SILENT GENOMES PROJECT – BIOINFORMATICS TEAM
Graduate Student

Silent Genomes: Reducing health-care disparities and improving diagnostic success for Indigenous children with genetic disease. Silent Genomes is a Genome Canada/CIHR funded 4-year project which has 4 key activities:

- Activity 1: the core of the project, integrates Indigenous-led governance, community engagement, community education, and student capacity building throughout the entire project;
- Activity 2: Precision diagnosis of children with genetic disease;
- Activity 3: Development of an Indigenous background variant library; and
- Activity 4: Economics of precision diagnosis for Indigenous children.

The project includes an international Indigenous Advisory Board, a pan-Canadian team of clinicians and genetic counsellors, local bioinformaticians, clinicians and scientists with the collective goal to improve access and effectiveness of genetic diagnosis for Indigenous children and their families.

Activity 3 within the Silent Genomes project is focused on the envisioning and implementation of a secure data storage and access system for genetic sequence data that will be shaped, and approved by the Indigenous communities participating in the Silent Genomes governance process. During the early stages of the project, the Bioinformatics Team, based on the campus of BC Children's Hospital, will work on prototype model systems that can enable rich discussion of options, and be dynamically revised in response to the guidance and feedback of the partners. In short, the bioinformatics team needs to be able to imagine and implement diverse approaches to the secure storage and Indigenous-controlled access of genetic (DNA) data.

The Activity 3 bioinformatics team has openings for scientists.

The Silent Genomes project is strongly committed to hiring practices that value diversity and preference may be given to applicants who self-identify as Indigenous with the required combination of education and experience.

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

The Silent Genomes project is funded until mid-2022, and it is hoped that members of the team will stay on until the project concludes.

There is an opportunity for a new graduate student to participate in the Silent Genomes bioinformatics team. The student would be expected to enroll in the UBC Bioinformatics Graduate Program or the UBC Genomic Science and Technology (GSAT) Graduate Program as an MSc or PhD student, while meeting the entry requirements of these programs. It is expected that the graduate student will take advanced coursework as required by their program and thesis advisory committees, but will primarily focus on the design, implementation, testing and modification of innovative software systems for the storage and community-controlled access of human genetic data. For doctoral students, it is recognized that studies may extend beyond the funding period of the Silent Genomes project, which will be supported (consistent with the requirements of the graduate programs).

The PhD candidate is expected to develop and evaluate creative approaches to secure data and empower Indigenous communities to share data as desired. The PhD candidate is expected to work in close collaboration with the post-doctoral scientists, Activity 3 co-lead(s), as well as the rest of the Silent Genomes team.

QUALIFICATIONS

- MSc/BSc degree in Computer Science, Bioinformatics, Genetics or related disciplines
- Candidate(s) with keen interest in Indigenous health and research will be given a priority
- Experience with genomics/bioinformatics/programming languages (*e.g.* Python, Java, C++) is highly desirable
- Leadership in developing and executing research projects leading to publication is desirable
- Proven ability to work in a confidential environment
- Successful completion of Tri-Council Policy Statement (TCPS) online tutorial (may be completed upon recruitment)
- Successful completion of an Indigenous Cultural Safety Course (may be completed upon recruitment)
- Research experience in Indigenous health and research will be considered an asset

HOW TO APPLY

Please email your cover letter and resume to wyeth@cmmt.ubc.ca. Due to the number of resumes we receive, we are unable to confirm receipt of submissions over the phone, or provide the status of competitions except to those who are selected for an interview.

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.