



Project title	MSc or PhD position in Radio-oncology and Magnetic Resonance Imaging (MRI)		
Study level(s)	<input checked="" type="checkbox"/> MSc	<input checked="" type="checkbox"/> PhD	<input type="checkbox"/> Postdoctorate
Principal investigator(s)	<a href="#">Sébastien Perreault, M.D., M.Sc., FRCPC</a> and <a href="#">Mathieu Dehaes, Ph.D.</a>		
Project duration	3 to 5 years		
Start date	To discuss		

Date of posting: 2020-03-20

### Research project description

A position is available at Université de Montréal and the Research Center of the Sainte-Justine Hospital University Center in Montréal, QC, Canada. The laboratory is seeking a candidate to contribute in cutting edge research in the field of radio-oncology and MRI, in particular in patient with brain and peripheral nervous system tumors. Topics of study specifically focus on volumetric analysis of tumors. Candidates with background in biomedical, electrical, computer engineering, as well as basic sciences including computer sciences, mathematics and physics are preferred. Experience with MRI is encouraged.

This project provides an excellent opportunity for the candidate to work within a multidisciplinary research team including scientists and clinicians from radiology, neurology and oncology. Pediatric patients include in this project are recruited as part as a multicenter clinical trial with targeted therapy (trametinib) (ClinicalTrials.gov Identifier: NCT03363217). A total of 45 patients on a total of 150 have already been recruited.

The candidate will participate in designing innovative methods related to the processing of MRI images and will be encouraged to lead publications.

### Required training and profile

- MSc and/or BSc degree(s) in biomedical or electrical engineering, physics, mathematics, computer sciences or a closely related field
- Experience in research; ability to carry out research experiments and projects
- Candidates with experience in the areas of medical imaging such as MRI, CT or PET are strongly encouraged to apply
- Programming experience in computer programming languages (e.g. Matlab, Python, and others) required
- Strong written and oral communication skills in French and English required
- Works independently and participates productively as a team player
- Highly motivated, ability to identify potential problems and develop solutions



### Conditions

The candidate will be registered through an academic program in Biomedical Engineering at University de Montréal and will have an appointment at Sainte-Justine HUC and access to laboratories and technological platforms.

The candidate will be encouraged to prepare and submit scholarship proposals to funding organizations.

Project funded through Canadian Institutes of Health Research (PI Perreault).

### Submit your application

Candidates must send the required documents to **Ms Imen Ben Hmida**, research coordinator of Dr. Dehaes' team, at [imen.benhmida@recherche-ste-justine.qc.ca](mailto:imen.benhmida@recherche-ste-justine.qc.ca)

Please provide:

- ✓ *Curriculum vitae* including publications
- ✓ Most recent transcripts
- ✓ Cover letter
- ✓ References

Sébastien Perreault M.D, FRCPC  
Clinicien-chercheur  
Neurologie pédiatrique  
Neuro-oncologie UCNS  
CHU Sainte-Justine  
3175 Chemin Côte Sainte-Catherine  
Montréal, Québec, H3T 1C5  
Tél. : (438)-495-8893  
[s.perreault@umontreal.ca](mailto:s.perreault@umontreal.ca)

Mathieu Dehaes, Ph.D.  
Associate Director of Research and Associate Professor  
Department of Radiology, Radio-oncology and Nuclear Medicine  
University of Montreal  
Ste-Justine Hospital University Centre  
3175 Cote Sainte-Catherine, Montreal, Qc H3T1C5, Canada  
Tel: 514-345-4931 #5137  
[mathieu.dehaes@umontreal.ca](mailto:mathieu.dehaes@umontreal.ca)



#### Equity, diversity and inclusion

The masculine gender is used without discrimination and for the sole purpose to facilitate reading. The CHU Sainte-Justine subscribes to the principle of equal access to opportunities and invites women, members of visible and ethnic minorities, persons with disabilities and Indigenous people to apply. We would appreciate it if you could inform us of any disabilities that would require technical and physical accommodation adapted to your situation during the selection process. Please be assured that we will treat this information as confidential.

#### Studies at the CHU Sainte-Justine Research Center

Pursue your [graduate or postdoctoral studies](#) at the **CHU Sainte-Justine Research Center**, and be one of the 500 students, fellows and interns involved in accelerating the development of knowledge in the field of maternal, child and adolescent health, whether in basic or clinical research. Under the supervision of prominent scientists, especially in leukemia, rare pediatric diseases, genetics, perinatology, obesity, neuropsychology and cognition, scoliosis and rehabilitation, you will have the opportunity to work with multidisciplinary scientific teams and collaborators from all over the world.

#### About the CHU Sainte-Justine Research Center

**CHU Sainte-Justine Research Center** is a leading mother-child research institution affiliated with Université de Montréal. It brings together more than 200 research investigators, including over 90 clinician-scientists, as well as 500 graduate and postgraduate students focused on finding innovative prevention means, faster and less invasive treatments, as well as personalized approaches to medicine. The Center is part of CHU Sainte-Justine, which is the largest mother-child center in Canada and the second most important pediatric center in North America. More on [research.chusj.org](https://research.chusj.org)

