POSTDOCTORAL POSITION IN CHEMISTRY
Professor James Harynuk’s Lab, Department of Chemistry

The Department of Chemistry at the University of Alberta has a position opening for a postdoctoral researcher in the area of analytical separations and chemometrics.

The successful applicant will be working on developing intelligent mass spectral search algorithms and predictive models of chromatographic retention time for application in the area of sport doping control. The position will be for will be from as soon as possible, ending on September 30, 2018. Specific duties will involve:

- Optimize and perform chemical derivatizations and GC / GC×GC analyses of standard steroid and SARM molecules to build training libraries.
- Use retention data and mass spectral data from training library to develop and test predictive models utilizing both retention and mass spectral data to detect new, as-yet-untested performance enhancing drugs similar to those in the training library.
- Interact with synthetic partners to direct the development of additional molecules to be added to the training library.
- Test and validate analytical protocols and algorithms with simulated real doping control samples.
- Develop a working software tool (possibly web-enabled) that can be deployed with analytical protocol to doping control laboratories.
- Interact with Health Canada and other officials to develop protocols and procedures for the handling, use, storage, and disposal of library compounds that adhere to legal requirements for the management of controlled substances in a laboratory setting.
- Supervise student researchers assisting with project.
- Prepare research reports and draft research papers based on results.

Specific Qualifications:

- PhD in Chemistry with strong background in computer programming/chemometrics
- A PhD in Computer Science/machine learning may be acceptable
- Strong background in developing QSPR/QSRR and/or automated interpretation of mass spectra
- Evidence of experience working with MATLAB, Codessa, Dragon, etc.
- Experience developing web-based scientific computational tools would be an asset
- Evidence of problem solving skills and ability to work independently
- Exceptional attention to detail and organizational skills

To Apply:

Interested parties should email a CV, one or two relevant research publications, and contact information for academic references to Dr. James Harynuk: james.harynuk@ualberta.ca. Please use “dc-pdf-an application” as the subject line of your email to ensure it is not missed.

Closing date:
Position will remain open until filled.

We thank all applicants for their interest; however, only those individuals selected for an interview will be contacted.

The University of Alberta offers appointments on the basis of merit. We are committed to the principle of equity in employment. We welcome diversity and encourage applications from all qualified women and men, including persons with disabilities, members of visible minorities and Aboriginal persons.