Ph.D. student
Laboratory of Dre Marie-Josée Hébert

Research Center of the Centre hospitalier de l'Université de Montréal

The Research Center of the Center hospitalier de l'Université de Montréal (CRCHUM) is the largest research center in biomedical sciences and health care at the University of Montreal, and among the largest in Canada. Located at the Champs de Mars metro station, the CRCHUM offers a dynamic and innovative work environment in ultramodern facilities at the cutting edge of technology.

The CRCHUM promotes job stability and supports the development and professional improvement of its employees who benefit from a full range of social benefits (flexible hours, teleworking policy, pension plan (REGOP), generous leave policy).

Nephrology, transplantation and renal regeneration research unit
Laboratory of Dre Marie-Josée Hébert – Immunopathology axis

My team has played a pioneering role in characterizing interactions between apoptosis and autoimmunity responses in transplantation. We were the first to characterize anti-LG3 antibodies and show that their formation is triggered at least in part by apoptotic exosome-like vesicles (ApoExo), a novel class of extracellular vesicles released by apoptotic endothelial cells. We brought this observation to clinical fruition by describing the importance of anti-LG3 autoantibodies as novel inducers of rejection and reduced long-term allograft survival in renal transplant patients. Currently, the main focus of the laboratory is a logical follow-up to these discoveries. We conduct research on the characterization of molecular pathways that govern renal vascular remodeling leading to chronic renal failure in murine models of renal ischemia-reperfusion injury and in renal transplant recipients. We are interested in the characterization of biomarkers of endothelial cell death and autoimmunity for better prediction of renal allograft rejection and loss of renal function.

Job Description

The student will be part of a dynamic research team composed of graduate students and research associates working in basic and translational research. The student will have the opportunity to enroll in the academic training program of the Canadian Donation and Transplantation Research Program (CDTRP).

Responsabilities

- ✓ Participate in the execution of research projects
- ✓ Carry out multi-color flow cytometry markings on human and murine cell suspensions
- ✓ Perform DNA/RNA extractions and PCR experiments on human and murine samples
- ✓ Perform and analyze confocal imaging and immunohistochemistry
- ✓ Work in the primary animal facility to develop experiments
- ✓ Write scientific articles
- ✓ Any other relevant tasks related to the research project

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Qualifications

- ✓ Completed a relevant MSc in molecular biology, biochemistry, immunology, biomedical sciences or other relevant basic science fields.
- ✓ Highly motivated, organized and curious learner that can adapt quickly to a multidisciplinary environment composed of researchers and physicians.
- ✓ Have an interest in transplantation research.
- ✓ Attention to detail and rigor.
- ✓ Have an excellent academic record.

Status et advantages

- ✓ Full-time position, 35 hours per week, daytime from Monday to Friday
- ✓ Start date: As soon as the selected candidate is available.
- ✓ The student must apply to the Université de Montréal for admission to the Doctoral program in Molecular Biology or Biomedical Sciences at the Faculty of Medicine.
- ✓ Scholarship: Student will be paid according to the conditions in effect at the CHUM Research Centre. The candidate will have to apply for external awards (FRQS, CIHR, etc.)

To Apply

Interested candidates should e-mail the following documents to:
francis.migneault.chum@ssss.gouv.qc.ca

- Curriculum vitae
- Transcript of notes
- Letter of motivation
- References

Only successful candidates will be contacted for an interview.

The CRCHUM invites women, Aboriginals, visible minorities, ethnic minorities and people with disabilities to apply. The CRCHUM adopts a broad and inclusive definition of diversity that goes beyond applicable laws. The CRCHUM thus encourages all people, regardless of their characteristics, to apply. In accordance with Canadian immigration requirements, please note that priority will be given to Canadian citizens and permanent resident.