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## Develop iPSC-derived microglia to treat progranulin-deficient Frontotemporal Dementia

### Grant Award Details

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Develop iPSC-derived microglia to treat progranulin-deficient Frontotemporal Dementia

**Grant Type:** Quest - Discovery Stage Research Projects

**Grant Number:** DISC2-11165

**Project Objective:** To develop iPSC-derived microglia to treat progranulin-deficient Frontotemporal Dementia

**Investigator:**

<b>Name:</b>	Li Gan
<b>Institution:</b>	Gladstone Institutes, J. David
<b>Type:</b>	PI

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**Disease Focus:** Dementia, Neurological Disorders

**Human Stem Cell Use:** iPS Cell

**Cell Line Generation:** iPS Cell

**Award Value:** \$1,547,157

**Status:** Active

### Grant Application Details

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**Application Title:** Develop iPSC-derived microglia to treat progranulin-deficient Frontotemporal Dementia

**Public Abstract:** **Research Objective**

Develop stem cell-based therapy to treat dementia

**Impact**

There are no treatments for dementia. If successfully achieved, this study will lead to a cure of a familial form of dementia in the elderly population.

**Major Proposed Activities**

- Develop a robust human stem cell-derived microglial platform for cell-based therapy
- Determine short-term safety and efficacy of engrafted human microglia in wildtype mice
- Determine short-term efficacy of engrafted human microglia in FTD mouse models
- Determine long-term efficacy of engrafted human microglia in FTD mouse models

**Statement of Benefit to California:** The proposed research will benefit the State of California and its citizens because of the potential to cure a major form of dementia in the elderly population. With the fast aging population in California, more and more Californians are diagnosed with neurodegenerative dementias. There is an urgent need to develop a treatment or cure for these devastating conditions. Success of our study will address this urgent medical challenge of our modern society.

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