

2nd Meeting on „Metabolism, Signaling and Function of Cytokinin”

July 8-10, 2012

Dahlem Centre of Plant Sciences, Freie Universität Berlin, Berlin

- Program -

(Preliminary version, June 15, 2012)

July 8, 2012

18:00- Get together and registration at “Luise”

July 9, 2012

8:00-9:00 Registration

9:00-9:15 Thomas Schmülling Welcome and introduction
DCPS, Freie Universität Berlin

Metabolism of cytokinin

Chair: Lucie Szűčová

9:15-9:30 Hitoshi Sakakibara Cytokinin biosynthesis: new findings and remained questions
RIKEN Plant Science Center,
Yokohama

9:30-9:45 Takatoshi Kiba The *trans*-zeatin-type cytokinin is indispensable for shoot growth regulation in *Arabidopsis*
RIKEN Plant Science Center,
Yokohama

9:45-10:00 Ann-Cathrin Lindner Functional *ipt1* knockout in *Physcomitrella patens* reveals unexpected diversity in cytokinin biosynthesis in basal land plants
Universität Hamburg

10:00-10:15 Vaclav Motyka Are *cis*-zeatins outsiders among cytokinins?
Institute of Experimental Botany, Prague

10:15-10:30 Tomáš Werner New aspects of cytokinin homeostasis regulation
DCPS, Freie Universität Berlin

10:30-11:00 **Coffee break**

- 11:00-11:15 David Kopečný
Palacký University, Olomouc
Structure-function study on enzymes connected to cytokinin metabolism - nucleoside N-ribohydrolases and aldehyde dehydrogenases
- 11:15-11:30 Ondřej Novák
Palacký University, Olomouc
A new approach for cytokinin isolation from *Arabidopsis* tissues using miniaturized purification: pipette tip solid-phase extraction

Cytokinin signalling

Chair: Mathias Brault

- 11:30-11:45 Alexander Heyl
DCPS, Freie Universität Berlin
Phylogenetic analysis reveals new subfamily of cytokinin receptors
- 11:45-12:00 Michael Hothorn
Friedrich-Miescher-Laboratory, Tübingen
The crystal structure of the AHK4 sensor domain: molecular insights into cytokinin recognition and receptor activation
- 12:00-12:15 Georgy Romanov
Institute of Plant Physiology, Moscow
Ligand-binding properties of cytokinin receptors
- 12:15-12:30 Sergey Lomin
Institute of Plant Physiology, Moscow
Subcellular localization of cytokinin receptors

12:30-14:00 Lunch and Poster session

14:00 Meeting in the foyer for the group photo

- 14:30-14:45 Eric Schaller
Dartmouth College, Hanover
Transcriptional regulation of the cytokinin response in *Arabidopsis*
- 14:45-15:00 Aaron Rashotte
Auburn University College,
Cytokinin regulation of cytokinin response factors and other transcripts in tomato and *Arabidopsis*
- 15:00-15:15 David Weiss
Hebrew University Jerusalem, Rehovot
Class I TCPs modulate cytokinin responses in *Arabidopsis* and tomato
- 15:15-15:30 Jan Hejatko
Masaryk University, Brno
Multistep phosphorelay in *Arabidopsis*: signal integration and specificity
- 15:30-15:45 Jian Feng
Institute of Genetics and Developmental Biology, Beijing
Nitric oxide-regulated cytokinin signaling

Functions of cytokinin in biotic and abiotic stress

Chair: Wolfram Brenner

15:45-16:00	Ildoo Hwang Pohan University, Pohang	Cytokinin action in plant immunity
16:15-16:30	Cris Argueso Colorado State University, Fort Collins	The interplay between cytokinin and salicylic acid signalling coordinates plant immunity in <i>Arabidopsis</i>
16:30-17:00	Coffee break	
17:00-17:15	Muhammad Naseem Universität Würzburg	Modeling the impact of cytokinin signaling on plant immune networks
17:15-17:30	Thomas Roitsch University of Graz	Cytokinins mediate resistance against <i>Pseudomonas syringae</i> in tobacco through increased phytoalexin synthesis
17:30-17:45	Rie Nishiyama RIKEN Plant Science Center, Yokohama	Negative regulatory role of cytokinins in drought and salt stress responses
17:45-18:00	Radomira Vankova Institute of Experimental Botany, Prague	Cytokinin functions in <i>Arabidopsis</i> response to heat stress targeted either to leaves, roots or whole plants
18:00-18:15	Bretislav Brzobohaty Mendel University, Brno	Cytokinin: on the crossroads to temperature perception?
18:15-18:30	Silvia Nitschke DCPS, Freie Universität Berlin	Cytokinin regulates numerous aspects of the stress response under high light
18:45 -	Barbecue at Applied Genetics (Albrecht-Thaer-Weg 6)	

t.b.a. Alexander Heyl Satelliten-Meeting "Naming of genes" 30-45 min

July 10, 2012

Functions of cytokinin in development

Chair: Jose O'Brien

9:15-9:30	Bruno Müller University of Zurich	Improving the synthetic cytokinin sensor
9:30-9:45	Chia-Yi Cheng University of North Carolina,	The roles of cytokinin in female gametophyte development

Chapel Hill

9:45-10:00	Elliot Meyerowitz California Institute of Technology, Pasadena	Cytokinins in the shoot apical meristem
10:00-10:15	Jan Lohmann Universität Heidelberg,	Probing the molecular function of A-type ARRs
10:15-10:30	Yuval Eshed Weizmann Institute, Rehovot	TCPs, chromatin and CK responses
10:30-10:45	Saiko Yoshida Wageningen University	Role of cytokinin on organ initiation
10:45-11:15	Coffee break	
Chair: Ioanna Antoniadis		
11:15-11:30	Naomi Ori Hebrew University Jerusalem, Rehovot	Cytokinin in tomato leaf development
11:30-11:45	Colin Turnbull Imperial College London	Spatial and genetic control of cytokinin status in relation to strigolactones and plant architecture
11:45-12:00	Hanna Help University of Helsinki	The quest for novel genes and hormonal components regulating vascular morphogenesis in <i>Arabidopsis</i> primary root
12:00-12:15	Bo Ren Institute of Genetics and Developmental Biology, Beijing	A novel <i>Arabidopsis</i> gene regulates root vascular development by modulating cytokinin signaling
12:15-12:30	Eva Benkova VIB, Ghent	Multilevel regulation of polar auxin transport by cytokinin
12:30-12:45	Karin Ljung Swedish University of Agricultural Sciences, Umea	Cytokinin-auxin interaction during <i>Arabidopsis</i> root development
12:45-13:00	Florian Frugier Institut des Sciences du Végétal (ISV) CNRS, Gif-sur- Yvette	Cytokinin pathways regulating <i>Medicago truncatula</i> symbiotic nodule development
13:00-14:30	Lunch and poster session	

Chair: Eswar Ramireddy

14:30-14:45 Walter Dewitte
University of Cardiff Cytokinins and D-type cyclins, up or downstream

14:45-15:00 Christian Hardtke
University of Lausanne The ABCs of BRX: caught between auxin, brassinosteroid and cytokinin

Application of cytokinin research

15:00-15:15 Isabel Bartrina/Elisabeth Otto
DCPS, Freie Universität Berlin Exploring the role of cytokinin in regulating seed yield in *Brassica napus*

15:15-15:30 Lukas Spichal
Palacký University, Olomouc Studies of cytokinin function using chemical biology

15:30-15:45 Petr Galuszka
Palacký University, Olomouc Transgenic alteration of cytokinin metabolism in order to improve agricultural traits of barley

15:45-16:15 Miroslav Kamínek
Institute of Experimental Botany, Prague Metabolic regulation of cytokinin/auxin ratios during development of wheat caryopses

16:15-16:30 Hans Motte
University College Gent Phenyl-adenine identified in a shoot regeneration-based chemical screen, acts as a weak cytokinin with strong biological activity

16:30-17:00 All Open questions in cytokinin biology

17:00-17:15 Thomas Schmülling
DCPS, Freie Universität Berlin Concluding remarks