



zhaw

Life Sciences and
Facility Management

Institute of
Chemistry and Biotechnology

Industrial Biocatalysis

**14th Wädenswil
Day of Life Sciences**

hosts

4th CCBIO Symposium

June 8th, 2023

ZHAW Wädenswil, Switzerland

www.zhaw.ch/ccbio

www.zhaw.ch/icbt/day-of-lifesciences

Introduction

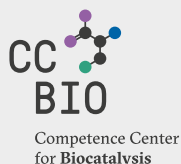
The discipline of biocatalysis has grown significantly in recent years, leading to a surge in industrial applications. Products made through enzymatic transformations are utilized in various industries, including the food, feed, chemical, pharmaceutical, and cosmetic sectors. Furthermore, with the aim to create more sustainable and environmentally friendly processes, enzymes are increasingly applied in cascade systems and in tandem with chemical process steps.

The 4th CCBIO Symposium on Industrial Biocatalysis will explore recent advances in the field, including topics such as sourcing, tailoring and application of wildtype and designer enzymes, repurposing of metalloenzymes, application of artificial cofactors, establishment of enzymatic cascades and the industrial use of biocatalysts. With its interdisciplinary approach, this conference provides a unique opportunity to learn from and network with experts from academia and industry.

The Competence Center of Biocatalysis at the ZHAW promotes biocatalysis as a complementary method to classic organic synthesis and aims to help bridge the gap between academic laboratories and the production plant. By connecting relevant research competences CCBIO strives to develop a comprehensive biocatalytic toolbox consisting of enzyme libraries and methods, which will facilitate the development of biocatalytic and biosynthetic processes for the chemical and pharmaceutical industry.

Scientific Lead

Prof. Dr. Rebecca Buller
Head CCBIO,
Institute of Chemistry and Biotechnology,
ZHAW Wädenswil



Program – Thursday, June 8th, 2023

08.30	Registration and welcome coffee
09.00	Welcome to the ZHAW, news and outlook Prof. Dr. Christian Hinderling, Zurich University of Applied Sciences (CH)
09.15	De novo enzyme cascades for organic synthesis Prof. Dr. Sabine Flitsch, University of Manchester (UK)
09.45	Emergent approaches for fluorine biocatalysis Prof. Dr. Pablo Iván Nikel, Technical University of Denmark (DK)
10.15	Flavin-dependent enzymes and their remarkable properties and applications Prof. Dr. Florian Rudroff, Vienna University of Technology (AT)
10.45	Developing enzymatic platforms for direct nitration reactions Prof. Dr. Mélanie Hall, University of Graz (AT)
11.15	From early phase to full scale manufacturing, an overview of biocatalysis at Novartis Pharma Dr. Thierry Schlama, Novartis Pharma AG (CH)
11.45	Networking lunch and exhibition
13.15	Designer enzymes featuring abiological catalytic sites Prof. Dr. Gerard Roelfes, University of Groningen (NL)
13.45	Identifying and engineering halogenases for selective catalysis Prof. Dr. Jared Lewis, Indiana University Bloomington (US)
14.15	Innovating metalloenzymatic catalysis by introducing new chemistry to biology Prof. Dr. Xiongyi Huang, John Hopkins University (US)
14.45	Coffee and exhibition

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15.30 **Methyltransferases in the chemoenzymatic synthesis of pyrroloindols**
Prof. Dr. Jörg Pietruszka,
Heinrich-Heine-Universität Düsseldorf (DE)

16.00 **Artificial cofactors for redox biocatalysis**
Prof. Dr. Caroline Paul,
Delft University of Technology (NL)

16.30 **Biocatalysis@Scale: Process development in biocatalysis**
Dr. Christian Willrodt,
BASF SE (DE)

17.00 **Closing remarks**
Dr. Hans-Peter Meyer,
HES-SO and Expertinova AG (CH)

Aperitif & Farewell

Chair Prof. Dr. Roland Wohlgemuth,
Lodz University of Technology (PL)

General Information

Exhibitors

CCOS AG – INOFEA AG – Merck/Sigma-Aldrich – Microsynth AG –
TECAN Sales Switzerland AG

Fee

Participants CHF 150.-

Registration

Online registration: www.zhaw.ch/icbt/day-of-lifesciences

E-Mail: weiterbildung.lsfm@zhaw.ch

The registration deadline is June 1st, 2023

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Partner



Location

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