

Post-doctoral position in the Unit of Neural Circuit Dynamics and Decision Making at the Institut Pasteur in Paris

The Research

Perceptual discriminations are among the most important decision making processes. One of the most prominent questions in systems neuroscience is how the perception of a given stimulus is encoded in the brain and how this translates to a learned decision that is followed by a motor response. Using the repertoire of experimental techniques available in our lab, such as two-photon and three-photon imaging, multi-electrode extracellular recordings, patch-clamp recordings, holography based optogenetics and psychophysics in awake behaving animals, our goal is to characterize in detail single-cell and neural network activity in the rodent cortex during the learning process of a decision making task.

The postdoc will be able to choose among several projects that will use the cutting-edge infrastructure of the lab:

1. Imaging bi-hemispheric interactions during decision making using a novel dual-head two-photon microscope.
2. Deep imaging of prefrontal cortex activity during decision making using three-photon excitation.
3. Holographic stimulation of neurons to probe cortical coding schemes relevant for perception (see e.g. Musall et al. 2014, Nature Neuroscience).

The Candidates

Preferably, candidates should have experience in one of the techniques mentioned. Candidates with quantitative background (computational neuroscience, physics, engineering, mathematics) and computational skills are particularly encouraged to apply. We are seeking people with an interactive personality and good communication skills.

How to Apply

Applications should include a CV, the academic achievements, a brief statement of research interests including your past experience and names of at least 2 referees. Applications will be accepted until positions are filled. For further information about the research visit haisslab.org Please contact Florent Haiss (florent.haiss@pasteur.fr)