

Postdoctoral position – Ultrasound and microbubbles to enhance oncolytic virotherapy against solid cancer

The laboratories of Dr Yu and Dr Bourgeois-Daigneault, at the Centre de recherche du Centre hospitalier de l'Université de Montréal (CRCHUM, Québec, Canada), are seeking a highly motivated, creative and ambitious **postdoctoral fellow** to develop an ultrasound image guided oncolytic virus (OV) enhancing therapeutic strategy against solid cancer.

The selected candidate will have the opportunity to work on this highly innovative collaborative project for which the funding is already secured. The candidate will develop and optimize microbubble (MB) formulations that carry OV sensitizing drugs and candidate OVs, characterize the physical, pharmaceutical and acoustical properties of the functionalized microbubbles, and quantify the release and OV enhancing properties of the platform using in vitro and in vivo experiments. Candidates with experience in lipid or polymer MB synthesis, liposome or nanoparticle drug delivery systems are highly encouraged to apply.

The postdoctoral fellow will be part of young and dynamic research teams working in the fields of oncolytic virotherapy and ultrasound microbubble theranostics against cancer. Under the supervision of the principal investigators, the candidate will have the opportunity to acquire expertise and master the different activities involved in ultrasound mediated drug delivery and oncolytic virotherapy. The selected candidate will be involved at all levels of the project, including the development of analysis strategies, analysis of data, writing of articles for publication in scientific journals, participation in scientific outreach activities (Congresses, conferences, etc.) and supervision of graduate students.

Qualifications:

- Ph. D. in pharmaceutical sciences, biomedical engineering, biomaterials, drug delivery systems or other relevant discipline
- Experience with drug delivery, microbubble synthesis, liposome or other delivery vehicles
- Experience with ultrasound based therapeutic approaches is a plus
- Independent, self-motivated, structured and rigorous
- Ability to communicate and write in English. French is also an asset
- Possess strong and effective presentation, communication, organizational, and planning skills

Conditions:

- Start date: As soon as possible
- Duration: 1 year renewable
- Lab websites : <https://www.chumontreal.qc.ca/crchum/chercheurs/francois-yu>
<https://www.chumontreal.qc.ca/crchum/chercheurs/marie-claude-bourgeois-daigneault>

To apply :

Please send your CV, transcripts, motivation letter and 3 references to francois.yu@umontreal.ca and marie-claude.bourgeois-daigneault.chum@ssss.gouv.qc.ca

The CRCHUM invites women, Aboriginals, visible minorities, ethnic minorities and people with disabilities to apply. The CRCHUM adopts a broad and inclusive definition of diversity which goes beyond the applicable laws. The CRCHUM thus encourages all people, regardless of their characteristics, to apply.