Open position: Post-doctoral Research Fellow in Computational Neuroimaging

This is a two-year position, renewable for longer term based upon performance and productivity. Review of applicants begins immediately, and will continue until the position is filled.

The Icahn School of Medicine at Mount Sinai (ISMMS) is hiring a post-doctoral fellow in the field of Computational Neuroimaging for an NIMH-funded R01 research grant examining the anatomical and functional brain alterations associated with the risk of binge eating disorder in boys and girls, and their longitudinal trajectories. The fellow will join a collaborative team of researchers in Neuroimaging, Neuroscience, Psychiatry, and Psychology in the Center of Excellence in Eating and Weight Disorders at ISMMS, and will be responsible for conducting neuroimaging data preprocessing, individual-level functional network analyses, and group-level analyses in subjects from the baseline and 2-year follow-up pool of the NIH Adolescent Brain Cognitive Development (ABCD) Study. The fellow will also be involved in grant administration, manuscript writing, and presenting at conferences.

As part of the fellowship, the candidate will have opportunities to work on other neuroimaging projects ongoing in our Center and is encouraged to develop their own projects within the scope of the grant and available data, with opportunities to receive mentorship and guidance on grant writing, experimental design, advanced neuroimaging (including opportunities to get involved in clinical trials, psychophysiology, and genetics/omics studies conducted at the center or in collaboration with other investigators in related departments (genetics, neuroscience, radiology)).

The resources at ISMMS available to all fellows include independent statistical consultation, training/coursework in computational genomics, machine learning applications to medical records, mHealth applications, and neuroimaging. The Friedman Brain Institute houses a wide range of neuroscientific resources and tools, including a range of core laboratories to support biological sample storage and analysis, archived biospecimen sample, and medical record analysis. The Biomedical Engineering and Imaging Institute (BEMII) at ISMMS includes support for a wide range of imaging techniques including MR/PET 3T mMR, 3T Siemens Sykra, and 7T Whole Body Scanner. Data support for computational analysis of large-scale data through MINERVA supercomputer resources. The newly formed Hasso Planter Institute for Digital Health, which specializes in the application of artificial intelligence and digital interventions for human illness, offers opportunities to develop advanced analytic and computational skills for large-scale health projects.

The fellow receives full health benefits, paid time off, and assistance with visa and immigration issues through dedicated institutional resources. The Office of Post-Doctoral Affairs supports specific administrative demands of the position and holds social events, and separate professional development programs for post-docs system wide.

Expertise in graph analysis and experience with advanced mathematical modeling and machine learning is required.

Desired Qualifications and Experience:
- A PhD degree in biomedical engineering, electrical and computer engineering, computer science, mathematics, statistics, computational neurosciences, psychology or a related field;
- Research experience in analyzing structural MRI, fMRI, and/or DTI data collected from human subjects, especially graph theoretical analysis in fMRI data;

- Programming skills in any of the following languages: Matlab, Python, C/C++, Shell Scripts, R, SAS, and knowledge on Unix/Linux operating systems;
- Candidates with strong experience on machine learning, pattern classification, regression methods in neuroimaging data are highly desired;
- Additional qualifications include ability to work well in a multidisciplinary research team, interest in translational research between neuroscience, computational models, and clinical populations, and strong record or potential for scholarly productivity.

Contact: Please email your CV, statement of research interests and career goals, and copies of representative publications to:

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