



JOB POSTING, POST-DOCTORAL FELLOW

Area of Research: Health Services Research, Breast Cancer

Project summaries:

It is estimated that about 1 in 9 Canadian women will develop breast cancer during her lifetime and 1 in 30 will die from it. The last two decades have seen important advances in cancer survival with five-year survival rates increasing from around 80% to close to 90%. This is truly an important achievement and it has been argued that this success has been the result of two important health care investments. The first is the investment in population-based screening of women for breast cancer. The second investment has been in funding and systematic delivery of a range of interventions that are used with curative intent in women diagnosed with breast cancer. Despite these advances, there are important questions that need to be addressed about the factors that determine the course of breast cancer and about how the increased survival for breast cancer interacts with other threats to health such as cardiovascular disease.

The research on these questions, led by Dr. Geoffrey Anderson and funded by CIHR, will use administrative data on women with breast cancer in Ontario obtained from the Ministry of Health and data on breast screening, diagnosis and treatment from CCO linked to detailed risk factor and biological data from the Ontario Health Study (OHS) and the Canadian Longitudinal Study of Aging (CLSA).

You will be expected to write reproducible code for data cleaning and data management, to conduct exploratory and statistical analysis of data to assess feasibility of new research projects using programming language R or Python, and to perform descriptive and inferential statistical analysis as well as to apply supervised and unsupervised machine learning analyses in R or Python.

Description of duties:

The Institute of Health Policy, Management and Evaluation (IHPME) is seeking a Post-Doctoral Fellow who will take a leadership role in a health services research project that aims to create new ways to describe disease progression in breast cancer that can be used to better target personalized care for breast cancer.

The successful candidate will have advanced training in a health services relevant discipline, and substantive expertise in the use of an analysis of administrative data from health systems or cancer agencies and use of data from population-based surveys such as CLSA and OHS.

You will report to the Principal Investigator, Geoff Anderson.

The post is available immediately. It is full time on a 12-months fixed-term basis, and renewable for another 12 months based on mutual agreement.

Responsibilities include:

- Write reproducible code for data cleaning and data management
- Conduct exploratory and statistical analysis of data to assess feasibility of new research projects using programming language R or Python
- Perform descriptive and inferential statistical analysis in R or Python
- Conduct supervised and unsupervised machine learning in R or Python
- Work with large population-based health-related surveys such as the CLSA or OHS
- Work with health administrative data and cancer care data
- Assist in the preparation of grant submissions and knowledge translation activities
- Design and populate tables, figures, and graphs to visualize study results and facilitate knowledge exchange with partners and stakeholders
- Liaise with a national research team to ensure consistency in methodology
- Work on manuscripts based on the research to be published as reports or academic articles
- Supervise junior staff (e.g., work-study students)
- Present findings at relevant conferences

Salary:

\$60,000-75,000 per annum depending on candidate, skills and experience.

Please note that should the minimum rates stipulated in the collective agreement fall below the rates stated in this posting, the minimum rates stated in the collective agreement shall prevail.

Required qualifications:

Minimum Degree Required: Ph.D. obtained within 5 years from date of hiring.

Preferred Qualifications:

The successful candidate must possess a PhD in a relevant discipline including health services research, statistics or computer science. The successful candidate must have substantive expertise in both traditional inferential statistics as well as knowledge of machine learning approaches to supervised and unsupervised learning. The candidate must have experience in working with health system or population-based survey data. The candidate must have the ability to work independently and direct projects, while also working collaboratively with the PI and other research team members. Experience preparing manuscripts for submission to peer-reviewed journals is also required along with experience presenting findings at relevant conferences.

Application instructions:

All individuals interested in this position must submit a CV and two letters of references to Alexandru Titeu at alexandru.titeu@utoronto.ca by the closing date. Optional application documents include cover letter, dissertation abstract, writing sample/publications and research abstract.

Closing date: Open until filled

Supervisor: [Professor Geoff Anderson](#), Institute of Health Policy, Management and Evaluation

Expected start date: Immediately upon successful selection of an applicant

Term: This is a one-year position, renewable for a second year subject to availability of funding and performance of the postdoc.

FTE: Full time

The normal hours of work are 40 hours per week for a full-time postdoctoral fellow (pro-rated for those holding a partial appointment) recognizing that the needs of the employee, research and training and the needs of the supervisor, research program may require flexibility in the performance of the employee, duties and hours of work.

Employment as a Postdoctoral Fellow at the University of Toronto is covered by the terms of the [CUPE 3902 Unit 5 Collective Agreement](#).

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The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from racialized persons / persons of color, women, Indigenous / Aboriginal People of North America, persons with disabilities, LGBTQ persons, and others who may contribute to the further diversification of ideas.