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Vittoria Biotherapeutics Announces Peer-Reviewed Publication in *Science Immunology*

PHILADELPHIA, July 22, 2024 (GLOBE NEWSWIRE) -- [Vittoria Biotherapeutics](#), a clinical-stage cell therapy company, announces a recent publication by investigators at the University of Pennsylvania in the peer-reviewed journal, *Science Immunology*. The publication details the critical influence of CD5, a key immunomodulatory protein, on engineered T-cell therapies, which is the foundational basis of the company's proprietary Senza5™ platform. This technology, developed by the University of Pennsylvania and exclusively licensed to Vittoria, leverages the therapeutic potential of CD5 modulation to enhance the efficacy of CAR T-cell therapies and underscores its utility across multiple hematological and solid tumor animal models.

"We are incredibly excited about the findings shared in *Science Immunology*, which support the clinical translation of our Senza5™ platform and exemplify Vittoria's commitment to pioneering potent and innovative solutions to advance the field of enabled, autologous cell therapies," said Nicholas Siciliano, Ph.D., Chief Executive Officer of Vittoria Biotherapeutics. "Despite significant advances in cell therapy across various diseases, considerable unmet needs remain for certain cancers and chronic diseases. This publication comes at a pivotal time as we initiate the clinical trial for our lead program, VIPER-101 for the treatment of T-cell lymphoma."

The research was conducted in the laboratory of Marco Ruella, M.D., a Physician-Scientist in the Perelman School of Medicine at the University of Pennsylvania, who is also the scientific founder of Vittoria Biotherapeutics. Dr. Ruella, the senior author of the study, added, "I am honored to see our seminal study on the role of CD5 in engineered cell therapies published in *Science Immunology*. The study highlights the ongoing innovation and continued commitment to advance the field of cell therapy and cancer research at the University of Pennsylvania. Recognizing the transformative potential of this technology, we founded Vittoria to accelerate its translation into the clinic. The first clinical candidate developed from this research is now being evaluated in a first-in-human clinical trial at Penn Medicine as a potential new treatment for T-cell lymphoma, a disease with significant unmet therapeutic need."

The preclinical study, titled "CD5 Deletion Enhances the Anti-Tumor Activity of Adoptive T Cell Therapies," describes the benefits of the approach of modulating the CD5 signaling pathway and utilizing a proprietary five-day manufacturing process to enhance CAR T potency, durability, and accessibility. These features may address existing challenges with current CAR T-cell treatments including CAR T exhaustion, suboptimal efficacy, and manufacturing inefficiencies. To learn more in-depth about these approaches, which underline Vittoria's Senza5™ platform, the full publication is available here: <https://www.science.org/doi/10.1126/sciimmunol.adn6509>.

Ruchi Patel, Ph.D., the lead author of the study and former graduate student in the Ruella laboratory at the University of Pennsylvania who recently joined Vittoria's scientific team, added, "I am thrilled to see our work published in such a prestigious journal, and excited to contribute to the clinical translation of this groundbreaking technology in my new role at Vittoria. This brings us one step closer to enabling the next generation of transformative cell therapies and potentially improving patient outcomes."

Vittoria's VIPER-101 clinical trial is now open for enrollment for the treatment of T-cell lymphoma. Information about the trial can be found at: <https://clinicaltrials.gov/study/NCT06420089?a=1>. Initial

clinical data is expected in early 2025 and will provide valuable insights into the Senza5 platform technology, paving the way for more effective cell therapies that can transform the treatment landscape for patients with cancer and autoimmune diseases.

Editor's Note: Ruella is the scientific founder of, a paid consultant for, and an equity holder in, Vittoria Biotherapeutics. The University of Pennsylvania holds equity in Vittoria Biotherapeutics, has received sponsored research funding from Vittoria, has licensed certain intellectual property to Vittoria and may receive future research funding and financial consideration based on development and commercialization of certain products by Vittoria.

About Senza5™

Senza5™ is a proprietary cell therapy engineering and manufacturing platform that combines the power of genetic engineering and a proprietary five-day manufacturing process to maximize stemness, durability, and efficacy of its produced cell therapies by disabling the CD5 signaling pathway on engineered CAR T cells and bypassing CD5's immunosuppressive effects to amplify the therapy's antitumor activity. The expedited five-day manufacturing process further enhances stemness, which promotes greater in vivo expansion and durability and the potential for longer-lasting responses. Senza5 can be widely utilized to improve the efficacy of engineered T-cell therapies by acting on the fundamental biology of T cells.

About Vittoria Biotherapeutics

Vittoria Biotherapeutics, Inc., a clinical-stage cell therapy company, is developing novel CAR T-cell therapies that transcend the limitations of current cell therapies. Based on technology exclusively licensed from the University of Pennsylvania, the Company's proprietary Senza5™ platform unlocks the cytotoxic potential of engineered T cells and utilizes a five-day manufacturing process to maximize stemness, durability, and potency. By acting on the fundamental biology of T cells, Senza5 can be used to improve the efficacy of engineered T-cell therapies with pipeline applications in oncology and autoimmune diseases. To learn more, visit vittoriabio.com and follow us on [LinkedIn](#).

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