



Biological Solutions for the Global CO2 Challenge

EMBL CONFERENCE

HEIDELBERGCEMENT

We have moved our website to embl.org/events. The content below is no longer being updated.

EMBL Courses and Conferences during the Coronavirus pandemic

With the onsite programme paused, many of our events are now being offered in virtual formats.

Registration is open as usual for many events, with back-up plans in place to move further courses and conferences online as necessary. Registration fees for any events affected by the COVID-19 disruption are fully refundable.

More information for participants of events at EMBL Heidelberg can be found [here](#).

Programme

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Day 1 - 3 June 2019

Time	Speaker
09:15 - 10:45	Arrival and registration with light refreshments
10:45 - 11:00	Opening remarks: Matthias Hentze, EMBL Heidelberg and Lorenz Näger, HeidelbergCement
11:00 - 13:00	Session 1 - Processess currently scaling up Chair: Kiran Patil, <i>EMBL Heidelberg</i>

Time	Speaker
11:00 - 11:35	Commercial Scale Production of Low Carbon Fuels and Chemicals from CO₂/CO Waste Gases by the Acetogen <i>Clostridium autoethanogenum</i> Michael Koepke - <i>LanzaTech, USA</i>
11:35 - 12:10	Renewable methane from green energy and CO₂: A commercial-scale solution to decarbonize our planet with biological methanation Doris Hafenbradl - <i>Electrochaea, Germany</i>
12:10 - 12:35	Artificial Photosynthesis Thomas Haas - <i>Evonik GmbH, Germany</i>
13:00 - 14:30	Lunch
14:30 - 15:30	Poster session and coffee
15:35 - 16:00	Single cell protein production from carbon dioxide and electricity Juha-Pekka Pitkänen - <i>Solar Foods Oy, Finland</i>
16:00 - 16:30	Science and Policy talk: The need of a stronger involvement of science for ambitious climate action Martin Frick - <i>United Nations Framework Convention on Climate Change (UNFCCC)</i>
16:30 - 18:30	Session 2 - Microalgae solutions Chair: Tobias Erb, Max Planck Institute for Terrestrial Microbiology
16:30 - 17:00	Engineering cyanobacteria for increased growth/CO₂-fixation with subsequent higher solar chemicals and fuels production Peter Lindblad - <i>Uppsala University, Sweden</i>
17:00 - 17:30	Progress and strategies for solar lipid production optimization in microalgae Sarah D'Adamo - <i>Wageningen University & Research, The Netherlands</i>
17:30 - 17:45	Stable malate production in cyanobacterium <i>Synechocystis</i> sp. PCC6803 Beatrice Battaglini - <i>Italian Institute of Technology and Politecnico di Torino, Italy</i>
17:45 - 18:15	Production of high value compounds from photosynthetic microorganisms Olaf Kruse - <i>Bielefeld University, Germany</i>

Time	Speaker
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 - <i>German Institute of Food Technologies, Germany</i>
18:30 - 20:30	Conference Dinner
20:30 - 23:00	Conference Party

Day 2 - 4 June 2019

Time	Speaker
09:00 - 09:35	Science and Policy talk: The role of biomass as a renewable energy carrier Bärbel Friedrich - <i>Humboldt University Berlin, Germany</i>
09:35 - 12:35	Session 3 - Molecular systems and new pathways Chair: Kiran Patil, <i>EMBL Heidelberg, Germany</i>
09:35 - 10:15	The formate economy: Reprogramming Escherichia coli metabolism to use formate Arren Bar-Even - <i>Max Planck Institute of Molecular Plant Physiology (MPIMP), Germany</i>
10:15 - 10:30	Engineering a Non natural Carboxylation Module Marieke Scheffen - <i>Max Planck Institute for Terrestrial Microbiology, Germany</i>
10:30 - 11:00	Coffee break
11:00 - 11:40	Design and Evolution of Chemistry using Cells for 1-Carbon Management James Liao - <i>Academia Sinica, Taiwan</i>
11:40 - 12:20	An enzyme complex to convert CO2 into formate Volker Müller - <i>Goethe University, Germany</i>
12:20 - 12:35	High temperature gas fermentation by Moorella thermoacetica Torbjørn Ølshøj Jensen - <i>Technical University of Denmark, Denmark</i>
12:35 - 14:00	Lunch
14:00 - 16:25	Session 4 - Building Complexity Chair: Tobias Erb, <i>Max Planck Institute for Terrestrial Microbiology</i>

14:00 - 14:40	Engineering Carboxysomes and Other Bacterial Microcompartments for Enhancing CO2 Fixation Cheryl Kerfeld - <i>University of California, Berkeley, USA</i>
14:40 - 14:55	Systems biology of acetogen gas fermentation Kaspar Valgepea - <i>University of Tartu, Estonia</i>
14:55 - 15:30	Coffee break
15:30 - 15:45	Evolving E. coli to perform carbon dioxide fixation Shmuel Gleizer - <i>Weizmann Institute of Science, Israel</i>
15:45 - 16:00	Two global initiatives to tackle climate change: Homeward Bound and Climathon Katja Ovchinnikova - <i>EMBL Heidelberg, Germany</i>
16:00 - 16:25	The modular composition of the cyanobacterial NDH-1 complexes allows for functional diversity Jan Schuller - <i>Max Planck Institute of Biochemistry, Germany</i>
16:25 - 16:40	Closing and poster prize
17:00	Departure