

# CANADIAN ASSOCIATION OF RADIOPHARMACEUTICAL SCIENTISTS

## Newsletter

Winter 2021

[www.RadiopharmacyCanada.com](http://www.RadiopharmacyCanada.com)

**President**  
Jan Andersson

Happy New Year! May this year be much better than the last one.

**President Elect**  
Justin Hicks

We have changed our layout, and we hope that you like it. CARS is welcoming you in the new format.

In this edition:

**Past President**  
Shaun Ramdhany

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**Treasurer**  
Vincent Boouvet

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**Editor/Member At Large**  
Lidia Matei

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Enjoy your reading!



## Isotopes related news

### From Coast to Coast

#### Eastern Health, St John's, NL

The IBA cyclotron facility is now fully operational. In November 2020, the team has successfully delivered the first batch of FDG. The addition of the cyclotron facility addresses one of the most frequent issues in nuclear medicine: local delivery of PET scans and shipment of short-lived isotopes.



Photo: Dr. Bouvet

**Dr. Vincent Bouvet** *“After 4 years of facility and procedure validations, we finally had our 2 first weeks of clinical  $^{18}\text{F}$ -FDG production. Now, to better things with  $^{13}\text{N}$ -NH<sub>3</sub>,  $^{68}\text{Ga}$ -DOTA-TATE and  $^{68}\text{Ga}$ -PSMA planned for the next year. Our team is proud to finally take advantage of this amazing facility (1 dual beam 18MeV cyclotron with Fluoride-18, Carbon-11, Iodine-123, Iodine-124 and Nitrogen-13 targets, 4 clinical clean rooms, 16 hotcells, 6 Automated synthesis units).”*

### IsoLogic acquires FDG distribution from CPDC (Montreal, QC)

On December 01, 2020 IsoLogic announced their new plans of FDG supply under one brand. The announcement comes after reaching a preliminary agreement with Centre for Probe Development and Commercialization (CPDC) to acquire the FDG diagnostic distribution business. This consolidation is a step

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further towards an improved supply chain for the delivery of radiopharmaceuticals. Read the full article [here](#).

## In Ontario

Lutathera is the first and only therapeutic radiopharmaceutical approved by Health Canada for the treatment of GEP-NETs. Advanced Accelerator Applications Canada Inc. announced in a news release that Lutathera is now available to treat patients in Ontario. Details [here](#)

The Canadian Nuclear Isotope Council (CNIC) and the Organization of Canadian Nuclear Industries (OCNI) initiated the Medical Isotope Production Handling Capabilities Directory project. According to their official announcement, this Directory's scope is to profile the supply chain companies that operate in support of the Canadian isotope Sector. Read more about this project on the last news release from [CNIC](#).

## From the Prairies

At the [University of Saskatchewan](#), the Centre for Biologic Imaging and Research and Development (C-BIRD) makes progress on the clinical trial “Evaluation of  $^{89}\text{Zr}$ -DFO-nimotuzumab for Non-invasive Imaging of EGFR+ Cancers by Positron Emission Tomography (PET). The compound is produced at the Saskatchewan Centre for Cyclotron Sciences ([SCCS](#)) facility operated and managed by Fedoruk Centre using locally manufactured  $^{89}\text{Zr}$ [Zr]oxalate in compliance with cGMP.

Dr. Humphrey Fonge reveals his plans to start soon the in vitro and in vivo studies of prostate-specific membrane antigens (PSMA) and other peptides synthesized in the lab using  $^{67}\text{Cu}$  as a radionuclide.



*“Successful pilot production of  $^{67}\text{Cu}$  has occurred with Canadian Isotope Innovations Inc., and further improvements and automation of processing is ongoing. Quality control (QC) processes and preparation of pharmaceutical grade  $^{67}\text{Cu}$  will soon follow”.*



Dr. Humphrey Fonge in the Radiochemistry lab at the SCCS Photo by: Davide Stobbe

-Dr. Humphrey Fonge-  
More from Saskatchewan [here](#).

## In British Columbia



ARTMS reports multi-Curie production of Ga-68 in collaboration with the Department of Clinical Research at the University of Southern Denmark and the Department of Nuclear Medicine at Odense University Hospital. Read the full [article here](#)

Photo: Quantum Irradiation System (ARTMS)



## Health Canada approves Tc-99m produced by Cyclotron

The Canadian consortium of TRIUMF, University of British Columbia (UBC) and British Columbia Cancer Authority (BCCA) is the first in the world to obtain the license for cyclotron produced Tc-99m. The success comes after more than ten years of studies initiated across



Canada to address this medical isotope shortage. The project led by Paul Schaffer and François Bénard has been commenced in the last decade to secure the domestic supply of Tc-99m after the closure of NRU reactor in Chalk River.

Photo: Specialist production Tc-99m (TRIUMF)

## Regulatory

Health Canada, has recently issued the Notice to Stakeholders Harmonizing fludeoxyglucose (F-18 FDG) product monographs.

From Health Canada, *"The purpose of this notice is to recommend modified wording for the indications and clinical uses of fludeoxyglucose (F-18 FDG) products in their product monographs. The recommended wording aims to bring the indications and clinical uses for F-18 FDG up-to-date and harmonize F-18 FDG product monographs in this regard."* You can access the document here: [Notice to Stakeholders: Harmonizing fludeoxyglucose \(F-18 FDG\) product monographs"](#)



## Isotopes Supply and Shortages

COVID-19 pandemic impacts the supply of medical isotopes. Due to the current situation and Air Canada flight cancellation, the logistics of shipping the precious and highly sensitive material has been drastically disturbed. Before the pandemic, the medical isotopes were ordinarily transported in passengers' flights. The cancellation of routine air traffic forced the producers to shift towards small cargo flights with a flight schedule change. The changes directly impact the shipment of short-half life isotopes—more about this topic in an article recently published by the [Globe and Mail](#). (January 03, 2021).



Photo: Air Canada

## EVENTS

### 11<sup>th</sup> International Conference on Isotopes (11ICI)



Event planning is ongoing. Recently we have secured the publication of the selected papers in a special issue of the Journal of Radioanalytical and Nuclear Chemistry (JRNC). Visit [11ICI.org](http://11ICI.org) or follow us on our social media [Twitter](#) and [Facebook](#) accounts for the latest updates.

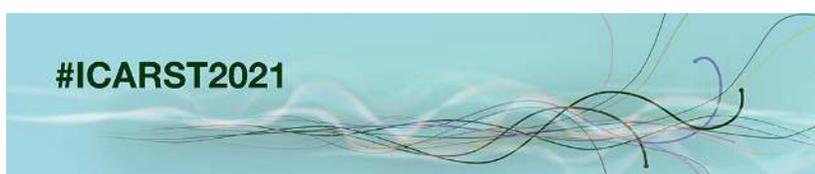
We invite members from the Canadian Radiopharmaceutical community to join the Technical Program Committee. Contact the Conference Officials for details.



## ISRS 2021 Virtual

The International Symposium on Radiopharmaceutical Sciences (ISRS) initially planned for 2021 has been postponed to 2022. The organizers invite the scientific community to attend the virtual meeting (eSRS) between May 17 to 19<sup>th</sup>, 2021. Additional information and registrations are available on [eSRS' website](#).

## ICARST 2021 - Postponed



The Second International Conference on Applications of

Radiation Science and Technology (ICARST-2021) hosted by the IAEA, has been postponed until 22 to August 26 2022 due to the COVID-19 pandemic. More details can be found on the [IAEA website](#).

## WTTC 2022 – Postponed

The 18<sup>th</sup> Workshop on Targetry and Target Chemistry (WTTC) initially planned for 2020 has been rescheduled to August 2022. Details on [WTTC website](#).

## 2021 SNMMI Annual Meeting

The SNMMI is reversing the plans for the Annual Meeting. Initially scheduled as an in-person event, the SNMMI will host the meeting in a hybrid format. Consult with the [SNMMI website](#) for the latest updates.

Late update: The Annual Meeting SNMMI will be hosted in virtual format.



## CANM 2021 Annual Conference

The Canadian Association of Nuclear Medicine is planning the Annual Conference as an in-person [event](#) on September 30 - October 2, 2021, in Halifax, Nova Scotia.

## CAREER OPPORTUNITIES

### **Research Officer -Fedoruk Centre (Saskatchewan)**

Sylvia Fedoruk Canadian Centre for Nuclear Innovation  
Saskatoon, Saskatchewan

The Fedoruk Centre is looking for a highly-skilled professional to join the team as a Research Officer. The Research Officer will serve as a professional Local Contact, enabling SCCS facility users to undertake research projects effectively, adapting to the support levels required for a project, and coordinating the resources that may be needed for project planning through implementation, analysis and reporting. . Details about the position are posted on [www.fedorukcentre.ca](http://www.fedorukcentre.ca)

### **Scientist - Radiochemist**

Fusion Pharma  
Hamilton, Ontario

Fusion Pharma invites suitable candidates to work as part of a team responsible for discovering, producing, developing, and advancing the next generation of radiotherapeutics and nuclear imaging probes. The specific focus of the position is to design, conduct, and report on synthetic experiments supporting a broad range of preclinical, translational and clinical development activities. The responsibilities and job description are available [here](#)



## LETTER FROM EDITOR

Dear CARS members,

2020 is now well gone, and we are moving forward towards new challenges. Last year had an odd trajectory, but fortunately, the radiopharmaceuticals sector was relatively stable.

Retrospectively looking, the production of radioisotopes and radiopharmaceuticals was little or not affected. The production facilities continued to satisfy hospitals' demands for critical isotopes. As some of the facilities' operations were slowed down after an initial decline (mostly due to Universities' policies), the clinical studies ramped up relatively quickly.

The major projects continued at a slower pace. However, our industry made significant progress. After years of continuous research and development, Health Canada approved the  $^{99m}\text{Tc}$  produced by cyclotron. On the industry side, BWXT has demonstrated successful labeling of cold-kits with  $^{99m}\text{Tc}$ -extracted from the newly developed Mo/Tc generator.

The new strategic partnerships such as ARTMS – Telix Pharmaceuticals formed in April 2020 led to the approval of the first-in-human trial for  $^{68}\text{Ga}$ -PSMA-11 produced with cyclotron Ga-68 (January 12, 2021).

The key players on the market continue the developmental work on therapy isotopes. The Centre for Probe Development and Commercialization (CPDC) and Isotopia Molecular agree to produce and distribute  $^{177}\text{Lu}$  in North America. On the same note, ITM and Isogen signed an agreement to distribute  $^{77}\text{Lu}$  produced at Bruce Power nuclear power plants. TRIUMF and Fusion Pharmaceuticals signed the collaboration to expand the research on  $^{225}\text{Ac}$  and overcome the challenges of lack of supply of this more than valuable isotope.

We may say that the last year brought us back to the empathetic side of human nature. We learned new techniques of collaboration, we understood that slowing down is sometimes necessary, and we have learned that our dedication has a significant impact on others' lives.

2020, slowed down the world, but our battle with cancer will never stop. Let's make this 2021 better and continue our fights against critical diseases.

The CARS forum is open for discussions to all members on any radiopharmaceutical related topic. Your thoughts and comments are always welcomed.



Your editor/member-at-large invites you to submit your articles, achievements, or published work that you would like to bring attention to.

As always, please ensure your member information is up to date (email, mailing address, phone number(s)). We also encourage you to reach out to us with recommendations to help you get the most out of your membership. Our motivation is to provide value for our members and share best practice guidance to our radiopharmaceutical community.

Meanwhile, please stay safe and healthy.

Thank you for being a member of the Canadian Association of Radiopharmaceutical Scientists!

Sincerely,

Lidia Matei

Editor/Member at Large (CARS)

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