

## Postdoctoral Fellow in Computational Psychiatry and Neuroimaging

The Center for Computational Psychiatry at the Icahn School of Medicine at Mount Sinai is seeking a full-time Postdoctoral Fellow. Leveraging the rich clinical resources and computational expertise across departments, the Center for Computational Psychiatry is dedicated to deepening our understanding of how mathematical models and the brain's biology can contribute to what we know about mental health issues such as addiction, eating disorders, autism, and personality disorders.

The fellow will work primarily under the supervision of Dr. Laura Berner on projects that aim to understand (1) the process of adaptively engaging self-control; and (2) how changes in internal and motivational states may abnormally shape decisions about self-control in individuals with eating pathology. Dr. Berner's lab leverages a multi-modal approach that integrates neuroimaging, computational modeling, ecological momentary assessments (EMA), and neuroendocrinology with experimental tasks from cognitive neuroscience and neuroeconomics.

No prior experience with eating disorders research is needed; the constructs of interest in the lab (emotion regulation, response inhibition, effort-cost estimation, value-based decision-making, belief updating) are universally important for understanding adaptive healthy functioning and psychiatric disease.

The fellow will have access to data from ongoing federally and foundation-funded projects, as well as a large cache of previously collected behavioral and resting-state, task-based, and structural MRI datasets. This is an exciting opportunity for a candidate with established programming and analytic skills to work at the cutting edge of psychiatry research and build their CV with publications and presentations. Extensive mentorship in writing research and fellowship grant applications will be provided. In addition, the fellow will have the opportunity to receive additional mentorship from, and work with, other faculty and trainees within the highly collaborative Center for Computational Psychiatry.

### Job Requirements

- Assisting with pre-processing fMRI data and managing analysis pipelines
- Conducting advanced analysis of imaging data, including but not limited to computational modeling, connectomics/graph theory, effective connectivity, machine learning
- Integrating complex datasets across multiple modalities, including resting-state, task-based, and structural MRI, neuroendocrinology, behavior, and self-report
- Preparation of manuscripts and presentation of results at scientific meetings
- Designing novel experiments to examine the neurocomputational basis of control-related decision-making and eating pathology
- Co-mentoring and mentored mentorship of students and research coordinators

### Qualifications

The successful candidate will meet the following requirements, including:

- A PhD in neuroscience, cognitive science, psychology, engineering, or a related field
- Strong programming skills (ideally in MATLAB, R, and/or python)
- Advanced skills in fMRI processing and analysis (AFNI, FSL, Freesurfer, and/or SPM)
- Experience working within Linux environment and cloud computing
- An ability to work well in multidisciplinary and highly collaborative teams
- An interest in translational research
- A track record or potential for scholarly productivity
- Effective independent problem-solving and task prioritization

Experience with any of the following is not required, but preferred:

- Computational modeling

- Analysis of EMA data
- Research with human subjects

### **Compensation**

The Mount Sinai Health System (MSHS) provides a salary range to comply with the New York City Law on Salary Transparency in Job Advertisements. The pay range for this role is \$58,661.00 - \$75,000.00 annually. Actual salaries depend on a variety of factors, including experience, education, and hospital need. The salary range or contractual rate listed does not include bonuses/incentive, differential pay or other forms of compensation or benefits.

Subsidized postdoc housing will also be provided.

### **How to Apply**

To apply, please send your CV and a cover letter to Thalia Viranda ([thalia.viranda@mssm.edu](mailto:thalia.viranda@mssm.edu)) and Dr. Laura Berner ([laura.berner@mssm.edu](mailto:laura.berner@mssm.edu)) with the subject "Berner Lab Postdoc App".