A Phase 1b Safety Study for MRI guided delivery of AAV2-GDNF for the treatment of Parkinson's disease

Grant Award Details

Grant Type: Clinical Trial Stage Projects
Grant Number: CLIN2-11661
Project Objective: To assess the safety and preliminary clinical effect of AAV2-GDNF delivered to the putamen in patients with Parkinson’s Disease

Investigator:
Name: Krystof Bankiewicz
Institution: Brain Neurotherapy Bio
Type: PI

Disease Focus: Neurological Disorders, Parkinson’s Disease
Human Stem Cell Use: Vital Research Opportunity
Award Value: $5,510,462
Status: Active

Grant Application Details

Application Title: A Phase 1b Safety Study for MRI guided delivery of AAV2-GDNF for the treatment of Parkinson’s disease
Public Abstract: Therapeutic Candidate or Device

AAV2-GDNF is a gene therapy product encoding Glial cell line-Derived Neurotrophic Factor (GDNF)

Indication

Parkinson’s disease

Therapeutic Mechanism

AAV2-GDNF will be delivered into the putamen. GDNF is a growth factor expected to act by stimulating regeneration of the terminals of dopamine producing neurons that are progressively lost in PD. This is expected to result in an increase in dopamine production leading to improved motor and non-motor functions.

Unmet Medical Need

Current therapies such as L-DOPA and Deep Brain Stimulation help to alleviate the symptoms, but the loss of dopamine producing neurons continues, so they are progressively less effective. AAV2-GDNF is a disease-modifying approach, expected to slow and/or halt the progression of PD.

Project Objective

Phase 1b trial completed

Major Proposed Activities

- Activation of California clinical site for recruitment and treatment of study subjects
- Patient enrolment, randomization and dosing and completion of 18-month primary follow-up post-surgery.
- Manufacturing of AAV2-GDNF for Phase 2/3 clinical studies, and drug comparability studies.

Statement of Benefit to California:

The combined direct and indirect cost associated with PD, including treatments, social security payments, and loss of income is well over $25 billion/yr in the US with an expected increase of 60,000 patients per year. Given that California is the most populous state in the US, and has an ageing population, AAV2-GDNF therapy could hugely lower the socioeconomic consequences on its citizens.

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