We are seeking a post doctoral fellow in systems biology to join a multi-disciplinary team in the Jurisica lab (http://www.cs.utoronto.ca/~juris). The successful candidate is expected to extend and apply data mining methods and graph theory to integrative analysis of genomic and proteomic high-throughput data related to cancer research.

RESPONSIBILITIES

The position entails working within an informatics team extending and applying software to directly facilitate a cutting edge cancer research. This work involves continually learning and designing new technologies, as well as applying these skills to develop innovative software to solve specific scientific problems.

The successful candidate will develop and apply data mining methods in an interdisciplinary and highly collaborative environment, and extend our existing tools (e.g., NAVIGaTOR – http://ophid.utoronto.ca/navigator and I2D – http://ophid.utoronto.ca/i2d). The work will require comprehensive integration and annotation of results, identification and prioritization of hypotheses for validation and planning of new experiments, and systems modeling using protein-protein interaction and pathway data.

ENVIRONMENT

Our computing infrastructure comprises four large IBM pSeries servers and a large Linux cluster. Commercial middleware and systems developed in-house in addition to open source application run in AIX and Linux environments. A biology lab for high-throughput validation has been recently established, with high-content imaging and robotic automation.

QUALIFICATIONS

- A PhD degree in computer science, physics, engineering, mathematics, or computational biology is required.
- Practical experience with graph theory algorithms is beneficial.
- Working knowledge of Unix/Linux is essential.
- Multi-CPU, multi-core, and GPU programming experience is a strong asset.
- Previous experience in bioinformatics is advantageous (high-throughput datasets, scalable graph analysis).
- Understanding of biological data is beneficial.
- Good communication skills and the ability to work with an interdisciplinary team are essential.

Please forward current curriculum vitae including a publication list and names of three references to: juris@ai.utoronto.ca