



International Symposium on Trends in Radiopharmaceuticals (ISTR-2019)

IAEA Headquarters
Vienna, Austria

28 October to 1 November 2019

Announcement and Call for Papers

A. Background

Progress in nuclear medicine has been always tightly linked to the development of new radiopharmaceuticals and efficient production of relevant radioisotopes. The use of radiopharmaceuticals is an important tool for better understanding of human diseases and developing effective treatments. The availability of new radioisotopes and radiopharmaceuticals may generate unprecedented solutions to clinical problems by providing better diagnosis and more efficient therapies.

Impressive progress has been made recently in the radioisotope production technologies owing to the introduction of high-energy and high-current cyclotrons and the growing interest in the use of linear accelerators for radioisotope production. This has allowed broader access to several new radionuclides, including gallium-68, copper-64 and zirconium-89. Development of high power electron linacs resulted in availability of theranostic beta emitters such as scandium-47 and copper-67. Alternative, accelerator-based production methods of technetium-99m, which remains the most widely used diagnostic radionuclide, are also being developed using both electron and proton accelerators.

Special attention has been recently given to α -emitting radionuclides for in-vivo therapy. A few years ago, the first α -emitting radiopharmaceutical, Xofigo, (pharmaceutical-grade radium-223 dichloride solution) has been approved by the US FDA for cancer treatment. Many other α -emitting radiopharmaceuticals based on astatine-211, bismuth-212, bismuth-213, actinium-225, radium-223, lead-212, thorium-227 and terbium-149, are currently being developed. However, demand for these α -

emitting radionuclides significantly exceed their supply. Numerous research groups worldwide are working on efficient production of these much sought after α -emitters.

The field of radiopharmaceuticals has witnessed continuous evolution thanks to the immense contributions of scientists from diverse disciplines such as radiochemistry, inorganic chemistry, organic chemistry, organometallic chemistry, biochemistry, molecular biology, physiology and pharmacology. Several milestones can be cited in the trajectory of this growth, which include continuing development of technetium-99m radiopharmaceuticals, automated synthesis of fluorine-18 labelled compounds, radiopharmaceuticals labelled with generator eluted gallium-68, labelled peptides and monoclonal antibodies for accurate diagnosis and treatment of tumours. The concept of theranostic radioisotopes, that combines the diagnosis and therapy properties of one radioisotope or a pair of similar radioisotopes, may provide an attractive paradigm for future development of medical applications of radionuclides. Biomolecules developed for specific molecular target and labelled with theranostic radionuclides provide clinically significant information for diagnosis, suitability of radionuclide therapy, dosimetry and post therapy planning, making personalised medicine a reality.

B. Purpose and Objectives

The International Symposium on Trends in Radiopharmaceuticals, ISTR-2019, will provide scientists and professionals working in the fields of production of radioisotopes and radiopharmaceuticals an international forum for discussing the most recent developments in the field. Various topics will be covered during the Symposium including development, production, and uses of diagnostic, therapeutic, and theranostic radioisotopes and radiopharmaceuticals, as well as regulatory and licensing issues related to their production. Education, certification and training methodologies will also be addressed.

The ISTR-2019 will provide a great opportunity for chemists, biologists, pharmacists, physicists, medical researchers, and other experts in the international community to meet and discuss their most recent work. This meeting will help maintain existing and establish new collaborations to address common problems and expand the worldwide use of radiopharmaceuticals.

C. Structure, Themes and Topics

The symposium programme will consist of an opening session, plenary sessions, technical sessions, poster and interactive content sessions, exhibitions, and a closing session. The opening session will include welcoming addresses by representatives of the IAEA, cooperating organizations and other relevant organizations. The plenary sessions will continue with a combination of invited keynote presentations and submitted papers addressing the main themes and topics of the symposium. Each topical session will include presentations and/or panel discussions delivered by participants which will have been selected based on the abstracts submitted. The symposium will also include poster sessions, and sufficient time will be provided for discussion and interaction with colleagues. The final plenary session on the last day of the symposium will be dedicated to conclusions and recommendations on the way forward.

The scope of the conference is meant to cover, but is not limited to, the following topical areas:

- Production of PET- and SPECT-based diagnostic, therapeutic and theranostic medical radioisotopes
- Production of radionuclide generators
- Production of PET- and SPECT-based diagnostic, therapeutic and theranostic radiopharmaceuticals
- Research and Development related to the production of medical radioisotopes and radiopharmaceuticals
- Quality control and quality assurance of medical radioisotopes and radiopharmaceuticals
- Pre-clinical evaluation of radiopharmaceuticals
- Good Manufacturing Practices for production of medical radioisotopes and radiopharmaceuticals
- Design of radiopharmacy (industrial, hospital and centralized) facilities
- Health regulatory aspects related to the production of radiopharmaceuticals
- Radiopharmacy Chapter in Pharmacopoeias
- Education, including e-learning, certification and training methodologies for professionals involved in radiopharmacy

D. Target Audience

The target audience for this Symposium comprises, but is not limited to: (radio)chemists, (radio)pharmacists, biologists, physicists, technologists, medical researchers, policy makers and health regulators, educators and other professionals working in the fields of production and uses of medical radioisotopes and radiopharmaceuticals. The IAEA welcomes and encourages the participation of individuals from developing countries, women, and early career professionals including students.

E. Participation and Registration

All persons wishing to participate in the symposium must be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

To be designated by an IAEA Member State, participants are requested to send the following form(s) (as applicable) to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority):

- Participation Form (Form A): participation only; no deadline if only Form A is submitted.
- Form for Submission of a Paper (Form B): participants submitting a paper through INDICO (deadline **28 February 2019**), have to send the completed and signed Form B together with Form A to their competent national authority for onward transmission to the IAEA (Official.Mail@iaea.org) by **28 February 2019**.
- Grant Application Form (Form C): participants requesting financial support from the IAEA, have to complete Form C and send it together with Form A (and Form B, if applicable) to the

competent national authority for onward transmission to the IAEA (Official.Mail@iaea.org) by **28 February 2019**. Form C has to be stamped and signed by the competent national authority.

Participants who are members of an organization invited to attend are requested to send the above form(s) through their organization to the IAEA (Official.Mail@iaea.org).

In addition, participants are requested to pre-register online through the IAEA web page for the symposium: www.iaea.org/events/istr-2019.

Participants who registered in accordance with the above procedure will receive from the IAEA further information approximately three months before the opening of the symposium.

F. Abstracts, Poster Presentations and Proceedings

All papers submitted — other than invited keynote papers — must present original work and should not have been published elsewhere. Persons who wish to present a paper at the symposium — either orally or in the form of a poster — must submit an abstract on one of the topics listed under Section C. The abstract should give enough information on the contents of the proposed paper to enable the Programme Committee to evaluate it. Introductory and general matters should not be included. The accepted abstracts will be reproduced in unedited form in the electronic Compilation of Abstracts which will be distributed to all participants at the symposium.

F.1. Submission of Abstracts

Abstracts must be sent **in electronic format** (no paper copies) directly to the IAEA. Instructions on how to upload the abstracts to the symposium's web browser-based file submission system (IAEA-INDICO) will be available on the symposium web page (see Section O). The abstracts **must** be submitted through this system by **28 February 2019**. No other form of submission will be accepted.

The submission should indicate to which of the topics outlined in Section C above it relates and the abstract content should be sequenced accordingly:

- Background/Goal/Objective of the study;
- Methodology;
- Results and Discussion; and
- Conclusion.

The abstract:

- should be a maximum of 500 words (including title);
- should not include more than one figure, graph or table;
- should not include references; and
- must be written and submitted using the abstract template available from the symposium web page (see Section O).

In addition, authors must submit the following two forms to their appropriate governmental authority (see Section E) for transmission to the IAEA. These forms must be received by the IAEA no later than **28 February 2019**:

- Participation Form (Form A); and
- Form for Submission of a Paper (Form B).

IMPORTANT: The electronically received abstracts will be considered by the Programme Committee only if these two forms have been received by the IAEA through the established official channels (see Section E).

Authors should state to which of the topics outlined in Section C their contribution relates.

F.2. Acceptance of Abstracts for Oral or Poster Presentation

Given the number of abstracts anticipated and the need to provide ample time for discussion, the number of papers that can be accepted for oral presentation is limited. Authors who prefer to present their papers as posters are requested to indicate this preference on Form A and through INDICO.

The Secretariat reserves the right to exclude papers that do not comply with its quality standards and/or that do not apply to one of the topics in Section C above.

Authors will be informed **by the end of March 2019** as to whether their abstracts have been accepted for oral or poster presentation. The abstracts, if accepted by the Programme Committee, will also be reproduced unedited in the electronic Compilation of Abstracts which will be distributed to all participants at the symposium

F.3. Symposium Proceedings

The full papers of the best abstracts must be submitted before the deadline for publication in the Proceedings.

G. Expenditures and Grants

No registration fee will be charged to participants.

The IAEA is generally not able to bear the travel and other costs of participants in the symposium. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Such assistance may be offered upon specific request to normally one participant per country provided that, in the IAEA's view, the participant on whose behalf assistance is requested will make an important contribution to the symposium.

If participants wish to apply for a grant, they should submit applications to the IAEA to this effect through their competent national authority. Participants should ensure that applications for grants are:

1. Submitted through the competent national authority by **28 February 2019**;
2. Accompanied by a completed and signed Grant Application Form (Form C); and
3. Accompanied by a completed Participation Form (Form A).

Applications that do not comply with the above conditions cannot be considered.

Approved grants will be issued in the form of a lump sum payment that usually **covers only part of the cost of attendance**.

H. Distribution of Documents

A preliminary programme will be posted on the IAEA web page for the symposium (see Section O) as soon as possible. The final programme and the *Book of Extended Abstracts* will be made available on the symposium web page and the IAEA Symposiums and Meetings app.

I. Exhibitions

A limited amount of space will be available for displays/exhibits during the symposium. Interested parties should contact the Scientific Secretaries (see Section N) by email at ISTR2019@iaea.org by **31 March 2019**.

J. Working Language

The working language of the symposium will be English. No interpretation will be provided.

K. Symposium Venue and Accommodation

The symposium will be held at the IAEA's Headquarters in Vienna, Austria. Participants must make their own travel and accommodation arrangements. Hotels which are offering a reduced rate for symposium participants will be listed on the symposium web page (see Section O). Please note that the IAEA is not in a position to assist participants with hotel bookings, nor can the IAEA assume responsibility for paying cancellation fees or for re-bookings and no shows.

Detailed information on accommodation and other relevant matters will be made available on the symposium web page as soon as possible.

L. Visas

Designated participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least eight weeks before they travel to Austria. Designated participants will be required to submit a letter of invitation in support of their visa application.

M. Key Dates and Deadlines

Opening of synopsis/abstract submission through IAEA-INDICO	21 December 2018
Deadline for submission of synopses/abstracts through IAEA-INDICO	28 February 2019
Deadline for submission of Paper Submission Form (Form B) (together with Form A) through the competent national authority or through InTouch+	28 February 2019
Deadline for submission of Grant Application Form C (together with Form A) through the competent national authority or through InTouch+	28 February 2019
Notification of acceptance of synopsis/abstract	31 March 2019
Deadline for submission of full papers	TBD
Deadline for submission of oral presentations, interactive content presentations and posters	TBD
Registration only (no paper submission, no grant request)	No deadline

N. Symposium Secretariat

General contact details:

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretaries of the symposium and correspondence on administrative matters to the IAEA Conference Services Section.

O. Symposium Web Page

Please visit the following web page regularly for new information regarding this symposium:
www.iaea.org/events/istr-2019

Greening

To demonstrate its commitment to sustainability, the IAEA will organize this symposium as a 'green meeting' according to the guidelines of the Austrian Ecolabel.

There will be a focus on the areas of paper smart documentation, waste reduction and recycling, and environmentally friendly catering.