



Cartesian Therapeutics Doses Patient with First Allogeneic RNA Cell Therapy for Multiple Myeloma

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- *Descartes-25 engineered to deliver a combination of synergistically active anti-myeloma therapies directly to tumor microenvironment*
- *Product generated from Company's Part 1271-compliant Master Cell Bank of human umbilical cord Mesenchymal Stem Cells*
- *Fifth IND in the five years since Cartesian was founded*

Gaithersburg, Md., January 25, 2022 – Cartesian Therapeutics, a fully integrated clinical-stage biotechnology company pioneering RNA cell therapy in and beyond oncology, today announced that it has dosed the first patient in a Phase 1/2a multicenter clinical study evaluating Descartes-25 in patients with multiple myeloma. To the company's knowledge, Descartes-25 is the first off-the-shelf RNA cell therapy to enter clinical trials for any cancer and marks the company's fifth FDA Investigational New Drug (IND) allowance in five years. Descartes-25 is produced at Cartesian's wholly owned cGMP manufacturing facility with the company's proprietary RNA Armory[®] cell manufacturing platform. This platform now includes an internally developed, Part 1271-compliant Master Cell Bank of human umbilical cord Mesenchymal Stem Cells (MSC) that was used to engineer Descartes-25.

Descartes-25 is designed to deliver two complementary antitumor proteins directly to the tumor: a novel three-arm bispecific antibody that binds B-cell Maturation Antigen (BCMA) with femtomolar avidity and the potent antitumor cytokine interleukin-12 (IL-12). Descartes-25 cells are further engineered with a membrane-bound homing protein that directs the cells to the tumor microenvironment for local delivery of their antitumor cargo. In preclinical models, Descartes-25's IL-12 synergistically potentiates its BCMA bispecific antibody to eliminate myeloma with unprecedented activity.

"Patients with relapsed and/or refractory multiple myeloma have few treatment options remaining," said Kenneth Anderson, M.D., Kraft Family Professor of Medicine at Harvard Medical School and Director of the Jerome Lipper Multiple Myeloma Center and LeBow Institute for Myeloma Therapeutics. "A cell therapy that locally delivers a combination of a BCMA-bispecific antibody and IL-12, without using lymphodepleting chemotherapy, is an elegant and highly innovative approach. If approved, it will be a welcome addition to our toolkit for treating this currently incurable disease."

"We designed Descartes-25 to be highly potent and well tolerated by focusing on creating the ideal pharmacokinetic profile: continuous, measured, and local delivery of a synergistic combination of antitumor agents," said Murat Kalayoglu, M.D., Ph.D., President and Chief Executive Officer at Cartesian. "I am proud of our integrated team of scientists and physicians for their hard work and rapid clinical translation of this first-in-class therapy."

"With Descartes-25, Cartesian scientists used RNA Armory[®] technology to convert stem cells into a targeted combination therapy," said Chief Scientific Officer Michael Singer, M.D., Ph.D. "Therefore Descartes-25 is not just a potent antitumor therapy. It's also a blueprint for future RNA cell therapies to deliver three or more rationally selected and spatially targeted combination therapeutics for a diverse array of diseases."

About the Phase 1/2a Clinical Trial

The Phase 1/2a study ([NCT05113342](https://clinicaltrials.gov/ct2/show/study/NCT05113342)) is an open-label, multicenter, dose escalation trial for Descartes 25 in patients with relapsed and/or refractory multiple myeloma. The study aims to enroll twenty patients who have previously failed two or more lines of treatment to determine the safety and preliminary efficacy of Descartes-25. For more information visit <https://www.cartesiantherapeutics.com/clinical-trials/#oncology>.

About RNA Armory[®]

The RNA Armory[®] is Cartesian's proprietary cell engineering platform that generates large-scale, potent RNA cell therapies with extended protein expression. The RNA Armory[®] is currently focused on RNA engineering two types of cells, T-cells and Mesenchymal Stem Cells (MSCs). Our CAR T-cell programs harness the safety of RNA and autologous engineering to target autoimmune diseases and frontline cancer – *without* lymphodepletion. Our off-the-shelf MSC programs leverage these cells' clinical safety record and excellent capacity for protein secretion to deliver synergistic combinations of therapies. For more information visit <https://www.cartesiantherapeutics.com/rna-cell-therapy/#technology>.

About Cartesian Therapeutics

Founded in 2016 and with three assets in clinical trials, Cartesian is the leader in RNA cell therapy. With a mission to unleash the potential and reach of cell therapy with RNA engineering, Cartesian is pioneering RNA cell therapies in and beyond oncology with

products in development for autoimmune, oncologic and respiratory disorders. All investigational therapies are manufactured at Cartesian's wholly owned, state-of-the-art cGMP manufacturing facility in Gaithersburg, MD, enabling complete control of product quality, production schedules and costs while accelerating clinical translation of discoveries. For more information visit www.cartesiantherapeutics.com.

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