



Strand Therapeutics to Present Potential First-in-Class Data from Preclinical Program for STX-003, a Programmable mRNA Therapy to Treat Solid Tumor Cancers

Proof-of-concept shows mRNA genetic circuitry able to target expression of IL-12 to tumors when systemically delivered

Company to share updates at the AACR and ASGCT annual meetings

(Boston, MA, April 28, 2025) Strand Therapeutics Inc., the programmable mRNA company developing curative therapies for cancer and beyond, will present preclinical data from its STX-003 program at the 2025 annual meetings of the American Association for Cancer Research (AACR) in Chicago April 25-30 and the American Society of Gene and Cell Therapy (ASGCT) in New Orleans May 13-17. The proof-of-concept studies demonstrate that Strand's programmable mRNA genetic circuits can target the expression of interleukin-12 (IL-12) to cancerous tissue to help achieve the right therapeutic dose while reducing off target side effects. These groundbreaking findings underscore the potential of STX-003 and build on the promise of Strand's platform and pipeline to address the critical challenges of solid tumor immunotherapy.

Systemic delivery is an effective way to reach solid tumors that are not surface accessible. However, systemic delivery of potent cytokines such as recombinant IL-12 has been challenging due to toxicity from off-target side effects. STX-003 aims to overcome this limitation by restricting IL-12 expression to the tumor microenvironment.

STX-003 is a systemically delivered, self-replicating mRNA encoding IL-12. Its programmable mRNA genetic circuitry acts as a sophisticated control system, restricting the expression of the IL-12 payload to the tumor microenvironment and preserving its activity within the cancerous tissue. Through its genetic circuits, Strand engineers its mRNA to sense the unique molecular signatures of different cell types, ensuring that the therapeutic payload is primarily produced within the target tumor tissues, while its activity is significantly inhibited in healthy, off-target tissue areas. By precisely controlling the delivery of mRNA and its expression of IL-12, STX-003 offers a promising strategy to unlock the full therapeutic potential of this powerful cytokine in the fight against solid tumors. The early discovery work was supported by funding from Wellcome Leap, a non-profit organization focused on accelerating breakthroughs in human health.

“The results from the Strand STX-003 preclinical studies are unprecedented. For the first time, systemically delivered programmable mRNA was used to safely target expression of IL-12 into cancerous tissue while inhibiting expression in healthy tissue,” said Jacob Becraft, Ph.D., CEO & Co-Founder, Strand Therapeutics. “Our proprietary mRNA platform and genetic circuitry have the potential to make systemic delivery of mRNA and expression of powerful cytokines such as IL-12 safer and more effective for patients in a range of solid tumors, including hard to reach visceral tumors.”

STX-003 presentations at AACR and ASGCT include key findings from preclinical studies regarding the functionality of its genetic circuitry and its impact on the efficacy and tolerability of systemically delivered mRNA expressing IL-12.

AACR

Abstract Title: STX-003: cancer immunotherapy with systemic delivery of mRNA utilizing programmable genetic circuits for precise regulation of IL-12 expression and reduced toxicity

Session Type: Poster

Session Title: PO.IM01.12 Local Treatments, Novel Tools, and Delivery Systems to Manipulate Tumor Immunity

Date and Time: April 28, 2:00-5:00 pm CT

Abstract Number: 3472/11

Location: Section 37

Full abstract is available on the [AACR Annual Meeting website](#).

ASGCT

Abstract Title: STX-003: A mRNA Cancer Immunotherapy Utilizing Cancer-Selective Programmable Genetic Circuits for Systemic Tumor Control

Session Type: Oral

Session Title: Targeted Gene and Cell Therapy for Cancer

Date and Time: May 17, 8:15-8:30 am CT

Abstract Number: 394

Location: Room 291-292

Full abstract is available on the [ASGCT Annual Meeting website](#).

Strand continues to demonstrate innovation in the field of programmable mRNA therapeutics, marked by significant preclinical and clinical progress for its mRNA platform for solid tumor treatment. In 2023, the company received U.S. Food and Drug

Administration (FDA) clearance of the Investigational New Drug (IND) application for STX-001, an investigational multi-mechanistic, synthetic self-replicating mRNA technology that expresses an IL-12 cytokine for an extended duration, directly into the tumor microenvironment via intratumoral delivery. Strand dosed their first patient in a Phase 1 clinical trial in 2024. STX-001 clinical development is ongoing and updates will be shared in the near future. These achievements reflect the company's ability to translate its innovative mRNA technology from the laboratory into clinical development.

About Strand Therapeutics

Strand Therapeutics is a next-generation biotechnology company committed to transforming the lives of patients by developing first-in-class programmable mRNA therapeutics. Founded by leaders with roots in mRNA-based synthetic biology at MIT, Strand is creating the first platform for programmable, long-acting mRNA therapeutics that are bioengineered to enable precise control of the location, timing, intensity, and duration of therapeutic activity. Strand's mission is to develop improved treatment options for cancer and other life-threatening diseases. The company is headquartered in Boston, MA. For more information, visit www.strandtx.com. Follow us on [LinkedIn](#) and [@StrandTx](#).

Media Contact:

Beth Keshishian

917-912-7195

beth@bethkeshishian.com