

Université Claude Bernard Lyon 1- Hosting offer for a MSCA Post-doctoral fellowship candidate in the “Autophagy in Pathophysiology” team

Host Organisation	Université Claude Bernard Lyon 1
Department	NeuroMyogene Institute
Laboratory	Pathophysiology and Genetics of Neuron and Muscle (PGNM)
Website (lab / research team)	https://pgnm.inmg.fr/en/strappazon/
Supervisor Contact name	Strappazon Flavie
Supervisor Contact email	Flavie.strappazon@cns.fr

Host Organisation

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

With 62 laboratories and more than 7000 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

Pathophysiology and Genetics of Neuron and Muscle (PGNM)

The overarching scientific program that ties teams revolves around the study of the physiopathology of the neuron and the skeletal muscle. We aim at deciphering basic biological mechanisms at the molecular, cell, tissue and organism levels to better understand their alterations in human pathologies to uncover new therapeutic approaches. To reach that goal, our teams combine multiscale, multidisciplinary approaches, taking advantage of the most appropriate models to conduct an ambitious research around three main research axes:

(1) Physiology and cell biology of the neuromuscular system, (2) Cellular and molecular neurobiology and (3) Nuclear dynamics. Because the fields of interests of the different teams are tightly intermingled, the unit fosters active collaborations between the teams and our laboratory is an asset to tackle scientific and medical issues that are crucial for our understanding of the biology of the nervous and muscular systems. Our scientific priorities are:

- To conduct basic research programs in cell biology, physiology, pathophysiology and molecular and cellular genetics, using original models of human pathologies;
- To develop translational research, particularly in the field of neurological and neuromuscular disorders, genetic and inflammatory myopathies, neurodevelopmental disorders and cardiomyopathies;
- To promote collaborative initiatives and set up cutting edge technological platforms (microscopy/imaging, functional exploration, bioinformatic development for high throughput transcriptomics...) that both enhance our intra-unit workforce and participate to the regional research community;
- To develop joint research programs with regional institutes as in the AFM-Telethon strategic plan MyoNeurALP, as well as with the Centre for Neuromuscular disease (CNMD) in Ottawa (Canada) to which we are paired.

The main focus of the team directed by **Flavie Strappazzon** is to understand the importance of **autophagy** and the **selective autophagy of mitochondria** (the so called mitophagy) processes **in physiological conditions such as aging, neurodevelopment**. Also, we aim to better understand how these processes are deregulated in pathologies such as **neurodegenerative diseases, muscular disease and to develop tools to manipulate them**. We believe that our goals are of the utmost importance in the biology of neurodegenerative diseases, but also in the context of muscular diseases since autophagy is deregulated in many of these disorders. To this end, we are combining techniques such as biochemistry (western-blotting, immunoprecipitation, kinase assay etc...), confocal microscopy analysis, *in vivo* manipulation of autophagy in brain of mice (injection of AAV encoding autophagic proteins or fluorescent reporters of mitophagy; nanoparticle manipulation etc.).

The current projects of the team are to:

1. better characterize the beneficial role of a variant of the autophagic receptor NDP52 in the context of Alzheimer's disease
2. investigate the importance of mitophagy in the context of neurodevelopment
3. better understand the autophagy/mitophagy regulation in striated skeletal muscle and in the context of Myotonic Dystrophy type 1

Hosting Offer

The **Strappazzon 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:

Autophagy /Mitophagy/MicroRNAs/Neurobiology

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 Flavie Strappazon (FS). **FS** is a CNRS researcher recognized for her deep expertise in autophagy. Since 2014, **FS** have been leading research projects as a Principal Investigator, accumulating over 11 years of experience in scientific leadership, team management. She directed research teams at the Santa Lucia Foundation in Rome (2018–2025) and at the NeuroMyoGene Institute (INMG) in Lyon (since January 2025), developing ambitious and structuring research programs. Over the past years, she has developed recognized expertise in the field of autophagy, across multiple pathophysiological contexts, including neurodegenerative diseases, cancer, and rare muscular disorders. **The core of her research activity focuses on investigating the cellular and molecular mechanisms regulating autophagy/mitophagy and on analyzing their dysregulation in pathological conditions.** FS authored >40 articles with high impact articles published, many in the mitophagy field in Nat Cell Bio, Nat Comms, Autophagy, (h=24; Citations>4600; Orcid: 0000-0003-0285-7449).

Application process

Interested candidates are invited to contact us exclusively by email at flavie.strappazon@cns.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 PGNM as a host laboratory, to the next MSCA-PF call for proposals.