Principal Investigator
Assistant or Associate Professor

Institute for Research in Immunology and Cancer (IRIC)
Department of Biochemistry and Molecular Medicine, Faculty of Medicine

The Institute for Research in Immunology and Cancer (IRIC) in partnership with the Department of Biochemistry and Molecular Medicine of the Faculty of Medicine of Université de Montréal (UdeM) invites applications for a Principal Investigator and Assistant or Associate Professor position in the area of Machine Learning/Artificial Intelligence applied to the search for new treatments in human health, including mainly small molecules and possibly some aspects of chemical biology such as unnatural biopolymers (amino acids or nucleic acids) or natural products.

IRIC's primary goal is to better understand the biological processes that contribute to cancer and identify ground-breaking avenues in the development of effective therapies. IRIC is located in a state-of-the-art building on the main campus of UdeM. It currently hosts 27 Principal Investigators and nearly 450 trainees, graduate students, postdoctoral fellows, research associates and support staff. IRIC also comprises several cutting edge core facilities, including Bioimaging, Biophysics & NMR, Flow Cytometry, Genomics, High-Throughput Screening (chemical, RNAi, and CRISPR), Bioinformatics, Histology, Medicinal Chemistry, Proteomics, and In Vivo Biology/Animal facility. Most importantly, IRIC houses one of the largest Drug Discovery Units in an academic setting in Canada. Its activities are led by a team of 65 expert chemists and biologists who have extensive drug discovery experience in an industrial setting. A collegial, dynamic and curiosity-driven research environment is a defining feature of the Institute.

We offer competitive recruitment packages commensurate with experience and qualifications, a research intensive environment, state-of-the art facilities and competitive graduate training programs. The new Principal Investigator will be appointed as a Faculty in the Department of Biochemistry and Molecular Medicine of the Faculty of Medicine of UdeM. The selected candidate will be considered for a philanthropic chair in AI applied to life sciences and may be eligible for a Canada Research Chair (https://www.chairs-chaires.gc.ca/). Access to IRIC's core facilities and extensive expertise of IRIC's drug discovery unit will provide the candidate with a unique environment to validate the proposed algorithmic approaches.

The Department of Biochemistry and Molecular Medicine of the Faculty of Medicine includes 30 regular professors and more than 60 clinical or adjunct professors. Research teams address fundamental biomedical research questions in close connection with translational and clinical research conducted in the Faculty of medicine network of affiliated hospital research centers and institutes. Through its cutting-edge teaching programs in biochemistry and bioinformatics, the Department supports the training of more than 350 undergraduate students and 200 graduate students. We are particularly interested in attracting colleagues who share our commitment to teaching, mentoring and fostering a collaborative research environment that embraces both excellence and diversity.

For more information, please visit the following web sites:

IRIC
Department of Biochemistry and Molecular Medicine
Faculty of Medicine
Université de Montréal

We are seeking exceptional candidates who will lead research programs in Machine Learning/Artificial Intelligence approaches applied to the drug discovery process, including but not limited to: compound activity prediction, compound physical/pharmaceutical properties prediction, virtual screening, drug optimization, retrosynthesis planning, Graph Neural Networks (GNN), reinforcement learning.

As a professor, you will have the opportunity to contribute to the promotion of excellence at IRIC and the Department of Biochemistry and Molecular Medicine of the Faculty of Medicine. In this capacity, you will be expected to:

> Emphasise the development of novel, state-of-the-art computing approaches rather than the application of existing tools;
> Collaborate on projects with large multidimensional datasets, so experience in integrating genomics, proteomics, and clinical data sets with drug screening would be an asset;
> Take part in academic-industry collaborations with biopharmaceutical partners;
> Develop an innovative, internationally recognized, financially independent research program;
> Supervise graduate students and postdoctoral fellows;
> Contribute to the teaching mission of the Department of Biochemistry and Molecular Medicine at the undergraduate, M.Sc. and Ph.D. levels;
> Through teaching and research activities, ensure the development of your discipline in addition to actively participate in the functionning of IRIC, the Department of Biochemistry and Molecular Medicine and the Faculty of Medicine of UdeM.

To succeed in this role, you will need to:
> Hold a Ph.D. and demonstrate significant postdoctoral experience and productivity in a relevant area;
> Have an outstanding publication record;
> Have the potential to develop both internal and international collaborations;
> Demonstrate an ability to provide high quality university-level education;
> An adequate knowledge of the French language (written and spoken) or a strong commitment to mastering the proficiency level required, in accordance to the Politique linguistique de l'Université de Montréal. An institutional learning support program is offered to all professors wishing to learn French or improve their communications skills.

How to submit your application

You are invited to send your curriculum vitae, a letter of intent, a description of the proposed research program of three pages, as well as three (3) letters of recommendation from professors or hierarchical superiors to:

Dr. Marc Therrien, Ph.D.
Scientific Director of IRIC
email : marc.therrien@umontreal.ca

Additional information about the position

Reference number	MED 02-23/07
Application deadline	Until **April 30th 2023** inclusively
Salary	Université de Montréal offers competitive salaries and a full range of benefits
Starting date	As early as June 1st 2023

EQUITY, DIVERSITY AND INCLUSION

Université de Montréal places the values of diversity, equity and inclusion at the heart of each of its missions. Through its Equal Employment Opportunity Program (EEOP), the Université de Montréal invites women, Aboriginals, visible minorities, ethnic minorities and people with limitations to submit their applications. During the recruitment process, our selection tools can be adapted in complete confidentiality to the needs of people living with limitations who request it.

The University adopts a broad and inclusive definition of diversity that goes beyond applicable laws and encourages all qualified individuals, regardless of their characteristics, to apply. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents.

In order to measure the impact of its EDI actions, Université de Montréal collects data on applicants according to their identification with one of the groups targeted by the Equal Employment Opportunity Act, women, Aboriginal people, visible minorities, ethnic minorities and persons with disabilities. To this end, we thank you for completing this self-identification questionnaire (**questionnaire d'auto-identification**). The information you provide is confidential and will be shared only with those responsible for the EAP. If you wish, you may also indicate your membership in a targeted group in your letter of introduction, which will be reviewed by the selection committee and the assembly of peers during the evaluation of your file.

According to the nomination procedures in effect at Université de Montréal, the members of the Assembly of Professors can consult all the application files. If you wish your application to remain confidential until the short list is established, please mention it.