

JOINT ICTP-IAEA WORKSHOP ON INTERNAL DOSIMETRY

FOR MEDICAL PHYSICISTS SPECIALIZING
IN NUCLEAR MEDICINE

21 - 25 November 2016

Miramare, Trieste, Italy

The purpose of the workshop is to contribute to the development of clinically qualified medical physicists in nuclear medicine by providing theoretical and practical tools for internal dosimetry. The workshop will provide participants with a comprehensive review of the basics and recent developments in the fields of nuclear medicine image quantification and internal dosimetry.

Clinical applications of nuclear medicine include both diagnostic imaging and therapeutic treatments. Internal dosimetry in diagnostic nuclear medicine aims to measure the absorbed doses delivered to healthy organs and its role is to provide the basis for stochastic risk quantification. In recent years, molecular radiotherapy has demonstrated unique therapeutic advantages in the treatment of an increasing number of cancers. Such treatments can deliver high absorbed doses to specific targets (tumour lesions) and healthy organs (organs at risk) and, thus, require an accurate and possibly patient-specific dose assessment with the purpose of optimizing the amount of radioactivity to be administered. In current clinical practice, the nuclear medicine therapeutic treatment is usually delivered based upon an administered activity prescription, in some cases with adjustments made for body weight or surface area. A pre-treatment calculation of the absorbed doses received by organs at risk and target tissues would allow for an accurate prediction of toxicity and efficacy of the treatment. The clinical benefit of performing dosimetry has now been demonstrated for a number of nuclear medicine therapies. The use of dosimetry in nuclear medicine can help reducing the risk of under- or over-dosing patients, otherwise observed when using empirical approaches to activity determination. However, propagation of dosimetric methods into nuclear medicine practice has been slow, the lack of training of Medical Physicists in this field being one of the reasons.

The workshop is under the umbrella of ICTP and IAEA is expected to contribute to strengthening the qualification of medical physicists working in nuclear medicine. In addition, the event will facilitate the creation of a network of professionals for the exchange of information on internal dosimetry among nuclear medicine medical physicists from different regions.

PARTICIPATION

This workshop would seek to target experienced medical physicists working in hospitals, and teachers involved in medical physics education and postgraduate training from all countries, including developing countries. The workshop will take a comprehensive approach to the principles of internal dosimetry, with particular emphasis on dosimetry for therapeutic nuclear medicine. Participants will become acquainted with their international peers and will have a unique opportunity to establish links for their mutual support. Knowledge transfer and creation of a network will be facilitated between individuals from developed and developing countries, for the benefit of patients worldwide.

Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the workshop. As it will be conducted in English, participants should have an adequate working knowledge of this language. Although the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants from developing countries, to be selected by the organizers. There is no registration fee.

HOW TO APPLY FOR PARTICIPATION

The application form can be accessed at the activity website:

<https://e-applications.ictp.it/applicant/login/2857>

Once in the website, comprehensive instructions will guide you on how to fill out and submit the application form.

ACTIVITY SECRETARIAT:

E-mail: smr2857@ictp.it

ICTP Home Page: <http://www.ictp.it>

DIRECTORS

Gian Luca Poli (IAEA)

Wesley Bolch (AAPM)

Manuel Bardiès (EFOMP)

LOCAL ORGANIZER

Luciano Bertocchi (ICTP)

APPLICATION DEADLINE

15 August 2016

