



**INSECTA**  
**2017**



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**INSECTA 2017**  
**September 07/08**  
**Berlin**

**CONFERENCE PROGRAM**

**Jointly organised by**



# INSECTA 2017 - ESSENTIAL INFORMATION

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## Acknowledgements

We would like to thank the following persons for their support, creating INSECTA 2017 as a successful event:

**Organising Committee:** Dr. Janina Bolling, Dr.-Ing. Julia Durek, Helene Foltan, Dr.-Ing. Antje Fröhling, Andrea Gabbert, Dr.-Ing. Thomas Piofczyk, Dr.-Ing. Frank Pudel, Dr.-Ing. Birgit Rumpold, Susen Rumposch, Dr.-Ing. Oliver Schlüter, Franziska Ulrich

**Scientific Committee:** Prof. Dr. Lilia Maria Ahrné, Dr. Elaine Fitches, Univ. Prof. Dr.-Ing. Henry Jäger, Prof. Dr.-Ing. Alexander Mathys, Prof. Dr. Michael Ngadi, Prof. Dr. Umezuruike Linus Opara, Dr.-Ing. Frank Pudel, Prof. Dr. Marco Dalla Rosa, Dr. Amauri Rosenthal, Dr.-Ing. Birgit Rumpold, Dr.-Ing. Oliver Schlüter, Prof. Dr. Ir. Arnold van Huis

**Special thanks to** Technische Universität Berlin and Museum für Naturkunde - Leibniz Institute for Evolution and Biodiversity Science

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# PROGRAM - September 07, 2017

- 8:30 a.m. Registration Foyer  
9:30 a.m. Welcome - Opening remarks H 1028  
**Dr.-Ing. Oliver Schlüter & Dr.-Ing. Birgit Rumpold, Conveners**  
**Prof. Dr. Christian Thomsen, President of the Technische Universität Berlin**  
10:00 a.m. KEYNOTE: **Prof. Dr. Harry Aiking, The Netherlands**  
**Food sustainability and the protein puzzle: Different resources and disciplines**  
10:40 a.m. KEYNOTE: **Prof. Dr. Thomas Potthast, Germany**  
**Ethical perspectives on using insects for industrial food and non-food applications**  
11:20 a.m. **Coffee break and poster session**

Parallel sessions in room H 1028 and H 1012 from 11:40 - 18:20

## Session 1 Evaluation of the use of insects H 1028

- Chairs: Henry Jäger, Austria & Nanna Roos, Denmark  
11:40 a.m. **Implementation of circular economy through a holistic application of black soldier flies in waste management**  
Christian Holst Fischer, Denmark  
12:00 a.m. **Direct and indirect biorefinery technologies for conversion of organic side-streams into multiple marketable products – BBI-InDIRECT project**  
Leen Bastiaens, Belgium  
12:20 a.m. **Authorising edible insects under the new Novel Food Regulation: Problematic aspects concerning the dossier submission**  
Nicolas Carboneille, Belgium  
12:40 a.m. **Healthy snacks: An in-depth analysis of the dietary and therapeutic benefits of Mopane worms (Lepidoptera: Saturniidae)**  
Chrysantus Tanga, Kenya  
1:00 p.m. **Adoption of insects as a source for food and feed production: determinants of acceptance between urban consumers from Maputo/Mozambique**  
Luís Miguel Cunha, Portugal

## Session 2 Insect production systems H 1012

- Chairs: Leen Van Campenhout, Belgium & Thomas Piofczyk, Germany  
11:40 a.m. **Industrialization of insect farming: New challenges to prevent pathogenic hazards**  
Thomas Lefebvre, France  
12:00 a.m. **Exploiting seaweed as feed for insects - identifying the risks of pathogen transfer within the production chain**  
Isobel Swinscoe, Scotland  
12:20 a.m. **More sustainable food design with insects, agri-food waste streams and high-moisture extrusion**  
Sergiy Smetana, Germany  
12:40 a.m. **Developing a breeding method for the nutritionally important edible shea caterpillar**  
Darja Dobermann, UK  
1:00 p.m. **The trigger BSF eggs hatching and how to employ it in an large scale facility**  
Nouchka De Craene, Belgium  
1:20 p.m. **Lunch break and poster session**

### Session 3 Utilisation of insects as food

H 1028

Chairs: Harry Aiking, The Netherlands & Dolores Rodrigo, Spain

2:20 p.m. **Insects for food: protein fractionation**

Catriona Lakemond, The Netherlands

2:40 p.m. **Insect protein as a food additive**

Joanne Gould, UK

3:00 p.m. **High moisture extrusion of two types of insect protein (*T. molitor* and *A. diaperinus*) with soy protein concentrate: influence of insect content and barrel temperature**

Sergiy Smetana, Germany

3:20 p.m. **Insects as ingredients for bakery goods. A comparison study of *H. illucens*, *A. domestica* and *T. molitor* flours**

Cristina M. Gonzalez, Spain

3:40 p.m. **Evaluation of the chemical safety of edible insects and insect-based food intended for human consumption. A Belgian pilot study**

Giulia Poma, Belgium

4:00 p.m. **The dynamics of inheritable cultural gastronomy in relation to commercial food product-positioning within Europe**

Evelien Donkers, France

### Session 4 Insect production systems

H 1012

Chairs: Elaine Fitches, UK & Andreas Vilcinskas, Germany

2:20 p.m. **Effects of gender and rearing substrate on protein profile of silkworm (*B. mori*) pupae**

Francesco Gai, Italy

2:40 p.m. **Industrial rearing optimization of *T. molitor* larvae (Coleoptera, Tenebrionidae) with respect to high rearing densities, yeast as food additive and alternative possibilities of non-invasive monitoring systems**

Jan Woyzichowski, Germany

3:00 p.m. **Preliminary results of impact of pH in diets on the growth of black soldier fly (*H. illucens*) larvae**

Marco Meneguz, Italy

3:20 p.m. **How to manipulate fatty acid contents of edible insects using artificial diets**

Vilma Lehtovaara, Finland

3:40 p.m. **The residual biomass landscape for insect production**

Nathan Meijer, The Netherlands

4:00 p.m. **IPIFF position paper - Implementation of EU Regulation 2015/2283 on 'novel foods'**

Heidi de Bruin, The Netherlands

4:20 p.m. **Coffee break and poster session**

### Session 5 Application of insects as feed

H 1028

Chairs: Heidi de Bruin, The Netherlands & Laura Gasco, Italy

4:40 p.m. **Insect protein in aquafeed – potential of *T. molitor* meal as substitute for soy protein concentrate in compound feed for Tilapia (*Oreochromis niloticus*)**

Carsten Dietz, Germany

5:00 p.m. **Partial or total substitution of soybean oil by *T. molitor* oil or *H. illucens* fat in rabbit diets. Preliminary results: effects on growth and slaughtering performances**

Laura Gasco, Italy

- 5:20 p.m. **Response of piglets due to amino acid optimization of mixed diets with 75 % replacement of soybean-meal by partly defatted insect meal (*H. illucens*)**  
Susanne Velten, Germany
- 5:40 p.m. **Insects fed with former foodstuffs for feed production: What are the risks to animal and public health?**  
Linda Kox, The Netherlands
- 6:00 p.m. **Legal aspects concerning the use of edible insects in animal feed: opportunities for a new business**  
Francesca Lotta, Italy

## Session 6 Insect production systems

H 1012

Chairs: Antje Fröhling, Germany & Sergiy Smetana, Germany

- 4:40 p.m. **The relationship between the nutrient quality of black soldier flies and their rearing substrates**  
Marwa Shumo, Germany
- 5:00 p.m. **The importance of reliable input on consistent output in large scale production facilities**  
Johan Jacobs, Belgium
- 5:20 p.m. **Lactic acid bacteria as a measure of bacterial diseases in insects reared for feed and food**  
Luna Paola Andrade Santacoloma, Denmark
- 5:40 p.m. **Biorefinery of insects to high-added value products: evaluation of fractionation procedures**  
Lise Soetemans, Belgium
- 6:00 p.m. **inVALUABLE: Insect value chain in a circular bioeconomy**  
Lars Heckmann, Denmark

7:45 p.m. **Reception and welcome drink at Museum für Naturkunde**

8:00 p.m. **Conference Dinner**

Welcome speeches

**Dr. Christoph Häuser, Museum für Naturkunde**

**Prof. Dr.-Ing. Matthias Kleiner, Leibniz Association**

# PROGRAM - September 08, 2017

- 9:00 a.m. **KEYNOTE: Prof. Dr. Andreas Vilcinskas, Germany**  
**Immunity of farmed insects: Basic and applied aspects**
- 9:40 a.m. **Dr. Mafalda Quintas, Belgium**  
**COST Action: A comprehensive tool for networkers**

H 1028

10:00 a.m. **Coffee break and poster session**

**Parallel sessions from 10:20 - 12:00 in room H 1028 and H 1012**

## Session 7 Non-food applications of insects

H 1028

Chairs: Lars Heckmann, Denmark & Chrysantus Tanga, Kenya

- 10:20 a.m. **High-value compounds delivered from insects grown on waste**  
Natalia Jawiarczyk, UK

- 10:40 a.m. **The Mediterranean fruit fly, *Ceratitis capitata* – agricultural pest and mass-producible protein source**  
Marc F. Schetelig, Germany
- 11:00 a.m. **Use of insects as an alternative source for the production of fats for cosmetics**  
Geert Verheyen, Belgium
- 11:20 a.m. **Bioprocess engineering aspects of insect cell expression systems**  
Tobias Weidner, Germany
- 11:40 a.m. **Valuing mulberry silkworm: an opportunity to revive French silk production**  
Stéphane Person, France

## **Session 8 Utilisation of insects as food**

**H 1012**

Chairs: Luís Miguel Cunha, Portugal & Catriona Lakemond, The Netherlands

- 10:20 a.m. **Impact of blanching, industrial microwave drying and freeze drying on the nutritional quality, the microbial quality and the browning index of mealworm larvae (*T. molitor*)**  
Leen Van Campenhout, Belgium
- 10:40 a.m. **Enzymatic and non-enzymatic causes of browning during grinding of insects: *Tenebrio molitor*, *Alphitobius diaperinus* and *Hermetia illucens***  
Renske Janssen, The Netherlands
- 11:00 a.m. **Safety aspects of edible insects for use in the food and feed value chain - investigation of bioaccumulation of contaminants and process-induced mitigation of allergenicity**  
Benedict Purschke, Austria
- 11:20 a.m. **Practical & technical considerations for use of insects within food product development**  
Robert Murdock, UK
- 11:40 a.m. **High-low quality feeding regime to improve *Gryllus bimaculatus* (black cricket) survival on bio-waste**  
Darja Dobermann, UK

## **12:00 a.m. Lunch break and poster session**

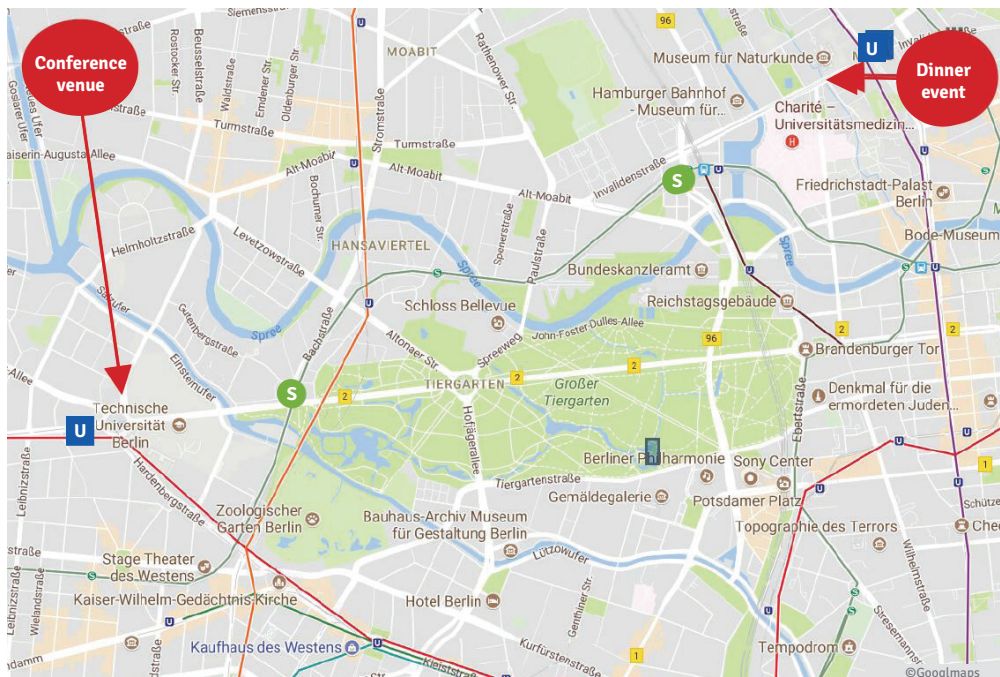
## **Session 9 Evaluation of the use of insects**

**H 1028**

Chairs: Oliver Schlüter, Germany & Andreas Vilcinskas, Germany

- 1:00 p.m. **GREEiNSECT: Opportunities and challenges for insect farming for 'green economy' in Kenya**  
Nanna Roos, Denmark
- 1:20 a.m. **Insects & the food scenario analysis by the global council on food security and agriculture at the World Economic Forum**  
Kees Aarts, The Netherlands
- 1:40 p.m. **Industrializing the production of black soldier fly larvae for animal feed**  
Andreas Aepli, Switzerland
- 2:00 p.m. **Effectiveness of different information on consumers' willingness to taste insect products**  
Birgit Rumpold, Germany
- 2:20 p.m. **Award ceremony and closing remarks**
- VDI BEST YOUNG SCIENTIST'S PRESENTATION**  
**AWARD Sponsor: VDI – Magdeburger Bezirksverein**  
Presenter: Thomas Piofczyk, Germany

# From the conference-venue to the dinner



## ADDRESSES


### Conference venue


**Technische Universität (TU) Berlin**, Staße des 17. Juni 135, 10623 Berlin  
Main building - Rooms H 1028 / H 1029 / H 1012

### Dinner event

**Museum für Naturkunde**, Invalidenstraße 43, 10115 Berlin

## HOW TO GET TO THE DINNER EVENT

**By subway**  At station Ernst-Reuter-Platz take subway line U2 direction "S+U Pankow", change at station "Stadtmitte" to line U6 direction "U Alt-Tegel", get off at "Naturkundemuseum", walk 200 m to Invalidenstraße 43.

**By S-Bahn**  Walk approx. 10 min by following „Straße des 17. Juni“ to station „S Tiergarten“, take any S-Bahn heading towards the center, get off at „Berlin Hauptbahnhof“, walk approx. 10 min following Invalidenstraße to the Museum at Invalidenstraße 43.

**Ticket fare:** 2,80 €

**Taxi call:** +49 30 26 10 26 / +49 30 20 20 20 / +49 30 21 01 01

# INFORMATION

## PROGRAM UPDATES

The organisers reserve the right for **program changes**.

The **poster presentation** list will be available on our conference website.

## ORGANISATION

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## CONTACT

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## CONFERENCE LANGUAGE

English

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## FURTHER INFORMATION

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