



## POSTDOCTORAL POSITION

<b>Position offered:</b>	Post-doctoral position in molecular modeling
<b>Employer:</b>	Institute for research in immunology and cancer Medicinal chemistry core facility
<b>Status:</b>	Full-time
<b>Salary:</b>	To be determined – Subject to the minimum and maximum set out by the collective agreement
<b>Start date:</b>	Spring 2018
<b>Estimated end date:</b>	1 year, renewable

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### MANDATE DESCRIPTION

The medicinal chemistry platform at the Institute for Research in Immunology and Cancer (IRIC) at the University of Montréal has an opening for a postdoctoral position in molecular modeling in the field of drug discovery.

Under the supervision of Dr. Anne Marinier and Dr. Alexandre Beaudrait, the incumbent will conduct computer-aided modeling work that support ongoing projects across various therapeutic areas (academic and industrial collaborations). As part of a multi-disciplinary team of medicinal chemists and biologists the incumbent will apply computational chemistry techniques (both ligand and structure-based) to support lead-identification and lead-optimization endeavors taking place at the medicinal chemistry platform.

### JOB REQUIREMENTS

Education & Experience	<ul style="list-style-type: none"><li>• Ph.D. in computational chemistry or closely related discipline (e.g. chemistry, biochemistry or biophysics).</li><li>• Experience demonstrating proficiency in applying computational chemistry techniques in the context of drug discovery projects.</li></ul>
Skills and abilities	<ul style="list-style-type: none"><li>• Extensive expertise with ligand- and structure-based virtual screening methods and molecular dynamics simulations.</li><li>• Expertise with computer-aided drug design packages (e.g. CCG's MOE or Schrödinger's small molecule drug discovery suite) and molecular visualization programs.</li><li>• Skills in scripting (e.g. Python, shell script, R).</li><li>• Experience in peptide or macrocycle modeling, and knowledge of pharmacology would be considered as assets.</li><li>• Excellent teamwork and communication skills. Initiative and creativity skills.</li></ul>

## **APPLICATION PROCEDURE**

Interested candidates should submit a full CV, a one-page statement of research interests, and electronic copies of up to three recent publications in a single PDF attachment to the email address: [alexandre.beautrait@umontreal.ca](mailto:alexandre.beautrait@umontreal.ca)

*We thank all applicants for their interest. Please take note, however, that only short-listed candidates for the position will be contacted by email for an interview.*

### **Employment Equity Program**

*IRIC and Université de Montréal uphold the principles of employment equity and encourages applications from women, members of visible minorities, ethnic minorities, persons with disabilities and Aboriginal people.*

### **Immigration requirements**

In compliance with Canadian immigration requirements, priority shall be given to Canadian citizens and permanent residents.

## **ABOUT ANNE MARINIER**

Anne Marinier and her team of chemists and biologists develop two components of research linked to drug discovery.

In a first component they design, synthesize and characterize new small molecules having biological or therapeutic activity in the area of cancer and other unmet medical needs. Through in-depth structure-activity relationship studies, the therapeutic function of compounds known as hits, identified either during high-throughput screenings or else synthetically, is optimized to lead to compounds that are candidate for clinical trials.

The second research component bears on the design and synthesis of chemical libraries based on new structures belonging to unexplored chemical scaffolds. Following cell-based screenings, the hits coming from these libraries are used to identify new therapeutic targets following various biochemical and genetic strategies. Those new targets then play a key role in innovative therapeutic approaches to the treatment of cancer.

## **ABOUT IRIC**

IRIC is an ultra-modern research hub and training centre located in the heart of Université de Montréal. Created in 2003 to shed light on the mechanisms of cancer and discover new, more effective therapies, research at IRIC has already built a reputation for excellence within the Canadian and international scientific communities. Nearly 500 team members are dedicated to the Institute's approach: complementary expertise, collaboration and community, combined with creativity and innovation. The next generation of investigators trained at IRIC must not only become experts in their own field, they must also integrate multidisciplinary and collaboration into their practice. More information on postdoctoral work at IRIC can be found at: <http://www.irc.ca/en/students/postdoctoral-fellowship/>.

The primary objective of IRIC is to elucidate the molecular underpinnings of cancer and to devise innovative approaches to cure cancer. IRIC is located in a state-of-the-art new building on the main campus of UdeM. It currently hosts 28 Principal Investigators and over 450 trainees, graduate students, postdoctoral fellows, research associates and support staff. IRIC also comprises several cutting edge technological platforms. These include Bioimaging, Biophysics & NMR, Flow Cytometry, Genomics, High-Throughput Screening, Histology, Medicinal Chemistry, Proteomics, and one of the largest animal facilities in Canada. A collegial and curiosity-driven research environment is a key characteristic of the Institute. For more information, please visit us at a [www.irc.ca](http://www.irc.ca).

## **ABOUT UNIVERSITÉ DE MONTRÉAL**

Université de Montréal is one of the leading research universities in Canada. Together with its two affiliated schools, HEC Montréal and École Polytechnique, it constitutes one of the largest centers of higher education in North America. For more information, please visit [www.umontreal.ca](http://www.umontreal.ca) and [UdeM at a Glance](#).