



LIEBER INSTITUTE *for*  
BRAIN DEVELOPMENT  
MALTZ RESEARCH LABORATORIES

[www.libd.org](http://www.libd.org)

## **Job Title: Postdoctoral Fellow – Neural Plasticity**

### **A little about us:**

The Lieber Institute for Brain Development was conceived from the realization that a new approach is needed to fully exploit the unprecedented scientific opportunities to accomplish the critical goal of helping affected individuals and their families. The Lieber Institute aims to transform the research landscape in two ways: by providing new tools for scientific discovery and by developing new collaborative approaches to achieve our ambitious mission.

The mission of the Lieber Institute for Brain Development is to translate the understanding of basic genetic and molecular mechanisms of schizophrenia and related developmental brain disorders into clinical advances that change the lives of affected individuals. We are an independent 501(c)(3) medical research institute located in the Bioscience Park on the campus of the Johns Hopkins School of Medicine and Hospital.

The Lieber Institute offers a generous benefits package which includes paid holidays, sick, personal and vacation time off.

### **Job Summary:**

A postdoctoral position is available to study how neural activity patterns in limbic and reward-related circuits contribute to behaviors that are relevant for neuropsychiatric and neurodevelopmental disorders. Current projects apply techniques in intersectional molecular genetics with in vivo optical imaging and electrophysiology to better understand how motivated behavior is regulated. More specifically, the project seeks to understand how activity in defined circuits impacts large-scale network activity patterns during touchscreen-based assays of attention and reward-related behavior.

The scientist will be committed to a common mission, a team effort, and collaborations across academia and industry.

### **Minimum Qualifications (Mandatory):**

Education: Ph.D. degree in Neuroscience, or related field preferred.

Experiences:

- Expertise/familiarity and/or strong willingness to learn viral transgenesis, stereotaxic targeting, optogenetic/chemogenetic manipulation, mouse behavior, and a combination of the following attributes:
- A strong interest in the biological basis of behavior associated with mental illness
- Experience with in vivo electrophysiology
- Experience with miniscope imaging
- Familiarity with signal processing analysis in Matlab or Python
- Excellent problem-solving skills
- Excellent written and verbal communication skills

**Special Knowledge, Skills, and Abilities:**

- Focus is working on Lieber Institute projects under the direction of an Investigator or Research Scientist.
- Works collaboratively with Institute scientists as a resource provider and internal consultant.
- Designs, executes and troubleshoots experiments/analyses independently or with minimal guidance.
- Manages and mentors people with guidance.
- Establishes timelines and milestones for projects and meets them.
- Contributes to publications.
- Highly self motivated
- Works both collaboratively and independently in executing research studies.
- Familiarity with literature searching for precedent.
- Ability to communicate experiment results to lab and institute-wide.

**To Apply:** Interested applicants should submit a cover letter and resume with the subject line “Postdoctoral Fellow – Neural Plasticity ”.

**Physical Requirements:**

- Remaining in a seated or standing position for extended periods of time;
- Reaching and grasping to manipulate objects with fingers;
- Mobility, including the ability to maneuver around a laboratory setting including the ability to move materials weighing up to 25 pounds;
- Communication skills using the spoken and written word;
- Having the ability to receive detailed information through oral communication;
- All other physical demands in a standard laboratory environment.

\*\* If accommodations are needed due to pregnancy or a disability, please contact [jobs@libd.org](mailto:jobs@libd.org)

**EEOC Statement:** At the Lieber Institute, we are committed to a work environment of mutual respect where employment decisions are based on merit. As an equal opportunity employer, the Lieber Institute does not discriminate in employment opportunities on the basis of race, color, religion, color, sex, gender identity/expression, sexual orientation, pregnancy, marital status, age, national origin or ancestry, citizenship, disability (physical or mental), genetic information, military service, or other non-merit based factors protected by state or federal law or local ordinance, with regard to any position or employment for which the applicant or employee is qualified.