

Postdoctoral researcher positions

We invite applications for postdoctoral researchers 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 an ambitious and driven researcher, interested in experimental or computational systems and circuits neuroscience, and seeking an environment that fosters intellectual and professional growth, we invite you to consider joining our team. Together, we'll make a lasting impact on science and pave the way for your successful research career.

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 researchers with one or more of the following:

- Background in neuroscience, physics, mathematics, computer science, or biology
- Experience with rodent neuroscience
- Experience with *in vivo* or slice electrophysiology, or 1P/2P imaging
- Experience with behavioral experimentation

Quantitative spirit and proficiency in data analysis and programming are essential for success in our lab.

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

Opportunities

As a postdoctoral researcher in our group:

- You will be an integral part of shaping our research direction and team culture. You will engage in exciting and meaningful research and will have access to all the tools necessary to push the boundaries of scientific exploration, with our cutting-edge techniques and state-of-the-art facilities.
- You will have the opportunity to mentor graduate and master's students. This role enhances your leadership and communication skills while you contribute to the growth of the next generation of scientists. By guiding and collaborating with these aspiring researchers, you contribute to the collective knowledge and expertise of the team. Mentoring fosters a supportive and enriching atmosphere that reduces the mental strain of working alone on a project, as you can share ideas, problem-solve together, and gain fresh perspectives.
- You will have ample opportunities to develop vital skills for your future academic career, such as mentoring, grant writing, presenting your work, publishing papers, and leading projects to completion. In parallel, you will gain invaluable first-hand experience in setting up and managing a young research team.
- We encourage participation in conferences and workshops, where you can present your research findings to the wider scientific community.

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: neuronaldynamics.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@neuronaldynamics.eu