Monday 03 June 2019

09:15 - 10:45	**Arrival and Registration** Operon Foyer	
10:45 - 11:00	**Opening remarks: Matthias Hentze, EMBL Heidelberg and Lorenz Näger, HeidelbergCement** Large Operon	
11:00 - 13:00	**Session 1 - Processes currently scaling up** **Chair: Kiran Patil, EMBL Heidelberg** Large Operon	
11:00 - 11:35	**Commercial scale production of low carbon fuels and chemicals from waste gases** Michael Köpke *LanzaTech, United States of America*	1
11:35 - 12:10	**Artificial photosynthesis** Thomas Haas *Evonik Creavis GmbH, Germany*	2
12:10 - 12:35	**Renewable methane from green energy and CO2: a commercial-scale solution to decarbonize our planet with biological methanation** Doris Hafenbradl *Electrochaea GmbH, Germany*	3
12:35 - 13:00	**Single cell protein production from carbon dioxide and electricity** Juha-Pekka Pitkänen *Solar Foods Oy, Finland*	4
13:00 - 14:30	**Lunch** Operon Foyer	
14:30 - 16:00	**Poster Session and Coffee** Operon Foyer	

16:00 - 16:30	**Science and Policy talk:** **The need of a stronger involvement of science for ambitious climate action** Martin Frick *United Nations Framework Convention on Climate Change, Germany*	5
16:30 - 18:30	**Session 2 - Microalgae solutions** **Chair: Tobias Erb, Max Planck Institute for Terrestrial Microbiology** Large Operon	6
16:30 - 17:00	**Engineering cyanobacteria for increased growth/CO2-fixation with subsequent higher solar chemicals and fuels production** Peter Lindblad *Uppsala University, Sweden*	
17:00 - 17:30	**Progress and strategies for solar lipid production optimization in microalgae** Sarah D'Adamo *Wageningen University and Research, The Netherlands*	7
17:30 - 17:45	**Stable malate production in cyanobacterium Synechocystis sp. PCC6803** Beatrice Battaglino *Italian Institute of Technology and Politecnico di Torino, Italy*	8
17:45 - 18:15	**Production of high value compounds from photosynthetic microorganisms** Olaf Kruse *Bielefeld University, Germany*	9
18:15 - 18:30	**Circular economy as a guiding principle for the identification of carbon dioxide utilisation from cement industry for microalgae cultivation** Karin Thole *German Institute of Food Technologies, Germany*	10

18:30 - 20:30 **Conference Dinner**
EMBL Canteen

20:30 - 23:00 **Conference Party with live jazz**
ATC Rooftop Lounge

Tuesday 04 June 2019

09:00 - 09:35	**Science and Policy talk:** **The role of biomass as a renewable energy carrier** Baerbel Friedrich *Humboldt University Berlin, Germany*	11
09:35 - 12:35	**Session 3 - Molecular systems and new pathways** **Chair: Kiran Patil, EMBL Heidelberg** Large Operon	
09:35 - 10:15	**An enzyme complex to convert CO2 into formate** Volker Müller *Goethe University Frankfurt, Germany*	12
10:15 - 10:30	**Engineering a non-natural carboxylation module** Marieke Scheffen *Max Planck Institute for Terrestrial Microbiology, Germany*	13
10:30 - 11:00	**Coffee Break** Operon Foyer	
11:00 - 11:40	**Design and evolution of chemistry using cells for 1-carbon management** James C. Liao *Academia Sinica, Taiwan*	14
11:40 - 12:20	**The formate economy: reprogramming Escherichia coli metabolism to use formate** Arren Bar-Even *Max Planck Institute of Molecular Plant Physiology, Germany*	15
12:20 - 12:35	**High temperature gas-fermentation by Moorella thermoacetica** Torbjørn Ølshøj Jensen *Technical University of Denmark, Denmark*	16
12:35 - 14:00	**Lunch** Operon Foyer	

14:00 - 16:25 **Session 4 - Building Complexity**
Chair: Tobias Erb, Max Planck Institute for Terrestrial Microbiology
Large Operon

14:00 - 14:40 **Engineering carboxysomes and other bacterial microcompartments for enhancing CO2 Fixation** 17
Cheryl Kerfeld
Berkeley National Laboratory and Michigan State University, United States of America

14:40 - 14:55 **Systems biology of acetogen gas fermentation** 18
Kaspar Valgepea
University of Tartu, Estonia

14:55 - 15:30 **Coffee Break**
Operon Foyer

15:30 - 15:45 **Evolving E. coli to perform carbon dioxide fixation** 19
Shmuel Gleizer
Weizmann Institute of Science, Israel

15:45 - 16:00 **Two global initiatives to tackle climate change: Homeward Bound and Climathon** 20
Katja Ovchinnikova
EMBL Heidelberg, Germany

16:00 - 16:25 **Modular composition of the cyanobacterial NDH-1 complexes allows functional diversity** 21
Jan M Schuller
Max Planck Institute of Biochemistry, Germany

16:25 - 16:40 **Closing remarks and poster prize**
Large Operon

17:00 **Departure**

Please remember to collect your poster. Posters that have not been collected will be disposed of after the meeting.

Check your inbox when the meeting ends. You will find an email with the link to the online feedback questionnaire. Please take time to complete it!