

SCIENTIFIC PROGRAM

Sunday, June 22nd, 2014

- 15:00 – 19:00** **REGISTRATION AND POSTER SET-UP**
- 19:00 – 22:00** **WELCOME RECEPTION & GET TOGETHER**

Monday, June 23rd, 2014

- 09:00 – 10:00** **KEYNOTE LECTURE**
Tobias Meyer
Calcium regulation of actin organization during mammalian cell migration and secretion

Session 1: Generating the Calcium Signal (chair: Jörg Kudla)

- 10:00 – 10:30** **Simon Gilroy**
Ca²⁺ waves as systemic signals in *Arabidopsis*
- 10:30 – 11:00** **COFFEE BREAK**
- 11:00 – 11:30** **Christian Mazars**
How does calcium control plant immune responses to bacterial infection and to mycotoxins?
- 11:30 – 12:00** **Kang Chong**
The putative calreticulin OsCRT regulates Ca²⁺ signaling for chilling response in rice
- 12:00 – 12:20** **Ricardo Happeck**
The wheat Low-affinity Cation Transporter (TaLCT1) localizes to Golgi-associated vesicles and alters calcium signalling in yeast and tobacco
- 12:30 – 14:00** **LUNCH**

Session 2: Decoding the Calcium Signal*(chair: Yan Guo)*

- 14:00 – 14:30 **Tina Romeis**
CDPK/ROS signaling in plant development and stress responses
- 14:30 – 15:00 **Jörg Kudla**
The role of CBL-CIPK complexes in ROS Signaling in *Arabidopsis*
- 15:00 – 15:30 **Wayne Snedden**
The calmodulin-like protein, CML39, plays an important role in early seedling development in *Arabidopsis*
- 15:30 – 15:50 **Marie Boudsocq**
Calcium-dependent protein kinases: to be or not to be activated by calcium?
- 15:50 – 16:10 **Leonie Steinhorst**
The role of CBL-CIPK complexes in polar growth
- 16:10 – 16:40 COFFEE BREAK**

Session 3: Interaction with other Second Messengers*(chair: Erwin Grill)*

- 16:40 – 17:10 **Gerald Berkowitz**
Molecular steps in Ca²⁺ signaling pathways downstream from perception of peptides and hormones by cell membrane receptors
- 17:10 – 17:40 **Colin Brownlee**
Cellular and flagellar calcium signals and regulation of key processes in *Chlamydomonas*
- 17:40 – 18:10 **Dirk Becker**
Coordination of K⁺-fluxes by Calcium-dependent networks
- 18:10 – 18:30 **Franziska Hempel**
Calcium-dependent phosphorylation of PI4P 5-kinases involved in polar tip growth of pollen tubes
- 18:30 – 18:50 **Shaul Yalovsky**
Integration of calcium and ROP signaling in regulation of auxin distribution
- 19:00 – 20:30 DINNER**
- 20:30 – 23:00 POSTER SESSION I** *odd Numbers*

Tuesday, June 24th, 2014

Session 4: Calcium and Environment I

(chair: Tina Romeis)

- 09:00 – 09:30 **Yan Guo**
The Arp2/3 complex regulates mitochondrial-associated calcium signaling during salt stress in *Arabidopsis*
- 09:30 – 10:00 **Erwin Grill**
The calmodulin-domain protein kinase GCA2 defines sensitivity of abscisic acid responses in *Arabidopsis*
- 10:00 – 10:30 **Edward Farmer**
Long distance signalling in the vasculature of wounded plants
- 10:30 – 11:00** **COFFEE BREAK**
- 11:00 – 11:20 **Matthew Evans**
Modelling insights into long range systemic calcium waves
- 11:20 – 11:40 **Stefanie Ranf**
A lectin receptor-like kinase perceives *Pseudomonas* lipopolysaccharides in *Arabidopsis thaliana*
- 11:40 – 12:00 **Deirdre McLachlan**
High-throughput imaging reveals a genetic framework and roles for calcium signalling in stomatal immunity
- 12:00 – 13:00** **LUNCH**
- 13:00 – 14:00** **KEYNOTE LECTURE**
Rosario Rizzuto
The mitochondrial calcium uniporter (MCU): molecular composition and physiological role

Session 5: Calcium and Membrane Transport

(chair: José Feijó)

- 14:00 – 14:30 **Rainer Hedrich**
Evolution of membrane-delimited, calcium-based ABA signalling in the light of stomata emergence
- 14:30 – 15:00 **Yi Wang**
CDPKs are involved in Ca²⁺-dependent regulation of inward K⁺ channels
- 15:00 – 15:30 **Petra Dietrich**
Regulation and function of plant cyclic nucleotide gated channels
- 15:30 – 15:50 **Axel Mithöfer**
Calcium signaling, herbivore-induced jasmonate pathway and plant defense
- 15:50 – 16:10 **Shintaro Munemasa**
New insights into Ca²⁺-dependent abscisic acid signalling in guard cells
- 16:10 – 16:40** **COFFEE BREAK**

Session 6: Calcium and Environment II*(chair: Karin Schumacher)*

- 16:40 – 17:10 **Martin Parniske**
Intracellular accommodation of microbes by plant cells: an ancient genetic program for symbiosis and disease?
- 17:10 – 17:40 **Giles Oldroyd**
Calcium encoding and decoding during symbiotic signalling of plants
- 17:40 – 18:10 **Melanie Krebs**
Live cell Ca²⁺-imaging with R-GECO1 sheds light on Ca²⁺-signatures during PAMP-triggered immunity in *Arabidopsis*
- 18:10 – 18:30 **Cyril Zipfel**
The complex role of phosphorylation in the regulation of reactive oxygen species and calcium signaling during receptor kinase-mediated immunity
- 18:30 – 20:30 **DINNER**
- 20:30 – 23:00 **POSTER SESSION II** *even numbers*

Wednesday, June 25th, 2014**Session 7: Calcium in Organelles and Development***(chair: Rainer Hedrich)*

- 09:00 – 09:30 **José Feijó**
Coordination of pollen tube growth by Ca²⁺: channels and downstream mechanisms
- 09:30 – 10:00 **Alex Webb**
Circadian regulation of Calcium signalling in *Arabidopsis*
- 10:00 – 10:30 **Michael Hippler**
Towards understanding of calcium dependent regulation of algal photosynthesis
- 10:30 – 11:00 **COFFEE BREAK**
- 11:00 – 11:20 **Kazuyuki Kuchitsu**
Regulation of development and stress responses by signaling networks involving Ca²⁺ and NADPH oxidase-mediated deliberate ROS production in plants.
- 11:20 – 11:40 **Ana Karina Hochmal**
Calredoxin is a novel candidate protein for calcium and redox dependent regulation of photosynthesis in *Chlamydomonas reinhardtii*
- 12:00 – 13:30 **LUNCH**

Program

Session 8: Calcium and the Control of Gene Expression

(chair: Martin Parniske)

- 13:30 – 14:00 **Marc Knight**
Calcium regulation of gene expression in plants: specificity and mechanism.
- 14:00 – 14:30 **Hillel Fromm**
Calcium-regulated transcriptional switches of defense responses
- 14:30 – 15:00 **Markus Teige**
Different functions at different places: The Ca²⁺-dependent protein kinase CPK3 in the salt-stress response
- 15:00 – 15:20 **Agepati Raghavendra**
Calcium-dependent signaling steps during stomatal closure by ABA and bicarbonate: Dual action of calcium at up- or down-stream of ROS/NO production
- 15:20 – 15:40 **Ute Vothknecht**
Calcium regulation of chloroplast carbon metabolism
- 15:40 – 16:00 COFFEE BREAK**
- 16:00 – 17:00 KEYNOTE LECTURE**
Colin Taylor
Signalling to and from IP₃ receptors
- 17:00 – 17:30 POSTER PRIZE AWARDING & CLOSING REMARKS**
- 19:30 – 23:00 CONFERENCE DINNER**