

|                       |                       |
|-----------------------|-----------------------|
| Invited Talks         | (25' + 5' discussion) |
| Keynote presentations | (20' + 5' discussion) |
| Oral presentations    | (15' + 5' discussion) |
| Flash presentations   | (6')                  |

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

|      |                                      |
|------|--------------------------------------|
| 8.45 | Registration                         |
| 9.15 | Congress Opening and Welcome Remarks |

#### Session 1 - Photosynthesis & photoresponsive materials

|       |   |
|-------|---|
| 9.30  | <b>Massimo Trotta</b><br>Photosynthetic Odyssey: Sustainable Solutions from a paramount metabolic process                 |
| 10.00 | <b>Rossella Labarile</b><br>Photosynthetic bacteria in light-driven bio hybrid devices                                    |
| 10.20 | <b>Raffaella Margherita Zampieri</b><br>Biohydrogen production through photofermentation by a purple non-sulfur bacterium |
| 10.45 | <b>Coffee break</b>   |

#### Session 2 - Miscellaneous

|        |  |
|--------|--|
| 11.15  | <b>Masaoki Kawasumi</b><br>The effect of UV-induced mutations on the binding of ETS transcription factors to the <i>Cdkn2a/p16</i> promoter              |
| 11.40  | <b>Sara Mezzana</b><br>Daylight PDT: pros and cons   |
| 12.00  | <b>Alberto Danielli</b><br>Nanobiological engineering of M13 phages for enhanced electrochemiluminescent signal transduction in point-of-care biosensors |
| 12.20  | <b>Simona Salerno</b><br>Chitosan-Porphyrin Composite Membrane for Topical Photodynamic Therapy  |
| 12.40- | <b>Sonia Visentin</b><br>Assessment of Cystic Fibrosis Mucus Permeability to Fluorescent Bacterial Secretome Molecules for Drug Candidate Potential      |
| 13.00  | <b>LUNCH</b>   |

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

#### Session 3 – Photodynamic inactivation & antimicrobial PDT

|       |   |
|-------|---|
| 14.10 | <b>Kristjan Plaetzer</b><br>Save the Crop: Photodynamic Inactivation in Agriculture   |
| 14.35 | <b>Bianka Siewert</b><br>Photoactive Antimicrobials from South American Fungi   |
| 14.55 | <b>Mariachiara Trapani</b><br>A nanohybrid assembly composed of silver nanoparticles and porphyrins for antimicrobial photodynamic applications                   |
| 15.15 | <b>Nidia Maldonado-Carmona</b><br>Shaping light: photophysical and biological parameters needed for efficient Photodynamic Antimicrobial Chemotherapy on bacteria |
| 15.35 | <b>Giuseppe Nocito</b><br>Curcumin and Vancomycin loaded hydrogel coating medical device for prosthetic joint infections control                                  |
| 16.00 | <b>Coffee break</b>   |

#### Session 4 – Photo-induced chemical and biological processes

|       |  |
|-------|--|
| 16.30 | <b>Wiktor Szymanski</b><br>Photopharmacology: tools, considerations, and applications                              |
| 17.00 | <b>Rosalba Sortino</b><br>Three-photon infrared stimulation of endogenous neuroreceptors <i>in vivo</i>            |
| 17.20 | <b>Edoardo Armano</b><br>Photoactivatable Version of Ivabradine Enables Light Induced Block of HCN Current in Vivo |
| 17.40 | <b>Lorenzo Torrisi</b><br>Carbon dots luminescence via carbon laser ablation in biocompatible solution             |
| 18.00 | <b>SIFB meeting</b>  |

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

#### Session 5 – Anticancer PDT

|       |   |
|-------|---|
| 9.05  | <b>Luis G. Arnaut</b><br>Tumor Priming and Photodynamic Therapy: A renewed hope for oncology  |
| 9.30  | <b>Claudia Ferroni</b><br>Bioresponsive catalase-like nanoplatfoms for combined photo/sono and immuno-therapies of hypoxic cancers      |
| 9.50  | <b>Marzia Bruna Gariboldi</b><br>Polydopamine-Coated Liposomes for Methylene Blue Delivery in 2D and 3D Anticancer Photodynamic Therapy |
| 10.10 | <b>Francesca Bianco</b><br>Molecular mechanism of Br-SQ-C4 phototoxicity: the role of Ca <sup>2+</sup> and ROS interplay                |
| 10.30 | <b>Dmitri V. Krysko</b><br>Immunogenic Cell Death in Glioma Immunotherapy: Efficacy of Photodynamic Therapy and Dendritic Cell Vaccines |
| 11.00 | <b>Coffee break</b>   |

#### Session 6 – Anticancer PDT

|       |  |
|-------|--|
| 11.30 | <b>Angeles Juarranz</b><br>Role of squamous cell carcinoma microenvironment in the response to Photodynamic therapy  |
| 12.00 | <b>Michela Nigro</b><br>Molecular engineering of a spheroid-penetrating phage nanovector for targeted photodynamic treatment of EGFR-expressing cancer cells         |
| 12.20 | <b>Carlotta Pontremoli</b><br>Hafnium based metal-organic framework entrapping squaraines for efficient NIR-responsive photodynamic therapy against pancreatic cells |
| 12.40 | <b>Matteo Di Giosia</b><br>Bioconjugation and supramolecular interaction of proteins with photoactive agents for theranostic applications                            |
| 13.00 | <b>Flash presentations</b><br>Burduja; Malacarne; Monforte; Naessens&Catanzaro   |
| 13.30 | <b>LUNCH &amp; POSTER SESSION</b>  |

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

#### Session 7 – Photosensitizers' design & functionalization

|       |                        |
|-------|------------------------|
| 14.30 | <b>Engin U. Akkaya</b> |
|-------|------------------------|

|       |   |
|-------|---|
|       | Targeted Endoperoxides for Precise Delivery of Singlet Oxygen   |
| 15.00 | <b>Francesco Fagnani</b><br>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><br>Novel photosensitizers based on Ru-coumarin complexes for combating hypoxic tumors  |
| 15.40 | <b>Ester D'Agostino</b><br>Design and synthesis of a glyco-porphyrin for the conjugation of bioactive peptides                                      |
| 16.00 | <b>Mathias O. Senge</b><br>Molecular and Formulation Strategies for Photosensitizer Design  |
| 16.25 | <b>Coffee break</b>   |
|       | <b>Session 8 – Young investigators award ceremony</b>   |
| 17.00 | <b>Edoardo Jun Mattioli</b><br>Carrying Temoporfin with Human Serum Albumin: A New Perspective for Photodynamic Application in Head and Neck Cancer |
| 17.25 | <b>Paolo Emidio Costantini</b><br>A modular phage vector platform for targeted photodynamic therapy of Gram-negative bacterial pathogens            |
| 18.30 | <b>Social Event</b>   |
| 20.30 | <b>Social Dinner</b>  |

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

#### Session 9 – Miscellaneous

|       |  |
|-------|--|
| 9.15  | <b>José Ruiz</b><br>Achieving red-light anticancer photodynamic therapy under hypoxic conditions using Ir(III)-COUPY conjugates  |
| 9.40  | <b>Matteo Calvaresi</b><br>Light-enhanced cytotoxicity of approved anticancer drugs  |
| 10.00 | <b>Salvatore Mirabile</b><br>Light-up of 4-(1-piperazinyl)phenol derivatives targeting tyrosinase  |
| 10.20 | <b>Luigi Donato</b><br>From NGS to Optogenetic Innovations Towards Retinal Channelopathies Therapies   |
| 10.45 | <b>Coffee break</b>  |
| 11.15 | <b>Nela Malatesti</b><br>Balancing the lipophilicity of tri(pyridinium-3-yl)porphyrins for improved entry into melanoma cells and photodynamic effect                                  |
| 11.40 | <b>Martina Mušković</b><br>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><br>Neurophage: molecular engineering of phage nanoparticles for non-invasive neuronal photostimulation   |
| 12.20 | <b>Giovanni Romano</b><br>Multicolor endoscopic source for intragastric phototherapy against Helicobacter pylori   |
| 12.40 | <b>Giulia Neri</b><br>Appraising the Efficiency of NIR-Responsive Hybrid Nanosystem based on Graphene, Poly(methacrylic acid) and Gold Bipyramids in Melanoma Cancer Cells             |
| 13.00 | <b>Closing Remarks</b>   |