Embryonic Stem Cells for Corneal Endothelial Degeneration

Grant Award Details

Embryonic Stem Cells for Corneal Endothelial Degeneration

Grant Type: Inception - Discovery Stage Research Projects

Grant Number: DISC1-08848

Project Objective: To test the hypothesis that embryonic stem cell-derived HCECs can repair the cornea in a rabbit model of corneal endothelial cell dysfunction.

Investigator:

Name:	Jeffrey Goldberg
Institution:	Stanford University
Type:	PI

Disease Focus: Vision Loss

Human Stem Cell Use: Embryonic Stem Cell, iPS Cell

Award Value: $235,836

Status: Closed

Progress Reports

Reporting Period: Year 1

View Report

Grant Application Details

Application Title: Embryonic Stem Cells for Corneal Endothelial Degeneration

Public Abstract:	**Research Objective** The proposed studies will determine the optimal approaches to differentiate and transplant stem cell-derived corneal endothelial cells. **Impact** These data will provide foundational proof-of-concept data that will allow the rapid advance of a cell therapy towards clinical application. **Major Proposed Activities** • Determine optimal conditions to generate human corneal endothelial cells from human stem cells, assaying both cellular and functional markers. • Test efficacy in a rabbit model that closely mimics human injury or degeneration, examining disease-relevant functional assays.
Statement of Benefit to California:	1. Employing California's citizens in the research funded through CIRM and thereafter as this project advances. 2. Developing a first-in-class treatment for California's citizens with corneal diseases affecting their vision.

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