CARsgen Announces the Publication of a Novel CAR-T Technology that Improves the Efficacy of CAR-T cells Against Solid Tumors without Requiring Preconditioned Lymphodepletion

SHANGHAI, Aug 17, 2020 /PRNewswire/ -- CARsgen Therapeutics, a leader in developing novel CAR-T cell therapies against solid tumors, today announced its publication of the 7x21 CAR-T technology in CLINICAL CANCER RESEARCH. The article is titled “Coexpression of IL-7 and CCL21 increases efficacy of CAR-T cells in solid tumors without requiring preconditioned lymphodepletion.”

Current challenges in CAR-T cell therapy for solid tumor malignancies include T cell survival, T cell infiltration, and antigen heterogeneity. CARsgen recently collaborated with State Key Laboratory of Oncogenes and Related Genes at the Shanghai Cancer Institute to overcome these obstacles. In this study, the CAR-T cells were engineered to co-express the cytokines IL-7 and CCL21 (7×21 CAR-T). Study results indicated the 7×21 CAR-T cells significantly outperformed the conventional CAR-T cells in cell proliferation and chemotaxis. Without the cyclophosphamide (CPA) precondition, the 7×21 CAR-T cells displayed superior therapeutic effects to both the conventional CAR-T cells and the 7×19 CAR-T cells, which co-expressed IL-7 and CCL19, in treating three different solid tumors. The 7×21 CAR-T cells could also efficiently inhibit the tumor growth of xenografts
containing CLDN18.2-positive and CLDN18.2-negative tumor cells at a 1:1 ratio, and even resulting in complete tumor remission. The mechanistic study revealed that the 7x21 CAR T-cell treatment not only significantly improved the survival and infiltration of CAR-T cells and dendritic cells in vivo, but also led to less angiogenesis in tumors. These results support that the 7x21 CAR-T technology could be a promising therapeutic approach for the treatment of solid tumors.

The article may be found on following link:

http://clincancerres.aacrjournals.org/cgi/content/abstract/1078-0432.CCR-20-0777

About CARsgen Therapeutics

CARsgen Therapeutics is a clinical-stage immune-oncology company committed to the development of First-in-Class and Best-in-Class CAR-T and antibody therapeutics.

Founded in 2014, CARsgen is based in Shanghai, with operations in both China and the United States. CARsgen has established a broad pipeline of CAR-T product candidates covering several solid and blood tumors in areas of significant unmet medical need. The company has launched several First-in-Class CAR-T clinical trials for the treatment of relapsed/refractory tumors, including CAR-Claudin18.2-T for gastric and pancreatic cancer, CAR-GPC3-T for hepatocellular
carcinoma (HCC) and squamous lung cancer and CAR-EGFR/EGFRvIII-T for glioblastoma. CARsgen also has ongoing clinical programs with a fully human CAR-BCMA-T for multiple myeloma and a humanized CAR-CD19-T for leukemia.

CARsgen’s proprietary antibody platform enables the development of therapeutic antibodies. Its leading humanized monoclonal antibody targeting Claudin18.2 has obtained IND approval from the NMPA.

For more information, please visit: www.carsgen.com