

Aachen-Osaka Online Joint Symposium 2021

-Biotechnology for Green Growth-

Date/Time

Day 1: January 27 (Wed) / 8:30 -11:30 in Aachen; 16:30 – 19:30 in Osaka

Day 2: February 26 (Fri) / 8:30 -11:30 in Aachen; 16:30 – 19:15 in Osaka

Place

Online (with Zoom)

How to Join

Please register via following link by

Jan 25 (Mon) for participation to Day 1

Feb 24 (Wed) for participation to Day 2

<https://forms.gle/dFdqAqTQ5mM2WuP37>

Program

Day 1 (January 27)

8:30-8:40/ 16:30-16:40

Opening remark (Introduction of current state of Osaka Univ and RWTH Aachen)

Prof Kohsuke HONDA (Osaka Univ) & Prof Jochen BÜCHS (RWTH Aachen)

(Chair: Prof Lars BLANK)

8:40-8:58/ 16:40-16:58

Chemical manufacturing through a cascade with thermophilic enzymes

Prof Kohsuke HONDA (Osaka Univ)

8:58-9:16/ 16:58-17:16

The Golgi glycan factory for enzymatic synthesis of glycoconjugates

Prof Lothar ELLING (RWTH Aachen)

(Chair: Prof Kohsuke HONDA)

9:16-9:34/ 17:16-17:34

D-Amino acid profile information facilitates the precision of food metabolic fingerprinting

Prof Eiichiro FUKUSAKI (Osaka Univ)

9:34-9:52/ 17:34-17:52

Metabolic engineering of microbes for contributions to a circular (bio)economy

Prof Lars BLANK (RWTH Aachen)

9:52-10:00/ 17:52-18:00 Break

Student Session (9 min talk + 3 min Q & A)

(Chair: Kristina BITTER)

10:00-10:12/ 18:00-18:12

Metabolome analysis to investigate the effect of controlled fermentation on the taste-related metabolites in terasi

Arisa SATO (Osaka Univ)

10:12-10:24/ 18:12-18:24

Improve malic acid production in *Ustilago trichophora* by combining both metabolic profiling and footprinting

An N. T. PHAN (RWTH Aachen)

10:24-10:36/ 18:24-18:36

In vitro production of coenzyme A using thermophilic enzymes

Gladwin SURYATIN ALIM (Osaka Univ)

10:36-10:48/ 18:36-18:48

Neo-glycoproteins and their potential in biomedical diagnosis

Viktoria HEINE (RWTH Aachen)

(Chair: Gladwin SURYATIN ALIM)

10:48-11:00/ 18:48-19:00

Fast enantiomeric separation of proteinogenic amino acids using liquid chromatography/ mass spectrometry on a chiral crown ether stationary phase

Kohei YOSHIKAWA (Osaka Univ)

11:00-11:12/ 19:00-19:12

Microbial plastic utilization: Mulch film as example

Kristina BITTER (RWTH Aachen)

11:12-11:24/ 19:12-19:24

GC-MS based metabolomics approach to evaluate shelf life-related metabolites in pineapple (*Ananas comosus*) ripening process

Malikul IKRAM (Osaka Univ)

11:24-/ 19:24-

Announcement for symposium Day 2

Prof Kohsuke HONDA (Osaka Univ)

Group Photo

Day 2 (February 26)

8:30-8:35/ 16:30-16:35

Opening remark

Prof Takashi HAYASHI (Osaka Univ)

(Chair: Prof Kohsuke HONDA)

8:35-8:53/ 16:30-16:53

New methodology of bioprocess development

Prof Jochen BÜCHS (RWTH Aachen)

8:53-9:11/ 16:53-17:11

Regulation of glycan structures in mammalian cells

Assoc Prof Ryo MISAKI (Osaka Univ)

(Chair: Prof Jochen BÜCHS)

9:11-9:29/ 17:11-17:29

Lessons and success stories of ten years of biohybrid catalysts engineering

Prof Ulrich SCHWANEBERG (RWTH Aachen)

9:29-9:47/ 17:29-17:47

Engineering of hemoproteins to generate a biohybrid catalyst

Prof Takashi HAYASHI (Osaka Univ)

9:47-9:55/ 17:47-17:55

Break

Student Session (9 min talk + 3 min Q & A)

(Chair: Shunsuke KATO)

9:55-10:07/ 17:55-18:07

Online measurements in fed-batch microtiter plates with feeding rings

David WOLLBORN (RWTH Aachen)

10:07-10:19/ 18:07-18:19

Glycan modification of a glycoside which inhibits HBV-infection and its characterization

Akira WAKAMATSU (Osaka Univ)

10:19-10:31/ 18:19-18:31

Chemogenetic evolution of an artificial oxidase

Ulrich MARKEL (RWTH Aachen)

(Chair: David WOLLBORN)

10:31-10:43/ 18:31-18:43

Directed evolution of a Cp*Rh(III)-linked artificial metalloenzyme with a chimeric β -barrel protein scaffold

Shunsuke KATO (Osaka Univ)

10:43-10:55/ 18:43-18:55

Development of a highly efficient fermentation process for the novel sweetener 5-keto-D-fructose

Svenja BATTILING (RWTH Aachen)

10:55-11:07/ 18:55-19:07

Unique reaction properties of glycosyltransferase in silkworm, *Bombyx mori*

Naokuni NISHIGUCHI (Osaka Univ)

11:07-/ 19:07-

Closing remark

Prof Jun OKUDA (RWTH Aachen)

Group Photo