



Staff Radiochemist – Cyclotron (Research Associate), Lawson Health Research Institute - 1 position	Posting #: 45521
Lawson Health Research Institute	Posting Date: July 05, 2021
St. Joseph's Hospital - London, ON	Submission Deadline: July 25, 2021
Temporary Full Time	Julie Neilans, Human Resources
Non-Union	

The Lawson Health Research Institute is one of Canada's largest and most respected hospital-based research institutes. As the research institute of St. Joseph's Health Care London and London Health Sciences Centre, and working in partnership with Western University, Lawson is committed to furthering scientific knowledge to advance health care around the world and to helping people live healthier lives by enhancing our knowledge of preventing, diagnosing, and treating disease.

Lawson is seeking a Staff Radiochemist for its Cyclotron and Radiochemistry Facility in London, Ontario – a five-year contract position with a high expectation of renewal, subject to the availability of funding and work.

The Radiochemist will become a key part of a research/clinical team in an academic hospital environment and report to Dr. Michael Kovacs, Director of the Lawson Cyclotron & Radiochemistry Facility at St. Joseph's Hospital. This facility uses a medical cyclotron to produce radioisotopes for Positron Emission Tomography (PET) imaging, enabling early and accurate detection of cancer and diseases of the heart and brain. Lawson collaborates and performs radiopharmaceutical research and development work with scientists, clinicians, and academic and commercial partners.

The Radiochemist will oversee and implement the development, production and synthesis of radioisotopes and radiopharmaceuticals using the ARTMS QUANTM Irradiation System solid target hardware, customized cyclotron solid targets and proprietary processes in order to meet current and future radiopharmaceutical product objectives. The primary focus of the Radiochemist will be to lead the completion of project objectives performed as part of a collaboration between Lawson and ARTMS Inc, the global leader in cyclotron solid targetry.

The position is part of a team surpassing current cyclotron-based isotope manufacturing and processing capabilities and changing the practice of nuclear medicine. The Radiochemist will work on the next generation of radiopharmaceutical products, including cyclotron production of gallium-68, zirconium-89, copper-64 and possibly other metallic radionuclides which will be used to label radiopharmaceutical precursors for eventual clinical and commercial activities.

The primary objective of the Radiochemist is to ensure that (i) radiopharmaceutical product specifications meet ARTMS, industry and end-user expectations and (ii) operations, workflow and end products are compliant with relevant certifications, in-house QC/QA standards and regulatory authority requirements. An additional focus is to produce and maintain accurate and up-to-date documentation on product manufacturing processes currently in development or in the pre-commercialization stage.

The position is essential to the success of novel production methods for metallic isotopes such as Ga-68, Zr-89 and Cu-64. The position will also be important for completing the study of new radiopharmaceuticals and the implementation of improved techniques and procedures for eventual clinical trials and commercialization activities.

In addition, the Radiochemist will have the opportunity to explore novel research, publication and presentation efforts in collaboration with colleagues.

PRINCIPLE RESPONSIBILITIES:

- Develop novel radiopharmaceuticals toward goals defined by the collaboration between Lawson and ARTMS.
- Leverage experience to study and elucidate the behavior and mechanism of action for radiopharmaceuticals produced using

novel isotope production equipment (cyclotrons) and processing / radiolabeling methods.

- Assist Lawson, ARTMS and clients in after-sales support for solid target processing and radiolabeling activities.
- Produce relevant documentation including process and analytical development documents, batch records, etc.
- Develop validated product testing to be used in Quality Control (QC) and Quality Assurance (QA) processes.
- Assist development and continual improvement of QC, QA and QMS, including regulatory, customer and in-house compliance audits.
- Anticipate and rectify problems with procedures, methods, techniques by applying theoretical and practical knowledge.
- Work within guidelines to ensure Lawson complies with all regulatory requirements including relevant cGMP, ISO, nuclear safety and transportation and dangerous goods requirements.
- Train staff at Lawson, partner and end-user facilities.
- Demonstrate and promote safe work habits and enforce a clean and organized working environment.
- Develop PET tracers for preclinical imaging.
- Translate PET tracers for use in clinical trials.
- Prepare clinical trials application (CTA/IND) submissions to regulatory authorities.
- Assist in the preparation of Drug Master Files and related CMC materials.
- Train technical staff to produce preclinical and clinical PET tracers on a routine basis.
- Operate the cyclotron and radiochemistry equipment under GMP to safely meet research and production needs.
- Periodic routine production, packaging and shipping of radioisotopes, as needed.
- Extended hours, shift work, weekends and travel, including international, may be required.

Essential Qualifications

- Ph.D in Chemistry, Biochemistry or Molecular Biology
- Strong laboratory analytical skills and data analysis skills.
- Strong troubleshooting and hands-on problem-solving skills
- Ability to work independently and achieve assigned goals and objectives with minimal supervision
- Candidate must consent to gaining a sound understanding of radiological safety procedures and working as a Nuclear Energy Worker in a safe, but radioactive environment

Preferred Qualifications

- Research experience in the field of PET radiochemistry, with a publication track record
- Knowledge of cyclotron production of medical isotopes via solid targets, radioisotope processing and radiolabeling.
- Knowledge of radiopharmaceuticals labeled with short-lived positron emitting isotopes
- The ability to safely prepare and handle radiopharmaceuticals Knowledge of radiation safety procedures, standards, and protocols.
- Exceptional planning, project management, and organizational skills.
- A demonstrated strong value for accuracy and a quality culture.
- Excellent communication skills, written and verbal.
- Ability to work as a team member, socialize ideas and build successful working relationships.
- High attention to detail applied to writing SOPs, STMs, MBRs, and other GMP documentation.
- The ability to design and carry out gel and other cell-based assays. Tools required for all studies include chromatography instruments, radiation detectors, and other biochemistry-related analytical devices.
- Experience with computer systems and Microsoft Office
- Working knowledge of CNSC regulations and Health Canada, FDA, EP/USP Pharmacopoeia, IHC and cGMP.

Lawson Health Research Institute at St. Joseph's Health Care is committed to providing a safe, healthy and inclusive work environment that inspires respect. Lawson, St. Joseph's encourages applications from persons with disabilities and we are committed to providing accommodations upon request.

Your interest in this opportunity is appreciated. Only those under consideration will be contacted.