TScan Therapeutics Provides Clinical Pipeline Update and Highlights Near-Term Priorities

April 16, 2024

Over 40 solid tumor patients have completed all biomarker testing in the screening protocol; ~60% of these patients qualify for at least one TCR-T in the ImmunoBank and ~30% are eligible for multiplex therapy

Patients identified across all six TCR-T cohorts in solid tumor program with dosing of first three expected in early May

All eight patients in the heme program treated with TSC-100 or TSC-101 remain relapse-free with no detectable cancer to date; median follow-up of >10 months

WALTHAM, Mass., April 16, 2024 (GLOBE NEWSWIRE) -- TScan Therapeutics, Inc. (Nasdaq: TCRX), a clinical-stage biopharmaceutical company focused on the development of T cell receptor (TCR)-engineered T cell therapies (TCR-T) for the treatment of patients with cancer, today provided an update on its solid tumor and heme malignancies clinical programs.

"We continue to make meaningful progress across both our solid tumor and heme malignancies Phase 1 clinical programs. As we rapidly approach dosing the first patients in the solid tumor program, I am pleased to share that over 40 patients have completed all biomarker testing in the screening protocol, with the majority qualifying for at least one TCR-T in our ImmunoBank and many qualifying for multiplex therapy. This should allow for rapid enrollment into the treatment protocol over the course of the year," said Gavin MacBeath, Ph.D., Chief Executive Officer. "With respect to the heme program, we are encouraged to see continued positive data with all treatment-arm patients remaining relapse-free with no detectable cancer to date, now with a median follow-up of over 10 months."

Solid Tumor Program: TScan continues to expand the ImmunoBank, a collection of therapeutic TCR-Ts that target different cancer-associated antigens presented on diverse HLA types. TScan's strategy is to treat patients with multiple TCR-Ts to overcome tumor heterogeneity and prevent resistance that may arise from either target or HLA loss (screening protocol: NCT05812027; treatment protocol: NCT05973487).

- Phase 1 solid tumor clinical study has been initiated; first three patients expected to be dosed in early May 2024.
- More than 40 patients have completed all biomarker testing in the screening protocol across a broad array of tumor types. 60% of patients qualify for at least one TCR-T in the ImmunoBank and approximately 30% are eligible for multiplex therapy (T-Plex), potentially enabling rapid enrollment into the treatment protocol upon disease progression.
- Patients have been identified across all six TCR-T cohorts with dosing expected to commence early May.
- Initial data on patients from both singleplex and multiplex cohorts expected in the second half of 2024.
- Additional IND filings planned to continue to expand the ImmunoBank.
- Long-term duration of response data for multiplex therapy anticipated in 2025.

Heme Malignancies Program: TScan's two lead TCR-T cell therapy candidates, TSC-100 and TSC-101, are designed to treat residual disease and prevent relapse in patients with acute myeloid leukemia (AML), acute lymphocytic leukemia (ALL), or myelodysplastic syndromes (MDS) undergoing allogeneic hematopoietic cell transplantation (HCT) (NCT05473910).

- All eight patients treated with TSC-100 or TSC-101 remain MRD negative, relapse-free with no detectable cancer to date in either bone marrow biopsies or peripheral blood (median follow-up of >10 months) and no dose limiting toxicities observed to date.
- To date, all but one patient has exhibited complete donor chimerism in all subsets of blood cells at all time-points, indicating that only donor-derived cells are present in these patients following treatment with either TSC-100 or TSC-101. One patient with T-ALL who was treated with TSC-100 at the lowest dose level exhibited minimally detectable (<0.3%) mixed donor chimerism at 10.5 months and 12 months post-transplant.
    - No detectable mixed chimerism was observed in the malignant cell lineage (CD3+ T-cells) for this patient; mixed chimerism was only observed in healthy nonmalignant blood cells (CD33+ myeloid cells)
- In contrast, for the control arm (transplant alone), eight patients have now been enrolled and only one has achieved and maintained complete donor chimerism to date. Two patients relapsed approximatley six months post-transplant and one of these patients died approximately three months later. A third patient required clinical intervention on day 133 because of concerns of impending relapse, and a fourth died 21 days post-transplant.
- Opening of expansion cohorts at the recommended Phase 2 dose level to further characterize safety and evaluate translational and efficacy endpoints is planned for the third quarter of 2024.
- Completion of Phase 1 enrollment and reporting of one-year clinical and translational data on initial patients is anticipated in the second half of 2024.
- Expects to initiate registration trial pending feedback from regulatory authorities and report two-year relapse data in 2025.

About TScan Therapeutics, Inc.

TScan is a clinical-stage biopharmaceutical company focused on the development of T cell receptor (TCR)-engineered T cell therapies (TCR-T) for the treatment of patients with cancer. The Company's lead TCR-T candidates, TSC-100 and TSC-101, are in development for the treatment of patients with hematologic malignancies to prevent relapse following allogeneic hematopoietic cell transplantation. The Company is also developing multiplex TCR-T candidates for the treatment of various solid tumors. The Company has developed and continues to expand its ImmunoBank, the Company's repository of therapeutic TCRs that recognize diverse targets and are associated with multiple HLA types, to provide customized multiplex TCR-T candidates for patients with a variety of cancers.

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, and timing relating to the Company's hematologic malignancies and solid tumor programs; the potential benefits of any of the Company's proprietary platforms, multiplexing, or current or future product candidates in treating patients; and the Company's goals, strategy, and focus. 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 candidates; the progress of the solid tumor and heme malignancies Phase 1 clinical programs being indicative or predictive of the success of each program; TScan's expectations regarding its preclinical studies being predictive of clinical trial results; the completion of biomarker testing of over 40 patients being indicative or predictive of enrollment of the patients over the course of the year; TScan's recently 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 timeline regarding its filing of INDs for its TCRs throughout the year; TScan's timeline of the solid tumor program and the heme malignancies program; 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 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 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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