

The Competence Center for Biocatalysis (CCBIO)

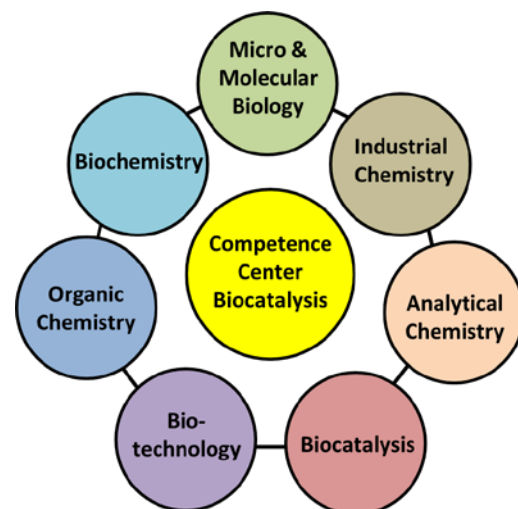
promotes biocatalysis as a complementary method to classic organic synthesis and aims to help bridge the gap between academic laboratories and the production plant.

Biocatalysis enables the sustainable production of chiral and highly functionalized compounds for the chemical and pharmaceutical industry. Recent key advances in DNA sequencing, gene synthesis and data analysis are now enabling scientists to tailor biocatalyst according to industrial needs and to reorganize enzymes into new biosynthetic pathways. This progress fuels the so-called «third wave of biocatalysis» and promises to unlock hitherto inaccessible enzyme activities for industrial biocatalysis and engineer microbial and fungal strains for the production of novel asset molecules.

Structure

The Competence Center Biocatalysis (CCBIO) at the Zurich University of Applied Sciences (ZHAW) was founded in January 2016 and is led by Dr. Rebecca Buller. By connecting relevant research competences CCBIO strives to develop a comprehensive biocatalytic toolbox consisting of enzyme libraries and methods (e.g. enzyme engineering, design of experiments), which will facilitate the development of biocatalytic and biosynthetic processes for the chemical and pharmaceutical industry.

CCBIO is embedded in the ZHAW and the National Thematic Network (NTN) Swiss Biotech.



Goals

- Establish biocatalysis as an alternative to classical chemical synthesis
- Develop a comprehensive biocatalytic toolbox consisting of enzyme libraries and methods
- Facilitate the development of biocatalytic and biosynthetic processes for the chemical and pharmaceutical industry
- Establish a national platform for scientific knowledge transfer and a dialog for participants from industry and academia
- Strengthen the topic of biocatalysis within the teaching portfolio of Swiss Universities

Advisory Board

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