

## GENERAL INFORMATION

### SPONSORS

Brain AG, Zwingenberg



c-LEcta, Leipzig



Evonik Creavis GmbH, Marl



### SUPPORTING ORGANISATIONS



### TRAVEL

By train:

Hannover main station (further information: [www.bahn.de](http://www.bahn.de))

By air:

airport Hannover-Langenhagen

### VENUE AND ACCOMMODATION

Stephansstift  
Zentrum für Erwachsenenbildung  
Tagungs- und Gästehaus Hannover  
Kirchröder Str. 44, 30625 Hannover  
Germany

### SCHEDULE

Beginning: Sunday, 16 July 2017, 2 pm  
End: Wednesday, 19 July 2017, 1 pm

### LANGUAGE

The course will be held in English.

### APPLICATION

Please send your application to:

DECHEMA-Forschungsinstitut  
Training department  
P.O. Box 17 03 52  
D-60077 Frankfurt am Main

Phone: +49 69 7564 253  
Fax: +49 69 7564 414  
E-mail: [gruss@dechema.de](mailto:gruss@dechema.de)  
Internet: <http://dechema-dfi.de/en/biotransformations.html>

### REGISTRATION FEE

480,- €

(incl. accommodation, board, course materials, certificate of attendance, soft drinks and VAT)

Deadline: 19 May 2017

## 4TH SUMMER SCHOOL

16 - 19 July 2017  
Hannover / Germany

# Biotransformations 2017



## TOPIC

Biotransformations have become an important tool in all areas of industry, where high yielding chemo-, regio-, and enantioselective reactions often are critical. Here the following fundamental aspects are in the focus:

- Screening and development of new catalysts considering the specific requirements of a distinct process.
- Efficiency of production systems considering the qualitative and quantitative mass and energy fluxes.
- Reaction engineering based optimisation of bioprocesses considering side reactions and scale-up.
- Development and implementation of new and efficient processes of downstream processing.

Working fields range from microbial screening, enzyme discovery and optimisation of methods via bio-chemo-catalysis, whole cell biotransformations, the use of enzyme cascades to downstream processing methods and economic as well as environmental aspects. Tailor-designed biocatalysts implemented in innovative and optimized processes for industrial purposes can lead to fine chemicals and valuable pharmaceutical intermediates. In order to use the whole potential of modern biotransformations, young scientist from different disciplines have to be educated together in this highly transdisciplinary field. The latter is the main and ambitious goal of the Summer School for Biotransformations in 2017.

## TARGET AUDIENCE

Addressed are outstanding PhD students, post-docs (scientists) from academia as well as young industrial researchers at an early stage of their career. Speakers will stay at least for one night to enable an intensive exchange and discussion among all participants.

PhD students and post-docs should present a poster on their work. Therefore, it is mandatory that all applicants submit a one page abstract.

The number of participants is limited to 70 persons, enabling close interactions of the young academics with leading experts in the field of biotransformation.

At the summer school all accepted posters will be intensively discussed during the poster sessions. As a special feature of the summer school, each poster will be presented by the author in a "2 minute speed lecture" as a part of the official scientific programme.

## PROGRAMME

The summer school will open the panel for intensive discussions of PhD-students and young scientists together with experts from both the academic and industrial research and development fields. In interactive and interdisciplinary discussions both opportunities and limitations of novel and innovative processes and tailor-made biocatalysts will be reflected.

## MODULES

Protein discovery 2.0:	Tailor-made novel biocatalysts De novo design
From dry to wet lab:	In silico modelling Structure-function analysis
Multi-purpose biocatalysis:	Enzyme promiscuity Non-conventional reactions
Multi-step bioconversion:	Enzyme cascades A combined world of chemo- and biocatalysis
Pimp the production host:	Strain development Pathway engineering Synthetic Biology
Higher-Faster-Further:	Enzyme engineering & optimisation Directed evolution Rational design
From reaction to process:	Fermentation Integrated bio processes Enzyme immobilization Separation Purification
New topics:	Bioelectrosynthesis Photobiocatalysis

## ORGANISATION COMMITTEE

Jürgen Eck	BRAIN AG, Zwingenberg
Dirk Holtmann	DECHEMA-Forschungsinstitut, Frankfurt
Andreas Liese	Technical University of Hamburg-Harburg
Andreas Schmid	UFZ, Leipzig
Georg Sprenger	University of Stuttgart
Andreas Vogel	c-LEcta, Leipzig

## SCIENTIFIC BOARD

Fachgruppe Biotransformationen  
Vereinigung für Allgemeine und Angewandte Mikrobiologie (VAAM)  
DECHEMA Gesellschaft für Chemische Technik und Biotechnologie e.V.

Frankfurt am Main

**Reply form**

(Fax-No.: +49 69 7564-414)

DECHEMA-Forschungsinstitut  
 Training department  
 P.O. Box 17 03 52  
 D-60077 Frankfurt am Main

**Registration** to the DECHEMA summer school 7161  
**"Biotransformations 2017"** Hannover, 16-19 July 2017  
 Deadline for registration: 19 May 2017

**Biot****Participant**Ms  Mr  Title \_\_\_\_\_

Name \_\_\_\_\_ Surname \_\_\_\_\_

Company \_\_\_\_\_

Department \_\_\_\_\_

Street/POB \_\_\_\_\_

Code/Place \_\_\_\_\_

Phone/Fax \_\_\_\_\_ E-mail \_\_\_\_\_

Poster abstract is attached **Invoice address**

Company \_\_\_\_\_

Department \_\_\_\_\_

Street/POB \_\_\_\_\_

Code/Place \_\_\_\_\_

The course fee amounts to € 480.-. If we receive a notice of withdrawal at least two weeks prior to the beginning of the course, the participation fee less 10% for administration expenses will be reimbursed. Thereafter, a reimbursement will not be possible.

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Place, date\_\_\_\_\_  
signature + company stamp