Industrial Biocatalysis

10th Wädenswil Day of Life Sciences

hosts

2nd CCBIO Symposium

June 7th, 2018

GA 203, Campus Grüental,
ZHAW Wädenswil, Switzerland

www.zhaw.ch/ccbio
www.zhaw.ch/icbt/day-of-lifesciences
**Introduction**

Biocatalysis has developed enormously in the last decade and now offers solutions for the sustainable production of chiral and highly functionalized asset molecules. Products generated by enzymatic transformations are already being used in the food, feed, chemical, pharmaceutical and cosmetic industry and the accessible compound panoply is expected to expand even further. As a discipline, biocatalysis requires transdisciplinary expertise between the fields of chemistry, biotechnology, micro- and molecular biology and engineering and thus provides a dynamic environment which will fuel new applications and future innovations.

The 2nd CCBIO Symposium will feature cutting edge topics in the field, from enzyme discovery, optimization and computational design, to bioprocess engineering strategies and successful biocatalytic examples from industry. The meeting will again provide a platform for scientific knowledge transfer and dialog for participants from industry and academia in this expanding field and give an update about the current activities of the Competence Center for Biocatalysis (CCBIO).

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 und Biotechnology,
ZHAW Wädenswil
<table>
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<tr>
<th>Time</th>
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<tr>
<td>08.45</td>
<td>Registration and coffee</td>
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<tr>
<td>09.30</td>
<td>Welcome to the ZHAW, news and outlook</td>
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<td>Prof. Dr. Christian Hinderling, Zurich University of Applied Sciences (CH)</td>
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<tr>
<td>09.45</td>
<td>Advanced tools for the discovery and engineering of enzymes for biocatalytic applications</td>
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<td>Prof. Dr. Uwe Bornscheuer, University of Greifswald (D)</td>
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<tr>
<td>10.15</td>
<td>Biocatalytic reductive amination</td>
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<td>Prof. Dr. Nicholas Turner, University of Manchester (UK)</td>
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<td>10.45</td>
<td>Engineering strategies towards more efficient biocatalytic cascades</td>
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<td>Dr. Selin Kara, Hamburg University of Technology (D)</td>
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<td>11.05</td>
<td>Biocatalysis in drug discovery and drug development at Novartis</td>
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<td>Dr. Radka Snajdrova, Novartis Pharma AG Basel (CH)</td>
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<td>11.30</td>
<td>Networking lunch</td>
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<tr>
<td>13.00</td>
<td>Artificial metalloenzymes: Challenges and opportunities</td>
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<td>Prof. Dr. Thomas Ward, University of Basel (CH)</td>
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<td>13.30</td>
<td>Combining enzymatic decarboxylation with homogeneous catalysis – tandem reactions for synthetic applications</td>
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<td>Prof. Dr. Robert Kourist, TU Graz (A)</td>
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<td>14.00</td>
<td>Harnessing nature: Biocatalysis for development and drug discovery</td>
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<td>Prof. Dr. Rebecca Buller, Zurich University of Applied Sciences (CH)</td>
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<td>14.25</td>
<td>Computational approaches to enzyme engineering using Rosetta / Cyrus Bench</td>
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<td>Dr. David Pearlman, CyrusBio Seattle (USA)</td>
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<td>14.45</td>
<td>Coffee</td>
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15.15  Linking photosynthesis and whole cell biocatalysis for C-H functionalization  
Prof. Dr. Andreas Schmid,  
Helmholtz Centre for Environmental Research Leipzig (D)

15.45  Novel enzymes for biocatalytic applications: Selective epoxide ring-opening and lignin depolymerisation  
Prof. Dr. Anett Schallmey,  
TU Braunschweig (D)

16.15  Biocatalysis from millilitres to cubic metres  
Dr. Emil Byström,  
SpinChem Umeå (S)

16.35  Enzyme shielding in a soft organo-silica layer: Biopharma applications  
Dr. Yves Dudal,  
INOFEA AG Basel (CH)

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

17.00  Aperitif & Farewell

Chair  
Dr. Roland Wohlgemuth, ESAB
General Information

Exhibitors
INOFEA AG • SpinChem AB • Culture Collection of Switzerland AG

Fee
Participants  CHF 150.-

Registration
Online registration: www.zhaw.ch/icbt/day-of-lifesciences
E-Mail: weiterbildung.lsfb@zhaw.ch
The registration deadline is May 31st, 2018

Contact:
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Partner

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Location

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