The Neuromodulation Research Center (NMRC), under the direction of Dr. Jerrold Vitek as center director of the Udall Center of Excellence for Parkinson’s Research and the Neuromodulation Research Program, is accepting applications for Postdoctoral Associates to join its team of dedicated, collaborative researchers. We seek outstanding scientists interested in working in a NIH-funded research program studying motor systems neurophysiology, the pathophysiology of Parkinson’s disease, and mechanisms of deep brain stimulation in preclinical models of Parkinson’s disease. The successful applicant will work collaboratively within the NMRC on studies using a non-human primate model of Parkinson’s disease.

Successful Candidates

- PhD/MD in biomedical engineering, neuroscience or related engineering/science field
- Background in analyzing large neural datasets
- Strong record of presenting research results through publications and conference abstracts
- Experience in conducting neurophysiology experiments

All formal applications must be made through the University’s job portal at Job ID 317926

Questions: Assistant Professor Luke Johnson, PhD  joh03032@umn.edu
POSTDOCTORAL ASSOCIATE

Required Qualifications:

• PhD in biomedical engineering, neuroscience or related engineering/science field
• Excellent interpersonal skills and ability to work collaboratively with others.
• Strong record of presenting research results through publications and conference abstracts

Preferred Qualifications:

• Experience in conducting neurophysiology experiments
• Expertise in the analysis of single unit and local field potential neural signals
• Background in analyzing large neural datasets

About the Position: The Department of Neurology at the University of Minnesota invites applications to fill multiple Postdoctoral associate positions in the Neuromodulation Research Center (NMRC), directed by Professor Jerrold Vitek, M.D. Ph.D. Candidates with a Ph.D., a M.D., or equivalent degree, with a record of outstanding training in biomedical engineering, computational neuroscience, systems neuroscience or related engineering/science field are encouraged to apply.

The NMRC is an NIH-funded research program studying the pathophysiology of Parkinson’s disease, novel applications of deep brain stimulation technology to the treatment of neurological disease, the mechanisms of deep brain stimulation (DBS) and motor system neurophysiology. The NMRC is part of the University of Minnesota Udall Center of Excellence in Parkinson’s Disease, whose mission is to conduct clinical, multidisciplinary, translational and basic research that improves the understanding of and develops better treatments for patients with Parkinson’s disease. We seek to better understand how DBS and medical therapy change brain function to improve movement in patients and to apply this knowledge to optimize DBS and medical therapy for those affected by Parkinson’s disease.

Successful applicants will be expected to work collaboratively within the NMRC on preclinical studies using a non-human primate model of Parkinson’s disease, utilizing high density electrode arrays implanted in multiple brain regions to study how parkinsonism and therapeutic interventions impact neuronal network activity, and how these changes relate to the development and improvement in bradykinesia, rigidity, gait, and sleep disorders.
The candidate should have a strong quantitative background and signal processing expertise appropriate for the analysis of neural population dynamics during motor behavior. Candidates with experience in sleep physiology are encouraged to apply. Experience conducting behavior and neurophysiology experiments in animal models is preferred. Individuals with backgrounds in computational neuroscience and brain-machine interfaces are also encouraged to apply. The candidate should have a strong record of presenting research results through publications and presentations. An immediate postdoctoral position is available, but applications from individuals who have not yet completed their doctoral degree are also encouraged (please see fellowship opportunity below).

The NMRC offers a collaborative and translationally focused training and work environment under the Department of Neurology in the School of Medicine. The Department of Neurology is a well-balanced program with significant achievements in teaching, clinical programs and research. The University of Minnesota shall provide equal access to and opportunity in its programs, facilities, and employment without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression.

Once fully onboarded into the NMRC, a candidate could expect the following duties:
80% Research Duties: Data collection, analysis, method development, publication of results in manuscripts, proceedings, and conference abstracts
5% Career Development: Professional skills, leadership training, technical skills development
10% Outreach: Patient/community outreach, Industry Partnerships
5% Travel: Attending/presenting at local/national/international conferences

**BRAIN Fellows Early Funding Opportunity Highlight:** RFA-MH-18-510 - BRAIN Initiative Fellows: Ruth L. Kirschstein National Research Service Award (NRSA) Individual Postdoctoral Fellowship (F32) - The BRAIN Initiative Fellows (F32) program enhances the research training of promising postdoctorates, early in their training period, who have the potential to become investigators in research areas that will advance the goals of the BRAIN Initiative. Applications are encouraged in any research area that is aligned with the BRAIN Initiative, including neuroethics. Applicants are expected to propose research training in an area that clearly complements their predoctoral research. Formal training in analytical tools appropriate for the proposed research is expected to be an integral component of the research training plan. In order to maximize the training potential of the F32 award, this program encourages applications from individuals who have not
yet completed their terminal doctoral degree and who expect to do so within 12 months of the application due date. On the application due date, candidates may not have completed more than 12 months of postdoctoral training. Application due dates: December 7, 2018; August 7, 2019; April 7, 2020. Ruth L. Kirschstein Grant Explanation

How To Apply: We’d love to meet you! If you have questions about the NMRC, how your skills would benefit the lab, or the application process, please make inquiries to Assistant Professor Luke Johnson, PhD joh03032@umn.edu. Please feel free to include your CV and any other information that may help us get to know you.

Please be aware that applications for all University jobs must be made through the University of Minnesota’s official job portal. Any questions about the utility or functionality of this portal should be directed to University Human Resources at employ@umn.edu or 1+ (612) 624-8647. University of Minnesota Job Portal.