

CONFERENCE PROGRAM

The conference schedule is set to Central European Time

6th December 2022

8:50 Online Platform Opening

9:00 Welcome: Zeineb Aturki (*Director of the Institute for Biological Systems*)

Opening: Massimo Trotta (*President Elected of the European Society of Photobiology*)

Session: Green factories

SESSION CHAIRS: Maya D. Lambrea, Alexandra Dubini, Giorgio Perin

9:15 Keynote: Yagut Allahverdiyeva-Rinne (*University of Turku, Finland*)

Photosynthetic microorganisms as biocatalysts for the production of targeted chemicals

10:00 Alexandra Dubini (*University of Cordoba, Spain*)

Algae-bacteria consortium a new avenue for biological hydrogen production

10:25 Szilvia Toth (*Biological Research Centre Szeged, Hungary*)

Thin cell layer cultures of the pgr5 mutant of Chlamydomonas reinhardtii perform enhanced H₂ production at the intensity of sunlight

10:50 Giuseppe Torzillo (*Institute of Bioeconomy, CNR, Italy*)

Progress in the biotechnology of hydrogen production with microalgae

11:15 Kyle J. Lauersen (*King Abdullah University of Science and Technol., Saudi Arabia*)

Synthetic biology and metabolic engineering applications in microalgae – sustainable biotechnology beside the Red Sea at KAUST

11:40 Break

11:50 Inna Khozin-Goldberg (*Ben-Gurion University of the Negev, Israel*)

Bioactive lipids from microalgae

12:15 Paul Hudson (*Science for Life Laboratory, Royal Institute of Technology, Sweden*)

Metabolite-protein interactions in the Calvin cycle and implications for flux regulation

12:40 Peter Lindblad (*Uppsala University, Sweden*)

Engineer cyanobacteria for sustainable production of CO₂ neutral chemicals

13:05 María Barbosa (*Wageningen University and Research Center, The Netherlands*)

Towards Industrial microalgae production: challenges and opportunities

Green Christmas Session

PHOTOSYNTHETIC MICROORGANISMS FOR SUSTAINABLE DEVELOPMENT



7th December 2022

8:50 Online Platform Opening

Session: Environment and sustainability

SESSION CHAIRS: Francesco Milano, Maya D. Lambrev, Alexandra Dubini

9:00 Keynote: Michael R. Jones (University of Bristol, UK)

Polychromatic protein assemblies as components for green (and purple) biohybrid solar energy devices

9:45 Luca Dall'Osto (University of Verona, Italy)

Photosynthesis: how to convert physics to (bio)chemistry

10:10 Joanna Kargul (University of Warsaw, Poland)

Rational design of electron transfer in biomolecular solar conversion

10:35 Nicolas Plumere (Technical University of Munich, Germany)

Semiconductor-free photovoltaics

11:00 Parveen Akhtar (Biological Research Centre Szeged, Hungary)

Extending the absorption cross-section of Photosystem I toward higher energy conversion efficiency

11:25 Break

11:35 Paolo Bombelli (University of Cambridge, UK)

Bio Photo Voltaic (BPV): from fundamental principles to practical applications

12:00 Luciana Regaldo & Roberto Abdala Díaz, (CONICET, Argentina)

Potentiality of microalgae: advances and challenges in the recovery of nutrients from wastewaters and production of valuable biomass, useful for biotechnological applications

12:25 Roberta Congestri (Tor Vergata University of Rome, Italy)

Microbial consortia in water treatment and upcycling

12:50 Fabrizio Di Caprio (Sapienza University of Rome, Italy)

Microalgae biomass production integrated with cheese whey wastewater treatment

13:25 Round table & Closing remarks