Senior Research Associate, Canada Excellence Research Chair Program in Cryo-EM Drug Design

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The University of British Columbia's (UBC) The Faculty of Medicine invites applications for a Senior 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 10 years of research experience in cryo-EM and demonstrated expertise in:

(i) image-analysis methodology development for high-resolution single-particle EM data processing, and proficient in C/C++/Python programming for algorithm implementation on CPU/GPU hybrid computing clusters;
(ii) state-of-the-art methods for cryo-EM specimen preparation, especially with membrane proteins
(iii) determination of atomic resolution cryo-EM structures of proteins and viruses
(iv) Hands-on experience with operation of modern cryo-EM instruments such as the Titan Krios.

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 in the following areas:
   a. improvements in methods for analysis of dynamic and heterogeneous protein complexes
   b. Establishment of improved methods for cryo-EM specimen preparation
   c. Expression, purification and structural analysis of ion channels and receptors
C) Co-authoring grant applications aimed at securing research funding from federal, provincial, and industrial sources
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: Senior Research Associate Position

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 February 10, 2020 or upon a date to be mutually agreed. Review of applications will begin on January 10, 2020 and continue until the position is filled.

The University of British Columbia is a global centre for research and teaching, consistently ranked among the top 20 public universities in the world. Since 1915, UBC’s entrepreneurial spirit has embraced innovation and challenged the status quo. UBC encourages its students, staff and faculty to challenge convention, lead discovery and explore new ways of learning. At UBC, bold thinking is given a place to develop into ideas that can change the world.

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 of Canada will be given priority.