

### Advances in Industrial Biotechnology:

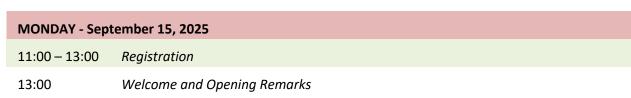
# Synthetic Consortia, Pathways, and Enzymes

Center for Cognitive Interaction Technology (CITEC), Bielefeld University, Germany

September 15 – 17, 2025







Volker F. Wendisch, Director of CeBiTec and Conference Chair

	SESSION 1: Biotechnology at Industrial Scale  Chair: Volker F. Wendisch (Bielefeld University)
13:15	Invited Lecture:  Michael Sauer (OMV AG, Vienna, AT)  Working together - the microbial world shows a way into a greener future
13:55	Invited Lecture:  Ralf Takors (University of Stuttgart, Stuttgart, DE)  Preventing Pitfalls on the Way to Large-Sale Biomanufacturing
14:35	Selected Lecture:  Kristina Braun (Novonesis, Bonn, DE)  Metabolic Modeling for Strain Design in the Production of Human Milk Oligosaccharides (HMOs)
14:55	Coffee Break









#### SESSION 2: Engineering Biosynthetic Pathways I

Chair: Fatma Gizem Avci (Bielefeld University)

Invited Lecture:

15:25 **Tatjana Jilg** (Symrise, Holzminden, DE)

Biotechnology meets Flavor -unlocking natural taste-actives

Selected lecture:

16:05 Alvaro Salazar Quiros (Technical University of Munich, Straubing, DE)

Modular metabolic engineering of Corynebacterium glutamicum for capsaicin

production

Selected lecture:

16:25 Fatma Ece Altinisik Kaya (Marmara University, Istanbul, TR)

Exploring L-Tryptophan Overproduction in Bacillus methanolicus MGA3 by Flux

Analysis Using a Genome-Scale Model

16:45-19:00 **Poster Session** with Beer & Pretzel

#### TUESDAY - September 16, 2025

#### Early Career Female Scientists (ECFS) – Special lecture

Chair: Sara-Sophie Poethe (Bielefeld University)

Special Lecture:

9:00 Sandy Schmidt (University of Groningen, Groningen, NL)

From Enzyme Discovery to Engineered Strains: Biocatalytic Solutions for

**Pharmaceutical Synthesis** 

#### **SESSION 3: Advances in Enzyme Engineering**

Chair: Stephan Hammer (Bielefeld University)

Invited Lecture:

9:40 **Steffen Lindner** (Charité, Berlin, DE)

Growth-coupled bioproduction from CO<sub>2</sub>









	Selected lecture:
10:20	Max Rogowski (Bielefeld University, Bielefeld, DE)
	Dxs - The rate limiting enzyme of the MEP pathway
	Selected lecture:
10:40	Kai Schülke (Bielefeld University, Bielefeld, DE)
	Regeneration of SAM analogs from "off-the-shelf" reagents through enzyme engineering
11:00	Coffee Break

	SESSION 4: Advances in Enzyme Engineering cont.  Chair: Stephan Hammer (Bielefeld University)
11:30	Invited Lecture:  Anming Xu (Nanjing Tech University, Jiangsu, CN)  Modulating Substrate-Enzyme Interactions via Biofilms to Enhance Enzymatic PET
12:10	Invited Lecture:  Lea Lynn Winand (TU Dortmund, Dortmund, DE)  Biocatalytic synthesis of heterocycles using condensing amidohydrolases
12:50	Lunch Break
13:50	Invited Lecture:  Weiliang Dong (Nanjing Tech University, Jiangsu, CN)  Synthetic Biology-Driven Recycling and Upcycling of Polymeric Materials

SESSION 5: Synthetic and Natural Consortia
Chair: Petra Peters-Wendisch (Bielefeld University)

Invited Lecture:

14:30 Sarela Garcia-Santamarina (HKI, Jena, DE)

Emergence of community behaviors in the gut microbiota upon drug treatment









	Selected lecture:
15:10 Zihan Dai (Research Center Jülich, Jülich, DE)	
	Effects of disinfectant residual on the drinking water microbiome
15:30	Coffee Break
	Invited Lecture:
16:00	Luciane Passaglia (UFRGS, Porto Alegre, BR)
	The Brazilian's Pampa microbiome: insights from a multi-approach study
	Selected lecture:
16:40	Petroula Botsidou (Bielefeld University, Bielefeld, DE)
	Gut microbiota shifts from birth to weaning in Antarctic fur seals under contrasting ecological conditions
	Invited Lecture:
17:00	Min Jiang (Nanjing Tech University, Jiangsu, CN)
	Biorefinery of waste carbon resources
17:40	End of session
19:00	Conference Dinner at Restaurant Brauhaus Joh. Albrecht









#### WEDNESDAY - September 17, 2025

Selected Lecture:

#### **SESSION 6: Engineering Biosynthetic Pathways II**

Chair: Olaf Kruse (Bielefeld University)

	9:15	Nora Junker (Bielefeld University, Bielefeld, DE)
		Two routes for tyrosol production by metabolic engineering of Corynebacterium glutamicum
		Selected lecture:
	9:35	Arno Krieger (Bielefeld University, Bielefeld, DE)
		Discovery and functional analysis of volatile terpenes in D. discoideum
		Selected lecture:
	9:55	Merve Saudhof (Bielefeld University, Bielefeld, DE)
		Heterotrophic production of sesquiterpenoid (+)-nootkatone in Chlamydomonas reinhardtii
		Selected lecture:
	10:15	Till Redeker (Research Center Jülich, Jülich, DE)
		Targeted reduction of P. taiwanensis cell surface hydrophobicity for the production of aromatic solvents
	10:35	Coffee Break
		Invited Lecture:
	11:15	Berna Sariyar Akbulut (Marmara University, Istanbul, TR)

Sustainable production of tyrosine and derived products by Corynebacterium

Engineering Vibrio natriegens for a more sustainable chemical economy

12:35	Closing Remarks

glutamicum

Invited Lecture:

**Bastian Blombach** (TUM, DE)

Volker F. Wendisch (Bielefeld University, DE)

12:45 End of Conference





11:55