



Postdoctoral Fellow in Computational Biology

Posting End Date:

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The Department of Microbiology and Immunology at the University of British Columbia (UBC), Vancouver, Canada, invites applications for a Postdoctoral Fellow (PDF) to join a dynamic research team in the Epigenomics Laboratory (EGL) under the supervision of Dr. Martin Hirst. The successful candidate will investigate how epigenetic dysfunction contributes to cancer initiation and progression, with the broader goal of translating fundamental discoveries into improved health outcomes for Canadians. The laboratory studies the epigenetic mechanisms governing cellular identity and disease across normal and pathological settings, with particular expertise in mammary, hematopoietic and mesenchymal systems. Our research integrates human primary tissues and clinical specimens with complementary in vitro and in vivo model systems. A major focus is on cancers driven by recurrent gain- and loss-of-function alterations in epigenetic regulators, including acute myeloid leukaemia, synovial sarcoma and malignant rhabdoid tumours. More information about the laboratory can be found here [Epigenomics Laboratory \(EGL\)](#).

Project

This project is part of a multidisciplinary research program aimed at understanding the epigenetic and clonal evolution of synovial sarcoma (SS), an aggressive cancer associated with significant disease heterogeneity and poor clinical outcomes. The PDF will contribute to projects that employ state-of-the-art genomic technologies to:

- Characterize the genomic, epigenomic, and transcriptomic landscapes of synovial sarcoma using single-cell multi-omics approaches.
- Investigate the epigenetic evolution of tumors and mechanisms underlying disease progression.
- Apply spatially resolved genomic technologies to identify immune-tumor interactions and mechanisms of immune evasion.
- Explore epigenetic dependencies arising from bivalent promoter states and DNA hypomethylation.
- Identify novel biomarkers for early diagnosis, risk stratification, and therapeutic response.
- Support the development of epigenetic-based therapeutic strategies targeting critical vulnerabilities in synovial sarcoma.

This research has the potential to improve outcomes for children, adolescents, and young adults affected by this aggressive disease through the development of more effective diagnostic and therapeutic approaches.

Qualifications and Experience

- PhD in Bioinformatics, Computational Biology, Statistics, Genetics, Genomics, or a related discipline.
- Demonstrated expertise in next-generation sequencing technologies, including long-read, short-read, and single-cell sequencing data generation and analysis.
- Extensive experience in multi-omics data analysis, including whole-genome sequencing (WGS), transcriptomics, and DNA methylation profiling.



- Proficiency in bioinformatics programming and workflow development using languages such as Python, R, and Bash.
- Experience developing, implementing, and optimizing computational pipelines and bioinformatics tools for large-scale genomic datasets.
- Strong background in cancer biology and genomics research.
- Experience working with high-performance computing (HPC) environments and version control systems such as Git.
- Excellent written and verbal communication skills, with a demonstrated ability to present research findings at scientific meetings and conferences.
- Strong publication record in peer-reviewed scientific journals.
- Demonstrated ability to work effectively both independently and within multidisciplinary, collaborative research teams.

Opportunity

The expected salary for this position is CAD \$60,000 per year. Salary will be competitive and commensurate with the successful candidate's qualifications, experience, and demonstrated expertise.

The initial appointment will be for one year, commencing September 1, 2026, with the possibility of renewal and extension subject to satisfactory performance and continued funding availability.

Application Process

Interested applicants should submit the following materials through the UBC Careers Portal at https://ubc.wd10.myworkdayjobs.com/en-US/ubcfacultyjobs/job/Postdoctoral-Fellow-in-Computational-Biology--Hirst-Lab_JR25319:

- A cover letter describing their research interests, relevant experience, and career goals.
- A curriculum vitae (CV), including a complete list of publications.
- Contact information for three professional references.

Applications will be reviewed beginning on August 17, 2026 and will continue until the position is filled. We thank all applicants for their interest; however, only those selected for an interview will be contacted.

If you have any accommodation or accessibility needs during the job application process, please contact the Centre for Workplace Accessibility at workplace.accessibility@ubc.ca.

Equity and diversity are essential to academic excellence. The University of British Columbia recognizes that an open and diverse community fosters the inclusion of voices that have been historically underrepresented or discouraged. We encourage applications from members of groups that have been marginalized on any grounds enumerated under the British Columbia 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, Métis, Inuit, or Indigenous person.