



9th Conference
of the Polish Society of Experimental Plant Biology
and
the Faculty of Biology and Environmental Protection
NCU Toruń

9–12 September 2019

Venue

Faculty of Mathematics and Computer Science NCU,
Chopina 12/18, Toruń



PROGRAM

HONORARY AUSPICES



**NICOLAUS COPERNICUS
UNIVERSITY
IN TORUŃ**

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Projekt graficzny: R. Zyzanski

CONFERENCE PROGRAM

■ SUNDAY, 8 September 2019

15:00–18:00 – REGISTRATION



■ MONDAY, 9 September 2019

10:00–16:00 – REGISTRATION

12:00–12:15 – OPENING CEREMONY

12:15–13:00 – OPENING LECTURE

George Coupland, Max Planck Institute for Plant Breeding Research, Cologne, Germany. Mechanisms conferring seasonal flowering responses in annual and perennial plants

PSEPB AWARDS

13:00–13:10 – **Katarzyna Sokołowska et al.**, University of Wrocław, Poland. Award for the best experimental article

13:10–13:20 – **Urszula Krasuska et al.**, Warsaw University of Life Sciences, Poland. Award for the best review article in english

13:20–15:00 – DINNER

SESSION I: SEXUAL PLANT REPRODUCTION

Peter K. Hepler and Marta Lenartowska

PLENARY LECTURES

15:00–15:30 – **Peter K. Hepler**, University of Massachusetts Amherst, USA.
Tip growth in pollen tubes: a role for ions and actin

- 15:30–16:00 – **Krzysztof Zienkiewicz**, University of Göttingen, Germany. Here, there, and everywhere: The importance of storage lipids in pollen performance
- 16:00–16:30 – **Thomas Widiez**, Université de Lyon, France. The genetics behind being “Not Like Daddy”: new insights in double fertilization thanks to maize haploid inducer lines
- 16:30–17:00 – **COFFEE BREAK**

ORAL PRESENTATIONS

- 17:00–17:30 – **Guang-Yuh Jauh**, Academia Sinica, Taipei, Taiwan. Exploring the molecular and cellular mechanisms of promising genes involved in Arabidopsis embryogenesis and seed maturation
- 17:30–17:40 – **Agnieszka Zienkiewicz**, University of Göttingen, Germany. Insights into the machinery that mobilizes pollen lipid droplets
- 17:40–17:50 – **Anna Suwińska**, Nicolaus Copernicus University, Toruń, Poland. Expression of the CNX/CRT chaperones during pollen tube growth
- 17:50–18:00 – **Aneta Słomka**, Jagiellonian University, Cracow, Poland. Could photosynthate deficiencies and sensitivity to thermal stress lead to low seed set in common buckwheat (*Fagopyrum esculentum* Moench)?
- 18:00–18:10 – **Piotr Ziółkowski**, Adam Mickiewicz University, Poznań, Poland. Mixing under control: genetic factors that regulate crossover frequency in plants

18:10–18:20 – DISCUSSION

18:20–19:00 – POSTER SESSION I

19:00–21:00 – **WELCOME PARTY**



■ TUESDAY, 10 September 2019

SESSION II: PLANT OMICS

Maciej Stobiecki and Maciej Ostrowski

8:00–12:00 – REGISTRATION

PLENARY LECTURES

9:00–09:30 – **Wolfram Weckwerth**, University of Vienna, Austria. Germplasm meets systems biology – the next green revolution in agroecology

9:30–10:00 – **Joachim Kopka**, Max Planck Institute of Plant Physiology, Potsdam, Germany. Plant temperature acclimation and growth rely on cytosolic ribosome biogenesis factor homolog

10:00–10:30 – **Bernhard Grimm**, Humboldt-Universität zu Berlin, Germany. Multiple posttranslational control mechanisms for the proteome of tetrapyrrole biosynthesis

10:30–11:00 – COFFEE BREAK

11:00–11:10 – **Maciej Stobiecki et al**, Institute of Bioorganic Chemistry PAS, Poznań, Poland. PSEPB award for a series of articles

11:10–11:20 – **Małgorzata Adamiec**, Adam Mickiewicz University, Poznań, Poland. EGY2-dependent intramembrane proteolysis may regulate expression some of PEP – transcribed chloroplast genes in *Arabidopsis thaliana*

11:20–11:30 – **Wojciech Glinkowski**, Nicolaus Copernicus University, Toruń, Poland. How high-throughput sequencing techniques allow researchers to gain a deeper understanding of plant processes, on the example of transcriptome analysis of yellow lupine (*Lupinus luteus*)

11:30–11:40 – **Tomasz A. Pawłowski**, Institute of Dendrology PAS, Kórnik, Poland. Proteomic analysis of tree seeds storability

11:40–11:50 – DISCUSSION

11:50–12:30 – POSTER SESSION II

12:30–13:00 – SEMINAR **Q4LAB**. Innovative technologies: fast and easy preparation of NGS libraries

13:00–14:25 – **DINNER**

14:25 – Group photograph of the conference participants

SESSION III: EPIGENETIC AND EPITRANSCRIPTOMIC REGULATION OF GENE EXPRESSION

Gordon Simpson and Janusz Niedojadło

PLENARY LECTURES

14:30–15:00 – **Gordon Simpson**, University of Dundee, UK. The Arabidopsis m6A Epitranscriptome

15:00–15:30 – **Brian D. Gregory**, University of Pennsylvania, Philadelphia, USA. Epitranscriptome-mediated reprogramming of the plant transcriptome

15:30–16:00 – **Rupert Fray**, University of Nottingham, UK. mRNA methylation complex components and methylation outcomes in a model plant system

16:00–16:30 – **COFFEE BREAK**

ORAL PRESENTATIONS

16:30–16:40 – **Susheel Sagar Bhat**, Adam Mickiewicz University, Poznań Poland. *Arabidopsis thaliana* mRNA Adenosine Methylase (MTA) is a new player in miRNA biogenesis regulatory pathway

16:40–16:50 – **Kamil Růžička**, Czech Academy of Sciences, Prague, Czech Republic. m6A methylation of mRNA is required for auxin mediated processes in Arabidopsis

16:50–17:00 – **Szymon Świeżewski**, Institute of Biochemistry and Biophysics PAS, Warsaw, Poland. Dormancy and drought – One antisense to rule them all?

17:00–17:10 – **Szymon Kubala**, Institute of Biochemistry and Biophysics PAS, Warsaw, Poland. The SWI/SNF ATP-dependent chromatin remodelling complex in Arabidopsis responds to environmental changes in temperature-dependent manner

17:10–17:20 – **Tomasz Bieluszewski, Adam Mickiewicz University, Poznań, Poland.** Targeted histone acetylation by the plant NuA4 complex supports growth, chloroplast development and reproduction in Arabidopsis

17:20–17:30 – DISCUSSION

17:30–18:30 – POSTER SESSION II + III

18:30–21:00 – GENERAL ASSEMBLY OF PSEPB (for PSEPB Members only)

19:30–21:00 – TORUŃ BY NIGHT TOUR / GINGERBREAD FEAST



■ **WEDNESDAY, 11 September 2019**

SESSION IV: PLANT INTERACTION WITH OTHER ORGANISMS

Katarzyna Turnau and Katarzyna Hryniewicz

8:00–12:00 – REGISTRATION

PLENARY LECTURES

9:00–09:30 – **Marc-Andre Selosse**, University of Gdańsk, Poland; Muséum National d'Histoire Naturelle, Paris, France. Orchids eating fungi – when mycorrhizal symbiosis turns to exploitation

9:30–10:00 – **Christel Baum**, University of Rostock, Germany. The ecological significance of the plant microbiome

10:00–10:30 – **Adam Schikora**, Julius Kühn-Institut, Braunschweig, Germany. Friend or foe: Crop plants between beneficial and pathogenic bacteria

10:30–11:00 – **Katarzyna Turnau**, Jagiellonian University, Cracow, Poland. Microbes as drivers of plant success – new tools in agriculture, plant protection, phytoremediation and agromining

11:00–11:30 – COFFEE BREAK

ORAL PRESENTATIONS

11:30–11:40 – **Christina Kühn**, Humboldt-Universität zu Berlin, Germany. Sucrose transporters are involved in abiotic stress response and biotic interactions

11:40–11:50 – **Edmund Kozieł**, Warsaw University of Life Sciences, Poland. Analysis of Prune dwarf virus intercellular transport and pathogenesis

11:50–12:00 – **Grech-Baran**, Institute of Biochemistry and Biophysics PAS, Poland. Coat protein (CP) of conserved structure from multiple Potyviruses triggers Rysto-mediated immunity

12:00–12:10 – **Bliss Furtado**, Nicolaus Copernicus University, Toruń, Poland. Fungal endophytes in non-host plant species: beneficial or detrimental association in salinity stress?

12:10–12:20 – [DISCUSSION](#)

12:20–13:00 – [POSTER SESSION IV](#)

13:00–14:30 – [DINNER](#)

SESSION V: [ABIOTIC STRESS RESPONSES](#)

[Władysław Polcyn and Jarosław Tyburski](#)

[PLENARY LECTURES](#)

14:15–14:45 – [Cécile Bousquet-Antonelli](#), [Université de Perpignan-CNRS, France](#). Is Arabidopsis LARP1 an effector of the TOR kinase in the control of Ribosomal Protein translation?

14:45–15:15 – [Ewa Sobieszczuk-Nowicka et al.](#), [Adam Mickiewicz University, Poznań, Poland](#). Physio-genetic dissection of stress-induced leaf senescence and timing its reversal in barley. PSEPB award for the best experimental article

[ORAL PRESENTATIONS](#)

15:15–15:30 – [Halina Gabryś](#), [Jagiellonian University, Cracow, Poland](#). The role of GLR channels in plant developmental and movement responses

15:30–15:45 – [Edward A. Gwóźdź](#), [Adam Mickiewicz University, Poznań, Poland](#). Plant Desiccation Tolerance: Still a mystery

15:45–16:00 – [Agnieszka Mostowska](#), [University of Warsaw, Poland](#). Plastid membrane network in higher plants modified by environmental factors

16:00–16:30 – [COFFEE BREAK](#)

[ORAL PRESENTATIONS](#)

16:30–16:40 – [Magdalena Czołpińska](#), [Adam Mickiewicz University, Poznań, Poland](#). Participation of the RNA-Binding proteins (RBPs) in heat and cold stress response in *Brassica oleracea* var. botrytis

16:40–16:50 – [Izabela Perkowska](#), [University of Gdansk, Poland](#). *Arabidopsis thaliana* cation exchanger 4 (CAX4) is important for plant fitness and growth under Mn, Zn and Fe deficiencies

- 16:50–17:00 – **Magda Grabsztunowicz**, University of Turku, Finland.
Root-type ferredoxin-NADP⁺ oxidoreductase isoforms
in *Arabidopsis thaliana*
- 17:00–17:10 – **Shino Goto-Yamada**, Jagiellonian University, Cracow,
Poland. Starvation-induced microautophagy in plants
- 17:10–17:20 – **Alicja Dotzbłasz**, University of Wrocław, Poland. Subop-
timal conditions of growth trigger meristem arrest in the
ftsh4-1 mutant plants
- 17:20–17:30 – **Paweł Brzezowski**, Humboldt-Universität zu Berlin, Germany.
Tetrapyrrole biosynthesis is hardwired to photosynthetic
electron transfer
- 17:30–17:40 – [DISCUSSION](#)
- 17:40–18:40 – [POSTER SESSION V](#)
- 18:40–19:40 – [AGRISERA WORKSHOP](#)
- 20:00–24:00 – [CONFERENCE BANQUET](#)



■ **THURSDAY, 12 September 2019**

**SESSION VI: PLANT HORMONES
AND HORMONAL REGULATIONS**

Andrzej Bajguz and Justyna Wiśniewska

*Session dedicated to the memory
of Professor Marian Michniewicz (1922–2008)*

8:00–12:00 – REGISTRATION

PLENARY LECTURES

9:00–09:30 – **Thierry Heitz**, Université de Strasbourg, France. How jasmonate metabolism controls defence responses against biotic stress

9:30–10:00 – **Danuše Tarkowská**, Institute of Experimental Botany CAS, Olomouc, Czech Republic. Looking for a needle in haystack – major aspects of analysis of brassinosteroids and other plant signalling molecules

10:00–10:30 – **COFFEE BREAK**

ORAL PRESENTATIONS

10:30–10:40 – **Tomasz Sarnowski**, Institute of Biochemistry and Biophysics PAS, Warsaw, Poland. A non-canonical nuclear function of ERECTA family proteins in Arabidopsis

10:40–10:50 – **Agata Kućko**, Warsaw University of Life Sciences, Poland. Transcriptional and post-transcriptional mediated regulation of expression of genes related to ABA/GA metabolism and signalling during light-dependent germination of *Arabidopsis thaliana* seeds

10:50–11:00 – **Aleksandra Paweła**, Institute of Bioorganic Chemistry PAS, Poznań, Poland. Regulation of seed germination and root morphology by abscisic acid transporters in model legume plant *Medicago truncatula*

11:00–11:10 – **Tomasz Nodzyński**, Masaryk University, Brno, Czech Republic. The looped strive towards unravelling PIN structure-function connections

11:10–11:20 – **Milena Kulasek**, Nicolaus Copernicus University, Toruń, Poland. The auxin orchestra. Transcriptome-wide identification of genes encoding elements of auxin signal transduction pathway in yellow lupine flowers

11:20–11:30 – DISCUSSION

11:30–12:30 – POSTER SESSION VI

12:30–14:30 – DINNER

SESSION VII: BIOTECHNOLOGY AND TISSUE CULTURE

Ewa Łojkowska and Adriana Szmidt-Jaworska

PLENARY LECTURES

14:30–15:00 – **Wendy Stirk**, University of KwaZulu-Natal, South Africa. Can plant hormones be used to enhance the value of microalgae biomass for biotechnological applications?

15:00–15:30 – **Christoph A. Gehring**, University of Perugia, Italy. Cyclic nucleotide monophosphates and their cyclases in plant responses

15:30–16:00 – COFFEE BREAK

ORAL PRESENTATIONS

16:00–16:10 – **Anna Aksmann**, University of Gdańsk, Poland. Susceptibility of *Chlamydomonas reinhardtii* developmental stages to atrazine – cell cycle studies

16:10–16:20 – **Kinga Zatoń**, West Pomeranian University of Technology, Szczecin, Poland. Comparison of the effectiveness of cleaning of municipal wastewater treated in experimental hydrophyte systems with *Hippuris vulgaris* and *Hydrocharitetum morsus-ranae* group

16:20–16:30 – **Michał Jasiński**, Institute of Bioorganic Chemistry PAS, Poznań, Poland. ABCG46 (PDR10) from *Medicago truncatula* as a model for substrate specificity investigation of ABC transporters

16:30–16:40 – **Anna Barabasz, University of Warsaw, Poland.** Contribution of NtZIPs in Zn and Cd uptake and root-to-shoot translocation in tobacco

16:40–16:50 – [DISCUSSION](#)

16:50–18:00 – [POSTER SESSION VII](#)

18:00–18:30 – [CLOSING CEREMONY](#)

19:30–21:00 – [TORUŃ BY NIGHT TOUR / GINGERBREAD FEAST](#)





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