



From 18-20 November, the Biocat4Value – **Biocatalysis Conference for Biological Transformation along Renewable Value Chains** took place in Düsseldorf, Germany, attracting over 60 participants from 18 countries. This three-day event provided a valuable platform for academia, industry, and startups to connect and exchange insights on the latest developments in biocatalysis.

A highlight of the conference was the active participation, with half of the attendees contributing through oral or poster presentations. This collaborative atmosphere encouraged vibrant discussions and laid the groundwork for future advancements in the field.

The next edition of the conference will take place in autumn 2026.

The topics covered included:

- Promotion of industrial bioeconomy
- Generation of new value chains
- Exploration of venues to high value products from biomass and renewable sources
- Valorization of biomass to platform chemicals or materials.

Scientific Program

18 November 2024 - Monday

9:00 - 10:00 Registration

Session1:

“A Regional Perspective on Bioeconomy”

10:00 - 12:00 Academia Talk: **RWTH Aachen University**, Germany
Prof. Dr. Ulrich Schwaneberg | Head of Institute for Biotechnology
„Biological Transformation of Industries Located in the Rhenish Bioeconomy Model Region”

Invited Industry Talk: **BYK-Chemie GmbH**, Germany
Dr. Tina Radespiel | Head of Biotechnology R&D
„Biocatalysis from Lab to Production in the Specialty Chemical Company BYK”

Invited Industry Talk: **Covestro**, Germany
Dr. Lukas Reisky | Head of Enzyme Technology
„Enzymatic Recycling for Circular Economy in the Plastics Industry”

12:00 – 13:00 Lunch break

Session 2:

“Enzyme Engineering as Enabling Technology for Industrial Bioeconomy”

13:00 – 14:45 Invited Industry Talk: **FIS-Fabbrica Italiana Sintetici**, Italy
Dr. Giacomo Gennari | Head of Biotechnology Development
„Enzymatic Synthesis of APIs and Intermediates: From Lab Scale to Industrial Production through a DoE-based Bioprocess Optimization”

Industry Talk: **Almac Sciences**, United Kingdom
Dr. Alexandra Teresa Carvalho | Technical Leader
„Using the INSIGHT Enzyme Discovery and Engineering Platform for a Greener Future”

Academia Talk: **Forschungszentrum Jülich GmbH**, Germany
Prof. Dr. Jan Marienhagen | Head of Synthetic Cell Factories
„AutoBioTech – A Biofoundry for Automated Strain Engineering”

14:45 – 15:30 *Coffee break*

15:30 – 17:00 Industry Talk: **Aminoverse**, The Netherlands
Dr. David Schönauer | CEO & Founder
„Towards Low-Sugar Foods with AI-evolved Enzymes”

Academia Talk: **Graz University of Technology**, Austria
Dr. Lenny Yap | Postdoctoral Researcher
„Intensifying Enzymatic Oxidation in Recombinant Cyanobacteria: Enzyme Discovery and Reactor Design”

Industry Talk: **Zymvol**, Spain
Dr. Maria Fátima Lucas | CEO & Founder
„Bioinformatics, Molecular Modelling, and AI: Transforming the Enzyme Engineering Landscape”

17:00 – 18:30 *Networking Opportunity*

19 November 2024 - Tuesday

Session 3: “Biocatalysts for Active Compounds”

09:30 – 11:30 Invited Industry Talk: **Michelin**, France
Dr. Sébastien Hulin | Biotechnology Research Leader
„Sustainable Materials and Biotechnologies: Michelin’s Strategy”

Invited Industry Talk: **Givaudan**, France
Dr. Daniel Auriol | Scientific Director
„Givaudan Active Beauty: Pioneering in Precision Cosmetic Ingredients through Biocatalysis”

Industry Talk: **ProtoQSAR**, Spain

Dr. José Luis Vallés Pardo | Senior Researcher

„Bioinformatic and Chemoinformatic Approaches for the Optimization of Biocatalysts“

11:30 – 13:00 *Lunch break*

Session 4:

“High Value Products from Biomass and Renewable Sources”

13:00 – 15:15 Invited Industry Talk: **Bluestar Adisseo Co.**, France and **Allozymes**, Singapore

Dr. Virginie Neugnot | Manager R&D Enzyme Development

Dr. Audrey Robic | Business Development Biotechnology

„Advancing Sustainable Animal Feed Production through Enzyme Innovation“

Academia Talk: **University of Nottingham**, United Kingdom

Dr. Asma Ahmed | Associate Professor

„Integrated Microalgal Carbon Capture and High-Value Product Generation in Mushroom Cultivation“

Industry Talk: **Baldenius Biotech Consulting**, Germany

Dr. Kai Baldenius | Consultant

„How to Gain Value with Biocatalysis in Chemical Manufacturing“

Academia Talk: **University of Lisbon**, Portugal

Prof. Dr. Lígia O. Martins | Associate Professor

„Designing Ligninolytic Enzymes for Sustainable Bioproducts and Building Blocks“

15:15 – 16:00 *Coffee break*

16:00 – 16:30 Industry Talk: **Repsol**, Spain

Dr. Pamela Torres-Salas | Senior Scientist

„Enzymatic Decarboxylation of Volatile Fatty Acids for Sustainable Propylene Production“

16:30 – 18:30 Poster Session and Networking Opportunity

20 November 2024 - Wednesday

Session 5:

“Bringing Biotech to the Market”

09:00 – 11:00 Invited Industry Talk: **AstraZeneca**, Sweden

Prof. Dr. Martin Hayes | Biocatalysis Leader

„The Value of Biocatalysis to Early Drug Discovery Programmes”

Invited Industry Talk: **Novonosis**, Denmark

Dr. Sune Christensen | Senior R&D Manager

„Accelerating toward a Sustainable Society with Biosolutions”

Industry Talk: **Biosphere S.r.l.**, Italy

Marco Pistocchi | Chief Operating Officer

“Process Scale-Up as a Fundamental Tool to bring Industrial Biotech to the Market”

11:00 – 11:30 Coffee break

Session 6:

“Biocatalysts for a Sustainable Bioeconomy”

11:30 – 12:45 Invited Industry Talk: **dsm-firmenich**, The Netherlands

Dr. René de Jong | Principal Scientist Protein Function & Design

„Metabolic Engineering to bring progress to life™”

Industry Talk: **Cascade Biocatalysts**, United States

Alex Rosay | CEO

“Durable Biocatalysts for a Sustainable Bioeconomy: Advancing Scalable Immobilization Technologies”

12:45 – 13:00 Closing remarks

Joint Lunch