TScan Therapeutics Announces Positive Updated Data from the ALLOHA™ Phase 1 Heme Trial at the 67th American Society of Hematology Annual Meeting and Exposition

December 6, 2025

Treatment arm continues to demonstrate favorable relapse-free survival (HR=0.50; p=0.23) and overall survival (HR=0.61; p=0.52)

3/3 (100%) of TSC-101-treated patients who reached two-year follow-up remained relapse-free vs. 1/4 (25%) in the control arm

TSC-101 was well-tolerated with no dose-limiting toxicities observed

Company to host virtual KOL event featuring Ran Reshef, M.D., M.Sc. on Monday, December 8, at 8:00 a.m. ET

WALTHAM, Mass., Dec. 06, 2025 (GLOBE NEWSWIRE) -- TScan Therapeutics, Inc. (Nasdaq: TCRX), a clinical-stage biotechnology company focused on the development of T cell receptor (TCR)-engineered T cell (TCR-T) therapies for the treatment of patients with cancer, today announced updated results from the ongoing ALLOHA™ Phase 1 trial (NCT05473910) of TSC-101 in patients with heme malignancies undergoing allogeneic hematopoietic cell transplantation (HCT). The data is being featured in a poster presentation at the 67th American Society of Hematology (ASH) Annual Meeting and Exposition.

“These updated data from our Phase 1 study continue to highlight a positive safety and efficacy profile of TSC-101 in patients with heme malignancies undergoing allogeneic HCT. All three patients who reached two years of follow-up have no detectable disease as they have remained relapse-free and in complete donor chimerism,” said Chrystal U. Louis, M.D., Chief Medical Officer. “Additionally, there have been no dose-limiting toxicities and patients who received TSC-101 continue to show improved relapse-free and overall survival compared to control-arm patients. We remain focused on enrolling the remaining patients necessary to support our fixed-dosing regimen and look forward to initiating our pivotal study in the second quarter of 2026.”

“Bone marrow transplantation is currently the only curative treatment for patients with AML and MDS. Unfortunately, roughly 40% of these patients relapse within two years of transplant, at which point their prognosis is very poor and the majority will die due to their disease,” added Gavin MacBeath, Ph.D., Chief Executive Officer. “We are excited to see durable responses to TSC-101 and continued positive data, in the hopes of addressing this unmet need. We look forward to expanding our heme program in 2026 with product candidates designed to double the addressable patient population.”

Key Presentation Highlights:

Patients in the treatment arm of the ALLOHA™ Phase 1 trial (NCT05473910) receive TSC-101 post standard of care HCT, whereas control-arm patients receive standard of care HCT alone. As of the September 19th, 2025 data cut, 42 patients (23 in the TSC-101 treatment arm and 19 in the control arm) were eligible for inclusion in the safety analysis set. The key endpoints in the trial are safety and efficacy, with exploratory endpoints including donor chimerism and minimal residual disease (MRD) status.

- Relapse-free survival (RFS) (HR=0.50; p=0.23) and overall survival (OS) (HR=0.61; p=0.52) were improved in the treatment arm relative to the control arm.
  - 4 of 19 (21%) treatment-arm patients relapsed compared to 6 of 18 (33%) control-arm patients.
    - One treatment-arm patient with AML experienced disease relapse on day 161 and was given a third dose of TSC-101 without lymphodepletion. The additional administration of TSC-101 resulted in a complete response including complete donor chimerism that was maintained for 5 months.
  - The hazard ratio for probability of relapse was 0.46 (p=0.22).
  - 8 of 37 (22%) patients had TP53 mutations, with 6 cases in the treatment arm and 2 cases in the control arm. Of the 6 patients in the treatment arm, only 1 has relapsed. Both patients with TP53 mutations in the control arm have relapsed and subsequently succumbed to their disease. The first patient with a TP53 mutation to receive TSC-101 has now reached two years of follow-up and remains relapse-free.
- All 3 (100%) TSC-101-treated patients that reached two years of follow-up remained relapse-free as of the data cutoff, compared to 1 of 4 (25%) patients in the control arm, consistent with effective elimination of residual cancer cells post-HCT and durable remission with TSC-101 infusion.
- TSC-101 infusions were well-tolerated at all dose levels, with no dose-limiting toxicities. Observed adverse events were similar across the treatment and control arms and were generally consistent with post-HCT adverse events.
- Mixed chimerism or relapses following TSC-101 infusions were found to be significantly associated with greater *ex vivo* expansion of TCR-T cells during the manufacturing process. A new commercial-ready process reduces the manufacturing

time from 17 days to 12 days and has a significant reduction in *ex vivo* expansion.

A copy of the presentation materials will be available in the "Publications" section of the Company's website at tscan.com.

The Company recently announced that the U.S. Food and Drug Administration (FDA) has agreed to a pivotal study design for TSC-101 that mirrors the current ALLOHA™ Phase 1 trial using a biologically assigned internal control arm.

Virtual Key Opinion Leader (KOL) Event

The Company will host a virtual KOL event featuring Ran Reshef, M.D., M.Sc., on Monday, December 8, at 8:00 a.m. ET to discuss the data presented at ASH, its improved commercial-ready manufacturing process, and the unmet medical need and potential market opportunity for TSC-101 and follow-on product candidates.

Details for attending the event can be found here.

About Ran Reshef, M.D., M.Sc.

Dr. Ran Reshef trained in Hematology, Oncology, and Bone Marrow Transplantation and received a Master of Science degree in Translational Research from the University of Pennsylvania. He joined Columbia University in 2015 as Director of Translational Research for the Blood and Marrow Transplantation program. He is the Clinical Lead for the CAR-T Cell Program at Columbia, a principal investigator at the Columbia Center for Translational Immunology, and a member of the Herbert Irving Comprehensive Cancer Center.

About TScan Therapeutics, Inc.

TScan is a clinical-stage biotechnology company focused on the development of T cell receptor (TCR)-engineered T cell (TCR-T) therapies for the treatment of patients with cancer. The Company's lead TCR-T therapy candidate is in development for the treatment of patients with hematologic malignancies to prevent relapse following allogeneic hematopoietic cell transplantation (the ALLOHA ™ Phase 1 heme trial). The Company has developed multiple TCR-T therapy candidates for solid tumors and is currently developing methods for in vivo engineering using these candidates. The Company is also applying their TargetScan platform to discover novel targets in various T cell-mediated autoimmune disorders.

Forward-Looking Statements

This release contains 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, expectations, and timing relating to the Company's hematologic malignancies program, including updated manufacturing process resulting in shortened manufacturing times, reduction in ex vivo T cell expansion, and a commercial-ready process, clinical updates of the ALLOHA™ Phase 1 heme trial, presentation of data, enrollment and dosing of patients, filing of new IND applications and initiation of Phase 1 development, clinical trial design and initiation of a pivotal trial for TSC-101, and market opportunities; the progress of the hematologic malignancies program being indicative or predictive of the success of such program; 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 or current or future product candidates in treating patients; the Company's ability to fund its operating plan into the second half of 2027 with its existing cash, cash equivalents, and marketable securities; and the Company's goals, strategy and anticipated financial performance. 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 release 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 product candidates; TScan's expectations regarding its preclinical studies being predictive of clinical trial results; TScan's approved INDs being indicative or predictive of bringing TScan closer to its goal of providing customized TCR-T therapies to treat patients with cancer; the timing of the launch, initiation, progress, expected results and announcements of TScan's preclinical studies, clinical trials and its research and development programs; TScan's ability to enroll patients for its clinical trials within its expected timeline; TScan's plans relating to developing and commercializing its TCR-T therapy product candidates, if approved, including sales strategy; estimates of the size of the addressable market for TScan's TCR-T therapy product 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 release 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.

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