

The Metabolomics Innovation Centre (TMIC) Research Associate – Vuckovic node

The Vuckovic lab group and the Vuckovic Node of The Metabolomics Innovation Centre (TMIC) located at the Department of Chemistry and Biochemistry of Concordia University are currently seeking a **full-time Research Associate** specializing in mass spectrometry (MS). The successful candidate will have proven experience in analytical chemistry or a related field and must have practical experience using LC-MS. The incumbent will be responsible for supporting metabolomics services to private and public sector users. The individual will execute and troubleshoot activities following Standard Operating Procedures (SOPs) related to metabolomics service work and method development in collaboration with other researchers. The individual will also update and prepare SOPs for analytical instruments and assays for supervisor's approval and communicate with clients regarding sample shipping, billing and reports.

Duties:

- Performs extractions of biological/biohazardous materials (Biosafety Level II) according to established SOPs
- Performs LC-MS sample analysis according to established procedures using triple quadrupole or high-resolution MS (QTOF, Orbitrap) depending on the project requirements
- Uses various software tools (MassHunter, Xcalibur, LipidSearch, Compound Discoverer, appropriate open-source software) to analyze and interpret LC-MS data
- Communicates with clients regarding sample shipping and billing, and prepares reports summarizing the results of the analysis including summary of the appropriate quality control checks
- Maintains accurate log books/records of equipment usage and performance for billing purposes and for the preparation of reports
- Orders laboratory supplies, as assigned
- In collaboration with and under the guidance of other researchers and the supervisor, develops and validates new analytical methods
- Prepares new SOPs for supervisor's approval, as assigned
- Participates in group meetings/conferences and presents results of research
- Performs data entry in the Laboratory Information Management System (LIMS)
- Performs regular LC-MS calibration and routine minor LC-MS maintenance
- Trains new users on LC-MS as required
- Contributes to the development of in-house metabolite and lipid libraries

Requirements:

- Master's Degree or PhD in relevant field (analytical chemistry, metabolomics, lipidomics, bioanalysis, environmental analysis) and a minimum of two years of

associated experience in liquid chromatography-mass spectrometry (LC-MS). Research experience with LC-MS is essential.

- Hands-on experience in preparation of biological or environmental samples for targeted and/or untargeted LC-MS analyses
- Hands-on experience with the operation, and maintenance of modern scientific instrumentation with focus on low and high-resolution mass spectrometry (e.g., Orbitrap, QTOF, triple quadrupole)
- Knowledge of laboratory health/safety regulations and standards
- Excellent written and oral communication skills and the ability to work in a team are essential
- Proven ability to meet strict deadlines and meticulous attention to detail
- Willingness to undertake any necessary training and periodically deliver in-house training to others
- Intermediate knowledge of Excel, Word, and instrumentation control and data analysis software (e.g., Chemstation, Xcalibur, Compound Discoverer); data storage and management skills
- Experience with analytical method development and validation is an asset

Initial appointment will be for 1-year with 3-month probation period, but is renewable

To apply, please send your CV and cover letter outlining your suitability and interest for this position directly to dr. Dajana Vuckovic (dajana.vuckovic@concordia.ca) by **October 14, 2026**.