

Joint Conference SPPs eBiotech and 'InterZell'

Nov. 6-7th, 2023, Leibniz HKI, Jena

Venue: HKI , Lecture hall Koch & Pasteur, Building A8, Beutenbergstr. 11a, 07745 Jena

More Information, Venue, Directions etc. please find here: <https://www.e-biotech.de/en/jc2023.html>



Monday, 11/6/2023			
Talk	Time	Who	Topic/Project Titles
	2:00 p.m.	Ralf Takors, Miriam Agler- Rosenbaum	Welcome and Introduction: InterZell-SPP 2170 and eBiotech- SPP 2240
		Session 1-1	Session Chair: Miriam Rosenbaum
Key note	2:20 p.m.	Amelia Rotaru	Keynote 1: Microbial Physiology I
Talk 1	3:00 p.m.	André Gemünde, Elena Rossini	Novel electron transfer pathways in <i>Ralstonia eutropha</i>
Talk 2	3:20 p.m.	Veronika Burgmaier, Andreas Abstreiter	SynCoClos: Synthetic coculture of <i>Clostridium carboxidivorans</i> and engineered <i>Clostridium kluyveri</i> for medium chain alcohol production from CO rich syngas
Talk 3	3:40 p.m.	Ramineh Rad, Pierre Schoenmakers, Benjamin Aberle	Design of an electrochemical bioproduction system for piperazines
	4:05 p.m.		Coffee Break
		Session 1-2	Session Chair: Wolfgang Wiechert
Talk 4	4:30 p.m.	Fangxing Zhang, Karin Engelbert, Tolue Kheirkhah	HetAn: Control of mono-species and multi-species pellet heterogeneity and their implications on product formation in the cell factory <i>Aspergillus niger</i>
Talk 5	4:55 p.m.	Lukas Kneuer	Elucidating factors necessary to transplant extracellular electron transfer pathways
Talk 6	5:10 p.m.	Dorothea Schütterle, Gesa Brauneck	Co-Pilot: Filamentous co-cultures: from screening to bioprocess development
		Session 1-3	Session Chair: Vera Meyer
Talk 7	5:30 p.m.	Laura Pause, Anna Weimer	Tunable electro-fermentation using metabolically engineered <i>Pseudomonas putida</i>
Talk 8	5:50 p.m.	Lena Maria Hümmeler, Shriya Gupta	MiMiCry+: Mimicking nature by continuous production of antimicrobials in mixed cultures of synthetic strains
Talk 9	6:10 p.m.	Luca Häuser	MRI as a method for the quantitative analysis of live electroactive biofilms
	6:25 p.m.	Catering am Leibniz-HKI	Poster Session + Dinner

Tuesday, 11/7/2023

Session 2-1

Session Chair Ralf Takors

Key
note

09:00 a.m.

Bas Teusink

Keynote 2: Bioprocesses and Systems

Talk 10 09:40 a.m.

Arielle Rieck, Irina Schwarz

Ecat-acetogens: Valorization of carbon dioxide by electrocatalytic reduction coupled to acetogens via multiple electron carriers

Talk 11 10:00 a.m.

Prasika Arulrajah, Lucas Hermann

ProPHet2Con: Towards control of population heterogeneity induced variations in process performance during L-phenylalanine production with *Escherichia coli*

Talk 12 10:20 a.m.

Nils Rohbohm, (Alex Chiu)

Magnetite anodes to inhibit oxygen production and to circumvent membranes in microbial electrosynthesis

10:40 a.m.

Coffee Break

Session 2-2

Session Chair: Dirk Holtmann

Talk 13 11:00 a.m.

(Sara Al Sbei), Maliheh Mirabadi, Santiago Boto

ESCAPE: Establishing a scalable bioprocess reactor platform for cathodic obligate anaerobic electrobiosynthesis

Talk 14 11:20 a.m.

Emily Schepp, Katharina Oehlenschläger

PebCascade: Production of ethyl-butyrate in a self-sufficient reaction cascade

Talk 15 11:40 a.m.

Jonas Barczyk, Ryan Rautenbach

CHOLife+: Multiscale experimental analysis and simulation of lifelines in bioreactors to study their impact on the cultivation performance of Chinese Hamster Ovary (CHO) cells

Talk 16 12:00 a.m.

Hubert Beisch, Victoria Bueschler, Giovanni Sayoga

AiOeChemBIO: Chemoenzymatic reaction cascade in an All-in-One electrochemical system with in situ supply of H₂O₂ for biosynthesis in aqueous and organic media

12:25 p.m.

Lunch Break

Session 3

Session Chair: Tanja Vidakovic-Koch

Key
note

1:30 p.m.

Kylie Vincent

Keynote 3: Enzymsystems

Talk 17 2:10 p.m.

Tobias Prenzel, Regine Siedentop, Jonas Korb

NGeCascades: Next Generation electroenzymatic cascades for complex molecules

Talk 18 2:35 p.m.

Thalia Sakoleva, Mohammed Al-Shaibani

Rational design of 3-D electroenzymatic electrodes comprising novel enzymatic cascade and NADP(H) co-factor regeneration

Talk 19 2:55 p.m.

Jana Becker

Light-powered bioelectrochemical conversion of CO₂ for the synthesis of value-added chemicals based on gas-diffusion electrodes and enzyme cascades

Talk 20 3:10 p.m.

Michael Abt

Magnetically enhanced electrochemical fluidized bed reactors for electro-enzymatic syntheses including gaseous phases

3:30 p.m.

Coffee Break

Session 4

Session Chair Dirk Weuster-Botz

Key
note

4:00 p.m.

Volker Wendisch

Keynote 4: Microbial Physiology II

Talk 21 4:40 p.m.

Kira Baur, Anna Stock

CaproSyn: CO₂-based production of caproic acid by engineered *Acetobacterium woodii* and *Clostridium drakei* applying a synthetic co-culture

Talk 22 5:00 p.m.

Simon Grieshaber, Beshr Al-Khateeb

Systems metabolic engineering of *Hydrogenophaga pseudoflava* for aerobic biosynthesis of fatty acids using CO₂ and electron carriers in a novel bioelectrochemical system

Talk 23 5:20 p.m.

Juliane Zwoch, Matthias Pesch, Judith Wegmann

SimBal2.0: Quantifying co-culture performance as a function of condition-dependent inter-cell mass exchange

Talk 24 5:55 p.m.

Luisa Klein

CoCoNut: Cell-cell interaction in a synthetic co-culture: PHA production from sunlight and CO₂ co-cultivating *Synechococcus elongatus* and *Pseudomonas putida*

6:10 p.m.

End of talks, travel to city center

7:00 p.m.

Dinner, Restaurant in Jena City