Postdoctoral Researcher Position in Health Decision Modeling

We are seeking a postdoctoral researcher to work on a project on health decision modeling to assess the potential population impacts of cancer screening with emerging multi-cancer early detection tests in Canada. The main aims of this project are to 1) program a microsimulation model of multi-cancer early detection and screening, 2) model the predicted population-level impact of screening with multi-cancer early detection tests, to identify the conditions required for a successful screening program. We expect this research provide evidence which will help policymakers decide whether to implement screening with multi-cancer early detection tests in Canada in the future.

The candidate will be based at the Division of Cancer Epidemiology in the Department of Oncology of McGill University (https://www.mcgill.ca/cancerepi/) and/or at St Mary's Research Centre (https://www.ciusss-ouestmtl.gouv.qc.ca/en/facilities/research-centres/st-marys-research-centre/); they will be supervised by Dr Talía Malagón. The candidate will be expected to lead the programming and analysis of model outputs to meet project deliverables. They will draft manuscripts for publication in academic journals and be involved with knowledge dissemination efforts such as presenting at conferences. They will be involved in mentoring students working on related research projects. The candidate will work together with project collaborators at the University of Calgary, Statistics Canada, and the Canadian Partnership Against Cancer.

This is a 2-year appointment with potential to be extended. The position will start as early as May 2024.

Main duties & Responsibilities:

- Lead research project related to health decision modeling of multi-cancer early detection tests
- Program microsimulation model extensions in C++
- Collaborate with other researchers and trainees to perform analyses and interpret data
- Attend regular team meetings and seminars
- Write manuscripts for publication in peer-reviewed journals
- Present results at meetings and conferences
- Assist with organization of knowledge translation activities such as conferences and webinars
- Be involved in preparation of grant proposals
- Assist with mentoring of graduate students and other trainees
- Apply for postdoctoral fellowship awards

Education: PhD in Epidemiology, Decision Science, Data Science, Health Economics, Quantitative Life Science or other field related to the project.

Experience: This project will involve working with and extending a model previously developed in C++. The candidate should have either knowledge of C++ and/or demonstrated ability to learn programming languages. Experience working with clinical and observational health data in the context of health decision modeling is desirable. Prior experience in the field of cancer epidemiology, cancer screening, public health, oncology, or molecular biology is an asset.

Other qualifying skills:

- Strong quantitative data and statistical analysis skills

- C++ programming skills or strong motivation to learn
- Understanding of common epidemiological study designs (randomized controlled trials, cohort studies, case-control studies, cross-sectional studies) and their biases
- Strong English science writing skills
- Strong oral communication skills
- Demonstrated scientific rigour
- Data management and organizational skills
- Autonomy and leadership
- Creative and solution-oriented mindset

Compensation: 55,000 CAD/year + benefits. Job benefits will be in accordance with the postdoctoral status of the applicant (https://www.mcgill.ca/gps/postdocs/fellows).

Application: Please send the following application package to Talía Malagón (talia.malagon@mcgill.ca): a cover letter describing your research experience and interests, a scholarly CV, and a list of references. Candidates whose applications fit the scope of this announcement will receive a reply.