

Monday, November 6

- **Session 1** **Chair: Kevin Redding**
 - 8:25 – 8:30 Welcome
 - 8:30 – 9:00 **Mike Behrenfeld**: Scaling Up: Photosynthesis and satellite remote sensing
 - 9:00 – 9:30 **Jun Minagawa**: Architecture of algal photosystem I in state 2
 - 9:30 – 10:00 **Petra Fromme**: Time-resolved Studies on Photosynthetic Systems with X-Ray Free Electron Lasers
- **Coffee break** 10.00 - 10.30
- 10:30 – 11:00 **Kaori Kohzuma**: Visualization of thylakoid lumen environments by Photochemical Reflectance Index
- 11:00 – 11:30 **Klaas van Wijk**: Chloroplast Proteostasis: N-degron pathways and protease networks
- 11:30 – 12:00 **Kintake Sonoike**: Redox condition and metabolic interaction in the cyanobacterium *Synechocystis* sp. PCC6803
- **Lunch** 12.00 - 13.00
- **Session 2** **Chair: Robert Blankenship**
 - 13:00 – 13:30 **Laurie Leonelli**: The Lutein Epoxide Cycle: A Shady Business in Legumes
 - 13:30 – 14:00 **Yuri Munekage**: Regulation of light-harvesting and energy production by electron transfer in NADP-malic enzyme type C4 *Flaveria bidentis*
 - 14:00 – 14:30 **Abhishek Singharoy**: Structural systems biology of photosynthetic membranes
- **Coffee break** 14.30 – 15.00
- 15:00 – 15:30 **Shinji Masuda**: Significance of the plastidial stringent response for controlling chloroplast metabolism and plant growth
- 15:30 – 16:00 **Christopher Jones**: In situ, High-Resolution Quantification of CO₂ Uptake Illuminates Carbon Fixation Dynamics in Cyanobacterial Batch Cultures
- 16:00 – 16:30 TBA
- **Poster session 1** 16:30 – 18:00
- Attendees will have dinner on their own.

Tuesday, November 7

- **Session 3** **Chair: Graham Peers**
 - 8:30 – 9:00 **Jodi Young:** Autotrophy at extremes
 - 9:00 – 9:30 **Toshiharu Shikanai:** Regulation of photosynthetic electron transport via lumenal acidification
 - 9:30 – 10:00 **Vladimiro Mujica:** Anomalous length and temperature dependence in spin-polarized electron transfer
- **Coffee break** 10.00 - 10.30
- 10:30 – 11:00 **Makiko Kosugi:** Uphill energy transfer mechanism for photosynthesis in an Antarctic alga, *Prasiola crispera*
- 11:00 – 11:30 **Junko Yano:** Application of X-ray Free Electron Lasers to study water oxidation reaction in natural photosynthesis
- 11:30 – 12:00 **Wataru Sakamoto:** Thylakostasis and membrane remodeling molecules
- **Lunch** 12.00 - 13.00
- **Session 4** **Chair: Laurie Leonelli**
 - 13:00 – 13:30 **Christopher Gisriel:** Structural basis of far-red light-photoacclimation
 - 13:30 – 14:00 **Yukako Hihara:** Acylated plastoquinone is a novel neutral lipid accumulated in cyanobacteria.
 - 14:00 – 14:30 **Wendy Schluchter:** The biochemistry of bilin lyases and lyase-isomerases involved in phycoerythrin biosynthesis
- **Coffee break** 14.30 – 15.00
- 15:00 – 15:30 **Kentaro Ifuku:** Molecular and structural basis of the light-harvesting and photoprotection in the diatom *Chaetoceros gracilis*
- 15:30 – 16:00 **Yuval Mazor:** Robustness to large scale structural heterogeneity in the PSI-IsiA super-complex
- 16:00 – 16:30 **Peter Lammers:** Engineered ketocarotenoid biosynthesis in the polyextremophilic red microalga *Cyanidioschyzon merolae* 10D
- **Poster session 2** 16:30 – 18:00
- 18:00 Tour of the CXFEL facility
- Attendees will have dinner on their own.

Wednesday, November 8

- **Session 5** **Chair: TBA**
 - 8:30 – 9:00 **Kris Niyogi:** Understanding and altering photoprotection to improve crop productivity
 - 9:00 – 9:30 **Yuki Okegawa:** Redox regulation of photosynthesis by the thioredoxin system in *Arabidopsis*
 - 9:30 – 10:00 **Jessica Anna:** Probing Red Shifted States in Photosystem I and Model Systems with Ultrafast Spectroscopy
- **Coffee break** 10.00 - 10.30
- 10:30 – 11:00 **Yuichi Fujita:** Loss of photosynthetic growth ability of cyanobacteria in long-term dark heterotrophic cultivation
- 11:00 – 11:30 **Himadri Pakrasi:** Photosynthesis and Nitrogen Fixation in a Unicellular Cyanobacterium
- 11:30 – 12:00 **Ritsuko Fujii:** Structural basis of the utilization of blue-green light by a siphonaxanthin-binding light-harvesting complex II from a marine macro green algae
- **Lunch** 12.00 - 13.00
- 13:00 – 13:30 **Andrew Paton:** The VDE and ZEP3 Genes of the Model Diatom *Phaeodactylum tricornutum* Mediate Its Major Xanthophyll Cycle
- 13:30 – 14:00 TBA
- 14:00 – 14:30 TBA
- **Coffee break** 14.30 – 15.00
- **Discussion about the next workshop** 15.00 – 15.30
- **Excursion to the Desert Botanical Garden**
- **Dinner at the Garden**