

**The Paris Brain Institute (ICM) is recruiting
a Postdoctoral researcher (M/F)
2-years position to be filled as soon as possible**

The Paris Brain Institute is a private foundation recognized as being of public utility, whose purpose is fundamental and clinical research on the nervous system, located in the heart of the Salpêtrière Hospital in Paris. 650 researchers, engineers and physicians cover all the disciplines of neurology, with the aim of accelerating discoveries on brain function, and the development of treatments for diseases such as Alzheimer's, Down syndrome, Parkinson's, multiple sclerosis, epilepsy, depression, paraplegia, tetraplegia, etc.

POSITION

You are passionate about uncovering common as well as novel causative mechanisms of comorbidities in Down syndrome focusing on obesity and intellectual disabilities in a transversal European project GO-DS21 (www.go-ds21.eu) to help improve early diagnosis, prognosis and treatment of DS related comorbidities? You want to develop new cellular models from iPSCs derived from subjects included in the project? Join our team and participate in cellular and molecular research applied to disease. You will use a new collection of iPSCs from 8 subjects (males and females with Down syndrome with high or low BMI) and derive neurons and adipocytes to identify specific physiological biomarkers and epigenetic signatures to compare to human samples and rodent models through the consortium and integrate molecular and clinical data across different spatial and temporal scales of biological complexity using computational biology models and machine learning. The overarching goal is to design new therapeutic interventions including pharmacological compounds, gene therapy and environmental intervention (controlled diet, exercise and reduced stress) to reduce obesity and related comorbidities to improve the lives of people with Down syndrome.

MAIN MISSIONS

- Culture iPSCs and derive hypothalamic neurons and adipocytes within the iPS stem cell core facility of ICM and with the help of BioCell iPS of ICAN (cardiometabolism and nutrition institute next door to ICM).
- Provide DNA, RNA and cell culture medium to be analysed through the GO-DS21 consortium.
- Measure real-time cell metabolism.
- Participate in the metabolomic analyses of human, rodent and cell samples performed at ICANalytics.
- Inactivate target genes in iPSCs and test new chemical compounds developed by a company in the GO-DS21 consortium.
- Participate in conference calls, steering committee meeting of GO-DS21

PROFILE

KNOWLEDGE

- You have a PhD in cellular and molecular neuroscience and possibly a first postdoctoral experience.
- You know what omics data are (RNAseq, epigenetic, metabolomics, microbiota).
- You have experience with data analyses (statistics, R)

SKILLS

- You have been working with iPSC and derived cells, possibly neurons and/or adipocytes.
- You are familiar with data analyses (omics, cell metabolism...).
- You enjoy collaborations and like reading and writing articles.
- Fluency in technical English required.

INTERPERSONAL SKILLS

- Rigorous and committed.
- You have a sense of relationship and are open-minded to be able to collaborate with a wide range of scientists from the GO-DS21 consortium.
- You are autonomous.
- You are passionate about the scientific environment.
- You enjoy transmitting your knowledge and manage students.

CV to be sent to: recrutement@icm-institute.org indicating "XXX (m/f)"