

# MICROS 2017

## 17<sup>th</sup> 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*

**November 5 - 10, 2017**

**Venice (Venezia) – Italy**

### *First Announcement*

#### **PURPOSE**

The Symposium is intended to provide a forum for scientists from different disciplines to exchange and discuss recent 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 ion therapy.

The 17th Symposium will be a celebration of the *50th Anniversary of the Symposium*, and continues the eminent tradition by promoting and encouraging interdisciplinary interactions between advances in physical and chemical techniques and knowledge, combined with the latest rapid advances in molecular and cellular biology and genetics.

Moreover, room will be dedicated to the recent technical developments in radiation detection and novel irradiation techniques as well as to discuss the current status of topical non-linear phenomena and to review the progress made in modelling radiation action and the multi-step process of radiation induced cancer and neuro-radiobiology with application to epidemiological data, in particular for the better quantification of low dose and low dose rate risks.

*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
- Non-linear phenomena at low-doses such as radiation-induced bystander effects, genomic instability, adaptive response and hyper-radiosensitivity
- Neuro-radiobiology
- 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 micro-/nano-dosimetry
- Advances in microbeam technology
- Dosimetry for incorporated radionuclides
- Advances in radiation therapy, including neutron, proton and ion therapy
- Radiation risk assessment

***Scientific Secretariat:***

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M. Weinfeld, *Cross Cancer Institute, Edmonton, Canada*

A. Yokoya, *Japan Atom Energy Agency, Japan*

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### ***Conference Secretariat Contacts:***

#### **MICROS2017 Symposium**

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### ***Conference Venue***

The Symposium will be held in *Venice (Venezia)*, Italy, at the “*Congress Center*” of the “*Cultural Center Don Orione Artigianelli*”, Zattere - Dorsoduro 919 - 909/A, [on the “*Giudecca Canal*”, in front of the “*Giudecca*” isle, close to the “*Accademia Galleries*”, “*Peggy Guggenheim Collection*” and “*Grand Canal*”, within ~20 minutes walking distance from “*St. Mark's Square*” (Piazza San Marco)].

*Venue website: <http://www.donorione-venezia.it/home-en>*

*Venice (Venezia)* is served by its own International Airport named “*Marco Polo*”, located at Tessera, about 13 km from Venezia city (Piazzale Roma) and is well connected by road and rail to other international airports in Northern Italy (Treviso “*Canova*”, being the nearest; Verona; Bologna; Brescia; Bergamo; Milano Linate; Milano Malpensa).

*Venice (Venezia)* is connected by railway to every major city in Italy and to the rest of Europe.

***MICROS 2017 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 Papers).

***Pre-Registration***

People who are interested in receiving the Second Announcement (and Call for Papers) and updates are kindly requested to fill in the Pre-Registration form available on the Symposium website.

***Financial Assistance for Young Scientists***

Limited funds are foreseen 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 (and Call for Papers).

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