



**ESP Photobiology School**  
**June 10 – 16, 2018**  
**Brixen/Bressanone**

**Programme**  
**Abstracts**

# **European Society for Photobiology** **Photobiology School**

## **Organizing Committee**

Kristian Berg (NO, Chair)  
Santi Nonell (ES, ESP President)  
Francesco Ghetti (IT, ESP Treasurer)  
Giorgia Miolo (IT, Local Organizer)  
Massimo Trotta (IT, Chair ESP Education Committee)

## **Faculty**

Stefan Anderson-Engels (IR), Matteo Ballottari (IT), Kristian Berg (NO), Janet Bornman (AU), Giovanni Checcucci (IT), Luca Dall'Osto (IT), Thierry Douki (FR), Francesca Giuntini (UK), Tim Maisch (DE), Giorgia Miolo (IT), Miguel Miranda (ES), Carlo Musio (IT), Santi Nonell (ES), Valentina Rapozzi (IT), Lesley Rhodes (UK), Evelyne Sage (FR), Herbert Stepp (DE), Franz Trautinger (AU), Massimo Trotta (IT), Rex M. Tyrrell (UK), Christiano Viappiani (IT), Georges Wagnieres (CH), Peter Wolf (AU)

## **Important locations in Brixen/Bressanone**

### *School venue:*

*Casa della Gioventù, Università di Padova,*

*Address:*

*via Rio Bianco 6.*

*39042 Bressanone BZ, Italy*

### *Accommodation:*

*Academia Cusanus*

*Address:*

*Via del Seminario 2, 39042 Bressanone BZ, Italia*

## **Sponsor**

European Society for Photobiology



**ESP PHOTOBIOLOGY SCHOOL**  
**SCIENTIFIC PROGRAMME**

**Sunday June 10**

**Time: 17:0-19:00:**

**Registration - at Academia Cusanus**

# Monday June 11

**Time: 8:30-9:00: Registration**

**Time: 8:45-9:00: Welcome and Introductory remarks**

**Time: 9:00-10:30**

***Topic, plenary: Basic photophysics and photochemistry***

**Santi Nonell**, Institut Químic de Sarrià, Universitat Ramon Llull, Barcelona, Spain.

**Time: 10:30-11:00: Coffee break**

**Time: 11:00-12:30**

***Topic, plenary: Environmental photobiology***

**Janet Bornman** International Institute of Agri-Food Security (IIAFS), Curtin University, Perth, Australia.

**12:30 – 14:30 Lunch**

**Time: 14:30-16:00**

***Topic, plenary: Environmental photobiology***

**Massimo Trotta**, Institute for Chemical-Physical Processes, Italian National Research Council (CNR), Bari, Italy

***Topic, plenary: Light dosimetry in biological tissues***

**Georges Wagnieres**, Institute of Chemical Sciences and Engineering, Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland.

**Time: 16:00-16:30: Coffee break**

**Time: 16:30-18:00**

## Parallel sessions

***I. Topic, special: Environmental photobiology***

**Janet Bornman** International Institute of Agri-Food Security (IIAFS), Curtin University, Perth, Australia.

**Massimo Trotta**, Institute for Chemical-Physical Processes, Italian National Research Council (CNR), Bari, Italy

***II. Topic, special: Photophysics and photochemistry***

**Santi Nonell**, Institut Químic de Sarrià, Universitat Ramon Llull, Barcelona, Spain.

**Time: 19:30:**

**Welcome reception - at the School venue**

## Tuesday June 12

**Time: 9:00-10:30**

***Topic, plenary: Basic photophysics and photochemistry***

**Santi Nonell**, Institut Químic de Sarrià, Universitat Ramon Llull, Barcelona, Spain.

***Topic, plenary: Light dosimetry in biological tissues***

**Georges Wagnieres**, Institute of Chemical Sciences and Engineering, Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland.

**Time: 10:30-11:00: Coffee break**

**Time: 11:00-12:30**

***Topic, plenary: Light dosimetry in biological tissues***

**Stefan Andersson-Engels**, Irish Photonic Integration Centre (IPIC), Tyndall National Institute; Department of Physics, University College Cork, Cork, Ireland

**12:30 – 14:30 Lunch**

**Time: 14:30-16:00**

***Topic, plenary: Photosensory biology***

**Giovanni Checcucci**, Istituto di Biofisica, Consiglio Nazionale delle Ricerche, Pisa Italy

**Carlo Musio**, Consiglio Nazionale delle Ricerche - Istituto di Biofisica Fondazione Bruno Kessler, Trento, Italy

**Time: 16:00-16:30: Coffee break**

**Time: 16:30-18:00**

## Parallel sessions

***I. Topic, special: Biophotonics***

**Stefan Andersson-Engels**, , Irish Photonic Integration Centre (IPIC), Tyndall National Institute; Department of Physics, University College Cork, Cork, Ireland.

**Georges Wagnieres**, Institute of Chemical Sciences and Engineering, Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland.

***II. Topic, special: Photophysics and photochemistry: Measurement, simulation, and analysis of spectroscopic data***

**Santi Nonell**, Institut Químic de Sarrià, Universitat Ramon Llull, Barcelona, Spain.

## Wednesday June 13

**Time: 9:00-10:30:**

***Topic, plenary: Photodynamic therapy and fluorescence-based diagnosis***

**Kristian Berg**, Oslo University Hospital - Radium Hospital, Department of Radiation Biology, Oslo, Norway

**Time: 10:30-11:00: Coffee break**

**Time: 11:00-12:00:**

***Topic, plenary: Photodynamic therapy and fluorescence-based diagnosis  
continuing***

***Topic, plenary: Antimicrobial photodynamic therapy***

**Tim Maisch**, Department of Dermatology, University Medical Center Regensburg, Regensburg, Germany

**Time: 12:00 – 16:30: Walking tour to Abbazia di Novacella with lunch**

**Time: 16:30 – 18:00: Poster session with coffee**

# Thursday June 14

Time: 9:00-12:30

**Topic, plenary: Photomedicine (Phototherapy, phototoxicity and photoprotection)**

Time: 9:00-10:30 **Basic photodermatology**

**Franz Trautinger**, Karl Landsteiner Institute for Dermatological Research, St. Poelten, Austria

Time: 10:30-11:00 Coffee break

Time: 11:00-12:30 **Basic photodermatology, continuation**

**Photoreactivity and phototoxicity of drugs**

**Giorgia Miolo**, Department of Pharmaceutical Sciences, University of Padova, Padova, Italy.

13:00 – 14:30 Lunch

Time: 14:30-18:00

## Parallel sessions

### I. **Topic, special: PDT/Photodiagnosis – preclinical/clinical**

**PDT – cell signaling**

**Valentina Rapozzi**, Department of Medical and Biological Sciences, University of Udine, Udine, Italy

**PDT/Photodiagnosis – clinical experience**

**Herbert Stepp**, Laser-Forschungslabor, Klinikum der Universität München, München, Germany.

### II. **Topic, special: Photomedicine (Phototherapy, phototoxicity and photoprotection)**

**Phototherapy: Specific treatment modalities**

**Franz Trautinger**, Karl Landsteiner Institute for Dermatological Research, St. Poelten, Austria

Time: 16:00-16:30 Coffee break

### I. **Topic, special: PDT – clinical**

**Photodynamic Therapy in Dermatology**

**Peter Wolf**, Research Unit for Photodermatology, Department of Dermatology, Medical University of Graz, Graz, Austria.

**Impact of immunology on the outcome of photodynamic therapy**

**Peter Wolf**, Research Unit for Photodermatology, Department of Dermatology, Medical University of Graz, Graz, Austria.



**II. *Topic, special: Photooxidative reactions of drugs with biomolecules***

**Miguel Miranda**, Universidad Politecnica de Valencia, Departamento de Quimica,  
Valencia, Spain

**Time: 20:00: Official dinner**

## Friday June 15

**Time: 9:00-12:30**

***Topic, plenary: UV (from cells to skin tissue)***

**Time: 9:00-10:30**

**Thierry Douki**, Laboratoire Lesions des Acides Nucleiques, CEA-Grenoble, France.

**Evelyne Sage**, Institut Curie – Recherche, Centre Universitaire, Orsay – France

**Time: 10:30-11:00 Coffee break**

**Time: 11:00-12:30**

**Rex Tyrrell**, Department of Pharmacy & Pharmacology, University of Bath, United Kingdom

**Lesley Rhodes**, Photobiology Unit, Dermatological Sciences, Salford Royal Foundation Hospital, University of Manchester, Manchester - United Kingdom.

**12:30 – 14:30 Lunch**

**Time: 14:30-16:30**

***Topic, plenary: Photosynthesis***

**Time: 14:30-16:00:**

**Luca Dall’Osto** Department of Biotechnology, University of Verona, Italy

**Time: 16:00-16:30: Coffee break**

**Time: 16:30-18:00:**

**Matteo Ballottari**, Department of Biotechnology, University of Verona, Italy

# Saturday June 16

**Time: 09:00-11:00**

***I. Topic, special: PDT***

**Photosensitizers in Photodynamic Therapy**

**Francesca Giuntini**, School of Pharmacy and Biomolecular Sciences, Liverpool John Moores University, Liverpool, UK.

**Photochemical internalization (PCI) – from photodynamic targeting of lysosomes to clinical utilization of PCI**

**Kristian Berg**, The Norwegian Radium Hospital, Department of Radiation Biology, Oslo, Norway

***II. Topic, special: UV (from cells to skin tissue)***

**Formation and repair of DNA damage induced by solar UV radiation in human cells**

**Thierry Douki**, Laboratoire Lesions des Acides Nucleiques, CEA-Grenoble, France.

**A role for UVA on skin cancer**

**Evelyne Sage**, Institut Curie – Recherche, Centre Universitaire, Orsay – France

**Endogenous and exogenous protection against UV generated oxidative stress**

**Rex Tyrrell**, Department of Pharmacy & Pharmacology, University of Bath, United Kingdom

**Balancing the benefits and risks of solar UVR exposure**

**Lesley Rhodes**, Photobiology Unit, Dermatological Sciences, Salford Royal Foundation Hospital, University of Manchester, Manchester - United Kingdom.

**Time: 11:00-11:30** Coffee break

**Time: 11:30-12:30**

***Topic, plenary: Microscopy***

**Christiano Viappiani**, Dipartimento di Fisica e Scienze della Terra, Università di Parma, Parma, Italy

**12:30 – 14:30 Lunch**

**Time: 14:30-17:30**

**EXAM**