

# Job Description: Research Associate

Richards' lab, Lady Davis Institute, Jewish General Hospital, McGill University

The Richards' lab of McGill University is seeking a Research Associate to assist in the creation and management of a research program to improve clinical care through the use of computational genomics. The job will take place at the Lady Davis Institute of the Jewish General Hospital, a McGill University teaching hospital.

See [mcgill.ca/genepi](http://mcgill.ca/genepi) for a description of the exciting work that our lab is undertaking.

The successful candidate will work with Dr. Brent Richards' research team in the Centre for Epidemiology and Community Studies. In collaboration with graduate students and external collaborators, the candidate will ensure the timely execution of a program of research to better understand how genomic information can improve clinical care.

## **Principle Duties and Responsibilities**

Management and execution of multiple computational genomics research studies, including but not limited to:

- Developing bioinformatic, data science and computational methods to improve genetic risk scores to predict disease
- Using these methods to generate genetic risk scores to identify individuals at risk for disease
- Apply methods to identify genetic determinants of disease
- Undertaking quality control and processing of large-scale genetics data
- Collaborating with other institutions and leading scientists to execute research programs
- Generate and maintain computational code
- Writing scientific papers and manuals to describe the results of research programs, document their output and enable others to use the resultant code
- Supervise graduate students to help them complete their research programs
- General administrative tasks related to the above work program
- Assist in writing grants to secure funding for the research program
- Participation in the creation of new research programs

The candidate will be required to execute these duties with little supervision.

## **Qualifications:**

- PhD in genetics, bioinformatics, computer science, mathematics or computational biology
- Analysis of large-scale cohorts, such as UK Biobank.
- Experience working in an HPC environment.
- Experience working in cloud computing
- Over one years' experience in programming for research programs related to biological problems
- Comfortable leading a team of graduate students and staff
- Data analysis expertise in R and/or Python
- Deep understanding of the files and data arising from genome-wide genotyping, whole genome sequencing and whole exome sequencing
- Bioinformatic tool expertise including: GWAS software, managing sequence data, large-data set manipulation

- Experience in software development will be an asset

**Salary:** Salary will be competitive and aligned with the candidate's skills and track-record. Salary Scale is \$75,000-\$110,000 depending on experience.

### **Working Conditions**

- This is a full-time position of 40 hours per week.
- The start date is March 1st 2025.
- Permanent full-time employment.

### **Languages**

The applicant will have high-level proficiency in English reading, writing and presentations. French is an asset.

### **Eligibility Requirements**

The applicant must be able to work legally in Canada as a citizen, permanent resident, work permit holder, or be able to apply for a valid work permit.

Interested applicants should contact Ms. Darin Adra by email: [darin.adra@ladydavis.ca](mailto:darin.adra@ladydavis.ca)