



We seek a highly-motivated individual to pursue neural engineering research in a supportive and collaborative environment. Our goal is to advance bioelectronic medicines: electrical stimulation, block, and recording of peripheral nerves for disease treatment and restoration of function. We have NIH-funded and industry-sponsored projects to develop, validate, and apply computer-based models of electrical stimulation of peripheral nerves to design improved therapies.

The successful applicant will become an expert in our ASCENT (Automated Simulations to Characterize Electrical Nerve Thresholds) pipeline for biophysical simulations of neural responses to electrical signals. They will develop new modeling methods and new models; they will apply those models to simulate neural responses and design new therapies.

The applicant will also gain exposure to other projects in the lab, spanning computer-based modeling of neurons and electric fields, in vivo stimulation and recording in preclinical models, and translational clinical feasibility and physiology experiments in humans. The strong interdisciplinary and collaborative environment at Duke is ideal for our translational research efforts.

This is a full-time position with University Benefits and provides exceptional opportunities for interdisciplinary research and career development. Job candidates must...

- Hold a Bachelor's, Master's, or PhD in Engineering, Physics, Math or Computer Science
- Be a proficient programmer, including in Python, with good coding habits; experience in NEURON, COMSOL, other finite element modeling software, and / or git would be an asset; experience in optimization algorithms would be an asset
- Be familiar with neural biophysics and the fundamental principles of neural engineering
- Have research experience
- Have excellent informal and formal written and oral communication skills
- Be capable of balancing independent research progress with collaboration and team work, as appropriate
- Bring curiosity, enthusiasm, and initiative!

For consideration, please submit a cover letter, CV with GPA, and the names and contact information of three professional references here: <https://academicjobsonline.org/ajo/jobs/26398>.

Duke University is an equal opportunity / affirmative action employer. The Grill lab values all dimensions of diversity and believe that the best solutions to challenging problems will come from working with people from a broad range of backgrounds and experiences.



Dr. Nikki Pelot is Research Director in the Grill lab with extensive experience in advising and mentoring students and researchers. She encourages her team members to develop a sense of ownership over their project while maintaining good communication to share progress, to verbalize challenges, to brainstorm approaches, and to envision and prioritize short-term and long-term targets.

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