



ESF-EMBO Symposium

# Spatio-Temporal Radiation Biology: Transdisciplinary Advances for Biomedical Applications

Hotel Eden Roc, Sant Feliu de Guixols (Costa Brava) • Spain  
16-21 May 2009

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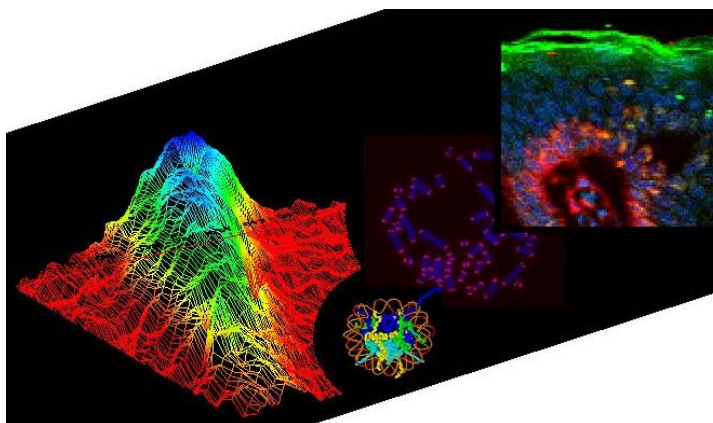


**Fondation  
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This ESF-EMBO conference aims to create a timely forum for multi-disciplinary discussions of recent developments in the ionising radiation effects on integrated living systems, from molecular to tissular scales, bringing together physicists, chemists, biochemists, biologists, genetics experts as well as physicians with a common interest in using different radiation sources and advanced techniques to explore transdisciplinary aspects of modern radiation biology and related biomedical applications. Deeply understanding the basic mechanisms of radiation damage in vitro and on living cells, starting from the early radical and molecular processes to mutagenic DNA lesions, cell signalling, genomic instability, apoptosis, microenvironment and Bystander effects, radio sensitivity should have in the near future many practical consequences like the customization of radiation therapy or radioprotection protocols. In this context, spatio-temporal radiation biology represents a newly emerging interdisciplinary field of studies driven nowadays in strong synergy with the most recent progresses of molecular biology, genomics and proteomics, biomarker detections, X-ray synchrotron micro-imaging, microbeams, pulsed relativistic particle sources, selective targeting radiopharmaceutical, advanced radiation therapies. This ESF-EMBO symposium will gather together actors from the academic research, applied and medical research as well as private companies and clinicians, to take advantage of the high research quality and technological environment developed in a European and international context.

The programme will address a number of highly topical aspects of spatio-temporal radiation biology, evolving over several orders of magnitude, typically from femtosecond and submicrometric scales. Scientific sessions will focus on

- Molecular and sub-cellular imaging of radiation effects
- Prethermal and thermal radiation processes
- Induction, amplification of damages
- Microbeam radiation
- Microenvironment and radiation responses
- Cellular imaging for radiation biology
- Innovation approaches for radiotherapies. More information on [www.esf.org/conferences/09287](http://www.esf.org/conferences/09287)



**Chair: Yann A. Gauduel**, INSERM, Laboratoire d'Optique Appliquée (LOA)-CNRS, ENSTA - Ecole Polytechnique Palaiseau, FR

**Co-Organisers: Laure Sabatier**, CEA Fontenay aux Roses, FR - **George Bauer**, Freiburg U., DE - **Sandrine Lacombe**, Paris Sud U., FR - **John Gueulette**, UCL, BE - **Jean Laissue**, Bern U., CH - **Frank Wien**, Synchrotron Soleil, FR

## Invited Speakers will include

**Mary Helen Barcellos-Hoff**, LBNL Berkeley, US  
**Stanley Botchway**, RAL Didcot, UK  
**Elke Bräuer-Krisch**, ESRF Grenoble, FR  
**Fatma Briki**, CNRS Paris Sud U., FR  
**Marie Dutreix**, Hospital Institute Curie, FR  
**Martin Falk**, IBP ASCR, CZ  
**Werner Friedland**, GSF Neuherberg, DE  
**Elena Giulotto**, Pavia U., IT  
**Darel Hunting**, Sherbrooke U., CA  
**Tadashi Kamada**, NIRS, JP

**Roland Kanaar**, Erasmus Rotterdam, NL  
**Gerard Kraft**, GSI Darmstadt, DE  
**Noel Lowndes**, NUI Galway, IE  
**Victor Malka**, Polytechnique Palaiseau, FR  
**Dimitra Markovitsi**, CEA Saclay, FR  
**Kevin Prise**, QUB Belfast, UK  
**Ennio Proserpi**, CNR Pavia, IT  
**Hans Rabus**, PTB Braunschweig, DE  
**Olga Sedelnikova**, NCI NIH Bethesda, US

**Application Form & Programme** available from

[www.esf.org/conferences/09287](http://www.esf.org/conferences/09287)

**Closing Date for Application 22 February 2009**

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