



Odil Porrua
CNRS researcher
Team "Metabolism of RNA
in the nucleus"

Stephane Nedelec
Inserm researcher
Head ATIP/Avenir team
"Stem cells in Neurodevelopment"

Project description

Amyotrophic lateral sclerosis (ALS) is the most common neurodegenerative disease affecting motor neurons. About 10% of ALS cases are inherited and due to dominant mutations in genes that very encode proteins involved in RNA metabolism. A juvenile form of this disease is caused by gain-of-function mutations in an RNA helicase involved in transcription termination and gene regulation. However, the connection between dysfunctions in these processes and spinal motor neuron degeneration remains unknown. To approach this question, we will use new methods to generate human motor neurons from induced pluripotent stem cells (Mouilleau, Vaslin et al, bioRxiv 2020.06.27.175646) on which we will apply biochemical, proteomic, genomic and cell biology approaches to elucidate the molecular pathway leading to motor neuron impairment in juvenile ALS. Our ultimate goal is to gain insight into the mechanisms linking RNA dysregulation to neurodegeneration. This project has been funded by the FRM (Fondation pour la Recherche Medical).

Available position

We offer a post-doctoral contract for 2-3 years (depending on previous experience) starting in June 2021 to work on this collaborative project carried out at the Institut Jacques Monod (IJM, <https://www.ijm.fr/>) and the Institut du Fer à Moulin (IFM, <https://ifm-institute.org/>) in the center of Paris. The successful candidate will work under the supervision of O. Porrua (IJM) and S. Nedelec (IFM). He/she will integrate the two teams, and receive appropriate trainings in the multidisciplinary, dynamic and international scientific environments of the host institutes.

More information about the host teams in <https://equipelibri1.wixsite.com/librilab> for O. Porrua and <https://ifm-institute.org/equipe/nedelec/> for S. Nedelec.

Candidate profile

- Highly motivated, well-organized and team-player.
- A PhD degree in Biochemistry, Cellular Biology, Molecular Biology or similar.
- Solid background in molecular biology and mammalian cell culture.
- Experience in genomics and some notions of bioinformatics.
- Expertise in stem cell biology and/or neurosciences would be an advantage.
- Capacity to speak and write fluently in English.

Procedure to apply

Applicants should send by email to odil.porrua@ijm.fr and stephane.nedelec@inserm.fr before the 30th of April the following:

- Cover letter summarizing your previous experience, research interests and motivation.
- Complete curriculum vitae.
- Two letters of recommendation from former supervisors and their contact details.