



Research Associate, Subramaniam Lab
Department of Biochemistry & Molecular Biology
The University of British Columbia

The University of British Columbia's (UBC) Faculty of Medicine invites applications for a Research Associate to join an interdisciplinary translational research program in our Canada Excellence Research Chair Program led by Dr. Sriram Subramaniam. The long-term mission of the program is to explore frontiers in structural biology and drug design using cryo electron microscopy (cryo-EM), with the goal of accelerating the development of effective therapeutic agents. Our research combines novel technologies for high-resolution 3D imaging with computation and machine learning as well as cell and molecular biology. More details about our program can be found at <http://electron.med.ubc.ca>.

The successful candidate will have a Ph.D. in structural biology, biophysics, computer science or a related multidisciplinary field, with at least 5 years of research experience in cryo-EM and demonstrated expertise in:

- Image-analysis methodology development for high-resolution single-particle EM data processing, and proficient in C/C++/Python/Matlab programming for algorithm implementation on CPU/GPU hybrid computing clusters.
- State-of-the-art methods for cryo-EM specimen preparation.
- Hands-on experience in single particle cryo-EM and tomography data processing
- Hands-on experience with operation of modern cryo-EM instruments such as the Titan Krios and Glacios.

The applicant should be highly self-motivated and demonstrate the ability to work independently, conceive, initiate, organize, and manage research projects. Excellent verbal and written communication and interpersonal skills are a necessity, as well as the ability to work in a team environment. The applicant must have a strong research publication record and proven track record of collaborative research, and broad expertise in experimental and computational aspects of cryo-EM.

Specific responsibilities will include:

A. Supporting experimental and computational aspects of the cryo-EM operations of the research program in a team setting.

B. Developing and undertaking research projects that will improve the biological understanding of cancer and other diseases of critical importance (infectious diseases, neurological diseases) and accelerate the development of effective therapeutic agents. Initial projects will target the following areas:

- Establishment and implementation of state-of-the-art methods in electron tomography

- Microscopy methods to Increase the throughput and resolution of data collection
- Study of complexes related to problems in cancer biology using novel sample preparations

C. Participation in operation and management of cryo-EM instrumentation and computing infrastructure of the CERC program.

D. Assisting lab members in the program with manuscript preparation, reports, and communications related to the projects underway in the laboratory.

Applications should include a letter outlining the applicant's research, strengths and experiences relevant to the position requirements, a detailed curriculum vitae and the names of three references to:

Program in Cryo-EM Drug Design

Email: cryoem.lab@ubc.ca

Subject Line: Research Associate Position

UBC - One of the World's Leading Universities

As one of the world's leading universities, the University of British Columbia creates an exceptional learning environment that fosters global citizenship, advances a civil and sustainable society, and supports outstanding research to serve the people of British Columbia, Canada and the world.

UBC hires on the basis of merit and is committed to employment equity. All qualified persons are encouraged to apply.

Equity and diversity are essential to academic excellence. An open and diverse community fosters the inclusion of voices that have been underrepresented or discouraged. We encourage applications from members of groups that have been marginalized on any grounds enumerated under the B.C. Human Rights Code, including sex, sexual orientation, gender identity or expression, racialization, disability, political belief, religion, marital or family status, age, and/or status as a First Nation, Metis, Inuit, or Indigenous person.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.