
Clinical Study of T stem cell memory (Tscm)-based CAR-T cells in Patients with Multiple Myeloma

Grant Award Details

Clinical Study of T stem cell memory (Tscm)-based CAR-T cells in Patients with Multiple Myeloma

Grant Type: Clinical Trial Stage Projects

Grant Number: CLIN2-10395

Project Objective: Clinical Study of T stem cell memory (Tscm)-based CAR-T cells in Patients with Multiple Myeloma.

Investigator:

Name:	Matthew Spear
Institution:	Poseida Therapeutics, Inc.
Type:	PI

Disease Focus: Blood Cancer, Cancer, Multiple Myeloma

Human Stem Cell Use: Adult Stem Cell

Award Value: \$19,813,407

Status: Active

Grant Application Details

Application Title: Clinical Study of T stem cell memory (Tscm)-based CAR-T cells in Patients with Multiple Myeloma

Public Abstract: **Therapeutic Candidate or Device**

Genetically engineered, Centyrin-based, stem cell memory CAR-T cells (CARTyrin T cells)

Indication

Multiple Myeloma

Therapeutic Mechanism

The Centyrin-based chimeric antigen receptor (CARTyrin) cells are cells that are removed from a myeloma patient's body and genetically engineered to express a receptor that binds to BCMA that is selectively found on myeloma cells, triggering the CARTyrin T cells to specifically kill the myeloma cells. Because the CARTyrin T cells are stem cell memory, they can persist for long periods and kill residual myeloma cells or recurrences.

Unmet Medical Need

Multiple myeloma is generally an incurable and fatal disease, running a course of multiple relapses and recurrences. Current therapies rarely produce long-term control in relapsed/refractory patients. Being stem cell memory CAR-T cells, the treatment could potentially produce long-term control.

Project Objective

Phase 1 trial completed

Major Proposed Activities

- Manufacturing of products for the proposed trial
- Enrollment, treatment and follow-up of patients to assess safety and efficacy of the therapy, followed by analysis and reporting of the results
- Completion of nonclinical safety studies

Statement of Benefit to California:

Multiple myeloma is generally a fatal disease, running a course of multiple recurrences despite current therapies. Being stem cell memory CAR-T cells, this treatment could cure or control myeloma with low toxicity, directly benefiting patients, their relatives and friends who are citizens of California. A durable, low-toxicity, one-time treatment could also reduce costs to Californians both directly and in terms of state and federal taxes by decreasing the need for subsequent medical care.

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