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2nd International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry

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Introduction

2nd International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry

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From September 30th to October 4th, the 2nd International Symposium on Radionuclide Therapy and Radiopharmaceuticals Dosimetry took place in conjunction with the annual congress of the European Association of Nuclear Medicine (EANM) in Athens, Greece. As a separate track within the EANM congress, this symposium successfully brought together all disciplines concerned with radiopharmaceutical dosimetry and radionuclide therapy, stimulating the interdisciplinary scientific discussion.

The format of the meeting has evolved from a series of interesting and important international symposia on radiopharmaceuticals and dosimetry held in the United States since the 1970s. The First International Symposium on Radionuclide Therapy and Radiopharmaceuticals Dosimetry was held in Helsinki in 2004.¹ Short papers of some of the contributions were published in three issues of *Cancer, Biotherapy and Radiopharmaceuticals* in 2005.

The scientific committee and program for the “2nd International Symposium on Radionuclide Therapy and Radiopharmaceuticals” was coordinated jointly by the EANM Task Group on

Dosimetry and the EANM Radionuclide Therapy Committee in cooperation with the MIRD committee of the Society of Nuclear Medicine.

The Proceedings of this second Symposium on Radionuclide Therapy and Dosimetry are collected in the present and following two issues of *Cancer, Biotherapy and Radiopharmaceuticals*.

The scientific program was highly interactive, bringing together scientists working in the fields of radionuclide therapy, applied dosimetry, radiopharmacy, and radiobiology. This compact, dedicated environment proved optimal in fostering the exchange of information, discussion, and cooperation.

The meeting highlights included a series of lectures on dosimetry and radiobiology organized by the EANM dosimetry committee:

- Radionuclides for therapeutic oncology: Making the right choice (S.C. Srivastava, Brookhaven, NY)
- Radiation biology and targeted radiotherapy (R. Howell, Harvard, Cambridge, MA)
- New biodosimetric markers (M. Monsieurs, Ghent, Belgium) and topics related to targeted radionuclide therapy organized by the EANM Therapy Committee
- Locoregional radionuclide therapy of brain tumors (X. Merlo, Basel, Switzerland)
- Radioiodine therapy of thyroid carcinoma in children (M. Luster Würzburg, Germany)

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- Enhancement of radionuclide therapy in bone metastases (M. Lam, JMH de Klerk, Utrecht, Amersfoort, The Netherlands)

A total of 60 oral and 94 poster presentations on targeted radiotherapy, dosimetry and radiopharmacy were given. Moreover, each day, a multidisciplinary session, focusing on one topic related to targeted radiotherapy, was held. The sessions were set up in such a way that the main speaker gave an introduction on the topic, after which one clinician and one dosimetrist presented their views. The topics were:

Peptide therapy

Overview: H. Mäcke (Basel, Switzerland)
 Clinics: L. Bodei (Milan, Italy)
 Physics: S. Walrand (Brussels, Belgium)

and

Bone pain palliation therapy

Overview: J. O'Sullivan (Belfast, United Kingdom)
 Clinics: F. Giammarile (Lyon, France)
 Physics: C. Chiesa (Milan, Italy)

The workshop format of the multidisciplinary sessions gave ample time for debates afterward.

In addition, a series of educational lectures were given, aimed particularly at physicists:

- Quantitative imaging and phantoms (M. Bardies, Nantes, France)
- New dosimetric methods: Voxel-based dosimetry (G. Sgouros, Baltimore, MD)
- Preclinical dosimetry, including cell and animal experiments (S.-E.Strand, Lund, Sweden).

In a dosimetry session "Meet the expert," a discussion between five highly experienced experts in dosimetry and the audience took place on how to improve dosimetric methods and procedures. During this session, the need was identified to develop and improve quality control measures for image quantification, with special emphasis on the needs of dosimetry. There is also demand for improvement of toxicity prediction in patients, particularly with respect to bone marrow dosime-

try and/or to establish corresponding surrogate values, such as blood dose for thyroid cancer treatment or whole-body dose for mIBG treatment. The participants of this session also asked for improved easy-to-use dosimetric tools by the gamma-camera manufacturers or software vendors.

The organizers of the 2nd International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry offered the opportunity to all presenters to publish a short paper. The best peer-reviewed contributions are contained in this and the two following issues of *Cancer Biotherapy and Radiopharmaceuticals*. In addition, these papers will be accessible online.

The publication process was coordinated by the EANM Dosimetry and Therapy Committees and the MIRD Committee of the Society of Nuclear Medicine.

The costs of the publication process are covered by grants from Psimedica Ltd., Malvern, UK, Genzyme Corporation, Naarden, NL and SIEMENS AG, Erlangen, Germany.

The papers in this and the following two issues of *Cancer Biotherapy and Radiopharmaceuticals* provide the reader with the opportunity to become familiar with the state of the art in targeted radiotherapy and dosimetry. Included are review-like papers, such as radioimmunotherapy of lymphoma, special technique papers, such as myeloablative mIBG therapy, and also interesting papers reporting on extensive experience on radiosynoviorthesis in countries from all over the world. An impressive display of dosimetric techniques is shown, ranging from simple, practical approaches to special dosimetric techniques, such as Monte Carlo calculations.

On the basis of the great success in Athens, there are plans for a third International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry to be held in the United States in 2009.

REFERENCE

1. Lassman M, Brans B, Behr TM. First International Symposium on Radionuclide Therapy and Radiopharmaceutical Dosimetry. *Cancer Biother Radiopharm* 2005; 20(1):45.