Université Claude Bernard Lyon 1- Hosting offer for a MSCA Post-doctoral fellowship candidate in Lyon Neuroscience Research Centre

Host Organisation	**Université Claude Bernard Lyon 1**
Department	**Lyon Neuroscience Research Centre (CRNL)**
Laboratory	**GENDEV team – GEnetics of NeuroDEVelopment**
Website (lab / research team)	**https://www.crnl.fr/fr/equipe/gendev**
Supervisor Contact name	**Dr DELOUS Marion**
Supervisor Contact email	**marion.delous@inserm.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 CRNL - Lyon Neuroscience Research Centre - is a leading research lab in Europe in neuroscience and cognitive science. It brings together the multidisciplinary expertise of ~450 members to decipher brain organization, cognitive functions, mental states, and related brain disorders, with two entwined strategic directions: from genes and cells to behaviour and cognition, and from bench to patient.
Currently the CRNL is structured in 21 teams and 9 platforms located in the Lyon East Hospital Pole, a unique site combining medical care, basic and clinical research, and high-tech technological platforms.

The **GENDEV – Genetics of Neurodevelopment -** research team, headed by Sylvie Mazoyer and Marion Delous, aims to understand the physiopathological mechanisms underlying rare genetic neurodevelopmental diseases. The team comprises 2 Inserm researchers, 2 tenured engineers, 1 bioinformatician, 2 PhD students and 3 medical geneticists, thus combining multidisciplinary expertise from clinic to basic research to conduct highly translational research projects.

Hosting Offer

The **GENDEV 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 9th September 2026), interested to work on the following research topic:

Deciphering the molecular and cellular physiopathological mechanisms leading to microcephaly seen in *RNU4ATAC*-opathies, using human iPSC-derived cortical organoids and/or zebrafish models

The team mainly focuses on the Taybi-Linder syndrome (TALS), also called Microcephalic Osteodysplastic Primordial Dwarfism type I, which is a rare genetic disorder associated to mutations in *RNU4ATAC*. This non-coding gene is transcribed into the small nuclear RNA (snRNA) U4atac, a core component of the minor spliceosome that is involved in the splicing of a minority of introns in the human genome. Besides the clinical axis that aims to describe the natural history and the phenotypic spectrum of *RNU4ATAC*-associated pathologies, while improving genetic diagnostic, the team seeks to 1) describe the consequences at the cellular and molecular levels (RNA maturation) of *RNU4ATAC* mutations, 2) understand how mutations in *RNU4ATAC* lead to brain abnormalities, and 3) identify the main impacted genes whose transcripts are processed by the minor spliceosome. For that, the team has developed unique models (cellular and animal) for *RNU4ATAC* and deploys various approaches from cell biology, molecular biology and cell imaging to multi-omics analyses.

All tools, including cellular (human *RNU4ATAC*-mutated iPSC and derivatives) and zebrafish (full or indel KO lines, MO-mediated, humanised KI lines) models, methodologies, bioinformatics pipelines for transcriptomic analyses, are available in the team so that the project can start quickly.

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 Marion DELOUS, an Inserm researcher of GENDEV team who developed the cellular and zebrafish approaches within GENDEV team. She notably led the study that identified the centrosome/primary cilium defects as the first physiopathological mechanism leading to TALS (Khatri *et al*, PNAS 2023). She also investigated with a talented PhD student the role of rotatin, a centrosomal protein encoded by a gene associated to a TALS-like case, in the cellular processes leading to micrcephaly by using iPSC-derived neuronal progenitors and cortical organoids (Guguin *et al*, PLoS Genet 2024).

Application process

Interested candidates are invited to contact us exclusively by email at marion.delous[a]inserm.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 CRNL as a host laboratory, to the next MSCA-PF call for proposals.