

Academic Faculty Recruitment Opportunity Neural Engineering/Brain Computer Interface

The Houston Methodist Research Institute was formed in 2004 with one mandate: to rapidly and efficiently translate discoveries made in the laboratory into new diagnostics, therapies and treatments. The Research Institute, housed within Houston Methodist Hospital – a *US News and World Reports* Honor Roll hospital – has dedicated research space embedded throughout the campus, with a 440,000-square-foot dedicated research building that provides the technology and facilities needed to support all stages of research, product development, and clinical trials to benefit patients around the world. The Research Institute includes laboratory space to house over 1500 staff and trainees, 277 principal investigators, and more than 250 clinical trials. Over 20 core facilities enhance interdisciplinary research, including two Good Manufacturing Practice (GMP) facilities which provide capabilities to create clinical-grade radiopharmaceuticals, biological agents, nanoparticles and devices. The Institute houses preclinical GLP support, state-of-the-art imaging equipment for preclinical and clinical studies, and the Methodist Institute for Training, Innovation and Education (MITIE), a surgical simulation and procedural skills training facility.

The Center for Neuroregeneration at the Houston Methodist Research Institute <http://www.houstonmethodist.org/neuroregeneration/> led by Philip Horner, PhD, is a growing group of scientists and clinicians at the Houston Methodist Research Institute with the goal of creating new therapies for people with chronic neurologic injury. We currently seek faculty at the Assistant or Associate Professor level on the unmodified track (independent investigators). Responsibilities include establishing independent, extramurally funded research programs, supervising/mentoring lab personnel and interacting with the scientific community to develop translational research programs. State-of-the-art lab space and highly competitive start-up funds are available. We seek candidates who embrace and reflect diversity in the broadest sense.

Qualified candidates are expected to have expertise in neural engineering, brain-computer interfaces, next-generation electrode technologies or innovative physiology techniques to work with neurobiologists, stem cell biologists, bioengineers and clinicians at HMRI and throughout the Texas Medical Center.

Education/Experience Requirements

- PhD in biomedical engineering, electrical engineering, physics, neuroscience, computer science or related fields.
- Experience in experimental brain interfaces, multi-electrode or optogenetics-based neurophysiology or other neural prosthetic applications is preferred.
- Novel engineering/biological aspects of neural plasticity that include electrode and circuit design, current steering, closed-loop control, neural interfacing and modeling is preferred.
- Neuroscience and machine learning/statistical/signal processing background.
- Experience working with human research subjects and/or animal subjects is preferred but not required.
- Expertise in the therapeutic applications of neuromodulation in neurological and neuropsychiatric conditions using systems neuroscience, modeling, and/or functional imaging techniques.

Please send Curriculum Vitae, statement of research interests and future objectives, and list of three references to Dee Woodson, Program Manager at dwoodson@houstonmethodist.org.