Senti Bio Enters Collaboration with Spark Therapeutics to Develop Next-Generation Precision Gene Therapies

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- Collaboration combines Senti Bio's leading-edge gene circuit technology platform and high-throughput synthetic promoter design capabilities with Spark Therapeutics' investigational gene therapies targeting the central nervous system, eye or liver -

- Senti Bio is potentially eligible to receive upfront, opt-in and milestone payments exceeding $645 million -

South San Francisco, Calif., April 13, 2021 —Senti Biosciences, a leading gene circuit company, today announced a collaboration and option agreement with Spark Therapeutics, a member of the Roche Group (SIX: RO, ROG; OTCQX: RHHBY), to apply Senti Bio's gene circuit technology to the development of next-generation precision gene therapies directed toward specific cell types in the central nervous system (CNS), eye or liver. Created from novel and proprietary combinations of DNA sequences, gene circuits reprogram cells with biological logic to sense inputs, compute decisions and respond to their environments for defined therapeutic applications.

Senti Bio has designed, built and tested thousands of sophisticated gene circuits to drive its internal therapeutic pipeline and to deploy into multiple cell and gene therapy delivery modalities across diverse therapeutic areas. Senti Bio's broad gene circuit technology platform includes high-throughput approaches to design and test highly potent and specific Smart Sensors that are responsive to cell-type and/or cell-state specific biomarkers. These Smart Sensors include synthetic promoters, which are compact DNA sequences engineered to more precisely regulate the expression of therapeutic genes. Spark Therapeutics will apply Senti Bio's Smart Sensors gene circuit platform towards the goal of developing gene therapies that achieve cell type- or disease-selective expression of therapeutic payloads.

"We view gene circuits as a critical component of any advanced cell and gene therapy, regardless of therapeutic area or delivery modality. This collaboration with Spark Therapeutics aligns with our goal of enabling truly dynamic therapies that have the ability to discriminate between certain cell types, selectively express various payloads, and respond to diverse disease environments," said Tim Lu, MD, PhD, chief executive officer of Senti Bio. "We are extremely impressed by the capabilities and know-how of Spark Therapeutics specifically in the area of gene therapy, and we look forward to bringing our mutual expertise together under this collaboration to harness the power of gene circuits to develop gene therapies that are clinically meaningful to patients."

Under the terms of the agreement, Senti Bio will be responsible for designing, building and testing cell type- and disease specific-synthetic promoters for use in certain CNS, ocular or liver-directed gene therapies. Spark Therapeutics will receive the option to exclusively license a defined number of synthetic promoters emerging from the collaboration for use in developing gene therapy products in specified indications. Upon option exercise, Spark Therapeutics will be responsible for conducting preclinical, clinical and commercialization activities for any gene therapy candidates that incorporate Senti Bio's licensed synthetic promoters.

Senti Bio will receive an upfront payment as well as funding to support its research activities, and upon option exercise will be eligible to receive an option exercise payment as well as development, regulatory and sales milestone payments in addition to royalties on a per product basis. The aggregate potential value of upfront, opt-in and milestone payments to Senti Bio may exceed $645 million.

About Senti Bio

Our mission is to create a new generation of smarter medicines that outmaneuver complex diseases in ways previously inconceivable. We have built a synthetic biology platform that enables us to program next-generation cell and gene therapies with what we refer to as "gene circuits." These gene circuits, which are created from novel and proprietary combinations of DNA sequences, reprogram cells with biological logic to sense inputs, compute decisions and respond to their cellular environments. We are designing gene circuits to improve the "intelligence" of cell and gene therapies in order to enhance their therapeutic effectiveness against a broad range of diseases that conventional medicines are unable to address. For more information, please visit the Senti Bio website at https://www.sentibio.com.

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