Function of Parkinson Disease Genes in Mitochondrial Quality Control

https://neurodegenerationresearch.eu/survey/function-of-parkinson-disease-genes-in-mitochondrial-quality-control/ **Principal Investigators**

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Canada

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Function of Parkinson Disease Genes in Mitochondrial Quality Control

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CIHR

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5

Keywords

Research Abstract

Parkinson's disease (PD) affects over 100,000 people in Canada and the numbers will only grow as the population ages. PD involves the death of dopamine neurons in the midbrain, which leads to devastating motor and functional impairment. Although treatment is available, its effectiveness diminishes over the long term. Hope for a more definitive treatment lies in basic biomedical research. Already, important advances have been made using molecular and genetic approaches. Not very long ago, genetics was not thought to be important in PD. However, in the past 15 years, several genes have been identified which cause familial forms of PD. My laboratory has a longstanding interest in understanding the normal function of these PD genes and how defects in the genes lead to PD. A convergence of work over the past few years

has led to the discovery that mitochondria, the cell's energy power plant, are a focal point of the degenerative process in PD. The aim of this application is to decipher how the PD genes impact mitochondrial function normally and what goes wrong in disease.

Further information available at:

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