

# Plant Biotechnology: Green For Good III

15 - 18 June 2015  
Olomouc, Czech Republic



## PROGRAM OF THE CONFERENCE

### Monday, 15th of June 2015

12:00 – 20:00	<i>Registration (foyer of the 2<sup>nd</sup> floor)</i>
13:00 – 15:30	<i>Meeting of the Scientific Board of the Centre of the Region Haná for Biotechnological and Agricultural Research, Faculty of Science, Palacký University (large meeting room on the 6<sup>th</sup> floor, 6.014)</i>

#### Session 1: Opening session: Genetic modifications & genome structure

Chairman – Ivo Frébort (auditorium, 2.001)

16:00 – 16:30	Welcome speech by organizers
16:30 – 17:30	Plant Biotechnology: New opportunities to engineer secondary metabolism for effects and signalling <b>John Pickett</b> (Rothamsted Research, UK)
17:30 – 18:30	Towards understanding the structure and function of forage crop genomes <b>Bruno Studer</b> (ETH Zürich, Switzerland)
18:30 – 22:00	Welcome party (foyer of 6 <sup>th</sup> floor + terrace)

### Tuesday, 16th of June 2015

8:30 – 12:30 *Registration*

#### Session 2: Metabolic regulation and methods of analysis

Chairman – Jaroslav Doležel (auditorium, 2.001)

09:00 – 09:30	Characterization of flooding tolerance mechanisms in soybean using proteomic techniques <b>Setsuko Komatsu</b> (National Institute of Crop Science, Japan)
09:30 – 09:50	Tissue- and cell-specific analysis of phytohormones <b>Ondřej Novák</b> (Institute of Experimental Botany, ASCR, Czech Republic)
09:50 – 10:10	Volatile compounds emitted by Gram-negative and Gram-positive bacteria and fungi promote growth and starch accumulation through cytokinin regulated processes <b>Javier Pozueta Romero</b> (Institute of Agrobiotechnology, Spain)
10:10 – 10:30	First insights into barley nuclear proteome <b>Ivo Chamrád</b> (Palacký University, Czech Republic)

10:30 – 11:00

*Coffee Break (foyer of 2<sup>nd</sup> floor)*

**Session 3: Plant- pathogen interactions & genetic modifications**

**Chairman – Petr Tarkowski (auditorium, 2.001)**

11:00 – 11:30

*Rhodococcus fascians*, a plant growth promoting bacterium gone astray

**Danny Vereecke** (Ghent University, Belgium)

11:30 – 11:50

Do fungi produce phytohormones as an evolutionary relict or to conquer the plant tissue?

**Petr Galuszka** (Palacký University, Czech Republic)

11:50 – 12:10

Visually labelled and selectable marker-free plants towards public acceptance of GMO's

**Helga Zelenyánszki** (Eötvös Loránd University, Budapest, Hungary)

12:10 – 12:30

Identification of *Botrytis fabae* conidial surface proteins

**Dmitry Loginov** (Palacký University, Czech Republic)

12:30 – 14:00

*Lunch (foyer of 2<sup>nd</sup> floor)*

14:00 – 16:00

*Poster session and coffee break (foyer of 2<sup>nd</sup> + 3<sup>rd</sup> floor)*

**Session 4: Stress response and cell signaling**

**Chairman – Pavel Pospíšil (auditorium, 2.001)**

16:00 – 16:30

Disclosing the roles of secondary metabolites in the antioxidant defense network of plants facing severe excess light stress

**Massimiliano Tattini** (Institute for Plant Protection, Italy)

16:30 – 16:50

Exploring structures of protein complexes using single particle electron microscopy

**Roman Kouřil** (Palacký University, Czech Republic)

16:50 – 17:10

Medicago mitogen-activated protein kinase kinase SIMKK overexpression in Arabidopsis: Salt stress-induced subcellular relocation and enhanced salt sensitivity

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

17:10 – 17:30

Several active and inactive signals among jasmonates in plant stress responses

**Claus Wasternack** (Leibniz Institute of Plant Biochemistry, Germany)

**Wednesday, 17th of June 2015**

**Session 5: Cereal biotechnology & genome structure**

**Chairman – Ondřej Plíhal (auditorium, 2.001)**

09:00 – 09:30

Novel dwarfing alleles in wheat: building on the green revolution

**Peter Hedden** (Rothamsted Research, UK)

09:30 – 09:50

Genomics for improvement of cereal crops: New tools and new opportunities

**Jaroslav Doležal** (Institute of Experimental Botany, ASCR, Czech Republic)

09:50 – 10:10

Genetic pool of the wild relatives of wheat: Is there a dark side?

**Szabolcs Makai** (Centre of Agricultural Research, HAS, Hungary)

10:10 – 10:30

Characterization of new alleles influencing flowering time introgressed to bread wheat from *T. millitinae*

**Zuzana Ivaničová** (Institute of Experimental Botany, ASCR, Czech Republic)

10:30 – 11:00

*Coffee Break (foyer of 2<sup>nd</sup> floor)*

**Session 6: Stress response and cell signaling**

**Chairman – Jozef Šamaj (auditorium, 2.001)**

11:00 – 11:30	An exciting new biostimulant and insect repellent phenolic molecule from the brown seaweed <i>Ecklonia maxima</i> <b>Johannes van Staden</b> (University of KwaZulu-Natal, South Africa)
11:30 – 11:50	Proteomic and biochemical analyses show that Arabidopsis ANP2 and ANP3 are involved in plant tolerance to oxidative stress <b>Tomáš Takáč</b> (Palacký University, Czech Republic)
12:00 – 13:30	Lunch (foyer of 2 <sup>nd</sup> floor)
13:30 – 14:30	EFB, CRH, presentations ( <i>auditorium, 2.001</i> )
14:30 – 16:30	Poster session and coffee break (foyer of 2 <sup>nd</sup> + 3 <sup>rd</sup> floor)
16:30	Departure to Fort Křelov
17:00 – 22:00	Visiting the fort (guided tour, entertaining program, informal meetings, social dinner); EFB meeting (launching Plant Biotechnology section)

**Thursday, 18th of June 2015****Session 7: Metabolic regulation and methods of analysis****Chairman – Karel Doležal (auditorium, 2.001)**

09:00 – 09:30	Playing with cytokinins to improve the agronomical traits of barley ( <i>Hordeum vulgare</i> L.) <b>Veronique Bergougnoux-Fojtík</b> (Palacký University, Czech Republic)
09:30 – 09:50	Electrical and jasmonate signaling regulate digestive enzyme activity and photosynthesis in the carnivorous plants <b>Andrej Pavlovič</b> (Palacký University, Czech Republic)
09:50 – 10:10	Use of image-based automated phenotyping in development of plant growth regulators and stress-response studies <b>Lukáš Spíchal</b> (Palacký University, Czech Republic)
10:10 – 10:30	Metabolic pathways indispensable for de novo organogenesis in Arabidopsis <b>Yoshihisa Ikeda</b> (Palacký University, Czech Republic)
10:30 – 11:00	Coffee Break (foyer of 2 <sup>nd</sup> floor)

**Session 8: Stress response and cell signaling****Chairman – Petr Ilík (auditorium, 2.001)**

11:00 – 11:30	Function of lipid antioxidants during oxidative stress in plants <b>Jerzy Kruk</b> (Jagiellonian University, Poland)
11:30 – 11:50	Plant cytoskeleton as target for agrobiotechnological applications <b>Georgios Komis</b> (Palacký University, Czech Republic)
11:50 – 12:10	Singlet oxygen formation in plants under abiotic stress <b>Pavel Pospíšil</b> (Palacký University, Czech Republic)
12:10 – 12:40	Chlorophyll fluorescence excitation efficiency - Diagnostic value and consequences for photosynthesis <b>Wolfgang Bilger</b> (Christian-Albrechts-University, Germany)
12:40 – 14:00	Lunch (foyer of 2 <sup>nd</sup> floor)
14:00 – 16:00	Poster session and coffee break (foyer of 2 <sup>nd</sup> + 3 <sup>rd</sup> floor)

## Session 9: Metabolic regulation and methods of analysis

Chairman – Marek Šebela (auditorium, 2.001)

16:00 – 16:30	Analytical tools to monitor <i>Penicillium chrysogenum</i> large-scale fermentation - from intact cell mass spectrometry to proteome profiling <b>Martina Marchetti-Deschmann</b> (Vienna University of Technology, Austria)
16:30 – 16:50	Site-directed mutagenesis of two nucleoside N-ribohydrolases from maize <b>David Kopečný</b> (Palacký University, Czech Republic)
16:50 – 17:10	The use of tomato aminoaldehyde dehydrogenase 1 for the detection of aldehydes in fruit distillates <b>Marek Šebela</b> (Palacký University, Czech Republic)
17:10 – 17:30	Closing remarks