Poseida Therapeutics Presents Clinical Manufacturing Method for Durable, Persistent CAR-T Stem Cell Memory Therapies at World Orphan Drug Congress USA

SAN DIEGO, April 26, 2018 (GLOBE NEWSWIRE) -- Poseida Therapeutics Inc., a San Diego-based company translating best-in-class gene engineering technologies into lifesaving cell therapies, provided an overview of its non-viral piggyBac™ DNA Modification System at the World Orphan Drug Congress USA 2018. PiggyBac is a proprietary gene insertion technology used for the development of gene and CAR-T therapy product candidates in Poseida's pipeline, including P-BCMA-101, currently in Phase 1 clinical development for the treatment of multiple myeloma.

"With our piggyBac DNA Modification System, we are able to consistently produce a CAR-T product that is 100% pure modified T cells and is predominantly comprised of T-stem cell memory (Tscm) cells, two key characteristics that enable more persistent and durable activity with less cytokine release," said Eric Ostertag, M.D., Ph.D., chief executive officer at Poseida. "PiggyBac combined with our suite of gene editing technologies lay the foundation for our pipeline of autologous and allogeneic cell therapies for liquid and solid tumor cancers, as well as gene therapies for orphan diseases."

Martin Giedlin, Ph.D., vice president, technical operations, led the presentation describing the enhanced cargo capacity and the clinical manufacturing method behind Poseida's non-viral piggyBac transposon. Highlights from the presentation:

- **PiggyBac provides an efficient method for the genetic engineering of T cells.** Large cargo capacity provides the ability to create a homogenous T cell population expressing multiple CARs and multiple genes (up to 300 kB) without diminished expression.
- **PiggyBac gene modification preferentially occurs in naïve and Tscm T-cell subtypes.** Manufacturing method results in predominately Tscm cells, a young T-cell phenotype that retains higher proliferation capacity, greater persistence and is correlated with efficacy and low toxicity in the clinic.
- **P-BCMA-101 Phase 1 dose escalation trial in multiple myeloma is ongoing**. Lowest-dose cohort complete, with all patients showing marked improvements in multiple myeloma assessments and no cytokine release syndrome.
- **P-PSMA-101 eliminated tumor in previously incurable preclinical prostate cancer model.** After solid tumor elimination, a Tscm population persisted and was able to prevent tumor growth upon rechallenge.

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. P-BCMA-101 is Poseida's lead CAR-T therapy currently in Phase 1 clinical development for the treatment of multiple myeloma. Poseida has assembled a suite of industry-leading gene engineering

technologies, including the piggyBac™ DNA Modification System, TAL-CLOVER™ and Cas-CLOVER™ site-specific nucleases, and Footprint-Free™ Gene Editing (FFGE). For more information, visit www.poseida.com.

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