SILENT GENOMES PROJECT – BIOINFORMATICS TEAM
<u>**Post-Doctoral Scientist**</u>

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 <u>preference may be given to applicants who self-identify as Indigenous with the required combination of education and experience.</u>

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.

This post-doctoral scientist will have completed a PhD in a quantitative or life sciences field within the past year, and will have a demonstrated interest in human genetics and bioinformatics. A demonstrated capacity to use or create software for the processing and interpretation of large-scale data is required. The ideal candidate will be attracted to the challenge of overcoming inequities in the access to genetic technologies faced by Indigenous communities, and committed to the use of computational approaches as part of a solution to overcome these inequities.

The post-doctoral scientist should have demonstrated experience in publishing research findings in scientific journals, developing funding applications (*e.g.* for scholarships), presenting their research findings at scientific conferences and working in collaborative scientific teams.

MAJOR RESPONSIBILITIES
• Apply computational skills to develop innovative ways to secure and share data
• Work closely with Silent Genomes Activity 1, 2, 3, 4 PIs and work collaboratively with team members
• Keeping up-to-date with scientific advances (*e.g.* relevant literature review, scientific meetings, twitter)
• Present findings at local, national and international scientific meetings where the impression can have direct influence on future scientific funding
• Write manuscripts describing the findings
• Assist in the development of grant and scholarship applications related to the research
• Contribute to quarterly and annual reports related to the research projects
• Work with the PI to ensure that all scientific milestones are achieved
• Oversee software development requiring Python programming
• Provide supervision and mentorship to bioinformatics trainee(s)
• Perform other related duties.

QUALIFICATIONS

Education and Experience:
• Ph.D. degree in a life or quantitative sciences discipline (within 2 years of receipt of the degree)
• A minimum of 2 years of demonstrated experience in the application or creation of software for the processing and interpretation of large-scale data

Skills and Abilities:
• Knowledge of bioinformatics, with an emphasis on genome sequence data
• Python programming skill
• Experience with the Linux environment
• Experience with computer clusters
• Experience with SQL or MongoDB database systems
• Research experience in Indigenous health and research will be considered an asset
• Keen interest in Indigenous health and research
• Creativity, initiative and good judgment for multi-tasking in a deadline-oriented environment
• Effective oral and written communication, analytical, and interpersonal skills
• Excellent organizational skills and ability to learn new skills quickly
• Enthusiasm for highly interdisciplinary research and dedication to explore emerging techniques
• Accuracy and attention to details

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.