

L'Université
de Montréal
et de votre
carrière.

Deeply rooted in Montreal and dedicated to its international mission, Université de Montréal is one of Canada's Top 100 Employers. Like the city whose name it bears, it is effervescent and multicultural.

UdeM attracts over \$500 million in research funding every year, making it one of the three university research hubs in Canada. It also ranks among the best universities worldwide and among the five best French language universities.

Through the achievements of the members of its community, UdeM participates in building today's and tomorrow's world.

Assistant or Associate Professor Computational Biologist in Genomic Oncology

Department of Medicine, Faculty of Medicine, Université de Montréal

The Faculty of Medicine of the Université de Montréal is one of the world's leading French-language medical schools. Our mission is threefold: teaching, research and social responsibility to improve healthcare. Our diversified offering spans 15 departments, 3 schools and over 150 programs of study in the basic sciences, clinical sciences and health sciences. We draw on the expertise and infrastructure of a vast network of health and social service establishments and 11 research centers and institutes.

The Department of Medicine of the Faculty of Medicine of Université de Montréal (UdeM) in partnership with the Institute for Research in Immunology and Cancer (IRIC) invites applications for an Associate Professor position in the area of computational methods applied to oncology.

In particular, we are looking for an exceptional scientist to lead advanced research programs in biostatistics and population genetics. This role also involves expertise in programming and mathematical modeling for large-scale data analysis specific to oncology. The successful candidate will be a proven specialist in the innovation and application of bioinformatics and biostatistics techniques, using tools such as Bioconductor, non-negative matrix factorization (NNMF), as well as R and Python. In addition, this person will have significant expertise in identifying molecular synergies and using mutational signatures to guide cancer treatment and prevention. This includes the analysis of three-dimensional structural variations in the genome, enabling the identification of complex molecular interactions influencing cancer pathogenesis.

The candidate will be integrated into the IRIC as a principal investigator in terms of their scientific programming. 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 compounds, RNAi, and CRISPR), Bioinformatics, Histology, 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.

The Faculty of Medicine and the IRIC offer competitive recruitment packages commensurate with experience and qualifications, a research-intensive environment, state-of-the-art facilities and graduate training programs. The new Principal Investigator will be appointed at the Department of Medicine of the Faculty of Medicine of UdeM. Access to IRIC's core facilities and the vast expertise of its drug discovery unit will provide the successful candidate with a unique environment in which to validate the proposed algorithmic approaches. Further, the Université de Montréal's ecosystem includes the internationally renowned Institut québécois d'intelligence artificielle (MILA) and the Institut de valorisation des données (IVADO), helping to make Montreal a world center for AI.

For more information, please visit the following web sites:

[Faculté de médecine](#)

[Département de médecine](#)

[IRIC](#)

[Université de Montréal](#)

Your role

Through your research activities and teaching with students, you will contribute to promoting excellence within the Department of Medicine at the Faculty of Medicine. Additionally, you will ensure the visibility of your discipline and actively participate in the operations of a prestigious institution.

- > **Research:** Strongly emphasize on the development of new cutting-edge computational approaches rather than the application of existing tools;
- > Collaborate on projects with large multidimensional datasets, making experience in integrating genomic, proteomic and clinical data with drug screening an asset;
- > Participate in academic-industrial collaborations with biopharmaceutical partners;
- > Develop an innovative research program that is internationally recognized and financially independent;
- > **Teaching:** The successful candidate will be actively involved in undergraduate and graduate teaching in the Department of Medicine, as well as mentoring undergraduate and graduate students and postdoctoral fellows.
- > **Outreach and contribution to the operation of the institution:** The successful candidate will actively participate in the outreach of his/her discipline through conferences, publications and scientific activities. He or she will also contribute to the operations of the Department of Medicine and IRIC by participating in committees and working groups.

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 written and spoken language **or** a strong commitment to mastering the proficiency level required, in accordance to [Université de Montréal's Language Policy](#). An institutional learning support program is offered to all professors wishing to learn French or improve their communication 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 François Madore

Faculté de médecine, Département de médecine, UdeM

Courriel : f.madore@umontreal.ca

Site Web : <https://deptmed.umontreal.ca/>

We strongly recommend that you complete [this self-identification questionnaire](#). You will find more information about this step in the Diversity and Inclusion section at the end of this document.

Additional information about the position

Reference number	MED_04-24_16
Application deadline	Until May 28, 2024, inclusively
Salary	Université de Montréal offers competitive salaries and a full range of benefits
Starting date	January 1 st , 2025, or according to the availability of the incumbent

DIVERSITY AND INCLUSION

Université de Montréal is strongly committed to fostering [diversity and inclusion](#). Through its Equal Access Employment Program (EAEP), UdeM invites applications from women, Indigenous Peoples, visible and ethnic minorities, as well as persons with disabilities. We will –confidentially – adapt our recruitment mechanisms to the specific needs of people with disabilities who request it.

UdeM embraces a broad and inclusive definition of diversity that goes beyond applicable laws, and therefore encourages all qualified individuals to apply, regardless of their characteristics. However, in accordance with Canadian immigration requirements, priority will be given to Canadians and permanent residents.

In order to measure the impact of its equity, diversity and inclusion actions, UdeM is collecting data on applicants identifying themselves with one of the groups targeted by the Equal Employment Opportunity Act, namely women, Indigenous Peoples, visible minorities, ethnic minorities and people with limitations. To this end, we thank you for completing the self-identification questionnaire. The information you provide through this form is strictly confidential and will be shared only with those responsible for the UdeM EAEP. If you wish, you may also indicate that you belong to one of the targeted groups in your cover letter, which will be reviewed by the selection committee and the assembly of peers.

Université de Montréal's application process allows all members of the Professor's Assembly to review the application files submitted. If you wish to keep your application confidential until the shortlist is established, please mention it in your application.

