



**Written submission from  
AtomVie Global Radiopharma**

**Mémoire de  
AtomVie Global Radiopharma**

In the Matter of

À l'égard de

**McMaster University**

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**Université McMaster**

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Application to renew its McMaster Nuclear  
Reactor Class IA non-power reactor operating  
licence

Demande concernant le renouvellement de son  
permis d'exploitation d'un réacteur de catégorie  
IA non producteur de puissance pour le réacteur  
nucléaire McMaster

Public Hearing - Hearing in writing based on  
written submissions

Audience publique - Audience fondée sur des  
mémoires

**April 2024**

**Avril 2024**

February 8, 2024

**RE: McMaster University Research Reactor Licence Renewal (Licence #NPROL-01)**

Dear Commission member,

I am writing on behalf of AtomVie Global Radiopharma in support of the McMaster University Research Reactor Licence renewal (#NPROL-01).

McMaster is Canada's Nuclear University. It is home to a world-class suite of nuclear research facilities anchored by the McMaster Nuclear Reactor (MNR), built in 1959. These facilities enable discoveries in nuclear medicine, clean energy and materials science, while providing unique educational opportunities for students, including those in nuclear science and engineering.

For over 64 years, MNR has advanced nuclear research and innovation for the benefit of our local and global communities.

MNR:

- Is a world leader in the production of Iodine-125, a radioactive isotope that is used to treat prostate cancer in over 70,000 patients around the world each year. Earlier this year, MNR manufactured and packaged its first "core-to-clinic" patient dose of holmium-166 microspheres for liver cancer treatment trials. AtomVie Global Radiopharma (AtomVie) is collaborating with MNR on the processing of the microspheres, providing the support in GMP oversight ensuring product safety for human administration. MNR is delivering life-changing innovative cancer treatments to patients in needs across the globe.
- Is Canada's centre for neutron beam research and is expanding - it will be a leader in the discovery and development of advanced materials and technologies.
- Conducts hundreds of thousands of neutron irradiations every year, many in support of industry (mining exploration, environmental samples, etc.).

As a national leader in Small Modular Reactor (SMR) research and training, McMaster University is an active contributor to the Federal government's (SMR) Action Plan. SMRs are expected to play a key role in our national and global efforts to achieve Net Zero, as they have the potential to provide clean energy abundance for small and remote communities. McMaster's experts are spearheading research in SMR design, deployment and safety.

Furthermore, the groundbreaking work at McMaster University has contributed in building a strong ecosystem in Ontario and Canada, incubating through its Centre of Excellence, the Centre for Probe Development and Commercialization (CPDC), global leading companies in the radiopharma industry such as Fusion Pharmaceuticals and AtomVie Global Radiopharma, creating a favorable environment for the creation of other companies such as POINT



Biopharma (created by ex-CPDC executives) and ARTMS (co-founded by CPDC and three other partners). Finally, AtomVie and other local partners are working with McMaster University by sharing experience toward better safety of our work as well as participating in emergency response and assessing risk, as needed, between our respective organizations.

Canada is a tier-1 Nuclear nation, and it can only remain so with institutions such as McMaster University that support the growing demands of nuclear research, education, and expertise. McMaster University is a trusted and valuable collaborator to industry and research partners across Canada and internationally. Renewing the McMaster Nuclear Reactor Operating Licence will help ensure Canada continues to lead on the world's nuclear stage.

Sincerely,

Bruno Paquin  
CEO, AtomVie Global Radiopharma

