

Faculty Name:

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Lab:

Translational Neuroelectronics

Project Title:

Responsive electrical interventions to improve memory in epilepsy

Description:

Background: Pathological Coupling of hippocampal epileptic events to remote cortical areas is correlated with poor long-term memory. Certain forms of electrical stimulation applied to these cortical areas can abolish this oscillatory coupling.

Hypothesis: Application of real-time, closed-loop electrical stimulation in response to epileptic discharges can prevent spindle oscillations and improve long-term memory.

Methods: Analysis of in vivo neurophysiology and behavior data during responsive electrical stimulation

Goal: Determine how responsive electrical stimulation affects neural networks and memory.

Location of Research:

Hybrid (both remote and on-site)

of hrs/week:

20

Department/Program:

Electrical Engineering

Eligibility:

MS

To apply, please contact:

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