



## Carisma Therapeutics Announces Collaboration with Merck to Evaluate CAR-Macrophages in Combination with KEYTRUDA® (pembrolizumab) in a Clinical Study

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PHILADELPHIA, Dec. 6, 2021 /PRNewswire/ -- [Carisma Therapeutics](#), a clinical stage biopharmaceutical company focused on discovering and developing innovative immunotherapies, announced today that it has entered into a clinical study collaboration with Merck (known as MSD outside the US and Canada) to evaluate their proprietary targeted chimeric antigen receptor macrophages (CAR-M) in combination with Merck's anti-PD-1 therapy KEYTRUDA® (pembrolizumab) for the treatment of human epidermal growth factor receptor 2 (HER2) overexpressing cancers.

Based on pre-clinical findings outlined in [Human chimeric antigen receptor macrophages for cancer immunotherapy](#), Carisma's novel CAR-M platform has the potential ability to reprogram the solid tumor microenvironment, leading to immune activation, T cell recruitment, and anti-tumor adaptive immunity.

"The mechanisms of action behind CT-0508 and KEYTRUDA suggest they may be complementary and could help to drive meaningful clinical benefits in patients with HER2 positive cancers, where a high unmet medical need exists," said Steven Kelly, President and Chief Executive Officer at Carisma Therapeutics. "We are extremely pleased to enter into this collaboration with Merck and further expand the potential of macrophage-based cell therapy."

This collaboration announcement comes on the heels of the Society for Immunotherapy of Cancer 36<sup>th</sup> Anniversary Annual Meeting where lead investigators [shared early data](#) from the landmark [Phase 1 multi-center clinical trial of CT-0508](#), a human epidermal growth factor receptor 2 (HER2) targeted CAR-M. The preliminary findings represent the first clinical data with genetically engineered macrophages in humans and demonstrated that CT-0508 was well tolerated after infusion and there were no dose limiting toxicities; data show the immunotherapy was successfully manufactured using macrophages obtained from heavily pre-treated, advanced solid tumor patients and showed high CAR expression, viability, and purity; and that the administered therapy remodeled the tumor microenvironment and mediated expansion/activation of T cells within the tumors.

Additional pre-clinical data generated by Carisma has shown the potential additive benefit of CAR-M in combination with PD-1 blockade in solid tumor models that are resistant to anti-PD-1 monotherapy.

The landmark CT-0508 clinical trial remains open for enrollment and the U.S. Food and Drug Administration recently granted [Fast Track designation to CT-0508 for the treatment of patients with solid tumors](#). The clinical study evaluating CAR-M in combination with KEYTRUDA® (pembrolizumab) is expected to launch in 2022.

KEYTRUDA® is a registered trademark of Merck Sharp & Dohme Corp, a subsidiary of Merck & Co., Inc., Kenilworth, NJ, USA.

### About Carisma Therapeutics

Carisma Therapeutics 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 Therapeutics is headquartered in Philadelphia, PA.

For more information, please visit [www.carismatx.com](http://www.carismatx.com)

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