

Job Title:

Research Associate – Sagan Lab

Department

Department of Microbiology & Immunology, Faculty of Science (Selena Sagan)

Salary Range: \$72,010- \$75,000

The Department of Microbiology & Immunology at the University of British Columbia Vancouver campus invites applications for a full-time appointment as a Research Associate in “Interdisciplinary Studies of Viral Replication and Assembly”. The anticipated start date is July 1st, 2025.

The Research Associate will develop and carry out research projects that span molecular virology, RNA biology, cell biology, evolution, and biophysics as part of a collaborative research program in Dr. Selena Sagan’s research group (Department of Microbiology & Immunology). The position is intended for a Research Associate with an interest in developing their own projects and aiding in the completion of ongoing projects in the Sagan Lab. Current projects focus on host-virus interactions, viral entry, viral translation and RNA stability, replication organelle biogenesis, virion assembly, viral RNA structure, virus evolution and RNA-based therapies. The Research Associates work will span studies of hepatitis C virus, dengue and Zika viruses, respiratory syncytial virus, and human coronaviruses. For an overview of our previous work, see publications from the Sagan Lab (www.saganlab.com).

Applicants must have a PhD in virology or genetics with an emphasis in molecular genetics, viral biology, and RNA biology (or a closely related field, e.g. biochemistry, microbiology & immunology), with a minimum of 3 years post-doctoral research experience at the highest international standards, as evidenced by a strong record of research accomplishments and publications. Candidates must have extensive experience in RNA biology and RNA structure analysis (including SHAPE analyses), cell and virus culture, RNA and microRNA electroporation, RNA and DNA transfection, isolation, and analysis. Candidates must also have experience in culturing a wide range of viruses, including mammalian positive- and negative-sense RNA viruses, retroviruses, and DNA viruses (including hepaciviruses, flaviviruses, pneumoviruses, coronaviruses, lenti/retroviruses, and poxviruses). Prior experience and expertise in genetics, mutagenesis, infectious cDNAs/viral reverse genetics systems, bacterial artificial chromosomes, and molecular biology is a must. Applicants must also have a demonstrated ability to develop and lead research projects, work effectively in independent and collaborative settings, execute research ideas to successful completion, and must possess strong verbal and written communication skills. Candidates must be self-motivated with strong analytical skills, possess excellent organizational skills, knowledge of data processing and statistical analysis, and exercise attention to detail.

Primary responsibilities will include:

- Tissue and virus culture, generation of stable cell lines, and maintenance of cell lines and viral stocks.
- The design and execution of RNA structure analysis, virological assays, perform protein expression and purification, phase separation assays, fluorescence and confocal microscopy, and molecular biology as well as analysis of resulting data.
- The design and execution of follow-up experiments to validate findings generated.
- Overseeing research projects and help with timely completion of projects and manuscripts for publication.
- Working collaboratively to develop new experimental approaches and computational analyses; taking the lead role in preparing manuscripts; contributing to the writing, editing and preparation of grant applications; disseminating research findings via research publications and conference presentations; mentoring graduate students and directing undergraduate research projects; being an active participant in the research-related activities of the Sagan Lab.
- Lab management tasks, including: ordering, maintenance of equipment, biosafety and radioisotope procedures and permits, inventory, and standard operating protocols.

Applicants must submit the following: (1) a cover letter that describes how your research interests and previous research experience fit with the position, and provides specific details about how you meet the requirements outlines above; (2) a curriculum vitae; and (3) the names and contact information for 2-3 references. All applications must be submitted online at micb.recruitment@ubc.ca.

Review of applications will commence: March 15, 2025.

We provide a supportive and highly interactive environment with strong mentoring as well as opportunities for intellectual and professional growth, innovation, project leadership, and collaboration. Wet-lab work will be carried out in the UBC Life Sciences Institute (LSI)(<http://www.si.ubc.ca>), which houses 85 laboratories carrying out cell and molecular biology research in a highly collaborative setting. Excellent facilities for super-resolution microscopy, single-particle tracking, and real-time imaging are available in the LSI, along with access to advanced facilities for genomics, proteomics, metabolomics, animal models, bioinformatics, and advanced computing. Further information on the Department of Microbiology & Immunology is available at <http://www.microbiology.ubc.ca>.

- **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.