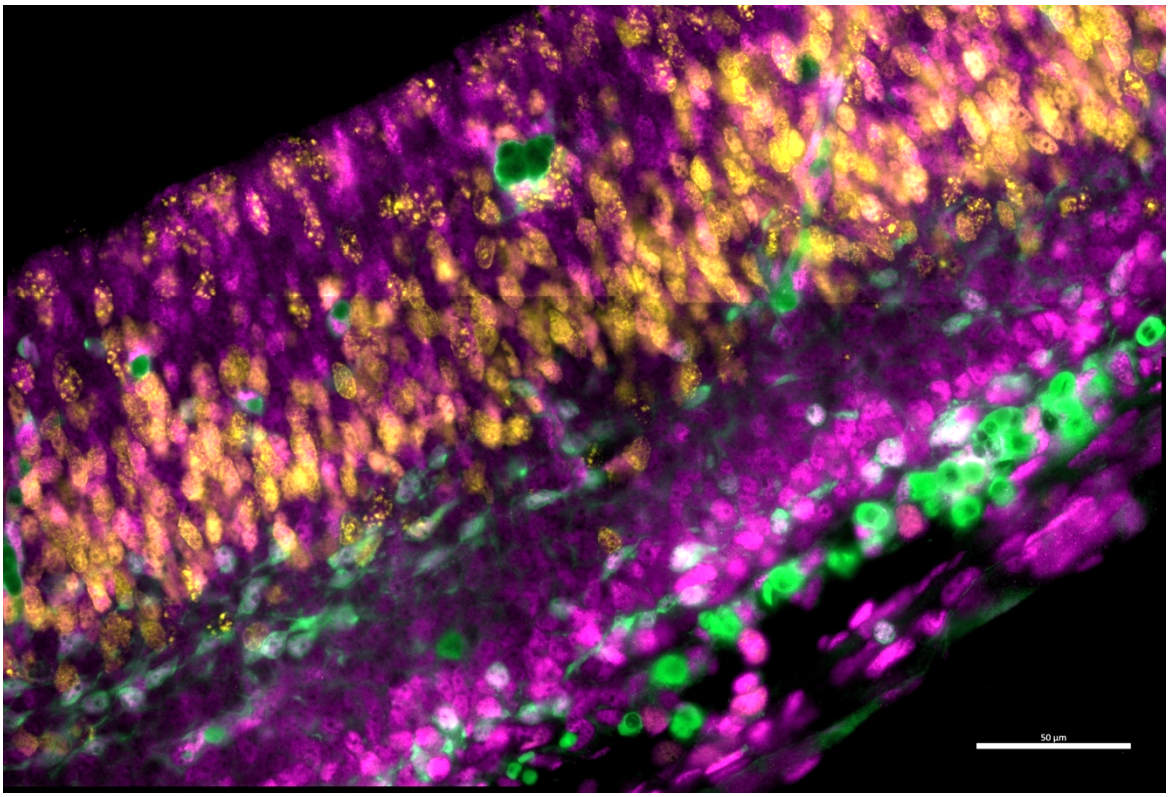
Faculté de médecine
Université de Montréal

samlab

CRCHUM
CENTRE DE RECHERCHE

Functional neurogenetics of rare diseases in the mouse

CRCHUM, Montreal, QC, Canada



Project Overview

Since 2020, we have collaborated with a patient association with whom we have discovered **new genetic variations** in a gene that had never before been implicated in neurological diseases. We have access to patient cells and have generated numerous loss-of-function models in this gene: KO mouse model, humanized mouse model, conditional KO mouse model, KO zebrafish models, KO cell lines, iPSC-KO...

Our recent work has validated the pathogenicity of patient variants and, more broadly, the loss of function of this gene in neurodevelopmental diseases. Over the next few years, we aim to decipher the yet unknown function of this gene during neurodevelopment and central nervous system function.

The project will focus on the analysis of neurodevelopment in different conditional KO mouse models. The project will also investigate how perturbations in this gene can affect the function of the central nervous system, particularly causing seizures.

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Expertise

We are looking to recruit a **passionate post-doctoral fellow** with extensive expertise in the study of neurodevelopment in mice and in-depth knowledge of neurogenesis. Expertise in molecular biology analytical techniques applied to mice is required. Expertise in behavioural analysis and EEG recording in mice is a plus. Expertise in bioinformatics data analysis is also a plus.

Why joining?

> All models are already generated
> Working on an entirely new subject with a gene whose function is totally unknown
> Project funded for 3 years
> Participation in one international congress per year to present research data
> A young, dynamic lab autonomy to thrive
> A vast network of collaborators (clinicians, geneticists, researchers)
> Modern premises in the heart of downtown Montreal
> Provincial tax exemption with post-doc status at Université de Montréal
> Technical support from more than 19 platforms at the CRCHUM

Our Lab

Our laboratory is interested in dissecting the molecular mechanisms underlying rare neurological diseases. We take advantage of the ease of use of the zebrafish model, but also combine it with mouse models and human cells.
Find out more about our lab: https://www.samlab.ca/

How to apply?

Send a cover letter, CV and at least two letters of recommendation to eric.samarut@umontreal.ca
There are no closing dates for applications, and analysis of the files may stop as soon as a candidate has been selected.