

**The Hebert Wertheim College of Engineering and the Fixel Center for Neurological Disorders at the McKnight Brain Institute
University of Florida**

We are seeking highly-motivated candidates for two postdoctoral research fellow positions in our group. The chosen candidate(s) will conduct research focused on studying basic mechanisms of sensorimotor integration in healthy and pathological states and translate this knowledge to clinical applications of movement and cognitive disorders. Current active projects funded by NIH include:

- 1- Using deep brain recording and stimulation technology chronically implanted in human patients with essential tremor to characterize biomarker electrophysiological signatures of limb movements in deep brain structures and use these signatures to provide on-demand stimulation therapy to alleviate their pathological symptoms.
- 2- Using multi-photon microscopy and optogenetic techniques to monitor and perturb neural circuits at cellular and subcellular resolution in awake behaving subjects to investigate mechanisms of neural plasticity during perceptual decisions, working memory and sensory-guided navigation in virtual reality environments.
- 3- Using large scale electrophysiological recordings, multi-photon microscopy and optogenetic techniques to characterize biomarkers of Parkinson's' disease (PD) progression in a transgenic animal model of PD.

One position is available under the first project in which the candidate will focus on developing algorithms for neural decoding and deep brain stimulation and test them in experiments involving human subjects. The other position is available under the second and third projects in which the candidate will focus on studying neural circuits in higher order brain areas during naturally- and artificially-guided decision making, motor planning and execution both in healthy and PD animals. The candidate will publish peer-reviewed journal articles and help supervise graduate students carrying out experiments. The candidate will help train students in his/her area of expertise. Desirable skills may include any of the following: extracellular recording in awake behaving subjects, two-photon imaging, optogenetic manipulation of neural activity, and computational data analysis.

Minimum Qualifications: A PhD in Neurobiology, Neurophysiology, Biomedical Engineering or related fields. For consideration, submit a CV and the names and contact information of three professional references as a single PDF file attachment to koweiss@ufl.edu.

University of Florida counts among its greatest strengths — and a major component of its excellence — that it values broad diversity in its faculty, students, and staff and creates a robust, inclusive and welcoming climate for learning, research and other work. UF is committed to equal educational and employment opportunity and access and seeks individuals of all races, ethnicities, genders and other attributes who, among their many exceptional qualifications, have a record of including a broad diversity of individuals in work and learning activities. The University of Florida is an Equal Opportunity Employer.