19th Congress of the European Society for Photobiology

30 August -3 September, 2021
WWW | Salzburg, Austria

Preliminary Programme and Posters

Monday August 30th 2021

Time	Session
18:00 - 18:10	**Opening ceremony** Franz Trautinger, AT & Kristjan Plaetzer, AT
18:10 - 18:20	Wolfgang Amadeus Mozart: String quartet in E flat major, KV 160 Concertante Streichquartett Salzburg
18:20 - 18:35	**Greeting message from the Governor of Salzburg, LH Dr. Wilfried Haslauer**
18:35 - 18:50	**Greeting words from the Rector of the Paris Lodron University Salzburg, Prof. Dr. Hendrik Lehnert**
18:50 - 19:10	Wolfgang Amadeus Mozart: String quartet in G major, KV 525 „Eine kleine Nachtmusik“ Concertante Streichquartett Salzburg
19:10 - 19:40	**PL-1 Love and hate of sunshine** Franz Trautinger, AT Chair: Herbert Hönigsmann, AT
19:40 - 20:10	Joseph Haydn: String quartet in B flat major „Sonnenaufgangsquartett“ (Hob. III: 78) Concertante Streichquartett Salzburg

Tuesday August 31st 2021, Morning

Time	Session
08:00 - 08:30	**PL-2 Photosensory receptors as tools in synthetic biology** Matias Zurbriggen, DE Chair: Francesca Giuntini, UK
08:30 - 09:00	**PL-3 Theoretical and Computational Photobiology: The Chemiexcitation Phenomenon in Biology and Medicine** Daniel Roca-Sanjuán, ES Chair: Giorgia Miolo, IT
09:00 - 09:10	Short break

Tuesday August 31st 2021, Morning

09:10 - 12:30	**Symposium 1.1 Solar Fuels** Chair: Massimo Trotta, IT & Noam Adir, IL
09:10 - 09:35	IL-1.1.1 Engineering Cells, Membranes and Light Harvesting/Photosystem II Super-Complexes in Bio-Photoelectrochemical Cells Noam Adir, IL
09:35 - 10:00	IL-1.1.2 Photosynthetic entities in biohybrid systems for environmental monitoring Matteo Grattieri, IT
10:00 - 10:25	IL-1.1.3 Engineering photosynthetic microorganisms for direct solar chemical and fuel production from carbon dioxide, example butanol Peter Lindblad, SE
10:25 - 10:40	OC-1.1.4 Predicting the electronic and spectroscopic properties of chromophore-protein assemblies towards efficient charge-separation Mariano Curti, ES
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-1.1.5 The Metabolism of H_2 in green algae –how can it be used to redesign photosynthesis? Iftach Yacoby, IL
11:25 - 11:50	IL-1.1.6 Bio-Inspired Chromophore-Protein Assemblies for the Generation of Solar Fuels Elisabet Romero, ES
11:50 - 12:15	IL-1.1.7 Do photosynthetic bacteria dream of heavy metals? Massimo Trotta, IT
12:15 - 12:30	OC-1.1.8 Coating photosynthetic bacteria with the versatile polydopamine Rossella Labarile, IT
12:30 - 13:30	Lunch break

Tuesday August 31st 2021, Morning

09:10 - 12:30	**Symposium 1.2 Photoaging** Chair: Florian Gruber, AT & Thomas Haarmann-Stemmann, DE
09:10 - 09:35	IL-1.2.1 Interaction of different UV wavelengths present in natural sunlight: Impact on DNA damage and apoptosis Thomas Haarmann-Stemmann, DE
09:35 - 10:00	IL-1.2.2 Photo-AGEs and related reactive carbonyl species are molecular mediators of skin photodamage, photoaging, and carcinogenesis Georg T. Wondrak, US
10:00 - 10:25	IL-1.2.3 UVB-induced senescence and its role in melanomagenesis Marco Demaria, NL
10:25 - 10:40	OC-1.2.4 Cellular response of human keratinocytes to a photo-pollution stress Alexe Grenier, CA
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-1.2.5 Skin Photoageing: a stress-induced cognitive misleading Mauro Picardo, IT
11:25 - 11:50	IL-1.2.6 Relationship between intrinsic and extrinsic skin aging Sabine Schneider, DE
11:50 - 12:15	IL-1.2.7 Epilipidomic signatures of senescence and UV stress Florian Gruber, AT
12:15 - 12:30	OC-1.2.8 Infrared and visible light in combination with UV increase skin cell stress markers Catherine A. Bonn, UK
12:30 - 13:30	Lunch break

Tuesday August 31st 2021, Morning

09:10 - 12:30	**Symposium 1.3 Antimicrobial PDT** Chair: Santi Nonell, ES & Tim Maisch, DE
09:10 - 09:35	IL-1.3.1 Photoantimicrobials: What we know and don't know! Tim Maisch, DE
09:35 - 10:00	IL-1.3.2 Adding Photodynamic Inactivation to the farmer's armamentarium against phytopathogens Kristjan Plaetzer, AT
10:00 - 10:25	IL-1.3.3 Anti-bacterial and anti-virulent photoinactivation of *Staphylococcus aureus* isolated from atopic dermatitis patients: an *in vitro* and *in vivo* approach. Joanna Nakonieczna, PL
10:25 - 10:40	OC-1.3.4 aPDT Activity of Cationic Copolymers with Dual Function: Synergistic Effect of Poly(oxanorbornene) and Phthalocyanine Erem Ahmetali, TR
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-1.3.5 LIGHT4LUNGS: Inhalable Aerosol Light Source for Controlling Drug-Resistant Bacterial Lung Infections Santi Nonell, ES
11:25 - 11:40	OC-1.3.6 Photodynamic inactivation of bacteria (PIB) used for decontamination of surfaces in food industry Larissa Kalb, DE
11:40 - 11:55	OC-1.3.7 How long *Escherichia coli* can resist a resistance to antimicrobial blue light (aBL) treatment? Aleksandra Rapacka-Zdończyk, PL
11:55 - 12:10	OC-1.3.8 Cationic Phthalocyanine Palladium complexes for Photodynamic Inactivation of Pathogenic Bacteria on Farm Fishes VanyaMantareva, BG
12:10 - 12:25	OC-1.3.9 Optimisation of *Streptococcus agalactiae* biofilm culture as a model for photoinactivation studies Michał K. Pierański, PL
12:25 - 12:30	SP-1.3.10 Maltohexaose-porphyrinconjugate for bacteria-targeted Photodynamic Therapy Abdechakour Elkihel, FR
12:30 - 13:30	Lunch break

Tuesday August 31st 2021, Morning

09:10 - 12:30	**Symposium 1.4 Harvesting sun light: from visible to far-red** Chair: Roberta Croce, NL & Diana Kirilovsky, FR
09:10 - 09:35	IL-1.4.1 Regulation of cyanobacterial photoprotection Diana Kirilovsky, FR
09:35 - 10:00	IL-1.4.2 From light-harvesting to quenching in plant antenna complexes: a new perspective from atomistic simulations Benedetta Mennucci, IT
10:00 - 10:25	IL-1.4.3 Exploring Carotenoid-Mediated Photophysics in Plants with Ultrabroadband 2D Electronic Spectroscopy Gabriela S. Schlau-Cohen, US
10:25 - 10:40	OC-1.4.4 The keto group in β2 of the carotenoid tunes the Orange Carotenoid Protein photocycle kinetics Volha Chukhutsina, UK
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-1.4.5 Hydrophobic mismatch as a possible trigger of NPQ Alexander V. Ruban, UK
11:25 - 11:50	IL-1.4.6 Chlorophyll *f* site assignments in far-red light-acclimated photosystem I Christopher J. Gisriel, US
11:50 - 12:15	IL-1.4.7 Breaking the red-limit: driving oxygenic photosynthesis with far-red light Roberta Croce, NL
12:15 - 12:30	OC-1.4.8 Electrostatic Control of Reaction Centre Excitation in Photosystem II Abhishek Sirohiwal, DE
12:30 - 13:30	Lunch break

Tuesday August 31st 2021, Afternoon

13:30 - 14:00	**PL-4 Dark CPDs and Genomic Sites Hypersensitive to UV** Douglas E. Brash, US Chair: Rex Tyrrell, UK
14:00 - 14:30	**PL-5 Does light have a unique niche for enabling nanotechnology?** Tayyaba Hasan, US Chair: Kristian Berg, NO
14:30 - 14:40	Short break

Tuesday August 31st 2021, Afternoon

14:40 - 18:00	**Symposium 2.1 Photosensitization** Chair: Miguel A. Miranda, ES & Andrés H. Thomas, AR
14:40 - 15:05	IL-2.1.1 Photosensitized oxidation of proteins: is disulfide bond damage important? Michael J. Davies, DK
15:05 - 15:30	IL-2.1.2 Deciphering biomembrane photodamage:Alkylation of a type I sensitizer enhances the photo-induced oxidation of phospholipid membranes Andrés H. Thomas, AR
15:30 - 15:55	IL-2.1.3 Heavy-Atom-Free Photosensitizers for the Treatment of Cancer Cells Carlos E. Crespo-Hernández, US
15:55 - 16:10	OC-2.1.4 Mechanistic Organic Photochemistry: Dark Processes and Toxicity Priming Alexander Greer, US
16:10 - 16:30	Virtual coffee break
16:30 - 16:55	IL-2.1.5 Photosensitization by tyrosine kinse inhibitors Miguel A. Miranda, ES
16:55 - 17:20	IL-2.1.6 Singlet molecular oxygen reaction with biomolecules: Mechanistic studies using ^{18}O-labeled oxygen, mass spectrometry, and light emission measurements Paolo Di Mascio, BR
17:20 - 17:45	IL-2.1.7 Metallodrug Photosensitizers for Light-Based Cancer Therapy Sherri A. McFarland, US
17:45 - 18:00	OC-2.1.8 Inhibition of 6-formylindolo[3,2-b]carbazole metabolism sensitizes keratinocytes to UVA-induced apoptosis: Implications for drug-induced phototoxicity Katharina M. Rolfes, DE

Tuesday August 31st 2021, Afternoon

14:40 - 18:00	**Symposium 2.2 Responses of non-flowering plants to UV radiation** Chair: Javier Martínez-Abaigar, ES & Pirjo Huovinen, CL
14:40 - 15:05	IL-2.2.1 Responses of Cyanobacteria to UV Radiation Rajeshwar P. Sinha, IN
15:05 - 15:30	IL-2.2.2 Algae and UV radiation: Examples from Antarctic ecosystems Pirjo Huovinen, CL
15:30 - 15:55	IL-2.2.3 UV-B resistance strategies of green macroalgae Frauke Pescheck, DE
15:55 - 16:10	OC-2.2.4 Chemical decoration and biochemical incorporation of photoactive molecules in diatoms for photonics and electronic applications Danilo Vona, IT
16:10 - 16:30	Virtual coffee break
16:30 - 16:55	IL-2.2.5 Do secondary compounds protect lichens against UV radiation? Knut Asbjørn Solhaug, NO
16:55 - 17:20	IL-2.2.6 Ultraviolet photoprotection in bryophytes - a polar perspective Sharon A. Robinson, AU
17:20 - 17:45	IL-2.2.7 Responses of non−flowering plants to UV radiation: an overview Javier Martínez-Abaigar, ES
17:45 - 18:00	

Tuesday August 31st 2021, Afternoon

14:40 - 18:00	**Symposium 2.3 Photomedicine and SARS-CoV-2 / ASP-ESP Symposium** Chair: Amparo Faustino, PT & Doug Learn, US
14:40 - 15:05	IL-2.3.1 Germicidal Ultraviolet UV-C: Rediscovery of an Old Method to Reduce Infection Risk During COVID-19 David H. Sliney, US
15:05 - 15:30	IL-2.3.2 Photoinduced inactivation of SARS-CoV-2 Mauricio S. Baptista, BR
15:30 - 15:55	IL-2.3.3 Is there a therapeutic role for PDT in Covid 19 SARS infection? Keyvan Moghissi, UK
15:55 - 16:10	OC-2.3.4 Correlation of the ultraviolet index (UVI) and the temperature with incidence and severity of Covid-19 in Spain Yolanda Gilaberte, ES
16:10 - 16:30	Virtual coffee break
16:30 - 16:55	IL-2.3.5 Broad-spectrum Photodynamic Disinfection in the Treatment of SARS-CoV-2 Nicolas Loebel, CA
16:55 - 17:20	IL-2.3.6 Photodynamic therapy for Covid-19 and other infectious diseases Luis G. Arnaut, PT
17:20 - 17:45	IL-2.3.7 Ultraviolet C Exposure Testing of Materials; An Important Aspect of Surface Sterilization Matt McGreer, US
17:45 - 18:00	OC-2.3.8 Characterization of 222nm UVC-based Cleaning Impacts on Vegetative and Biofilm Cells Janet Price, US

Tuesday August 31st 2021, Afternoon

14:40 - 18:00	**Symposium 2.4 Near infrared PDT** Chair: Cristiano Viappiani, IT & Mladen Korbelik, CA
14:40 - 15:05	IL-2.4.1 Advantages of NIR light-triggered cancer therapies Mladen Korbelik, CA
15:05 - 15:30	IL-2.4.2 Dye Doped Silica Nanoparticles as Photoactive Organized Systems for Nanomedicine Luca Prodi, IT
15:30 - 15:55	IL-2.4.3 Drug Delivery Systems Targeting Tumour Microenvironment for Near-Infrared Photodynamic Therapy Takahiro Nomoto, JP
15:55 - 16:10	OC-2.4.4 The impact of atropisomerism on Redaporfin photodynamic therapy efficacy Claire Donohoe, PT
16:10 - 16:30	Virtual coffee break
16:30 - 16:50	IL-2.4.5 Ru(II) and Os(II) complexes as Hypoxia-Active Photosensitizer Classes for PDT: the contribution of computational studies Marta ErminiaAlberto, IT
16:50 - 17:10	IL-2.4.6 Light-driven coordination compounds and hybrid assemblies as multimodal bioimaging agents and ROS-photosensitizers: Design, synthesis andimplementation Cristian A. Strassert, DE
17:10 - 17:30	IL-2.4.7 Non-invasive activation of photosensitizers in the lungs: achievable goal or impossible dream? Giulia Kassab, BR
17:30 - 17:45	OC-2.4.8 Clinical use of a near-infrared fluorescence imaging system in photo-dynamic therapy using liposomal indocyanine green Hiromi Muranishi, JP
17:45 - 18:00	OC-2.4.9 A low molecular weight carboxamide halogenated bacteriochlorin for the treatment of highly aggressive tumors Lígia C. Gomes-da-Silva, PT

Wednesday September 1st 2021, Morning

Time	Session
08:00 - 08:30	**PL-6.1 Young Investigator Lecture I** Radiotherapeutic effects of radioluminescent nanomaterials Anne-Laure Bulin, FR Chair: Franz Trautinger, AT **PL-6.2 Young Investigator Lecture II** A NanoBioengineering Frontier for Next-Generation Optical Devices Ardemis A. Boghossian, CH Chair: Massimo Trotta, IT
08:30 - 09:00	**PL-7 Effect of UV on microbiomes** Peter Wolf, AT Chair: Franz Trautinger, AT
09:00 - 09:10	Short break

Wednesday September 1st 2021, Morning

09:10 - 12:30	**Symposium 3.1 Photocarcinogenesis and photoimmunology** Chair: Scott N. Byrne, AU & Katie M. Dixon, AU
09:10 - 09:35	IL-3.1.1 Type I interferons enhance repair of ultraviolet radiation induced DNA damage and regulate cutaneous immune suppression Nabiha Yusuf, US
09:35 - 10:00	IL-3.1.2 Modulation of B cell responses to TLR7 activation following narrowband UVB phototherapy in early multiple sclerosis Stephanie Trend, AU
10:00 - 10:25	IL-3.1.3 Exposure to systemic immunosuppressive solar simulated ultraviolet radiation alters T cell recirculation through sphingosine 1 phosphate Scott N. Byrne, AU
10:25 - 10:40	OC-3.1.4 Local and systemic effects of narrowband UVB irradiation in mice Rachael Ireland, AU
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-3.1.5 Oestrogen-related factors and incidence of melanoma in the U.S. Radiologic Technologists study Jim Z. Mai, US
11:25 - 11:50	IL-3.1.6 Photoprotection by vitamin D compounds: uncovering markers that predict efficacy in reducing photocarcinogenesis Katie M. Dixon, AU
11:50 - 12:15	IL-3.1.7 UV-induced growth and migration of melanoma cells in a spheroid model Karin Öllinger, SE
12:15 - 12:30	OC-3.1.8 Characterization of Photo damaged skin using 3D Line-field optical coherence tomography and histopathological correlation Javiera Pérez-Anker, ES
12:30 - 13:30	**Lunch break and poster presentation**
13:30 - 14:40	**Poster presentation**

Wednesday September 1st 2021, Morning

09:10 - 12:30	**Symposium 3.2 Imaging** Chair: Florian Gruber, AT & Dario Bassani, FR
09:10 - 09:35	IL-3.2.1 NIR biphotonic chromophores in the service of biology Chantal Andraud, FR
09:35 - 10:00	IL-3.2.2 Title missing Raf Van de Plas, NL
10:00 - 10:25	IL-3.2.3 Monitoring of Wound Healing by Using Label-free Multiphoton Microscopy and the 3D Printed Live-cell Imaging Chamber Julia Fernandez-Rodriguez, SE
10:25 - 10:40	OC-3.2.4 A novel Cathepsin B degradable nanoparticle platform for intraoperative NIR imaging and treatment of pancreatic cancer Fabiola Sciscione, UK
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-3.2.5 Imaging of stress- and damage- induced metabolic adapations in skin Imaging of stress- and damage- induced metabolic adapations in skin Florian Gruber, AT
11:25 - 11:50	IL-3.2.6 Imaging Mass Spectrometry –Benefits, Challenges, Potentials Martina Marchetti-Deschmann, AT
11:50 - 12:15	IL-3.2.7 Hyperspectral imaging extended to circularly polarized light Dario M. Bassani, FR
12:15 - 12:30	OC-3.2.8 Analysis of UV-exposed skin sections via MALDI Imaging Mass Spectrometry Samuele Zoratto, AT
12:30 - 13:30	**Lunch break and poster presentation**
13:30 - 14:40	**Poster presentation**

Wednesday September 1st 2021, Morning

09:10 - 12:30	**Symposium 3.3 Photoreceptors of the plant microbiota: functions and applications** Chair: Aba Losi, IT & Luis Corrochano, ES
09:10 - 09:35	IL-3.3.1 Photoreceptors from the plant symbiont *Methylobacterium radiotolerans* Aba Losi, IT
09:35 - 10:00	IL-3.3.2 *Ralstonia solanacearum* virulence and bacterial physiology are modulate by light and LOV photoreceptor Elena G. Orellano, AR
10:00 - 10:25	IL-3.3.3 Effects of light on thenon-photosynthetic plant growth promoting rhizobacteria *A. brasilense* Az39 Romina Molina, AR
10:25 - 10:40	OC-3.3.4 New Insights from the Exciting Photobiological World of Mushrooms Bianka Siewert, AT
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-3.3.5 Photoperception in plant- and rock-associated black fungi (Ascomycota) Julia Schumacher, DE
11:25 - 11:50	IL-3.3.6 Analysis of the light response in *Alternaria alternata* – mitochondria as novel phytochrome assembly stations Reinhard Fischer, DE
11:50 - 12:15	IL-3.3.7 Light regulates the degradation of VE-1, a component of the regulatory velvet complex in the fungus *Neurospora crassa* Luis M. Corrochano, ES
12:15 - 12:30	OC-3.3.8 Effects of LOV photoreceptor deletion in the *Pseudomonas syringae-tomato* system Daniela Ceresini, IT
12:30 - 13:30	**Lunch break and poster presentation**
13:30 - 14:40	**Poster presentation**

Wednesday September 1st 2021, Morning

09:10 - 12:30	**Symposium 3.4 Free oral communications** Chair: Kristian Berg, NO & Rex Tyrrell, UK
09:10 - 09:25	OC-3.4.1 Highly sensitive detection of 2-photon photosensitized singlet oxygen using a novel optofluidic system Sergio Adan Bermudez, UK
09:25 - 09:40	OC-3.4.2 Photoprotection, energy quenching and PSBS, is it really important? Christo Schiphorst, NL
09:40 - 09:55	OC-3.4.3 Oxybenzone solar filter as a photoremovable protecting group forcarbonyl compoundsof biological interest Mauricio Lineros-Rosa, ES
09:55 - 10:10	OC-3.4.4 Photostability of Ipilimumab and Nivolumab in the formulation and sterile saline or glucose solutions for parenteral administration Giorgia Miolo, IT
10:10 - 10:25	OC-3.4.5 Chromatophores efficiently promote light-driven ATP synthesis and DNA transcription inside hybrid multicompartment artificial cells Paola Albanese, IT
10:25 - 10:40	OC-3.4.6 Hypericin against SARS-CoV-2: from binding to antiviral efficacy Pietro Delcanale, IT
10:40 - 11:00	Virtual coffee break
11:00 - 11:15	OC-3.4.7 An update on Photodynamic Decontamination to prevent foodborne disease Michael Glueck, AT
11:15 - 11:30	OC-3.4.8 Photoactivatable metabolic warheads enable precise and safe ablation of target cells in vivo Sam Benson, UK
11:30 - 11:45	OC-3.4.9 A portable NIR spectrometer directly quantifies singlet oxygen generated by nanostructures for Photodynamic Therapy in deep tissues Davide Orsi, IT
11:45 - 12:00	OC-3.4.10 Uncovering the potency of PSI-ALA-Hex as a fluorescence-guided surgery tool for breast cancer Martin Kiening, CH
12:00 - 12:15	OC-3.4.11 New porphyrin conjugates for the treatment of TNBC Miryam Chiara Malacarne, IT
12:15 - 12:30	OC-3.4.12 Interrogating the physical and therapeutic attributes of NIR active molecular targeted photonanomedicinesin solid tumors Girgis Obaid, US
12:30 - 13:30	**Lunch break and poster presentation**
13:30 - 14:40	**Poster presentation**

Wednesday September 1st 2021, Afternoon

14:40 - 18:00	**Symposium 4.1 DNA damage** Chair: Daniel Roca-Sanjuán, ES & Virginie Lhiaubet-Vallet, ES
14:40 - 15:05	IL-4.1.1 Photochemistry of DNA damages Virginie Lhiaubet-Vallet, ES
15:05 - 15:30	IL-4.1.2 DNA damage and molecular modelling: Mechanistic aspects revealed by multiscale simulations Antonio Francés-Monerris, ES
15:30 - 15:55	IL-4.1.3 Photoactivated behavior of Guanine-rich DNA Quadruple Helices Roberto Improta, IT
15:55 - 16:10	OC-4.1.4 Transfection of keratinocytes within vitro synthesized CPD-specific photolyase-encoding mRNA is a model system to study the CPD-dependent cellular effects of UVB Éva Remenyik, HU
16:10 - 16:30	Virtual coffee break
16:30 - 16:55	IL-4.1.5 The triplet state as the precursor of the thietane intermediate in the formation of the DNA 6-4 photoadduct Carlos E. Crespo-Hernández, US
16:55 - 17:20	IL-4.1.6 In silico insight on the photophysics of non-canonical nucleobases. Implications in DNAphotostability and damage Inés Corral, SP
17:20 - 17:35	OC-4.1.7 Photoinduced azetidine decomposition reaction by photo-oxidation and photo-reduction: Inverting the aza-Paternò-Büchi reaction Miriam Navarrete Miguel, ES
17:35 - 17:50	OC-4.1.8 An insight into etheno adducts optical properties Paloma Lizondo-Aranda, ES
17:50 - 17:55	SP-4.1.9 Risk assessment of irradiating skin models at 233 nm using far-UVC LEDs for eradiacation of MRSA and MSSA Johannes Schleusener, DE
17:55 - 18:00	SP-4.1.10 Photoprotection from UV light-induced telomere shortening and DNA damage by a broad-spectrum sunscren product Ana Guío-Carrión, ES

Wednesday September 1st 2021, Afternoon

14:40 - 18:00	**Symposium 4.2 Interactions of UV and other environmental factors in regulating plant growth and development** Chair: Marcel A.K. Jansen, IE & Éva Hideg, HU
14:40 - 15:05	IL-4.2.1 UV-B radiation in a changing climate; can UV protect plants from drought stress? Marcel A.K. Jansen, IE
15:05 - 15:30	IL-4.2.2 Does ultraviolet radiation modulate plant responses to elevated CO_2 concentration? Otmar Urban, CZ
15:30 - 15:45	OC-4.2.3 Short-term UV pretreatment supports cold tolerance of bell pepper seedlings Gyula Czégény, HU
15:45 - 16:00	OC-4.2.4 Short daily UV exposure of Micro-Tom tomato plants favours a better stomatal control suggesting a delayed leaf senescence Alessia Mannucci, IT
16:00 - 16:30	Virtual coffee break
16:30 - 16:55	IL-4.2.5 Benefits of solar UV-B radiation on field crops defenses against insect pests Jorge A. Zavala, AR
16:55 - 17:20	IL-4.2.6 UV-B LED priming for reduced biotrophic disease susceptibility in Lettuce seedlings Jason J. Wargent, NZ
17:20 - 17:35	OC-4.2.7 The role of ultraviolet radiation in colonization of plants by endophytes Aleksandra Giza, PL
17:35 - 17:50	OC-4.2.8 UVB-dose and Salt stress response on the accumulation of secondary metabolites on Bell pepper leaves Shyam Pariyar, DE
17:50 - 17:55	-
17:55 - 18:00	-

Wednesday September 1st 2021, Afternoon

14:40 - 18:00	**Symposium 4.3 Photodermatology, Phototherapy and Photodiagnostics** Chair: Akimichi Morita, JP & Peter Wolf, AT
14:40 - 15:05	IL-4.3.1 Photo(chemo)therapy in the era of biologics - has the light lost its shine? Adrian Tanew, AT
15:05 - 15:30	IL-4.3.2 Regulatory T cell induction prolongs the efficacyfor the treatment of psoriasis Akimichi Morita, JP
15:30 - 15:55	IL-4.3.3 UVA-1 in fibrotic diseases and beyond Piergiacomo Calzavara-Pinton, IT
15:55 - 16:10	OC-4.3.4 Simulated Penetration Depth of Ultraviolet Radiation inSkin with Varying Stratum Corneum Thicknesses as an Aid for Phototherapy Louise Finlayson, UK
16:10 - 16:30	Virtual coffee break
16:30 - 16:55	IL-4.3.5 Skin microbiome limits cis-UCA-induced immune suppression Vijaykumar Patra, AT
16:55 - 17:20	IL-4.3.6 Targeted phototherapy and new light sources Peter Wolf, AT
17:20 - 17:45	IL-4.3.7 UV phototherapy and skin cancer risk Robert S. Dawe, UK
17:45 - 18:00	OC-4.3.8 Rationalizing Phototherapy Services During the Covid-19 Pandemic: Strategies and Impacts on Patient Access and Outcomes Tashmeeta Ahad, CA

Wednesday September 1st 2021, Afternoon

14:40 - 18:00	**Symposium 4.4 Photosystem II and oxygen evolution** Chair: Richard Debus, US
14:40 - 15:05	IL-4.4.1 Understanding the Sequence of Events During the Water Oxidation Reaction in Photosystem II using Crystallography/X-ray Spectroscopy Junko Yano, US
15:05 - 15:30	IL-4.4.2 Identity of EPR-detected intermediates in biological water oxidation Dimitrios A. Pantazis, DE
15:30 - 15:55	IL-4.4.3 Electron and Proton Releasing Sites in the Oxygen-Evolving Complex of Photosystem II Hiroshi Ishikita, JP
15:55 - 16:10	OC-4.4.4 The rise and fall of the photoinhibition-related energy dissipation q_I Wojciech J. Nawrocki, NL
16:10 - 16:30	Virtual coffee break
16:30 - 16:55	IL-4.4.5 Fast substrate water exchange in the S_2 state of photosystem II is controlled by proteins surrounding the Mn_4CaO_5 cluster – implications for the water oxidation mechanism Johannes Messinger, SE
16:55 - 17:20	IL-4.4.6 Infrared study on the mechanisms of water oxidation at the Mn cluster and its photoassembly in photosystem II Takumi Noguchi, JP
17:20 - 17:45	IL-4.4.7 Light-driven formation of high-valent manganese oxide by photosystem II supports evolutionary role in early bioenergetics Holger Dau, DE
17:45 - 18:00	OC-4.4.8 Harvesting the far-red with plant antenna complexes incorporating chlorophyll *d* & *f* Eduard Elias, NL

Thursday September 2nd 2021, Morning

Time	Session
08:00 - 08:30	**PL-8 Photoremediation** Matthias Senge, IE Chair: Amparo Faustino, PT
08:30 - 09:00	**PL-9 Plant based biohybrid systems** Eleni Stavrinidou, SE Chair: Massimo Trotta, IT
09:00 - 09:10	Short break

Thursday September 2nd 2021, Morning

09:10 - 12:30	**Symposium 5.1 Light as a sensing tool/molecular and nano sensors** Chair: Francesca Giuntini, UK
09:10 - 09:35	IL-5.1.1 Quenched-phosphorescence oxygen sensing platforms for biomedical research and photobiology Dmitri B. Papkovsky, IE
09:35 - 10:00	IL-5.1.2 Mapping microscopic viscosity and temperature using molecular rotors Marina K Kuimova, UK
10:00 - 10:25	IL-5.1.3 Fluorescent nanosensors for the measurement of biological systems Jonathan W. Aylott, UK
10:25 - 10:40	OC-5.1.4 A new method of assessing chloroplast movements using hyperspectral imaging Justyna Łabuz, PL
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-5.1.5 It's Getting Hot in Here: Intracellular Temperature Sensing Through Light Emission Luís D. Carlos, PT
11:25 - 11:50	IL-5.1.6 Colorimetric and luminescent nanomaterials as new nanoplatforms for sensing and drug delivery in biological environments Elisabete Oliveira, PT
11:50 - 12:15	IL-5.1.7 Innovative strategies for luminescent chemosensing coupled to exquisite molecular recognition: illustrative examples in food mycotoxins detection Guillermo Orellana, ES
12:15 - 12:30	OC-5.1.8 Fluorescent Metal Nanoclusters for MicroRNA Detection Marina A. Kapitonova, RU
12:30 - 12:40	Short break
12:40 - 13:40	**LS Industry sponsored lunch symposium (L'Oréal)**
	(please see the programme below after the programme of the morning sessions)
13:40 - 13:50	Short break

Thursday September 2nd 2021, Morning

09:10 - 12:30	**Symposium 5.2 Enlightening dental applications** Chair: Ellen Bruzell, NO & Peter Fahlstedt, SE
09:10 - 09:35	IL-5.2.1 Chances and limitations of light-based antimicrobial approaches in dentistry – an update Fabian Cieplik, DE
09:35 - 10:00	IL-5.2.2 Light-Responsive Coatings for Biofilm Disruption Devatha P. Nair, US
10:00 - 10:25	IL-5.2.3 Photocrosslinking of collagen and antimicrobial applications Krister Gjestvang Grønlien, NO
10:25 - 10:40	OC-5.2.4 Blue light risk evaluation of dental operating lights Ellen M. Bruzell, NO
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-5.2.5 Lasers in Dentistry Peter Fahlstedt, SE
11:25 - 11:50	IL-5.2.6 Laser in Public dental healthcare, experience and reflections Are Kristofer Hjeltnes, SE
11:50 - 12:15	IL-5.2.7 Evaluation of upper labial frenectomy - a randomized, controlled comparative study of conventional scalpel technique and Er:YAG laser technique Roxana Sarmadi, SE
12:15 - 12:30	OC-5.2.8 With blue light against bacteria and viruses Magdalena Metzger, AT
12:30 - 12:40	Short break
12:40 - 13:40	**LS Industry sponsored lunch symposium (L'Oréal)**
	(please see the programme below after the programme of the morning sessions)
13:40 - 13:50	Short break

Thursday September 2nd 2021, Morning

09:10 - 12:30	**Symposium 5.3 Epigenetics, pigmentation and melanoma** Chair: Lionel Larue, FR & Marie-Dominique Galibert, FR
09:10 - 09:35	IL-5.3.1 Dynlt3 controls melanosome movement, distribution, acidity and transfer to keratinocytes Lionel Larue, FR
09:35 - 10:00	IL-5.3.2 Sun-induced pigmentation: relative contribution of UVA1 and Visible Light color domains Claire Marionnet, FR
10:00 - 10:25	IL-5.3.3 UV-induced growth and migration of melanoma cells in a spheroid model Karin Öllinger, SE
10:25 - 10:40	OC-5.3.4 Photoprotective and Antigenotoxic Properties of Actinobacteria Indigenous Strains from Deep Subsurface Environments of Colombia Carlos Adolfo Pedraza Barrera, CO
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-5.3.5 Role of the AhR transcription factor in reprogramming melanoma cells Marie-Dominique Galibert, FR
11:25 - 11:50	IL-5.3.6 MITF and the chromatin modifiers PRDM7 and SETDB2 in melanoma Eiríkur Steingrímsson, IS
11:50 - 12:15	IL-5.3.7 B cells in human melanoma: spatiotemporal changes in phenotypes and antibody-independent functions Stephan N. Wagner, AT
12:15 - 12:30	OC-5.3.8 Photoreactive properties of melanin from different skin phototypes and the contribution of melanin subunits Krystian Mokrzyński, PL
12:30 - 12:40	Short break
12:40 - 13:40	**LS Industry sponsored lunch symposium (L'Oréal)**
	(please see the programme below after the programme of the morning sessions)
13:40 - 13:50	Short break

Thursday September 2nd 2021, Morning

09:10 - 12:30	**Symposium 5.4 PDT and resistance mechanisms in cancer** Chair: Valentina Rapozzi, IT & Pål Kristian Selbo, NO
09:10 - 09:35	IL-5.4.1 Flow-induced shear stress and chemoresistance in ovarian cancer: A role for targeted PDT and combinations Imran Rizvi, US
09:35 - 10:00	IL-5.4.2 Role of photooxidative damage in the acquired resistance of cancer cells Valentina Rapozzi, IT
10:00 - 10:15	OC-5.4.3 Effect of oxidative states on the efficiency of porphyrinoids in Photodynamic Therapy of Prostate Cancer Mariana Q. Mesquita, PT
10:15 - 10:30	OC-5.4.4 Photodynamic efficacy of micelles simultaneously containing a porphyrinic photosensitizer and KI against the resistant melanoma Letícia D. Costa, PT
10:30 - 10:35	SP-5.4.5 Discovery of a novel mitochondrial-targeted photosensitiser for photodynamic cancer therapy Radovan Krejcir, CZ
10:35 - 10:40	SP-5.4.6 Quantitative Imaging of Pancreatic Microtumors on Alginate Hydrogels for Photodynamic Therapy Optimization Nazareth Milagros Carigga Gutierrez, FR
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-5.4.7 PCI-based strategies for overcoming resistance to cancer therapy Pål Kristian Selbo, NO
11:25 - 11:50	IL-5.4.8 Resistance to Photodynamic Therapy of non melanoma skin cancer. Strategies to overcome it Ángeles Juaranz, ES
11:50 - 12:15	IL-5.4.9 Multifunctional platforms for PDT in hypoxic environment Céline Frochot, FR
12:15 - 12:30	OC-5.4.10 Metabolic reprogramming involved in resistance to photodynamic therapy in skin squamous cell carcinoma. Metformin as adjuvant Marta Mascaraque-Checa, ES
12:30 - 12:40	Short break
12:40 - 13:40	**IS-1 Industry sponsored lunch symposium (L'Oréal)**
	(please see the programme below after the programme of the morning sessions)
13:40 - 13:50	Short break

L'Oreal Lunch Symposium

What's new in photoprotection?
Updated recommendations from an expert panel

Thursday September 2nd 2021

Time	Session
12:40 - 12:55	LS-1 Photoprotection according to phototypes Sérgio Schalka, BR
12:55 - 13:10	LS-2 Photoprotection according to dermatoses Henry Lim, US
13:10 - 13:25	LS-3 Science, technology and innovation behind the Anthelios formulas Martin Josso, FR
13:25 - 13:40	LS-4 Questions & Answers

Thursday September 2nd 2021, Afternoon

13:50 - 17:10	**Symposium 6.1 Phytochromes** Chair: Jonathan Hughes, DE
13:50 - 14:15	IL-6.1.1 Structure/function in Cph1 and plant phytochromes Jonathan Hughes, DE
14:15 - 14:40	IL-6.1.2 The Origin of the Phytochrome A Functions Akira Nagatani, JP
14:40 - 15:05	IL-6.1.3 Structural Basis for Light Control of Cell Development: New Insights from Bacterial Phytochrome Proteins Emina A. Stojković, US
15:05 - 15:20	OC-6.1.4 QM/MM Simulations of Spectral Tuning in Phytochrome-like Photoreceptors Christian Wiebeler, DE
15:20 - 15:40	Virtual coffee break
15:40 - 16:05	IL-6.1.5 Bridging the language barrier between sensor and effector domains in bacteriophytochromes Andreas Winkler, AT
16:05 - 16:30	IL-6.1.6 Biochemical activity of a model bacteriophytochrome from *Deinococcus radiodurans* Heikki Takala, FI
16:30 - 16:55	IL-6.1.7 Computational studies on phytochrome Maria Andrea Mroginski, DE
16:55 - 17:10	OC-6.1.8 Characterising Phytochrome-Activated Diguanylyl Cyclases Cornelia Böhm, AT
17:10 - 17:20	Short break
17:20 - 18:00	**ESP General Assembly**

Thursday September 2nd 2021, Afternoon

13:50 - 17:10	**Symposium 6.2 Environmental photoscience: climate change and UV radiation** Chair: Janet Bornman, AU & Patrick Neale, US
13:50 - 14:15	IL-6.2.1 How the Montreal Protocol Saved Earth's Skin (and our own) Richard McKenzie, NZ
14:15 - 14:40	IL-6.2.2 Plant and animal response to UV radiation and climate change in the Antarctic Sharon A. Robinson, AU
14:40 - 15:05	IL-6.2.3 Biodiversity, climate change and UV radiation Janet F. Bornman, AU
15:05 - 15:20	OC-6.2.4 Re-discovering the history for new tools for information about skin cancer prevention. The shadow projected by an object related to UV index is an universal photoprotection tool José Aguilera Arjona, ES
15:20 - 15:40	Virtual coffee break
15:40 - 16:05	IL-6.2.5 Interactive effects of ocean acidification and UV radiation on aquatic primary production Cristina Sobrino, ES
16:05 - 16:30	IL-6.2.6 Coral reefs, UV radiation and climate change Anastazia T. Banaszak, MX
16:30 - 16:45	OC-6.2.7 Quantifying the Change in Degradation of Plastic Materials Due to Environmental Exposure and Climate Change Christopher C. White, US
16:45 - 17:00	OC-6.2.8 Photophysiological response of marine phytoplankton under ocean acidification conditions Paulo Alcaraz-Rocha, ES
17:00 - 17:05	SP-6.2.9 Effects of Ocean Acidification in Photophysiology of Marine Bacteria From Two Different Marine Habitats Paulo Alcaraz-Rocha, ES
17:05 - 17:10	-
17:10 - 17:20	Short break
17:20 - 18:00	**ESP General Assembly**

Thursday September 2nd 2021, Afternoon

13:50 - 17:10	**Symposium 6.3 Sunscreens** Chair: Yolanda Gilaberte, ES & Henry Lim, US
13:50 - 14:15	IL-6.3.1 Does the use of sunscreen prevent skin cancers? Peter Wolf, AT
14:15 - 14:40	IL-6.3.2 Photoprotection & cancer prevention in occupational dermatology Swen Malte John, DE
14:40 - 15:05	IL-6.3.3 New Developments in Susncreens Henry W. Lim, US
15:05 - 15:20	OC-6.3.4 A new sun care product containing Phenylene Bis-Diphenyltriazine (TriAsorB) provides full-spectrum photoprotection against sunlight radiation induced skin damage Daniel Bacqueville, FR
15:20 - 15:40	Virtual coffee break
15:40 - 16:05	IL-6.3.5 Photoprotection for persons with albinims Yolanda Gilaberte, ES
16:05 - 16:30	IL-6.3.6 Visible Light Photoprotection Indermeet Kohli, US
16:30 - 16:55	IL-6.3.7 UVA1 harmful effects. Benefit of an enlarged photoprotection efficiently covering the whole UV spectrum Françoise Bernerd, FR
16:55 - 17:10	OC-6.3.8 Evaluation of the biological effect of a high broad spectrum sunscreen with nicotinamide and panthenol repairing photodamaged skin Susana Puig, ES
17:10 - 17:20	Short break
17:20 - 18:00	**ESP General Assembly**

Thursday September 2nd 2021, Afternoon

13:50 - 17:10	**Symposium 6.4 PDT combinations** Chair: Patrycja Nowak-Sliwinska, CH
13:50 - 14:15	IL-6.4.1 Adjuvant PDT after surgical resection: murine modeling of applications to breast cancer, mesothelioma and beyond Theresa M. Busch, US
14:15 - 14:40	IL-6.4.2 Molecular and Functional Photoacoustic Imaging for personalizing Photodynamic Therapy Srivalleesha Mallidi, US
14:40 - 15:05	IL-6.4.3 The Role of Mechanical Stress in Targeted PDT Combinations for Ovarian Cancer Imran Rizvi, US
15:05 - 15:20	OC-6.4.4 Optimizing Photodynamic Therapy: a Tour of the Death Pathways David Kessel, US
15:20 - 15:40	Virtual coffee break
15:40 - 16:05	IL-6.4.5 Anti-angiogenics overcome tumor endothelial cell anergy and improve immunotherapy outcomes Arjan W. Griffioen, NL
16:05 - 16:20	OC-6.4.6 Protondynamic Therapy: A radical hybridization of PDT and proton radiotherapy Theodossis A. Theodossiou, NO
16:20 - 16:35	OC-6.4.7 Spatiotemporal controlled drug release with light to overcome chemotherapy resistance in pancreatic cancer Tristan Le Clainche, FR
16:35 - 16:50	OC-6.4.8 Probing the mechanism of $TPPS_{2a}$ as a photosensitizing agent for PDT in 2D monolayer and a 3D compressed collagen model of ovarian cancer Andrea Balukova, UK
16:50 - 17:05	OC-6.4.9 Peptide-Targeted Systems for Photodynamic Therapy Dong Wang, UK
17:05 - 17:10	SP-6.4.10 How to use 5-ALA-induced PpIX without light? Norbert Lange, CH
17:10 - 17:20	Short break
17:20 - 18:00	**ESP General Assembly**

Friday September 3rd 2021, Morning

Time	Session
08:00 - 08:30	**PL-10 Photoacoustic imaging** Vasilis Ntziachristos, DE Chair: Santi Nonell, ES
08:30 - 09:00	**PL-11 Reactive Oxygen Species Go Beyond Photodynamic Therapy** Xiaoyuan Chen, SG Chair: Barbara Krammer, AT
09:00 - 09:10	Short break

Friday September 3rd 2021, Morning

09:10 - 12:30	**Symposium 7.1 Photopharmacology** Chair: Olalla Vázquez, DE & Xavier Rovira, ES
09:10 - 09:35	IL-7.1.1 Imaging and photoswitching actin dynamics by small molecule probes Hans-Dieter Arndt, DE
09:35 - 10:00	IL-7.1.2 Next-generation optogenetic tools for manipulating the membrane potential Franziska Schneider-Warme, DE
10:00 - 10:25	IL-7.1.3 Controlling Gene Expression with Light Olalla Vázquez, DE
10:25 - 10:40	OC-7.1.4 Light-Free and Self-Activating Single-Molecule Chemiluminescent Photosensitizers for Selective Photodynamic Therapy of Cancer Luís Pinto da Silva, PT
10:40 - 10:45	SP-7.1.5 A Fluorescent β-Cyclodextrins Polymer Encapsulating Sorafenib and Releasing Nitric Oxide Under Visible Light Francesca Laneri, IT
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-7.1.6 New Azobenzene-based Photoswitches for the Two-Photon light-induced control of neuronal signalling Félix Busqué, ES
11:25 - 11:50	IL-7.1.7 The potential of G protein-coupled receptor photopharmacology for the discovery of new biological mechanisms Xavier Rovira, ES
11:50 - 12:15	IL-7.1.8 Opto-pharmacological Approaches for Manipulating Neurotransmitter Receptors and Motivated Behaviors in Mice Alexandre Mourot, FR
12:15 - 12:30	OC-7.1.9 Intrafollicular UVA-induced drug release from nanocapsules – a photochemical approach for enhanced dermal drug delivery Loris Busch, DE
12:30 - 12:40	Short break
12:40 - 13:40	**TS Industry sponsored lunch symposium (Therakos Inc)**
	(please see the programme below after the programme of the morning sessions)
13:40 - 13:50	Short break

Friday September 3rd 2021, Morning

09:10 - 12:30	**Symposium 7.2 Photosensitivity diseases** Chair: Sally Ibbotson, UK & Lesley Rhodes, UK
09:10 - 09:35	IL-7.2.1 Highlights of the Dersimelagon Phase 2 Trial in Erythropoietic Protoporphyria Robert Desnick, US
09:35 - 10:00	IL-7.2.2 Worldwide prevalence and incidence of the photodermatoses Laura Burfield, UK
10:00 - 10:25	IL-7.2.3 Consensus in Photodiagnostic Services in the UK and Republic of Ireland Sally Ibbotson, UK
10:25 - 10:40	OC-7.2.4 Automated real-time monitoring of intracellular protoporphyrin IX synthesis in a live-cell plate reader Christian Oberdanner, AT
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-7.2.5 Pathways of polymorphic light eruption: from potential triggers to immune response Peter Wolf, AT
11:25 - 11:50	IL-7.2.6 The Psychological basis of photoprotective behaviour in X.P.: implications for improving photoprotection in other patient groups Robert P.E. Sarkany, UK
11:50 - 12:15	IL-7.2.7 Sun exposure and protection guidance following COVID-19 lockdowns – considerations for the public & photosensitive patients Yolanda Gilaberte, ES
12:15 - 12:30	OC-7.2.8 Solar Urticaria-real life data of an international support group Donja Homayoon, AT
12:30 - 12:40	Short break
12:40 - 13:40	**TS Industry sponsored lunch symposium (Therakos Inc)**
	(please see the programme below after the programme of the morning sessions)
13:40 - 13:50	Short break

Friday September 3rd 2021, Morning

09:10 - 12:30	**Symposium 7.3 Nano-PDT** Chair: Fabienne Dumoulin, TR & Gang Zheng, CA
09:10 - 09:35	IL-7.3.1 Porphysome Nanotechnology: From Discovery toward First-in-Patients Gang Zheng, CA
09:35 - 10:00	IL-7.3.2 Biological models for in vitro and in vivo imaging, PDT, drug or siRNA delivery Magali Gary-Bobo, FR
10:00 - 10:25	IL-7.3.3 Fe^{3+}-Driven Assembly of Catalase-Like Supramolecular Photosensitizing Nanozymes for Combating Hypoxic Tumor Pui-Chi Lo, HK
10:25 - 10:40	OC-7.3.4 Covalently cross-linked tetrafunctionalized m-THPC chitosan hydrogels as drug delivery platforms in the treatment of melanoma Piotr Gierlich, IE
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-7.3.5 Recent Progress on Activatable Photosensitizers and Heavy Atom Free Photosensitizers Juyoung Yoon, KR
11:25 - 11:50	IL-7.3.6 Improving the photodynamic efficiency of phthalocyanine with nanotechnology Fabienne Dumoulin, TR
11:50 - 12:15	IL-7.3.7 Multifunctional nanomaterials for detection and photoinactivation of microbial cells Anzhela Galstyan, DE
12:15 - 12:30	OC-7.3.8 Porphysome nanoparticles are effective photosensitizers for photodynamic therapy treatment for cancer Keegan Guidolin, CA
12:30 - 12:40	Short break
12:40 - 13:40	**IS-2 Industry sponsored lunch symposium (Therakos Inc)**
	(please see the programme below after the programme of the morning sessions)
13:40 - 13:50	Short break

Friday September 3rd 2021, Morning

09:10 - 12:30	**Symposium 7.4 Plant circadian session (incl. cyanobacteria)** Chair: David E. Somers, US & Antony N. Dodd, UK
09:10 - 09:35	IL-7.4.1 Illuminating the plant calendar Joshua M. Gendron, US
09:35 - 10:00	IL-7.4.2 The molecular basis for day/night signaling in the cyanobacterial circadian clock Carrie L. Partch, US
10:00 - 10:25	IL-7.4.3 Superoxide is a metabolic signal that acts on the Arabidopsis circadian clock in the evening Mike Haydon, AU
10:25 - 10:40	OC-7.4.4 Diurnal Rhythmicity of Cucumber Root Iron Deficiency Response Eliminates Rapidly Upon Nanohaematite Iron Resupply Amarjeet Singh, HU
10:40 - 11:00	Virtual coffee break
11:00 - 11:25	IL-7.4.5 Evaluation of plant circadian rhythms based on the cellular circadian behaviour Tokitaka Oyama, JP
11:25 - 11:50	IL-7.4.6 Integration of circadian and environmental signals that regulate chloroplast gene expression Antony N. Dodd, UK
11:50 - 12:15	IL-7.4.7 TOC1 phosphorylation controls formation and function of an NF-TOC1 complex regulating hypocotyl growth David E. Somers, US
12:15 - 12:30	OC-7.4.8 Interplay between circadian clock and unfolded protein response in Arabidopsis thaliana Berivan Özlem Gümüş, TR
12:30 - 12:40	Short break
12:40 - 13:40	**TS Industry sponsored lunch symposium (Therakos Inc)**
	(please see the programme below after the programme of the morning sessions)
13:40 - 13:50	Short break

Therakos Lunch Symposium

Friday September 3rd 2021

Time	Session
12:40 - 12:42	TS-1 Introduction Robert Knobler, AT
12:42 - 12:57	TS-2 What's New in ECP Immunomodulation – UV Light and the Immune System: Considerations for ECP Immunomodulation Pablo Vieyra-Garcia, AT
12:57 - 13:12	TS-3 ECP Immunomodulation: Clinical Utility from Dermatology to Solid Organ Transplant Ara Cho, AT
13:12 - 13:27	TS-4 Enhancement of Antibody-Dependent Cellular Cytotoxicity is Associated with Treatment Response to ECP in Sézary Syndrome Emmanuella Guenova, CH
13:27 - 13:40	TS-5 Questions & Answers

Friday September 3rd 2021, Afternoon

13:50 - 17:10	**Symposium 8.1 Positive health effects of UV** Chair: Prue Hart, AU & Antony R. Young, UK
13:50 - 14:15	IL-8.1.1 COVID-19 through a UV lens Shelley Gorman, AU
14:15 - 14:40	IL-8.1.2 UV, blood pressure and cardiovascular disease Richard B. Weller, UK
14:40 - 15:05	IL-8.1.3 Myopia progression during COVID-19 lockdown and UV deprivation Seyhan Yazar, AU
15:05 - 15:20	OC-8.1.4 Evaluation of blue light protection of the skin Terje Christensen, NO
15:20 - 15:40	Virtual coffee break
15:40 - 16:05	IL-8.1.5 UV radiation, lung function and sex hormone status in women Kai Triebner, NO
16:05 - 16:30	IL-8.1.6 Melanin, DNA photodamage and vitamin D synthesis Antony R. Young
16:30 - 16:55	IL-8.1.7 UVR, B cells and regulation of the development of multiple sclerosis Prue Hart, AU
16:55 - 17:10	OC-8.1.8 Determining the efficacy of a popular natural homemade sunscreen promoted by wellness bloggers on social media Furkan A. Ince, AU
17:10 - 17:20	**Closing ceremony** Franz Trautinger, AT & Kristjan Plaetzer, AT

Friday September 3rd 2021, Afternoon

13:50 - 17:10	**Symposium 8.2 PDT immunology** Chair: Sabrina Oliveira, NL & Ferry Ossendorp, NL
13:50 - 14:15	IL-8.2.1 PDT Enhancement of Anti-tumor Immunity: Mechanisms and Usage Sandra O. Gollnick, US
14:15 - 14:40	IL-8.2.2 Immunogenic cell death induced by PDT: a new approach for cancer therapy Dmitri V. Krysko, BE
14:40 - 15:05	IL-8.2.3 Immune responses triggered by nanobody-targeted PDT Sabrina Oliveira, NL
15:05 - 15:20	OC-8.2.4 Ablation of the cancer-associated fibroblast in pancreatic cancer using FAP-targeted photodynamic therapy Sanne A. M. van Lith, NL
15:20 - 15:40	Virtual coffee break
15:40 - 16:05	IL-8.2.5 Size-Transformable Antigen-Presenting Cell–Mimicking Nanovesicle PDT Potentiates Effective Cancer Immunotherapy Xiaoyuan Chen, SG
16:05 - 16:30	IL-8.2.6 Induction of long-lasting anti-tumor immunity following PDT treatment using an investigational VLP-drug conjugate Rhonda C. Kines, US
16:30 - 16:55	IL-8.2.7 Combining PDT and immunotherapy Ferry Ossendorp, NL
16:55 - 17:10	OC-8.2.8 Low-dose PDT induces a rapid recruitment of CD14+ cells in the skin of mice Tord Hompland, NO
17:10 - 17:20	**Closing ceremony** Franz Trautinger, AT & Kristjan Plaetzer, AT

Friday September 3rd 2021, Afternoon

13:50 - 17:10	**Symposium 8.3 Role of nitric oxide in PDT** Chair: Albert W. Girotti, US & Salvatore Sortino, IT
13:50 - 14:15	IL-8.3.1 Role of nitric oxide in tumor response to PDT: Perspectives from the early studies Mladen Korbelik, CA
14:15 - 14:40	IL-8.3.2 Hyper-aggressiveness of tumor cells that survive a photodynamic challenge: role of endogenous nitric oxide Albert W. Girotti, US
14:40 - 15:05	IL-8.3.3 Nitric Oxide-Mediated Bystander Effects in Photodynamic Therapy Witold Korytowski, PL
15:05 - 15:20	OC-8.3.4 A Novel Fluorescent Generator of Peroxynitrite Activatable with Red Light Cristina Parisi, IT
15:20 - 15:40	Virtual coffee break
15:40 - 16:05	IL-8.3.5 Strategies towards the use of ruthenium phthalocyanine compounds for the enhancement of photodynamic therapy Roberto Santana da Silva, BR
16:05 - 16:30	IL-8.3.6 Nitric Oxide Photodynamic Therapy with Molecular and Supramolecular Constructs Salvatore Sortino, IT
16:30 - 16:45	OC-8.3.7 Can NO induced by photooxidative stressed tumour cells influence tumour microenviroment? Mariachiara Gani, IT
16:45 - 17:00	OC-8.3.8 Synthesis and Characterization of Os(II) Oligothienyl Complexes for Photodynamic Therapy Applications Elamparuthi Ramasamy, US
17:00 - 17:05	-
17:05 - 17:10	-
17:10 - 17:20	**Closing ceremony** Franz Trautinger, AT & Kristjan Plaetzer, AT

Friday September 3rd 2021, Afternoon

13:50 - 17:10	**Symposium 8.4 Plant UV photoreceptors** Chair: Gareth I. Jenkins, UK
13:50 - 14:15	IL-8.4.1 Plant responses to UV light mediated by UVR8 Gareth I. Jenkins, UK
14:15 - 14:40	IL-8.4.2 UVR8 Signalling and Plant Development Keara A. Franklin, UK
14:40 - 14:55	OC-8.4.3 Interplay among Nitric Oxide and UVR8 in plants exposed to UV-B radiation María Belén Fernández, AR
14:55 - 15:10	OC-8.4.4 Broad and narrow band (311 nm) ultraviolet-B radiation activate distinct defensive antioxidant pathways Arnold Rácz, HU
15:10 - 15:15	SP-8.4.5 Stabilizing short-lived photoproducts of phytochromes in solid state at room temperature Lisa Köhler, DE
15:15 - 15:20	SP-8.4.6 Molecular background of iron uptake mechanisms of non-photosynthetic plastids Máté Sági-Kazár, HU
15:20 - 15:40	Virtual coffee break
15:40 - 16:05	IL-8.4.7 How plants balance development and UV-B stress tolerance Hongtao Liu, CN
16:05 - 16:30	IL-8.4.8 UV-B photoreceptor signalling and responses Roman Ulm, CH
16:30 - 16:45	OC-8.4.9 Rapid adjustment in epidermal UV sunscreen: Comparison of optical measurement techniques and response to changing solar UV radiation conditions Susanne Neugart, DE
16:45 - 17:00	-
17:00 - 17:05	-
17:05 - 17:10	-
17:10 - 17:20	**Closing ceremony** Franz Trautinger, AT & Kristjan Plaetzer, AT

Posters

Symposium 1.1 Solar Fuels Chair: Massimo Trotta, IT & Noam Adir, IL
P-1.1.9 Biological approach in the synthesis of dopamine-based polymers: purple photosynthetic bacteria as catalysers Maria Varsalona, IT
P-1.1.10 Adhesive Polydopamine for Biohybrid Photoanodes with Photosynthetic Purple Bacteria Gabriella Buscemi, IT
P-1.1.11 Synthesis of meso-functionalized porphyrins as hole transport materials for perovskite solar cells Melani J. A. Reis, PT
P-1.1.12 In vivo Functionalization of Diatoms with a Transparent Polymer Matrix for Biohybrid Photonic Systems CesarVicente-Garcia, IT
Symposium 1.2 Photoaging Chair: Florian Gruber, AT & Thomas Haarmann-Stemmann, DE
P-1.2.9 Photoprotective efficacy of PLGA-Curcumin versus PLGA-Piperine under ambient UV-B and Sunlight Exposure Lipika Ray, IN
Symposium 1.3 Antimicrobial PDT Chair: Santi Nonell, ES & Tim Maisch, DE
P-1.3.10 Maltohexaose-porphyrinconjugate for bacteria-targeted Photodynamic Therapy Abdechakour Elkihel, FR
P-1.3.11 Min Oscillations as Reporter of Bacterial Photodynamic Inactivation at the Single-Cell Level Ingrid V. Ortega, ES
P-1.3.12 Water hardness shows strong impact on the photodynamic activity of cationic pyridylporphyrins against *Legionella pneumophila* and biofilm Nela Malatesti, HR
P-1.3.13 Antimicrobial photodynamic therapy for the inactivation of viruses in blood Adelaide Almeida, PT
P-1.3.14 Biofilm and planktonic cultures of *Enterococcus* sp. resensitized to antimicrobial with aPDI application Beata Kruszewska, PL
P-1.3.15 Antimicrobial photodynamic inactivation against staphylococcal enterotoxin A – *in vitro* and *ex vivo* studies Patrycja Ogonowska, PL
P-1.3.16 Protein based targeted delivery systems for antimicrobial PDT Andrea Mussini, IT
P-1.3.17 The use of curcumin to photoinactivate *Trypanozoma cruzi* Hilda Mercado-Uribe, MX
P-1.3.18 Photodynamic Inactivation of fungal phytopathogens using Ce6 derivatives and assessment of their phytotoxicity Christoph Hamminger, AT
P-1.3.19 A semi-theoretical action spectrum for antimicrobial photoinactivation in the lungs Alfonso Dell'Accio, IT
P-1.3.20 Porphyrin-based light activated antimicrobial coatings prepared by spin coating Melania Rogowska, NO
P-1.3.21 Decolonization of human skin by application of a photodynamically active hydrogel Daniel B. Eckl, DE

P-1.3.22 Antimicrobial photosensitizers and their formulations: A potential solution to current world scenario Bhavya Khurana, IE
P-1.3.23 Photodynamic Antimicrobial Therapy: Chemical kinetic modeling to improve treatment efficacy Jeffrey C. Peterson, US
P-1.3.24 Breaking the rebellion: Photodynamic Inactivation of *Erwina amylovora* resistant to streptomycin Annette Wimmer, AT
P-1.3.25 Targeted photodynamic approach: the case study of Ga^{3+} *meso*-PPIX and heme transporters Klaudia Michalska, PL
P-1.3.26 Histopathological Study of the Zoonotic *Anisakis* Parasite Treated with aPDT as a Control Approach Amparo Faustino, PT
P-1.3.27 Synthesis and photophysical evaluation of new porphyrin-azabicyclo conjugates for PDT applications Carlos J. P. Monteiro, PT
P-1.3.28 Evaluation of Photosensitizer-Containing Superhydrophobic Surfaces for the Antibacterial Treatment of Periodontal Biofilms Caroline Coradi Tonon, US
P-1.3.29 The impact of photoinactivation with Ga^{3+} *meso* -PPIX on virulence factors of *Staphylococcus aureus* and *Pseudomonas aeruginosa* Michalska Klaudia, PL & Woźniak Agata, PL
P-1.3.30 Development of new antimicrobial materials based on porphyrinoids Tatevik Chilingaryan, FR
Symposium 1.4 Harvesting sun light: from visible to far-red Chair: Roberta Croce, NL & Diana Kirilovsky, FR
P-1.4.9 How pulse energy and wavelength affect ultrafast dynamics of Orange Carotenoid Protein? Stanislaw Nizinski, PL
P-1.4.10 Steady-state and time-resolved X-ray scattering and UV-vis spectroscopy demonstrate that oligomerization processes limit photoactivation and recovery of the cyanobacterial Orange Carotenoid Protein Elena A. Andreeva, FR
P-1.4.11 Blue light modulates seed germination in tomato through the interaction of the cryptochrome 1a with ABA and GA Rogério Falleiros Carvalho, BR
Symposium 2.1 Photosensitization Chair: Miguel A. Miranda, ES & Andrés H. Thomas, AR
P-2.1.9 Cytotoxicity and redox profile of a novel transition-metal nitrosyl compound for photo-controlled NO delivery in humanfibroblasts Hande Özbaşak, SK
P-2.1.10 Assessment of the phototoxicity induced by talazoparib Alejandro Mateos-Pujante, ES
P-2.1.11 A study of the photophysical properties of adapalene Juan Antonio Soler, ES
P-2.1.12 Photobehavior of the tyrosine-kinase inhibitor gefitinib in solution and within human serum albumin Lorena Tamarit, ES
P-2.1.13 Hybrid nanomaterials based on graphene quantum dots for photodynamic therapy Cristina J. Dias, PT
P-2.1.14 SERS behaviour of corroles at the surface of colloidal metal particles Joana F. B. Barata, PT
P-2.1.15 Corrole dimers – synthesis, photophysical and photochemical properties Paula S. S. Lacerda, PT

P-2.1.16 Toluidine blue derivatives and Human Serum albumin: Covalent conjugation and photophysical studies Nory Marino-Ocampo, CL
Symposium 2.2 Responses of non-flowering plants to UV radiation
P-2.2.8 UV-induced changes in phenolic and antioxidant profiles of *Nicotiana tabacum* leaves outdoors and in a growth chamber Kristóf Csepregi, HU
Symposium 2.3 Photomedicine and SARS-CoV-2 / ASP-ESP Symposium Chair: Amparo Faustino, PT & Doug Learn, US
P-2.3.9 Characterising 'far-UVC' KrCl excimer lamps for safety and inactivation of viruses Ewan Eadie, UK
Symposium 2.4 Near infrared PDT Chair: Cristiano Viappiani, IT & Mladen Korbelik, CA
P-2.4.10 Clinical use of a near-infrared fluorescence imaging system in photo-dynamic therapy using liposomal indocyanine green Hiromi Muranishi, JP
P-2.4.11 Metal-based photosensitizers: approaches to enhance the efficiency of photodynamic therapy in cancer treatment Ge Shi, US
Symposium 3.2 Imaging Chair: Florian Gruber, AT & Dario M. Bassani, FR
P-3.2.9 Application of UVA irradiation for the determination of the redox status in excised skin by EPR spectroscopy Silke B. Lohan, DE
P-3.2.10 Using infrared beam to track the cell fate of transgenic flatworms Jakub Wudarski, JP
P-3.2.11 *C. aggregans* LOV domain: a framework for engineering of fluorescent reporters Ivan Gushchin, RU
P-3.2.12 Engineering cellulose acetate fabrics loaded with photosensitizer and graphene oxide endowed with bactericidal activity Ilse G. J. Manet, IT
P-3.2.13 Porphyrin-loaded polymeric microcapsules for Photodiagnosis of cancer M. Graça P. M. S. Neves, PT
Symposium 4.1 DNA damage Chair: Daniel Roca-Sanjuán, ES & Virginie Lhiaubet-Vallet, ES
P-4.1.9 Risk assessment of irradiating skin models at 233 nm using far-UVC LEDs for eradiacation of MRSA and MSSA Johannes Schleusener, DE
P-4.1.10 Photoprotection from UV light-induced telomere shortening and DNA damage by a broad-spectrum sunscren product Ana Guío-Carrión, ES
P-4.1.11 Molecular Basis of Dark Photochemistry Juliana Cuéllar-Zuquin, ES

P-4.1.12 Developing a tool for capturing genomic regions of high-density skin clonal mutations Megan E. Fitzgerald, US
P-4.1.13 Metalloporphyrins: promising G-quadruplex stabilizing ligands Catarina IV Ramos, PT
P-4.1.14 Metalized Phthalocyanines as potential photosensitizer in Photodynamic Therapy Miguel León, VE
Symposium 4.2 Interactions of UV and other environmental factors in regulating plant growth and development Chair: Marcel A.K. Jansen, IE & Éva Hideg, HU
P-4.2.9 Postharvest UV-treatment induces changes in grapevine berry skin photosynthesis, phenolic profiles and antioxidant capacities Éva Hideg, HU
Symposium 4.3 Photodermatology, Phototherapy and Photodiagnostics Chair: Akimichi Morita, JP & Peter Wolf, AT
P-4.3.9 Global verification of a model for determining daylight photodynamic therapy dose Paul O'Mahoney, UK
P-4.3.10 Redox processes in pathogenesis and phototherapy of vitiligo Yurii Obukhov, RU
P-4.3.11 UVA photoprotective effect of adenine derivate kinetin Denisa Škařupová, CZ
P-4.3.12 Treatment planning and monitoring for indoor-daylight photodynamic therapy of actinic keratosis Ethan LaRochelle, US
Symposium 5.1 Light as a sensing tool/molecular and nano sensors Chair: Francesca Giuntini, UK
P-5.1.9 Optogenetic high-throughput screening Kathrin Brenker, DE
P-5.1.10 A novel NIR excitable fluorescent probe for intracellular nitric oxide detection: from mouse macrophages to human leukemic cells Carla Arnau del Valle, UK
P-5.1.11 Detection of nitric oxide in live cells using a gold-based near-infrared excitable fluorescent nanoprobe Carla Arnau del Valle, UK
P-5.1.12 DNA G-quadruplexes recognition by cationic zinc(II) phthalocyanine and graphene oxide hybrid materials Ana R. Monteiro, PT
P-5.1.13 Synthesis of luminescent gold nanoclusters on aromatic amino acids Varvara Kubenko, RU
P-5.1.14 Colorimetric detection of L-DOPA Yana Chuiko, RU
P-5.1.15 The light-mediated effects on photoluminescence of hydrophilic CdSe/ZnS-COOH quantum dots: dependence on biological medium Agnė Kalnaitytė, LT
P-5.1.16 Organic dyes as luminescent probes for protein aggregates Samuel Guieu, PT
P-5.1.17 Realtime response of photoactive (macro)molecules to pH via a novel ultrafast spectroscopy tool Nicoletta Liguori, NL
P-5.1.18 Luminescent complexes of gold clusters with amino acid Mizintsev Artem, RU

Symposium 5.4 PDT and resistance mechanisms in cancer Chair: Valentina Rapozzi, IT & Pål Kristian Selbo, NO
P-5.4.5 Discovery of a novel mitochondrial-targeted photosensitiser for photodynamic cancer therapy Radovan Krejcir, CZ
P-5.4.6 Quantitative Imaging of Pancreatic Microtumors on Alginate Hydrogels for Photodynamic Therapy Optimization Nazareth Milagros Carigga Gutierrez, FR
P-5.4.11 Could the length of the alkyl chain affect the photodynamic activity of tetra-alkylpyridylporphyrins? Matteo Rugiero, IT
P-5.4.12 Zn(II) and free base *N*-methylated tripyridylporphyrins: impact of solubility and light excitation wavelength on PDT effect Martina Mušković, HR
P-5.4.13 Polyvinylpyrrolidone formulations of porphyrinoids as photosensitizers for Photodynamic Therapy of Prostate Cancer Mariana Q. Mesquita, PT
P-5.4.14 Photodynamic efficacy of micelles simultaneously containing a porphyrinic photosensitizer and KI against the resistant melanoma Letícia D. Costa, PT
Symposium 6.2 Environmental photoscience: climate change and UV radiation Chair: Janet Bornman, AU & Patrick Neale, US
P-6.2.9 Effects of Ocean Acidification in Photophysiology of Marine Bacteria From Two Different Marine Habitats Paulo Alcaraz-Rocha, ES
Symposium 6.3 Sunscreens Chair: Yolanda Gilaberte, ES & Henry Lim, US
P-6.3.9 Plants growing in Colombia as sources of natural actives sunscreen ingredients Diego Armando Villamizar Mantilla, CO
P-6.3.10 Scoring Levels To Corroborate The Booster Effect Of A Natural Extract Of Polypodium Leucotomos (Fernblock®) In Topical Sunscreen Azahara Rodríguez-Luna, ES
P-6.3.11 Photoprotective and Antigenotoxic Properties of *Serratia marcescens* Indigenous Strains from Eastern Cordillera of Colombia José Duban Daniel Cediel Becerra, CO
P-6.3.12 The hydroalcoholic extracts of *Ipomoea horsfalliae*, *Posoqueria latifolia* and *Rosa x centifolia* contain compounds with filter and antigenotoxic effects against UV radiation Carlos Adolfo Pedraza Barrera, CO
Symposium 6.4 PDT combinations Chair: Patrycja Nowak-Sliwinska, CH
P-6.4.10 How to use 5-ALA-induced PpIX without light? Norbert Lange, CH
P-6.4.11 Conjugates of octreotide and exendin-4 with zinc-phthalocyanine TT1 for photodynamic therapy of neuroendocrine tumors Sanne A. M. van Lith, NL
P-6.4.12 Improving the efficiency of ALA-PDT of skin cells using indoor and outdoor UVA-based light fractionation approach Charareh Pourzand, UK
P-6.4.13 Carbapenem resistant Enterobacterales do not resist antibiotic treatment upon exposure to antimicrobial blue light Agata Wozniak, PL

P-6.4.14 Photosensitizing Efficacy of Curcumin-Loaded Liposomes Following Photodynamic Therapy on Melanoma MUG-Mel2, Squamous Cell Carcinoma SCC-25 and Normal Keratinocyte HaCaT Cells Marta Woźniak, PL
P-6.4.15 Photobiological studies on a novel lead BODIPY-anthracene dyad for bladder cancer therapy Odrun A. Gederaas, NO
P-6.4.16 5-Aminolevulinic acid-Induced Porphyrin Generation in Prostate Cancer Cells with N-Formyl and N-Acetyl Peptide Prodrugs Nabeela Farooq, UK
Symposium 7.1 Photopharmacology Chair: Olalla Vázquez, DE & Xavier Rovira, ES
P-7.1.5 A Fluorescent β-Cyclodextrins Polymer Encapsulating Sorafenib and Releasing Nitric Oxide Under Visible Light Francesca Laneri, IT
P-7.1.10 Exploring Photoactive Pigments of Fungal Extracts with Feature-Based Molecular Networking Fabian Hammerle, AT
P-7.1.11 Melanopsin signaling pathway in HEK293 cells line with stable expression of human melanopsin Olga Krzysztynska-Kuleta, PL
P-7.1.12 A Photoactivatable β- and γ- Cyclodextrin branched Co-Polymer Delivering Nitric Oxide Mimimorena Seggio, IT
Symposium 7.2 Photosensitivity diseases Chair: Sally Ibbotson, UK & Lesley Rhodes, UK
P-7.2.9 In vitro photo(geno)toxicity assessment of gefitinib and its metabolites Meryem El Ouardi, ES
Symposium 7.3 Nano-PDT Chair: Fabienne Dumoulin, TR & Gang Zheng, CA
P-7.3.9 Heme Biosynthesis and Degradation changes after 5-ALA application: A proteomic study Sara Sansaloni Pastor, CH
P-7.3.10 Targeted bioorthoganal prodrug activation enabled by pH responsive classical polymer photocatalysts Calum T. J. Ferguson, DE
P-7.3.11 Radioluminescent nanoparticles and deep-tissue photodynamic therapy to enhance radiotherapy efficacy Anne-Laure Bulin, FR
P-7.3.12 Rational Design and Development of a New Class of Metal-Based Photosensitizers for Photodynamic Therapy Houston D. Cole, US
P-7.3.13 Remote-controlled drug release with photons: From light to X-rays Mans Broekgaarden, FR
P-7.3.14 Squalene-NIR dye nanoassemblies targeting mitochondria with photosensitizing properties for the detection and treatment of cancer by phototherapy Souad Adriouach, CH
P-7.3.15 Metallo-surfactant mediated nanocolloids for photodynamic therapy Lluïsa Pérez-García, ES
Symposium 8.2 PDT immunology Chair: Sabrina Oliveira, NL & Ferry Ossendorp, NL
P-8.2.9 A photoinmunoconjugate for the treatment of breast cancer Mireia Jordà-Redondo, ES

Symposium 8.4 Plant UV photoreceptors II Chair: Gareth I. Jenkins, UK
P-8.4.5 Stabilizing short-lived photoproducts of phytochromes in solid state at room temperature Lisa Köhler, DE
P-8.4.6 Molecular background of iron uptake mechanisms of non-photosynthetic plastids Máté Sági-Kazár, HU
Symposium 9.1 Photochemistry
P-9.1.1 Optical force-induced three-dimensional protein assembly growing from solution Roger Bresolí-Obach, BE
P-9.1.2 Polyfluorinated aromatic porphyrin as a photoactive scaffold for peptide cyclisation Paolo Dognini, UK