

JOB POSTING NOTICE**POSTING DATE:** March 5, 2010**REFERENCE NUMBER:** DNA-CPHL-01*Internal and External resumes will be accepted at this time*

Position Title: DNA Core Laboratory -Computational Biologist
Department: DNA Core Laboratory
Duration: Permanent
Location: 81 Resources Road, Toronto
Compensation Group: AMAPCEO
Position Status: OPEN
Job Code: 20PGS General Scientific
Salary: \$72, 422 - \$94, 078 Annually
Schedule: 6
Posting Date: March 9, 2010
Closing Date: March 23, 2010

Organization Summary

The Ontario Agency for Health Protection & Promotion (OAHP) is a centre for specialized research and knowledge in public health, focusing in the areas of infectious disease, infection control and prevention, health promotion, chronic disease and injury prevention, and environmental health. It provides technical and scientific assistance, rapid on-site field support, as needed, specialized communication and training, as well as standards input and practical tools for implementing best practices.

The Agency was created by the Ontario Government as a result of its commitment to Operation Health Protection, through the Health System Improvements Act (Bill 171). As Ontario's first ever provincial Agency for Health Protection and Promotion, the Agency brings academic, clinical, and government experts together to create a centre of public health excellence in the province.

Position Summary:

To act as the primary bioinformatics support and database management specialist for the DNA Core Laboratory at the OAHP Public Health Laboratories. To create, maintain and provide on-going support for computer hardware and software, databases (biological and other) and websites to facilitate current and new public health laboratory research and clinical activities. To review, adjust or establish protocols for the above, and to plan, design, and conduct research projects, sophisticated analyses and protocol evaluations. To provide consultation and specialized advisory services on the application of bioinformatics tools to research and clinical personnel, including methods for the assembly, analysis and annotation of DNA sequence data.

Reporting Relationship & Span of Control:

The DNA Core Laboratory – Computational Biologist reports to the Medical Director.

Key Responsibilities:

Within the OAHPP Public Health Laboratories this position is responsible for the provision of laboratory services, as part of the DNA Core Laboratory, in support of Research and Clinical activities:

- Support for the coordination of database and bioinformatics projects and clinical activities from inception to implementation and maintenance including:
 - Developing, maintaining, and improving scientific databases for use by internal stakeholders (and external stakeholders as identified by senior OAHPP management) in their work
 - Performing database administration including enforcing access restrictions to sensitive departmental databases and computer equipment and assuring proper backup of database
 - Write and implement script as required for execution of above duties
 - Provide DNA sequencing analysis including DNA chromatogram interpretation, genome sequence assembly, nucleotide polymorphism analysis, and construction of phylogenetic trees
 - Provide basic genome annotation analysis using public databases (e.g. NCBI) and established methods (e.g. BLAST searches)
- Applying safety and quality assurance standards to ensure that data collection is accurate and valid. This includes workflow process analysis in order to identify areas for improvement.
- Providing assistance and technical expertise services to management, colleagues and clients during outbreak investigations through the application of bioinformatics approaches relating to the analysis, manipulation, dissemination and storage of biological data.
- Writing reports, letters and other documentation to transfer knowledge concerning the technical and operational aspects of services being provided. Writes and updates SOPs pertinent to the DNA Core Laboratory.
- Developing monitoring strategies to evaluate vendor services to ensure that objectives are being met.
- Provide oversight, project planning and evaluation of students and other trainees on technical project teams.
- Continuous knowledge improvement: keeping abreast of new information technology developments in support of bioinformatics and the life sciences through reading scientific publications, attending workshops, seminars and other learning opportunities.

Knowledge and Skills:

- Post-graduate degree in computer science and/or bioinformatics from a university of recognized standing.
- Specialized training in molecular biology, genetics, and/or microbiology.
- Knowledge of and experience with algorithms and programs for DNA sequence analysis, gene prediction, genome annotation, identification of sequence polymorphisms, SNP analysis, and construction of phylogenetic trees.
- Knowledge of important biological sequence databases and database formats, and how to retrieve information from these databases.
- Experience and knowledge in network administration.
- Experience and proficiency in Unix/Linux operating system environments.
- Experience, proficiency and knowledge programming/scripting in bioinformatics applications in Perl, Java, C/C++, Python and SQL.
- Experience, knowledge and proficiency using and implementing relational databases.

- Experience and proficiency in design, implementation and maintenance of a high performance life sciences supercomputing environment and associated network topology including Unix based parallel computing clusters, large memory multiprocessor symmetric multiprocessing data processing servers.
- Experience in project management and the ability to plan, lead and coordinate multiple specialized projects and to work in multi-disciplinary teams.
- Experience and knowledge in designing and implementing bioinformatics software programs, databases, web sites and data sets.
- Excellent communications skills in gathering requirements for stakeholders, writing technical reports and SOPs, and scientific manuscripts.
- Knowledge and proficiency in monitoring system and equipment performance against operational specifications, investigating and reporting malfunctions, recommending solutions, and implementing recommendations upon approval.
- General knowledge of biological disciplines including molecular biology, epidemiology, statistics in order to understand the applications and end use of related data.
- Excellent communications skills for the purposes of communicating scientific and technical information, analyze, collate, interpret and summarize analyses to be sent to stakeholders, advise, make presentations regarding the bioinformatics and information technology (IT) services of the DNA Core Laboratory to internal and external stakeholders.
- Team leadership skills to lead project staff.
- Ability to respond to rapidly escalating circumstances, e.g. outbreak situations.
- Knowledge of Laboratory Information Systems.

E-mail your resume referencing DNA-CPHL-01 to careers@oahpp.ca by March 23, 2010. For more information about the Agency visit our website at www.oahpp.ca

Thank you for your interest in this position, however, only qualified candidates will be contacted for an interview. Please continue to view our website for new career opportunities with the ***Ontario Agency for Health Protection and Promotion***.