

Organizer

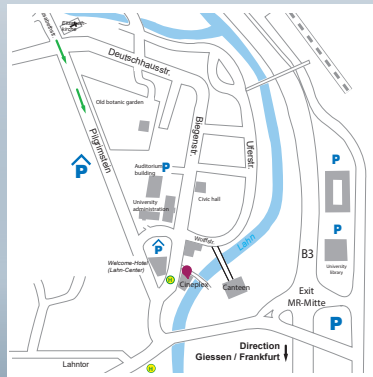
In January 2010, the Philipps-Universität Marburg and the Max Planck Institute for Terrestrial Microbiology established a Center for Synthetic Microbiology (SYNMIKRO) in Marburg, promoted by the Excellence Program of the state of Hesse (LOEWE). Today SYNMIKRO employs over 100 scientists in more than 30 groups who conduct research in the rapidly growing field of synthetic microbiology.

In close collaboration with the Hessen Trade & Invest GmbH (HTAI), SYNMIKRO organizes an annual scientific meeting focusing on the latest developments in microbiology.

Hessen Trade & Invest GmbH is the economic development company of the State of Hesse. Its primary function is to promote Hesse's long-term success as a business and technology region and enhance its competitiveness on the national and international level.

Hessen-Biotech of HTAI is the central information, communication and cooperation platform for life science-based activities in Hesse. Its principle role is to link industry expertise in order to strengthen the innovation potential and competitiveness of companies and to promote the biotechnology and medical technology industry in Hesse.

Venue



Public transportation (recommended):

Step out of the main train station, cross the road to get to the bus stop. Bus line 1-5 and 7 will go to "Rudolphsplatz", which is opposite the venue. After getting off the bus, cross the street at the traffic lights.

By car:

Coming from the north, exit the freeway at "Marburg Bahnhofstrasse" and turn right at the first traffic light. Follow the course of the road and always stay right, the street will separate into two lanes and join again at the Elisabeth church. Drive straight ahead until you are in a street called "Pilgrimstein", where you will find a (charged) parking deck at your right (green arrows on the map).

Address of the nearest parking garage for navigation devices:

Pilgrimstein 17, 35037 Marburg

Registration

Participation is free but registration is required.

Deadline for the registration is May 8, 2024.

Please register online at
www.uni-marburg.de/synmikro

or scan this QR code



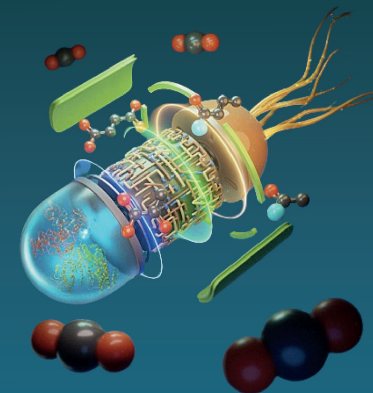
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Microbes 4 Climate From Greenhouse Gases to Products



May 22, 2024

Philipps-Universität Marburg
 Center for Synthetic Microbiology

Venue: Cineplex, Biegenstr. 1,
 35037 Marburg

The "Microbes for Climate: From Greenhouse Gases to Products" conference, hosted by the Center for Synthetic Microbiology in Marburg will explore the pivotal role of microbes in driving and mitigating climate change. Microorganisms possess unique capabilities to directly utilize gases that are major contributors to climate change and turn them into useful biomass. For this reason, microbes have re-shaped our climate many times in our planet's past and their unique abilities also hold the key to mitigating climate change today. This conference will bring together experts from academia and industry to showcase the unique biochemical machinery that allows microbes to live on climate gases and to explore how we can harness their metabolisms to sustainably make valuable chemicals directly from CO₂.

Participation in the symposium is free of charge but registration is required.

Please visit www.uni-marburg.de/synmikro for your online registration.

Organizers:
 Anke Becker (SYNMIKRO)
 Tobias Erb (MPI Marburg)
 Georg Hochberg (MPI Marburg)
 Judith Klatt (Microcosm Earth Center)
 Julia Kurth (Microcosm Earth Center)
 Johannes Rebelein (MPI Marburg)

Program

9:15 - 9:45

Welcome

Tobias Erb
Max Planck Institute for Terrestrial Microbiology

Timon Gremmels
Hessian Minister of Science, Research, Art and Culture (HMWK)

Thomas Spies
Mayor of Marburg

Thomas Nauss
Philipps-Universität Marburg

Session 1 Learning and improving microbial strategies of CO₂-conversions

Chair: Julia Kurth

9:45 - 10:15

Diana Sousa
Wageningen University
 The potential of microbial consortia for the conversion of C₁ gaseous compounds

10:15 - 10:45

Justin North
Ohio State University
 Engineered anaerobic bacterial ethylene synthesis for renewable plastics using nitrogenase-like enzyme catalysts

Session 2 Insights into CO₂-converting machineries of microbes

Chair: Georg Hochberg

10:45 - 11:15

Bonnie Murphy
Max Planck Institute of Biophysics
 Structural snapshots of an anaerobic CO₂ fixation

11:15 - 11:45

Johannes Rebelein
Max Planck Institute for Terrestrial Microbiology
 Reprogramming Nitrogenases for CO₂-fixation

11:45 - 13:00

Lunch break

Session 3 New technologies to understand and engineer microbial carbon capture

Chair: Judith Klatt

13:00 - 13:30

Dipti Nayak
University of California
 CRISPR guided insights into the physiology of methanogenic archaea

13:30 - 14:00

Nico Claassens
Wageningen University
 Realizing synthetic one-carbon metabolism: Towards outperforming Nature?

Session 4 Towards a CO₂-based biotechnology

Chair: Johannes Rebelein

14:00 - 14:30

Hans Vöth
Algoliner GmbH & Co. KG
 Use of CO₂ from biogas plants to accelerate microalgae cultivation

14:30 - 15:00

Coffee break

15:00 - 15:30

Esther Gabor
BRAIN AG
 Valorization of waste streams: biological solutions for sustainable production

15:30 - 16:00

Cornelia Welte
Radboud University
 Greenhouse gas meets bioenergy: electricity production by anaerobic methanotrophic archaea

16:00 - 16:30

Closing: Anke Becker
 SYNMIKRO

17:00

Jacob Beauteemps
 Science YouTuber ("Breaking Lab") will give a public talk in German:

Die Zukunft ist jetzt - Innovationen die unser Leben besser machen

