Organizer

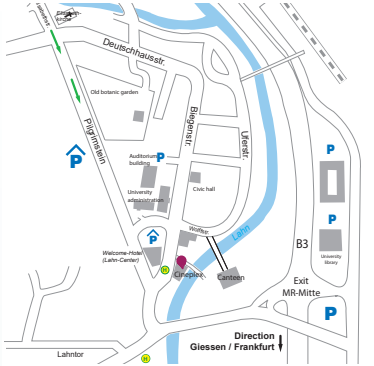
In January 2010, the Philipps-Universität Marburg and the Max Planck Institute for Terrestrial Microbiology established a Center for Synthetic Microbiology (SYNMIKRO) in Marburg, promoted by the Excellence Program of the state of Hesse (LOEWE). Today SYNMIKRO employs over 100 scientists in more than 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. This symposium already has a long tradition; in 2023 will be the 10th anniversary.

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/Contact

Participation is free but registration is required.

Deadline for the registration is May 8, 2023.

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

or scan this QR code

Contact:
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Center for Synthetic Microbiology
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synmikro

Antibiotics, Drugs and Rock'n Roll - Finding solutions for the global health challenge


Foto: Rainer Bertling

May 23, 2023

Philipps-Universität Marburg
Center for Synthetic Microbiology

Venue: Cineplex, Biegenstr. 1,
35037 Marburg

10th Annual Symposium

Nature is an incredible source of biologically active molecules. More than 200,000 different natural products have been isolated from plants and microorganisms and many of them are used in modern medicine as antibiotics, anti-cancer drugs and in other applications.

However, genome sequencing has shown that we have only touched the tip of the iceberg and indicated that there is an almost infinite amount of novel compounds yet to be detected. But how can we harness this naturally existing potential? How do we find these novel compounds, and how can synthetic biology help us to produce them in a defined way and at industrial scale?

At the SYNMIKRO Symposium 2023, we will team up with LOEWE Diffusible Signals and the Collaborative Research Center SFB/TR84 to discuss natural and synthetic molecules in infectious disease research. In LOEWE Diffusible Signals, basic and clinical researchers analyse host-microbe interaction to develop new therapies for important human infections, e.g., sepsis and pneumonia.

Leading scientists from academia and industry will come together to highlight recent breakthroughs and future trends in addressing this great challenge and discuss the potential of biologically active compounds for new therapies.

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)
Bernd Schmeck (Philipps-Universität Marburg)

Program

10:00 **Opening: Anke Becker & Bernd Schmeck**
(Philipps Universität Marburg)

10:10 **Welcome: Gert Bange**
(Vice president Philipps-Universität Marburg)

Session 1
Challenges and solutions in infectious encounters

Chair: Anna Lena Jung

10:20 - 10:50 **Jörg Vogel**
(Helmholtz-Institute for RNA-based Infection Research (HIRI) Würzburg)
The promises and challenges of programmable RNA antibiotics

10:50 - 11:20 **Leif Erik Sander**
(Charité - Universitätsmedizin Berlin)
Myeloid cell responses in viral infections

11:20 - 12:20 Lunch break

Foto: Rainer Breitling

Session 2
Mining microbial genomes for new products

Chair: Judith Klatt

12:20 - 12:50 **Eriko Takano**
(University of Manchester)
Harnessing synthetic biology approaches for microbial production of fine and speciality chemicals

12:50 - 13:20 **Lena Barra**
(Universität Konstanz)
NAD as a building block in natural product biosynthesis

Session 3
An industrial perspective on developing new solutions

Chair: Martina Preiner

13:20 - 13:50 **Philipp Krastel**
(Novartis Pharma AG)
Opportunities for natural product sciences in modern drug discovery

13:50 - 14:20 **Martin Staempfli**
(CSL Behring)
Topical application of nebulized polyclonal IgG: From proof of concept into clinical development

14:20 - 14:50 **Hartwig Schroeder**
(BASF Ludwigshafen)
Natural product fermentation at BASF

14:50 - 15:20 Coffee break

Session 4
Back to the future: Resurrecting ancient natural products for future therapies

Chair: Georg Hochberg

15:20 - 15:50 **Nadine Ziemert**
(University Tübingen)
Evolution and resurrection of ancient antibiotics

15:50 - 16:20 **Pierre Stallforth**
(Friedrich-Schiller-Universität Jena)
Natural products from modern and ancient microorganisms

16:20 - 16:30 Closing: Tobias Erb

Foto: Rainer Breitling