



# sensei<sup>TM</sup> BIO

## **Sensei Biotherapeutics Announces Nature Communications Publication Describing Mechanism of Action of SNS-101 Selectively Targeting the Active Form of VISTA within the Tumor Microenvironment**

April 4, 2024

BOSTON, April 04, 2024 (GLOBE NEWSWIRE) -- Sensei Biotherapeutics, Inc. (Nasdaq: SNSE), a clinical stage immuno-oncology company focused on the discovery and development of next-generation therapeutics for cancer patients, today announced the publication of a peer-reviewed research paper in *Nature Communications*. The research was conducted by scientists at Sensei Biotherapeutics in collaboration with genOway and the laboratory of Dr. Robert Schreiber at the Washington University, St. Louis School of Medicine.

The paper describes Sensei Biotherapeutics' approach to the discovery and development of SNS-101, which was designed to potently and selectively target the active protonated form of VISTA, a protein that plays a significant role in suppressing T-cell activation. VISTA was previously considered undruggable due to its extensive expression on myeloid cells, leading to safety issues such as cytokine release syndrome (CRS), in addition to a pharmacokinetic sink, which poses a significant challenge in reaching therapeutically relevant concentrations. The paper details the mechanism and characteristics of SNS-101, a novel pH-sensitive monoclonal antibody. SNS-101 was shown to bind to a novel epitope of VISTA that is remodeled under low pH conditions, switching VISTA into an active state that engenders extensive T-cell suppression. SNS-101 is designed to block VISTA by inhibiting its interaction with PSGL-1 on T-cells resulting in T-cell activation. Subsequently, in various preclinical models, SNS-101 was shown to mitigate CRS risk and maintain a favorable pharmacokinetic and safety profile, all of which had thwarted the clinical development of first generation, non-pH sensitive anti-VISTA antibodies.

"The publication of this research in *Nature Communications* serves as important validation for our tumor-targeting approach and confirms our ability to design highly selective antibodies that target VISTA under the unique conditions of the tumor microenvironment," said Edward van der Horst, Ph.D., Chief Scientific Officer of Sensei Bio. "Our studies of SNS-101 highlight the therapeutic potential for a VISTA-directed immunotherapy unhindered by dose limiting toxicities and off-target effects. We believe the initial clinical data we presented from our Phase 1/2 clinical study further support these important preclinical findings. We are excited to see the impact SNS-101 can have in patients as we advance our ongoing clinical study."

The manuscript published in *Nature Communications* is entitled "VISTA checkpoint inhibition by pH-selective antibody SNS-101 with optimized safety and pharmacokinetic profiles enhances PD-1 response," and can be found here: <https://rdcu.be/dDF8x>

### **About Sensei Biotherapeutics**

Sensei Biotherapeutics (Nasdaq: SNSE) is a clinical stage immuno-oncology company focused on the discovery and development of next-generation therapeutics for cancer patients. Through its TMAb<sup>TM</sup> (Tumor Microenvironment Activated biologics) platform, Sensei develops conditionally active therapeutics designed to disable immunosuppressive signals or activate immunostimulatory signals selectively in the tumor microenvironment. Sensei's lead investigational candidate is SNS-101, a conditionally active antibody designed to block the V-domain Ig suppressor of T cell activation (VISTA) checkpoint selectively within the low pH tumor microenvironment, where VISTA acts as a suppressor of T cells by binding the receptor PSGL-1. The company is also developing SNS-102, a conditionally active monoclonal antibody targeting V-Set and Immunoglobulin Domain Containing 4 (VSIg-4); SNS-103, a conditionally active monoclonal antibody targeting ecto-nucleoside triphosphate diphosphohydrolase-1 (ENTPDase1), also known as CD39; and SNS-201, a conditionally active VISTAxCD28 bispecific antibody consisting of a CD28 agonist arm and a pH-sensitive anti-VISTA arm. For more information, please visit [www.senseibio.com](http://www.senseibio.com), and follow the company on X @SenseiBio and [LinkedIn](#).

### **Cautionary Note Regarding Forward-Looking Statements**

Any statements contained in this press release that do not describe historical facts may constitute forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. These statements may be identified by words and phrases such as "believe", "designed to," "expect", "may", "plan", "potential", "will", and similar expressions, and are based on Sensei's current beliefs and expectations. These forward-looking statements include expectations regarding the development, potential therapeutic benefits and safety profile of Sensei's product candidates, including SNS-101. These statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements. Risks and uncertainties that may cause actual results to differ materially include uncertainties inherent in the development of therapeutic product candidates, such as the risk that any one or more of Sensei's product candidates will not be successfully developed or commercialized; the risk of delay or cessation of any planned clinical trials of Sensei's product candidates; the risk that prior results, such as signals of safety, activity or durability of effect, observed from preclinical trials, will not be replicated or will not continue in ongoing or future studies or clinical trials involving Sensei's product candidates; the risk that Sensei's product candidates or procedures in connection with the administration thereof will not have the safety or efficacy profile that Sensei anticipates; risks associated with Sensei's dependence on third-party suppliers and manufacturers, including sole source suppliers, over which Sensei may not always have full control; risks regarding the accuracy of Sensei's estimates of expenses, capital requirements and needs for additional financing; and other risks and uncertainties that are described in Sensei's Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission (SEC) on or about February 29, 2024 and Sensei's other Periodic Reports filed with the SEC. Any forward-

looking statements speak only as of the date of this press release and are based on information available to Sensei as of the date of this release, and Sensei assumes no obligation to, and does not intend to, update any forward-looking statements, whether as a result of new information, future events or otherwise.

**Investor Contact:**

Michael Biega  
Senior Director, Investor Relations  
Sensei Biotherapeutics  
[mbiega@senseibio.com](mailto:mbiega@senseibio.com)

**Media Contact:**

Joyce Allaire  
LifeSci Advisors  
[Jallaire@lifesciadvisors.com](mailto:Jallaire@lifesciadvisors.com)