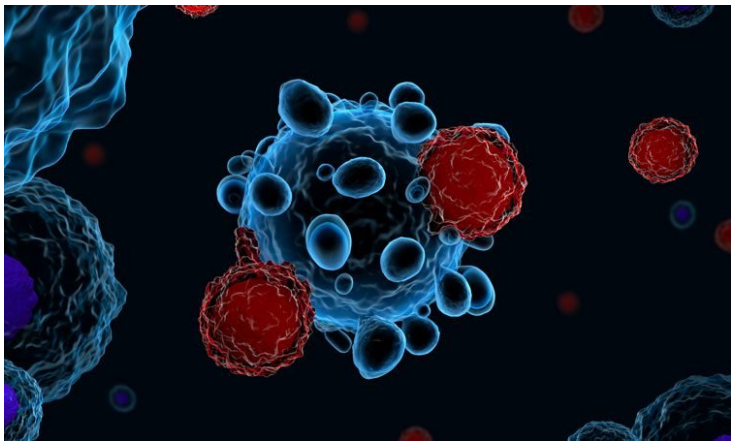
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ASIA EDITION

Takeda, Anderson Cancer Center accelerate cell therapy

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Takeda and Anderson Cancer Center announce cooperation to accelerate the development of clinical stage, out-of-the-box CAR NK cell therapy platform



University of Texas MD Anderson Cancer Center (The University of Texas MD Anderson Cancer Center) and Takeda Pharmaceutical Company Limited (Takeda Pharmaceutical has announced an exclusive licensing agreement and research agreement to develop cord blood-derived chimeric antigen receptors for "arming" IL-15 for the treatment of B-cell malignancies and other cancers Chimeric Antigen Receptor-directed Natural Killer (CAR NK) cell therapy.

Under the agreement, Takeda will receive access to the CAR NK platform of the Anderson Cancer Center and the exclusive rights to develop and commercialize up to four projects, including a CD19-targeted CAR NK cell therapy and a B-cell maturation. The antigen (BCMA) is the target of CAR NK cell therapy. The Takeda and Anderson Cancer Center will conduct a research collaboration to further develop the above CAR NK project.

Katy Rezvani, MD, Ph.D., Professor of Stem Cell Transplantation and Cell Therapy at the Anderson Cancer Center , said: "Our vision is to improve existing treatments by developing armored CAR NK, which can be administered in outpatient settings. Out of the box, more patients can get effective, fast and least toxic treatment. Takeda's expertise in hematological malignancies and the commitment to develop next-generation cell therapies make it an ideal partner for our team. Promote CAR NK cell therapy for patients with therapeutic needs."

New ways to deliver out of the box ready to use CAR in outpatient facilities
allogeneic Anderson Cancer Center platform CAR NK NK cells isolated from umbilical cord blood, the fight against certain cancers expressing CAR targets after processing. CAR NK cells are modified by retroviral vectors to deliver genes and enhance their efficacy against specific tumors. CD19 CAR increases the specificity of these cells against B cell malignancies, while the immune cytokine IL-15 enhances the proliferation and survival of CAR NK cells in vivo.

Existing CAR T cell therapy drugs use patient-generated genetically modified T cells, and the preparation process takes several weeks. In contrast, CAR NK cells are designed to be prepared from non-relative donor sources and stored in an out-of-the-box manner. So that treatment can be implemented faster.

CD19 CAR NK cell therapy is expected to be administered in an outpatient setting. In an ongoing phase 1/2a clinical study, patients with relapsed refractory B-cell malignancies who received CD19 CAR NK cell therapy did not see severe cytokine release syndrome (CRS) observed in existing CAR-T treatments.) or neurotoxicity.

Anderson Cancer Center to develop CAR NK platform led by Dr. Rezvani, and with adoptive cell therapy platform , Chronic Lymphocytic Leukemia Moon Shot® and B-the Cell Lymphoma Moon Shot ® further support of the project were the hospital Moon Shots Program ® of In part, the project is a collaborative effort to rapidly develop scientific discoveries into meaningful clinical advances that can save patients' lives.

Takeda: CAR accelerate the development of next-generation multiple platforms
Andy Plump Takeda, president of R & D, MD, Ph.D., said: "Anderson Cancer Center CAR NK cell therapy platform represents a potential cure for the drug, which is what we are to CD19 CAR NK Established as a leader in the treatment of drug candidates for cancer in the field. We must work flexibly and purposefully, so we plan to start the pivotal study of CD19 CAR NK in 2021."

In addition to CAR NK cell therapy, Takeda and its partners are investigating ways to improve the safety, efficacy, and accessibility of first-generation CAR T cell therapies, including gamma delta CAR T , induced pluripotent stem cell-derived CAR T , with solid tumors as targets of CAR T and other next-generation methods . Takeda plans to the end of fiscal year 2020 to promote the five kinds of tumor cell therapy to clinical stage . The platform is being developed through collaboration with partners and the use of Takeda's expertise in transforming cell therapy engines that provide bioengineering, chemistry, manufacturing and control (CMC), clinical and transformation functions in a single location to overcome cell therapy drugs. Numerous manufacturing challenges in development.

Takeda is responsible for the development, manufacture and commercialization of the CAR NK products produced by the agreement. The Anderson Cancer Center will receive upfront payments and be eligible to receive royalties for development and commercialization milestones for each target and for any CAR NK product net sales.

The Anderson Cancer Center and Takeda will continue to conduct research on other targets and the CAR NK platform under the direction of a joint research committee. The Anderson Cancer Center will deploy an institutional conflict of interest management and monitoring program for the study .