**Research Associate Job Description**

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](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:

- State-of-the-art methods for cryo-EM specimen preparation
- Image-analysis methodology development for high-resolution EM
- Specimen characterization methods for cellular EM including immunocytochemistry
- Hands-on experience in cryo-EM data processing
- Hands-on experience with operation of Titan Krios and Glacios electron microscopes, sample preparation equipment for vitrification including high pressure freezing and freeze substitution.

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:

- Supporting experimental and computational aspects of the lab cryo-EM operations of the research program in a team setting
- 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
• Participation in operation and management of cryo-EM instrumentation of the CERC program
• Assisting lab members in the program with manuscript preparation, reports, and communications related to the projects underway in the laboratory
• Being the primary point of contact for all experimental aspects of FIB-SEM and subcellular imaging operations of the lab research program
• Assisting in coaching of junior laboratory staff in laboratory practices and operational details as required.

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:

Candidates interested must apply via the [UBC Careers website](http://www.ubc.ca/).

This is a one-year appointment, subject to renewal based on performance. Salary will be commensurate with qualifications and experience. The anticipated start date for this position is April 1, 2022 or upon a date to be mutually agreed.

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.