MEDIA RELEASE
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CHIMERIC THERAPEUTICS ENTERS LICENSING AGREEMENT WITH CITY OF HOPE TO DEVELOP PIONEERING PHASE 1 CHLOROTOXIN CAR-T CELL THERAPY

HIGHLIGHTS

- First patient dosed in Phase 1 trial of CLTX CAR-T being conducted at City of Hope
- The CLTX CAR-T technology uses a peptide derived from scorpion toxin to direct T cells to target glioblastoma
- Potent antitumor activity against glioblastoma established in preclinical models
- Developed by highly regarded CAR-T scientist Christine Brown and colleagues
- CLTX CAR-T possesses a new CAR tumor recognition domain, extending the range in targeting solid tumor cells when compared with other antibody-based CARs
- Adds to increasing level of activity and development in the CAR-T sector
- Chimeric is dedicated to developing effective CAR-T therapies for patients with unmet medical needs

Chimeric Therapeutics (Chimeric or the Company), a drug development company focused on novel CAR-T cell therapies for solid tumors, is pleased to announce it has entered a licensing agreement with world-renowned independent US cancer research and treatment centre, City of Hope, for the intellectual property relating to its pioneering chlorotoxin chimeric antigen receptor (CLTX CAR-T) cell therapy.

The therapy, which uses a peptide derived from scorpion toxin to direct T cells to target glioblastoma (GBM), is being used in a Phase 1 clinical trial at City of Hope to treat GBM. The first patient in the trial recently started treatment.

Under the licensing agreement, Chimeric has acquired the exclusive worldwide rights to develop and commericalise City of Hope's CLTX CAR-T cells, as well as further develop the therapy for other cancers.

"Chimeric is excited to join City of Hope in its quest to find more effective cancer therapies. This is an exceedingly rare opportunity to acquire a promising technology in one of the most exciting areas of immuno-oncology today," said Chimeric's Executive Chairman Paul Hopper.

"Furthermore, the CLTX-CAR T cell therapy has completed years of preclinical research and development, and recently enrolled its first patient in a phase 1 clinical trial for brain cancer."

The development of the technology was led by Christine Brown, Ph.D., City of Hope's Heritage Provider Network Professor in Immunotherapy and deputy director of its T Cell Therapeutics Research Laboratory, Michael Barish, Ph.D., chair of City of Hope's Department of Developmental and Stem Cell Biology, and Dongrui Wang, Ph.D., a recent graduate of City of Hope's Irell & Manella Graduate School of Biological Sciences.

"City of Hope is excited to enter into this agreement with Chimeric as it supports our innovative research in CAR T cell therapy and our commitment to extend these therapies to more patients, particularly those with GBM and other solid tumors that are difficult to treat," she said.

"Chimeric shares our goal of providing effective CAR T cell therapies to more patients with current unmet medical needs."

CAR-T is the use of a patient's own reengineered T cells, which carry Chimeric Antigen Receptors, to target cancer cells. CAR-T cell assets and capital raisings have attracted widespread commercial interest throughout the last five years.

CARs commonly incorporate a monoclonal antibody sequence in their targeting domain, enabling CAR-T cells to recognise antigens and kill tumor cells. In contrast, the CLTX CAR uses a synthetic 36-amino acid peptide sequence first isolated from death stalker scorpion venom and now engineered to serve as the CAR recognition domain.

In a recent study, City of Hope researchers used tumor cells in resection samples from a cohort of patients with GBM to compare CLTX binding with expression of antigens currently under investigation as CAR-T cell targets. They found that CLTX bound to a greater proportion of patient tumors, and cells, within these tumors.

CLTX binding included the GBM stem-like cells thought to seed tumor recurrence. Consistent with these observations, CLTX CAR-T cells recognised and killed broad populations of GBM cells while ignoring non-tumor cells in the brain and other organs. The study team demonstrated that CLTX-directed CAR-T cells are highly effective at selectively killing human GBM cells without off-tumor targeting and toxicity in cell-based assays and in animal models.

The research conducted by City of Hope on CLTX CAR-T was published in Science Translational Medicine in March 2020.

GBM is the most common and aggressive type of brain tumor and one the deadliest and least curable cancers in humans. Current standard of care therapies are severe, with recurrence typically inevitable and a median overall survival following the first instance of just 5-8 months.

ABOUT CHIMERIC THERAPEUTICS

Chimeric Therapeutics is developing ground-breaking CAR-T cell therapies for solid tumors based on scientific research conducted by leading US CAR-T experts at the City of Hope (COH) Cancer Centre in Los Angeles. Its CLTX-CAR T technology incorporates chlorotoxin (CLTX), a peptide derived from scorpion toxin, as a novel CAR tumor recognition domain. This domain extends the range of CAR-T cell targeting in solid tumors.

Potent antitumor activity against glioblastoma (GBM) has been established in preclinical models. Currently undergoing Phase 1 clinical trials in GBM at COH, CLTX CAR-T has significant drug administration benefits since it can be delivered during an outpatient visit.

CLTX CAR-T cells differ from other GBM-targeting immunotherapies by its specific and broad recognition of patient tumors and of the majority of cells within these tumors. CLTX CAR-T cells target GBM through recognition of a receptor complex composed of membrane-bound matrix metalloprotease 2 (MMP2) and involving the chloride channel CLC3.

CLTX CAR-T cells do not exhibit off-tumor recognition of normal human or murine cells/tissues in preclinical models, consistent with the documented safety of administering other CLTX-containing therapeutic agents in humans.

The CLTX peptide has also demonstrated safety and specificity in clinical testing as a radiotherapy delivery conjugate and as an imaging agent in fluorescence-guided surgery for recurrent/refractory GBM.

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