Senti Bio Highlights Preclinical Data from Multiple Gene Circuit Enabled Cell Therapy Programs at Annual AACR Meeting

April 17, 2023

– Preclinical data supports SENTI-202 as a potential first-in-class logic gated CAR-NK cell therapy; remains on track for IND submission in 2H 2023 –

– Additional data presented on SENTI-301A and crIL-15 support Senti's development of gene circuit enhanced CAR-NK programs for multiple cancer indications –

SOUTH SAN FRANCISCO, Calif., April 17, 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 platform, today announced the presentation of preclinical data from multiple wholly-owned pipeline programs at the American Association for Cancer Research (AACR) Annual Meeting being held April 14-19, 2023, in Orlando, Florida. Senti Bio is advancing a pipeline of gene circuit-enabled chimeric antigen receptor natural killer (CAR-NK) cell therapies for the treatment of liquid and solid tumors.

"We are excited to share strong preclinical data on SENTI-202 as the program advances towards the clinic," said Tim Lu, MD, PhD, Chief Executive Officer and Co-Founder of Senti Bio. "The data presented at AACR from multiple programs continue to support the profile of our gene circuit programs as next generation cell therapies that aim to circumvent resistance mechanisms and safely drive enhanced and durable responses across blood cancers and solid tumors."

The Company's three posters will be part of AACR's "Clinical Research Excluding Trials" and "Immunology" sessions today, April 17, from 1:30 p.m. to 5:00 p.m. ET. The posters are also available on the Scientific Presentations & Publications page on the Senti Bio website.

Presentation Title: Preclinical development of SENTI-202, an off-the-shelf logic gated CAR-NK cell therapy, for the treatment of CD33/FLT3+ hematologic malignancies including AML
Location: Section 37

- SENTI-202 CAR-NK cells, which include a CD33 and/or FLT3 targeting activating CAR, showed increased cytotoxic activity, serial killing, and cytokine production compared to unengineered NK cells within *in vitro* and *in vivo* AML models, as well as killing of primary tumor-derived samples from AML and MDS patients.
- SENTI-202, which has the endomucin (EMCN) inhibitory CAR as part of its gene circuit, preferentially protected healthy hematopoietic cells (HSCs) compared to CAR-NK cells without the iCAR. The colony-forming potential of hematopoietic stem and progenitor cells (HSPCs) was preserved after exposure to SENTI-202.
- SENTI-202, which expressescrIL-15, showed increased persistence compared to unengineered NK cells.
- Senti Bio remains on track to file an Investigational New Drug (IND) application for SENTI-202 in patients with CD33 and/or FLT3 expressing hematologic malignancies in the second half of 2023 with the planned Phase 1 trial focusing on relapsed/refractory patients including AML.

Presentation Title: Off-the-Shelf CAR-NK cells engineered to express crIL-15 exhibit enhanced persistence and anti-tumor activity
Location: Section 22

- Inclusion of crIL15 to gene circuits resulted in enhanced NK cell persistence and tumor killing activity in CAR-NK cells as well as activation of neighboring T cells and NK cells.
- Additionally, wide biodistribution and prolonged persistence of NK cells engineered with crIL-15 were observed.
- Importantly, in AML xenograft models, data showed CAR-NK cells engineered with crIL-15 technology significantly reduced tumor burden and prolonged mouse survival compared to unengineered NK cells.
- These data demonstrate that NK cells engineered to co-express CAR and crIL-15 can improve persistence and anti-tumor activity of CAR-NK cells.

Presentation Title: SENTI-301A, an off-the-shelf multi-armed preclinical CAR-NK cell therapy for the treatment of GPC3 expressing tumors
Location: Section 22

- SENTI-301A demonstrated CAR-driven killing and antigen specificity against target cell lines, and showed significantly higher in vitro cytotoxic activity against both HCC and non-HCC GPC3-expressing cell lines.
- SENTI-301A exhibited increased crIL-15-driven persistence and cytotoxicity compared to unengineered NK cells.
- SENTI-301A demonstrated tumor infiltration and enhanced persistence, antitumor function, and increased median survival compared to unengineered NK cells in HCC xenograft models.

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 development platform and potential therapies, its presentations, and its plans to submit an IND application for SENTI-202 and the timing of such submission. , 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 Annual Report on Form 10-K, filed with the SEC on March 22, 2023, 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 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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