Farnesylation of PARIS Prevents Dopaminergic Neurodegeneration in Models of Parkinson’s Disease

Published date: April 7, 2017

Technology description

Unmet Need

Parkinson's disease (PD) is an incurable progressive neurodegenerative disease. It is characterized clinically by motor dysfunction that is due to the preferential loss of dopaminergic neurons in the brain. Current treatment strategies for PD are mainly limited to the management of the motor symptoms with drugs such as L-DOPA or dopamine receptor agonists and deep brain stimulation. However, current therapies are insufficient and have not been proven to delay or prevent the onset or progression of PD.

Technical Details

JHU inventors have expertise in the key players such as PARIS and mechanisms behind Parkinson’s disease. Post- translational modification of PARIS prevents its ability to bind chromatin and inhibit gene transcription. A high throughput screen identified a known compound that activate a key promoter in the presence of PARIS. It was selected for further characterization based on properties suggesting it could be an orally bioavailable and brain permeable compound that could modify the levels of players in PD pathology. In vivo experiments have shown that oral administration in mouse chow effectively permeates the blood brain barrier to enhance levels.

Institution

Johns Hopkins University

Inventors

Areum Jo
Outside
Yunjong Lee
PhD Candidate
Physiology SOM
Valina Dawson
Professor

Institute of Cell Engineering SOM
Joo-Ho Shin
Neurology-SOM
Ted Dawson
Professor
Institute of Cell Engineering SOM

联系我们

叶先生

电 话：021-65679356
手 机：13414935137
邮 箱：yeyingsheng@zf-ym.com