

Invited Talks	(25' + 5' discussion)
Keynote presentations	(20' + 5' discussion)
Oral presentations	(15' + 5' discussion)
Young investigators prizes	(20' + 5' discussion)
Flash presentations	(6')

## Monday September 9<sup>th</sup> (morning session)

8.15	Registration
9.15	Congress Opening and Welcome Remarks: Valentina Rapozzi (President SIFB), Antonino Mazzaglia (Chair Conference), CNR-ISMN and Dip. ChiBioFarAm (UNIME) Directors & SCI Sicilia President
<b>Session 1 - Photosynthesis &amp; photoresponsive materials</b> Chair: Antonino Mazzaglia	
9.30	<b>Massimo Trotta</b> Photosynthetic Odyssey: Sustainable Solutions from a paramount metabolic process
10.00	<b>Rossella Labarile</b> Photosynthetic bacteria in light-driven bio hybrid devices
10.20	<b>Raffaella Margherita Zampieri</b> Biohydrogen production through photofermentation by a purple non-sulfur bacterium
10.40	COFFEE BREAK
<b>Session 2 – Miscellaneous</b> Chairs: Greta Varchi, Massimo Trotta	
11.15	<b>Masaoki Kawasumi</b> The effect of UV-induced mutations on the binding of ETS transcription factors to the Cdkn2a/p16 promoter
11.40	<b>Laura Grigolato</b> Daylight PDT: pros and cons
12.00	<b>Alberto Danielli</b> Nanobiological engineering of M13 phages for enhanced electrochemiluminescent signal transduction in point-of-care biosensors
12.20	<b>Simona Salerno</b> Chitosan-Porphyrin Composite Membrane for Topical Photodynamic Therapy
12.40-	<b>Sonia Visentin</b> Assessment of Cystic Fibrosis Mucus Permeability to Fluorescent Bacterial Secretome Molecules for Drug Candidate Potential
13.00	LUNCH

## Monday September 9<sup>th</sup> (afternoon session)

### Session 3 – Photodynamic inactivation & antimicrobial PDT

Chairs: Domenico Franco, Kristjan Plaetzer

14.10	<b>Kristjan Plaetzer</b> Save the Crop: Photodynamic Inactivation in Agriculture
14.35	<b>Bianka Siewert</b> Photoactive Antimicrobials from South American Fungi
14.55	<b>Mariachiara Trapani</b> A nanohybrid assembly composed of silver nanoparticles and porphyrins for antimicrobial photodynamic applications
15.15	<b>Nidia Maldonado-Carmona</b> Shaping light: photophysical and biological parameters needed for efficient Photodynamic Antimicrobial Chemotherapy on bacteria
15.35	<b>Giuseppe Nocito</b> Curcumin and Vancomycin loaded hydrogel coating medical device for prosthetic joint infections control
16.00	COFFEE BREAK
<b>Session 4 – Photo-induced chemical and biological processes</b> Chairs: Carlo Matera, Masaoki Kawasumi	
16.30	<b>Wiktor Szymanski</b> Photopharmacology: tools, considerations, and applications
17.00	<b>Rosalba Sortino</b> Three-photon infrared stimulation of endogenous neuroreceptors in vivo
17.20	<b>Edoardo Armano</b> Photoactivatable Version of Ivabradine Enables Light Induced Block of HCN Current in Vivo
17.40	<b>Lorenzo Torrisi</b> Carbon dots luminescence via carbon laser ablation in biocompatible solution
18.00	SIFB meeting

## Tuesday September 10<sup>th</sup> (morning session)

### Session 5 – Anticancer PDT

Chairs: Dmitri V. Krysko, Nela Malatesti

9.05	<b>Luis G. Arnaut</b> Tumor Priming and Photodynamic Therapy: A renewed hope for oncology
9.30	<b>Claudia Ferroni</b> Bioresponsive catalase-like nanoplatfoms for combined photo/sono and immuno-therapies of hypoxic cancers
9.50	<b>Marzia Bruna Gariboldi</b> Polydopamine-Coated Liposomes for Methylene Blue Delivery in 2D and 3D Anticancer Photodynamic Therapy

10.10	<b>Francesca Bianco</b> Molecular mechanism of Br-SQ-C4 phototoxicity: the role of Ca <sup>2+</sup> and ROS interplay
10.30	<b>Dmitri V. Krysko</b> Immunogenic Cell Death in Glioma Immunotherapy: Efficacy of Photodynamic Therapy and Dendritic Cell Vaccines
11.00	COFFEE BREAK
<b>Session 6 – Anticancer PDT</b> Chairs: Marzia Gariboldi, Luis. G. Arnaut	
11.30	<b>Angeles Juarranz</b> Role of squamous cell carcinoma microenvironment in the response to Photodynamic therapy
12.00	<b>Michela Nigro</b> Molecular engineering of a spheroid-penetrating phage nanovector for targeted photosonodynamic treatment of EGFR-expressing cancer cells
12.20	<b>Carlotta Pontremoli</b> Hafnium based metal–organic framework entrapping squaraines for efficient NIR-responsive photodynamic therapy against pancreatic cells
12.40	<b>Matteo Di Giosia</b> Bioconjugation and supramolecular interaction of proteins with photoactive agents for theranostic applications
13.00	<b>Flash presentations</b> Burduja; Malacarne; Monforte; Naessens; Catanzaro and Clepoint
13.30	LUNCH

## Tuesday September 10<sup>th</sup> (afternoon session)

<b>Session 7 – Photosensitizers' design &amp; functionalization</b> Chairs: Enrico Caruso, Angela Scala	
14.30	<b>Engin U. Akkaya</b> Targeted Endoperoxides for Precise Delivery of Singlet Oxygen
15.00	<b>Francesco Fagnani</b> Novel highly luminescent N <sup>4</sup> C <sup>4</sup> N-Pt(II) derivatives for bio-imaging and photodynamic therapy
15.20	<b>Vicente Marchán</b> Novel photosensitizers based on Ru-coumarin complexes for combating hypoxic tumors
15.40	<b>Ester D'Agostino</b> Design and synthesis of a glyco-porphyrin for the conjugation of bioactive peptides
16.00	<b>Mathias O. Senge</b> Molecular and Formulation Strategies for Photosensitizer Design
16.25	COFFEE BREAK

	<b>Session 8 – Young investigators award ceremony</b> Chair: Valentina Rapozzi
17.00	<b>Edoardo Jun Mattioli</b> Carrying Temoporfin with Human Serum Albumin: A New Perspective for Photodynamic Application in Head and Neck Cancer
17.25	<b>Paolo Emidio Costantini</b> A modular phage vector platform for targeted photodynamic therapy of Gram-negative bacterial pathogens
18.30	SOCIAL EVENT
21.00	SOCIAL DINNER

### Wednesday September 11<sup>th</sup> (closing session)

	<b>Session 9 – Miscellaneous</b> Chair: Matteo Calvaresi, Mathias O. Senge
9.15	<b>José Ruiz</b> Achieving red-light anticancer photodynamic therapy under hypoxic conditions using Ir(III)-COUPY conjugates
9.40	<b>Matteo Calvaresi</b> Light-enhanced cytotoxicity of approved anticancer drugs
10.00	<b>Salvatore Mirabile</b> Light-up of 4-(1-piperazinyl)phenol derivatives targeting tyrosinase
10.20	<b>Luigi Donato</b> From NGS to Optogenetic Innovations Towards Retinal Channelopathies
10.45	COFFEE BREAK
	<b>Session 10 – Miscellaneous</b> Chairs: Maria Teresa Rossi, José Ruiz
11.15	<b>Nela Malatesti</b> Balancing the lipophilicity of tri(pyridinium-3-yl)porphyrins for improved entry into melanoma cells and photodynamic effect
11.40	<b>Martina Mušković</b> Synthesis, physicochemical properties and in vitro evaluation of amphiphilic pyridiniumporphyrins with N-oxide moiety for use in photodynamic therapy (PDT)
12.00	<b>Lucia Pappagallo</b> Neurophage: molecular engineering of phage nanoparticles for non-invasive neuronal photostimulation
12.20	<b>Giovanni Romano</b> Multicolor endoscopic source for intragastric phototherapy against Helicobacter pylori
12.40	<b>Giulia Neri</b> Appraising the Efficiency of NIR-Responsive Hybrid Nanosystem based on Graphene, Poly(methacrylic acid) and Gold Bipyramids in Melanoma Cancer Cells
13.00	CLOSING REMARKS