MARCH BIOSCIENCES

Advanced Therapeutics for T-cell Diseases

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Executive Summary

Selective Targeting of Pathogenic T Cells

- Foundational platform of technologies specifically targeting diseased T cells with minimal/no disruption to the rest of the immune compartment

Lead Asset to Initiate Phase 2 in <6 months

- MB-105 Phase 1 investigator-initiated trial: **60% CRs (6/10)** across TCL & T-ALL (first and best in class)
- Studies at **MD Anderson Cancer Center** to be supported by the Cancer Focus Fund

Experienced Team

- Top-tier academic founders & experienced multidisciplinary team with cell therapy expertise
- **History of success: Acquisitions, BLAs, and IPOs**

Capital Efficient Development

- MB-105 Phase I development supported via grants and other non-dilutive sources
- **$13.4M non-dilutive CPRIT grant to support MB-105 Phase 2 development**

Streamlined CMC

- **Robust & scalable production,** rapid timeline, low failure rates, no additional gene editing
- CTMC partnership enables rapid development, streamlines acquisition

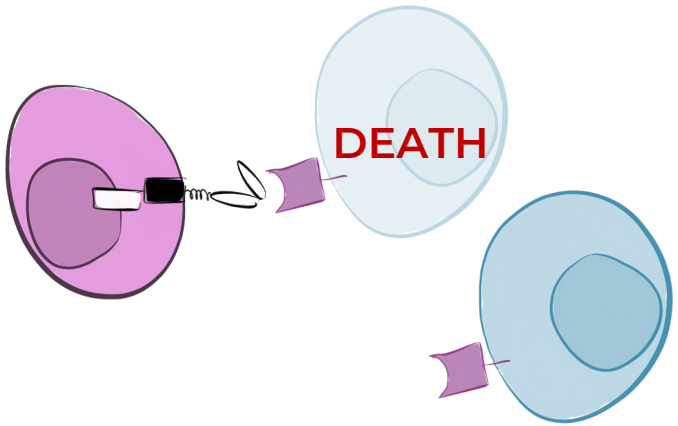
$15-21M Series A

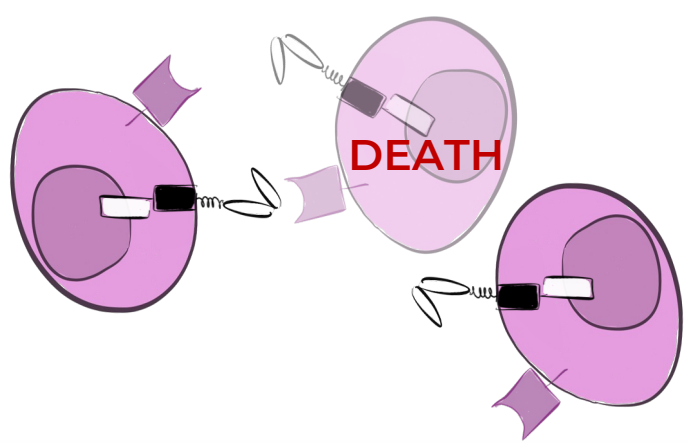
$22.5M capital committed in 2023

Additional Series A raise leveraged against non-dilutive funding to support MB-105 Phase 2 trial and development of autoimmunity pipeline

Major hurdles related to T-cell targeting for cell therapy

Significant challenges in safety and manufacturability





Targeting Normal T-cells

CAR-T targeting of normal T-cells can lead to **severe immunodeficiency**

March platforms selectively eliminate **cancerous** and **autoreactive T-cells**

CAR-T Self targeting

- CAR-T can target themselves and **compromise expansion**
- Optimized CAR design and manufacturing methods enable **streamlined production without complex gene editing**

March overcomes challenges targeting pathogenic T-cells
T-cell malignancies and T-cell autoimmune diseases

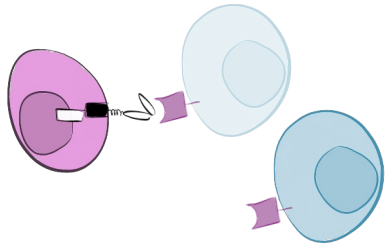
T-cell malignancies
T-cell Lymphoma (TCL) & Leukemia (T-ALL)

MB-105: Strong safety and efficacy signal in Phase 1 academic trial for T-cell lymphoma and leukemia

- Durable responses in T-cell lymphoma
- Complete responses in 6/10 patients across T-cell lymphoma and leukemia after CMC improvements
- Streamlined, simple manufacturing process
- Multi-site Phase 2 to initiate in 2024

Secondary assets expand leadership in T-cell malignancy space

Effective T-cell Targeting



T-cell Autoimmune Diseases
Autoimmune colitis, MS, T1D, others

MB-301: Targeting of pathogenic T-cells using Autoimmune Defense Receptors (ADRs)

- Selective elimination of activated pathogenic T-cells
- Targets alloreactive T cells that mediate immune rejection and graft-versus-host disease

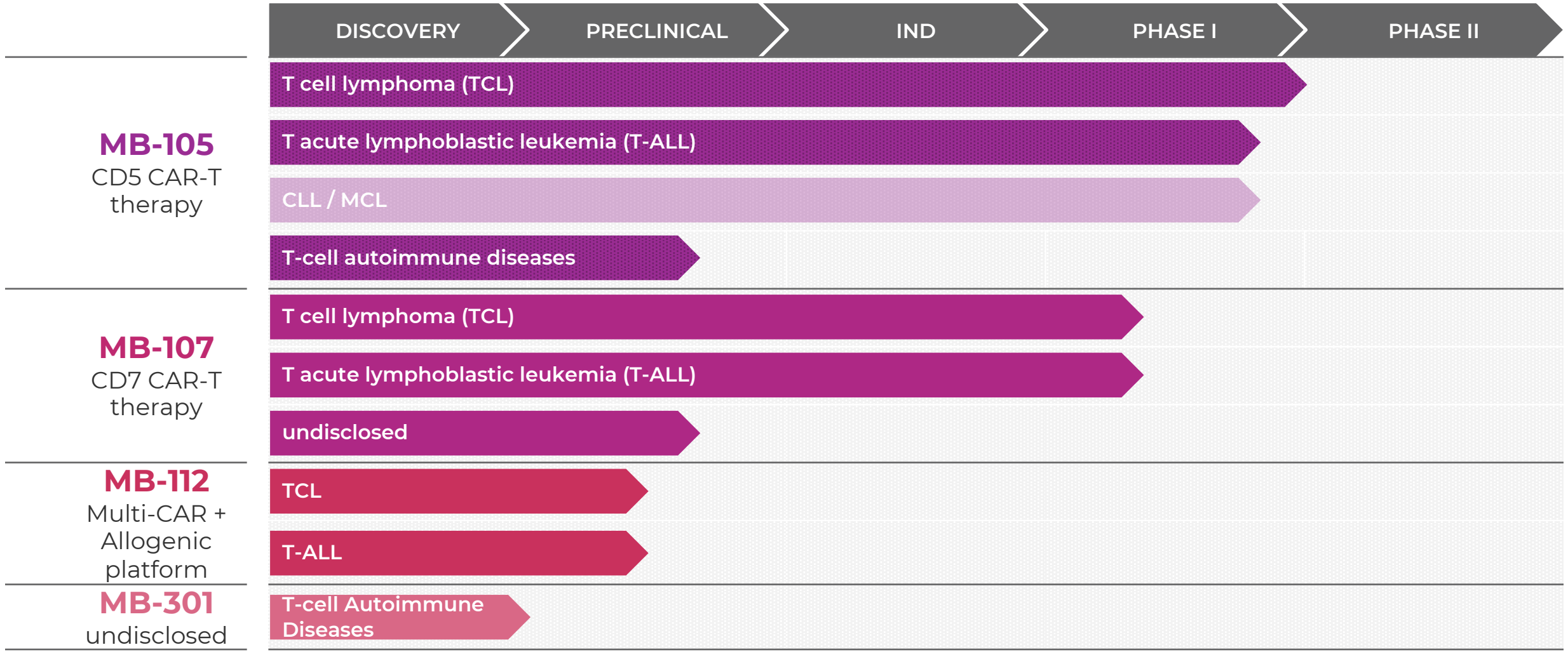
MB-105: Comprehensive T-cell reset for T-cell auto-immune diseases

- Exploratory repositioning of lead asset

MB-105 Publications: Mamonkin et al. Blood. (2015); Mamonkin et al. Cancer Immunol Res. (2018); Hill, L. C., et al. Blood. (2023).; Ma et al., under review (preprint)
ADR Publications: Mo F, et al. Nature Biotechnology. (2021); Feiyan Mo, et al. Blood. (2023)

March Biosciences Pipeline

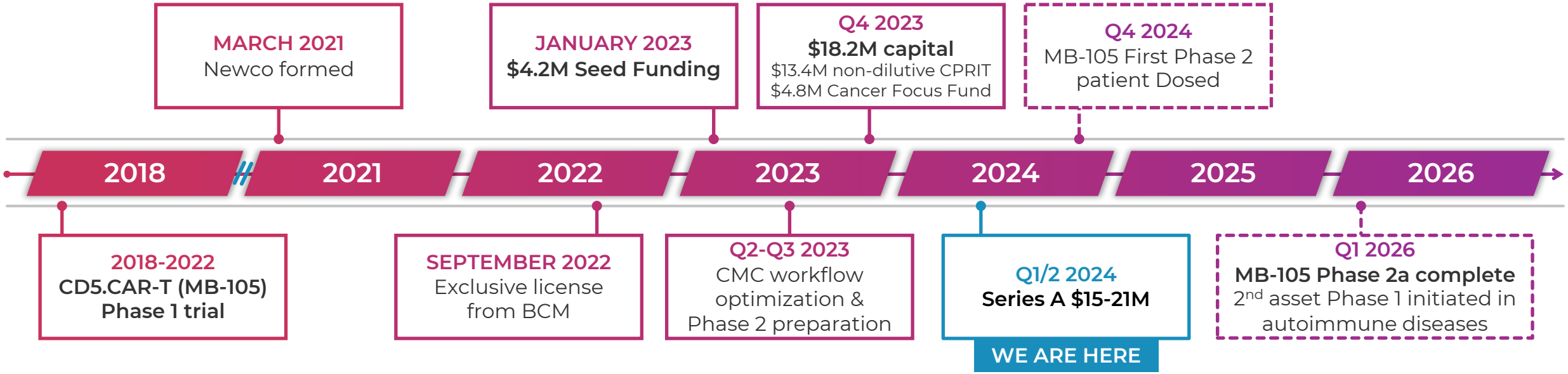
Impact in challenging T-cell indications and beyond



Exclusive license from Baylor College of Medicine and granted patents on core technologies
MB-105 CLL/MCL to follow as secondary Phase 2 study after TCL Phase 2 initiation

March is rapidly executing a strategic development plan

Significant nondilutive capital and partnerships to enable development through major value inflection point



Partners & Investors

TMC TEXAS MEDICAL CENTER · Portal Innovations · Small Ventures USA · CANCER FOCUS FUND · Baylor College of Medicine · CTMC+ · CPRIT

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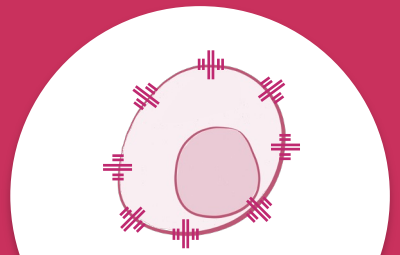
Children's National Hospital

MB-105

CD5.CAR-T for T-cell (and select B-cell) malignancies

T-cell lymphoma patients face a dismal prognosis



T Cells

Overall survival

~30-60%

(10-20% when relapsed/refractory)

T Cell Cancers

- Very few treatments – mainly chemotherapy
- No curative targeted or immunotherapies
- Shared expression potential targets between cancer and normal T cells is limiting

T-cell lymphoma standard of care in 2024 remains dismal

1st line therapy is chemotherapy to HSCT, where possible

- 70% responses, median 2 years durability
- 50-70% of patients relapse or become refractory even with consolidating hematopoietic stem cell transplant

Salvage therapies are relatively non-specific with poor response rates

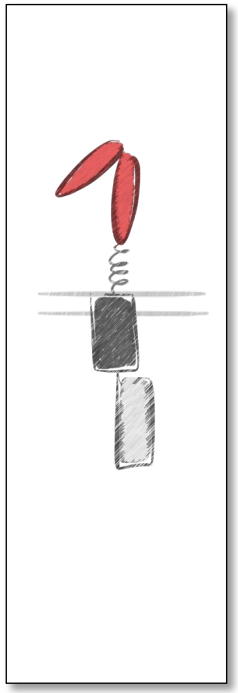
- Physician's choice to cycle through HDAC inhibitors, hypomethylating agent, anti-CD30 ADC, or additional chemo
- All lines have ~25-35% response rate

Very few emerging therapies

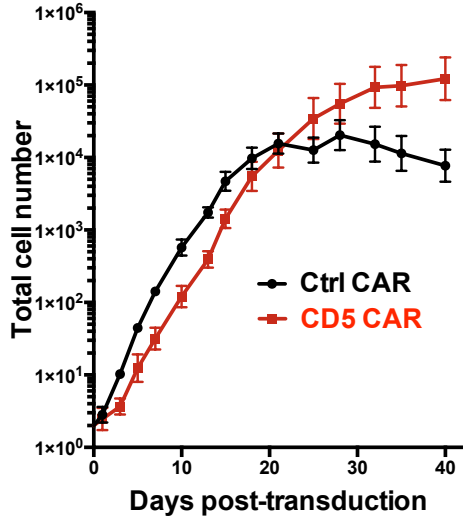
- Best in class candidate therapeutics range from 30-50% ORR

MB-105 (CD5.CAR-T) resist fratricide and eliminate malignant T cells

CD5.CAR

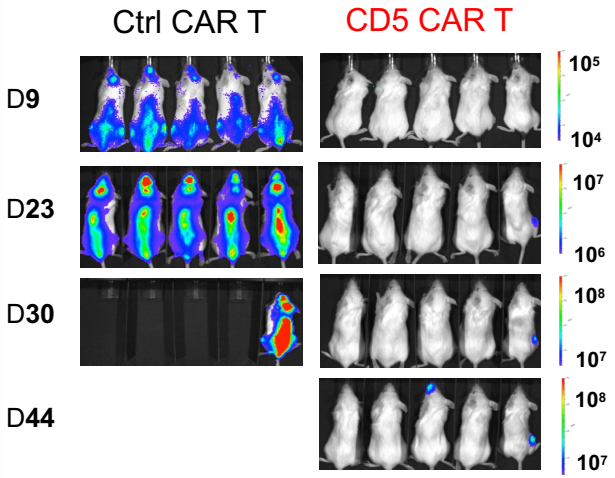


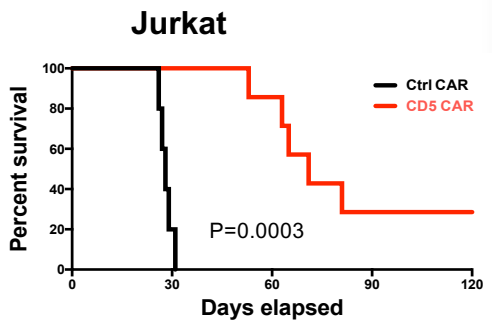
CD5.CAR T cells evade fratricide and expand ex vivo

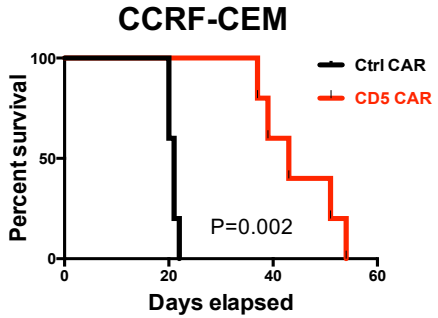


CD5.CART protect mice from systemic T-ALL

Human T-ALL xenograft models







Mamonkin et al. Blood (2015) | Mamonkin et al Cancer Immunol Res (2018)
Ma et al., in revision (**Preprint**: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4661072)

MAGENTA: Phase 1 investigator-initiated study of CD5.CAR-T in T-cell malignancies

Clinical Trial: NCT03081910

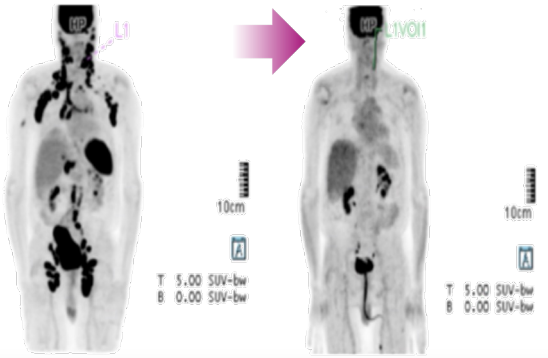
INDICATION	• Adult and pediatric patients with CD5+ r/r TCL or T-ALL • Heavily pre-treated patients – median 5 lines of prior therapy
CLINICAL SITES	• Houston Methodist (L. Hill), Texas Children's Hospital (R. Rouce)
DOSING	• Three dose levels ($1x10^7$ > $5x10^7$> $1x10^8$ CAR T cells/m^2)

MB-105 drives complete responses in TCL and T-ALL patients

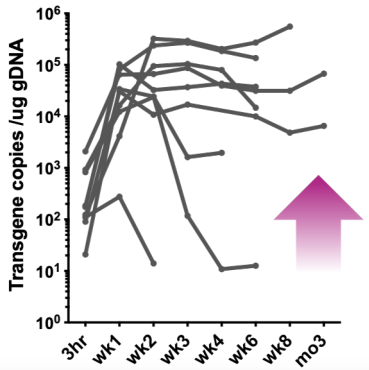
Associated with enhanced cell persistence. Low CRS rates, no ICANs toxicities

Dose Level	Age/Sex	Disease Type	CRS	ICANS	Best Clinical Response
Improved Manufacturing (70% ORR)					
Autologous (66% ORR)					
3	65 F	T-LBL	-	-	**SD**
	17 M	T-ALL	1	-	**CR**
	70 F	T-LBL	-	-	**CR**
	42M	ATLL	-	-	PD
	70M	PTCL	-	-	**CR**
	45M	T-LBL	2	-	**PR**
Donor-derived (75% ORR)					
1	12 F	T-ALL	2	-	**CR**
	43 M	T-ALL	1	-	**CR**
	45 F	T-LBL	1	-	**SD**
	17F	T-ALL	3	-	**CR**

Chemorefractory PTCL
Complete Remission at 4 weeks



CAR-T persistence

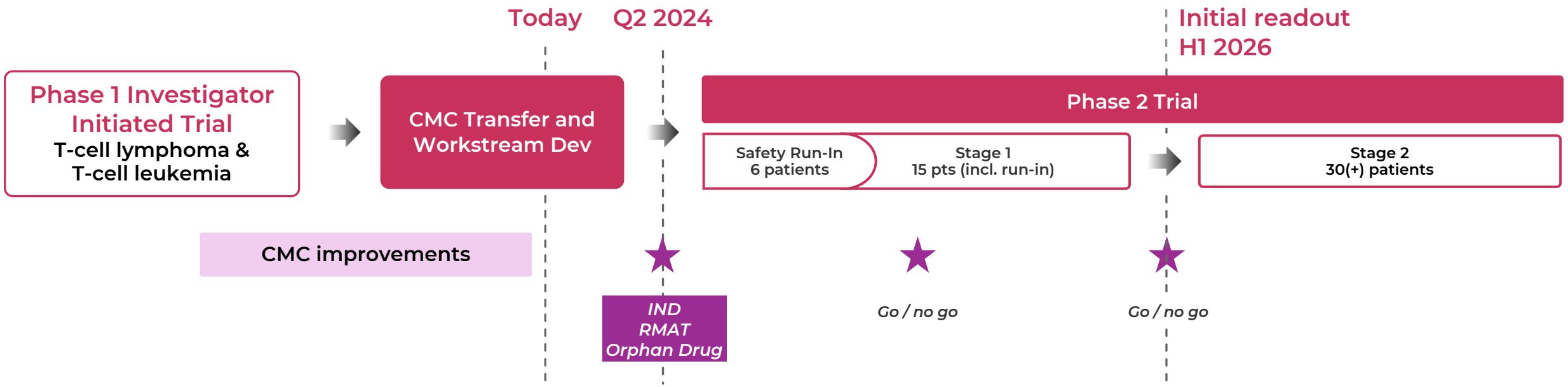


MARCH BIOSCIENCES **CR = Complete Response** **PR = Partial Response** **SD = Stable Disease** PD = Progressive Disease

Phase 2 study in T-cell lymphoma planned in 2024

Opportunity to build significant value through CMC & patient data consolidation

Phase 2 study for CD5+ T-cell lymphoma
Relapsed or refractory >1 line of prior therapy



CTMC+

Partnered with CTMC to rapidly industrialize manufacturing and produce product for Phase 2 studies
All major CMC changes for the life of the product to be completed prior to Phase 2 initiation

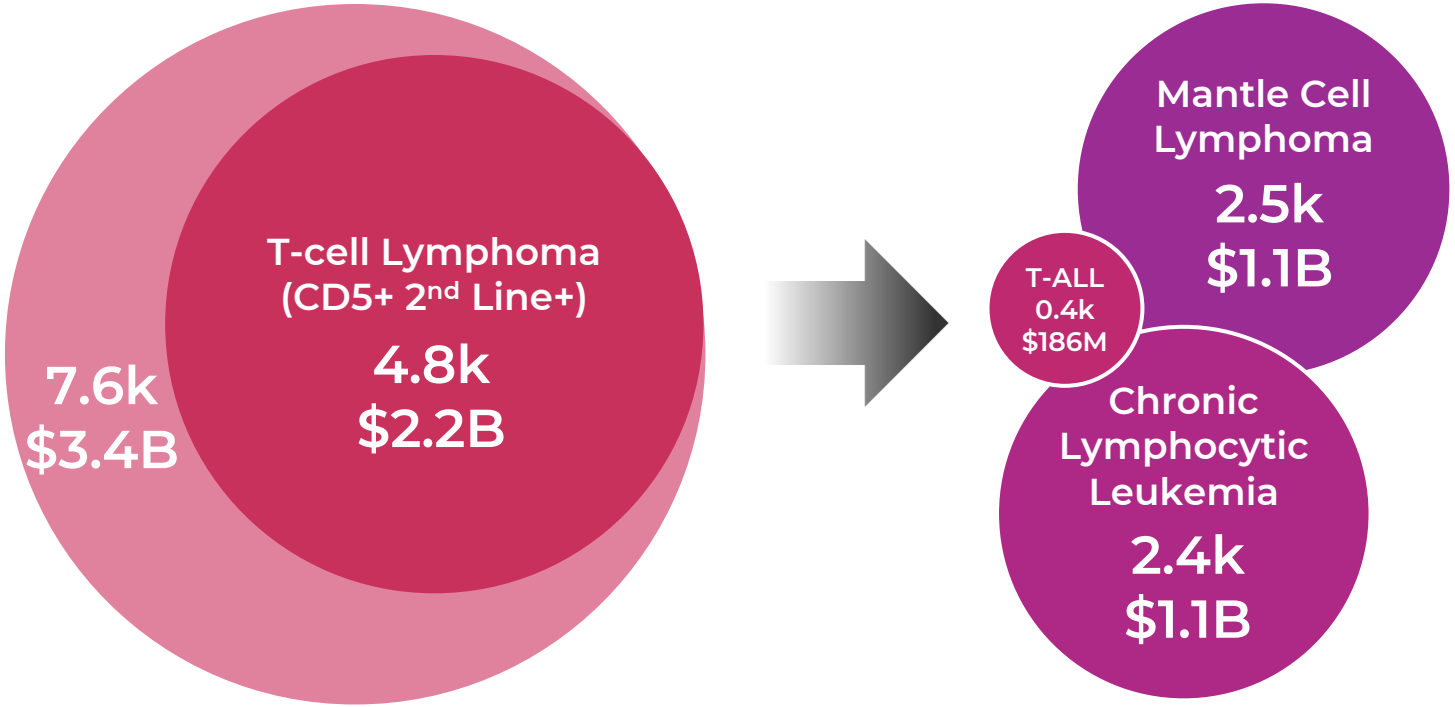
Initial Target Market (>$2B US): T-cell lymphoma 2nd line+

Limited competition creates a uniquely defensible market opportunity

Initial Market: T-cell lymphoma

Additional last-line r/r CD5+ disease in the United States

T-cell Lymphoma US Annual CD5+ Incidence (~10k pts)



TAM Assumptions

- R/R based on last-line patients failing all other therapies
- US incidence based on prevalence and indication-specific CD5 target expression
- Revenue based on $450k/patient (within range of approved CAR-T wholesale acquisition costs)

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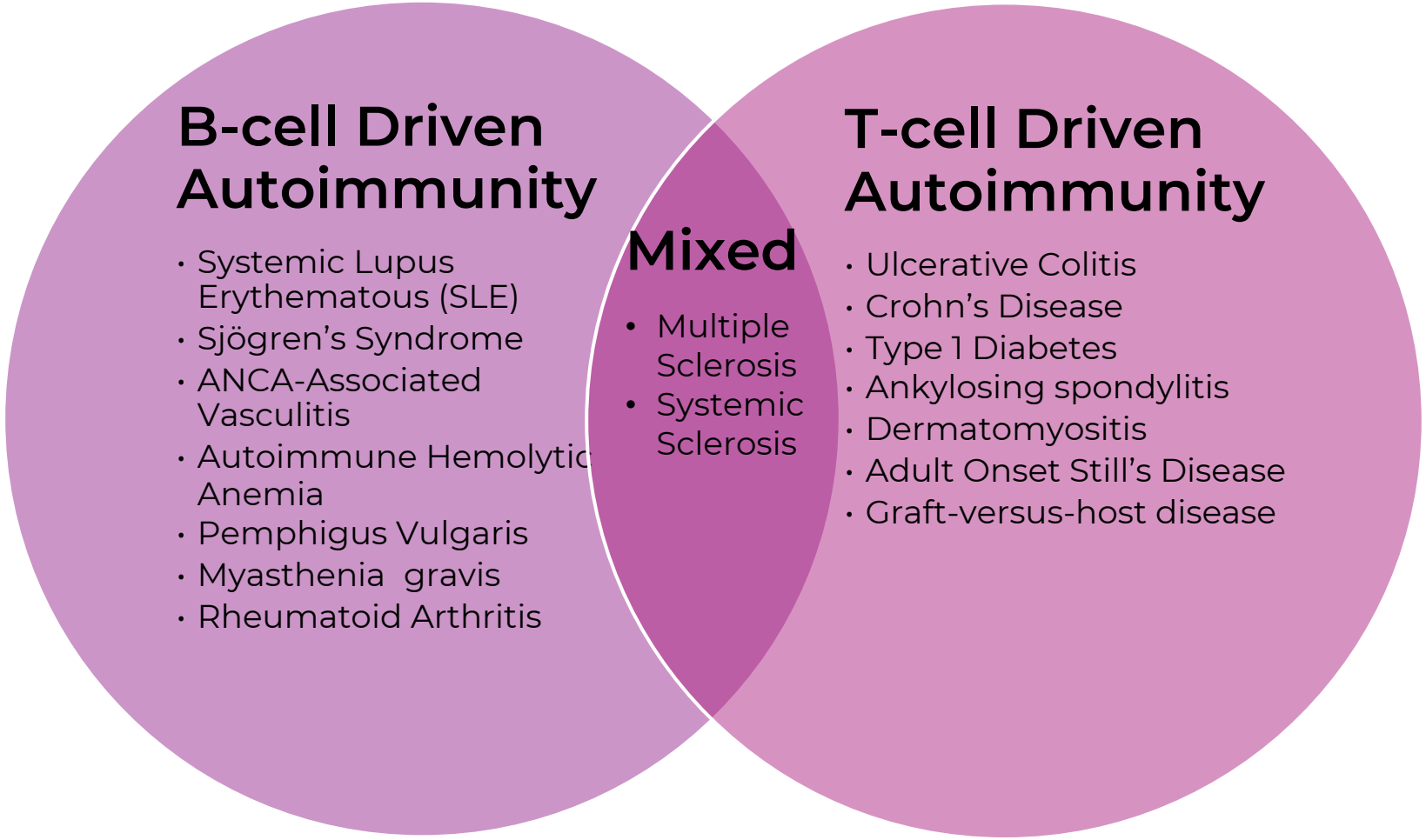
MB-301

Selective T-cell editing of pathogenic T-cells for autoimmune diseases

B-cell versus T-cell driven autoimmune diseases

Current directly-targeted cell therapy approaches in autoimmunity exclusively target B-cell diseases

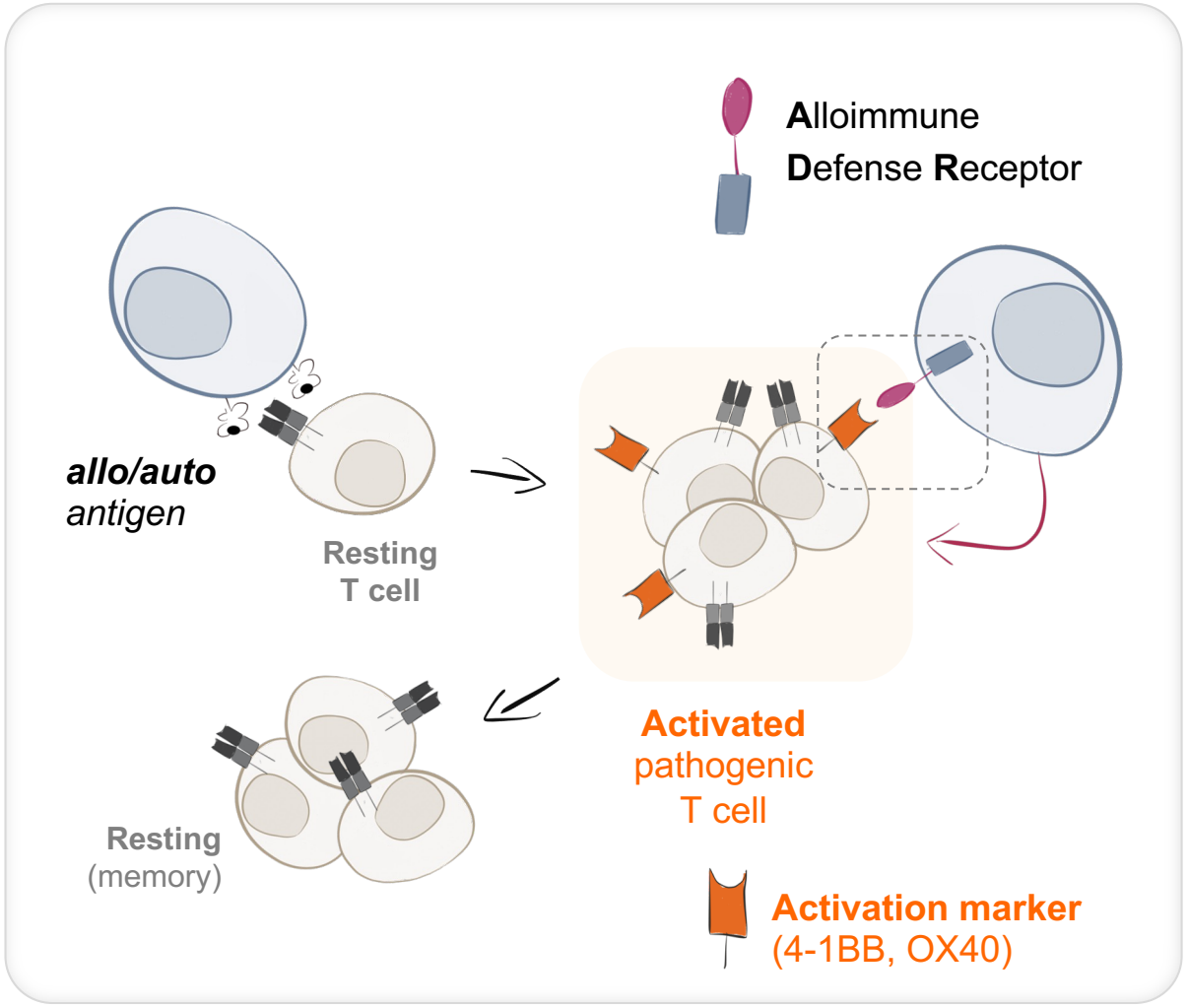


"You can't target T-cells"

– Leading Biotech CSO
Cell Therapy for Autoimmunity Conference 2023

Selective targeting pathogenic T cells

Developing applications of allo-defense receptors (ADR) in T cell driven autoimmunity



ARTICLES
https://doi.org/10.1038/s41587-020-0601-5
nature biotechnology
Check for updates

Engineered off-the-shelf therapeutic T cells resist host immune rejection

Feiyan Mo[1,2], Norihiro Watanabe[1], Mary K. McKenna[1], M. John Hicks[3], Madhuwanti Srinivasan[1], Diogo Gomes-Silva[1], Erden Atilla[1], Tyler Smith[1], Pinar Ataca Atilla[1], Royce Ma[1,4], David Quach[1], Helen E. Heslop[1,2], Malcolm K. Brenner[1,2] and Maksim Mamonkin[1,2,3,4]

4-1BB ADR T cells are protected from immune rejection mediated by host CD8+ T and NK cells

blood®
Regular Article
IMMUNOBIOLOGY AND IMMUNOTHERAPY

Engineering T cells to suppress acute GVHD and leukemia relapse after allogeneic hematopoietic stem cell transplantation

Feiyan Mo,[1,2] Norihiro Watanabe,[1] Kayleigh I. Omdahl,[3,5] Phillip M. Burkhardt,[1,6] Xiaoyun Ding,[7] Eiko Hayase,[8] Angela Panoskaltsis-Mortari,[9] Robert R. Jenq,[8] Helen E. Heslop,[1,2] Leslie S. Kean,[3-5] Malcolm K. Brenner,[1,2,6] Victor Tkachev,[3-5] and Maksim Mamonkin[1,2,6,10]

OX40 ADR T cells suppress graft-versus-host disease by eliminating alloreactive CD4+ T cells

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ADR Publications: Mo F, et al. Nature Biotechnology. (2021); Feiyan Mo, et al. Blood. (2023)

Series A will support Phase 2 study in T-cell lymphoma

Complements committed capital through validated value-inflection point

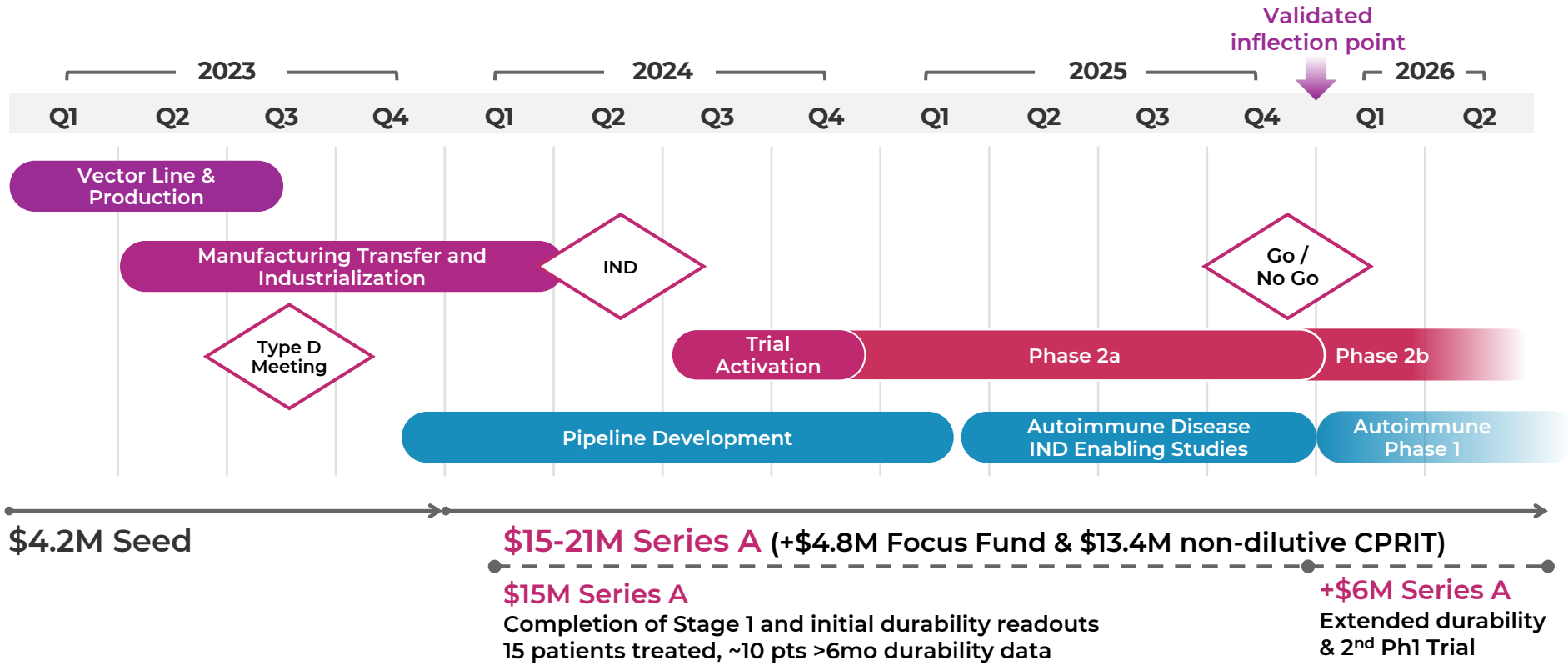
$22.4M Funding committed in 2023

$15-21M Series A
Clinical development through validation of efficacy and durability

$13.4M CPRIT Award
nondilutive

$4.8M Focus Fund

$4.2M Seed



CURRENT PARTNERS:

TMC Texas Medical Center · Baylor College of Medicine · Portal Innovations · The University of Texas System · Small Ventures USA · Cancer Focus Fund · CTMC+ · CPRIT

ACTIVITIES FOR SERIES A:

MB-105 Phase 2 through critical efficacy and safety durability demonstration + RMAT to support Accelerated path
T-cell autoimmune IND + clinical setup

EXIT OPPORTUNITY Q4'2025

The targeted clinical readout has been validated as a key value inflection point with crossover funds and acquisition partners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