# **SCIENTIFIC PROGRAM**

SESSION LECTURE

No. 30

Frontier of Photosynthesis Research Room: 306A

Co-Chairs: Zhenfeng Liu



Roberto Bassi



Day 2 October 28 <sup>th</sup> (Sunday) 13:30 – 17:00		
Time	Speaker	Title
13:30-14:00	<b>Roberto Bassi</b> University of Verona, Italy	Tracking molecular mechanisms regulating photosynthetic light use efficiency and exploiting their potential for improving crop productivity
14:00-14:30	<b>Xinguang Zhu</b> Institute of Plant Physiology and Ecology, Chinese Academy of Sciences, China	Model Guided Molecular Design of Photosynthetic Systems for Greater Light Use Efficiency and Crop Yield Potential
14:30-15:00	<b>Jean-David Rochaix</b> University of Geneva, Switzerland	The secrets of essential chloroplast genes: new links between plastid protein import, RNA metabolism and protein quality control
15:00-15:30	Tea Break	
15:30-16:00	<b>Xuefeng Lu</b> Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences, China	Cyanobacteria based photosynthetic production of bioethanol
16:00-16:30	<b>Olaf Kruse</b> Bielefeld University, Germany	Microalgae as sustainable photosynthetic green cell factories in biotechnology
16:30-17:00	<b>Zhenfeng Liu</b> Institute of Biophysics, Chinese Academy of Sciences, China	Structural Basis of Light Harvesting and Its Regulation in Plants



## Zhenfeng Liu

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Principal Investigator at the National Laboratory of Biomacromolecules, Institute of Biophysics, Chinese of Academy of Sciences. Dr. Liu's laboratory applies structural biology (cryo-electron microscopy and X-ray crystallography) and biochemical approaches to study the molecular basis for light harvesting and its regulation in plant photosynthesis.



## Roberto Bassi

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Professor in Plant Physiology at the department of biotechnology, University of Verona in Italy. Member of the Italian National Academy of Sciences "Accademia dei Lincei" since 2012 and member of the Academy of Europe since 2015. Dr. Bassi's laboratory focuses on studying the biophysical basis of light harvesting and light use efficiency in plants, mosses and green algae as well as the mechanisms of abiotic stress response.



## Xinguang Zhu

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Principal Investigator at the Center of Excellence in Molecular Plant Sciences, Institute of Plant Physiology and Ecology, Chinese Academy of Sciences. Improving photosynthetic efficiency is shown to be a major venue to improve future food and energy security. Dr. Zhu's laboratory focuses on identifying new options to improve photosynthesis, including both engineering C4 photosynthetic machinery into C3 crops and also identifying new approaches to improve C3 photosynthetic efficiency by exploring opportunities resulted from the inefficiency of natural evolution and artificial selection.



## Jean-David Rochaix

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Emeritus Professor of the departments of Molecular Biology and Plant Biology, University of Geneva in Switzerland. Member of the Academy of Europe since 2002 and Member of EMBO since 1981. Dr. Rochaix's laboratory studies the biogenesis of the photosynthetic apparatus and chloroplast signaling in algae and land plants using molecular biology, genetic and biochemical approaches.



### Xuefeng Lu

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Deputy-Director and Professor of Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese of Academy of Sciences. Dr. Lu's laboratory focuses on microbial metabolic engineering and synthetic biology including two major directions: (1) Photosynthetic production of biofuels and biochemicals in cyanobacteria; (2) Natural products biosynthesis in filamentous fungi.



### **Olaf Kruse**

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Professor and Chair of Algae Biotechnology & Bioenergy and Scientific Director of the Center for Biotechnology (CeBiTec) at Bielefeld University in Germany. Dr. Kruse's laboratory focuses on studying the molecular biology and biotechnology of microalgae to understand the molecular aspects of energy conversion from light to biomass and the exploration of microalgae as green cell factories.