Senti Biosciences Announces Upcoming Presentation of SENTI-101 Preclinical Efficacy Data at SITC 2019

SENTI-101, an allogeneic cell product developed with Senti's gene circuit platform, induces potent and durable anti-tumor immunity in multiple preclinical models of solid tumors

South San Francisco, November 5, 2019 — Senti Biosciences, the gene circuit company focused on outsmarting complex diseases with intelligent medicines, today announced that Senti scientists will present data at the 34th Annual Meeting of the Society for Immunotherapy of Cancer (SITC), being held November 6-10, 2019, in National Harbor, Maryland.

Senti's gene circuit platform enables the programming of any cell and gene therapy modality, including immune cells, stem cells, and viral vectors. The poster presentation highlights preclinical data from one of Senti's programs, SENTI-101, an allogeneic cell therapy designed to treat patients with ovarian cancer and other solid tumors.

"This SITC poster presentation is an important milestone for Senti Biosciences because it reveals an exciting translational application of our gene circuit platform, which has the potential to broadly transform cell and gene therapies," said Dr. Timothy Lu, CEO of Senti Biosciences.

The SENTI-101 program uses tumor-homing allogeneic cells as a drug delivery vehicle to achieve localized, combinatorial expression of two cytokines. This pair of cytokines activates a multifactorial immune response against solid tumors, and turns immunologically cold tumors hot. SENTI-101 was developed through Senti's systematic design-build-test-learn process, wherein more than 250 different gene circuits including individual, two-wise and three-wise combinations of immune effectors were tested for their ability to treat cold tumors and trigger a robust tumor immunity cycle. This approach of programming artificial pharmacology into allogeneic cells enables delivery of high concentrations of multi-factorial immunotherapies locally in the tumor microenvironment, which Senti believes will be critical to transforming therapy for solid tumors.

"There's a huge unmet need when it comes to developing treatments for patients whose tumors do not respond to checkpoint inhibitors, and we are excited about the potential for SENTI-101 to help these patients," said Gary Lee, Ph.D., Chief Scientific Officer at Senti Biosciences.

SENTI-101 is a novel product candidate comprising allogeneic mesenchymal stromal cells (MSCs) genetically modified to express a combination of immunomodulatory cytokines — Interleukin 12 (IL-12) and Interleukin 21 (IL-21). Together, IL-12 and IL-21 enable highly effective and complementary stimulation of anti-tumor immunity.

Upon administration in preclinical models, SENTI-101:

- Innately homes to peritoneal tumors (>10-fold higher vs. normal tissues, $p<0.0001$)
- Secretes IL-12 and IL-21 in a localized and sustained fashion within tumors of the peritoneal space (~100-fold greater in peritoneal space vs. serum [$p<0.002$])
- Induces a robust and durable anti-tumor immune response, resulting in more than 200-fold ($p<0.0001$) and 10-fold ($p<0.0001$) reduction in tumor burden in CT26-fLUC and B16-F10-fLUC models, respectively
- Prolongs tumor-free survival compared to controls and checkpoint inhibitor therapy in syngeneic tumor models, including the checkpoint refractory B16-F10 model, and notably, mice treated with the SENTI-101 combination outperformed those treated with MSCs expressing each individual cytokine
    - Additionally, surviving mice rejected a second round of newly implanted tumor cells, thereby demonstrating anti-tumor immune memory
- Mechanistically involves multiple important immune cell subtypes, including CD4 and CD8 T cells, antigen-presenting cells (APCs), B cells and NK cells

The SITC abstract can be accessed here: http://bit.ly/2Wt2wli

Recent Corporate Update
In addition to its gene circuits and translational biology capabilities, Senti has established in-house process development, regulatory, and clinical expertise to pursue IND-enabling studies, GMP manufacturing, and clinical protocol development for its pipeline. Additional gene circuit cell therapy programs for solid tumors and difficult-to-treat liquid tumors are also underway, with plans to advance candidates for clinical development in the next year.

Senti's corporate strategy is focused on internal product development, as well as establishing collaborations with other companies. The gene circuit platform can be paired with a variety of complementary technologies to create next-generation cell and gene therapies with improved performance. For example, Senti's engineered promoters and logic gates enable cell and gene therapies with programmable specificity and high activity in defined cell states or cell types. In addition, Senti's Pro-Dial™ platform allows for cell and gene therapies to be titrated up or down in a rheostat fashion with FDA-approved small molecule drugs. These technologies have the potential to make cell and gene therapies controllable, targeted and dynamic, thus increasing the therapeutic window and addressing indications not accessible by current therapies.

About Senti Biosciences
Senti Biosciences is a next-generation therapeutics company that is developing gene circuits and programming cells for tremendous therapeutic value. Our mission is to outsmart complex diseases with more intelligent medicines that will transform people's lives. By programming cells to respond, adapt and make decisions, we are creating smarter therapies with computer-like logic, enhanced functionality and greater therapeutic control. Senti Biosciences is based in South San Francisco and was founded in 2016 by Drs. Tim Lu, Philip Lee, Jim Collins and Wilson Wong. Senti is proud to count NEA, 8VC, Amgen Ventures, Lux Capital, Menlo Ventures, Pear Ventures, Allen & Company, Nest.Bio, Omega Funds, Goodman Capital, and LifeForce Capital among its investors. For more information on Senti Biosciences, please visit https://www.sentibio.com/.

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