Senti Bio Announces Pipeline Prioritization to Focus on Logic Gated Cell Therapies; Updates Cash Runway Guidance

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– R&D focus is on lead oncology candidate SENTI-202 for the treatment of AML and other CD33 and/or FLT3 expressing hematologic malignancies, and SENTI-401 to target colorectal cancer and other CEA-positive solid tumors –

– SENTI-202 on track for IND filing in 2H 2023 –

– Cash runway guidance extended through at least Q1 2024 –

SOUTH SAN FRANCISCO, Calif., Jan. 27, 2023 (GLOBE NEWSWIRE) -- Senti Biosciences, Inc. (Nasdaq: SNTI) (“Senti Bio”), a biotechnology company innovating next-generation cell and gene therapies using its proprietary Gene Circuit technology platform, today announced a strategic plan to focus internal resources on SENTI-202, SENTI-401 and, with potential partners, to continue to pursue the development of Gene Circuits for other programs, including solid tumors. The Company does not intend to invest in the clinical development of SENTI-301A, for the treatment of hepatocellular carcinoma (HCC), on its own at this time; however, the Company believes there is significant market opportunity for SENTI-301A, especially in territories within Asia where HCC is more prevalent than in the United States. Accordingly, the Company is actively pursuing strategic geographic partnerships for clinical development of SENTI-301A. This business realignment will streamline internal efforts and is expected to extend the Company’s cash runway through at least the first quarter of 2024.

With SENTI-202, a Logic Gated (OR+NOT) off-the-shelf CAR-NK cell product candidate that is designed to target and eliminate acute myeloid leukemia (AML) cells while sparing the healthy bone marrow, the Company has commenced IND-enabling studies and remains on track to file an IND application in the second half of 2023. In addition, the Company has initiated the technology transfer to its cGMP manufacturing facility as part of its goal to provide clinical-scale manufacturing for its off-the-shelf CAR-NK cell product candidates, including SENTI-202.

“We are laser focused on developing cell therapies engineered with Gene Circuits to enable selective killing of tumor cells while protecting healthy cells. Our Gene Circuits, especially our NOT gate, are designed to enable advanced cell and gene therapies to potentially have enhanced precision, activity and control, across therapeutic areas and delivery modalities, including NK cells and T cells," said Timothy Lu, MD, PhD, Chief Executive Officer and Co-Founder of Senti Bio. “By focusing on SENTI-202 and SENTI-401, both of which incorporate NOT gates, we believe that we are well positioned to maximize opportunities across these two oncology programs while advancing Gene Circuits in a variety of other disease areas with potential partners.”

Dr. Lu added, “The team's accomplishments with SENTI-202 have generated very promising data over the past year that was presented at the American Society of Hematology (ASH) Annual Meeting last month. The data included human cell models and *in vivo* models that showcase the ability of our OR gate to broadly kill CD33 and/or FLT3 expressing leukemic blasts and leukemic stem cells, and our NOT gate to protect healthy cells expressing the EMCN protective antigen, including human hematopoietic stem cells. The team has completed pre-IND interactions with the FDA and believes that our planned IND-enabling studies and manufacturing and analytical processes will support a Phase 1 trial for SENTI-202, with the ultimate goal of targeting patients with CD33 and/or FLT3 expressing hematologic malignancies including AML and myelodysplastic syndrome (MDS). Initiating process and analytical technology transfer to our Alameda cGMP facility is another milestone that puts us one step closer to providing clinical-scale manufacturing for our CAR-NK cell development candidates.”

The SENTI-401 program incorporates multiple Gene Circuit technologies to target solid tumors expressing the CEA tumor antigen, including colorectal cancer. Senti Bio has recently demonstrated, including data presented at the Society for Immunotherapy of Cancer (SITC) conference in November 2022, that CAR-NK cells expressing a potent CEA-targeting activating CAR along with two multifunctional cytokines (calibrated-release IL-15 and IL-21) exhibited significant activity in killing CEA-expressing tumors *in vitro*, even in the presence of inhibitory TGF-beta, and in mice. Furthermore, Senti Bio’s optimized NOT gate technology was shown to achieve up to 98% protection of model healthy cells that express CEA along with a protective antigen, VSIG2. The Company believes the combination of Logic Gating and Multi Arming Gene Circuits within a single CAR-NK development candidate demonstrates the potential for Senti Bio’s Gene Circuit technologies to be expanded to a wide range of solid tumor indications beyond SENTI-202 and SENTI-401.

Beyond oncology, the Company is continuing its strategic research collaborations with Spark Therapeutics on next-generation AAV gene therapy, and BlueRock Therapeutics on iPSC-derived cell therapies.

About Senti Bio
Our mission is to create a new generation of smarter medicines that outmaneuver complex diseases using novel and unprecedented approaches. To accomplish this, we are building a synthetic biology platform that may enable us to program next-generation cell and gene therapies with what we refer to as Gene Circuits. These novel and proprietary Gene Circuits are designed to reprogram cells with biological logic to sense inputs, compute decisions and respond to their cellular environments. We aim to design Gene Circuits to improve the intelligence of cell and gene therapies in order to enhance their therapeutic effectiveness, precision, and durability against a broad range of diseases that conventional medicines do not readily address.

Our synthetic biology platform utilizes off-the-shelf chimeric antigen receptor natural killer (CAR-NK) cells, outfitted with Gene Circuit technologies, to target particularly challenging liquid and solid tumor oncology indications. Our lead product candidate is SENTI-202 for the treatment of CD33 and/or FLT3 expressing hematologic malignancies, such as AML and MDS. Additionally, our SENTI-401 program is being designed for the treatment of colorectal cancer (CRC) and other CEA-positive cancers. We have also demonstrated in preclinical studies the potential breadth of our Gene Circuits in other modalities, including T cells, AAVs and iPSCs, and diseases outside of oncology; and we have executed partnerships with Spark Therapeutics and BlueRock Therapeutics to advance these capabilities.

Forward-Looking Statements
This press release and document contain certain statements that are not historical facts and are considered forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements generally are identified by the words “believe,” “could,” “predict,” “continue,” “ongoing,” “project,” “expect,” “anticipate,” “estimate,” “intend,” “strategy,” “future,” “opportunity,” “plan,” “may,” “should,” “will,” “would,” “will be,” “will continue,” “will likely result,” “forecast,” “seek,” “target” and similar expressions that predict or indicate future events or trends or that are not statements of historical matters. Forward-looking statements are predictions, projections, and other statements about future events that are based on current expectations of Senti Bio’s management and assumptions, whether or not identified in this document, and, as a result, are subject to risks and uncertainties. Forward-looking statements include, but are not limited to, statements regarding Senti Bio’s research and development activities, including the development of the Company’s SENTI-202 product candidate and the advancement of its SENTI-401 program, its interactions with regulatory authorities and plans to submit an IND application for SENTI-202, its plans to pursue potential strategic partnerships for SENTI-301A and other programs, its projected cash runway; and its continuation of its collaborations with Spark Therapeutics and BlueRock Therapeutics, as well as the timing of these events, as well as statements about the potential attributes and benefits of Senti Bio’s product candidates and platform technology. These forward-looking statements are provided for illustrative purposes only and are not intended to serve as and must not be relied on by any investor as, a guarantee, an assurance, a prediction, or a definitive statement of fact or probability. Actual events and circumstances are difficult or impossible to predict and will differ from assumptions. Many actual events and circumstances are beyond the control of Senti Bio. Many factors could cause actual future results to differ materially from the forward-looking statements in this document, including but not limited to: the risk that results observed in studies of the Company’s product candidates, including preclinical studies and future clinical trials of any of its product candidates, will not be observed in ongoing or future studies involving these product candidates, the risk that Senti Bio may cease or delay development of any of its product candidates for a variety of reasons (including requirements that may be imposed by regulatory authorities on the initiation or conduct of clinical trials, the amount and type of data to be generated, or otherwise to support regulatory approval, difficulties or delays in subject enrollment and continuation of clinical trials, difficulties in manufacturing or supplying Senti Bio’s product candidates for preclinical and clinical testing, and any adverse events or other negative results that may be observed during preclinical or clinical development), Senti Bio’s ability to obtain, maintain, and protect its intellectual property, Senti Bio’s dependence on third parties for development and manufacture of product candidates, Senti Bio’s ability to manage expenses and to obtain additional funding when needed to support its business activities and establish and maintain strategic business alliances and new business initiatives, the impacts of macroeconomic and geopolitical events, including changing conditions from the COVID-19 pandemic, the hostilities in Ukraine, increasing rates of inflation and rising interest rates on business operations and expectation, and the risk that Senti Bio’s product candidates may not have beneficial attributes or may cause other unanticipated adverse effects. The foregoing list of factors is not exhaustive. You should carefully consider the foregoing factors and the other risks and uncertainties described in the “Risk Factors” section of Senti Bio’s Quarterly Report on Form 10-Q, filed with the SEC on November 10, 2022, and other documents filed by Senti Bio from time to time with the SEC. These filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements in this document. There may be additional risks that Senti Bio does not presently know, or that Senti Bio currently believes are immaterial that could also cause actual results to differ from those contained in the forward-looking statements in this document. Forward-looking statements speak only as of the date they are made. Senti Bio anticipates that subsequent events and developments may cause Senti Bio’s assessments to change. Except as required by law, Senti Bio assumes no obligation to update publicly any forward-looking statements, whether as a result of new information, future events, or otherwise.

Availability of Other Information About Senti Biosciences, Inc.
For more information, please visit the Senti Bio website at https://www.sentibio.com or follow Senti Bio on Twitter (@SentiBio) and Linkedin (Senti Biosciences). Investors and others should note that we communicate with our investors and the public using our company website (www.sentibio.com), including, but not limited to, company disclosures, investor presentations and FAQs, Securities and Exchange Commission filings, press releases, public conference call transcripts and webcast transcripts, as well as on social media. The information that we post on our website or on social media could be deemed to be material information. As a result, we encourage investors, the media and others interested to review the information that we post there on a regular basis. The contents of our website or social media shall not be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended.

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