TCR^2 Therapeutics Presents Positive Solid Tumor Data for its Novel TRuC™ Engineered T Cell Therapies at the World Preclinical Congress

TRuC™-T cells demonstrate superior persistence and anti-tumor activity in preclinical models compared to CAR-T cells

Company announces TC-210 as a lead solid tumor program targeting mesothelin with plans to enter the clinic in 2018

Cambridge, MA, *June 13, 2017* – TCR^2 Therapeutics Inc. announced data today on two of its TRuC™ programs that showed superior persistence and anti-tumor activity of the company's TRuC™-T cells compared to CAR-T cells in preclinical models. TRuC™ technology is a novel, non-MHC restricted therapeutic platform for engineering T cells based on the direct fusion of antigen binding domains to subunits of the T cell receptor (TCR) complex. Unlike CARs, which do not integrate into the TCR, TRuC™ variants become part of the TCR and power T cells through the complex signaling cascade and feedback loops of the entire TCR, including naturally recruited co-stimulatory domains. The company believes that using the entire TCR is critical for treating solid tumors and their hostile microenvironment. These data were presented at the World Preclinical Congress in Boston, Massachusetts.

"These preclinical data represent a key milestone in the advancement of T cell therapies. We show for the first time that our unique TRuC™ technology can potentially overcome three limitations of CAR-T in solid tumors: lack of efficacy, safety concerns and durability," said Garry Menzel, PhD, Chief Executive Officer of TCR^2. "Our strategic focus is on expanding cell therapy to solid tumors by using constructs that recruit the entire TCR and its natural signaling power. We are now on a path to the clinic in 2018 with our lead program TC-210 targeting mesothelin, a tumor antigen highly expressed in solid tumors including ovarian, pancreatic, mesothelioma and lung cancers."

In a proof-of-principle experiment that compared CD19-TRuC™-T cells with CD19-CAR-T cells, data demonstrated that TRuC™-T cells more potently killed tumor cells while releasing less cytokines *in vitro*. They also triggered stronger TCR signaling than respective CD19-CAR-T cells. Further, in a Raji xenograft model, CD19-TRuC™-T cells showed statistically significant higher antitumor activity than the most advanced CD19-CAR-T cells designed with CD28ζ or 4-1BBζ co-stimulatory domain. One hundred percent of mice treated with CD19-TruC™-T cells survived at 35 days post-treatment compared to 75 percent in the 28ζ and 45 percent in the 4-1BBζ CD19-CAR-T cohorts, respectively.

Superiority to CAR-T was also demonstrated for the company's lead solid tumor program, TC-210. In a MSTO xenograft model, mice that were treated with a single dose of TC-210 showed complete eradication of primary tumors. In contrast, mesothelin-CAR-T treated tumors re-grew in the majority of animals despite initial regression, consistent with other reports suggesting T cell exhaustion in the solid tumor microenvironment. Importantly, TC-210 protected mice from tumor growth when re-challenged with additional MSTO tumor cells, indicating that TC-210 can elicit durable responses.

About TCR^2 Therapeutics

TCR^2 Therapeutics is an immuno-oncology company that has pioneered a novel class of T cell therapies that utilize the full signaling power of complete T cell receptors (TCR). TCR^2 has developed a unique proprietary TRuC™ platform which can reprogram the natural TCR complex to recognize specific antigens found on tumors where they elicit rapid killing of cancer cells. The company has demonstrated superior activity against both hematological and solid tumor targets in preclinical models compared to CAR-T and believes its TRuC™-reprogrammed T cells will serve as a backbone for solid tumor therapies. TCR^2 was founded in 2015 by Dr. Patrick Baeuerle and backed with a $44.5M Series A financing led by MPM Capital and F2 Ventures. It has since assembled a world-class team of immunotherapy experts and entrepreneurs located in the heart of Kendall Square in Cambridge, MA. For more information, please visit www.tcr2.com.

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