



NPC13

**13th Nordic Photosynthesis Congress**  
**Improving Photosynthesis**  
**25-28 October 2016, Copenhagen**

**25 OCTOBER 2016**

14:00 **Arrival and registration**

**Improving photosynthesis**

18:00 Opening

18:10 Opening lecture 1: *Regulation of oxygenevolving photosynthesis – evolutionary considerations* Eva-Maria Aro, University of Turku

18:50 Opening lecture 2: *How can spruce needles be green in the winter?* Stefan Jansson, Umeå University

19:20 **Welcome reception with food and drinks**

**26 OCTOBER 2016**

**Structure and function of photosynthetic reaction center and antennae complexes (Evolution)**

09:00 Invited: *Exploring the molecular landscape of Chlamydomonas with in situ cryo-electron tomography* Benjamin Engel, Max-Planck-Institute of Biochemistry

09:40 Nordic: *Light-driven water oxidation in biology* Johannes Messinger, Umeå University

10:10 Selected: *Supramolecular organisation of photosystem I in plants* Matthew P. Johnson, University of Sheffield

10:30 **Coffee break, exhibition and poster viewing**

11:00 Invited: *Role of bound bicarbonate in Photosystem II: redox tuning for regulation and protection* Bill Rutherford, Imperial College

11:40 Nordic: *Tyrosines in Photosystem II - from water oxidation to proton coupled electron transfer* Fikret Mamedov, Uppsala University

12:10 Invited: *Biological water oxidation* Nicholas Cox, Max-Planck-Institute of Chemical Energy Conversion

12:50 **Lunch, exhibition and poster viewing**

**Biogenesis of the photosynthetic machinery and retrograde signaling (Evolution)**

14:00 Invited: *Biogenesis, organization and function of photosynthetic membranes* C. Neil Hunter, University of Sheffield

14:40 Nordic: *Ion fluxes with role in regulation of pmf and photosynthesis* Cornelia Spetea Wiklund, University of Gothenburg

15:10 Selected: *PP2A as a cytosolic regulator of organellar ROS signaling in plants* Saijaliisa Kangasjärvi, University of Turku

15:30 **Coffee break, exhibition and poster viewing**

16:00 Nordic: *Isolation of the cytb<sub>6</sub>f-photosystem I complex from the thylakoid membrane of arabidopsis thaliana* Lutz Eichacker, University of Stavanger

16:30 Selected: *Downsizing the light harvesting complex through CRISPR/Cas9 gene editing of the chloroplast SRP pathway in marine diatoms* Marianne Nymark, Norwegian University of Science and Technology

16:50 Nordic: *The low molecular mass proteins PsbW and PsbTn of eukaryotic PSII* Wolfgang P. Schröder, Umeå University

17:20 Selected: *Organellar signaling through redox interactions between chloroplasts and mitochondria: a case study in rcd1* Alexey Shapiguzov, University of Helsinki

17:40-19:30 **Poster session**

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**Regulation and acclimation of photosynthesis (Evolution)**

09:00	Invited: <i>Plastid thylakoid architecture optimizes photosynthesis in diatoms</i>	Giovanni Finazzi, CEA-Grenoble
09:40	Nordic: <i>Dynamics of the redox state of the plastoquinone pool in sunlight and monochromatic light</i>	Esa Tyystjärvi, University of Turku
10:10	Selected: <i>The chloroplast NDH complex: role in the activation of photosynthesis and in redox homeostasis maintenance</i>	Alix Boulouis, UMR7141-CNRS, IBPC
10:30	<b>Coffee break, exhibition and poster viewing</b>	
11:00	Nordic: <i>New insights of photosynthetic control</i>	Björn Lundin, University of Gothenburg
11:30	Selected: <i>The Entner-Doudoroff pathway is an overlooked glycolytic route in cyanobacteria and plants</i>	Kirstin Gutekunst, Christian-Albrechts-Universität Kiel
11:50	Nordic: <i>CURT1 - mediated thylakoid plasticity is required for optimal photosynthetic performance and plant fitness in Arabidopsis under fluctuating and natural light conditions</i>	Mathias Pribil, University of Copenhagen
12:20	Selected: <i>Acclimation to high CO<sub>2</sub> requires the omega subunit of the RNA polymerase in Synechocystis sp. PCC 6803</i>	Taina Tyystjärvi, University of Turku
12:40	<b>Lunch, exhibition and poster viewing</b>	
14:00	Invited: <i>GUN signaling - how does the chloroplast talk to the nucleus?</i>	Dario Leister, Ludwig-Maximilians-University Munich
14:40	Selected: <i>Chloroplast thioredoxin network regulates plastid biogenesis and mediates acclimation of photosynthesis to changing light conditions</i>	Lauri Nikkanen, University of Turku
15:00	<b>Poster session with coffee break</b>	
16:10	Selected: <i>Nanowire-mediated iron acquisition in Synechococcus sp. PCC7002</i>	Anne Vogel, Norwegian University of Science and Technology
16:30	Nordic: <i>Degradation of potent Rubisco inhibitor by selective sugar phosphatase</i>	Anurag Sharma, University of Copenhagen
17:00	Selected: <i>Thioredoxins are indispensable to optimize dynamic acclimation of photosynthesis in fluctuating light</i>	Peter Geigenberger, LMU Munich
17:20-17:40	Selected: <i>Photoinhibition of PSI and PSII as regulatory mechanisms of photosynthetic energy transduction</i>	Mikko Tikkanen, University of Turku
19:30	<b>Congress dinner (tickets purchased prior to NPC13)</b>	

**28 OCTOBER 2016**

**Renewable energy: biological and chemical approaches**

09:00	Invited: <i>Re-wiring photosynthesis for efficient solar fuels generation</i>	Erwin Reisner, University of Cambridge
09:40	Nordic: <i>Recent developments on water oxidizing catalysts intended for artificial photosynthesis</i>	Stenbjörn Styring, Uppsala University
10:10	Nordic: <i>Microalgae as biocatalysts for efficient conversion of light energy to hydrogen</i>	Sergey Kosourov, University of Turku
10:40	<b>Coffee break, exhibition and poster viewing</b>	
11:10	Nordic: <i>Light driven synthesis improved by fusion of ferredoxin to cytochrome P450 enzymes</i>	Agnieszka Zydalga Nielsen, University of Copenhagen
11:40	Selected: <i>Increasing photobiological hydrogen production from cyanobacteria: Turning around the electron transfer in a cyanobacterial uptake hydrogenase</i>	Ann Magnuson, Uppsala University
12:00	Nordic: <i>Exploring [FeFe] hydrogenases - using a combination of chemical and biological techniques</i>	Gustav Berggren, Uppsala University
12:30	Closing lecture: <i>Photosynthetic diversity provides blueprints for optimized renewable energy and resources generation</i>	Martin Hohmann-Marriott, Norwegian University of Science and Technology
13:10	<b>Closing</b>	