

POST-DOCTORAL RESEARCH ASSOCIATE

DUKE UNIVERSITY

Department of Biomedical Engineering

An opportunity exists to join our research group in neural engineering and neuromodulation. We are using engineering techniques to understand and control neural function with the goal of restoring function to individuals with neurological impairment.

Presently we have active projects in

- deep brain stimulation (DBS): mechanisms of action; closed-loop control; design of innovative therapies
- peripheral nerve recording and stimulation for control of bladder function, including restoration of continence and emptying
- spinal cord stimulation to treat chronic pain: modeling, preclinical studies, and clinical studies to understand mechanisms and innovations to increase therapeutic efficacy
- transcranial magnetic stimulation: mechanisms and innovations to increase therapeutic efficacy

We conduct computer-based modeling of neurons and electric fields, in vivo stimulation and recording in pre-clinical models, and translational clinical feasibility / physiology experiments in humans. The strong interdisciplinary and collaborative environment at Duke is ideal for our translational research efforts.

We seek a highly-motivated individual who enjoys the freedom to pursue their own ideas in a supportive environment to join our team. The focus of this position is on experimental and computational studies to understand mechanisms and innovations to increase therapeutic efficacy of spinal cord stimulation.

This is a full-time position with University Benefits and provides exceptional opportunities for interdisciplinary research and career development. A PhD in biomedical engineering, electrical engineering, neuroscience, physics or math is required, as are excellent communication skills. Previous experience in experimental electrophysiology is highly desirable, and previous computational modeling experience is beneficial.

For consideration submit a CV and the names and contact information of three professional references as a .pdf file attachment to:

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Duke University is an equal opportunity / affirmative action employer.