

# Université Claude Bernard Lyon 1 - Hosting offer for a MSCA Post-doctoral fellowship candidate in Cellular and Molecular Biology

<b>Host Organisation</b>	Université Claude Bernard Lyon 1
<b>Department</b>	Institut NeuroMyoGène
<b>Laboratory</b>	Unité Physiopathologie et Génétique du Neurone et du Muscle
<b>Website (lab / research team)</b>	<a href="https://www.teammari.com">https://www.teammari.com</a>
<b>Supervisor Contact name</b>	Dr Giglia-Mari Giuseppina
<b>Supervisor Contact email</b>	ambra.mari@univ-lyon1.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

The **Physiopathology and Genetics of the Neuron and Muscle Laboratory (PGNM – Institut NeuroMyoGène)** is one of Europe's leading research centres dedicated to the molecular and cellular mechanisms underlying neuromuscular diseases. The laboratory brings together multidisciplinary expertise in genetics, molecular and cellular biology, physiology, and translational science to unravel how the nervous system and skeletal muscle function in health and disease.

PGNM has long-standing experience in identifying genetic determinants of neuromuscular disorders, deciphering altered signalling pathways, and developing innovative diagnostic and therapeutic concepts. Supported by state-of-the-art technological platforms – including high-resolution imaging, sequencing, genome engineering, and cellular and animal models – the team produces high-impact science and contributes to international research networks. The laboratory is strongly committed to training young scientists and fostering scientific excellence.

## The NuDyReCTION research team

The **NuDyReCTION research team** ([www.teammari.com](http://www.teammari.com)) focuses on the mechanisms that maintain genome integrity and protect neuromuscular tissues from cellular stress. The team has recognised expertise in DNA repair pathways, nuclear homeostasis, and the consequences of their dysregulation in neuromuscular disorders.

By combining biochemistry, functional genetics, imaging and model systems, the group aims to bridge molecular defects with disease phenotypes and to uncover novel mechanistic insights into cell survival and tissue integrity. This work contributes both to advancing fundamental knowledge and to identifying potential therapeutic targets relevant to neuromuscular pathologies.

### Hosting Offer

The **NuDyReCTION research team** 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 09<sup>th</sup> of September 2026), interested to work on the following research topic:

#### “Unraveling the Role of SMN in Oxidative DNA Damage Repair”

The project aims to elucidate how the **Survival Motor Neuron (SMN) protein** contributes to the repair of oxidative DNA lesions, particularly 8-oxo-guanine (8-oxoG), through regulation of the **base excision repair (BER) pathway**, and to explore the consequences of SMN deficiency on **mitochondrial function** and cellular sensitivity to oxidative stress. The candidate will combine advanced approaches in **chromatin biology, DNA repair, and mitochondrial physiology**, including live-cell imaging, iPSC-derived motor neuron models, and functional complementation studies with nuclear- and mitochondria-targeted OGG1.

The host team offers:

- Full access to state-of-the-art **molecular biology and cell culture facilities**, including iPSC culture and differentiation into motor neurons and muscle fibers.
- Advanced **microscopy platforms** for live-cell imaging of chromatin and mitochondrial dynamics.
- Expertise in **DNA repair assays, protein–protein interaction studies, and chromatin immunoprecipitation**.
- Training and mentorship in experimental design, data analysis, scientific writing, and career.

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 Dr G. Giglia-Mari, Director of Research at CNRS, Group Leader of the NuDyReCTION team (Nucleolar Dynamics after DNA Repair in Action) at the Institute of Pathophysiology and Genetics of Neuron and Muscle (INMG-PGNM, Lyon, France).

Dr. Giglia-Mari's research focuses on the molecular mechanisms that restore transcriptional activity and nucleolar architecture following DNA damage. Her team investigates the dynamic reorganization of the nucleolus, the role of key proteins such as SMN (Survival Motor Neuron) in nucleolar homeostasis, and the interplay between DNA repair, transcriptional recovery, and cellular homeostasis.

She has extensive expertise in **DNA repair, transcriptional regulation, chromatin biology, live-cell imaging, and iPSC-derived neuronal models**, and has mentored postdoctoral researchers in advanced molecular and cellular biology techniques, microscopy, and experimental design. The fellow will receive **hands-on supervision, training in cutting-edge methodologies, and guidance in career development and scientific dissemination.**

### **Application process**

Interested candidates are invited to contact us exclusively by email at:

[ambra.mari@univ-lyon1.fr](mailto:ambra.mari@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 NuDyReCTION team as a host laboratory, to the next MSCA-PF call for proposals.