

PLANT GROWTH, NUTRITION & ENVIRONMENT INTERACTIONS

February 18 (Saturday)

12.30 – 17.00 Registration

14.00 – 14.30 Opening by A. Touraev (Local Organizer, VIPCA)
Welcome address by S. Schubert (International Co-Chair, Germany)
Welcome address by J. Simon (for H. Rennenberg, International Co-Chair, Germany)

14.30 – 15.30 Keynote Lecture:
M. Stitt (Germany): Metabolic and Signaling Aspects Underpinning the Regulation of Plant Growth

15.30 – 16.00 *Coffee break*
Sponsored by Springer

Session I Signalling & Hormones in Plant Growth and Development

Chairs: N. von Wirén, G. Krouk

16.00 – 16.25 (+5) **N. von Wiren (Germany):** Signaling of Local Micronutrient Availabilities in Plants

16.30 – 16.50 (+5) **G. Krouk (USA):** A Systems View of Hormones and Nitrogen Signalling Interaction
Sponsored by the Deutsche Botanische Gesellschaft

16.55 – 17.10 (+5) **M. de Jong (UK):** Plasticity in the Shoot Branching Regulatory Network

17.15 – 17.30 (+5) **Y. Onda (Japan):** Redox Network Regulating the Development and Quality of Seeds

17.35 – 19.30 Welcome Reception

February 19 (Sunday)

08.30 – 17.00 Registration

Session II Environmental Regulation of Plant Growth & Development

Chairs: M. Stitt, A. Bones

09.00 – 09.20 (+5) **A. Bones (Norway):** Plant Molecular Stress Responses Face Climate Change

09.25 – 09.45 (+5) **S. M. Brouder (USA):** Impact of Climate Change on Crop Nutrient and Water Use Efficiencies
Sponsored by the Deutsche Botanische Gesellschaft

09.50 – 10.05 (+5) **D. Liu (China):** Arabidopsis Purple Acid Phosphatase AtPAP10 is Predominantly Associated with the Root Surface and Plays an Important Role in Plant Tolerance to Phosphate Limitation

10.10 – 10.25 (+5) **N. Chapman (UK):** Coordinated *AtNRT2.1* and *AtPIP2.2* Expression in Response to Changing Water and Nitrate Supply

10.30 – 11.00 Coffee break
Sponsored by the German Society of Plant Nutrition

Session IIIa Plant Nutrition: Physiology and Mechanism

Chairs: ***S. Schubert, A. Amtmann***

11.00 – 11.20 (+5) **S. Schubert (Germany):** Key Factors for Growth Reduction of Maize during the first Phase of Salt Stress

11.25 – 11.45 (+5) **A. Amtmann (UK):** Integration of Nutritional Stimuli in Arabidopsis Genotypes
Sponsored by Plant Biology

11.50 – 12.10 (+5) **Y. F. Tsay (Taiwan):** Versatile Roles of Transceptor CHL1 in Nitrate Signaling

12.15 – 12.30 (+5) **Ch-M.Geilfus (Germany):** Salinity Differently Impacts Expansins and the Leaf Apoplastic pH in Maize Hybrids Contrasting in Salt Resistance

12.35 – 14.00 **Lunch**

Session IIIb Plant Nutrition: Symbiotic Interactions

Chairs: ***M. Charpentier, T. Garnett***

14.00 – 14.20 (+5) **M. Charpentier (UK):** How Close are We to Nitrogen-Fixing Cereals?

14.25 – 14.45 (+5) **T. Garnett (Australia):** Understanding the Response of the Maize Nitrate Transport to Nitrogen Supply and Demand

14.50 – 15.05 (+5) **A. Foito (UK):** The Effects of Short-term Alteration of Nitrogen Supply in the Leaf Metabolism of Perennial Ryegrass (*Lolium perenne*)

15.10 – 15.25 (+5) **V. Mehmeti (Austria):** Molecular Changes in the Metabolome of *Medicago truncatula* Induced by Short Term Salt and Drought Stress

15.30 – 16.00 Coffee break
Sponsored by the German Society of Plant Nutrition

Session IIIc Plant Nutrition: Acquisition, Homeostasis

Chairs: J. Simon, S. M. Brouder

- 16.00 – 16.25 (+5) **J. Simon (Germany):** Nitrogen Balance in Forest Soils: Nutritional Limitation of Trees under Climate Change Stresses
- 16.30 – 16.45 (+5) **J. N. Annan (Ghana):** Growth and Photosynthetic Responses of *Picochlorum oklahomensis* to Iron and Salinity Stresses
- 16.50 – 17.05 (+5) **D. Secco (Australia):** Comparative Analysis of Transcriptomic Responses to Phosphate Starvation between Mono- and Di-Cotyledons
- 17.10 – 17.25 (+5) **H. Korovetska (Czech Republic):** Soil-Drying-Induced pH Signaling in Herbaceous Plants: the Involvement of Nitrate
- 17.30 – 19.00 **Poster Session & Light Sandwich Dinner in the Poster area (provided free)**
Sponsored by the German Society of Plant Nutrition

February 20 (Monday)

08.30 – 15.30 Registration

Session IIId Plant Nutrition: Crop Quality/Productivity

Chairs: S. Weise, S. Jung

- 09.00 – 09.25 (+5) **S. Weise (Germany):** Using Bioinformatical Data Integration for Facilitating Systems Biological Approaches -- The MetaCrop Information System
- 09.30 – 09.45 (+5) **S. Jung (Germany):** Effects of Drought and Salt Stress on Kernel Setting of Maize
- 09.50 – 10.05 (+5) **M. P. Omega (Australia):** Functional Characterisation of a Lectin Protein Family for Disease Resistance in Plants
- 10.10 – 10.25 (+5) **J-Ch. Avice (France):** Sulphur Restriction Impacts the Grain Quality, Seed Yield and Germination of Rapeseed
- 10.30 – 11.00 **Coffee break**
Sponsored by Wiley-Blackwell

Session IV Management of Plant Nutrition/Fertilizers

Chairs: K. H. Mühling, E. Inselsbacher

- 11.00 – 11.25 (+5) **K. H. Mühling (Germany):** Contribution of Biogas Residues and Mineral Fertilizers on the Release of Nitrous Oxide from Soils
- 11.30 – 11.45 (+5) **S. Dixit (The Netherlands):** PhenoFab[®] – Digital Phenotyping Applications in Plants
- 11.50 – 12.05 (+5) **E. Inselsbacher (Sweden):** The Potential of Microdialysis to Monitor Organic and Inorganic Nitrogen Compounds in Soil

12.10 – 12.25 (+5)	V. Billard (France): A New Seaweed Extract Affects <i>Brassica napus</i> Nutrient Uptake and Plastid Division
12.30 – 14.00	Lunch
Session V	Management of Heavy Metals in Plants and Soil
<i>Chairs:</i>	<i>W. J. Horst, W. W. Wenzel</i>
14.00 – 14.20 (+5)	W. J. Horst (Germany): Apoplastic versus Symplastic Leasons of Aluminium-Induced Inhibition of Root Elongation – Implications for Aluminium Resistance of Plants
14.25 – 14.45 (+5)	W. W. Wenzel (Austria): Management of Heavy Metals in Plants and Soil
14.50 – 15.10 (+5)	Y. Murooka (Japan): Heavy Metal Bioremediation through Symbiotic Leguminous Plant and Potential to Decontaminate ¹³⁷ Cs from Accident of Nuclear Power Station at Fukushima
15.15 – 15.25 (+5)	J. Bourguignon (France): Exploring the Response of <i>Arabidopsis thaliana</i> under Heavy Metal Stress Conditions by ‘Omics’ Approaches Highlights New Insights into the Regulation of Key Metabolic Pathways and Detoxification Mechanisms
15.30 – 17.30	Poster Session + Light Sandwich Dinner in the Poster area (provided free) <i>Sponsored by Conviron</i>
19.00 – 22.00	Conference Dinner Party -Traditional Austrian food, wine and entertainment (professional musicians), located in one of Vienna’s famous “Heurigen”. - Cost: 40,- EUR
February 21	(Tuesday)
08.00 – 10.00	Registration
Session VI	Plant - Environment Interactions
<i>Chairs:</i>	<i>I. Kovalchuk, F. Liebisch</i>
09.00 – 09.20 (+5)	A. J. Bloom (USA): Nitrogen is not a Monolith
09.25 – 09.45 (+5)	I. Kovalchuk (Canada): Genome Instability and Epigenetic Modification-Heritable Responses to Environmental Stress? <i>Sponsored by the Deutsche Botanische Gesellschaft</i>
09.50 – 10.10 (+5)	A. Tunlid (Sweden): Tapping genomics for Unraveling the Mechanisms of Nutrient Acquisition by Ectomycorrhizal Fungi
10.15 – 10.30 (+5)	F. Liebisch (Switzerland): Phosphorus availability in Grassland - A Dynamic Interaction of Weather, Soil Microbes and Sward Management
10.35 – 11.00	Closing Ceremony, Conference Photo