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

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) September 9, 2025

TSCAN THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**001-40603**	**82-5282075**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(I.R.S. Employer Identification No.)**

830 Winter Street, Waltham, Massachusetts	**02451**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code (857) 399-9500

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trade Symbol(s)**	**Name of each exchange on which registered**
Voting Common Stock, $0.0001 par value per share	TCRX	The Nasdaq Global Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 7.01 Regulation FD Disclosure.

On September 9, 2025, TScan Therapeutics, Inc. (the "Company") made available an updated corporate presentation (the "Presentation") that it intends to use in potential meetings with investors, analysts, and other stakeholders. The Presentation reflects revisions to the Company's anticipated development and operational milestones, including adjusted timelines for its solid tumor program, updates to the Company's pipeline for both the hematologic malignancies and solid tumor programs, and updates on its target discovery initiatives in autoimmunity. The stockholders and investors are encouraged to review the Presentation for additional details regarding the Company's programs and updated expectations.

A copy of the Presentation is attached as Exhibit 99.1 to this Current Report on Form 8-K. The Presentation will also be available in the investor relations section of the Company's website at https://ir.tscan.com. Information contained on the Company's website is not incorporated by reference into this Current Report on Form 8-K, and you should not consider any information on, or that can be accessed from, the Company's website as part of this Current Report on Form 8-K.

The information under this Item 7.01, including Exhibit 99.1 hereto, is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such a filing. The Company undertakes no obligation to update, supplement or amend the material attached hereto as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits:

Exhibit No.	Description
99.1	Presentation, dated September 9, 2025
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

TScan Therapeutics, Inc.

Date: September 9, 2025

By: /s/ Gavin MacBeath
Gavin MacBeath
Chief Executive Officer

Exhibit 99.1

Company Presentation

September 2025

Disclaimers and forward-looking statements

This presentation and the accompanying discussion contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including, but not limited to, express or implied statements regarding the Company's plans, progress, and timing relating to the Company's solid tumor programs and the presentation of data, the Company's current and future research and development plans or expectations, the structure, timing and success of the Company's planned preclinical development, submission of INDs, and clinical trials, the potential benefits of any of the Company's proprietary platforms, multiplexing, or current or future product candidates in treating patients, the Company's ability to fund its operating expenses and capital expenditure requirements with its existing cash and cash equivalents, and the Company's goals and strategy. TScan intends such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. In some cases, you can identify forward-looking statements by terms such as, but not limited to, "may," "might," "will," "objective," "intend," "should," "could," "can," "would," "expect," "believe," "anticipate," "project," "target," "design," "estimate," "predict," "potential," "plan," "on track," or similar expressions or the negative of those terms. Such forward-looking statements are based upon current expectations that involve risks, changes in circumstances, assumptions, and uncertainties. The express or implied forward-looking statements included in this presentation are only predictions and are subject to a number of risks, uncertainties and assumptions, including, without limitation: the beneficial characteristics, safety, efficacy, therapeutic effects and potential advantages of TScan's TCR-T therapy candidates; TScan's expectations regarding its preclinical studies being predictive of clinical trial results; the timing of the initiation, progress and expected results of TScan's preclinical studies, clinical trials and its research and development programs; TScan's plans relating to developing and commercializing its TCR-T therapy candidates, if approved, including sales strategy; estimates of the size of the addressable market for TScan's TCR-T therapy candidates; TScan's manufacturing capabilities and the scalable nature of its manufacturing process; TScan's estimates regarding expenses, future milestone payments and revenue, capital requirements and needs for additional financing; TScan's expectations regarding competition; TScan's anticipated growth strategies; TScan's ability to attract or retain key personnel; TScan's ability to establish and maintain development partnerships and collaborations; TScan's expectations regarding federal, state and foreign regulatory requirements; TScan's ability to obtain and maintain intellectual property protection for its proprietary platform technology and our product candidates; the sufficiency of TScan's existing capital resources to fund its future operating expenses and capital expenditure requirements; and other factors that are described in the "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections of TScan's most recent Annual Report on Form 10-K and any other filings that TScan has made or may make with the SEC in the future.

Any forward-looking statements contained in this presentation represent TScan's views only as of the date hereof and should not be relied upon as representing its views as of any subsequent date. Except as required by law, TScan explicitly disclaims any obligation to update any forward-looking statements.

TSCAN THERAPEUTICS

TScan is a fully integrated, next-generation TCR-T therapy company

Clinical-stage pipeline of next-gen TCR-T therapies

- **HEME PROGRAM:** Targeting residual disease to prevent relapse in patients undergoing allogeneic HCT
- **SOLID TUMOR:** Multiplex TCR-T therapy to overcome tumor heterogeneity and HLA loss

Promising clinical data in heme

- 2 of 26 (8%) treatment-arm subjects relapsed as compared to 4 of 12 (33%) control-arm subjects[1]
- >$1B addressable market across US & EU

Multiple clinical catalysts expected by end of 2025

HEME PROGRAM:
- Launch pivotal study (2H25)
- Present two-year relapse data on initial Ph1 patients (YE25)

SOLID TUMOR:
- Present safety and response data for multiplex TCR-T (1Q26)

In-house GMP manufacturing supports early-stage development

- Global CDMO engaged to support late-stage clinical and commercial manufacturing

$218.0M as of June 30, 2025 funds operations into Q1 2027
129.8M[2] total economic shares outstanding as of June 30, 2025

TSCAN THERAPEUTICS

[1] As of latest data cut presented at ASH Annual Meeting in December 2024
[2] Includes 56,747,993 outstanding common shares plus 73,087,945 pre-funded warrants

TScan is building on the remarkable success of immunotherapy

Checkpoint & TIL therapy
Rejuvenating and expanding a patient's existing T cells

- ✓ Proven efficacy in solid tumors
- ✓ Full range of targets seen by immune system
- ✗ Most patients lack anti-cancer T cells and do not respond
- ✗ Limited applicability to heme malignancies to date

TCR-T therapy
Engineering T cells to express natural T cell receptors

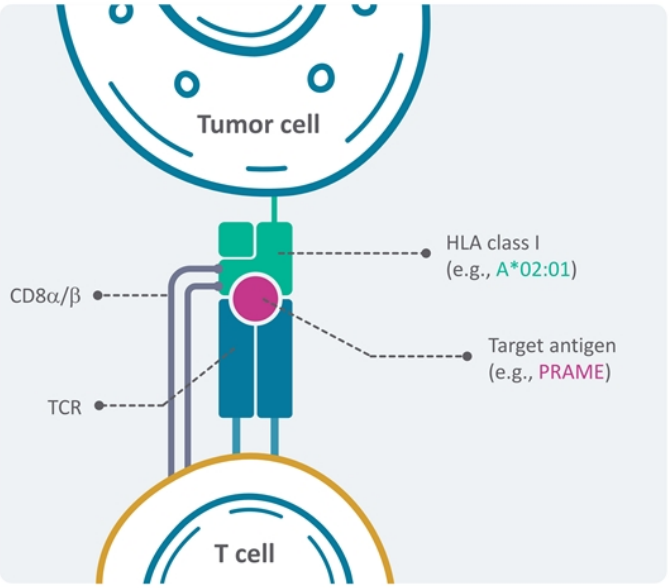
- ✓ Promising efficacy in solid tumors
- ✓ Full range of targets seen by immune system
- ✓ T cells engineered with natural anti-cancer TCRs
- ✓ Promising efficacy in heme malignancies

CAR-T therapy
Engineering T cells with a synthetic receptor

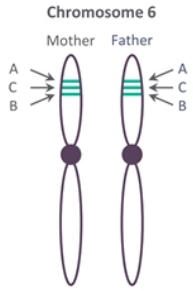
- ✗ Poor solid tumor penetration
- ✗ Limited to cell surface antigens
- ✓ T cells engineered with potent targeting receptors
- ✓ Proven efficacy in heme malignancies

TSCAN THERAPEUTICS

TScan is targeting the most frequent human leukocyte antigens (HLAs) to address a broad patient population



Everyone has six class I HLAs



There are 100s of different HLA types

~90% of people in the U.S. are positive for at least one of the top six HLA types*

	% people positive for each HLA type		
HLA type	United States	Europe	Asia
A*02:01	42	47	19
A*01:01	24	26	14
A*03:01	22	25	7.0
B*07:02	20	21	8.1
C*07:02	24	23	24
A*24:02	17	19	37

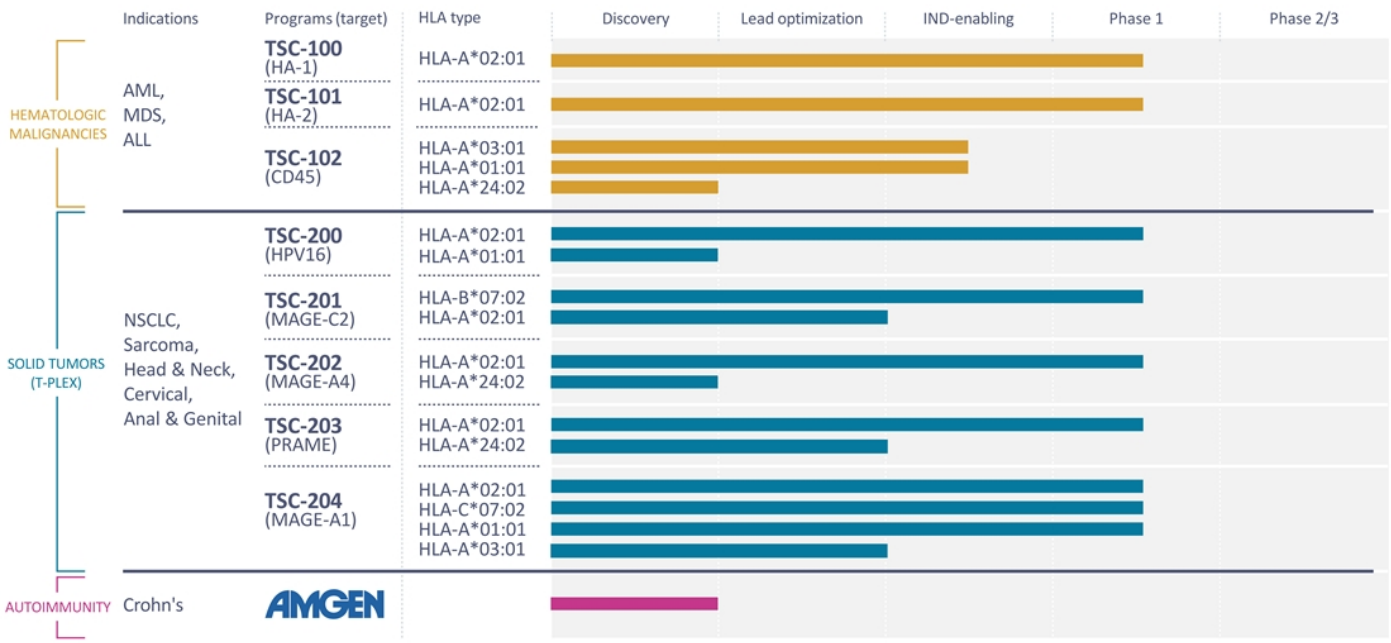
Most TCR-T companies only target **one** HLA (A*02:01)

TScan is developing a broad pipeline targeting the top **six** HLAs

TSCAN THERAPEUTICS

*allelefrequencies.net

Nine TCR-T candidates in clinical development, with new TCR-Ts advancing



TSCAN THERAPEUTICS

Heme Malignancies:
TSC-100, TSC-101, TSC-102-A0301

Targeting residual disease to prevent relapse in patients undergoing allogeneic HCT

TSCAN THERAPEUTICS

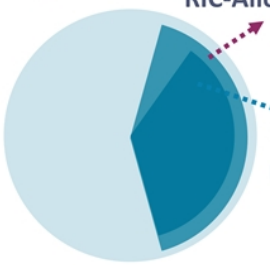
Relapse after hematopoietic cell transplant remains an unmet need

AML, MDS, some ALL is not addressed by CAR-T due to shared antigens with normal blood cells

Allogeneic hematopoietic cell transplant (HCT) expected to remain standard of care

Allo-HCT creates a unique opportunity to safely target residual cancer cells while sparing normal blood cells

38-44% of patients relapse within two years following RIC-Allo-HCT[1]

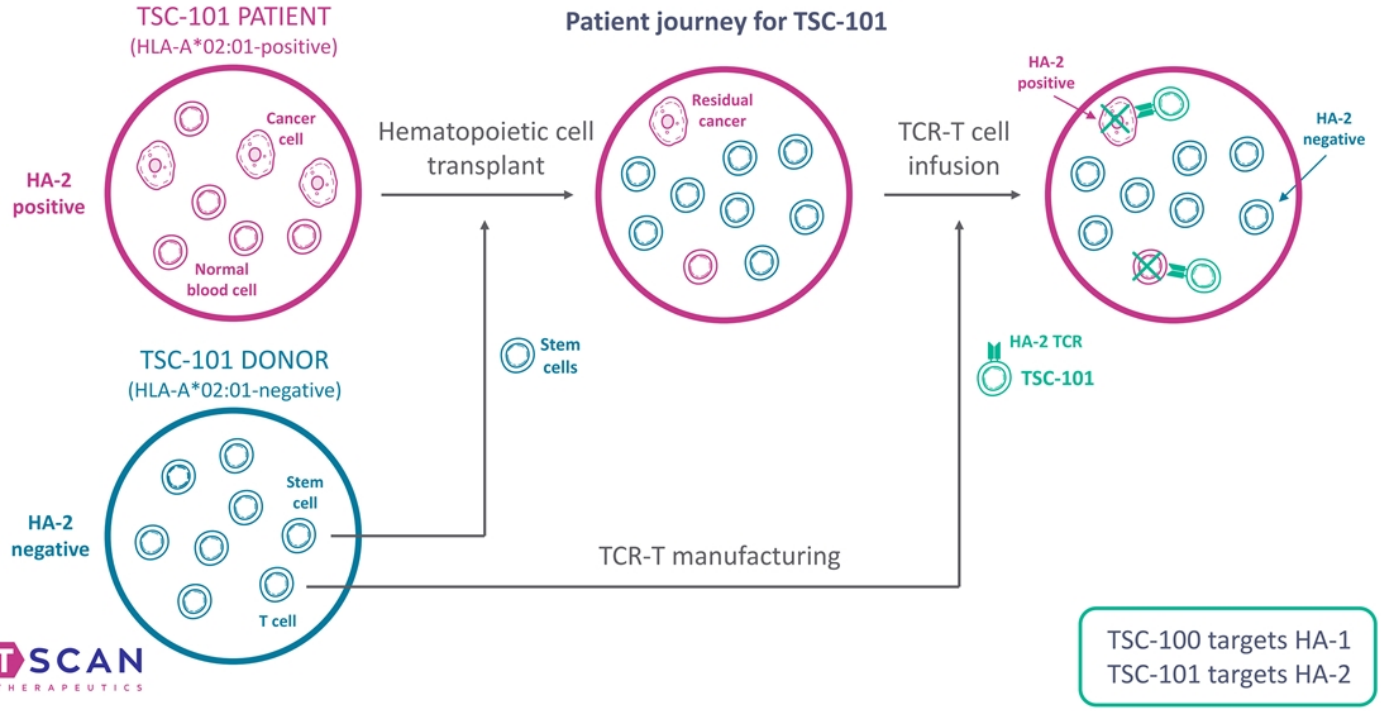


Of those who relapse, **>80%** die within two years[2]

Targeting antigens mismatched between patients and donors can potentially prevent relapse after allo-HCT

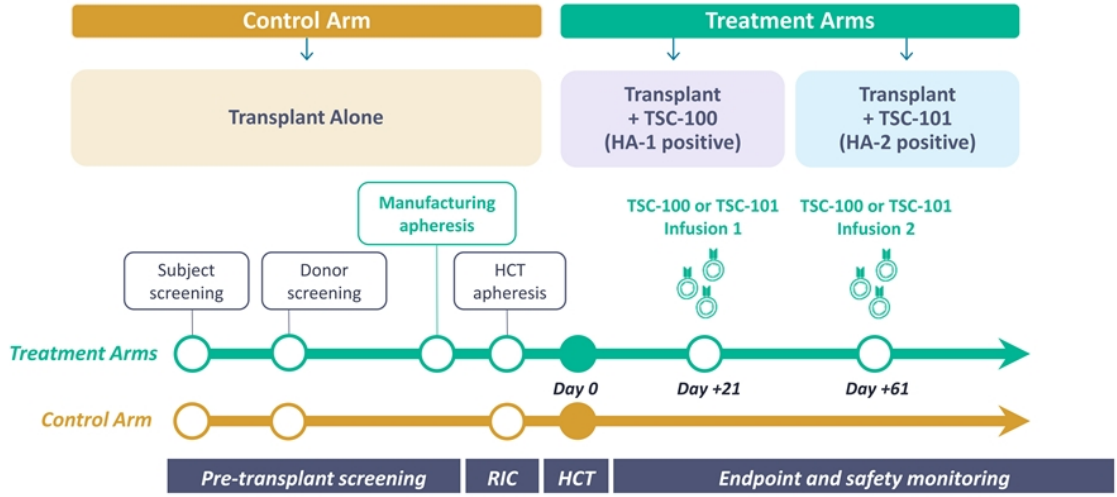
1. CIBMTR analysis of AML, ALL, MDS allogeneic transplants with reduced intensity conditioning (RIC) between 2017-2019 with 2-year follow-up
2. Schmid, Blood 2012, Spyridonidis, Leukemia 2012, Schmid, Haematologica 2018

TSC-100 and TSC-101 are bespoke allogeneic TCR-T cell therapies designed to eliminate residual cancer and prevent relapse following HCT



TSC-100 targets HA-1
TSC-101 targets HA-2

ALLOHA™, a multi-arm Phase 1 trial for TSC-100 & TSC-101 in subjects with AML, ALL, and MDS (NCT05473910)



Key eligibility criteria

- Age ≥18 years
- Undergoing first allo-HCT for ALL, AML, MDS
- Subject positive for HA-1 (or HA-2) with a haploidentical HA-1 (or HA-2) negative donor
- Eligible for RIC-HCT followed by PTCy for GvHD prophylaxis

Key endpoints

- Safety: Dose limiting toxicities, adverse events
- Efficacy
- Exploratory endpoints: Donor chimerism, minimal residual disease

TSCAN THERAPEUTICS

ALL, acute lymphoblastic leukemia; AML, acute myeloid leukemia; MDS, myelodysplastic syndromes; GvHD, graft vs host disease; RIC-HCT, reduced intensity conditioning hematopoietic cell transplantation

Majority of subjects in the treatment and control arms are at high risk for relapse

		TSC-100	TSC-101	Any TSC	Control
Subjects Enrolled and Assigned		14	12	26	13
Subjects Transplanted (efficacy data cohort)		14	12	26	12
Subjects Infused (safety data cohort)		10	12	22	N/A*
Median Time of Follow Up, months		4.0 (0-19)	6.4 (1-21)	5.1 (0-21)	7.1 (1-25)
Age, Median (Range)		69 (39-76)	66 (52-74)	67 (39-76)	66 (23-74)
Sex, Male (n, %)		10 (71%)	7 (58%)	17 (65%)	6 (46%)
Underlying Disease	ALL	2 (14%)	2 (17%)	4 (15%)	0 (0%)
	AML	10 (71%)	7 (58%)	17 (65%)	8 (62%)
	MDS	2 (14%)	3 (25%)	5 (19%)	5 (38%)
Genetics/Cytogenetics	**TP53 Mutated**	**4 (29%)**	**2 (17%)**	**6 (23%)**	**2 (15%)**
	FLT3 Mutation	2 (14%)	0 (0%)	2 (8%)	5 (38%)
	Adverse Risk**	11 (79%)	10 (83%)	21 (81%)	8 (62%)
Pre-HCT MRD Positive* **		8 (57%)	5 (42%)	13 (50%)	7 (54%)
MRD Positive or Adverse Risk Genetics		**11 (79%)**	**10 (83%)**	**21 (81%)**	**10 (77%)**

*Control subjects that received transplant are included in the safety data cohort

**Adverse risk is defined as having either a IPSS-M mutation if the subject has MDS or European Leukemia Network (ELN) high risk genetics or cytogenetics for AML; ELN 2022 high risk genetics/ cytogenetics include mutated ASXL1, BCOR, EZH2, RUNX1, SF3B1, SRSF2, STAG2, U2AF1, ZRSR2, TP53, -5/ del(5q)/, -7,-17/ abn(17p), t(6;9), t(v;11q23.3), t(9;22), t(8;16), inv(3) or t(3;3), t(3q26.2;v), monosomal or complex karyotype (for AML); IPSS-M mutations are reported in Bernard et al, NEJM Evid, 2022 (for MDS)

***MRD measured by flow cytometry (lower limit of detection 0.1-1%) or NGS (lower limit of detection 0.05-0.1% in myeloid and 0.001-0.01% in lymphoid malignancies).

TSCAN THERAPEUTICS

As of latest data cut presented at ASH Annual Meeting December 2024

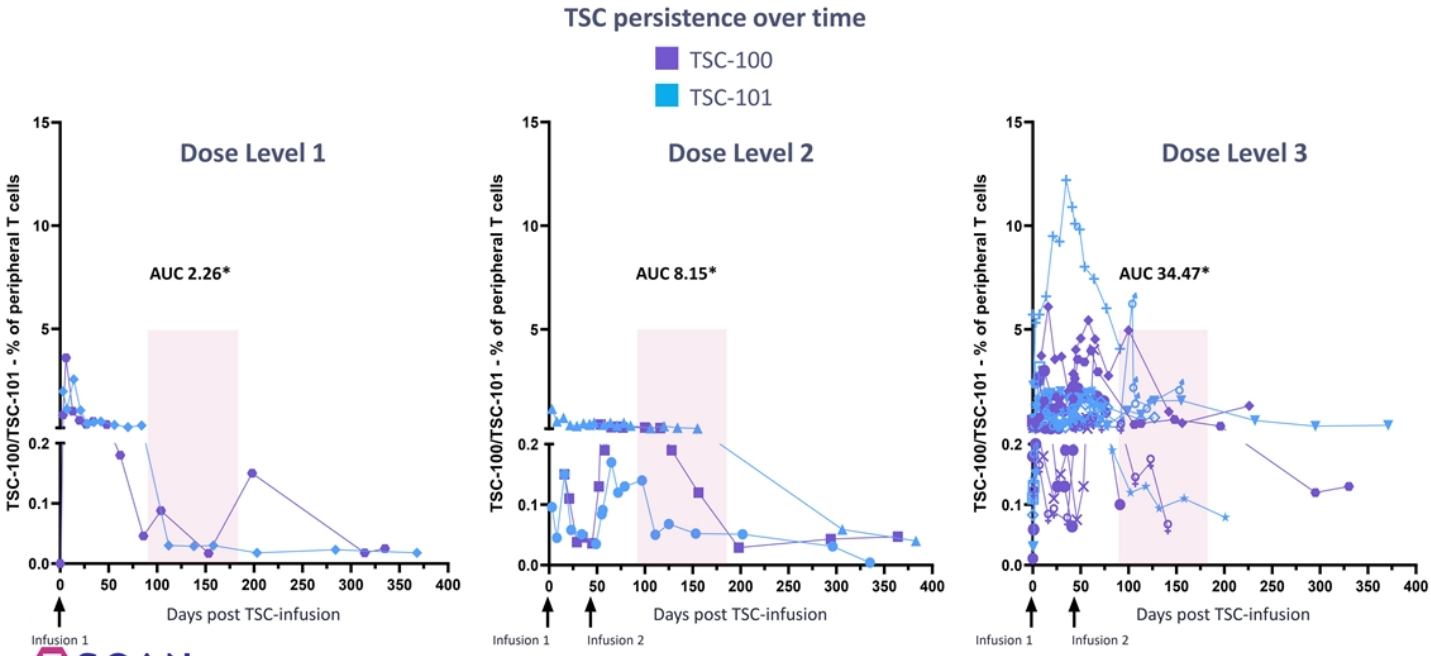
No dose-limiting toxicities observed at all three dose levels in subjects treated with TSC-100 or TSC-101

Dose Level	Planned Day of Infusion Post HCT		TSC 100 N=10	TSC 101 N=12
	+21	+61		
DL1	5×10^6 TCR-T cells/kg	N/A	1	1
DL2	5×10^6 TCR-T cells/kg	5×10^6 TCR-T cells/kg	1	2
DL3	5×10^6 TCR-T cells/kg	20×10^6 TCR-T cells/kg	8	9

TSCAN THERAPEUTICS

As of latest data cut presented at ASH Annual Meeting December 2024

TSC-100 and TSC-101 TCR-T cells detected for over one year with increased persistence seen at highest dose level (DL3)



*AUC of TSC-100/TSC-101 between Day 90-180 (Geometric mean(geometric CV)): DL1: 2.26(47.2%); DL2 and sDL2: 8.15(42.2%); DL3 and sDL3: 34.47(97.7%). Dose did not meet target dose criteria in supplemental dose level cohorts (sDL)

As of latest data cut presented at ASH Annual Meeting December 2024

Adverse events of special interest are low grade and manageable

Adverse Event of Special Interest*	TSC-100 n=10	TSC-101 n=12	Any TSC n=22	Control n=12
Any Acute GvHD**	5 (50%)	6 (50%)	11 (50%)	4 (33%)
Grade II - IV	0 (0%)	2 (17%)	2 (9%)	3 (25%)
Grade III - IV	0 (0%)	1 (8%)	1 (5%)	2 (17%)
Any CRS	4 (40%)	8 (67%)	12 (57%)	6 (50%)
Grade 1 - 2	4 (40%)	8 (67%)	12 (57%)	6 (50%)
Grade 3 - 4	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Treatment-emergent CRS	1 (10%)	1 (8%)	2 (9%)	NA
Grade 1 - 2	1 (10%)	1 (8%)	2 (9%)	NA
Grade 3 - 4	0 (0%)	0 (0%)	0 (0%)	NA
Any ICANS	0 (0%)	0 (0%)	0 (0%)	0 (0%)

- Balanced Grade II – IV acute GvHD between treatment and control arms
- No cases of moderate or severe chronic GvHD
  - One case each of mild chronic GvHD in the treatment and control arms
- Two episodes of low-grade CRS reported post TSC infusions
  - One Grade 1 event (TSC-100) and one Grade 2 event (TSC-101)
- No cases of ICANS

TSCAN THERAPEUTICS

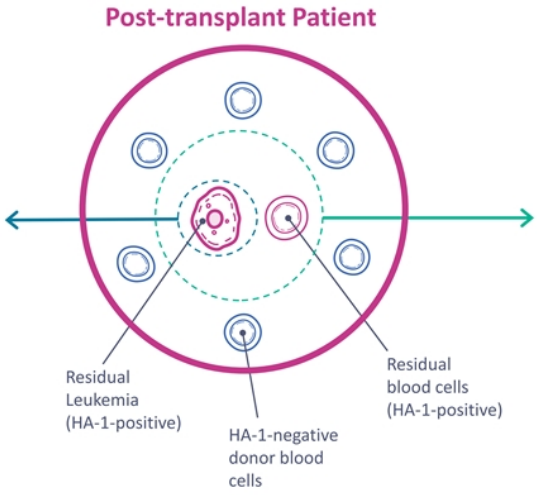
*MAGIC grading used for acute GvHD, NIH consensus grading for chronic GvHD, and ASTCT grading used for CRS or ICANS
**Acute GvHD through 180 days post HCT

As of latest data cut presented at ASH Annual Meeting December 2024

Key biomarkers for residual leukemia or residual patient-derived blood cells serve as potential early surrogates of efficacy

Minimal Residual Disease (MRD)

MRD+: high risk of relapse
MRD-: low risk of relapse[1, 2]



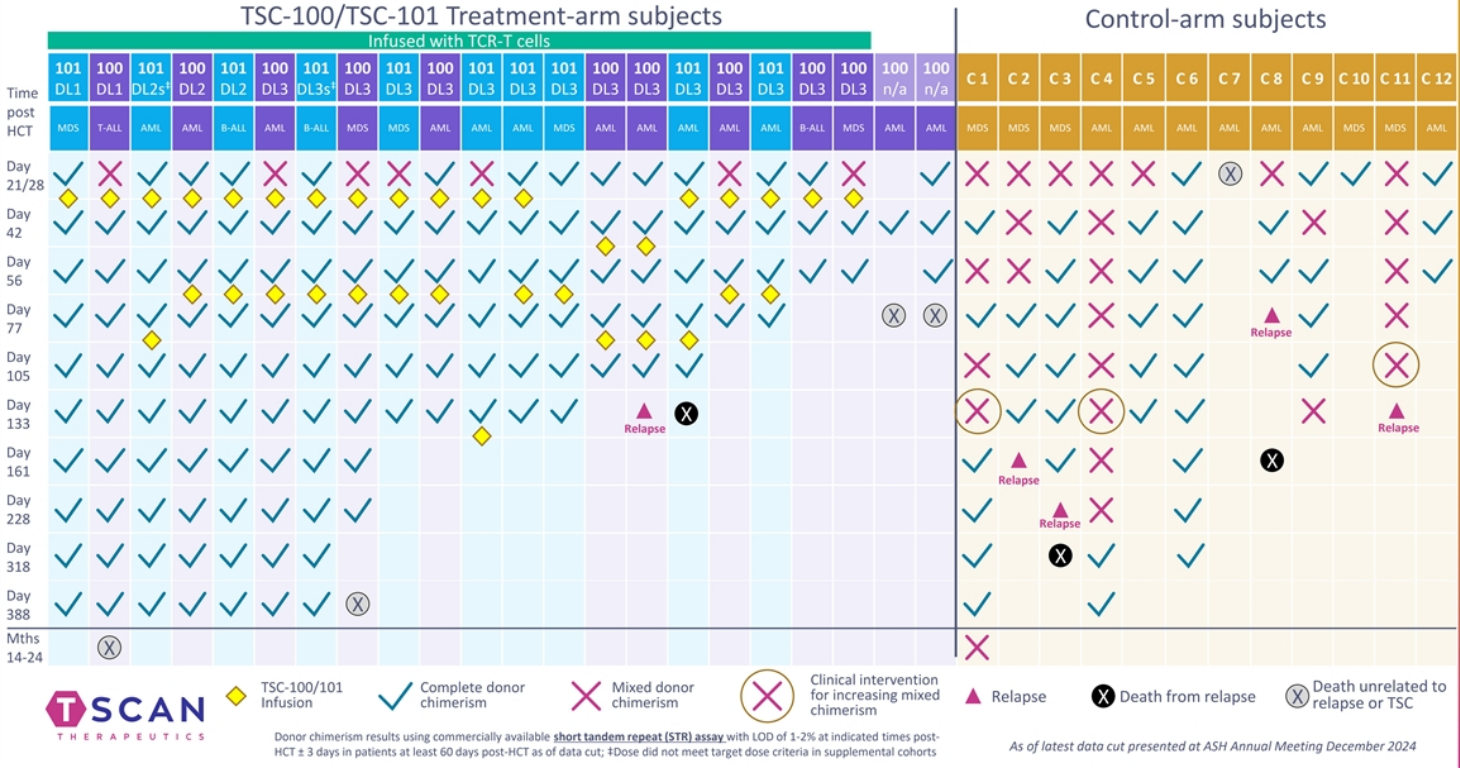
Donor Chimerism

Mixed: high risk of relapse
Complete: low risk of relapse[3]

1. Craddock, J Clin Oncol, 2021
2. Loke, ASH, 2021
3. Lindhal, Bone Marrow Transpl, 2022

TSCAN THERAPEUTICS

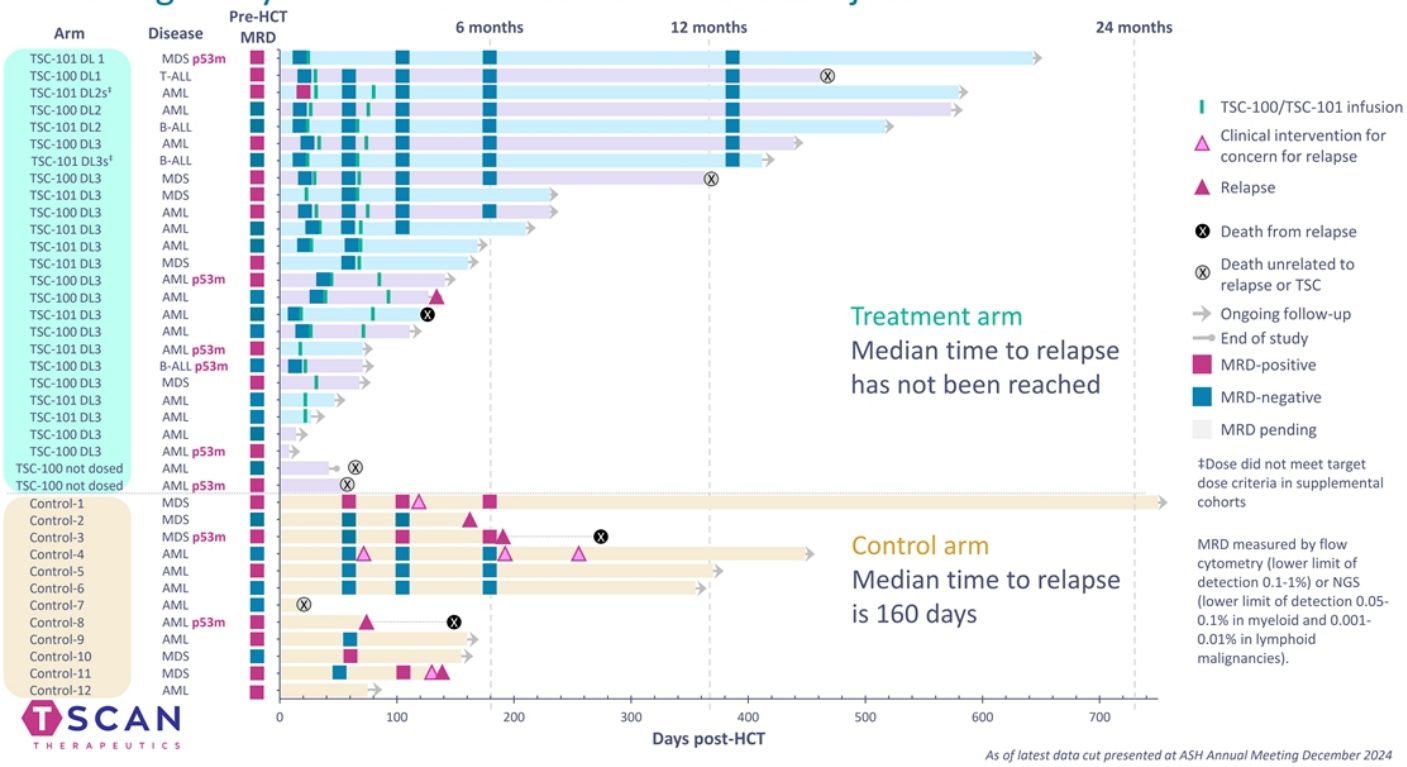
Complete donor chimerism achieved in all patients after initial TSC infusion



Donor chimerism results using commercially available **short tandem repeat (STR) assay** with LOD of 1-2% at indicated times post-HCT ± 3 days in patients at least 60 days post-HCT as of data cut; ‡Dose did not meet target dose criteria in supplemental cohorts

As of latest data cut presented at ASH Annual Meeting December 2024

MRD negativity achieved in all treatment-arm subjects



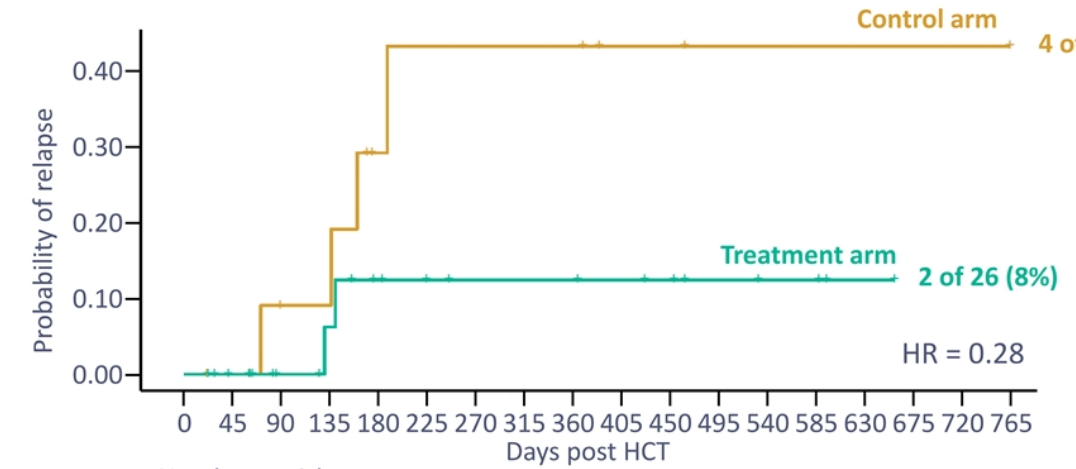
‡Dose did not meet target dose criteria in supplemental cohorts

MRD measured by flow cytometry (lower limit of detection 0.1-1%) or NGS (lower limit of detection 0.05-0.1% in myeloid and 0.001-0.01% in lymphoid malignancies).

TSCAN THERAPEUTICS

As of latest data cut presented at ASH Annual Meeting December 2024

TCR-T infusion is associated with fewer relapses



Number at risk

Control arm	12	11	9	9	5	4	4	4	4	2	2	1	1	1	1	1	1
Treatment arm	26	23	17	15	12	10	8	8	8	7	6	4	3	3	1	0	0	0

Cumulative number of events

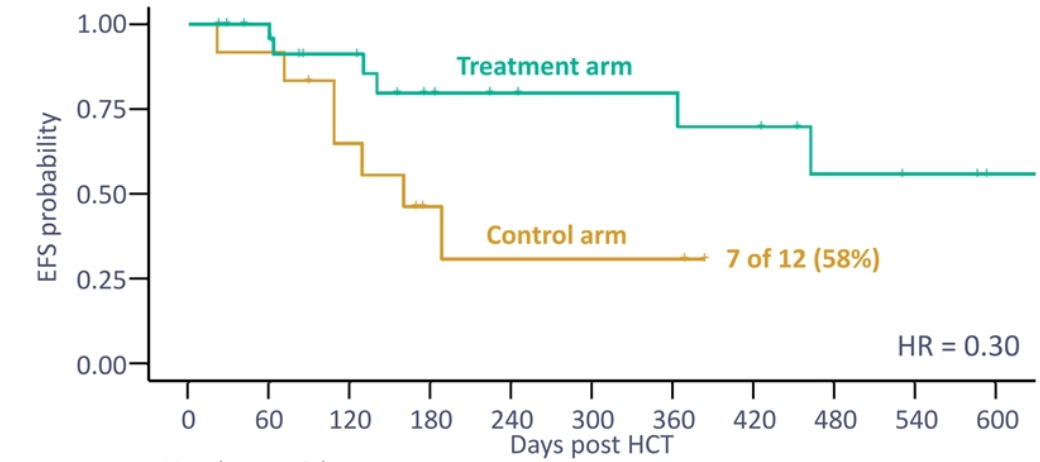
Control arm	0	0	1	1	3	4	4	4	4	4	4	4	4	4	4	4	4
Treatment arm	0	0	0	1	2	2	2	2	2	2	2	2	2	2	2	2	2

TSCAN THERAPEUTICS

CoxPH Ratio = 0.275, CI = (0.05, 1.502), p = 0.136; Log–rank p = 0.1105

As of latest data cut presented at ASH Annual Meeting December 2024

Event-free survival (EFS) favors the treatment arm



Number at risk

Control arm	12	11	7	3	2	2	2	0	0	0	0
Treatment arm	26	23	17	12	10	8	8	7	4	3	1

Cumulative number of events

Control arm	0	1	4	6	7	7	7	7	7	7	7
Treatment arm	0	1	2	4	4	4	4	5	6	6	6

TSCAN THERAPEUTICS

Event defined as relapse, clinical intervention for impending relapse (non-TSC), or death
Cox PH Ratio = 0.304, CI = (0.096, 0.966, p = 0.0435); Log-rank p = 0.0321

As of latest data cut presented at ASH Annual Meeting December 2024

ALLOHA™ Phase 1 data support launch of pivotal trial in H2 2025

- Infusions with TSC-100 and TSC-101 were well-tolerated with no DLTs and adverse events consistent with HCT
- TSC-100 and TSC-101 TCR-T cells have been detected >1 year post infusion and have a clear dose-persistence relationship
- 2 of 26 (8%) treatment-arm subjects relapsed as compared to 4 of 12 (33%) control-arm subjects
  - Median time to relapse was not evaluable in TCR-T-treated subjects vs 160 days in the control arm
  - Event-free survival strongly favors the treatment arm (HR=0.30)

TSCAN THERAPEUTICS

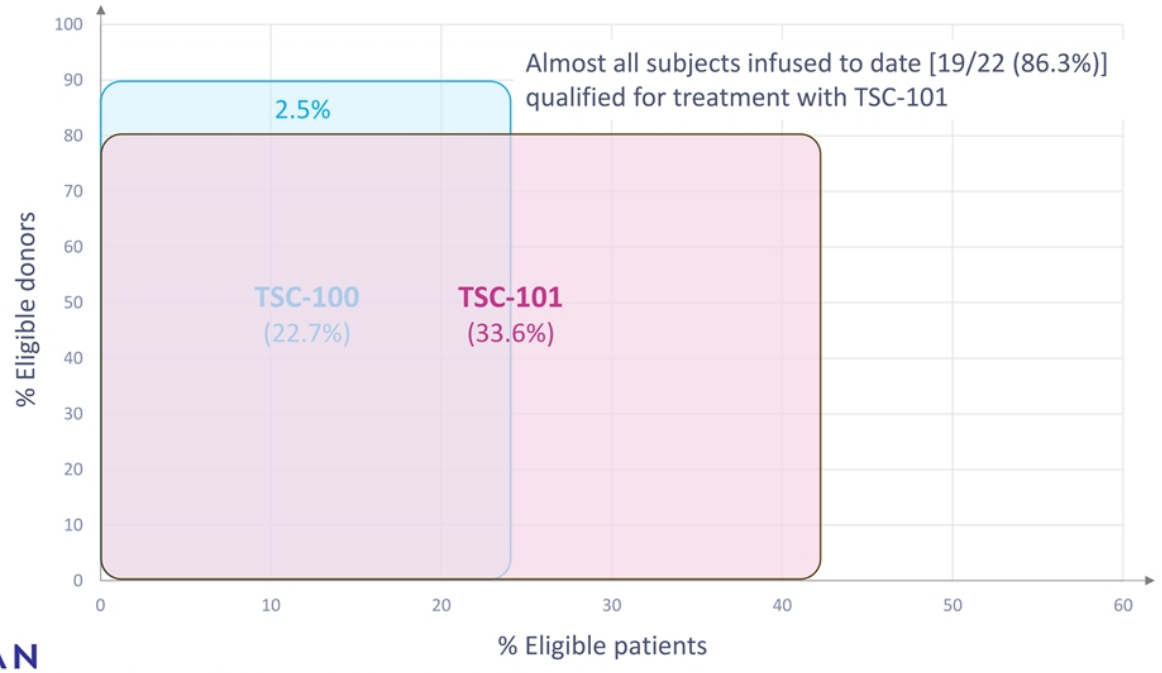
As of latest data cut presented at ASH Annual Meeting December 2024

Heme Development Strategy

Targeting residual disease to prevent relapse in patients undergoing allogeneic HCT

TSCAN THERAPEUTICS

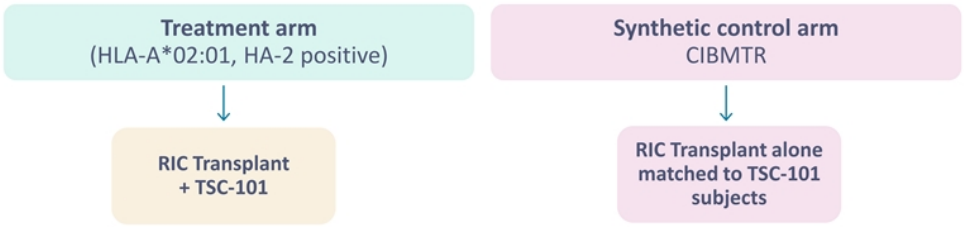
TSC-101 captures ~98% of HLA-A*02:01-positive patients, obviating the need for TSC-100 or a companion diagnostic



Sources: Wang, AACR 2022; Spierings, PLoS Genetics 2007; CIBMTR 2023

Pivotal study designed for full approval using an external control arm

Subjects: AML, MDS, ALL undergoing transplant with reduced intensity conditioning (RIC)
Donors: Haploidentical and mismatched unrelated donors
Enrollment: TSC-101 vs matched controls (1:3)
Companion Diagnostic: Not needed



Endpoints

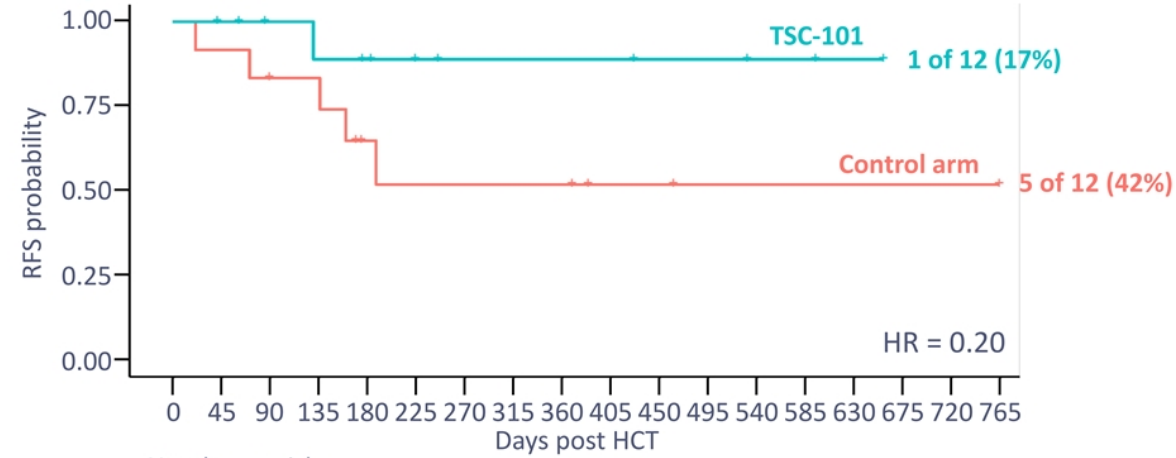
- **Primary**: Relapse-free survival (RFS; Full approval)
- **Key Secondary**: Overall survival, time to relapse, event-free survival
- **Exploratory**: MRD, complete chimerism rates

Readouts

- **Full Approval**: 184 relapse + death events
  - HR 0.60, 85% power
  - N = ~140 treatment arm subjects
- **Study Readout**: 24 months

TSCAN THERAPEUTICS

Target RFS hazard ratio of 0.60 is well supported by data from the ALLOHA™ Phase 1 study



Number at risk

Control arm	12	11	9	9	5	4	4	4	4	2	2	1	1	1	1	1	1	1
Treatment arm	12	11	9	8	7	5	4	4	4	4	3	3	2	2	1	0	0	0

Cumulative number of events

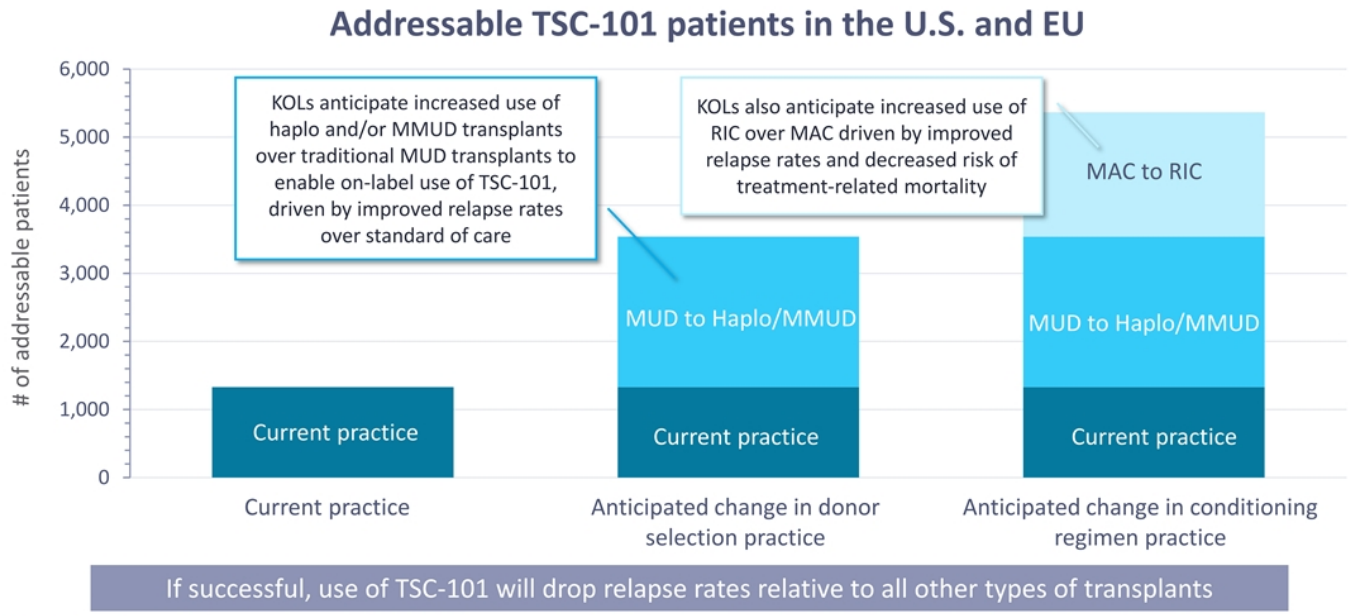
Control arm	0	1	2	2	4	5	5	5	5	5	5	5	5	5	5	5	5	5
Treatment arm	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TSCAN THERAPEUTICS

Event defined as relapse, or death
CoxPH Ratio = 0.2, CI = (0.023, 1.718), p = 0.1425; Log–rank p = 0.1034

As of post-ASH KOL call in December 2024

Increased use of reduced intensity conditioning with haploidentical/MMUD donors has the potential to dramatically expand the addressable market



If successful, use of TSC-101 will drop relapse rates relative to all other types of transplants

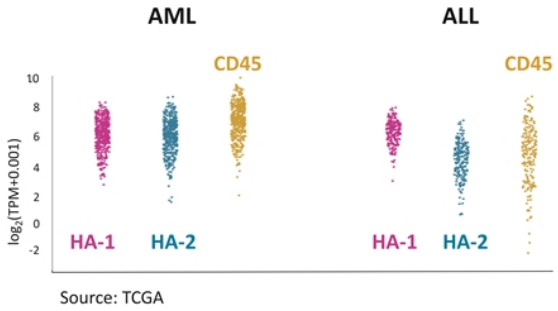
Sources: CIBMTR 2022 and 2023; Wang, AACR 2022; NMDP analysis; ClearView analysis.
Assumes maximum practice change in each case and extrapolation to 2033 as peak of practice change

MUD, matched unrelated donor; Haplo, haploidentical transplant; MMUD, mismatched unrelated donor.

TCRs for additional HLA types will target epitopes on CD45, a universal source of antigens for heme malignancies

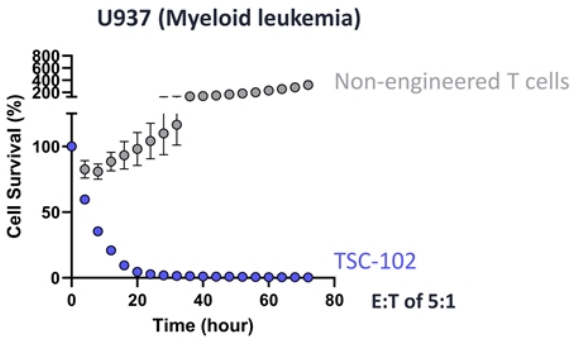
- CD45 is a lineage-specific antigen with expression in all hematopoietic cells, including HSCs
- CD45 is a large protein with many well-known epitopes for high frequency HLAs
- Antigen-negative donors can be selected by mismatching on HLA (using haploidentical and MMUD donors)

CD45 has high and uniform expression in AML and ALL



Source: TCGA

TSC-102 targets an antigen from CD45 presented on HLA-A*03:01



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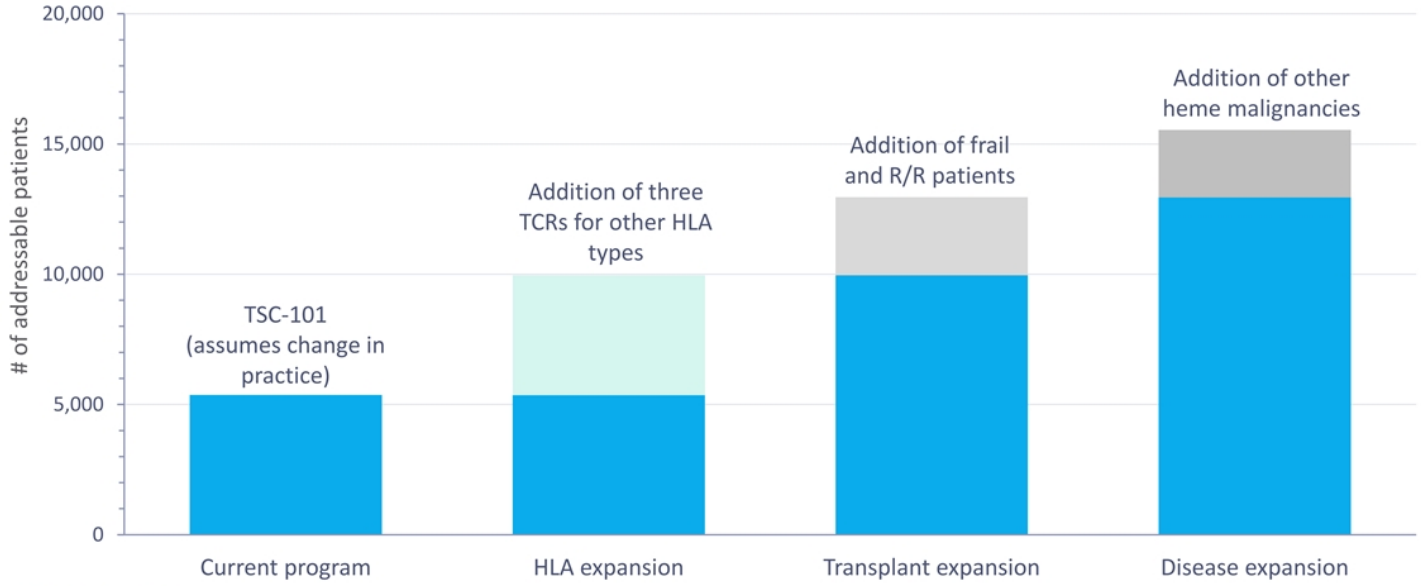
Expansion opportunities for the heme program provide a way to reach over 10,000 patients in the U.S. and Europe



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Source: SEER, CIBMTR, EBMT, ClearView analysis

Solid Tumors:

TSC-200-A0201
TSC-201-B0702
TSC-202-A0201
TSC-203-A0201
TSC-204-A0201
TSC-204-C0702
TSC-204-A0101

Developing multiplex TCR-T therapy to overcome tumor heterogeneity

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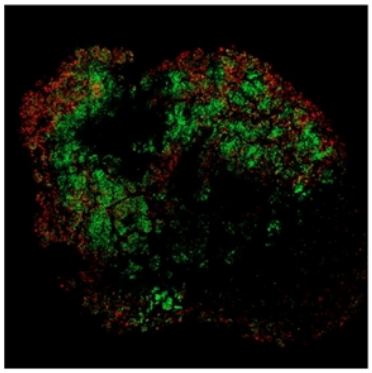
Multiplex TCR-T therapy is designed to address the heterogeneity of solid tumors

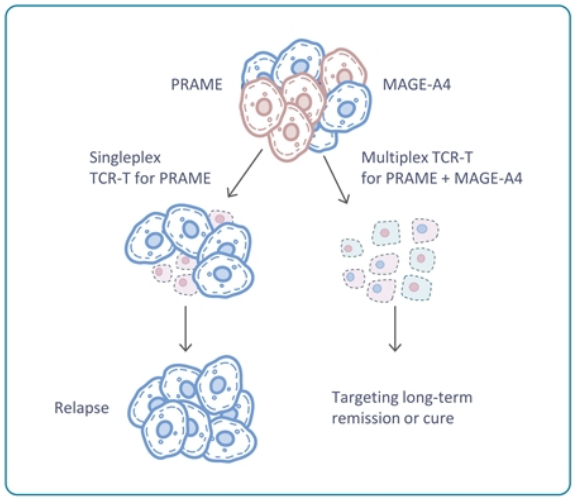
Many immune-rich cancers exhibit target heterogeneity

Non-small cell lung cancer

PRAME **MAGE-A4**



TCR-Ts against multiple targets may be required to improve efficacy and durability



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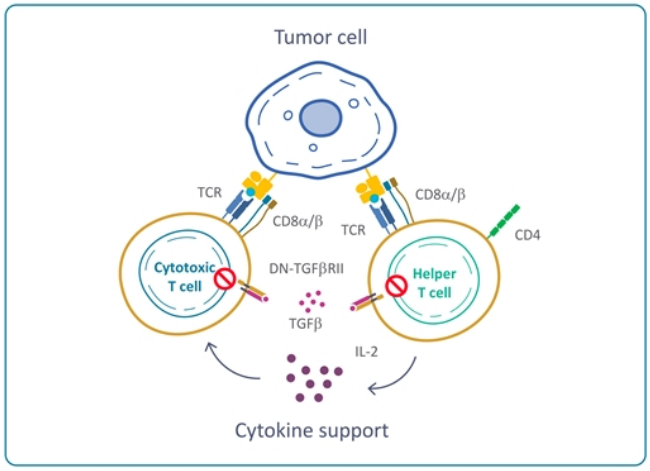
TScan's solution for combatting the hostile tumor microenvironment



- Co-deliver CD8α/β to engage helper T-cells
- Co-deliver DN-TGFβRII to enhance T-cell expansion/persistence

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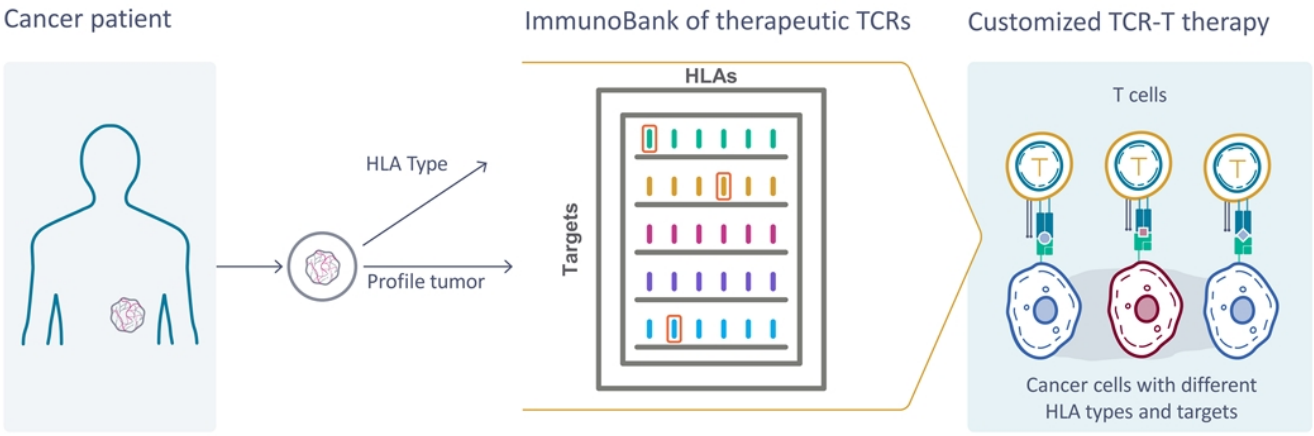
Enhanced TCR-T enabled by TScan's transposon-based manufacturing platform

TScan is building the ImmunoBank of TCRs to enable multiplex TCR-T cell therapy



- Determine target and HLA expression in patient tumor
- Manufacture and administer customized, multiplex TCR-T therapy

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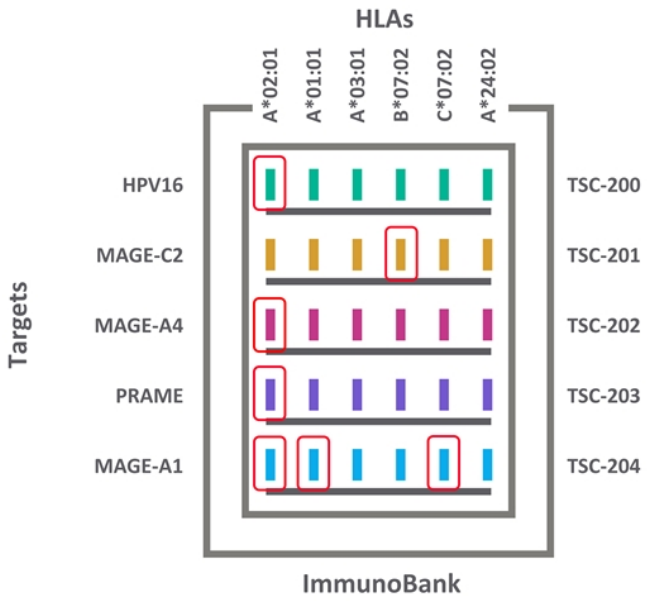
TScan is strategically expanding the ImmunoBank to enable multiplex TCR-T therapy in immune-rich solid tumors



In PLEXI-T™ study

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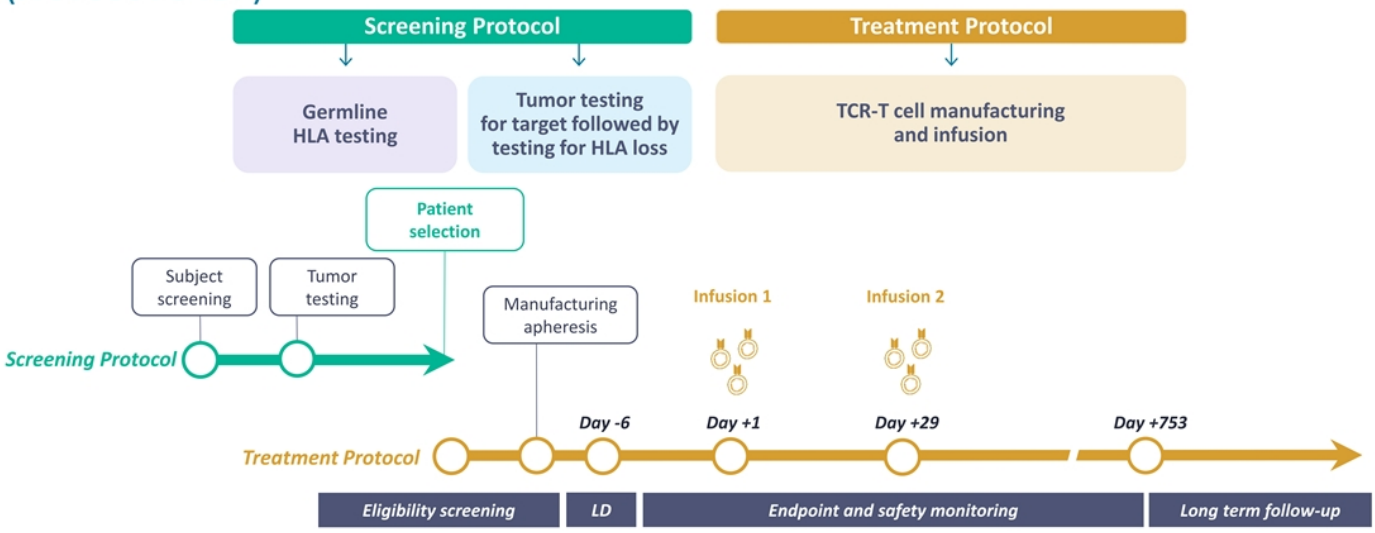
PLEXI-T™, a multi-arm basket Phase 1 trial in subjects with solid tumors (NCT05973487)



Key eligibility criteria

- Age ≥18 years
- Relapsed/refractory solid tumor after treatment with or refusal of SoC therapies
- Eligible for treatment on a Phase 1 study that requires lymphodepleting chemotherapy

Key endpoints

- Safety: Dose limiting toxicities, adverse events
- Efficacy
- Exploratory: T cell persistence

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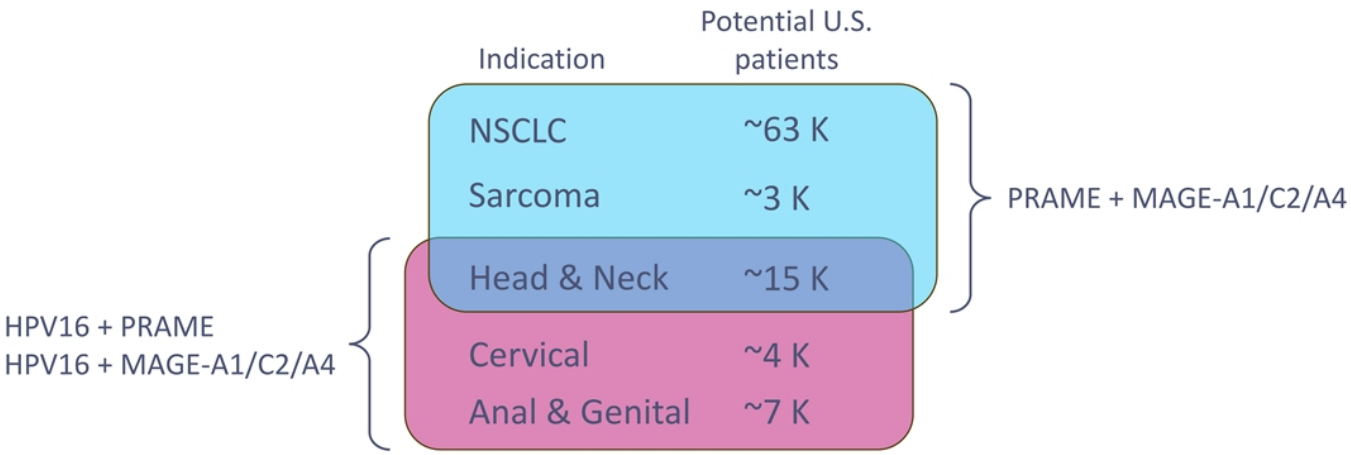
LD: lymphodepletion with fludarabine x 4 days and cyclophosphamide x 3 days; SoC: standard of care therapy; HLA: human leukocyte antigen

Dose escalation scheme provides a path to multiplex TCR-T in Phase 1

As of Sept 8, 2025

T-Plex enrollment focuses on five key indications with high unmet need



- High unmet need
- Evidence of T cell infiltration
- Clinical signal in early TCR-T trials
- Significant addressable patient population in second- and third-line treatment

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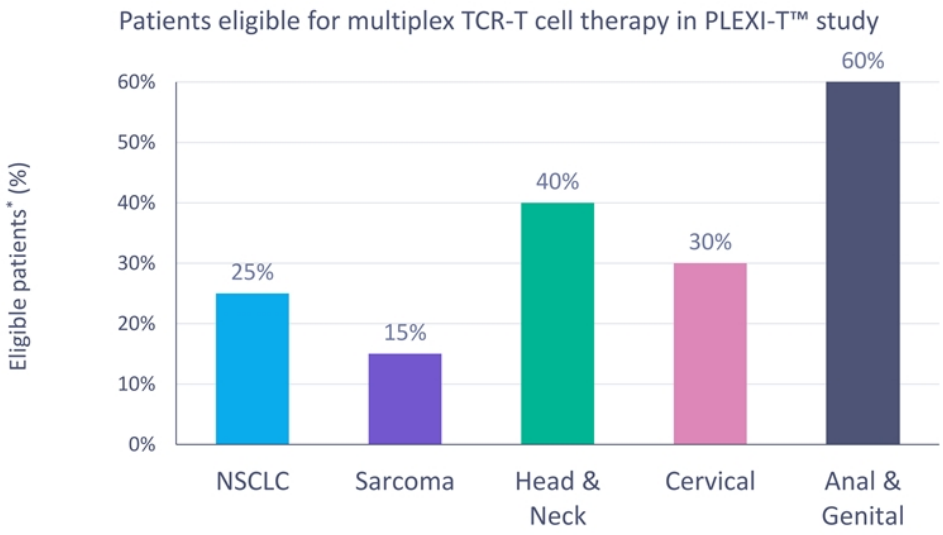
Sources:
SEER; KOL research; Kantar; Chao X, Song X, Wu H, You Y, Wu M and Li L (2021) Selection of Treatment Regimens for Recurrent Cervical Cancer. Front. Oncol. 11:618485. doi: 10.3389/fonc.2021.618485

ImmunoBank expansion to seven TCRs has increased T-Plex eligibility across target indications



*Eligible patients include patients who are positive for at least two TCR-Ts in the ImmunoBank

15-60% of patients are currently eligible for multiplex TCR-T cell therapy with the 7 TCRs in the current PLEXI-T study

Autoimmunity represents an exciting area of unmet need with few validated targets

- Most current therapies provide general immune suppression, leading to complications (e.g., increased risk of infection)
- Target-specific therapies provide a way to address the cause, rather than the symptoms, of autoimmunity
- Many AI disorders have a substantial T-cell component, but the targets of these pathogenic or protective T-cells are largely unknown
- TScan's target discovery platform provides a way to identify targets in autoimmune disease, unlocking the development of targeted therapeutics

AMGEN	Multi-year collaboration using TargetScan to identify targets for T cells in patients with Crohn's disease
TSCAN THERAPEUTICS	Recently identified targets for other autoimmune disorders using proprietary platform; plan to share initial internal data at a medical meeting in H2 2025

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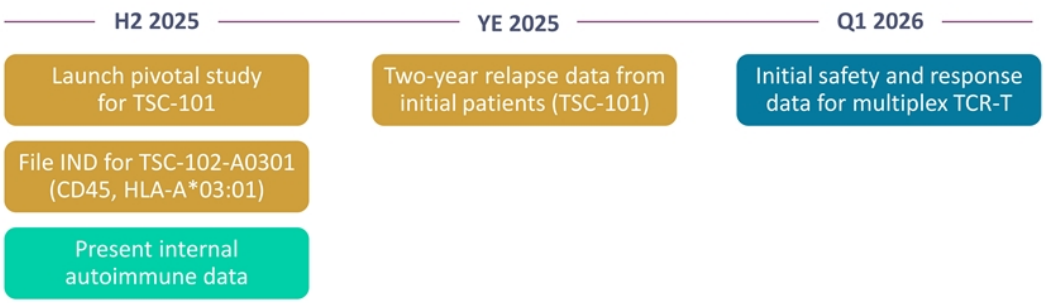
Steady value-generating data flow planned across clinical programs



Heme Program

Solid Tumor Program

Autoimmune Program

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TScan is a fully integrated, next-generation TCR-T therapy company

Clinical-stage pipeline of next-gen TCR-T therapies

- **HEME PROGRAM:** Targeting residual disease to prevent relapse in patients undergoing allogeneic HCT
- **SOLID TUMOR:** Multiplex TCR-T therapy to overcome tumor heterogeneity and HLA loss

Promising clinical data in heme

- 2 of 26 (8%) treatment-arm subjects relapsed as compared to 4 of 12 (33%) control-arm subjects[1]
- >$1B addressable market across US & EU

Multiple clinical catalysts expected by end of 2025

HEME PROGRAM:
- Launch pivotal study (2H25)
- Present two-year relapse data on initial Ph1 patients (YE25)

SOLID TUMOR:
- Present safety and response data for multiplex TCR-T (1Q26)

In-house GMP manufacturing supports early-stage development

- Global CDMO engaged to support late-stage clinical and commercial manufacturing

$218.0M as of June 30, 2025 funds operations into Q1 2027
129.8M[2] total economic shares outstanding as of June 30, 2025

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[1] As of latest data cut presented at ASH Annual Meeting - December 2024
[2] Includes 56,747,993 outstanding common shares plus 73,087,945 pre-funded warrants

THANK YOU