

PP1530: workshop

Circadian rhythms, flowering time regulation and crop plant adaptation



Program

Wednesday, January 20

14.00-14.15

Welcome

Thomas Schmülling (Host, Freie Universität Berlin, Institut für Biologie, Lehrstuhl der Molekularen Entwicklungsbiologie der Pflanze und AG Angewandte Genetik)

Christian Jung (Coordinator PP1530, Kiel University, Plant Breeding Institute, Kiel, DE)

SESSION 1: Circadian rhythms in biological systems

14.15-15.00

Opening lecture: C. Robertson McClung (Dartmouth College, Hanover, USA): **Circadian transcriptional feedback loops in crops and Arabidopsis**

15.00-15.25

Amaury de Montaigu (Max-Planck Institute for Plant Breeding Research Cologne, DE): Rhythms of gene expression during day/night cycles: natural variation and phenotypic impact

15.25-16.10

Coffee break (45 min)

16.10-16.35

Mikael Johansson (Chair for Molecular Cell Physiology, Bielefeld University, DE): Dissecting circadian and photoperiod-independent flowering time control via SRR1

16.35-17.00

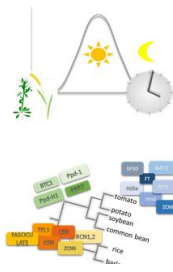
Christoph Schmal (Institute for Theoretical Biology, Charité Berlin, DE): Photoperiodic Entrainment from a Theoretical Perspective

17.00-17.25

Thomas Regnault (Wissenschaftszentrum Weihenstephan der Technischen Universität München, Weihenstephan, DE): Temperature-dependent control of flowering by the gibberellin pathway and interactions between DELLA proteins and APETALA1/VRN1 MADS-box genes

17.25-19.00

Poster Session



PP1530: workshop

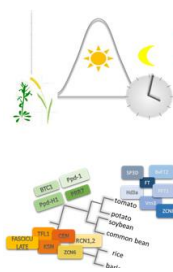
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Thursday, January 21 (morning):

SESSION 1: Circadian rhythms in biological systems, continued

- 9.00-9.45 **Keynote lecture: Dorothee Staiger** (Bielefeld University, Chair of Molecular Cell Physiology, Bielefeld, DE): **Multitasking of clock-controlled RNA-binding proteins**
- 9.45-10.10 **Thomas Schmölling** (Institute of Biology, Dep. Applied Genetics, Freie Universität Berlin, DE): Circadian Stress in Cytokinin-Deficient Plants: Changing the Light-Dark Regime Affects the Circadian Clock and Causes Cell Death Depending on Jasmonic Acid Synthesis
- 10.10-10.35 **Marcel Quint** (Dep. Crop Physiology, Martin Luther University Halle-Wittenberg): Post-embryonic hourglass patterns mark ontogenetic transitions in plant development
- 10.35-11.10 Coffee break (45 min)
- 11.10-11.35 **Lukas Müller** (Institute for Plant Genetics, Heinrich-Heine University Düsseldorf/Max Planck Institute for Plant Breeding Research, Cologne, DE): Dispensability of the circadian clock for carbohydrate metabolism and growth in barley
- 11.35-12.20 **Keynote lecture: Takeshi Izawa** (National Institute of Agrobiological Sciences (NIAS), Tsukuba, JP): **Rice adaptation and circadian clock genes**
- 12.20-13.50 Lunch (1h 30 min)



PP1530: workshop

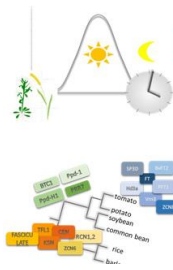
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Thursday, January 21 (afternoon):

SESSION 2: Flowering time regulation and crop plant adaptation

- 13.50-14.35 **Keynote lecture: Salome Prat** (CNB, Madrid, Spain): **Photoperiodic and temperature control of tuber formation in potato**
- 14.35-15.00 **Klaus Pillen** (Martin Luther University Halle-Wittenberg, Chair of Plant Breeding, Halle, DE): Modelling the genetic architecture of flowering time control in barley through nested association mapping.
- 15.00-15.25 **Mohammad Aman Mulki** (Max Planck Institute for Plant Breeding Research, Cologne, DE): Barley FLOWERING LOCUS T3 (HvFT3) Promotes Floral Transition under Long and Short Photoperiods
- 15.25-15.50 **Sarah Schiessl** (Justus Liebig University Gießen, Dep. Plant Breeding, Gießen, DE): Copy-number variation in *Bna.CO* and *Bna.SPL3* influences flowering time in *Brassica napus*
- 15.50-16.15 **Friedrich Kragler** (Max Planck Institute for Molecular Plant Physiology, Potsdam-Golm, DE): RNA transport into flowers
- 16.15-17.00 Coffee break (45 min)
- 17.00-17.25 **Korbinian Schneeberger** (Max Planck Institute for Plant Breeding Research, Cologne, DE): Phylogenetic shadowing of two distantly related Brassicaceae species reveals an atlas of cis-regulatory elements of daytime-specific expression
- 17.25-17.50 **Smit Shah** (Plant Breeding Institute, Christian Albrechts University of Kiel, DE): Identification and characterization of flowering time genes in oilseed rape through TILLING and transcriptome analysis
- 17.50-18.15 **Maria von Korff** (Max Planck Institute for Plant Breeding Research, Cologne, DE): Global transcriptome profiling of developing leaf and shoot apices reveals distinct genetic and environmental control of floral transition and inflorescence development in barley
- 19.30 – open end Joint dinner in Restaurant Luise, Address: Königin-Luise-Straße 40 - 42 14195 Berlin.
PLEASE BE PREPARED TO PAY FOR FOOD AND DRINKS YOURSELF.



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Friday, January 22 (morning):

SESSION 2: Flowering time regulation and crop plant adaptation, continued

9.00-9.45	Keynote lecture: Christian Jung (Kiel University, Plant Breeding Institute, Kiel, DE): Life cycle adaption in sugar beet
9.45-10.10	Nadine Höft (Plant Breeding Institute, Christian Albrechts University of Kiel, DE): Sequence variations in flowering time genes from species of the genus Beta with different geographical origin
10.10-10.50	Coffee break (40 min)
10.50-11.15	Conny Tränkner (Plant Breeding Institute, Christian Albrechts University of Kiel, DE): Detection of two major QTL for seasonal bolting time in Beta vulgaris L.
11.15-11.40	Artem Pankin (Max Planck Institute for Plant Breeding Research, Cologne, DE): Genome-wide diversity analysis sheds light on the history of barley domestication
11.40-12.25	Closing lecture: Yuval Eshed (Plant Science Department, The Weizmann Institute of Science, Rehovot, IL): Crop improvement, adaption of the florigen pathway in tomato
12.25-12.30	Closing remarks
12.30	End of Workshop