
Autologous cell therapy for Parkinson's disease using iPSC-derived DA neurons

Grant Award Details

Autologous cell therapy for Parkinson's disease using iPSC-derived DA neurons

Grant Type: Quest - Discovery Stage Research Projects

Grant Number: DISC2-09073

Project Objective: To further characterize the functionality and variability of iPSC-derived dopaminergic neurons derived from Parkinson's patients for the development of an autologous, cell-based therapy.

Investigator:

Name:	Jeanne Loring
Institution:	Scripps Research Institute
Type:	PI

Disease Focus: Neurological Disorders, Parkinson's Disease

Human Stem Cell Use: iPS Cell

Cell Line Generation: iPS Cell

Award Value: \$2,299,786

Status: Closed

Progress Reports

Reporting Period: Year 1 NCE

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Grant Application Details

Application Title: Autologous cell therapy for Parkinson's disease using iPSC-derived DA neurons

Public Abstract:**Research Objective**

Autologous human dopaminergic neurons derived from patient-specific induced pluripotent stem cells

Impact

Parkinson's disease

Major Proposed Activities

- Characterize differentiation from all 10 patient cell lines
- Characterize functionality of patient neurons matured in vitro
- Immunogenicity assessment
- Cryopreservation feasibility testing
- Investigate dose response in vivo
- Detect dopamine release in vivo

Statement of Benefit to California:

Thousands of Californians suffer from the degenerative effects of Parkinson's disease, a disease for which there is no cure. There is hope, however, that stem cells could provide the key to providing long-term relief. Our study seeks to treat patients with cells derived from their own stem cells, a process which could be applied to other diseases such as diabetes and heart disease and could potentially be used to the benefit of many of the citizens of California.

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