IVADO Principal Investigator position in areas related to computational biology and its applications in biology and medicine

Assistant Research Professor Faculty of Medicine/Department of Biochemistry and molecular medicine in association with the Research Centre of the Sainte-Justine University Health Center.

Position Description

The Departement of Biochemistry and molecular medicine of the Faculty of Medicine of the Université de Montréal in partnership with the Research Center of the CHU Saint-Justine (CHUSJ) invites applications for a new Principal Investigator position at the rank of assistant research professor in the broad field of computational biology and its applications in medicine. CHUSJ Research Centre and UdeM are committed to developing world-class expertise in this field.
The researcher will also become a member of the IVADO (the Institute for Data Valorisation) data science community. The IVADO aims to bring together industry professionals and academic researchers to develop cutting-edge expertise in data science, operational research and artificial intelligence. IVADO members provide data management methods and inform decision making for optimal resource use. In essence, the IVADO creates opportunities for knowledge exchange and collaborations between the specialists, partners, researchers and students in its network.

The new principal investigator will play a pivotal role in complementing the research strengths of the CHUSJ Research Centre. The selected candidate will also be expected to join the newly formed Centre for Integrated Pediatric Clinical Genomics and contribute to its mission. Moreover, the candidate will have the opportunity to collaborate with other research groups within the network of the Faculty of medicine and IVADO. Montreal has one of the largest artificial intelligence communities in North America and it is a vibrant, international and welcoming city full of "joie de vivre", with great food, diverse and creative musical and cultural scenes, and inspiring outdoors.

Specifically, outstanding applications are sought in the areas of:
•Computational biology with expertise in statistical machine-learning models for analysis big data.
•Development of fast and accurate optimization algorithms in different areas applied to biology and medicine including genomic and epigenomic data.
•Development of innovative approaches to analyze large-scale diverse data and high-throughput functional screens and/or use of state-of-the-art technologies to investigate the functional consequences of genomic variation in relevant models.

Such expertise will complement existing expertise within the CHUSJ Research Centre and the Faculty of Medicine, UdeM and markedly improve our understanding of biological processes underlying disease predisposition and prognosis, accelerating the identification of biomarkers for disease risk prediction models, and the development of novel strategies for prevention and treatment.

Responsibilities

The candidate would have the opportunity to develop collaborations within the Department of Biochemistry and molecular medicine, with researchers in other departments of the Faculty of Medicine and research centers of affiliated hospitals.. As a member of the Department of Biochemistry and molecular medicine of the Faculty of Medicine, but based at the CHUSJ Research Center, the selected candidate will be expected to:

- Develop an independent research program in the area of computational biology to develop applications in biology and medicine;
- Be involved in teaching and supervising graduate students in the Bioinformatics program. Teaching at UdeM is in French*; non-French speakers will be required to be sufficiently proficient to teach in French after a period of three years.
- Actively contribute to the academic life of both the faculty and the research center;
- Participate in Faculty of Medicine research and CHUSJ outreach and dissemination activities, notably through publication of research results in scientific journals and through presentations at scientific conferences and as part of knowledge transfer and exchange opportunities in medical practice settings.

Requirements

Applicants must hold a Ph.D. degree, with postdoctoral experience and a strong publication record. Candidates will be expected to develop an innovative, internationally recognized, externally funded research program and contribute to teaching as well as to some administrative and academic activities at CHUSJ and UdeM.

Information About the Position

Posting no.	MED 09-18/12
Posting period	Applications received by **January 25, 2019** will be given priority consideration, but the position will remain open until filled.
Remuneration	Université de Montréal offers a competitive salary along with a full range of benefits.
Start date	To be discussed with the candidate

Submitting an Application

Interested candidates should send their C.V., a letter of intent, describing their goals, research interests, a detailed statement of research interests (3-page limit), copies of up to three significant publications, and along with three letters of recommendation by email no later than January 25, 2019 to:

Janetta Bijl
CHU Sainte-Justine Research Center
Email: janetta.bijl@recherche-ste-justine.qc.ca

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 Department of Biochemistry and Molecular Medicine
The Department hosts undergraduate and graduate programs in biochemistry and in bio-informatics. More than 300 students are currently registered in these programs. The Department is internationally renowned for expertise in the fields of molecular biology, single molecule imaging, structural biology and bio-informatics. https://biochimie.umontreal.ca/

*** Language Policy**
Université de Montréal is a Québec university with an international reputation. French is the language of instruction. To renew its teaching faculty, the University is intensively recruiting the world's best specialists. In accordance with the institution's language policy, Université de Montréal provides support for newly-recruited faculty to attain proficiency in French.

Confidentiality
The Université de Montréal application process allows all regular professors in the Department to have access to all documents unless the applicant explicitly states in her or his cover letter that access to the application should be limited to the selection committee. This restriction on accessibility will be lifted if the applicant is invited for an interview.

Equal Access Employment Program
Through its Equal Access Employment Program, Université de Montréal invites women, Aboriginal people, visible and ethnical minorities, as well as persons with disabilities to apply. During the recruitment process, our selection tools will be adapted to meet the needs of people with disabilities who request it. Be assured of the confidentiality of this information.

Université de Montréal is committed to the inclusion and the diversity of its staff and also encourages people of all sexual and gender identities to apply.

Immigration Requirements
We invite all qualified candidates to apply at UdeM. However, in accordance with immigration requirements in Canada, please note that priority will be given to Canadian citizens and permanent residents.

Faire carrière à l'UdeM : aider la société, relever des défis et être considéré