

## **Postdoctoral Position: cerebellar in vivo electrophysiology**

\* Starting date: according to availability

\* Research team: Cerebellum, Navigation and Memory headed by Dr. Laure Rondi-Reig, Neuroscience Paris Seine (UMR 8246), Institut Biologie Paris Seine (IBPS), Sorbonne Université (SU-UPMC), 9 quai Saint Bernard, 75005 Paris:

<http://www.ibps.upmc.fr/en/research/neuroscience/cezame>

\* Salary: according to experience

The team Cerebellum, Navigation and Memory in the laboratory Neurosciences Paris Seine at the Institute of Biology Paris Seine (IBPS) is looking for a postdoctoral researcher specialized in *in vivo* extracellular electrophysiology. The lab is ideally located in the center of Paris.

The major aim of our team is to understand the neural bases of navigation and spatial memory. The project will fall under the elucidation of the neurophysiological mechanisms which underlie space and temporal coding in the animals. The discovery by the hosted team that the cerebellum impacts such coding in the hippocampus opened unresolved fundamental questions about the computations carried out by the cerebellum and its mode of action on hippocampal memory. The principal objective of our work is to provide a comprehensive characterization of how the cerebellum participates to these cognitive processes. **The project includes single unit recording activity in the cerebellar cortex of behaving mice models during modulation and integration of sensory information.** Several cerebellar specific mutant mice models are available including ChRh2 models which allow optogenetic manipulation of cerebellar neurons, as well as autism spectrum disorder (ASDs) models.

The candidate will benefit from the technical developments recently made by the team such as simultaneous tetrode recordings in several mouse brain regions and neuronal activity modulation through optogenetics during behavior. The project is supported by an ANR grant. The candidate will also benefit of collaborations and network already set up in the field of navigation and cerebellum (i.e. Inav; Cerebellum club, EMBO...).

Applicants are expected to have a Ph.D. in neuroscience or physics. Knowledge in the field of signal processing as well as experience in *in vivo* electrophysiology is required for the project. Expertise of cerebellar physiology is a plus. Motivated and enthusiast candidates are appreciated.

The position is open immediately and is offered initially for one year with the possibility of extension for up to 2 years. Salary depends on the level of experience. Applications (including a CV, a short statement of motivation and names and email addresses of two references) should be sent to [laure.rondi-reig@upmc.fr](mailto:laure.rondi-reig@upmc.fr).