

MICROS 2009

15th International Symposium on Microdosimetry

*An Interdisciplinary Meeting on
Ionising Radiation Quality, Molecular Mechanisms,
Cellular Effects, and Their Consequences for
Low Level Risk Assessment and Radiation Therapy*

October 25 – 30, 2009

Verona, Italy

First Announcement

PURPOSE

The Symposium builds on the success of the previous fourteen symposia within the series. The symposium will provide a forum for scientists of different scientific disciplines to exchange and discuss recent scientific data and findings on relevant basic physical and biological mechanisms of radiation action and their consequences for risk assessment and radiation therapy, including proton and carbon ion therapy.

Presentations and intensive interdisciplinary discussion of progress in radiation physics, radiation chemistry, molecular and cellular biology, oncology and epidemiology are expected.

Importance will also be given to reviewing the progress made in modelling the multi-step process of radiation induced cancer and its application to epidemiological data, in particular for the better quantification of low dose and low dose rate risk.

The Symposium will also provide an opportunity to discuss the current status of topical non-linear phenomena, such as non-targeted and delayed effects, including radiation-induced bystander effects, genomic instability, adaptive response and low-dose hyper-radiosensitivity.

Emphasis will be laid on the recent technical developments in radiation detection and novel irradiation techniques, in particular to the current state of the microbeam technology for single cell/tissue irradiation and of its biological applications.

In order to maximize interdisciplinary communication and discussion the Symposium will be structured as Invited, Oral and Posters presentations. Refresher courses by invited experts are also foreseen.

To encourage the attendance of young scientists as well as researchers from less-favoured-Countries, specific awards are foreseen.

TOPICS

The programme will include *Invited, Oral and Poster* presentations on the following main topics:

- Physical, chemical and biological aspects of radiation transport and particle track formation for various radiation fields including space radiation environments
- Processes leading to and repair of molecular, cellular and tissue radiation damage
- Computational biology for radiation induced modifications of biological targets at cellular, tissue and organism levels, including radiation carcinogenesis
- Novel techniques of radiation detection, dosimetry and microdosimetry
- Advances in microbeam technology
- Non-linear phenomena at low-doses such as radiation-induced bystander effects, genomic instability, adaptive response and hyper-radiosensitivity
- Advances in radiation therapy, including hadron therapy
- Dosimetry for incorporated radionuclides
- Radiation risk assessment

Scientific Secretariat:

Roberto Cherubini - *INFN-Laboratori Nazionali di Legnaro, Legnaro-Padova, Italy*

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Scientific Committee:

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P. Olko, Institute of Nuclear Physics PAN, Krakow, Poland

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S. Pimblott, The University of Manchester, UK

K. Prise, Queen's University, Belfast, UK

A. Rosenfeld, University of Wollongong, Australia

L. Sabatier, CEA, Fontenay-aux-Roses, France

M. Spotheim-Marizot, CNRS, Orleans, France

B. Stenerlow, Uppsala University, Sweden

A.J. Waker, University of Ontario Institute of Technology, Oshawa, Canada

M. Waligorski, Centrum Onkologii Oddzial, Krakow, Poland

M. Weinfeld, Cross Cancer Institute, Edmonton, Canada

Local Organizing Committee:

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Conference Logistics Support:

Agenzia Leonardi-Viaggi, Padova, Italy

Conference Venue

The Symposium will be held at the “Centro Congressi” of the *Hotel San Marco* in Verona, Italy. The *Hotel San Marco* is located within walking distance from the historic downtown.

The city of Verona, a “UNESCO World Heritage Site”, dates back to the Roman Empire and is worldwide famous for the magnificent Roman remains, among others the renowned “Arena”, nowadays setting for operas, ballets and concerts, and as the city of the tragic lovers *Romeo and Juliet*, as immortalised by William Shakespeare.

Its geographical location near Garda Lake, the loops of the Adige River, that flows through the city, and the charming hills surrounding it at the northern side contribute to creating an harmoniously beautiful landscape.

Verona has an international airport and is very well connected by road and rail to many other international airports in Northern Italy (Milano Malpensa; Venezia; Milano Linate; Bergamo; Brescia; Treviso). It is at the crossroads of the North-South Brenner to Roma and the East-West Venezia to Milano railways as well as at the crossroads of the North-South A22 Brenner to Modena and the East-West A4 Trieste-Venezia to Milano-Torino motorways.

MICROS 2009 Proceedings

Symposium proceedings will be published as a special issue of a peer-reviewed journal. Further details will be provided in the Second Announcement and Call for paper

Pre-Registration

People who are interested in receiving the Second announcement and updates are kindly requested to fill in the Pre-Registration form available on the Symposium website.

Financial Assistance for Young Scientists

Limited funds will be available to assist young scientists attending the Symposium with the partial reimbursement of travel and/or living expenses. Further details will be provided in the Second Announcement.

Interest in applying can be indicated on the Pre-Registration Form available on the Symposium website.