
Phase I Study of Chimeric Antigen Receptor Engineered Central Memory T cells for the Treatment of Malignant Glioma

Grant Award Details

Phase I Study of Chimeric Antigen Receptor Engineered Central Memory T cells for the Treatment of Malignant Glioma

Grant Type: Clinical Trial Stage Projects

Grant Number: CLIN2-10248

Project Objective: Complete a Phase 1 clinical trial for malignant Glioma with autologous Chimeric Antigen Receptor engineered central memory T cells (CAR-Tcm).

Investigator:

Name:	Christine Brown
Institution:	City of Hope, Beckman Research Institute
Type:	PI

Disease Focus: Brain Cancer, Cancer, Solid Tumors

Human Stem Cell Use: Adult Stem Cell

Award Value: \$12,753,854

Status: Active

Grant Application Details

Application Title: Phase I Study of Chimeric Antigen Receptor Engineered Central Memory T cells for the Treatment of Malignant Glioma

Public Abstract:**Therapeutic Candidate or Device**

A promising immunotherapy utilizing a patient's memory T cells engineered to express chimeric antigen receptors for targeted tumor killing.

Indication

Malignant glioma (WHO III and IV), including glioblastoma (WHO IV), that express the tumor-associated antigen IL-13 receptor alpha 2 (IL13R α 2).

Therapeutic Mechanism

A promising immunotherapy utilizing a patient's memory T cells genetically engineered to express chimeric antigen receptors for targeted tumor killing. Upon adoptive transfer the CAR T cell product specifically recognizes and directly destroys malignant glioma cell expressing IL13R α 2.

Unmet Medical Need

This proposal seeks to address the unmet medical need for more effective therapy against malignant glioma by engineering de novo antitumor immunity using patient-specific chimeric antigen receptor (CAR)-modified T cells.

Project Objective

Phase I trial completed

Major Proposed Activities

- Manufacture and clinically evaluate intraventricular versus dual intraventricular and intratumoral delivery of CAR T cells
- Evaluate safety, feasibility and preliminary evidence of efficacy across all routes of administration.
- Develop and establish reagents and methods for a Phase II clinical trial

Statement of Benefit to California:

This proposal aims to benefit the citizens of California by developing a more effective therapy against glioblastoma, one of the least curable human cancers. Further, this project will produce economic benefits through the creation and maintenance of skilled jobs, along with the purchasing of equipment and supplies from in-state companies. This project will also yield long-reaching benefit by establishing California as a leader in biomedical research both nationally and internationally.

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