



# POSTDOCTORAL POSITION

## *in vivo* brain imaging at the Paris-Saclay Institute of Neuroscience

### Contact

Lucile Ben Haim, Ph.D.

### Team

"Astrocyte signaling in health and neurodegenerative diseases"

(Dir. Carole Escartin, Ph.D.)

<https://neuropsi.cnrs.fr/en/departments/decs/group-leader-carole-escartin/>

### Environment

Paris-Saclay Institute of Neuroscience (Saclay, France)

State-of-the-art multidisciplinary research institute, from brain development to integrative network neuroscience

<https://neuropsi.cnrs.fr/en/homepage/>

### To apply, send:

- 1) a complete resume
- 2) a 1-page summary of previous research and interests
- 3) 2 letters of recommendation as a single pdf file at [lucile.ben-haim@cnrs.fr](mailto:lucile.ben-haim@cnrs.fr)

A 2-year postdoctoral scholar position, funded by the French Medical Research Foundation, is available for highly motivated and talented candidates with a Ph.D. in Neuroscience. You would be joining the research group of Lucile Ben Haim, at the Paris-Saclay University (France), starting at the beginning of 2024 (January to May).

### Project

Neuron-astrocyte interactions are classically assessed through analysis of astrocyte calcium signals, overlooking transcription-factor based signaling, despite their emerging roles in health and disease. In this project, you will study **how these alternative signaling cascades shape the cooperation between astrocytes and neurons and contribute to the regulation of complex behaviors**, focusing on social interactions. To do so, you will use viral vectors to selectively manipulate transcription-factor based signaling in astrocytes and determine the effect on mouse social behavior and subsequent neuronal activity using *in vivo* fiber photometry.

### Skills

- Live imaging on awake mice
- Surgery (stereotaxic injections, fiber implantation)
- Mouse behavioral testing
- Data analysis/programming



### Job duties

- Independently design, perform and analyze experiments
- Take leadership on the project
- Present progress reports
- Participate in meetings with team, collaborators and attend conferences
- Teach/mentor junior researchers

### Personal skills

- Excellent fluency in both spoken and written English
- Open to learn/develop new methods
- Ready to write applications for fellowships to advance their career
- Willing to work in a productive and creative group
- Be open to criticism, discuss challenges and team goals

### References

- Abjean et al. Reactive astrocytes promote proteostasis in Huntington's disease through the JAK2-STAT3 pathway. *Brain*. 2023
- Ben Haim & Escartin Astrocytes and neuropsychiatric symptoms in neurodegenerative diseases: exploring the missing links. *Current Opinion in Neurobiology*. 2022
- Escartin et al. Reactive astrocyte nomenclature, definitions, and future directions. *Nature Neuroscience*. 2021.
- Kelley, Ben Haim et al. Kir4.1-Dependent Astrocyte-Fast motor neuron interactions are required for peak strength. *Neuron*. 2018

