

NEWS RELEASE

Capstan Therapeutics to Present Preclinical Data on Lead In Vivo Chimeric Antigen Receptor (CAR)-T Candidate, CPTX2309, at American College of Rheumatology (ACR) Convergence 2024

2024-09-26

- Preclinical data demonstrate profound B cell depletion and repopulation with predominantly naïve B cells in non-human primates, achieved through novel CD8-targeted lipid nanoparticles (tLNPs) delivering mRNA encoding a CAR
- Additional preclinical data demonstrate effective CAR engineering of T cells from healthy subjects and patients with autoimmune diseases

SAN DIEGO--(BUSINESS WIRE)-- Capstan Therapeutics, Inc. ("Capstan"), a biotechnology company dedicated to advancing in vivo reprogramming of cells through RNA delivery using CellSeeker™, a targeted lipid nanoparticle (tLNP) technology platform, today announced it will present preclinical data on CPTX2309, Capstan's lead in vivo CAR-T candidate, at the American College of Rheumatology (ACR) Convergence 2024, taking place between November 14-19, 2024 in Washington, D.C.

CPTX2309, a product of Capstan's CellSeeker™ platform, delivers an mRNA payload encoding an anti-CD19 CAR to preferentially reprogram CD8-expressing T cells. The therapeutic goal of this approach is to achieve a reset of the immune system through rapid and deep B cell depletion in both blood and lymphoid tissues, without the challenges of conventional ex vivo CAR-T.

"Capstan's non-viral in vivo CAR-T approach is designed to bring together the unprecedented potency of CAR-T therapy with the convenience, pharmacological tunability, and scalability of a conventional biologic," said Adrian

Bot, M.D., Ph.D., Chief Scientific Officer and Executive Vice President of R&D at Capstan. "Data presented at the conference will support the development of CPTX2309 for a potentially broad range of B cell-mediated autoimmune diseases, with the therapeutic goal of resetting a patient's immune system in order to achieve a durable, drug-free clinical response."

Presentation Details:

Abstract ID: 0835

Title: Effective Engineering of CD8+ T Cells from Autoimmune Disease Patients Utilizing a CD8-Targeted Lipid Nanoparticle Encoding an Anti-CD19 CAR mRNA (CPTX2309)

Presentation type: Oral presentation

Presenting author: Haig Aghajanian, Ph.D., Co-Founder, Head and Vice President of Research, Capstan Therapeutics

Session: Abstracts: T Cell Biology & Targets in Autoimmune & Inflammatory Disease

Date and time: Saturday, November 16: 3:00 PM - 3:15 PM ET

Abstract ID: 0088

Title: Profound B Cell Depletion and Repopulation with Predominantly Naïve B Cells in Non-Human Primates Achieved Through a Novel In Vivo CD8-Targeted Lipid Nanoparticle mRNA CAR

Presentation type: Poster

Presenting author: Aric Frantz, Ph.D., Senior Director of Pharmacology and Toxicology, Capstan Therapeutics

Session: SLE – Animal Models Poster

Date and time: Saturday, November 16: 10:30 AM - 12:30 PM ET

Abstract ID: 0019

Title: A Novel Product Candidate (CPTX2309) for In Vivo mRNA Engineering of Anti-CD19 CAR T Cells Utilizing Novel CD8-Targeted Lipid Nanoparticles

Presentation type: Poster

Presenting author: Theresa Hunter, Ph.D., Principal Scientist, Capstan Therapeutics

Session: B Cell Biology & Targets in Autoimmune & Inflammatory Disease Poster

Date and time: Saturday, November 16: 10:30 AM - 12:30 PM ET

A copy of the posters and presentation will be added to the "Publications and News" section of Capstan's website at

www.capstantx.com/.

About Capstan Therapeutics, Inc. (www.capstantx.com)

Capstan is a biotechnology company with a mission to multiply the therapeutic possibilities for patients by developing targeted in vivo RNA technologies. Our proprietary CellSeeker™ tLNP platform technology is composed of novel LNPs conjugated with a recombinant protein binder, such as a monoclonal antibody. tLNPs are designed to deliver payloads, including mRNA or gene editing tools, capable of reprogramming specific cell types in vivo. Capstan's CellSeeker™ technology has the potential to generate transformative therapies with possible applications across a broad range of disease areas, including autoimmune disorders, oncology, fibrosis, and monogenic blood disorders. For more information, please visit www.capstantx.com and follow us on [LinkedIn](#) and [X \(Twitter\)](#).

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