

The [Marín-Juez laboratory](#), at the CHU Sainte-Justine Research Center, is recruiting a PhD student and a postdoctoral fellow (4-year fully funded positions). Our laboratory is interested in the cellular and molecular mechanisms regulating cardiac regeneration. The successful applicant will join the Marín-Juez laboratory at the CHU Sainte-Justine Research Center, where s/he will have access to state-of-the-art facilities and technology platforms including Advanced imaging platform (light-sheet, spinning-disc confocal, multiphoton, STED super-resolution, etc.), genomics (DropSeq, 10x, Illumina Novaseq) and bioinformatics platforms. CHU Sainte-Justine Research Center provides a thriving scientific environment where the successful applicant will have the opportunity to work with multidisciplinary scientific teams and to collaborate with talented clinicians and researchers.

### **Research project description**

For this project, we are particularly interested in understanding how the cardiac endothelium regulates different aspects of cardiac regeneration and how alterations in the coronary network formation impact the ability of coronary vessels to support tissue replenishment. We have recently found early coronary regeneration as a key determinant of heart regeneration (Marín-Juez et al., PNAS 2016), and identified mechanisms regulating coronary network replenishment to form a vascular scaffold that supports cardiomyocyte regeneration (Marín-Juez et al., Dev Cell 2019). We now seek to define how the different components of the cardiac endothelium regulate tissue replenishment and identify the different mechanisms involved in their regulation of CM proliferation and migration.

### **Required training and profile**

Ph.D. student position: Applicants should have training in vascular biology, molecular biology, cell biology, or related fields. Suitable candidates should be enthusiastic about regenerative and vascular biology. Previous research experience with zebrafish and/or heart regeneration is desired.

Postdoctoral position: We are looking for candidates with a Ph.D. in the biological sciences and laboratory experience in tissue repair/regeneration, cellular, molecular biology, or genetics. Previous experience working with zebrafish, imaging and histology are highly valued but not essential.

Both positions: Candidates with experience in confocal/light-sheet imaging and/or genome engineering are strongly encouraged to apply. Preference will be given to applicants with excellent collaborative and communication skills. The Marín-Juez lab and the CHU Sainte-Justine Research Center subscribe to the principle of equal access to opportunities and encourage women, members of visible and ethnic minorities, persons with disabilities and Indigenous people to apply.

### **Submit your application**

Candidates must send the required documents before 07/2021 to Rubén Marín Juez at [ruben.marin.juez.hsj@ssss.gouv.qc.ca](mailto:ruben.marin.juez.hsj@ssss.gouv.qc.ca)

Please provide: Curriculum vitæ, Cover letter and References (2 or 3).