

## Research professor - Radiochemistry for the development and validation of radiotracers used in medical imaging

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The Research Center of the University Hospital Center of the University of Montreal (CRCHUM) and the Department of Radiology, Radiation Oncology and Nuclear Medicine of the Faculty of Medicine of the University of Montreal are looking for candidates to fill a faculty research position at the assistant or associate professor level in the field of radiochemistry, for the development and validation of radiotracers used in medical imaging (positron emission tomography – PET, and other modalities). The candidate will develop an innovative research program integrating into various multidisciplinary teams working in translational studies facilitating the transition of fundamental research results to clinical application for diagnosis, monitoring and treatment in patients, healthy individuals, or in animals. Member of the Department of Radiology, Radiation Oncology and Nuclear Medicine, the researcher will be called upon to work within a dynamic team, within the CRCHUM, one of the largest research centers in Canada, and in the University of Montreal network. The CRCHUM is one of the rare research centers including a research axis dedicated to imaging and engineering.

The CRCHUM radiochemistry laboratory has state-of-the-art equipment, including a latest generation research cyclotron which makes it possible to synthesize most of the new radiotracers used in the clinic and for the development of new research applications, armored cells, automated synthesis modules, instruments to perform quality control tests, and soon a 7T microPET/MRI camera for small animals. The laboratory has a direct transport route to the nuclear medicine department of the CHUM.

The Department of Radiology, Radiation Oncology and Nuclear Medicine brings together 225 professors working in the hospitals of the University of Montreal and their research centers. Clinical and fundamental research is a priority of our department, with a constant effort aimed at promoting multidisciplinary and the multidirectional transfer of knowledge. Our research and technological development programs, both intramural and collaborative, target a wide range of areas, applying to the continuum of life, from newborns to the elderly; notably, this includes the fields of cardiovascular medicine, oncology, metabolic and endocrine disorders including diabetes, artificial intelligence and data sciences, neuroscience, liver and abdominal imaging, musculoskeletal imaging, theranostic development, aging and carcinogenesis, as well as imaging-guided therapies. Research teaching by our professors is mainly done with graduate students, residents and fellows, as well as pre-graduate students in summer internship. The diversity of environments and the synergy between different sectors make our department a unique ecosystem in North America.

For more information, visit the [site web du Département de radiologie, radio-oncologie et médecine nucléaire](#).

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### Responsibilities

As a professor and researcher, depending on the candidate's career advancement, the selected person will contribute to the promotion of excellence in the Department of Radiology, Radiation Oncology and Nuclear Medicine through their leadership and activities. research and training within the network of research centers of the University of Montreal. She will ensure the influence of her discipline in addition to actively participating in the development of a renowned institution. As such, the selected person:

- Will continue its high-level research, training and scientific outreach activities in the field of radiochemistry, with a program focused on the development and validation of PET radiotracers intended for detection and functional evaluation in metabolic and molecular imaging, particularly in the field of diabetes and other endocrine pathologies, disorders of metabolism and liver function, oncology and cardiovascular health;
- Develop new collaborative research niches, relying on modern methods of radiochemistry and production of radiotracers using a cyclotron and other production methods;
- Will collaborate with other members of the university department in fundamental research and clinical research, as well as in technological development applicable to its research themes;
- Will supervise graduate students, teach in the teaching programs of the University of Montreal and contribute to the academic life of the university department;
- Will contribute to strengthening the multi-faculty synergistic networks of the Department of Radiology, Radio-Oncology and Nuclear Medicine in metabolic and molecular imaging, functional imaging, digital health, as well as with research centers and other organizations affiliated with the University of Montreal, and other partners at the national and international level.

### Qualifications

- Hold a PhD in organic chemistry, medicinal chemistry or radiochemistry;
- Have postdoctoral training and high-level academic experience relevant to radiochemistry, the production and evaluation of new tracers, as well as research; postdoctoral training in PET radiochemistry is an asset;
- Gradually demonstrate your ability to mobilize research teams and obtain major competitive funding from major national and international granting organizations;
- Demonstrate the ability to supervise graduate students and postdoctoral trainees;
- Demonstrate leadership recognized by the scientific community for the quality and impact of your research work and your role in structuring scientific initiatives;
- Propose an innovative and inspiring vision of research in radiochemistry and development of imaging methods in the field of diabetes and metabolism, oncology and cardiovascular health, based on interdisciplinarity and intersectorality

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- Demonstrate excellent communication skills, promoting productive connections with health professionals, university partners, research centers of affiliated establishments, private and industrial partners, and philanthropic foundations;
- Have sufficient knowledge of the French language or be determined to learn it once on the job through the French language learning support program offered by UdeM, under the Linguistic policy of the University of Montreal\*.

### To apply for this position

You are invited to send a letter describing your interests and career objectives, your curriculum vitae accompanied by a copy of your diplomas. Please also provide the names, affiliations and email addresses of recognized professors in your field to whom we can write to obtain letters of recommendation. These documents and information must be sent by email to Dr An Tang Director of the Imaging and Engineering axis at the following address: [an.tang@umontreal.ca](mailto:an.tang@umontreal.ca)

*It is "essential" to attach your CV for your application to be considered.*

*We thank everyone who applies, but will only contact those selected for a test or interview.*

*The CRCHUM invites women, Indigenous people, visible minorities, ethnic minorities and people with limitations to submit their applications. The CRCHUM adopts a broad and inclusive definition of diversity that goes beyond applicable laws.*

*The CRCHUM therefore encourages all people, regardless of their characteristics, to apply. In accordance with Canadian immigration requirements, please note that priority will be given to Canadian citizens and permanent residents.*

**\*Language policy of the University of Montreal**

*The University of Montreal is a French-speaking Quebec university with an international reputation. As part of the renewal of its teaching staff, it is intensifying the recruitment of the best specialists in the world and also ensures that, in accordance with the Language Policy of the University of Montreal, the professors it recruits who do not master French when they take up their position benefit from a support program for learning the French language.*

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