



THE UNIVERSITY OF BRITISH COLUMBIA

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RESEARCH ASSOCIATE (Department of Pediatrics)

The UBC Department of Pediatrics based at the BC Children's Hospital Research Institute, invites applications for a Research Associate to join a multidisciplinary translational research program with specific goals to examine microbiome sequencing data in a large birth cohort dedicated to defining the origins of asthma.

Asthma is the most common chronic non-communicable disease. Asthma typically begins in childhood and lasts throughout life. The numbers are striking: asthma affects ~13% of children (~500,000 in Canada) and more than 3 million Canadians of all ages. This high prevalence, combined with significant asthma-related morbidity, leads to a heavy economic and human burden of asthma in Canada and worldwide.

The gut microbiome is one of the most populated regions of the human body with 10-100 trillion microbial cells. There is compelling evidence that links a gut microbial dysbiosis to the development of asthma. To date, very little is known about the particular species and mechanisms by which members of the intestinal microbiota affect asthma development. Our goal is to identify specific gut bacteria using shot-gun metagenomics sequencing associated with asthma at age 8 years.

The Turvey laboratory is an energetic and collegial group dedicated to enhancing the health of children. The success of the Turvey lab is highly dependent on collaborative interactions, between lab members and with external research partners. Current work in the lab includes shot-gun metagenomics analysis on stool samples collected from the CHILD study.

The Research Associate will have a PhD and at least 3 years of relevant experience with a publication record in a relevant field (e.g. immunology, genetics, molecular biology). The ideal candidate will have experience in in QIIME2, R and statistical analysis. In addition, experience in processing of metagenomics data would be an asset. The applicant should also demonstrate the ability to work independently, supervise graduate and undergraduate students, conceive, initiate, organize and manage projects. Excellent verbal and written communication skills are a necessity as well as the ability to work in a team environment.

MAJOR RESPONSIBILITIES

- Collaborates with other researchers and statisticians to share knowledge and strategies for data analysis.
- Works with the PI to ensure that all scientific milestones are achieved.
- Provides supervision and mentorship to bioinformatics trainees.
- Presents research findings to the team and investigators, and integrates

feedback.

- Presents research findings at conferences and related research events.
- Participates in the evaluation, selection, planning and integration of technology and software solutions to further research goals.
- Prepares content for academic manuscripts, technical reports, research proposals, and presentations.
- Keeps up-to-date with new applications, technology, and algorithmic developments and supports best practices.
- Performs other related duties, as required.

QUALIFICATIONS

Education and Experience:

- PhD degree in a life science discipline with 3+ years of postdoctoral experience.
- A minimum of 3+ years of experience in bioinformatics with a focus on microbiome analysis.

Skills and Abilities:

- Knowledge of bioinformatics, with an emphasis on microbiome and metagenome analysis.
- R, QIIME2 and SourceTracker skills.
- Experience with machine learning, such as logistic regression analysis, or random forest classifiers.
- Drive and enthusiasm to both lead and work as a team member with a collaborative group.
- Effective oral and written communication, analytical and interpersonal skills.
- Excellent organizational skills and an enthusiasm for interdisciplinary research.

This position will begin as soon as possible. This is a one-year term appointment subject to annual renewal. Salary will be commensurate with qualifications and experience.



Please submit via email a curriculum vitae and a letter of application including a statement of areas of expertise and strengths and the names of three referees, no later than **30 days after posting** to join.turvey.lab@gmail.com

UBC hires on the basis of merit and is committed to employment equity. All qualified persons are encouraged to apply. We especially welcome applications from members of visible minority groups, women, Aboriginal persons, persons with disabilities, persons of minority sexual orientations and gender identities, and others with the skills and knowledge to engage productively with diverse communities. However, Canadians and permanent residents of Canada will be given priority.