DEEP BRAIN STIMULATION TO TREAT DEGENERATIVE CEREBELLAR ATAXIA

MEDICAL DEVICES
Method of treating degenerative cerebellar conditions through stimulation of cerebellar nuclei using electrodes.

TECHNOLOGY TYPE
Class III
Neurology
Ataxia

STAGE OF DEVELOPMENT
- Deep brain stimulation significantly reduces tremor and fall in a mouse model of degenerative cerebellar ataxia.

IP PROTECTION
Provisional Patent Filed

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Reference Number: U-6341

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TECHNOLOGY SUMMARY
Degenerative cerebellar ataxias, a group of disorders associated with progressive degeneration of the cerebellum, affect 1 in 5,000 individuals worldwide and commonly result in symptoms such as gait incoordination, tremor, and falls. No existing treatment consistently reduces motor symptoms. The proposed technology provides a therapeutic strategy for treatment of degenerative cerebellar ataxias via deep brain stimulation. The strategy involves placing electrodes in the cerebellum of subjects suffering from degenerative cerebellar ataxias and stimulating cerebellar nuclei to generate localized neural response. Electrical stimulation of cerebellum has been shown to reduce tremor and fall rates in animal models.

FEATURES AND BENEFITS
- Provides an effective approach for modulation of motor symptoms associated with degenerative cerebellar ataxias, specifically those caused by degeneration of Purkinje cells.

INVENTOR PROFILE
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