

08:15 - 09:00 Registration & coffee

09:00 - 09:15 Welcome by Dirk Inzé

Plenary session 1

CONCERTZAAL

HEALTHIER CROPS

Chair: Dirk Inzé

09:15 - 09:45 Fortifying vitamins in tomato using genome editing
Cathie Martin, *John Innes Centre, UK*

09:45 - 10:15 Unlocking the Polyploid Potential of Wheat Through Genomics
Cristobal Uauy, *John Innes Centre, UK*

10:15 - 10:30 *Selected talk:* Motif Mining with Deep Learning - Accelerating identification, annotation and inference of gene regulatory networks in plants
Poster 64
Fritz Peleke, *IPK Gatersleben, DE*

10:30 - 11:00 Coffee break

11:00 - 11:30 Understanding and altering photoprotection to improve crop productivity
Krishna Niyogi, *University of California, Berkeley, US*

11:30 - 12:00 Improvement of maize, soybean, and wheat using sunflower transcription factors. The long way from the laboratory to the greenhouse and from the greenhouse to the field
Raquel L. Chan, *CONICET/UNL, AR*

12:00 - 12:15 *Selected talk:* Application of RNA-based bioprotectants against viruses for sustainable crop production in a changing climate
Poster 74
Ana Sede, *Institut de Biologie Moléculaire des Plantes (IBMP-CNRS), Strasbourg, FR*

12:15 - 13:15 Lunch

13:15 - 14:15 Poster Session - Odd numbers

Plenary session 2

CONCERTZAAL

IMPROVING CROPS THROUGH PLANT ARCHITECTURE

Chair: Hilde Nelissen

14:15 - 14:45 Leaf Development in Grasses
Annis Richardson, *University of Edinburgh, GB*

14:45 - 15:15 How deep is the conservation of plants' cis-regulatory code?
Idan Efroni, *The Hebrew University, IL*

15:15 - 15:45 Identifying new tomato fruit growth regulators through induced variability
Nathalie Gonzalez, *INRAE Bordeaux, FR*

15:45 - 16:00 *Selected talk:* Modulation of tomato growth and development by microProtein-engineering
Poster 92
Ylenia Vittozzi, *University of Copenhagen, DK*

16:00 - 16:30 Coffee break

Plenary session 3

CONCERTZAAL

HOW DO CROPS COPE WITH BIOTIC STRESS?

Chair: Julia Bailey-Serres

16:30 - 17:00 The strawberry - *Botrytis cinerea* interaction: from flower to fruit
Barbara De Coninck, *Division of Crop Biotechnics, KU Leuven, BE*

17:00 - 17:30 How to trick a plant pathogen?
Sophien Kamoun, *The Sainsbury Laboratory, UK*

17:30 - 18:30 Reception

18:30 - 22:00 Boat trip & conference dinner

08:30 - 09:15 Coffee

Plenary session 4

CONCERTZAAL

HOW DO CROPS ADAPT TO ABIOTIC STRESS?

Chair: Lieven De Veylder

- 09:15 - 09:45** Regulatory hierarchies that shape plasticity to water extremes
Julia Bailey-Serres, *University of California – Riverside, US*
- 09:45 - 10:15** Epigenetic & abiotic stress mediated transcriptional regulation in maize
Thelma Madzima, *University of Washington Bothell, US*
- 10:15 - 10:45** Coffee break
- 10:45 - 11:15** Resilience to soil stresses from dynamic root barriers
Kaisa Kajala, *Utrecht University, NL*
- 11:15 - 11:45** Targeting root traits to improve pearl millet tolerance to drought
Ndjido Kane, *ISRA - CERAAS, SN*
- 11:45 - 12:15** Plant organ growth under drought: from cellular mechanisms to molecular networks
Hilde Nelissen, *VIB-UGent Center for Plant Systems Biology, BE*
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- 12:15 - 13:15** Lunch
- 13:15 - 14:15** Poster Session - Even numbers

Plenary session 5

CONCERTZAAL

BENEFICIAL INTERACTIONS OF SOIL MICROBIOME

Chair: Caixia Gao

- 14:15 - 14:45** Enhancing phosphate acquisition through arbuscular mycorrhizal symbiosis
Maria Harrison, *Boyce Thompson Institute for Plant Research, US*
- 14:45 - 15:15** Achieving sustainable productivity in agriculture through beneficial microbial associations
Giles Oldroyd, *University of Cambridge, UK*
- 15:15 - 15:30** *Selected talk:* Wheat lines differing in yield, root architecture and mucilage secretion show associated changes in rhizosphere microbiome composition
Poster 59
Eric Ober, *National Institute of Agricultural Botany (NIAB), GB*
- 15:30 - 16:00** Coffee break

Plenary session 6

CONCERTZAAL

HOW DO CROPS COPE WITH BIOTIC STRESS?

Chair: Cristobal Uauy

- 16:00 - 16:30** Gross chromosomal rearrangements and chromosome engineering
Martin Lysak, *Central European Institute of Technology (CEITEC), Masaryk University, CZ*
- 16:30 - 16:45** *Selected talk:* Single-cell targeted chemical or genetic boosting of genome editing in maize
Poster 52
Ling Meng, *KWS Gateway Research Center, US*
- 16:45 - 17:15** Next Generation CRISPR Technologies and Their Applications in Crop Improvement
Caixia Gao, *Institute of Genetics and Developmental Biology, CN*
- 17:15 - 17:45** Overcoming Bottlenecks in Plant Gene Editing
Dan Voytas, *University of Minnesota, US & Co-Founder & CSO, Calyxt, US*
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- 17:45 - 17:55** Closing words by Hilde Nelissen