

WELCOME

We are delighted to invite delegates to the 1st Gießen Symposium for Insect Biotechnology.

With more than one million catalogued species, insects are the most successful organisms in terms of biodiversity. They have evolved a diverse arsenal of active ingredients and enzymes to defend themselves against pathogens and predators, and to utilize challenging nutritional resources. Insect biotechnology, also known as **yellow biotechnology**, will make this enormous range of natural substances available to the bioeconomy.

The symposium has been organized by the LOEWE Centre for Insect Biotechnology and Bioresources, and brings together scientists and professionals from insect biotechnology and related disciplines to share recent developments and research. We offer an interdisciplinary programme allowing delegates to discuss recent innovations, develop knowledge and skills, and build valuable connections with others from around the world.

The 1st Gießen Symposium for Insect Biotechnology is free and open to the public, and will be held on **9-10 October 2017** in **Gießen**.

Registration is necessary for participation and open until **31 Aug 2017**. Delegates can register by using the following link:

www.insekten-biotechnologie.de/de/registrierung

PROGRAMME

Monday, 9 October 2017

- 14:00 **Registration**, Foyer
- 14:30 **Greetings**
Prof. Dr. Peter Kämpfer, Vizepräsident für Forschung und Förderung des wissenschaftlichen Nachwuchses, JLU Gießen
- 14:40 **Introduction: Insect Biotechnology**
Prof. Dr. Andreas Vilcinskas, Fraunhofer IME & JLU Gießen

Session I | Insect pest and vector control

- 15:15 **Prof. Dr. Marc F. Schetelig**, JLU Gießen
Vector control strategies for mosquitoes
- 15:30 **PD Dr. Johannes Stökl**, Heisenberg Fellow, JLU Gießen
*Parasitoid wasps against *D. suzukii**
- 15:45 **PD Dr. Sandra Steiger**, JLU Gießen
The evolution of parental care in burying beetles and its implications for insect biotechnology
- 16:00 **Dr. Marisa Skaljic**, Fraunhofer IME
Understanding critical aspects of aphid survival and developing strategies for their control
- 16:15-16:45 *Coffee break*

Session II | Natural resources and natural product research

- 16:45 **Prof. Dr. Helge Bode**, Goethe-Universität Frankfurt
Microbial natural products and how to get to them faster: Examples from entomopathogenic bacteria
- 17:15 **Dr. Miray Tonk**, Fraunhofer IME
Insect antimicrobial peptides
- 17:30 **Prof. Dr. Till Schäberle**, JLU Gießen
From genes to novel natural products and back
- 18:15 **Introduction of the new Masters programme: Insect Biotechnology & Bioresources**
Dean: Prof. Dr. Klaus Eder
Overview: Prof. Schäberle, Prof. Schetelig, Prof. Vilcinskas, PD Dr. Degenkolb

18:45-21:00 *Get-together*

Tuesday, 10 October 2017

Session III | Enabling technologies

- 9:00 **Prof. Dr. Anant Patel**, Bielefeld University of Applied Sciences
Formulations for novel biological pest control strategies
- 9:30 **PD Dr. Jens Gläser**, JLU Gießen
New and innovative strategies to access natural products
- 9:50 **Dr. Tobias Weidner**, THM Gießen
Insect-based expression systems

10:10-10:40 *Coffee break*

Session IV | From genes to protein production

- 10:40 **Prof. Dr. Herwig O. Gutzeit**, TU Dresden
Production of feed without the use of arable land
- 11:00 **Dr. Karina Brinkrolf**, Fraunhofer IME
Genome analysis of insect-associated microbes
- 11:20 **Dr. Antje Steinbrink**, Goethe-Universität Frankfurt
Mosquito distribution, modelling and identification
- 11:40-14:00 *Lunch and poster session*

Session V | Evolutionary ecology

- 14:00 **Prof. Dr. Thomas Schmitt**, Senckenberg Deutsches Entomologisches Institut
Evolutionary biogeography: Why are phylogeographic patterns so similar around the world?
- 14:30 **PD Dr. Steffen Pauls**, Senckenberg Biodiversität und Klima Forschungszentrum
Running dry: transcriptome-wide gene expression patterns in aquatic insect larvae associated with intermittent flow regimes
- 15:00 **Dr. Georg Petschenka**, JLU Gießen
Resistance and sequestration: drivers of insect-plant coevolution
- 15:20 *Close*



TOPICS

Insect biotechnology in:

- Plant protection and vector control
- Natural product research
- Biochemical engineering and bioprocessing
- Evolutionary ecology

Yellow Biotechnology at the interface of:

- **Red Biotech**

Medicine and pharmacology

- **Green Biotech**

Plant protection

- **White Biotech**

Industrial and food biotechnology



Introduction of the new Masters programme:

Insect Biotechnology and Bioresources

– Starting winter semester 2017/18 –

Broad interdisciplinary topics combining
biotechnology, plant protection and process
engineering

Contact and information



Faculty of Agricultural Sciences,
Nutritional Sciences and
Environmental Management

www.uni-giessen.de/studium/master/IBB

REGISTRATION

The symposium is free and open to the
public with mandatory online registration at:

**[www.insekten-
biotechnologie.de/de/registrierung](http://www.insekten-biotechnologie.de/de/registrierung)**

Registration deadline: 31 August 2017

VENUE

The symposium will be held at the
Justus-Liebig-University Gießen

Address:

Main building,
JLU Gießen, Aula
Ludwigstr. 23
35392 Gießen



Foto: JLU-Pressstelle/Franz Möller

Parking:

There is a parking area at the main building.
Direct access is only possible from Stephan-
straße.

CONTACT

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& Bioresources



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ZIB LOEWE Center for
Insect Biotechnology
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1st Gießen Symposium of

 **Insect
Biotechnology**

9-10 October 2017



LOEWE - ZIB

