

SCIENTIFIC PROGRAMME

18th International Congress on Photosynthesis Research July 31 – August 5, 2022

SUNDAY 31 July

15:30 – 17:00	Registration
17:30 – 17:45	Opening Ceremony Fullwood Room
17:45 – 18:45	Opening Plenary Presentations - Chair Wim Vermaas Enhancing and adapting photosynthesis for food security under climate change Stephen Long (<i>University of Illinois, USA</i>) - Pre Recorded Emerging Approaches for PSI-Based Bio-hybrid Devices Barry Bruce (<i>University of Tennessee, USA</i>) – In Person
18:45 – 20:30	Welcome Reception – Fullwood foyer

MONDAY 1 August

08:30 – 09:00	Plenary Session - Chair Grant Pearce Phycobilisome light harvesting and its regulation in Cyanobacteria Jindong Zhao (<i>Peking University, China</i>) – Pre Recorded
09:00 – 09:30	Novel insights into the regulation of C4 Photosynthesis Susanne von Caemmerer (<i>Australian National University, Australia</i>) – In Person
09:30 – 10:00	Coffee Break

PARALLEL SYMPOSIA

ROOM	FULLWOOD	CONFERENCE 1
10:00 – 12:15	Electron and Proton Transfer in Photosynthesis <i>Chair / Discussion Leader:</i> Marilyn Gunner (<i>City College of New York, CUNY, USA</i>) - Pre Recorded Introduction	Rubisco and Photorespiration <i>Chair / Discussion Leader:</i> Spencer Whitney (<i>Australian National University, Australia</i>) - In Person Introduction
10:10 – 10:30	253 IP - John Golbeck (<i>Penn State University, USA</i>)	251 IP - Florian Busch (<i>University of Birmingham, UK</i>)
10:30 – 10:50	257 V - Hiroshi Ishikita (<i>University of Tokyo, Japan</i>)	264 V - Maureen Hanson (<i>Cornell University, USA</i>)
10:50 – 11:05	44 V - Shinji Masuda	59 IP - Oliver Mueller-Cajar
11:05 – 11:20	146 IP - Greg Tira	63 IP - Stavros Azinas
11:20 – 11:35	199 V - Jingcheng Huang	104 IP - Yi-Chin Candace Tsai
11:35 – 11:50	214 V - Andrea Fantuzzi	171 V - Shin-Ichi Miyazawa
11:50 – 12:15	Discussion	Discussion
12:15 – 13:30	Lunch Break and Poster Viewing	
13:30 – 14:00	Plenary Session – Chair Julian Eaton-Rye Capturing sequence of events during the water oxidation reaction in natural photosynthesis Junko Yano (<i>Lawrence Berkeley National Laboratory, USA</i>) - Pre Recorded	
14:00 – 14:30	Within-canopy photosynthetic acclimation: importance for photosynthesis in current and future climates Ülo Niinemets (<i>Estonian University of Life Sciences, Estonia</i>) - Pre Recorded	
14:30 – 14:50	Coffee Break	

PARALLEL SYMPOSIA

ROOM	FULLWOOD	CONFERENCE 1
14:50 – 17:25	Regulation of Electron Transfer and Alternative Electron Transport Pathways <i>Chair / Discussion Leader:</i> Marc Nowaczyk (Ruhr University Bochum, Germany) - Pre Recorded Introduction	Multiscale Modelling of Photosynthesis <i>Chair / Discussion Leader:</i> Xinguang Zhu (Shanghai Institutes for Biological Sciences, CAS, China) Pre Recorded Introduction
15:00 – 15:20	243 IP - Rob Burnap (Oklahoma State University, USA)	39 V - Chandra Bellasio (University of Balearic Islands, Spain)
15:20 – 15:40	252 V - Yagut Allahverdiyev-Rinne (University of Turku, Finland)	276 IP - Alex Wu (University of Queensland, Australia)
15:40 – 15:55	5 IP - Christine Lewis	68 IP - Jun Tominaga
15:55 – 16:10	17 IP - Nina Maryn	154 IP - Eduardo Gorron
16:10 – 16:25	47 V - Adrien Burlacot	195 V - Daipayan Sarkar
16:25 – 16:40	177 V - Guang-Ye Han	209 V - Muhamed Amin
16:40 – 17:05	Discussion	Discussion
17:05 – 17:25	Rest Break	

PARALLEL SYMPOSIA

ROOM	FULLWOOD	CONFERENCE 1
17:25 – 19:30	Membrane Ultrastructure and Dynamics <i>Chair / Discussion Leader:</i> Matthew Johnson (University of Sheffield, UK) - Pre Recorded Introduction	Leaf Anatomy and Photosynthetic Performance <i>Chair / Discussion Leader:</i> Ichiro Terashima (Tokyo University, Japan)- In Person Introduction
17:35 – 18:00	245 V - Wojciech Wietrzynski	145 V - Eiji Gotoh (Kyushu University, Japan)
18:00 – 18:25	262 V - Luning Liu	188 V- Danny Tholen (University of Natural Resources and Life Sciences, Austria)
18:25 – 18:45	216 V - Helmut Kirchhoff	7 IP - Florence Danila
18:45 – 19:05	248 V - Andrew Hitchcock	172 V - Yuko Hanba
19:05 – 19:30	Discussion end of day	Discussion end of day

TUESDAY 2 August

08:30 – 09:00	Plenary Session – Chair Laura Gunn Rubisco regulation in crops Elizabete Carmo-Silva (<i>Lancaster University, UK</i>) - Pre Recorded
09:00 – 09:30	Multiprotein condensate formation in b-carboxysome assembly Manajit Hayer-Hartl (<i>Max-Planck-Institute of Biochemistry, Germany</i>) – In Person
09:30 – 10:00	Coffee Break

PARALLEL SYMPOSIA

ROOM	FULLWOOD	CONFERENCE 1
10:00 – 12:15	Light Harvesting and its Regulation in Eukaryotic Systems <i>Chair / Discussion Leader:</i> Herbert van Amerongen (<i>Wageningen University, the Netherlands</i>) - Pre Recorded Introduction	Regulation of Carbon Assimilation in C3 and C4 Systems <i>Chair / Discussion Leader:</i> Martha Ludwig (<i>University of Western Australia, Australia</i>) – In Person Introduction
10:10 – 10:30	247 V - Xiaowei Pan (<i>Capital Normal University, China</i>)	258 V - Asaph Cousins (<i>Washington State University, USA</i>)
10:30 – 10:50	249 IP - Howe Siang Tan (<i>Nanyang Technological University, Singapore</i>)	VP - Stéphanie Arrivault (<i>Max Planck Institute of Molecular Plant Physiology, Germany</i>)
10:50 – 11:05	29 IP - Collin Steen	3 IP - Florian Galbier
11:05 – 11:20	45 V - Olli Virtanen	8 V - Yuan Xu
11:20 – 11:35	46 IP - Julia Walter	87 V - Petar Mohorovic
11:35 – 11:50	169 V - Ryouichi Tanaka	116 IP - Robert Sharwood
11:50 – 12:15	Discussion	Discussion
12:15 – 13:15	Lunch Break	

PARALLEL SYMPOSIA

ROOM	FULLWOOD	CONFERENCE 1
13:15 – 15:30	Reaction Centres: Structure and Function <i>Chair / Discussion Leader:</i> Kevin Redding (<i>Arizona State University, USA</i>) - Pre Recorded Introduction	Ecophysiology and Biodiversity in Natural and Managed Systems <i>Chair / Discussion Leader:</i> Elizabeth Ainsworth (<i>University of Illinois, USA</i>) - Pre Recorded Introduction
13:25 – 13:45	254 V - Po-Lin Chiu (<i>Arizona State University, USA</i>)	118 IP - Demi Sargent
13:45 – 14:05	278 V - Christopher Gisriel (<i>Yale University, USA</i>)	273 - Sam Taylor
14:05 – 14:20	6 IP - Gary Hastings	40 V - Quentin Charras
14:20 – 14:35	34 V - Jing-Hua Chen	103 IP - Shoko Tsuji
14:35 – 14:50	129 V - Shigeru Itoh	179 V - Francesco Bellamoli

14:50 – 15:05	130 V - Michael Hippler	80 V- Oula Ghannoum
15:05 – 15:30	Discussion	279 V Chandra Bellasio (<i>Extra 15min talk</i>) Discussion
15:30 – 15:50	Coffee Break	
15:50 – 16:20	Plenary Session - Chair Tina Summerfield Structural studies of photosystem II water oxidation and other photosystem-light harvesting protein supercomplexes from different organisms Jian-Ren Shen (<i>Okayama University, Japan</i>) - Pre Recorded	
16:20 – 16:50	Breaking the red-limit: driving oxygenic photosynthesis with far-red light Roberta Croce (<i>VU Amsterdam, the Netherlands</i>) - Pre Recorded	
16:50 – 17:00	Short Break	

PARALLEL SYMPOSIA

ROOM	FULLWOOD	CONFERENCE 1
17:00 – 19:15	Synthetic Biology for Food, Fuel and Chemical Production <i>Chair / Discussion Leader:</i> Himadri Pakrasi (<i>Washington University St Louis, USA</i>) - Pre Recorded Introduction	Photosynthetic Phenomics and Crop Improvement <i>Chair / Discussion Leader:</i> Christine Raines (<i>University of Essex, UK</i>) - Pre Recorded Introduction with talk 273 V - Christine Raines (<i>University of Essex, UK</i>) (<i>note time 17:00 – 17: 25</i>)
17:10 – 17:30	205 V - Graham Peers (<i>Colorado State University, USA</i>)	
17:30 – 17:50	246 V - Claudia Vickers (<i>CSIRO and Queensland University of Technology, Australia</i>)	261 V - Caitlin Moore (<i>University of Western Australia, Australia</i>) (17:25 – 17:45)
17:50 – 18:05	150 IP - Prem Pritam	270 V - Mark Aarts (<i>Wageningen University, the Netherlands</i>) (17:45 – 18:05)
18:05 – 18:20	155 IP - Wim Vermaas	11 IP - Liana Acevedo-Siaca
18:20 – 18:35	197 V - Annesha Sengupta	212 V - Yin Wang
18:35 – 18:50	229 IP - Paul Hudson (<i>KTH Royal Institute of Technology, Sweden</i>) [<i>extra 20-min talk</i>]	219 V - Oliver Knopf
18:50 – 19:15	Discussion	Discussion
19:15 – 21:30	Poster Session (Pizza with NZ Wine and Craft Beers)	

WEDNESDAY 3 August

08:30 – 09:00	Awards Talks – Chair Wim Vermaas The Robin Hill Award Talk Michi Suga - In person
09:00 – 09:30	The Melvin Calvin-Andrew Benson Award Talk Martin Jonikas Pre Recorded
09:30 – 10:00	Coffee Break

PARALLEL SYMPOSIA

ROOM	FULLWOOD	CONFERENCE 1
10:00 – 12:15	Light Harvesting and its Regulation in Prokaryotic Systems <i>Chair / Discussion Leader:</i> Bob Blankenship (Washington University, St Louis, USA) - Pre Recorded Introduction	Chloroplast Development and Assembly of the Photosynthetic Apparatus <i>Chair / Discussion Leader:</i> Peter Nixon (Imperial College London, UK) - Pre Recorded Wataru Sakamoto (Okayama University, Japan) - Pre Recorded Introduction
10:10 – 10:30	190 V - Tina Dominguez Martin (University of Cordoba, Spain)	61 V - Josef Komenda (Institute of Microbiology, Centre Alagatech and University of South Bohemia, Czech Republic)
10:30 – 10:50	250 V - Michal Koblizek (Institute of Microbiology, Centre Alagatech, Czech Republic)	267 V - Ben Engel (Max Planck Institute of Biochemistry, Germany)
10:50 – 11:05	4 V - Olga Chukhutsina	27 V - Monique Liebers
11:05 – 11:20	83 V - Michal Gwizdala	65 V - Lianyong Wang
11:20 – 11:35	98 V - Dvir Harris	71 IP - Haruhiko Jimbo
11:35 – 11:50	162 IP - Takehisa Dewa	192 V - Marc Nowaczyk
11:50 – 12:15	Discussion	Discussion
12:15	Free Time	

THURSDAY 4 August

08:30 – 09:00	Plenary Session - Yulia Pushkar The Tom Wydrzynski Lecture on Water Oxidation Gary Brudvig (<i>Yale University, USA</i>) - In Person	
09:00 – 09:30	Basking in the sun: How mosses photosynthesise and survive the coldest continent on Earth Sharon Robinson (<i>University of Wollongong, Australia</i>)	
09:30 – 09:50	Coffee Break	
09:50 – 10:20	Jan Anderson Lecture Award Talk - Chair Wim Vermaas Ben Engel - Pre Recorded	
10:20 – 10:30	Short Break	
PARALLEL SYMPOSIA		
ROOM	FULLWOOD	CONFERENCE 1
10:30 – 12:45	The Tom Wydrzynski Water Oxidation Session <i>Chair / Discussion Leader:</i> Johannes Messinger (<i>Uppsala University Sweden</i>) - Pre Recorded Introduction	CO₂ Diffusion, Transport and Concentration Mechanisms <i>Chair / Discussion Leader:</i> David Hanson (<i>University of New Mexico, USA</i>) – In Person Introduction
10:40 – 11:00	263 V - Dimitrios Pantazis (<i>Max Planck Institute for Coal Research, Germany</i>)	148 V - Roberto Salomon (<i>Polytechnic University of Madrid, Spain</i>)
11:00 – 11:20	240 V - Holger Dau (<i>Free University, Berlin, Germany</i>)	170 IP - Mina Momayyezi (<i>University of California, Davis, USA</i>)
11:20 – 11:35	136 IP - David Vinyard	33 IP - David Savage
11:35 – 11:50	183 V - Isabel Bogacz	52 IP - Justin Lau
11:50 – 12:05	184 IP - Yulia Pushkar	53 V - Genki Horiguchi
12:05 – 12:20	152 V - Felix Rummel	92 IP - Alicia V Perera-Castro
12:20 – 12:45	193 Kizashi Yamaguchi (12:20 – 12:35) Discussion (<i>may extend to 13:00</i>)	Discussion
12:45 – 13:30	Lunch Break	

PARALLEL SYMPOSIA

ROOM	FULLWOOD
13:30 – 15:45	Special Symposia Olle Björkman Ecophysiology of Photosynthesis Session Additional Time for In House and Pre-Recorded Poster Viewing <i>Chair / Discussion Leader:</i> Joe Berry (Carnegie Institution for Science, Stanford, USA) Jen Johnson (Carnegie Institution for Science, Stanford, USA) - Pre Recorded Introduction
13:40 – 14:00	235 V - Rowan Sage (University of Toronto, Canada)
14:00 – 14:20	269 V - Krishna Niyogi (University of California Berkeley)
14:20 – 14:35	163 V - Barbara Demmig-Adams
14:35 – 14:50	198 V - David Kramer
14:50 – 15:05	143 IP - Jen Johnson
15:05 – 15:20	112 V - Wu Sun
15:20 – 15:45	Discussion
15:45 – 16:15	Coffee Break
16:30 – 18:30	Special Climate Session <i>Chair: John Troughton</i> (Consultant, Sydney, Australia) - In Person Olaf Morgenstern (National Institute of Water and Atmospheric Research, New Zealand) - In Person Cate Macinnis-Ng (Auckland University, New Zealand) - In Person Sharon Robinson (University of Wollongong, Australia) - In Person <i>Open to the Public and all Conference Delegates</i>
18:30 – 19:00	Rest Break
19:00 – 24:00	Conference Dinner – Glenroy Auditorium from 19:00

FRIDAY 5 August

8:30 – 9:00	Plenary Session – Chair Barry Bruce William Martin (<i>Heinrich Heine University, Germany</i>) - Pre Recorded	
9:00 – 9:30	Learning the languages of cells across time and space Barry Pogson (<i>Australian National University, Australia</i>) – In Person	
9:30 – 10:00	Coffee Break	
PARALLEL SYMPOSIA		
ROOM	FULLWOOD	CONFERENCE 1
10:00 – 12:15	Evolution of Photosynthesis <i>Chair / Discussion Leader:</i> Anthony Larkum (<i>University of Sydney and University of Technology, Sydney, Australia</i>) – In Person Introduction	Acclimation of the Photosynthetic Apparatus <i>Chair / Discussion Leader:</i> Joanna Kargul (<i>University of Warsaw, Poland</i>) - Pre Recorded Introduction
10:10 – 10:30	182 IP - Martha Ludwig (<i>University of Western Australia, Australia</i>)	156 V - Stanisław Karpiński (<i>Warsaw University of Life Sciences, Poland</i>)
10:30 – 10:50	228 V - Tanai Cardona (<i>Imperial College London, UK</i>)	259 V - Tomas Morosinotto (<i>University of Padova, Italy</i>)
10:50 – 11:05	50 V - José Navarro	15 IP - Marten Moore
11:05 – 11:20	144 IP - Beverley Green	25 V - Emilie Wientjes
11:20 – 11:35	167 V - Nancy Kiang	30 V - Taina Tyystjärvi
11:35 – 11:50	206 V - Ryan Wessendorf	51 V - Xiaobo Li
11:50 – 12:15	Discussion	Discussion
12:15 – 13:00	Lunch Break	
13 00 – 15:00	Translational Photosynthesis: Lab to Field Plant Biology Co-Chairs Robert Furbank and Spencer Whitney C4 Rice: the challenge of turbocharging photosynthesis Plenary - Robert Furbank (<i>Australian National University, Australia</i>) - Pre Recorded The Jalal Aliyev Award Lecture Don Ort (<i>University of Illinois, USA</i>) - Pre Recorded 239 Spencer Whitney (<i>Australian National University, Australia</i>) – In Person 12 Maria Ermakova (<i>Australian National University, Australia</i>) – In Person	
15:00 – 15:30	Closing Ceremony, Poster Prizes and Announcement of Next Congress	