

Université Claude Bernard Lyon 1- Hosting offer for a MSCA Post-doctoral fellowship candidate in molecular neurobiology

Host Organisation	Université Claude Bernard Lyon 1
Department	Medical Faculty Lyon Est
Laboratory	MeLiS
Website (lab / research team)	https://melis-lyon.fr/en/team-bessereau/
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Host Organisation

The Université Claude Bernard Lyon 1 welcomes Marie Skłodowska Curie Postdoctoral Fellowships applications !

With 62 laboratories and more than 7,000 publications per year, and leading French university in terms of the number of patents filed in collaboration with industry, Lyon 1 contributes to scientific and innovation progress in numerous fields: health, mathematics, IT, physics, chemistry, earth and space sciences, life sciences, etc. Creator of emerging knowledge and new technologies, the University is consolidating its research excellence on a global and international level by developing inter- and multidisciplinary approaches targeting the major challenges facing today society.

Host research lab/team

The MeLiS (Mechanisms in Integrated Life Sciences) **Institute** is a leading European research laboratory that conducts ambitious and innovative basic research in developmental and cell biology using state-of-the-art technologies. MeLiS brings together 10 teams (\approx 140 people) who share a common scientific strategy focusing on the study of molecular and cellular mechanisms *in vivo* to address the complexity of the whole organism. This strategy is applied in various biological contexts, ranging from neuronal, muscle, and ciliated cell development to integrated physiological levels. A wide array of model systems are used for this research. The institute translates this fundamental knowledge into research on diseases ranging from neurodevelopmental disorders, such as pediatric cancers, to neurological and muscular pathologies.

The **NeuraCel** research team studies the mechanisms involved in the formation and regulation of synaptic function using mainly the nematode *Caenorhabditis elegans* as an experimental model. The evolutionary conservation of mechanisms identified in *C. elegans* is tested in vertebrate systems, mostly in collaboration with national and international groups. Over the years, the team has identified previously uncharacterized proteins that control the organization of neuronal synapses, including several factors regulating the synaptic content of neurotransmitter receptors. *C. elegans* is also used as a powerful model organism to analyze the aging of the neuromuscular system.

Hosting Offer

The **MeLiS lab** offers to host a MSCA Postdoctoral Fellowship candidate (typically a post-doc of less than 8 years research experience since PhD defence), submitting an application to the next MSCA-2026-PF call for proposals (deadline 09th of September 2026), interested to work on the following research topic:

the postdoctoral project will investigate the mechanisms underlying the specificity and diversity of cholinergic synapses at single neuron resolution in *C. elegans*. Our laboratory has used CRIPR/Cas9 to tag a battery of ionotropic acetylcholine receptors and *in vivo* imaging shows that within a single neuron, different receptors are reproducibly segregated at different synapses. Despite our complete knowledge of the *C. elegans* connectome, the mechanisms underlying the specification and identity of these synapses are not known. These questions will be addressed using genetics, genome engineering and *in vivo* imaging. The project will take an integrative approach in close collaboration with expert microscopists and electrophysiologists.

The fellowship could last for 12 to 36 months, depending on the type of Postdoctoral Fellowship.

Supervision

The successful Marie-Curie Post-doctoral fellow will be supervised by Pr JL Bessereau
His research interests include the molecular and cellular biology of neuronal synapses and their roles in neuropsychiatric diseases related to synaptopathies

Application process

Interested candidates are invited to contact us exclusively by email at jean-louis.bessereau@univ-lyon1.fr

Make sure that you include the reference to this offer in the title of your email. Please attach a CV, a motivation letter, your MSc marks, **as well as a 1 page research proposal.**

Professional grant application support:

Candidates will receive the support of the supervisors, as well as online training from a professional grant application company, and advices from successful applicants, to prepare and submit their application with the MeLiS Institute as a host laboratory, to the next MSCA-PF call for proposals.