







# 11th International CeBiTec Research Conference Conference Programme



March 28 - 30th, 2022 Center for Interdisciplinary Research (ZiF)

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ChemBioChem



## **PROGRAMME**

### Monday – March 28th, 2022

11:00 – 13:00 Registration		
13:00	Welcome and Opening Remarks Prof. Dr. Harald Gröger, Bielefeld University, Germany – Chairperson and Local Host of IBPRO2022 Prof. Dr. Selin Kara, Aarhus University, Denmark – Co-chairperson IBPRO2022 and INTERfaces MSCA-ITN Coordinator	
SESSION 1: Enzyme discovery and design for industrial applications Chairs: Prof. Per Berglund (KTH, Sweden), Dr. Anke Hummel (Bielefeld University, Germany) and MSc. Nicolette Czarnievicz (ESR of INTERfaces)		
13:30 – 14:10 (online)	Invited Lecture: <b>Prof. Dr. Rebecca Buller</b> Engineering Fe(II)/a-Ketoglutarate-Dependent Halogenases and Desaturases Professor for Chemical and Biotechnological Methods, Systems and Processes, Zurich University of Applied Sciences, ZHAW, Switzerland	
14:10 - 14:30	Engineering Fatty Acid Photodecarboxylase for Modulating Substrate Specificity Asst. Prof. Dr. Bekir Engin Eser, Aarhus University, Denmark	
14:30 – 14:50	Enzymatic anti-markovnikov oxidation of unactivated, aliphatic alkenes by directed evolution of cytochrome p450 MSc. Cindy Klaus, Bielefeld University, Germany	
14:50 – 15:10	Poster Pitch Session (4 pitches – 5 minutes each)	
15:10 - 15:40	Coffee Break	
15:40 – 16:20	Invited Lecture: <b>Dr. Erika Tassano</b> Application of genome mined Fe(II)/KG dioxygenases in drug discovery  Principal Scientist, Novartis, Switzerland	
16:20 – 16:40	Cell-free immobilized multi-enzyme systems; from the design to the application Res. Prof. Dr. Fernando López-Gallego, CICbiomaGUNE, Spain	
16:40 – 17:00	Preparative biocatalytic transformations with white-rot fungi and their mechanisms Dr. Tatyana S. Zhuk, Justus-Liebig-University Giessen, Germany	
17:00 – 18:00	Podium Discussion on Industry Careers Moderators: MSc. Luisa Merz (ESR of INTERfaces) and MSc. Nicoletta Cascelli (ESR of INTERfaces)	
18:00 – 19:00	Poster Session No I	
19:00	WELCOME PARTY: Center for Interdisciplinary Research (ZiF)	



## Tuesday – March 29<sup>th</sup>, 2022

SESSION 2: Heterogenization of biocatalysts with tailor-made materials Chairs: Dr. Juan Manuel Bolivar (Complutense University of Madrid, Spain), MSc. Hannah Bork (Bielefeld University, Germany) and MSc. Antía Pintor (ESR of INTERfaces)		
9:00 – 9:40	Invited Lecture: <b>Dr. rer. nat. habil. Jan von Langermann</b> Crystallization-based process intensification of biocatalytic reactions  Group Leader Biocatalytic Synthesis, University of Rostock, Germany	
9:40 – 10:00	Immobilized UPO applied for (photo)biocatalytic hydroxylations in non- conventional media Dr. Markus Hobisch, Aarhus University, Denmark	
10:00 - 10:20 (online)	Continuous transamination in microreactors with immobilized biocatalysts Prof. Polona Žnidaršič-Plazl, University of Ljubljana, Slovenia	
10:20 - 10:50	Coffee Break	
10:50 – 11:30 (online)	Invited Lecture: <b>Dr. Alessandra Basso</b> Applications of immobilized enzymes in pharma, food, and fine chemical manufacture of high value compounds in industry LifeTech Manager, Purolite, United Kingdom	
11:30 – 11:50 (online)	Advanced catalyst carrier structures based on solid oxides: light in weight but strong in impact Dr. Jonas Gurauskis, Instituto de Nanociencia y Materiales de Aragon (INMA), Spain	
11:50 – 12:10	Surface engineering of transaminases to tailor protein immobilization on microreactors ESR MSc. Nicolette Czarnievicz, CICbiomaGUNE, Spain; Micronit, Netherlands	
12:10 - 13:40	Lunch Break with Lunch Talk Getting published in 2022 and beyond: How to adapt to a rapidly changing publication landscape, Dr. Ruben Ragg, Editor-in-Chief, ChemBioChem	
SESSION 3: Intensification of heterogenized bioprocesses: Cascades and flow Chairs: Research Prof. Fernando López-Gallego (CICbiomaGUNE, Spain), MSc. Laura Maria Bernhard (Bielefeld University, Germany) and MSc. Nicoletta Cascelli (ESR of INTERfaces)		
13:40 – 14:20 (online)	Invited Lecture: <b>Prof. Dr. Francesca Paradisi</b> Packed-bed reactors to boost multi-step biocatalysis in flow  Pharmaceutical and Bioorganic Chemistry, University of Bern, Switzerland	
14:20 – 14:40	Enzymatic transamination of a prochiral ketone in a membrane flow system MSc. Julie Østerby Madsen, Technical University of Denmark, Denmark	
14:40 – 15:00	Sweet cascades Prof. Dr. Ulf Hanefeld, Delft University of Technology, Netherlands	
15:00 – 15:20	Bio-based production of metaraminol with integration of reactive in situ product removal MSc. Laura Grabowski, Institute of Bio- and Geosciences -Biotechnology, Forschungszentrum Jülich GmbH, Germany	
15:20 - 15:35	Coffee break	
15:35 – 16:15 (online)	Invited Lecture: <b>Dr. Alba Diaz-Rodriguez</b> Accelerating the adoption of biocatalysis in the pharmaceutical industry  Scientific Investigator, GlaxoSmithKline (GSK), United Kingdom	
16:15 – 17:15	Poster Session No II	
17:40	Bus transfer to the dinner venue	
18:00	CONFERENCE DINNER: Brauhaus, Hagenbruchstr. 8, 33602 Bielefeld	



#### Wednesday – March 30<sup>th</sup>, 2022

SESSION 4: Out-of-the-box methods: Future trends in biocatalysis? Chairs: Assoc. Prof. Dr. Vicente Gotor-Fernández (University of Oviedo, Spain), MSc. Luisa Koch (Bielefeld University, Germany) and MSc. Luisa Merz (ESR of INTERfaces)		
9:00 – 9:40	Invited Lecture: <b>Dr. Martin Schürmann</b> Beyond Hydrolases and NAD(P)H recycling: co-factor supply and regeneration for industrial biocatalysis Principal Scientist, InnoSyn B.V., Netherlands	
9:40 – 10:00	Enzymatic glycolipid synthesis in non-conventional media Dr. Rebecca Hollenbach, Karlsruhe Institute of Technology, Germany	
10:00 - 10:20	Smart surface enhancement of additively manufactured structures for biocatalytic applications MSc. Daniela Eixenberger, Hamburg University of Technology, Germany	
10:20 - 10:50	Coffee Break	
10:50 – 11:10 (online)	Intensification and molecular engineering of photosynthesis-driven biocatalytic redox reactions Prof. Dr. Robert Kourist, Graz University of Technology, Austria	
11:10 – 11:50 (online)	Invited Lecture: <b>Prof. Dr. Bernhard Hauer</b> Engineering cyclase enzymes for industrial biocatalysis Head of the Technical Biochemistry Department, Institute of Biochemistry and Technical Biochemistry, University of Stuttgart, Germany	
11:50 – 12:30	Colloquium/Round table Future trends in biocatalysis Chairs: Dr. habil. Pablo Domínguez de María (Sustainable Momentum, Spain) and MSc. Philipp Petermeier (ESR of INTERfaces)	
12:30 - 12:50	Poster Awards and INTERfaces Scholarship Award	
12:50 – 13:00	Closing Remarks Prof. Dr. Harald Gröger, Bielefeld University, Germany – Chairperson and Local Host of IBPRO2022 Prof. Dr. Selin Kara, Aarhus University, Denmark – Co-chairperson IBPRO2022 and INTERfaces MSCA-ITN Coordinator	