

zhaw

Life Sciences and  
Facility Management

Institute of  
Chemistry and Biotechnology

**Industrial Biocatalysis**

**14<sup>th</sup> Wädenswil  
Day of Life Sciences**

hosts

**4<sup>th</sup> CCBIO Symposium**

**June 8<sup>th</sup>, 2023**

ZHAW Wädenswil, Switzerland

[www.zhaw.ch/ccbio](http://www.zhaw.ch/ccbio)

[www.zhaw.ch/icbt/day-of-lifesciences](http://www.zhaw.ch/icbt/day-of-lifesciences)

# Introduction

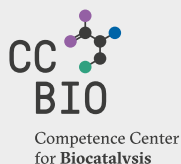
The discipline of biocatalysis has grown significantly in recent years, leading to a surge in industrial applications. Products made through enzymatic transformations are utilized in various industries, including the food, feed, chemical, pharmaceutical, and cosmetic sectors. Furthermore, with the aim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

The 4<sup>th</sup> 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 8<sup>th</sup>, 2023

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

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

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

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

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Aperitif & Farewell

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

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# 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](http://www.zhaw.ch/icbt/day-of-lifesciences)

E-Mail: [weiterbildung.lsfm@zhaw.ch](mailto:weiterbildung.lsfm@zhaw.ch)

The registration deadline is June 1<sup>st</sup>, 2023

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## Partner



# Location

**ZHAW Zurich University of Applied Sciences**  
**GA 203, Campus Grüental**

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Institute of Chemistry and Biotechnology  
Grüentalstrasse 14  
P.O. Box  
8820 Wädenswil/Switzerland

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