TScan Therapeutics Presents Phase 1 Trial Design for Solid Tumor Program at the Society for Immunotherapy of Cancer 38th Annual Meeting

November 6, 2023

Solid tumor program uses separate screening protocol designed to identify patients in advance of treatment protocol; on track to enroll first patient in study this year

Company adds TSC-201-B0702 to ImmunoBank, targeting novel melanoma-associated antigen C2 (MAGE-C2)

WALTHAM, Mass., Nov. 06, 2023 (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 announced the presentation of six posters at the Society for Immunotherapy of Cancer (SITC) 38th Annual Meeting.

“Solid tumors are notoriously heterogenous, which may contribute to low response rates and limited duration of response following treatment with single-targeting TCR-T cell therapy. TScan’s solid tumor program is designed to deliver multiplexed, enhanced TCR-T cell therapy to effectively address both target heterogeneity and HLA loss,” said Gavin MacBeath, Ph.D., Chief Executive Officer. “TScan has initiated a screening protocol to test for target expression and the presence of HLA genes in patients’ tumors. This information is then used to determine eligibility for enrollment into the treatment protocol and to guide selection of which TCR-Ts to administer to the patient. We have already screened over 30 patients in the screening protocol and expect to enroll the first patient in our treatment protocol this year.”

Product Characteristics and Clinical Trial Design for T-Plex, a Multiplexed, Enhanced T cell Receptor-Engineered T cell Therapy for Solid Tumors

TScan’s Phase 1 solid tumor clinical trial is designed to assess customized, multiplexed TCR-T as a way to overcome tumor heterogeneity and HLA loss of heterozygosity. First generation TCR-T, targeting single antigens, has shown encouraging response rates (typically 30-50%), but has often shown short durations of response (3-4 months).

TScan believes that its approach to multiplexing across targets and HLAs will result in increased response rates and increased duration of response. To make this possible, TScan is prospectively screening patients with melanoma, non-small cell lung cancer (NSCLC), head and neck cancer, cervical cancer, ovarian cancer, and anogenital cancers for target expression and the presence of intact HLA genes. Customized treatment is made possible by the Company’s ImmunoBank, its repository of therapeutic TCRs that recognize diverse targets and are associated with multiple HLA types. TScan continues to prioritize populating the ImmunoBank to increase the number of addressable targets, thereby increasing the percentage of patients that are eligible to receive either singleplexed or multiplexed treatment.

In the treatment protocol, each TCR-T is first tested as singleplexed therapy at two different dose levels to assess safety. Once a TCR-T has cleared dose level two, it becomes eligible to be combined with any other TCR-T that has also cleared dose level two. As additional Investigational New Drug Applications (INDs) for TCR-Ts are cleared by the FDA and enter the ImmunoBank, they will be incorporated into the same study and follow the same dose escalation scheme, enabling a rapid path to novel multiplexed therapies.

Discovery of novel MAGE-C2 epitopes for TCR-T adoptive cell therapy from expanded T cell clones of TIL therapy products

Using TargetScan, TScan has identified a novel B*07:02-restricted epitope in the cancer/testis antigen MAGE-C2 as a promising target for TCR-T therapy. TScan is developing TSC-201-B0702, a TCR-T cell therapy that targets this epitope, with plans to file an IND by the end of the year. TCR-Ts targeting MAGE-C2 could potentially be used to treat up to 50% of melanoma patients, 25% of patients with head and neck cancers, and 50% of patients with NSCLC in the United States.

“As we expand the number of TCRs in the ImmunoBank, we expect the number of patients eligible for enrollment in our study to increase, providing a rapid and efficient path to delivering multiplexed therapy,” continued Dr. MacBeath. “In addition to filing an IND for TSC-201-B0702, we also anticipate filing an IND for TSC-204-A0101 by the end of 2023. TSC-204-A0101 targets an epitope on MAGE-A1 specific for the HLA type A*01:01.”

For additional information on all six posters presented at the SITC 38th Annual Meeting, visit the “Events and Presentations” section of the Company’s Investor Relations website at ir.tscan.com.

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 therapy candidates, TSC-100 and TSC-101, are in development for the treatment of patients with hematologic malignancies to eliminate residual disease and prevent relapse after allogeneic hematopoietic cell transplantation. The Company is also developing multiplexed TCR-T therapy candidates for the treatment of various solid tumors. The Company has developed and continues to build its ImmunoBank, the Company’s repository of therapeutic TCRs that recognize diverse targets and are associated with multiple HLA types, to provide customized multiplexed TCR-T therapies for patients with a variety of solid tumors.

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 solid tumor programs, including expanding the ImmunoBank, submitting of INDs, initiating clinical trials, enrolling patients, and reporting 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, 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 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; 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 the effect of the COVID-19 pandemic, including mitigation efforts and political, economic, legal and social effects, on any of the foregoing or other aspects of TScan's business or operations; 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.

Contacts

Heather Savelle
TScan Therapeutics, Inc.
VP, Investor Relations
857-399-9840
hsavelle@tscan.com

Joyce Allaire
LifeSci Advisors, LLC
Managing Director
617-435-6602
jallaire@lifesciadvisors.com