

## Ph.D. student positions

We invite applications for Ph.D. students to join our team **Neuronal Circuits & Brain Dynamics** at the **Paris Brain Institute** (ICM) to study the principles of neuronal circuit organization and brain dynamics.

If you are fueled by motivation, enthusiasm, and an insatiable curiosity, interested in experimental or computational systems and circuits neuroscience, and seeking an environment that nurtures your potential, encourages collaboration, and provides exceptional research opportunities, we invite you to consider joining our lab.

Our team values diversity and welcomes researchers from all backgrounds and profiles. If your project ideas align with our research focus, we encourage you to get in touch with us.

### Research Topics

We are interested in how neuronal circuits are organized and how the collective action of neurons gives rise to the emergent complex brain dynamics and behavior.

We focus on how neurochemicals and bodily signals influence the brain.

- We study how the simultaneous release of **neuromodulators** influences the activity of neurons and the coordination of brain regions
- We also study how bodily signals, such as **breathing**, serve as fundamental elements of the oscillatory circuit architecture
- We employ our approach to study the brain dynamics during behavior and **sleep** and their involvement in the transformation of fleeting experiences into long-term memories

To answer these fundamental questions about the nature and function of the brain, we combine a range of **cutting-edge neurotechnologies** that enable us to observe and control the activity of the brain. We aim to identify and explore the fundamental principles of neural circuit organization and apply our understanding for the improvement of the human condition.

Pure experimental, as well as computational/theoretical, or hybrid projects are available, depending on your interest and skills.

### Profile

We are particularly interested in students with background in neuroscience, physics, mathematics, computer science, biology, or engineering.

The ability to approach research questions through a quantitative lens and experience in programming are crucial for our team. While previous experience in neuroscience is not a requirement, it is a strong plus.

We strongly encourage applications from individuals that have been traditionally underrepresented in the sciences.

## Opportunities

As a graduate student in our group, you will have the chance to contribute to exciting discoveries, gain hands-on experience with state-of-the-art techniques, and work alongside experienced researchers.

Collaboration and mentorship are at the heart of our lab's culture. We believe that working together leads to better science and enriching experience. As a graduate student in our lab, you will have the invaluable opportunity to work closely with postdoctoral researchers who will help your research and foster your intellectual growth. By working together with your peers, you will have the chance to share ideas, problem-solve together, and gain fresh perspectives. Together, we will create an environment where you can thrive and achieve your full potential.

In addition, you will be enrolled in the Sorbonne graduate school and ICM student community, through which you will have access to a host of training opportunities and career development resources, as well as a range of social activities to ensure a well-rounded experience.

## Why join our team

- We are a young and vibrant group of scientists, fueled by curiosity and passion for understanding the brain.
- We work as a team and use or invent cutting-edge neurotechnologies to answer fundamental questions in neuroscience.
- Our team is committed to the training, mentorship, and career development of the next generation of neuroscientists. To achieve that, we foster an inclusive and supportive environment, where we can learn and advance science while having fun in the process.
- Our work is multi-disciplinary, and so is our team. Irrespective of your background and project, our research environment will expose you to a diverse range of experimental and computational aspects of systems and circuits neuroscience. We thus encourage everyone to apply, especially those from underrepresented minorities.
- Working in our team will provide you with invaluable experience across all stages of research and you will have the opportunity to engage in experiment design and execution, method development, software design, and data analysis, as well as publishing and communicating research results.
- Our team is affiliated with **Inserm** and is located in the **Paris Brain Institute (ICM)**, where we have access to state-of-the-art facilities and resources.
- Our vibrant community at the ICM and throughout Paris promotes broad collaboration and learning opportunities.

If you would like to know more, visit our website: [neurondynamics.eu](http://neurondynamics.eu) and read about **our team's mission and values**.

## How to apply

If you are eager to join our vibrant research community and contribute to groundbreaking discoveries, we warmly welcome your application.

Please send a statement of your past work and future research interests, your CV, and contact information for 1-3 references to the address: [contact@neurondynamics.eu](mailto:contact@neurondynamics.eu)