Poseida Therapeutics Presents on the Development of Allogeneic and Autologous BCMA-Specific CAR-T Therapies at Precision: Blood Cancer Summit

SAN DIEGO, Nov. 14, 2017 (GLOBE NEWSWIRE) -- Poseida Therapeutics, Inc. (“Poseida”), a San Diego-based company translating best-in-class gene engineering technologies into lifesaving cell therapies, will participate today in a presentation on the development of its two anti-BCMA CAR-T programs: P-BCMA-101, the company’s BCMA-specific CAR-T drug candidate in a Phase 1 clinical trial for the treatment of multiple myeloma, and P-BCMA-ALLO1, the company’s universal CAR-T program also targeting BCMA in hematologic cancers.

The presentation expands on the anti-BCMA CAR-T development programs featuring Poseida’s proprietary piggyBac™ non-viral gene delivery system and Centyrin™ binding domain. P-BCMA-101 exhibits no signs of CAR-mediated ‘tonic signaling’, which has been described to occur for some traditional single chain variable fragment (scFv)-based CARs and can lead to diminished function and poor durability. Greater persistence of P-BCMA-101 may also be facilitated by an exceptionally high percentage (>70%) of the highly desirable stem cell memory T cell subtype (Tscm), a cell type recently discovered to be extremely long-lived and capable of giving rise to large amounts of potent tumor killing T cells upon tumor cell detection.

The discussion also features the development of an allogeneic anti-BCMA CAR-T therapy, called P-BCMA-ALLO1, produced with Poseida’s piggyBac™ DNA Modification System and proprietary NextGEN™ CRISPR site-specific nucleases. These cells express the same transgenic elements of P-BCMA-101 including a safety switch, a BCMA-specific CAR and a positive selection gene, but lack expression of endogenous T cell receptor and beta-2 microglobulin, two major proteins associated with alloreactivity. In addition, data show that gene editing of P-BCMA-ALLO1 cells does not reduce their ability to kill tumor cells in vitro.

The presentation titled “P-BCMA-101: A BCMA-Specific CAR-T Stem Cell Memory Therapy for Multiple Myeloma” by Devon J. Shedlock, Ph.D., vice president of preclinical development at Poseida, takes place today at 2:30 p.m. PT at the Precision: Blood Cancer Summit 2017 in San Francisco.

About P-BCMA-101
P-BCMA-101 is a CAR-T immunotherapy designed to supercharge a patient’s own T cells to safely and effectively eliminate tumor cells carrying B cell maturation antigen (BCMA), which is expressed on essentially all multiple myeloma cells. P-BCMA-101 modifies a patient’s T cells using piggyBac™, which enables several desirable features, including:

- **T stem cell memory:** P-BCMA-101 is comprised of an exceptionally high proportion of stem cell memory T cells, resulting in unprecedented durability of response without re-administration of product in multiple preclinical studies.
- **Pure product:** The addition of a human-derived positive selection gene results in a product that is essentially 100% pure in contrast with lentivirus-based products, which are generally 5-30% pure.
- **Safety:** piggyBac™ has safer integration profile than lentivirus and is non-oncogenic. In addition, a human-derived safety switch is added such that P-BCMA-101 can be rapidly attenuated or eliminated if significant side effects occur.

Additional information about the Phase 1 clinical study of P-BCMA-101 is available at www.clinicaltrials.gov using identifier: NCT03288493

About Poseida Therapeutics, Inc.
Poseida Therapeutics is translating best-in-class gene engineering technologies into lifesaving cell therapies. The company is developing CAR T-cell immunotherapies for multiple myeloma, prostate and other cancer types, as well as gene therapies for orphan diseases. Poseida has assembled a suite of industry-leading gene engineering technologies, including the piggyBac™ DNA Modification System, XTN™ TALEN and NextGEN™ CRISPI site-specific nucleases, and Footprint-Free™ Gene Editing (FFGE). For more information, visit www.poseida.com.

Corporate Communications Contact:

Jason Spark
Canale Communications
619-849-6005
Jason@canalecomm.com