Funded postdoctoral position to investigate the neural circuitry underlying action selection

The Markowitz Lab in the Dept. of Biomedical Engineering at Georgia Tech and Emory University seeks to understand how the brain gives rise to action, how the circuits that control this process break down in neurodegenerative disease, and how we might go about repairing and augmenting these circuits using closed-loop neuromodulation. We do so using a combination of 3D motion capture, machine learning, and state-of-the-art experimental system neuroscience techniques. **We are currently looking to hire a highly motivated postdoctoral fellow for a 3-5 year project to carry out this work with funding from the David and Lucille Packard Foundation.**

This project offers the opportunity to learn state-of-the-art research techniques in freely moving mice, including: (1) single-cell resolution measurements of large populations of neurons, (2) closed-loop optogenetics and (3) new quantitative and experimental approaches to 3D motion capture.

The ideal candidate has expertise in either electrophysiology or imaging/photometry in freely moving rodents in addition to strong quantitative skills in machine vision, signal processing, and statistics. Candidates should be well-organized, have excellent written and verbal communication skills, and work well in a multi-disciplinary team setting.

The lab is a part of the Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory, and is located at Georgia Tech's midtown Atlanta campus. The BME department is consistently ranked as one of the top in the nation, and is a vibrant and supportive intellectual community. We also are a part of the highly collaborative neuroscience communities at Georgia Tech and Emory.

Applicants must submit a cover letter with a brief statement of research goals, CV, and contact information for three references to jeffrey.markowitz@bme.gatech.edu.