



Reaction Concepts for Industrial Biocatalysis
Process Catalysts, Process Development, Cascades and New products

Center for Interdisciplinary Research (ZiF), Bielefeld University, Germany
April 9 – 11, 2018

MONDAY - April 9, 2018	
11:00 – 13:00	Registration
13:00	Welcome and Opening Remarks Prof. Dr. Harald Gröger, Bielefeld University– Chairman ICRC 2018 Prof. Dr. Robert Kourist, Graz University of Technology – Biocascades Coordinator
SESSION 1: Process Catalysis	
13:30-14:15	Keynote Lecture: <i>Bioprocess development based on the knowledge of microbial metabolism</i> Prof. Dr. Jun Ogawa, Kyoto University
14:15-14:45	Invited Lecture: <i>Improving Biocatalysis by combining Catalysis and Separation Processes</i> Jun. –Prof. Dr. Jan von Langermann, University of Rostock
14:45-15:00	<i>Translating Enzyme Cascades for H₂-Driven Biocatalysis into Batch and Flow Reactors</i> Prof. Dr. Kylie Vincent, University of Oxford
15:00-15:15	<i>Autotrophic Cofactor Regeneration as Tool for Enzyme Cascade Reactions</i> Dr. Sandy Schmidt, Graz University of Technology
15:15-15:45	Coffee Break
15:45-16:15	Invited Lecture: <i>Using Enzymes as Catalysts for Non-Natural Free Radical Reactions</i> Prof. Dr. Todd Hyster, Princeton University
16:15-16:30	<i>Photoenzymatic Hydroxylations - Scope and Challenges</i> Prof. Dr. Frank Hollmann, Delft University of Technology
16:30-16:50	<i>EziG™ – GENERAL SUPPORT FOR ENZYME IMMOBILIZATION</i> Dr. Alexey Volkov, EnginZyme
16:50-17:10	<i>Developments In Synthetic Supports For Lipase Immobilization And Exploitation</i> Dr. Benjamin Summers, Purolite Life Sciences
17:10-18:10	Poster Session
18:15	WELCOME PARTY

TUESDAY - April 10, 2018

SESSION 2: Enzyme Cascades

9:00-9:45	Keynote Lecture: <i>Chemo-enzymatic Cascade Reactions</i> Prof. Dr. Marko D. Mihovilovic, Vienna University of Technology
9:45-10:15	Invited Lecture: <i>Enzyme cascades to tetrahydroisoquinolines using norcoclaurine synthases</i> Prof. Dr. Helen Hailes, University College London
10:15-10:45	Coffee Break
10:45-11:15	Invited Lecture: <i>Integrated Engineering Towards Atom- and Step Efficient (Chemo-)Enzymatic Cascades</i> Dr. Doerte Rother, Jülich Forschungszentrum
11:15-11:30	<i>A Chemo-Enzymatic Cascade for the Production of Enantiopure Aminoalcohols</i> Elia Calderini, Braunschweig University of Technology
11:30-11:45	<i>Enantioselective Reduction of Sulfur-Containing Cyclic Imines through Biocatalysis</i> Nadine Zumbärgel, Bielefeld University
11:45-12:15	Invited Lecture: <i>Making the best of biomass – enzymatic and chemo-enzymatic reaction routes for sustainable production of chemicals</i> Prof. Dr. Volker Sieber, Technical University of Munich
12:15-13:45	Lunch Break
13:45-14:15	Invited Lecture: <i>Enzyme cascades in cells: biotransformation and fermentation</i> Prof. Dr. Volker Wendisch, Bielefeld University
14:15-14:30	<i>Chemo-enzymatic cascade synthesis of optically pure alkanolic acids using engineered arylmalonate decarboxylase variants</i> Junichi Enoki, Ruhr University Bochum
14:30-14:45	<i>Strengthening the Cooperation between Enzymes and Metals in Aqueous Medium</i> Elisa Liardo, Entrechem SL
14:45-17:00	Poster Session Coffee Break
18:00	Conference Dinner

WEDNESDAY - April 11, 2018

SESSION 3: Industrial Success Stories

9:00-9:45	Keynote Lecture: <i>Biocatalysis at MSD</i> Dr. Birgit Kosjek, Merck
9:45-10:15	Invited Lecture: <i>Biocatalytic Reductive Amination - IRED Industrialisation</i> Dr. Doru Roiban, GlaxoSmithKline
10:15-10:30	<i>From Discovery to Product - A Case Study</i> Dr. Alexander Pelzer, BRAIN AG
10:30-11:00	Break
11:00-11:30	Invited Lecture: <i>Biocatalytic cascade reactions: challenges and solutions from an industrial view-point</i> Dr. Martin Schürmann, InnoSyn BV
11:30-12:00	Invited Lecture: <i>Application of biocatalysis in pharmaceutical industry</i> Dr. Feng Gao, Novartis
12:00-12:20	Poster Awards and Biocascades Scholarship Award
12:20-12:50	Biocascades Award Talk: <i>Exploring the potential of combined (R)- and (S)-transaminases for biocatalytic applications</i> Federica Ruggieri, Saromics Biostructures AB
12:50-13:00	Closing Remarks Prof. Dr. Anett Schallmeyer, TU Braunschweig – Conference Co-chair