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Post-Doctoral position on microglia-neuron interactions at MeLiS in Lyon

Dr Olivier Pascual is looking for a talented post-doctoral fellow to work on neuron-glia interactions.

The aim of the current project is to determine, whether microglia processes contacts with synapses play a role in memory and how they participate to neuronal homeostasis during sleep. Using a combination of electrophysiology (EEG-EMG) and live two-photon imaging on awake transgenic mice, we will image microglia contacts with spine during a learning task, the consolidation phase during sleep and the recall. To evaluate the role of microglia on neuronal homeostasis during sleep we will invalidate microglia-neuron communication genetically or by replacing sleep by anesthesia. Results obtained will provide information on the signaling and mechanisms used by microglia to regulate synaptic function during memory consolidation.

Required skills: Surgery (viral injections, electrode implantation), live two-photon imaging on awake mice, electrophysiology, Python or Matlab coding is required, FELASA grade B or C is mandatory.

We are looking for:

- Highly motivated researcher holding a PhD in Neurosciences or equivalent
- Capable of autonomous and independent organizational and experimental activity
- Good team player, collaborative, self-driven and detail-oriented
- Fluent in both spoken and written English (B2-C1) and with good/excellent communication skills
- Capable of structuring and writing research articles
- Good track-record of publications in relation to the academic year and research experience

What we do offer:

- Access to excellent equipment to perform a variety of methods.
- Working in a novel, hot and unexplored field of research
- Participation to national and international conferences
- Receiving training in scientific writing and other soft skills necessary to become a competitive candidate in the professional field of choice.

The position will be available for 1 year, renewable, starting October 2025. The gross salary will be in accordance with the French University scale, and can be implemented according to the candidate experience. Please send updated CV, motivation letter and at least 2 reference contacts to:
olivier.pascual@inserm.fr

Applications will be reviewed at the beginning of September.