Carisma Therapeutics to Present Engineered Cell Therapy Data at The American Association for Cancer Research Annual Meeting

April 8, 2022

- *Findings further indicate the potential of engineered macrophages as a new treatment pathway for hard-to-treat cancers and other serious illnesses*
- *Research findings point to feasibility of a shortened manufacturing process for CAR-monocytes*

PHILADELPHIA, April 8, 2022 /PRNewswire/ -- Carisma Therapeutics Inc., a clinical stage biopharmaceutical company focused on discovering and developing innovative immunotherapies, announced study findings accepted for presentation at The American Association for Cancer Research (AACR) Annual Meeting taking place in New Orleans, LA, Friday, April 8 – Wednesday, April 13. The accepted data reinforce the potential of Carisma's differentiated and proprietary cell therapy platform focused on engineered macrophages as a novel treatment pathway for hard-to-treat cancers and other serious illnesses and provides information on the feasibility of a shortened manufacturing process for chimeric antigen receptor (CAR) monocytes.

Carisma will share key findings from recent studies including, "Chimeric antigen receptor macrophages (CAR-M) sensitize solid tumors to anti-PD1 immunotherapy," presented by Stefano Pierini, PhD, Principal Scientist at Carisma. Findings demonstrate robust synergy between the CAR-Macrophage platform and T cell checkpoint inhibitor therapy. Using pre-clinical solid tumor animal models that are resistant to PD1 blockade, Carisma demonstrated that adding CAR-Macrophages to the treatment regimen significantly enhanced tumor control, overall survival, and tumor microenvironment (TME) activation. Notably, while CAR-Macrophage monotherapy led to TME remodeling, the combination with anti-PD1 led to an increased infiltration of T cells, dendritic cells, and other inflammatory immune cells. Carisma will seek to further evaluate CT-0508, the anti-human epidermal growth factor receptor 2 (HER2) CAR-Macrophage, in a combination study with pembrolizumab in patients with HER2 overexpressing tumors.

"Pre-clinical development of CAR Monocytes (CAR-Mono) for solid tumor immunotherapy," presented by Carisma Principal Scientist, Daniel Blumenthal, PhD, demonstrated that CAR-Monocytes can be produced in a single day, induce robust and targeted anti-tumor activity in vitro and in vivo, differentiate into M1 polarized CAR-Macrophage within tumors, and persist for over six months in animal models. In this study, Carisma established an ultra-rapid, same-day CAR-Monocyte manufacturing process, which holds the potential to significantly reduce the future cost of goods and manufacturing turnaround time associated with the autologous cell therapy.

Also accepted for AACR presentation is the clinical trial design and foundational details regarding Carisma's lead candidate, CT-0508, a HER2-targeted CAR-Macrophage, "A phase 1, first in human (FIH) study of autologous anti-HER2 chimeric antigen receptor macrophages (CAR-M) in HER2-overexpressing solid tumors (ST)," presented by Kim A. Reiss, MD, Assistant Professor of Medicine at the Abramson Cancer Center of the University of Pennsylvania (Penn) and the principal investigator for Carisma's clinical trial of CT-0508. This first-of-its kind Phase 1 clinical trial is actively enrolling patients at five sites, including Penn; the University of North Carolina Lineberger Comprehensive Cancer Center in Chapel Hill; City of Hope in Duarte, California; University of Texas MD Anderson Cancer Center in Houston, Texas; and Sarah Cannon Research Institute at Tennessee Oncology – Nashville.

"The preclinical data presented at the AACR Annual Meeting reinforces the exciting potential of Carisma's engineered macrophage and monocyte platforms," shared Debora Barton, MD, Chief Medical Officer at Carisma Therapeutics. "Our commitment remains steadfast to providing new solutions to patients and their providers, as we continue our first-of-its-kind clinical trial of CT-0508 and look to expand utilization of this technology."

The following poster presentations will be published on the AACR Annual Meeting website and available for registered attendees during the dates/times indicated below:

- **Sunday, April 10 at 1:30 pm ET**:
  - Pre-clinical development of CAR Monocytes (CAR-Mono) for solid tumor immunotherapy
- **Monday, April 11 at 1:30 pm ET:**
  - Chimeric antigen receptor macrophages (CAR-M) sensitize solid tumors to anti-PD1 immunotherapy
- **Tuesday, April 12 at 9:00 am ET**:
  - A phase 1, first in human (FIH) study of autologous anti-HER2 chimeric antigen receptor macrophages (CAR-M) in HER2-overexpressing solid tumors (ST)

Editor's Note: Carisma has licensed certain Penn-owned intellectual property from the University of Pennsylvania, and Penn's Perelman School of Medicine receives sponsored research and clinical trial funding from the company. Penn may also be entitled to receive additional financial benefits from technologies licensed and optioned to Carisma in the future. In addition, Penn is a co-founder of the company and holds equity interests in Carisma.

About Carisma Therapeutics
Carisma is a biopharmaceutical company dedicated to developing a differentiated and proprietary cell therapy platform focused on engineered macrophages, cells that play a crucial role in both the innate and adaptive immune response. The first applications of the platform, developed in collaboration with the University of Pennsylvania, are autologous chimeric antigen receptor (CAR)-macrophages for the treatment of solid tumors. Carisma is headquartered in Philadelphia, PA.

For more information, please visit www.carismatx.com

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