



## **Postdoctoral position**

### Exploring the neural basis of multisensory control of head direction activity

We are seeking a post-doctoral fellow for a fully-funded, two year entry level position at the Descartes University in Paris, France (CNRS UMR 8002). The successful candidate will work in the team of Desdemona Fricker (PhD) on spatial orientation, to investigate the rodent head direction system.

The overall aim is to advance our understanding of multisensory integration and the role of burst firing for coordinated head direction signaling. In particular, the presubiculum is crucial for head direction coding and the integration of sensory signals of vestibular and visual origin. But the roles of specific populations of neurons and their firing patterns remain largely unknown. The postdoctoral researcher will focus on the function of the neural network for the visual anchoring of the head direction signal.

#### **Requirements**

Applicants should hold a **PhD in or related to neuroscience**. The ideal candidate has practical skills for in vivo experimental work, a background in neurophysiology, and a desire to understand the principles underlying the functioning of the nervous system. Programming skills for electrophysiological data analysis are required.

She/he will use controlled vestibular and visual stimulation, multi-unit electrophysiological recordings in the awake animal combined with the manipulation of subpopulations of neurons in the presubiculum. Other techniques used in the lab, including behavioral (eye movements) and anatomical analysis as well as slice recordings, may complement this approach as needed.

#### **For applications we request:**

- (i) a cover letter including a statement of motivation,
- (ii) a curriculum vitae,
- (iii) the names and addresses, including emails, of three academic references.

For informal enquiries please contact Desdemona Fricker at [desdemona.fricker@parisdescartes.fr](mailto:desdemona.fricker@parisdescartes.fr). The application process will be via a dedicated CNRS website (link available upon request). Starting date is flexible from summer 2019. The position is funded by a collaborative ANR-DFG grant with the laboratory of Pr. Michael Brecht in Berlin.

