

Postdoctoral Fellowship in Cognitive Electrophysiology of Human Memory

We invite applications for a **Postdoctoral Fellow** position to join our emerging research team studying the neural basis of episodic memory using direct brain recordings and stimulation. This is a unique opportunity to collaborate with [Dr. Noa Herz](#) and Dr. Michael Sperling at the Comprehensive Epilepsy Center of Thomas Jefferson University, engaging in groundbreaking translational research at the intersection of cognitive and clinical neuroscience.

About the Role

The successful candidate will lead projects aimed at:

1. Developing intracranial memory mapping procedures to minimize the risk of memory loss following neurosurgery.
2. Predicting behavior and clinical outcomes based on scalp EEG measures.
3. Designing direct brain stimulation interventions to study memory and develop interventions for memory-related disorders, such as post-traumatic stress disorder.

The work leverages intracranial data collected from epilepsy patients undergoing seizure monitoring and patients implanted with a responsive neurostimulation (RNS) system. Our research is highly collaborative, with regular interactions with Prof. Michael Kahana's group at the University of Pennsylvania.

This position offers:

- Access to cutting-edge electrophysiological datasets.
- An inclusive, interdisciplinary research environment.
- Opportunities for high-impact publications and professional development.

Key Responsibilities

- Conduct analyses of behavioral, scalp and intracranial electrophysiological data.
- Develop and implement experimental tasks.
- Prepare research manuscripts for submission to top-tier journals.
- Contribute to the preparation of grant proposals.
- Foster external collaborations and manage research projects.

Qualifications and Skills

Essential:

- Ph.D. (or nearing completion) in neuroscience, psychology, biology, computer science, or a related field.
- Expertise in electrophysiological data analysis (human or animal studies).
- Proficiency in programming (e.g., Python, MATLAB, R, or C++).
- Strong publication record in peer-reviewed journals.

Desirable:

- Experience with machine learning or advanced multivariate analysis techniques.

Skills:

- Good written and verbal communication in scientific English.
- Ability to work collaboratively with hospital-based teams, including neurologists and neurosurgeons.
- Creative problem-solving and a proactive approach to research.

Our Environment

The position is based at the Vickie & Jack Farber Institute for Neuroscience, located on the Center City Campus of Thomas Jefferson University. You will join an interdisciplinary team of neuroscientists, neurologists, and neurosurgeons working on memory-related challenges in both clinical and basic science contexts.

We are committed to fostering an inclusive and diverse research environment. We welcome applicants from all backgrounds and strive to eliminate discrimination in our workplace.

How to Apply

Submit the following materials via our application portal:

- Cover letter detailing your research interests and fit for this position.
- Curriculum Vitae (CV).
- Contact information for at least two academic referees.

Application portal: [\[Link to Apply\]](#)

For inquiries, contact: Dr. Noa Herz
Email: noa.herz@jefferson.edu

Applications will be reviewed on a rolling basis. Salary is commensurate with experience and follows the NIH postdoctoral pay scale.

Join us to contribute to state-of-the-art memory research and help transform the understanding and treatment of memory disorders!