

# PLANT BIOTECHNOLOGY: GREEN FOR GOOD V.

10 - 13 JUNE, 2019  
OLOMOUC, CZECH REPUBLIC



## EXTENDED PROGRAMME

### Monday, 10<sup>th</sup> of June 2019

12:00 – 20:00      *Registration*

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13:00 – 15:30      Meeting Scientific Board

#### Opening session

16:00 – 16:30      Welcome speech by organizers

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16:30 – 17:15      Opening Lecture: From genome to pan-genome in barley and wheat.  
**Nils Stein** (IPK Gatersleben, Germany)

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17:15 – 18:00      Plenary Lecture: Morphogenetic regulatory networks.  
**Miltos Tsiantis** (Max Planck Institute Cologne, Germany)

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18:00 – 21:00      *Welcome Party*

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**Tuesday, 11<sup>th</sup> of June 2019**

8:30 – 12:30      *Registration*

## Crop biotechnology

Chair: I. Dodd

09:00 – 09:40      Keynote lecture: Drought adaptation and flowering time control in barley.

**Maria von Korff Schmising** (Max Planck Institute, Cologne, Germany)

09:40 – 10:00      Domestication delayed circadian rhythms in tomato.

**José Jiménez-Gómez** (INRA Versailles, France)

10:00 – 10:20      Using site-directed mutagenesis to manipulate beer quality and other cereal traits.

**Goetz Hensel** (Leibniz Institute of Plant Genetics and Crop Plant Research)

10:20 – 10:40      Targeting gibberellin signalling for improved plant architecture and stress tolerance in wheat.

**Peter Hedden** (Laboratory of Growth Regulators, Czech Academy of Sciences, Institute of Experimental Botany & Palacký University)

10:40 – 11:00      *Coffee Break*

## Plant-microorganism interactions I

Chair: S. Wendeborn

11:00 – 11:40      Keynote lecture: Arbuscular mycorrhiza development and function.

**Caroline Gutjahr** (Technical University of Munich, Germany)

11:40 – 12:00      Advanced light-sheet fluorescence microscopy of plant development and plant-microbe interactions in *Medicago sativa*.

**Miroslav Ovečka** (Palacký University Olomouc, Czech Republic)

12:00 – 12:20      Follow-up of the degradation of thiametoxam and its metabolite clothianidin in open field cultivated industrial tomatoes: influence of mycorrhizal inoculation.

**Kamirán Hamow** (Hungarian Academy of Sciences, Centre for Agricultural Research, Hungary)

12:20 – 12:40      The efficacy of plant hormone containing product GreenCytokinin in field experiments.

**Simona Larsson** (Razosanas Tehnologijas, Latvia)

12:40 – 14:00      *Lunch*

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## Plant genetics and genomics

Chair: G. Hensel

- 14:00 – 14:30 Keynote lecture: Plant epigenetics, plant - plant environmental interactions.  
**Claude Becker** (Gregor Mendel Institute, Vienna, Austria)
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- 14:30 – 15:00 Genome stability in maize.  
**Lieven de Veylder** (VIB Ghent, Belgium)
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- 15:00 – 15:20 SMC5/6 complex maintains normal ploidy levels of male gametes during generative development in Arabidopsis.  
**Ales Pečinka** (Institute of Experimental Botany CAS, Czech Republic)
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- 15:20 – 15:40 MicroRNA-regulated stress responses in banana.  
**Jennifer Ann Harikrishna** (University of Malaya, Malaysia)
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- 15:40 – 16:10 *Coffee Break*

## Plant-microorganism interactions II

Chair: E. Balázs

- 16:10 – 16:30 Volatile compounds other than CO<sub>2</sub> emitted by different microorganisms promote distinct post-transcriptionally regulated responses in plants.  
**Javier Pozueta-Romero** (National Spanish Research Council, Spain)
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- 16:30 – 16:50 Selection and bioactivity of microalgae for agricultural purposes - concept and biological aspects of the SABANA project.  
**Vince Ördög** (Széchenyi István University, Hungary)
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- 17:00 – 19:00 **Poster Session**
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Wednesday, 12<sup>th</sup> of June 2019

### Molecular farming and genetic engineering

Chair: I. Frébort

- 09:00 – 09:40 Cereal genetic engineering.  
**Eva Stöger** (BOKU, Vienna, Austria)
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- 09:40 – 10:00 GWAS: Fast-forwarding gene identification and characterization in temperate cereals.  
**Ahmad Alqudah** (IPK, Germany)
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- 10:00 – 10:20 Study of cytokinin-mediated tolerance under water stress using a novel image method based on the canopy height of barley populations.  
**C. F. Marchetti** (Palacký University, Czech Republic)
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- 10:20 – 10:40 Kinetics of nuclear ploidy changes in developing grains of barley.  
**Anna Nowicka** (Institute of Experimental Botany CAS, Czech Republic)
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- 10:40 – 11:00 *Coffee Break*

### Improvement of food and feed

Chair: A. Pečinka

- 11:00 – 11:40 Keynote lecture: Plant genome editing.  
**Sungwa Choe** (Seoul National University, South Korea)
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- 11:40 – 12:00 Metabolomics and MALDI MS Imaging (MSI) of metabolites in barley seeds during malting.  
**Karsten Niehaus** (Universität Bielefeld, Germany)
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- 12:00 – 12:20 Highly effective inhibitors of cytokinin oxidase/dehydrogenase.  
**Jaroslav Nisler** (Palacký University, Czech Republic)
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- 12:20 – 12:40 Effects of elicitors on ginsenoside production in hairy root culture of *Panax vietnamensis* Ha et Grushv.  
**Loan Ha Thi** (Biotechnology Center of Ho Chi Minh city, Vietnam)
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- 12:40 – 14:00 *Lunch*
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## Publication and grant workshop

Chair: M. Holecová

14:00 – 14:20	How to be sure your paper will be rejected. <b>Jeff Cole</b> (University of Birmingham, UK)
14:20 – 14:40	Publish or perish OR... Publish & perish (ethics in scientific publishing). <b>Lynn Sherrer</b> (Elsevier, USA)
14:40 – 15:00	ERC grant selection process experience. <b>Michal Otyepka</b> (RCPTM Olomouc, Czech Republic)
15:00 – 15:20	<i>Support to biotechnology and bioeconomy research in Horizon 2020 programme</i> <b>Nad'a Koničková</b> (Technology Centre, Czech Academy of Sciences, Czech Republic)
15:20 – 15:40	<i>Coffee Break</i>
15:40 – 17:00	<b>Poster Session</b>
18:00 – 22:00	<i>Excursion to the research facilities of the host Centre of the Region Haná for Biotechnological and Agricultural Research Networking event</i>

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Thursday, 13<sup>th</sup> of June 2019

## Sustainable environmental technologies

Chair: M. Otyepka

- 09:00 – 09:40 Keynote lecture: Carbonaceous waste: sustainable applications in chemical transformations and environmental remediation.  
**Rajender S. Varma** (U.S. Environmental Protection Agency, USA)
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- 09:40 – 10:10 Iron-based (nano)materials: an advanced tool for water treatment.  
**Jan Filip** (Palacký University, Czech Republic)
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- 10:10 – 10:20 Natural plant biostimulants for invigorating pollen growth.  
**Johannes Van Staden** (University of KwaZulu-Natal, South Africa)
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- 10:20 – 10:50 *Coffee Break*

## Plant environmental interactions

Chair: J. Šamaj

- 10:50 – 11:30 Keynote lecture: Using rhizobia to reduce N<sub>2</sub>O emissions.  
**Asa Frostegard** (Norwegian University of Life Sciences, Ås, Norway)
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- 11:30 – 11:50 Size matters!? Influence of giant cells on ER body formation in *Arabidopsis thaliana*.  
**Alwine Wilkens** (Jagiellonian University, Poland)
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- 11:50 – 12:10 NAI2 and TSA1 Paralogs are responsible for differentiation constitutive and inducible ER body formation in Brassicaceae.  
**Jakub Bizan** (Malopolska Centre of Biotechnology, Poland)

## Closing session

- 12:10 – 12:50 Closing Plenary Lecture: Microbial redox chemistry of nitrogen in soil by bacteria and archaea.  
**Kyle Lancaster** (Cornel University, USA; supported by USDA)
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- 12:50 – 13:10 Closing remarks, poster awards
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- 13:10 Final adjournment