

3D Bioprinting of Cardiac Tissues – PhD Student in Savoji Research Group

Savoji Laboratory within the Department of Pharmacology and Physiology and Institute of Biomedical Engineering of the Faculty of Medicine of the University of Montreal, the Research Center of the CHU Sainte-Justine (CHUSJ), and the TransMedTech Institute is seeking creative PhD students to join our multidisciplinary research group. Successful applicants should have hands-on experience in 3D bioprinting, designing, fabricating tissue engineered platforms.

Duties and Responsibilities:

You will work on an interdisciplinary project involving 3D bioprinting using stem-cell derived human cardiac cells to fabricate functional cardiac tissues. Successful candidates are expected to participate in writing research proposals, reports, presentations, and publications, etc.

Qualifications:

Required:

- M.Sc. in biomedical engineering, chemical engineering, materials science, mechanical engineering or a related discipline.
- Must demonstrate theoretical and practical knowledge within the fields of bioengineering, tissue engineering, or cell biology.
- Scientific track record demonstrating well-organized design and execution of research.
- Ability to work independently and in a collaborative team.
- Strong communication skills.

Preferred:

- Understanding of cell biology and/or tissue engineering.
- Cell culture experience.
- Experience with in vitro assays including cell viability, toxicity, etc.
- Experience working with induced pluripotent stem cells.
- 3D (bio)printing experience.
- Experience with flow cytometry, ELISAs, PCR, or confocal microscopy.
- Experience with in vivo experiments.

Please send your application as a single PDF file including a complete resume, cover letter describing research interests and goals, full list of publications, as well as the names and contact information of three references. Applications should be sent to Prof. Houman Savoji (houman.savoji@umontreal.ca) using the subject line "Savoji Lab PhD Student Application."

About CHU Sainte-Justine Research Centre

CHUSJ is the only mother-child university hospital center in Quebec and the largest in Canada. With more than 1,200 employees, including more than 200 researchers, the dynamic and cutting edge research performed at CHUSJ Research Center aims at deciphering the mechanisms underlying disease as well as developing new diagnostic, therapeutic and preventive tools to improve quality of life and care for children. For more information, please visit us at <http://recherche.chusj.org/en/Home>.

About Université de Montréal

The Université de Montréal is one of the leading research universities in Canada. Together with its two affiliated schools, HEC Montréal and Polytechnique Montreal, it constitutes one of the largest centres of higher education in North America. For more information, please visit www.umontreal.ca.

About the Faculty of Medicine

An internationally renowned institution, the Faculty of Medicine has the threefold mission of education, research and the improvement of health in the areas of clinical sciences, basic sciences and health sciences. It has 15 departments, three schools and more than 700 professors (excluding clinical professors), serving more than 6000 students. A third of the physicians in Québec and a large number of health professionals in the province have been trained at the Université de Montréal's Faculty of Medicine.

About the Institute of Biomedical engineering

The Institute of Biomedical Engineering is responsible for the graduate programs in Biomedical engineering, which is common to the University of Montreal and Ecole Polytechnique of Montreal. It brings together more than eighty researchers active in various fields of the discipline. For more information, please visit <http://igb.umontreal.ca/igb/enbref.html>.

About the Montreal TransMedTech Institute

TransMedTech Institute was established in 2016 after a \$35.6M grant awarded by the Canada First Research Excellence Fund and \$60M contributions from key partners. Its mission is to support the development and validation of next-generation medical technologies for important complex diseases, in order to facilitate their implementation in the health system. The TransMedTech Institute is based on a transdisciplinary and intersectoral open innovation ecosystem (Living Lab), regrouping over 40 partners (universities, hospitals, government and industries). We are global leaders in biomedical engineering and medical devices (nano-robotics, biosensors, micro-devices, biophotonics, imaging, cartilage tissue, biomechanics, design of medical devices, biomaterials, and rehabilitation). For more information, please visit www.transmedtech.org,

*** Language Policy**

Université de Montréal is a Québec university with an international reputation. French is the language of instruction. In accordance with the institution's language policy, Université de Montréal provides support for graduate students to attain proficiency in French.

*** Equal Access Employment Program**

Université de Montréal is strongly committed to fostering diversity and inclusion. Through its Equal Access Employment Program, UdeM invites women, Aboriginal people, visible and ethnical minorities, as well as persons with disabilities to send their application. We will confidentially adapt our recruitment mechanisms to the specific needs of people with disabilities who request it. We also welcome applications from candidates of all orientations and sexual identities.