

# Scientific program for the 8<sup>th</sup> International Symposium on Root Development

## Monday May 29 2017

**17:00** Registration and poster setup

**19:00** Welcome reception

## Tuesday May 30 2017

*All lectures will be given in the lecture hall "Studion"*

Welcome: Karin Ljung and Stéphanie Robert

**9:00** **Opening of the conference, general information**

**9:10** **Opening lecture: Malcolm Bennett**, New angles on root growth and development.

### Session I: Hormones and organisation of root system architecture

Chair: Karin Ljung

**9:40** **Plenary lecture: Eva Benkova**

Auxin and cytokinin regulation of the root system architecture – antagonism or synergy?

**10:10** **Selected speaker: Abdellah Lakehal**, Complex hormone crosstalk controls adventitious root formation

*10:30 Coffee break*

Chair: Stéphanie Robert

**11:00** **Keynote lecture: Alexis Maizel**, Auxin dependent cell remodelling during lateral root morphogenesis in Arabidopsis.

**11:30** **Selected speaker: Grégory Vert**, Brassinosteroid signaling-dependent root growth responses to prolonged elevated ambient temperature in Arabidopsis

**11.50** **Selected speaker: Sara Raggi**, Using chemical biology to dissect the auxin signaling pathway

**12:10** **Keynote lecture: Bert De Rybel**, Genetic and hormonal control of vascular cell proliferation.

*12:40 Lunch*

## **Session II: Cell division and cell fate acquisition**

Chair: Ioanna Antoniadis

- 14:00**     **Plenary lecture: Carmen Díaz-Sala** Maturation-related decline of adventitious formation in conifers
- 14:30**     **Keynote Lecture: Idan Efroni** , Root regeneration and the birth of new roots
- 15:00**     **Selected speaker: Anna Wunderling**, Periderm development in the Arabidopsis root: a tale of growth and death
- 15:20*     *Coffee break*

Chair: Sara Raggi

- 15:40**     **Keynote lecture: Lin Xu** De novo root organogenesis in Arabidopsis: From wounding to cell fate transition.
- 16:10**     **Selected speaker: Colleen Drapek**, Gene regulatory network for Arabidopsis Root Endodermis Differentiation
- 16:30**     **Selected speaker: Joop Vermeer**, Cell volume regulation during lateral root formation in Arabidopsis
- 16:50**     **Selected speaker: Urs Fischer**, Cell divisions in columella initials trigger root cap abscission at a local auxin response minimum
- 17:10**     **Concluding remarks - announcements**
- 17:20**     **Poster session I, 17:20-19:00, "Tonsalen"**

## Wednesday May 31 2017

All lectures will be given in the lecture hall "Studion"

### Session III: Metabolism and secondary metabolites. Their role in the control of root development

Chair: Amanda Rasmussen

- 9:00** **Plenary lecture: Uwe Druege**, Interaction of plant hormones and metabolism on adventitious rooting of cuttings in a complex environment - what did we learn from Petunia?
- 9:30** **Selected speaker: Gloria Muday**, Flavonols alter reactive oxygen species levels to control root development.
- 9:50** **Selected speaker: Ioanna Antoniadi**, Cell-surface receptors enable perception of extracellular cytokinins
- 10:10** **Selected speaker: Sabrina Chin**, Flavonoids as jack-of-all-trades in plant defence and feeding site organogenesis during root knot nematode infection
- 10:30 Coffee break*

Chair: Abdellah Lakehal

- 11:00** **Keynote lecture: Amanda Rasmussen**, A-maizing root physiology and advantageous adventitious roots.
- 11:30** **Selected speaker: Nils Hennion**, Carbon flux to the roots: Focus on sucrose transporters
- 11:50** **Selected speaker: Yohanna Miotto**, Identification of genes associated with light-activated root growth in Arabidopsis
- 12:10** **Selected speaker: Sascha Waidmann**, Internal and External Signals Controlling Radial Expansion of Root Systems
- 12:30 Lunch*

### Session IV: Root development in response to abiotic constraints

Chair: Sascha Waidmann

- 14:00** **Plenary lecture: Gabriella Stefania Scippa**, Root under bending stress: mechanical forces and asymmetric responses.
- 14:30** **Keynote lecture: Stefan Kepinski**, Gravity and the shaping of plant form: root growth angle control.
- 15:00** **Selected speaker: Juliette Roué**, Implication of the root cap of Arabidopsis thaliana in the sensing of mechanical impedance
- 15:20** **Selected speaker: Zongcheng Lin**, Programmed Cell Death controls the organ size of the Arabidopsis root cap
- 15:40 Coffee break*

Chair: Grégory Vert

- 16:00**      **Keynote lecture: Marie-Béatrice Bogeat-Triboulot,**  
Contribution of cell proliferation and cell elongation to the response  
of root growth to environment.
- 16:30**      **Selected speaker: Benjamin Péret,** lasso mutants link root  
gravitropic response and salt stress.
- 16:50**      **Selected speaker: Anjil Kuma Srivastava,** SUMO Protease  
promote the root growth in Crop Plants under abiotic stress
- 17:10**      **Concluding remarks - announcements**
- 17:20**      **Poster session II, 17:20-19:00, "Tonsalen"**

## Thursday June 1 2017

All lectures will be given in the lecture hall "Studion"

### Session V: Nutrient and water uptake and transport

Chair: Sandra Jämtgård

- 9:00**            **Plenary lecture: Annie Desrochers**, Evidence of water and carbohydrate transfers through root connections in balsam poplar trees.
- 9:30**            **Selected speaker: Dong Liu**, An Arabidopsis ABC transporter mediates phosphate deficiency-induced remodeling of root architecture by modulating iron homeostasis in roots
- 9:50**            **Selected speaker: Riccardo Giehl**, Natural variation of RSA responsiveness to nitrogen and phosphorus deficiencies in Arabidopsis
- 10:10**          **Selected speaker: Kaisa Kajala**, Tomato root gene expression atlas – a view into development from multiple regulatory levels, cell types, environments and species
- 10:30*            *Coffee break*

Chair: Judith Felten

- 11:00**          **Keynote lecture: Torgny Näsholm** The root perspective of soils; microdialysis mimics mass flow and diffusion
- 11:30**          **Selected speaker: Arthur Poitout**, Nitrate Long-Distance Signaling: Deciphering Shoot Regulatory Network Controlling Root Response to Spatial Nitrate Heterogeneity
- 11:50**          **Selected speaker: Sandra Jämtgård**, This is not a root – How a semipermeable membrane can be used to get insight into the chemical composition of the soil root interface.
- 12:10**          **Selected speaker: Tonni Andersen**, The endodermal passage cell: just another brick in the wall?
- 12:30*            *Lunch*

### Session VI: Roots and biotic interactions

Chair: Urs Fischer

- 13:30**          **Plenary lecture: Jan Stenlid** Tree root infecting fungi: pathogens, mutualists, endophytes, or saprotrophs?
- 14:00**          **Selected speaker: Judith Felten**, Cell wall remodeling in Populus roots during ectomycorrhiza formation with *L. bicolor*
- 14:20**          **Selected speaker: Javier Cabrera**, Role of small RNAs during the development of nematode feeding cell in Arabidopsis roots
- 14:40*            *Coffee break*

Chair: Urs Fischer

- 15:00**        **Selected speaker: Aurélia Emonet**, FLS2 expression impacts cell-specific spatiotemporal compartmentation of PAMP-Triggered Immunity in *Arabidopsis thaliana*
- 15:20**        **Selected speaker: Jessica Finch**, Deciphering immunity-induced changes in root growth and development
- 15:40**        **Closing of the conference, concluding remarks, announcement of the next conference**
- 19:00**        **Conference dinner, "Studion"**