Mon 3rd

Start	End	Session/Speaker
8.00	8.45	**Registration**
8.45	9.00	**Opening Welcome Hastings/Bruce**
9.00	9.35	Keynote 1 Cheryl Kerfeld Chair: Josh Vermaas
9.35	10.40	Session 1 Antenna & light harvesting 1 Chair: Gabriela Schlau-Cohen
10.40	11.00	**coffee break**
11.00	11.30	Keynote 2 Rowan Sage Chair: Asaph Cousins
11.30	12.40	Session 2 Carbon Assimilation & Photorespiration. Chair: Laura Gunn
12.40	1.50	**Lunch**
1.50	2.55	Session 3 Biogenesis & Pigments Chair: David Vinyard
2.55	3.15	**coffee break**
3.30	4.45	Public Lecture, Keynote 3 Rachael Morgan-Kiss Chair: Xin Wang
4.45	7.00	**Poster session A/Mixer**

Tues 4th

Start	End	Session/Speaker
9.00	9.35	Keynote 4 Petra Fromme Chair: Yuval Mazor
9.35	10.40	Session 4 Light harvesting (regulation) 2 Chair: Yuval Mazor
10.40	11.00	**coffee break**
11.00	12.05	Session 5 LD-ET & RC Chair: Jessica Anna
12.05	1.30	**Lunch**
1.30	2.05	Keynote 5 Helmut Kirchhoff Chair: Barry Bruce
2.05	3.10	Session 6 Advances in Electron Transport & Metabolite Management Chair: Wim Vermaas
3.10	3.30	**Coffee Break**
3.30	4.55	Session 7: Innovations in PS I and II Research Chair: Sergei Savikhin
5.00	7.00	**Poster session B/Mixer**

Wed 5th

Start	End	Session/Speaker
9.00	10.20	Session 8 Computational biology Chair: Josh Vermaas
10.20	10.40	**coffee break**
10.40	12.00	Session 9 LD-ET & products Chair: Colin Gates
		Free Time
6.00	8.00	**Meet up - Park Tavern**

Thur 6th

Start	End	Session/Speaker
9.00	10.05	Session 10 Carbon Metabolism and Beyond Chair: Xin Wang
10.05	10.25	**coffee break**
10.25	11.45	Session 11 Biofuels/Photosynthetic Products/New Things Chair: Ru Zhang
11.45	12.00	**Closing remarks** **Awards Announcements**

Monday 3rd June

	8.00	8.45	**Registration**	
	8.45	9.00	**Opening/Welcome: Hastings/Bruce**	
	9.00	9.35	**Keynote: Cheryl Kerfeld** Chair: Josh Vermaas	Structural Insights into Cyanobacterial Light Harvesting and Photoprotection
Session 1 **Antenna & light harvesting**	9.35	9.40	Chair: Gabriela Schlau-Cohen	
	9.40	9.55	Alison Squires	Single-molecule Studies of Quenched Light Harvesting Proteins in an Anti-Brownian Electrokinetic (ABEL) Trap
	9.55	10.10	Dihao Wang	Structure and dynamics of antenna complexes during chromatic acclimation
	10.10	10.25	Sara Massay	Fluence-dependent transient absorption reveals the functional connectivity of red chlorophyll sites in cyanobacterial PSI
	10.25	10.40	Lyudmila Slipchenko	The power of multiscale molecular modeling in understanding the structure and function of photosynthetic proteins
	10.40	11.00	**coffee break**	
	11.00	11.30	**Keynote 2: Rowan Sage** Chair: Asaph Cousins	Early Events in the Evolution of C_4 Photosynthesis
Session 2 **Carbon Assimilation and Photorespiration**	11.30	11.35	Chair: Laura Gunn	
	11.35	11.50	Rob Burnap	Towards a mechanism of CO_2 uptake by NDH-1 complexes in cyanobacteria
	11.50	12.05	Adrien Burlacot	Robust photosynthetic CO_2 fixation under fluctuating environments relies on a mix of alternative photosynthetic electron pathways.
	12.05	12.20	Noam Prywes	Rubisco biochemistry in vivo.
	12.20	12.40	Karolina Heyduk Chair: Rowan Sage	Evolution of Crassulacean acid metabolism through the lens of genomics
	12.40	1.50	**Lunch/Posters**	
Session 3 **Biogenesis & Pigments**	1.50	1.55	Chair: David Vinyard	
	1.55	2.10	David Vinyard	Biogenesis and maintenance of the photosynthetic apparatus
	2.10	2.25	Yulia Pushkar	Similarities and differences in the water oxidation mechanism of the Photosystem II and artificial analogs.
	2.25	2.40	Jennifer Bridwell-Rabb	A Metalloprotein Catalyzed Transformation in Chlorophyll Metabolism
	2.40	2.55	Roberto Espinoza-Carral	Phycobilisome linker protein ApcG from *Synechocystis sp.* PCC 6803 regulates energy transfer from photosystem II to photosystem I
	2.55	3.15	**coffee break**	
	3.30	4.45	**Public Lecture: Rachael Morgan-Kiss** Chair: Xin Wang	Photosynthesis on the edge: the wild frontier of a polar desert (McMurdo dry valleys, Antarctica)
	4.45	7.00	**Poster session A/Mixer**	

Tuesday 4th

	9.00	9.35	**Keynote: Petra Fromme** Chair: Yuval Mazor	Time Resolved Serial Crystallography and X-Ray Spectroscopy on Photosynthetic Systems
Session 4 **Antenna Pigments**	9.35	9.40	Chair: Yuval Mazor	
	9.40	9.55	Yuval Mazor	Multiple modes of PSI IsiA interaction in cyanobacteria
	9.55	10.10	Michael Reppert	Excitonic Tuning of Vibrational Coupling in Chlorophyll Proteins
	10.10	10.25	Graham Schmidt	Slow energy transfer rates in a structurally unusual light-harvesting complex 2
	10.25	10.40	Chris Gisriel	Structure of a biohybrid photosystem I-platinum nanoparticle solar fuel catalyst
	10.40	11.00	**coffee break**	
Session 5 **Light driven ET and RCs**	11.00	11.05	Chair: Jessica Anna	
	11.05	11.20	Jessica Anna	Probing the Red Chlorophylls of Photosystem I with Multispectral Multidimensional Optical Spectroscopy
	11.20	11.35	Moritz Kretzschmar	Time resolved XFEL structures of the intermediates of the ultrafast light reaction of photosystem I
	11.35	11.50	Wu Xu	Development of a TSR-based method for understanding structural relationships of the electron transfer cofactors and their local environments in Photosystem I
	11.50	12.05	Philip Laible	Enabling a Vestigial Electron Transfer Pathway in Bacterial Photosynthetic Reaction Centers
	12.05	1.30	**Lunch**	
	1.30	2.05	**Keynote: Helmut Kirchhoff** Chair: Barry Bruce	From molecule to membranes: A journey from micrometers to nanometers into the hardware that converts solar radiation into chemical energy.
Session 6 **Advances in Electron Transport and Metabolite Management**	2.05	2.10	Chair: Wim Vermaas	
	2.10	2.25	Malgorzata Krysiak	Understanding light-induced acceleration of linear electron transport in plants
	2.25	2.40	Setsuko Wakao	Gaining insight into the functions of unknown genes by multi-omic signatures
	2.40	2.55	Audrey Short	Elucidating Photoprotective Dynamics in Fluctuating Light Environments through Modeling
	2.55	3.10	Harvey Hou	Cyanobacteria metabolite overflow for energy management revealed by HPLC and LCMS
	3.10	3.30	**coffee break**	
Session 7 **Innovations in Photosystem I and II Research**	3.30	3.35	Chair: Sergei Savikhin	
	3.40	3.55	Gabriel Bury	Simulated EXAFS of Native and Sr-OEC models suggest heterogeneity in S_3 state
	3.55	4.10	Zhuoran Long	Molecular Dynamics Insights into Functional Roles of Water in Photosystem II Water Channels
	4.10	4.25	Brandon Russell	Utilizing wavelet analysis to deconvolute oscillations during water oxidation
	4.25	4.40	Hiroki Makita	Polarized Infrared Spectroscopy of a Single Photosystem I Microcrystal
	4.40	4.55	Sergei Savikhin	Revealing details of initial charge separation in the reaction center of photosystem I by site-directed mutagenesis and ultrafast spectroscopy.
	5.00	7.00	**Poster session B/Mixer**	

Wednesday 5th June

Session 8 **Computational Biology**	9.00	9.05	Chair: Josh Vermass	
	9.05	9.20	Josh Vermaas	Atomic View of Photosynthetic Metabolite Permeability Pathways and Confinement in Cyanobacterial Carboxysomes
	9.20	9.35	Doran Raccah	Integrative Modeling of Photosystem II Light Harvesting
	9.35	9.50	Melih Sener	Integrative modeling of photosynthetic energy conversion from electronic to cell scale
	9.50	10.05	Jack Lawrence	Charge separation in Photosystem I investigated through predictive first principles modeling
	10.05	10.20	Seda Kelestemur	*Inspired by Nature* : Amino Acids for Robust Hierarchical Supramolecular Assembly
	10.20	10.40	**coffee break**	
Morning Session 9 Light Driven ET and Products	10.40	10.45	Chair: Colin Gates	
	10.45	11.00	Colin Gates	External Controls on Photosystem II-Cyclic Electron Flow
	11.00	11.15	Chuck Dismukes	70 Years since Calvin-Benson: Where are the bottlenecks? Which phototrophs can sprint? Any marathoners?
	11.15	11.30	Anagha Krishnan	Understanding and engineering photosynthesis in a highly productive marine algal genus, *Picochlorum*
	11.30	11.45	Kevin Redding	Light-driven electron transport in heliobacteria
	11.45	12.00	Himanshu Mehra	Expanding the roles of the accessory TPR protein PratA in *Synechocystis* sp. PCC 6803
			Free Time	
	6.00	8.00	**Meet Up-Park Tavern**	

Thursday 6th June

Session 10 Carbon Metabolism and Beyond	9.00	9.05	Chair: Xin Wang	
	9.05	9.20	Xin Wang	Modulating dark respiration for improved photosynthesis in cyanobacteria
	9.20	9.35	Bo Wang	Alteration of central carbon metabolism in cyanobacteria for biosynthesis of glycogen and sucrose
	9.35	9.50	Maria Santos	Dramatic restructuring of carbon concentrating machinery accompanies energy imbalance and oxidative stress in cyanobacterial mutants of the circadian regulator RpaA
	9.50	10.05	Jiangping Yu	Carbon and phosphorus metabolism contribute to energy regulation in cyanobacteria
	10.05	10.25	**coffee break**	
Session 11 Biofuels/Photosynthetic Products/New Things	10.25	10.30	Chair: Ru Zhang	
	10.30	10.45	Ru Zhang	Photosynthesis dynamics under moderate and acute high temperatures in the model green alga *Chlamydomonas reinhardtii*
	10.45	11	Sunil Tiwari	Impact of environmental factors on cyanobacterial growth and phycocyanin levels
	11.00	11.15	Andrew Paton	The VDE and ZEP3 Genes of the Model Diatom *Phaeodactylum tricornutum* Mediate Its Major Xanthophyll Cycle
	11.15	11.30	Michal Koblížek	Cold-loving bacterium from a mountain lake harvests light energy using both bacteriochlorophyll-containing photosystems as well as proton-pumping rhodopsins
	11.30	11.45	Wim Vermaas	Characterization of cyanobacterial mutants with reduced PSI
	11.45	12.00	**Awards/Closing Remarks**	