

## Genetic Epidemiologist / Statistical Geneticist

**5 Prime Sciences, Montréal, QC**

**5primesciences.com**

**Work in Montréal, Canada with remote options available**

**Full-time**

5 Prime Sciences uses insights from human genetics to accelerate drug development and increase return on investment in the life sciences. Using unique datasets and advanced human genetics analyses, as a spin-out from the Richards Lab at McGill University, 5 Prime has been able to grow rapidly and help large pharmaceutical companies, biotech and venture capital companies.

5 Prime Sciences is seeking a Genetic Epidemiologist or Statistical Geneticist to carry out and interpret results from large-scale genetic data analysis and assist in developing novel methods and analytic workflows. The successful candidate will work with a team of bioinformaticians, clinicians and statistical geneticists at 5 Prime Sciences to develop bespoke genetic epidemiology analyses and run existing workflows that identify novel drug targets and validate them for our partners in the biotechnology industry.

### **Duties and Responsibilities**

The candidate must be able to execute the following duties and responsibilities under limited supervision:

- Perform advanced analyses in genetic epidemiology, including GWAS, ExWAS, Whole Genome Sequencing analysis, PRS, PheWAS, and Mendelian randomization.
- Demonstrate creativity and out-of-the-box thinking in developing bespoke analyses to provide insight into novel drug targets.
- Utilise best-practices for conducting reproducible research, such as code versioning data provenance.
- Support the development and documentation of robust and reproducible analytical pipelines and perform code reviews.
- Run production-level workflows of various statistical genetics methods using a workflow manager.
- Work closely and collaboratively with a multidisciplinary team of bioinformaticians, clinicians, and statistical geneticists.
- Effectively interpret complex genetic data, translate findings into comprehensible insights, and communicate these to our partners in the biotechnology industry. This includes preparing engaging presentation slides and delivering client presentations to share results and recommendations.

### **Profile**

The candidate must possess the majority of the following qualifications.

- Ph.D. in Genetic Epidemiology, Statistical Genetics or related field with expertise in some of the following areas:
  - Demonstrated expertise in the recent application of analytic methods and is required (e.g. GWAS, WES, WGS).
  - Experience working with large-scale genomic datasets, e.g., UK Biobank, 1000 Genomes, gnomAD, and GTEx.
  - Causal inference (e.g. Mendelian randomization).
  - Annotation of coding and non-coding rare variants using variant effect prediction tools such as Ensembl VEP, SnpEff, DeepSEA, Bassenji, Enformer.
- Significant bioinformatics experience is required with expertise in the following areas:
  - Experience shell scripting and using genomics software in a Linux or UNIX-like environment (eg. PLINK, SAIGE, REGENIE).
  - Proficiency in Python.
  - Experience with workflow methods such as Nextflow or WDL is an asset.
- Experience in software development methodology ie., git , unit testing, and code documentation.
- Ability to work independently with minimal supervision.
- Ability to prioritise multiple tasks under tight deadlines.
- Excellent communication and interpersonal skills.
- Excellent presentation skills
- Expertise in cloud computing and software development is an asset, such as GCP, AWS, DNANexus, Terra, or Hail.

*Please note that we recognize that not all candidates may meet the entire Profile listing above. We are eager to train suitable candidates for this role and encourage those who meet at least two-thirds of the criteria to apply.*

## Languages

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

## Equal Opportunity

We are an equal opportunity employer. All applicants will be considered regardless of race, colour, religion, sex, sexual orientation, gender identity, national origin, veteran or disability status.

## Eligibility Requirements

Qualified candidates will be considered from any country. Where appropriate, 5 Prime Sciences can arrange immigration to Canada.

Interested applicants should contact [admin@5primesciences.com](mailto:admin@5primesciences.com).