

# CALGARY RADIOPHARMACEUTICAL CENTRE



Design subject to change

Alberta Infrastructure (AI) and Alberta Health Services (AHS) are proposing the construction of Calgary's first Cyclotron and Manufacturing Radiopharmacy, Calgary Radiopharmaceutical Centre (CRC). This new facility will produce a variety of radioisotopes and tailor-made probes for the diagnosis and treatment of a large variety of diseases and conditions including cancer, cardiac, and neurological.

## What is a Manufacturing Radiopharmacy?

A Manufacturing Radiopharmacy is a specialized facility that plays a crucial role in Nuclear Medicine by supplying cyclotron-produced radioactive isotopes. It combines these isotopes with pharmaceutical components to create radiotracers used in the diagnosis, monitoring, and treatment of diseases. Operating 24/7 due to the short shelf-life of radiotracers, a Manufacturing Radiopharmacy requires a complex infrastructure, including Aseptic Clean Rooms, specialized equipment like cyclotrons, and a team of scientific and technical experts. Stringent safety and quality control testing, meeting or exceeding Health Canada and the Canadian Nuclear Safety Commission standards, is paramount.



## What is the purpose of a Radiopharmacy?

Radiopharmacies, such as the Calgary Radiopharmaceutical Centre (CRC) and the Radiopharmaceutical Services of Alberta (RSA) program, provide tailor-made radiotracers for Nuclear Medicine. This collaboration enables personalized medicine and optimizes patient management through techniques like Positron Emission Tomography (PET) and Single Photon Emission Computerized Tomography (SPECT). With proximity to Calgary Nuclear Medicine Departments, these facilities offer a variety of short-lived isotopes, enhancing the accuracy and effectiveness of medical care.

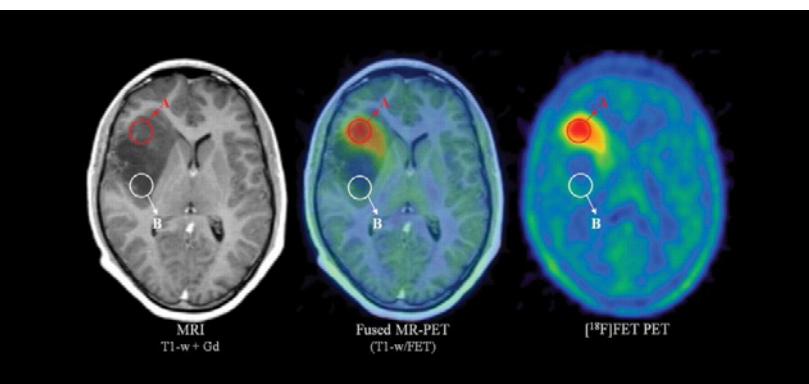
## What is CRC and the Radiopharmaceutical Services of Alberta program?

CRC, part of the RSA program, aims to coordinate provincial production efforts. This ensures a diverse range of radiotracers, improved diagnostic capabilities, and reliable access to these tracers for Albertans. The program sustains three essential services for Alberta Health Services (AHS): the supply of cost-effective diagnostic and therapeutic radiotracers to over 20 imaging facilities, access to pioneering radiotracers through clinical trial applications, and the manufacturing of clinically essential radiotracer precursors.



## What are PET and SPECT scans?

Unlike CT or MRI, PET and SPECT scans are diagnostic imaging modalities that depend on the utilization of radioactive compounds called radiotracers. The production of these radiotracers requires specialized infrastructure, equipment, expertise, and extremely difficult regulatory pathways to get Health Canada approval. The CRC is a state of the art facility that has all requirements for production, compounding and dispensing of radiotracers and cold kit, non-radioactive compounds, for PET and SPECT.



## Have questions or comments? Reach out.

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