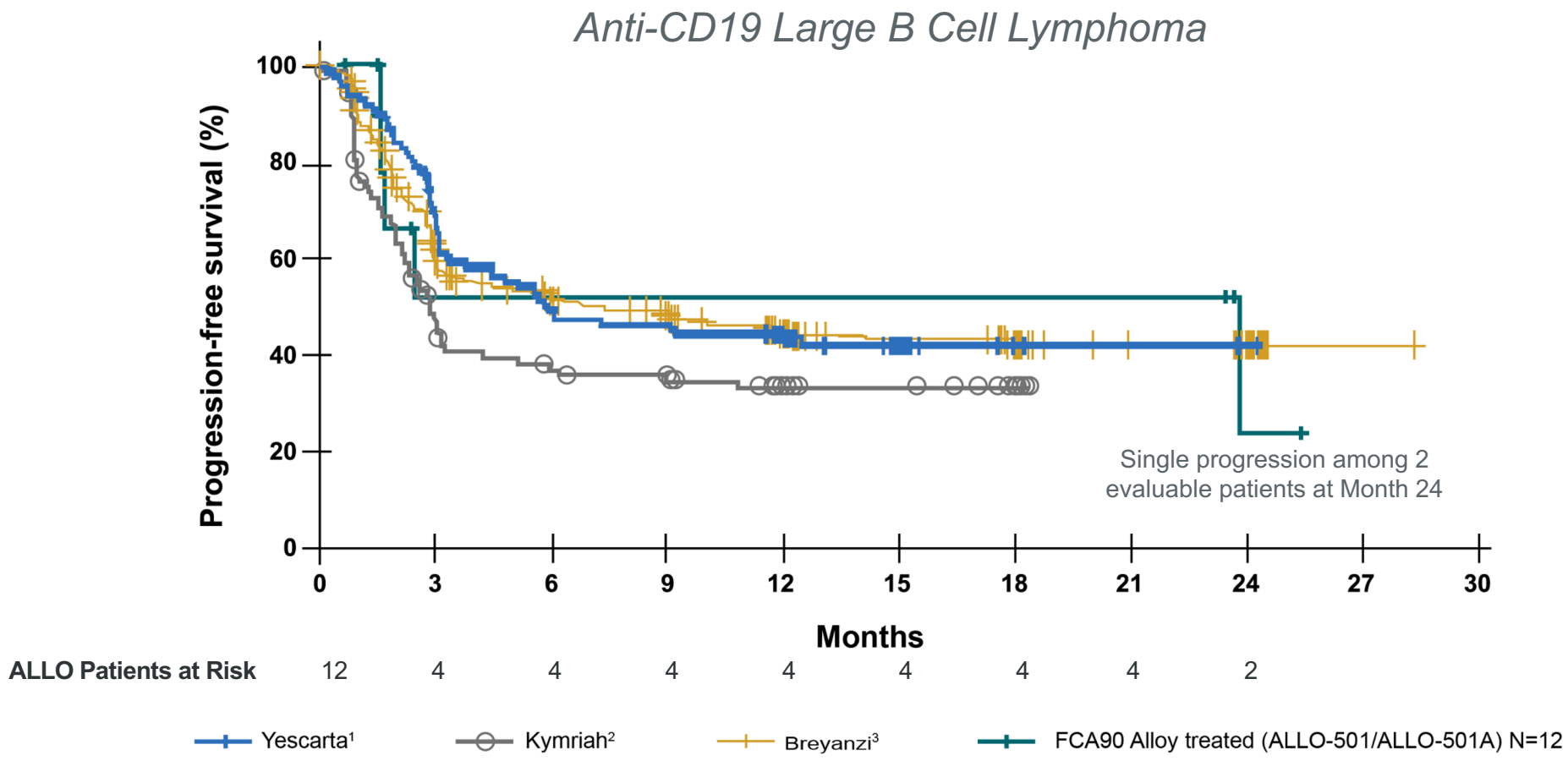
CD19 AlloCAR T: Data Highly Competitive with Autologous CAR T

	All Alloy (n=33)	FCA90 Alloy (n=12)	KYMRIAH®[1] Phase 2 Pivotal	YESCARTA®[2] Phase 2 Pivotal	BREYANZI®[3] Phase 2 Pivotal
ORR	58%	67%	50% (label)	72% (label)	73% (label)
CR in LBCL (mITT)	42%	58%	32% (label)	51% (label)	54% (label)
CR at 6 months in LBCL (mITT)	31%	50%	29%	36%	~ 40%
CRS (Gr 3+)	0%	0%	22%	13%	4%
Neuro Events (Gr3+)	6%	0%	12%	31%	12%
Infection (Gr3+)	15%	8%	20%	23%	19%
% enrolled who did not receive intended cell product	n=1***	n=1***	33%**	9%**	36%^

[1] KYMRIAH USPI and Schuster S et al NEJM 2019. Patient population in the label includes: 78% - primary DLBCL not otherwise specified (NOS); 22% DLBCL following transformation from Follicular Lymphoma
[2] YESCARTA USPI and Neelapu, NEJM 2017. Patient population in the label includes: 76% - DLBC; 16% - Transformed Follicular Lymphoma; 8% Primary Mediastinal Large B-cell Lymphoma.
[3] BREYANZI USPI and Abramson, Lancet, 2020. 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*
****After enrollment, one subject was found to have CNS involvement and was excluded*
^Percent who underwent lymphodepletion but did not receive intended cell product including out of spec products
FOR ILLUSTRATIVE PURPOSES ONLY: no head-to-head clinical trial has been conducted. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies.

ALPHA/ALPHA2 Data Cutoff Date: October 25, 2022

CD19 AlloCAR T: Only Allogeneic CAR T with PFS Tracking with Autologous CAR T



1. Neelapu SS, et al. *N Engl J Med.* 2017;377:2531-44. **2.** Schuster SJ, et al. *N Engl J Med* 2019;380:45-56. **3.** Abramson JS, et al. *Lancet* 2020; 396: 839-52.

Data Cutoff Date: October 25, 2022

Allogene THERAPEUTICS

3L+ LBCL Program Intended for Approval of ALLO-501A & ALLO-647

ALPHA2 Phase 2 Study (n=100)

Screening/ Enrollment

Lymphodepletion (d -5 to -3)	Treatment (d0)	Primary EPs
• Flu 30 mg/m2 IV x3 • Cy 300 mg/m2 IV x3 • ALLO-647 90 mg IV	ALLO-501A: single IV infusion of 120M CART cells on day 0	• ORR • CR

EXPAND Phase 2 Study (n=70)

Screening/Enrollment

Active Arm: Lymphodepletion (d -5 to -3)	Treatment (d0)	
• Flu 30 mg/m2 IV x3 • Cy 300 mg/m2 IV x3 • ALLO-647 90 mg IV	ALLO-501A: single IV infusion of 120M CART cells on day 0	**Primary EP** • PFS
Control Arm: Lymphodepletion (d -5 to -3)	**Treatment (d0)**	
• Flu 30 mg/m2 IV x3 • Cy 300 mg/m2 IV x3	ALLO-501A: single IV infusion of 120M CART cells on day 0	

Allogene THERAPEUTICS

ALLO-715: First Allogeneic BCMA CAR T Study in MM Demonstrates Feasibility

Planning for Potentially Pivotal Phase 2 r/r MM

Evolution of ALLO-715 Program in MM

Establish Proof of Concept

- No evidence of Graft vs. Host Disease
- Generally well tolerated lymphodepletion
- Cell expansion and initial signs of efficacy

Preparation for Phase 2

- Optimal lymphodepletion and cell dosing established
- Demonstrated durability of responses
- Completed evaluation of FCA39 and FCA60 to finalize optimal lymphodepletion approach
- Further optimizing manufacturing process and transitioning ALLO-715 to CF1
- Regulatory discussions planned for potentially pivotal Phase 2 trial

Expansion Cohort Demonstrated Deep and Durable Responses

- Single Infusion of 320M CAR+ cells with FCA60 Lymphodepletion Resulted in 67% ORR and 42% VGPR+
  - 100% of VGPR+ Patients Minimal Residual Disease
  - Median DOR of 9.2 months

Manageable Safety Profile Across All Doses:

- No GvHD
- Low-grade and reversible neurotoxicity; one Gr 2 ICANS
- Low grade CRS with only one Gr 3
- Low use of tocilizumab 32% and steroids 25%

Treatment within 5 Days of Enrollment; No Bridging Therapy

- 92% of enrolled patients received product
- 100% of infused product manufactured & released per product specifications

Data Cutoff Date: October 11, 2022; 5 patients excluded from efficacy analysis have best response range from SD to PR

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Single Dose ALLO-715 Data Indicates Potential to Address Patient Need

Treatment Administration and Efficacy (mITT)	ALLO-715 (320M & FCA60) n=12[1]	Tecvayli (teclistamab)[2]	Abecma® (Ide-cel)[3]	Carvykti (Cilta-cel)[4]
ORR (mITT)	**67%**	62%	72%	98%
VGPR+ Rate (mITT)	**42%**	57%	53%	95%
CR/sCR Rate (mITT)	**17%**	28%	28%	78%
MRD[5]- in VGPR+	**100%**	69%	75%	92%
Duration of Response (median)	**9.2 mo[6]**	Not reached	11.0 mo	21.8 mo
CRS (Gr3+)	**0%**	< 1%	9%	5%
Neurologic Toxicity (Gr3+)	**0%**	2.4%	4%	11%
Infection (Gr3+)	**35%**	39.2%	26%	27%
Grade 5 Adverse Events	**6%**	5%	6%	9%
% enrolled who did not receive intended cell product[7]	**11%**	Discontinuation (AE) 1.2% Dose interruption (AE) 73%	26%	29%
Days to treatment initiation[8]	**5**	Not reported	33	32
Required bridging therapy	**0%**	NA	87%	75%

[1] data through 11 Oct 2022; [2] Tecvalyi USPI and Usmani, 2021; [3] Abecma USMI and Munshi, 2021; [4] USPI and Berdeja, 2021; [5] For UNIVERSAL, MRD status is evaluated in subjects with VGPR+; for Tecvayli, MRD is reported in 26 subjects with CR or better; for Abecma, MRD is reported among subjects with CR or sCR; [6] 5 subjects remain in response between 17 and 24 months; [7] cell product that is successfully manufactured and meets release specifications; for Abecma 11 patients did not receive treatment and 24 patients received out of specification product; for Carvykti, 16 patients did not receive Carvykti due to progressive disease and 17 patients received out-of-specification product; [8] for ALLO-715, time from enrollment to start of lymphodepletion. Two patients were not treated due to rapidly progressing disease; for Abecma, time from apheresis to cell product availability (includes 87% of patients who received bridging therapy)
FOR ILLUSTRATIVE PURPOSES ONLY: no head-to-head clinical trial has been conducted. Differences exist between trial designs and subject characteristics, and caution should be exercised when comparing data across studies.

Data Cutoff Date: October 11, 2022

Allogene THERAPEUTICS

ALLO-316: Our First AlloCAR T Product For Solid Tumors

Key Unmet Need in Renal Cell Carcinoma

Large patient population with poor survival outcomes in advanced setting

Lack of therapeutic options and meaningful efficacy in post-ICI/TKI patients

Opportunity to improve clinical outcome by patient selection

Opportunities for ALLO-316

- ~72,000 drug-treated advanced RCC patients*
- 5-year survival ~15%**

- ~15,000 drug-treated 3L+ patients, most expected to have had prior ICI/TKI therapy*
- Tivozanib, the only drug with pivotal data in prior ICI/TKI patients approved for the 3L+ setting, has ORR <20% and mPFS <6mo***

- ~80% CD70+ expression****

Sources: *© 2022 DR/Decision Resources, LLC. All rights reserved. Reproduction, distribution, transmission or publication is prohibited. Reprinted with permission (2030 G7 major market epidemiology), **SEER, ***tivozanib PI, **** Ruf et al., *Clin Can Res.* 2015

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ALLO-316 TRAVERSE Trial Patient Flow

Enrolled (N=19*)

Safety Population (N=17)

Efficacy Population (N=17)

CAR+ T Cell Dose	Lymphodepletion Regimen	
	FCA	FC
40 x 10^6 Cells (DL1)	7	2
80 x 10^6 Cells (DL2)	3	4
120 x 10^6 Cells (DL3)	-	1

* One patient withdrew consent prior to treatment; a second patient was recently enrolled and is pending treatment

- Study enrolled patients with clear cell RCC
  - Patients must have received a checkpoint inhibitor and a VEGF inhibitor in the advanced and/or metastatic setting
  - Patients were heavily pretreated with a median of 3 prior lines of therapy
- Generally manageable safety profile
  - No GvHD
  - One dose limiting toxicity of Gr3 occurred in DL2 FCA
  - CRS was all low grade with the exception 1 Gr3
  - Neurotoxicity was low grade and reversible and seen in only 3 (18%) of patients

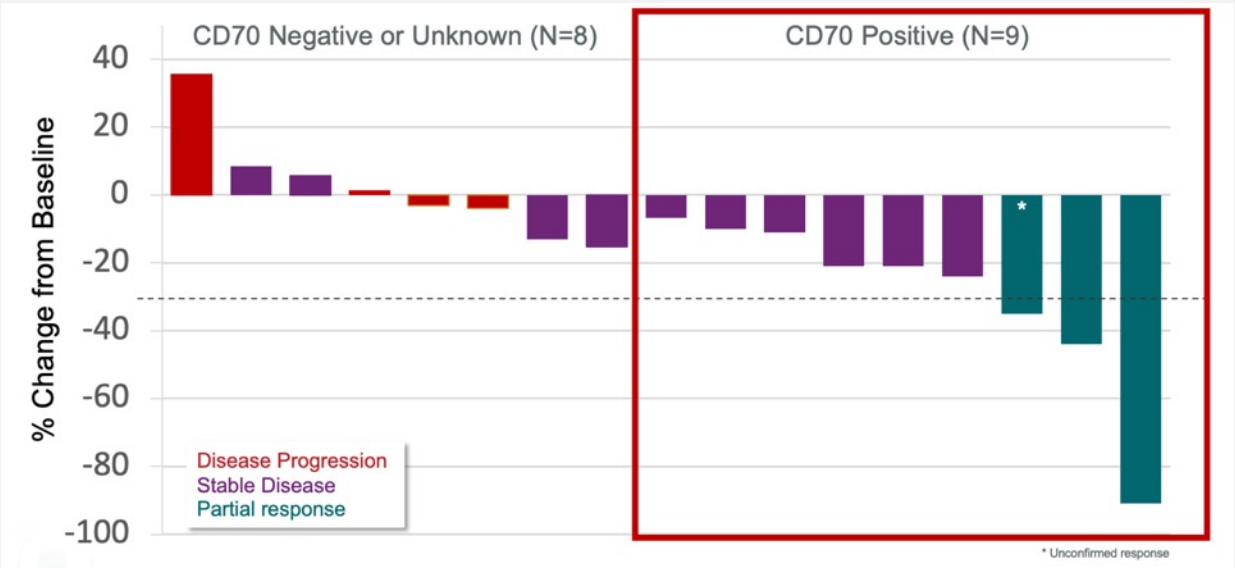
Data Extract: November 7, 2022

Allogene THERAPEUTICS

ALLO-316: Demonstrates feasibility of an AlloCAR T to Treat Solid Tumors

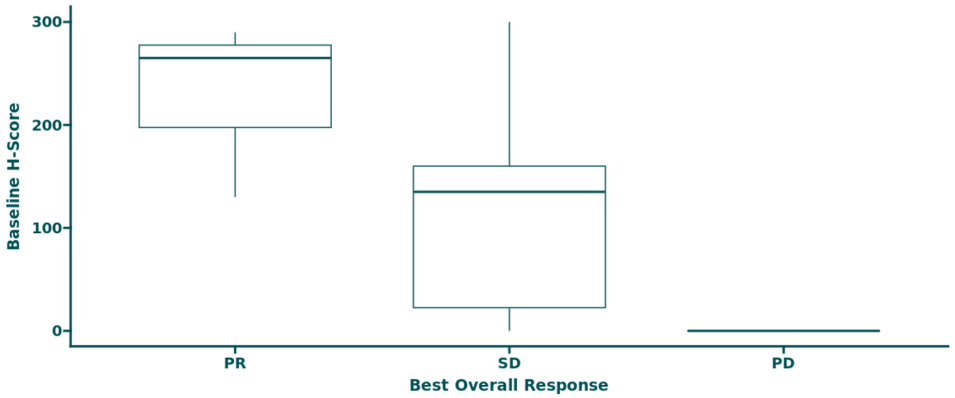
TRAVERSE continues to explore cell dose and lymphodepletion regimen in CD70 positive RCC patients

Preliminary Data Indicates ALLO-316 Made CD70+ Tumors Shrink



Response Rates Correlate with CD70 Expression

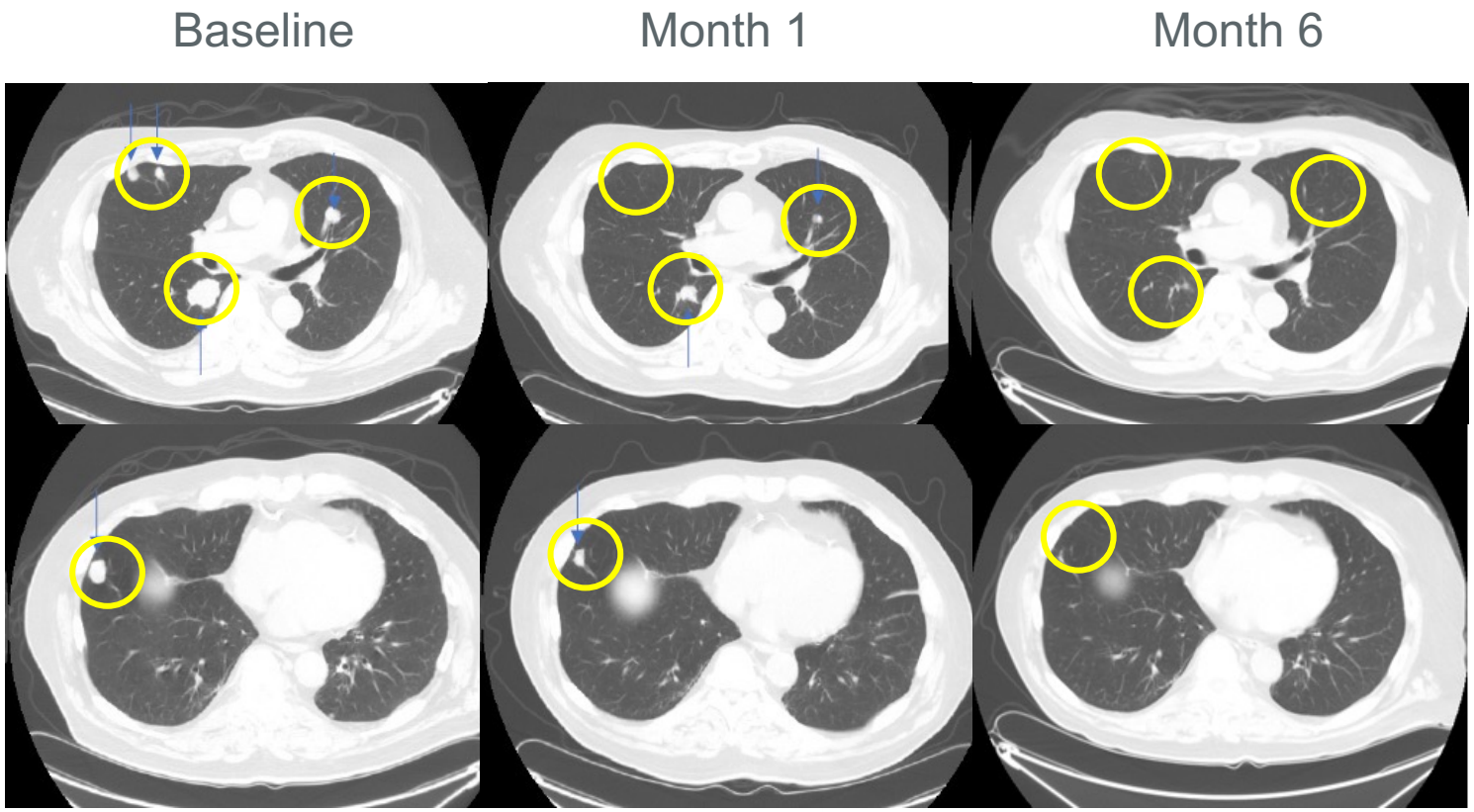
- 18% ORR and 82% disease control rate (DCR) across all patients
- 33% ORR and 100% DCR in patients with known CD70+ expression



* Response rates include two confirmed and one unconfirmed responses; median follow-up time of 5.4 months
† H-Score is the weighted CD70 expression on a scale of 0-300; H-score = CD70 intensity x % positivity

Data Extract: November 17, 2022

ALLO-316 Case Study: Durability with Deepening Response



Partial Response

- 68-year-old man with metastatic RCC to the lungs, refractory to checkpoint blockade, angiogenesis inhibitors
- Treated with FCA and 40M CAR+ cells
- Responded with initial partial response at Month 1 that continued to deepen through Month 6
- Demonstrates durability of response with ALLO-316

Data Extract: November 7, 2022

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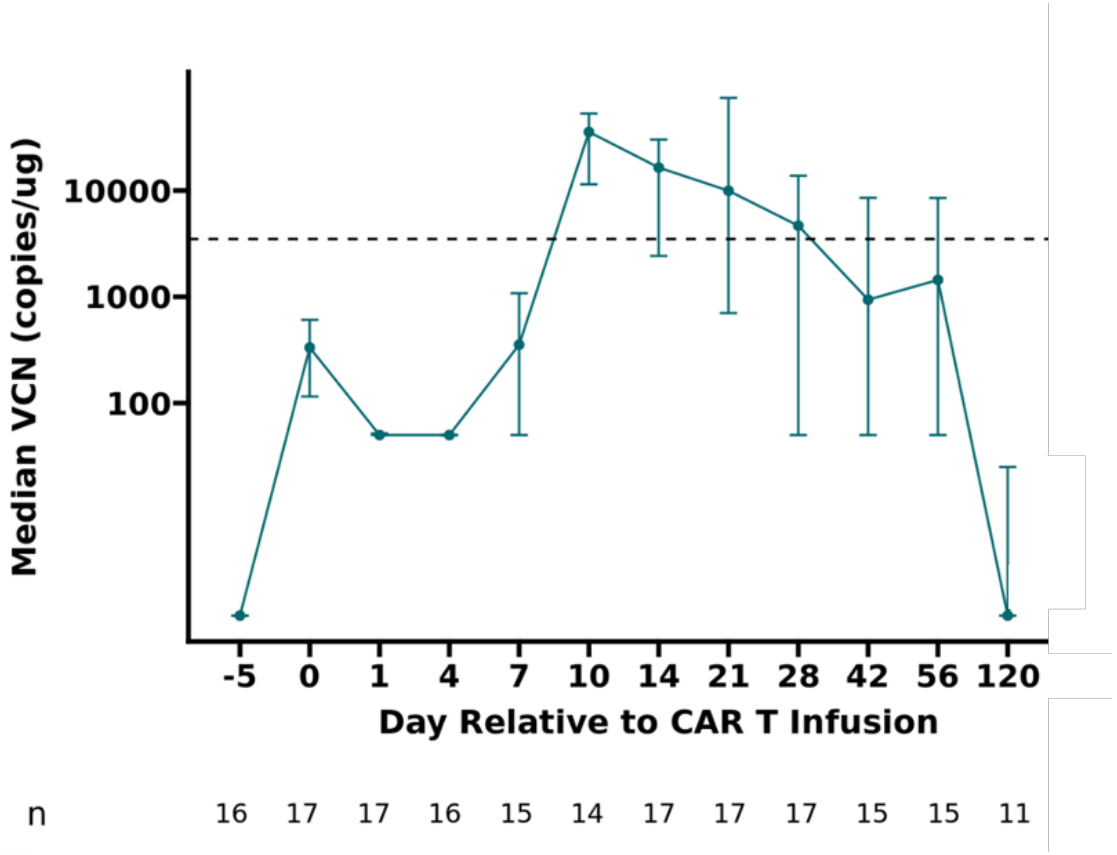
ALLO-316 Robust Cell Expansion & the Dagger™ Effect

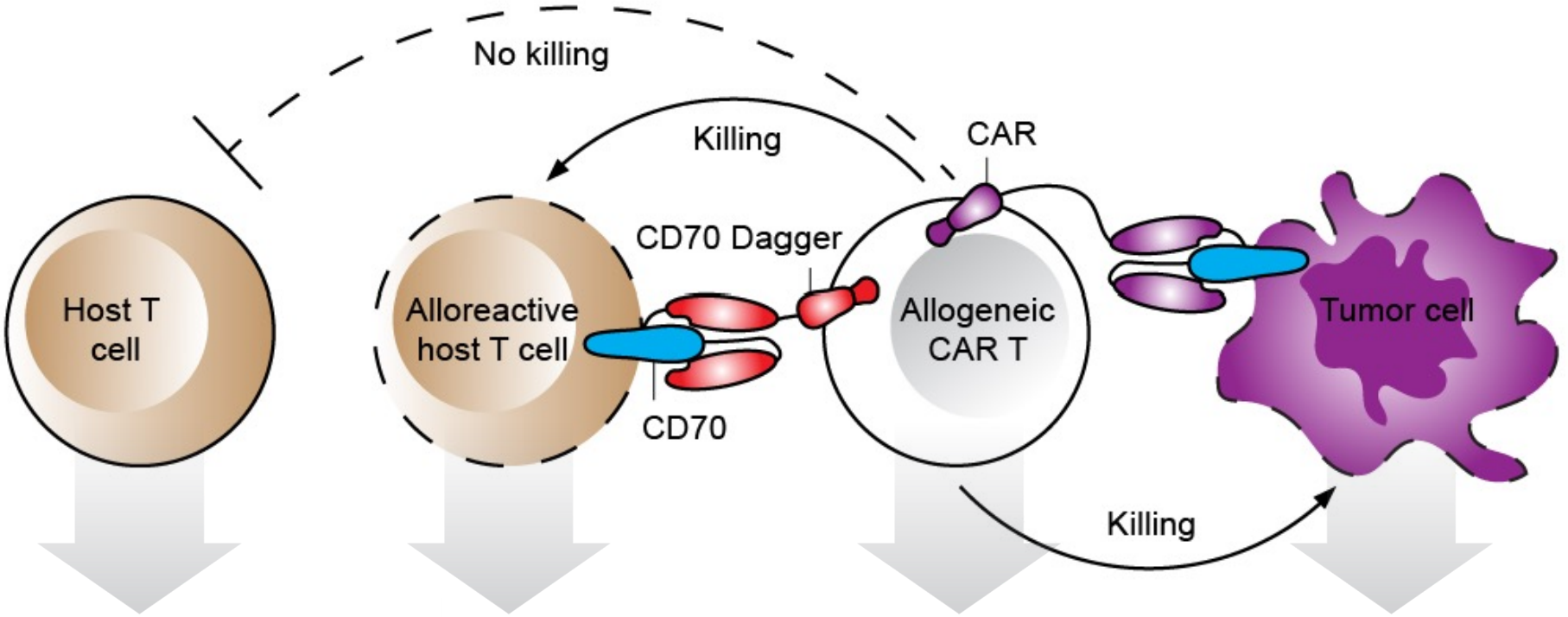


- High CAR T expansion was observed in all patients, regardless of conditioning regimen
- Data suggest potential for CD70 Dagger™ to control rejection by host immune system
- Plan to deploy the Dagger™ technology in the next generation of AlloCAR T products to delay rejection, while inducing CAR T proliferation and increased tumor killing

Data Extract: November 17, 2022

Dagger™ Technology: Next Generation Allogeneic Platform

Deploys Anti-CD70 to Protect AlloCAR T Cells from Immune Rejection



Other T cells that are not activated are left unharmed

Alloreactive host T cell is killed

CAR T cells kill host T cells and proliferate instead of being rejected

CAR T cell expansion leads to enhanced tumor elimination

Allogene THERAPEUTICS

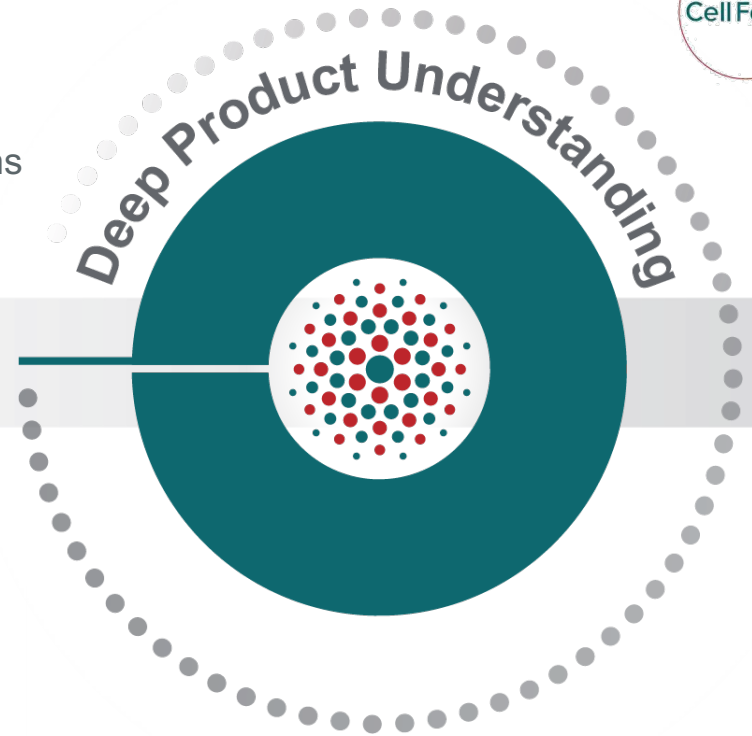
Fully Integrated Operations Technology Organization

Process & Analytical Development

- Proven GMP Processes
- Characterized Unit Operations

Manufacturing

- 140K ft² Modular Facility
- Designed to US and International Commercial cGMP Standards



~170
Full-time Operations Technology Staff

~20K
Patients **Per Year**
Manufacturing Capacity*

Quality & Product Characterization

- Qualified Release Tests
- Internal Unbiased Product Data Analysis

Supply Chain Management

- Qualified Suppliers Across all Input Materials
- Ultracold Inventory and Logistics in Place Nationally and Pending in EU

*Projection for first potential commercial asset at scale

Allogene THERAPEUTICS

Cell Forge 1: State-of-the-Art Facility to Control, Execute Manufacturing

- Flexible design creates agility for process changes
- In-house Quality Control supports rapid development of complex CAR T methods
- Proximity to Headquarters enables rapid technology exchange and investigation support
- End to end capabilities include PBMC processing, CAR T production, filling, and inventory management

- ~140k ft² facility with expansion space
- LEED Gold certified

Allogene THERAPEUTICS

Realizing the Potential of Allogeneic CAR T through Innovation and Execution

Our goal is to make CAR T available to all patients in need

CD19 *Best & First-in-Class Profile*

ALLO-501A

- First potentially pivotal Ph2 trial
- 67% ORR and 58% CR rate with single dose and FCA90 lymphodepletion
- Durability moves the field beyond proof-of-concept and validates Allogene's platform

50%
CR at 6 and 12 months

BCMA *Path to Pivotal*

ALLO-715

- First & only allogeneic CAR T trial to demonstrate potential in MM
- Expansion cohorts deliver response rates that support advancement
- Regulatory discussions planned for potentially pivotal Phase 2 trial

9.2 months
mDOR

24 months
Longest Ongoing Response

CD70 *Expanding into Solid Tumors*

ALLO-316

- Demonstrates feasibility of an allogeneic CAR T directed at CD70 to treat RCC
- Induced Anti-Tumor Activity in Patients with CD70 Expressing RCC with Deepening Responses Over Time

33%
ORR

100%
DCR

CD70+ Patients

CD19 Data Cutoff Date: October 25, 2022; ALLO-715 Data Cutoff Date: October 11, 2022, ALLO-316 Data Extract: November 7, 2022

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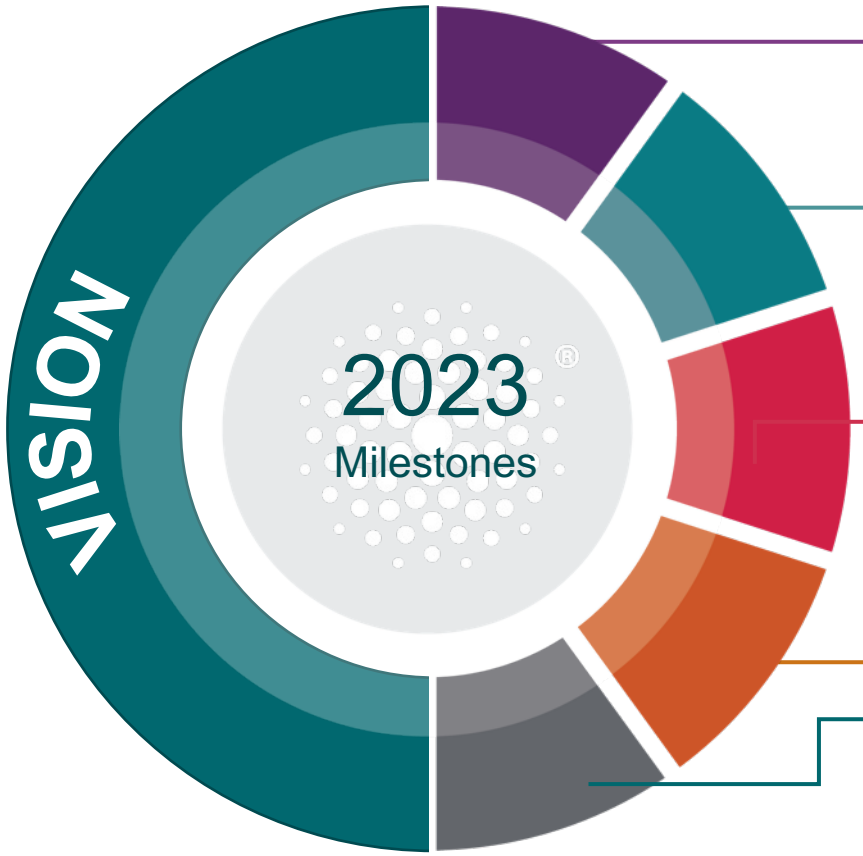
2023 Executing Toward An Allogeneic CAR T Future



1H: Initiate EXPAND trial in support of potential approval of ALLO-647 in 3rd- line LBCL

2H: ALLO-715 potential pivotal Ph2 update in r/r MM

2H: ALLO-316 Phase 1 update in refractory RCC

2H: ALLO-501A: complete Phase 3 trial readiness for 2nd line LBCL

2H: ALLO-501A: longer-term follow-up from Phase I trial in 3rd Line LBCL

Create and lead the next revolution in cancer treatment by delivering to patients the first AlloCAR T™ products for blood cancers and solid tumors

Allogene THERAPEUTICS

The Next Revolution in Cell Therapy

Leading the Revolution from CAR T *Therapies* to CAR T *Products*

Allogene therapies utilize TALEN® gene-editing technology pioneered and owned by Cellectis. ALLO-501 and ALLO-501A are anti-CD19 AlloCAR T™ therapies being jointly developed under a collaboration agreement between Servier and Allogene based on an exclusive license granted by Cellectis to Servier. Servier grants to Allogene exclusive rights to ALLO-501 and ALLO-501A in the U.S. Allogene has an exclusive license to the Cellectis technology for allogeneic products directed at BCMA, FLT3, DLL3, CD70 and Claudin 18.2.

Allogene THERAPEUTICS