

MECP2020 | PROGRAMME

| | MONDAY 30.03.2020 | TUESDAY 31.03.2020 | WEDNESDAY 01.04.2020 | THURSDAY 02.04.2020 |
|------------------|---|---|---|--|
| 09 ⁰⁰ | | session 1 enzymatic cascades Helen C. Hailes | session 4 systems biology & cascade regulation Valeria Grazu | session 7 reaction concepts & downstream processing Claudia Schmidt-Dannert |
| 09 ⁴⁵ | | Wolfgang Kroutil | Andrea Kneuttinger | Jan von Langermann |
| 10 ¹⁵ | | Lars M. Blank | Nick Wierckx | Morana Cesnik |
| 10 ⁴⁵ | | poster session even numbers (+ coffee break) | poster session odd numbers (+ coffee break) | poster session all numbers (+ coffee break) |
| 11 ⁴⁵ | | session 2 chemo-enzymatic cascades Harald Gröger | session 5 novel enzymes & enzyme engineering Pimchai Chaiyen | sponsoring session state-of-the-art materials & lab. equipment |
| 12 ³⁰ | | Fabio Parmeggiani | Per Berglund | session 8 publication Jan-Stefan Voeller |
| 13 ⁰⁰ | | Florian Rudroff | Verena Braunschmid | data management Jürgen Pleiss |
| 13 ³⁰ | | | | poster & speed-talk prizes |
| 14 ⁰⁰ | | lunch | lunch | closing words |
| 14 ⁰⁰ | | | | lunch |
| 15 ⁰⁰ | | | session 6 industrial applications Carlos Martinez | |
| 15 ⁴⁵ | | guided sightseeing tour | Marco Bocola | |
| 16 ⁰⁰ | | | 8 x speed-talks | |
| 16 ¹⁵ | registration | | | |
| 16 ⁴⁵ | opening words | coffee break | | |
| 17 ⁰⁰ | opening lecture 1 Nicholas Turner | session 3 continuous multistep reactions Nicolas Szita | | |
| 17 ³⁰ | opening lecture 2 Alison Narayan | Francesca Tentori | | |
| 18 ⁰⁰ | opening lecture 3 John Woodley | Rodrigo de Souza | | |
| 18 ¹⁵ | get-together | poster session all beer & pretzel | gala dinner (last order: 11.30 pm) | |
| 18 ³⁰ | | | | |
| 18 ⁴⁵ | | | | |
| 19 ⁰⁰ | | | | |
| 19 ¹⁵ | | | | |
| 19 ³⁰ | | | | |
| 19 ⁴⁵ | | | | |

open end

MONDAY
30.03.2020

MECP2020

16:00

Conference registration & Welcome Coffee

17:00

Opening Words

Dörte Rother | Forschungszentrum Jülich GmbH & RWTH Aachen University (GER)

OPENING LECTURES

Session Chair

Dörte Rother | Forschungszentrum Jülich GmbH & RWTH Aachen University (GER)

17:30

Nicholas Turner | The University of Manchester (UK)

Enzyme Discovery Enables New Cascade Reactions

18:15

Alison Narayan | University of Michigan Life Sciences Institute (USA)

Biocatalysis and complex molecule synthesis

19:00

John Woodley | Technical University of Denmark (DK)

Towards Systematic Process Design for Biocatalytic Cascades

19:45

Welcome reception

TUESDAY
31.03.2020

MECP2020

ENZYMATIC CASCADES

Session Chair

Alessa Hinzmann | Universität Bielefeld (GER)

9:00 **Helen C. Hailes** | University College London (UK)

Enzymatic cascades to natural and non-natural alkaloids

9:45 **Wolfgang Kroutil** | University of Graz (AT)

*Multistep Transformation of Activated Oximes Initiated by
Double Biocatalytic Reduction by Ene Reductases*

10:15 **Lars M. Blank** | RWTH Aachen University (GER)

*From Plastic waste to Plastic value using Pseudomonas putida
(Lars M. Blank for the P4SB consortium)*

10:45 **Poster session (even numbers) & exhibitor times**

Coffee break

CHEMO-ENZYMATIC CASCADES

Session Chair

Jennifer Littlechild | University of Exeter (UK)

11:45 **Harald Gröger** | Universität Bielefeld (GER)

to be announced soon

12:30 **Fabio Parmeggiani** | The University of Manchester (UK)

*Biocatalytic retrosynthesis approaches to D-(2,4,5-trifluorophenyl)alanine,
key precursor of the antidiabetic sitagliptin*

13:00 **Florian Rudroff** | TU Wien (AT)

Synthesis of fragrance aldehydes by a chemo-multi enzymatic approach in living cells

TUESDAY
31.03.2020

MECP2020

13:30 **Lunch**

15:00 **Guided sightseeing tour to Aachens UNESCO world heritage sites
(included in registration)**

17:00 **Coffee break & exhibitor times**

CONTINUOUS MULTISTEP REACTIONS

Session Chair

Zvezdana Findrik Blazevic | University of Zagreb (HR)

17:30 **Nicolas Szita** | University College London (UK)

to be announced soon

18:15 **Francesca Tentori** | Politecnico di Milano (IT)

*Synthesis of the best stereoisomer of the commercial fragrance woody acetate:
a two-steps continuous-flow biocatalytic approach*

18:45 **Rodrigo de Souza** | Federal University of Rio de Janeiro (BRA)

Continuous-Flow Strategies on Chemo-Enzymatic Cascade Reactions Towards API Synthesis

19:15 **Poster session (all) & exhibitor times**

Beer & pretzels

SYSTEMS BIOLOGY & CASCADE REGULATION

Session Chair

Eduardo Macedo de Melo | Forschungszentrum Jülich GmbH (GER)

9:00

María Valeria Grazu Bonavia | University of Zaragoza (ESP)

Redesigning biocatalysis: Thermal-tuning of one-pot multienzymatic cascades by nanoactuation (HOTZYMES)

9:45

Andrea Kneuttinger | University of Regensburg (GER)

Artificial light regulation of allosteric multi-enzyme complexes

10:15

Nick Wierckx | Forschungszentrum Jülich GmbH (GER)

Production of aromatics from renewable feedstocks with whole-cell Pseudomonas biocatalysts

10:45

Poster session (odd numbers) & exhibitor times

Coffee break

NOVEL ENZYMES & ENZYME ENGINEERING

Session Chair

Fernando López-Gallego | CIC biomaGUNE (ESP)

11:45

Pimchai Chaiyen | Vidyasirimedhi Institute of Science and technology (THA)

Chemo-Enzymatic Cascade and Engineering of Flavin-Dependent Monooxygenases

12:30

Per Berglund | KTH Royal Institute of Technology (SWE)

Stabilization of a Transaminase and Model for the Inactivation Process of (S)-selective Transaminases

13:00

Verena Braunschmid | University of Natural Resources and Life Science (AT)

Characterization of a novel ascorbate oxidase with laccase activity

13:30

Lunch

15:00

INDUSTRIAL APPLICATIONS

Session Chair

Hans Iding | F. Hoffmann-La Roche AG (CH)

15:45

Carlos Martinez | Pfizer Inc. (USA)

Challenges and Opportunities for the Scale-up of Multi-step Enzymatic Reactions in Pharma

16:15 -

17:30

SPEED-TALKS

Session Chair

Martina Pohl | Forschungszentrum Jülich GmbH (GER)

Marvin Mantel | Heinrich-Heine-University Düsseldorf (GER)

Viktoria Heine | RWTH Aachen University (GER)

Jack Rowbotham | University of Oxford (UK)

Tim Gerlach | Forschungszentrum Jülich GmbH (GER)

Lisa A. Thompson | University of Oxford (UK)

Nina Beyer | University Hospital RWTH Aachen (GER)

Reza Mahour | Max Planck Institute for Dynamics of Complex Technical Systems (GER)

Nicol Zeballos Lema | CIC biomaGUNE (ESP)

19:00

Gala dinner

(last order 11:30 pm)

REACTION CONCEPTS & DOWNSTREAM PROCESSING

Session Chair

Laura Grabowski | Forschungszentrum Jülich GmbH (GER)

9:00

Claudia Schmidt-Dannert | University of Minnesota (USA)

Genetically programmable functional biomaterials for biocatalysis

9:45

Jan von Langermann | University of Rostock (GER)

Integrated use of selective separation processes in biocatalytic reactions

10:15

Morana Cesnik | University of Zagreb (HR)

Application of a mathematical model for the optimization of a one-pot multi-enzymatic reaction; the case study of L-homoserine synthesis

10:45

Poster session (all) & exhibitor times

Coffee break

STATE-OF-THE-ART MATERIALS & LAB. EQUIPMENT

Session Chair

Torsten Sehl | Forschungszentrum Jülich GmbH (GER)

11:45

EnginZyme AB

12:00

Magritek

PUBLICATION & DATA MANAGEMENT

Session Chair

Dörte Rother | Forschungszentrum Jülich GmbH (GER)

12:30

Jan-Stefan Voeller | Nature Catalysis

Publishing with Nature Catalysis

13:00

Jürgen Pleiss | University of Stuttgart (GER)

EnzymeML – a XML-based exchange format for biocatalytic data

AWARDS & CLOSING WORDS

Session Chair

Torsten Sehl & Dörte Rother | Forschungszentrum Jülich GmbH (GER)

13:30

Awarding of poster & speed-talk prizes

Closing Words

14:00

Lunch & end of conference