POSTDOCTORAL FELLOWSHIP OPPORTUNITY

Overview:
We are seeking a highly motivated postdoctoral researcher in the field of Electrical/Biomedical Engineering, Computer Science, Statistics, Applied Mathematics or related to join the laboratory of Amy Kuceyeski, PhD. The Kuceyeski Lab is affiliated with Weill Cornell Medicine in New York City and physically located at Cornell University in Ithaca, NY, providing a rare opportunity for rich collaboration between world-class clinicians and quantitative researchers on both campuses. The lab aims to better understand how the brain’s anatomy and physiology changes in disease/injury and recovery, with the long-term goal of improving clinical practice. The fellow will develop new algorithms to analyze multi-modality neuroimaging data, with particular emphasis on machine learning algorithms applied to MRI-based functional and structural connectome metrics. The successful applicant will join a vibrant and collaborative research environment at one of the top universities in the world. The position will be for one year, renewable for a second year.

Responsibilities:
- Perform cutting-edge research in the area of quantitative neuroimaging (e.g. functional MRI, diffusion MRI, EEG) and computational modeling of brain structure and function
- Develop new algorithms, including those that are machine learning based, and tools to maximize the diagnostic and therapeutic value of neuroimaging data, as well as demonstrate the significance and potential of the research to translate into clinical knowledge or practice
- Disseminate research results through publications in high-impact journals and presentations at top international conferences
- Support and mentor research of other fellows and students with medical or engineering background

Requirements:
- PhD in Electrical/Biomedical Engineering, Computer Science, Applied Mathematics, Statistics or related field
- At least 2-years of hands-on experience with medical image analysis, quantitative methods/machine learning and visualization
- Proficiency in quantitative analytical methods and strong programming skills (Python, C/C++, R, Matlab, etc)
- Significant track record of research and publications in top scientific conferences and journals
- Effective communication skills, both written and verbal
• Track record of effectively working both independently and as part of a multidisciplinary team

Highly Desired:
Knowledge in one or more of the following:
• Brain anatomy and physiology
• Neuroimaging, especially of functional/diffusion MRI and EEG
• Familiarity with common libraries for neuroimage processing, e.g. FreeSurfer, FSL, Camino, SPM, Nipype.
• Machine learning applied to medical imaging data
• Statistical or mathematical models of biological systems

To apply: Please send a one page statement of career goals and research interests and full CV to amk2012@med.cornell.edu

Weill Cornell Medicine: Founded in 1898, and affiliated with what is now New York-Presbyterian Hospital (NYPH) since 1927, Weill Cornell Medicine (WCM) is among the top-ranked clinical and medical research centers in the country. In addition to offering degrees in medicine, WCM also has PhD programs in biomedical research and education at the Weill Cornell Graduate School of Medical Sciences, and with neighboring Sloan-Kettering Institute and The Rockefeller University, has established a joint MD-PhD program for students to intensify their pursuit of Weill Cornell's triple mission of education, research, and patient care. WCM is divided into 24 basic science and patient care departments that focus on the sciences underlying clinical medicine and/or encompass the study, treatment, and prevention of human diseases. The basic science and clinical departments are located in buildings that straddle York Ave. between 68th and 72nd streets on Manhattan's Upper East Side. Weill Cornell Medical College has 1781 full-time faculty (3582 total faculty) distributed across 8 basic science and 15 clinical departments. WCM maintains major affiliations with Memorial Sloan-Kettering Cancer Center, The Rockefeller University, the Hospital for Special Surgery, as well as with the metropolitan-area institutions that constitute NYP Healthcare Network.

Weill Cornell Medicine is an Equal Employment Opportunity/Minorities/Females/Vet/Disabled employer.