



1409 - University of Leipzig - 2009

Plants for the Future

**SUNDAY,
Sep 6**

16:00 – 18:00 **REGISTRATION** (Foyer)

18:00 – 20.00 **Coming together** (Foyer)



Plants for the Future

8:00 – 9:00 **REGISTRATION** (Foyer)

9:00 – 10:00 **OPENING** (HS 9)

Welcome to the Participants

- *Prof. Dr. Christian Wilhelm* - Congress President
- *Prof. Dr. U.-I. Flügge* - President of the Deutsche
Botanische Gesellschaft
- *Dr. K. Nevermann* - Saxonian Ministry of
Science and Arts
- *Prof. Dr. M. Schlegel* - Vice President of the
University of Leipzig
- *Prof. Dr. R. Rübsamen* - Vice Dean of the Faculty of
Life Sciences

10:00 – 10:30 **COFFEE BREAK**

10:30 – 12:00 **CEREMONY OF THE STRASBURGER-, PFEFFER-,
AND WIEHE AWARDS** (HS 9)

- **STRASBURGER-Award:** The cyanobacterial 2-
phosphoglycolate metabolism –
starting point for the evolution of
plant photorespiration
 - *M. Eisenhut (Turku)*
- **PFEFFER-Award:** *Paulinella chromatophora* – a model for the
acquisition of photosynthesis by eukaryotes
 - *E. Nowack (Köln)*
- **WIEHE-Award:** Karyotype evolution and whole-genome
duplications in Crucifers (Brassicaceae)
 - *M. A. Lysak (Brno)*

12:00 – 13:00 **PLENARY LECTURE** (HS 9)

Biomass for Energy – Status, Prospects and Needs
 - *M. Kaltschmitt (Leipzig)*



1409 - University of Leipzig - 2009

Plants for the Future

**MONDAY,
Sep 7**

13:00 – 14:00

LUNCH BREAK

14:00 – 14:45

PLENARY LECTURE (HS 9)

Achieving Sustainable Biofuels from Plant Feedstocks
- *S. P. Long (Urbana)*

15:00 – 17:15

SYMPOSIA : S11, S15, S17, S18, S19, S25



- 15:00 – 17:00 **S11: PHYTOPATHOLOGY** (HS9)
Chair: Ulla Bonas (Halle)
Poster: Thomas Lahaye (Halle)
- 15:00 – 15:30 **The effectors of the potato late blight pathogen**
Phytophthora infestans – Sophien Kamoun
The Sainsbury Laboratory, UK
- 15:30 – 15:50 **Cytokinin treatment interferes with proliferation of the soil-borne fungus *Verticillium longisporum* in *Arabidopsis thaliana* leaves** - Michael Reusche, Volker Lipka, Thomas Teichmann
Georg August Universität, D
- 15:50 – 16:10 **PR proteins and carnivory - a new context for old proteins** - Sandy Rottloff, Axel Mithöfer
Max-Planck-Institut für Chemische Ökologie, Jena, D
- 16:10 – 16:30 **The corn smut fungus *Ustilago maydis* prevents photoautotrophic development in infected maize leaves and causes a redistribution of organic nitrogen in the host** - Lars Voll, Robin Hors¹, Gunther Doehlemann, Ramon Wahl, Jörg Kämper, Regine Kahmann, Uwe Sonnewald
FAU Erlangen-Nürnberg, D
- 16:30 – 16:45 **Lipid transfer proteins and their role during clubroot disease** - Sabine Jülke, Jutta Ludwig-Müller
TU-Dresden, D
- 16:45 – 17:00 **Nutrient acquisition of the phytopathogenic bacterium *Xanthomonas campestris* pv. *vesicatoria***
Nurcan Kocal, Gereon Czap, Uwe Sonnewald, Sophia Sonnewald
Friedrich-Alexander-Universität, Lehrstuhl für Biochemie, D



1409 - University of Leipzig - 2009

Plants for the Future

**MONDAY,
Sep 7**

15:00 – 17:15

S15: EPIGENETICS (HS13)

Chair: *Gunter Reuter (Halle)*

Poster: *Ingo Hofmann (Halle)*

15:00 – 15:30

The silence of the genes: genetic approaches for understanding epigenetic regulation - Ortrun Mittelsten Scheid

Gregor Mendel Institute of Molecular Plant Biology, A

15:30 – 15:50

Epigenetic control of leaf senescence - *Nicole Ay, Kristina Irmeler, Andreas Fischer, Joerg Schildhauer, Ria Uhlemann, Gunter Reuter, Klaus Humbeck*

Martin-Luther-University of Halle-Wittenberg, D

15:50 – 16:10

Molecular mechanisms controlling heterochromatic gene silencing in *Arabidopsis* - *Ingo Hofmann, Gunter Reuter, Fischer Andreas, Irmeler Kristina, Meinel Sandra, Jain Deepak*

Martin-Luther-Universität Halle-Wittenberg, D

16:10 – 16:30

Evidence for organ specific posttranscriptional gene silencing in *Arabidopsis* by two new silencing suppressor mutants - *Florian Vogel¹, Daniel Hofius², Kristin Kronberg¹, Kathrin Paulus¹, Isabel Jungkuntz¹, Uwe Sonnewald¹*

¹Lehrstuhl für Biochemie, FAU Erlangen-Nürnberg, Deutschland; ²Department of Biology, University of Copenhagen, DK

16:30 – 16:45

The role of DNA methylations during *Agrobacterium-Arabidopsis* interaction - *Jochen Gohlke, Rainer Hedrich, Rosalia Deeken*

Universität Würzburg, D

16:45 – 17:00

Transcriptional interference can silence plant genes Boris Hedtke, Bernhard Grimm

Humboldt-Universität Berlin, D



-
- 15:00 – 17:00 **S17: BIOFUELS** (HS 14)
Chair: *O. Kruse (Bielefeld)*
Poster: *J. Mussnug (Bielefeld)*
- 15:00 – 15:30 **Biofuels from crops: Meeting the challenges of sustainable production** - *Angela Karp, John Andralojc, Steve Hanley, Frederic Pitre, Nick Brereton, Richard Murphy, Ian Shield*
Centre for Bioenergy and Climate Change, Rothamsted Research, UK
- 15:30 – 15:50 **Biosynthesis of nucleotide sugars: Channelling of assimilates from photosynthesis into cell wall polysaccharides** - *Raimund Tenhaken, Rebecca Reboul, Stefanie, Endres, Claudia Geserick*
Universität Salzburg, A
- 15:50 – 16:10 **FTIR as a new tool in algal biomass production** - *Heiko Wagner, Christian Jebesen, Anne Jungandreas, Zhixin Liu, Christian Wilhelm*
Universität Leipzig, D
- 16:10 – 16:30 **System biology approach to improve H₂ production within *Chlamydomonas reinhardtii*** - *Jörg Toepel, Anja Doebbe, Julia Beckmann, Anh Vu Nguyen, Olaf Kruse*
Universität Bielefeld, D
- 16:30 – 16:45 **Comparative proteomics to deduce and localize key proteins involved in the anaerobic response of *Chlamydomonas reinhardtii*** - *Mia Terashima, Michael Specht, Ingrid Hirschmann, Bianca Naumann, Susan Hawat, Michael Hippler*
Institute for Biochemistry and Biotechnology of Plants, Münster, D
- 16:45 – 17:00 **Fast breeding of fast growing poplars** - *Renate Lührs, Efremova Nadja, Christian Löffke, Andreas Müller, Ning Dejuan³ Andrea Polle, Thomas Teichmann*
Zellbiologie der Pflanze, Georg-August-Universität Göttingen; D



Plants for the Future

15:00 – 17:00

S18: ORGANELLES (HS7)

Chair: *Udo Johannigmeier (Halle)*

Poster: *Michael Schroda (Freiburg)*

15:00 – 15:30

Taming plastids for biotechnology -

Bock, Ralph

MPI für Molekulare Pflanzenphysiologie, D

15:30 – 15:50

A plastid maturase as a model for an early

spliceosomal subunit - *Zoschke, Reimo; Nakamura, Masayuki;*

Liere, Karsten; Sugiura, Masahiro; Börner, Thomas; Schmitz-

Linneweber, Christian

Humboldt Universität Berlin, D

15:50 – 16:10

Dynamics of the chloroplast membranes - *Frederique K.*

H. Breuers¹, Andrea Bräutigam¹, Stefan Geimer², Andreas P. M. Weber¹

¹Institut für Biochemie der Pflanzen, Heinrich-Heine-Universität Düsseldorf; ²Zellbiologie und Elektronenmikroskopie, Universität Bayreuth, D

16:10 – 16:30

The puzzling mitochondrial genome of higher plants – more mitochondria than mitochondrial gene copies –

Thomas Börner, Tobias Preuten, Emilia Cincu, Jörg Fuchs, Reimo Zoschke

Humboldt Universität, Berlin, D

16:30 – 16:45

Characterisation of organelle-myosin complexes in plants - *Daniela Rödel, Ralf Bernd Klösger*

Martin-Luther-Universität Halle-Wittenberg, D

16.45 – 17:00

How are plant peroxisomes fueled ? The essential role of an ATP import system for storage lipid mobilisation

– *Nicole Linka, Andreas P. M. Weber*

Heinrich-Heine-Universität, Düsseldorf, D



Plants for the Future

- 15:00 – 17:15 **S19: PHOTOSYNTHESIS** (HS8)
- Chair: *Peter Westhoff (Düsseldorf)*
Poster: *Udo Gowik (Düsseldorf)*
- 15:00 – 15:30 **Reversible phosphorylation of thylakoid proteins: regulation, enzymes and implications for photosynthetic acclimation -**
Dario Leister
Department of Biology I-Botany - München, D
- 15:30 – 15:50 **A systems biology approach to study regulation of central carbohydrate metabolism -** *Thomas Ägele, Sebastian Henkel, Michael Ederer, Thomas Sauter, Oliver Sawodny, Arnd G. Heye¹*
Universität Stuttgart, D
- 15:50 – 16:10 **Distinct photosynthetic roles for different ferredoxins -** *Guy Thomas Hanke, Ingo Voss, Renate Scheibe*
University of Osnabrück, D
- 16:10 – 16:30 **Dynamics of photosynthetic complexes during light quality acclimation -** *Lars Dietzel, Karin Krupinska, Bernard Lepetit, Maria Mulisch, Christian Wilhelm, Mark-Aurel Schöttler, Thomas Pfannschmidt*
FSU Jena, D
- 16:30 – 16:45 **NAD(P)-malic enzyme isoforms and their importance for C₄ photosynthesis in the mid-vein of the C₃ species *Arabidopsis thaliana* -** *Veronica Maurino, Naomi Brown, Alexandra Maier, Julian Hibberd*
Universität zu Köln, D
- 16:45 – 17:00 **New insights into structure and function of the LHCI complex from the green alga *Chlamydomonas reinhardtii* and the red alga *Cyanidioschyzon merolae* -** *Andreas Busch, Einar Stauber, Bianca Naumann, Aleš Svatoš, John Nield, Michael Hippler*
IBBP, D
- 17:00 – 17:15 **Supermolecular structure of a fucoxanthin chlorophyll protein (FCPb) from *Cyclotella meneghiniana* -** *Manuel Pescher, Thomas Veith, Anja Beer, Claudia Büchel*
Johann Wolfgang Goethe-Universität Frankfurt, D



15:00 – 17:00

S25: SYMBIOSIS - MYKORRHIZA (HS15)

Chair: *Francois Buscot (Halle)*

Poster: *Mika Tarkka (Halle)*

15:00 – 15:30

Plant symbiont Interactions in the underground

- *Marcel van der Heijden*

Research Station ART, CH

15:30 – 15:50

Aquaporins in *Laccaria bicolor* – water and solute channels in development and ectomycorrhizal symbiosis

- *Sandra Dietz, Andrea Bock, Eric Beitz, Uwe Nehls*

University of Tuebingen, D

15:50 – 16:10

Cross talks between host plant and mycobiont during pre-symbiotic phase in the controlled *Quercus-robur* – *Piloderma croceum* mycorrhizal system

- *Sylvie Herrmann, Patrick Frettinger, Francois Buscot*

Helmholtz-Centre for Environmental Research GmbH (UFZ) Halle/Saale, D

16:10 – 16:30

Uncovering the role of apocarotenoids in the arbuscular mycorrhizal symbiosis via mutation and knockdown of biosynthetic genes

- *Michael H. Walter, Daniela S. Floss, Dieter Strack*

Leibniz-Institut für Pflanzenbiochemie, D

16:30 – 16:45

Keeping the balance: Autoregulation of arbuscular mycorrhization in soybean (*Glycine max*)

- *Sara Schaarschmidt, Peter M. Gresshoff, Bettina Hause*

Leibniz-Institut für Pflanzenbiochemie, D

16:45 – 17:00

Regulation of ammonium transport in *Medicago truncatula*

- *Daniel Straub, Uwe Ludewig*

TU Darmstadt, D



1409 - University of Leipzig - 2009

**MONDAY,
Sep 7**

Plants for the Future

17:15 – 17:30

COFFEE BREAK

17:30 – 19:00

POSTER SESSIONS : S11, S15, S17, S18, S19, S25

20:00 – 22:00

ROUND TABLE (HS9)

“How To Measure Scientific Quality“

Participants:

U. I. Flügge - Editor FEBS Letters

B. Piechulla - Editor Plant Biology

A. Finch - Wiley VHC

F. Buscot - Helmholtzzentrum für Umweltforschung

S. Hinze - Institut für Forschungsinformation und
Qualitätssicherung

Chair:

P. Westhoff – Heinrich-Heine-Univ. Düsseldorf



1409 - University of Leipzig - 2009

Plants for the Future

**TUESDAY,
Sep 8**

8:30 – 9:15

PLENARY LECTURE (HS 9)

Metabolon Formation and Metabolic Channeling in the
Biosynthesis of Plant Natural Phenolics

– *B. L. Möller (Kopenhagen)*

9:15 – 10:00

PLENARY LECTURE (HS 9)

Sumoylation in Plant Responses to Abiotic Stresses

- *P. M. Hasegawa (Purdue)*

10:00 – 10:30

COFFEE BREAK

10:30 – 12:30

SYMPOSIA : S04, S05, S06, S16, S22, S28



10:30 – 12:30

S04: PHOTOPROTECTION (HS13)

Chair: *Reimund Goss (Leipzig)*
Poster: *Reimund Goss*

10:30 – 11:00

Photo-oxidative stress in plants: toxicity and quenching of singlet oxygen - *Michel Havaux*

CEA/Cadarache, IBEB, Laboratoire d'Ecophysiologie Moléculaire des Plantes, F-13108 Saint-Paul-lez-Durance, F

11:00 – 11:20

Energy dissipation in photosystem II: Identification and characterization of two different quenching sites –

Peter Jahns¹, Manuela Nilkens¹, Eugen Kress¹, Yuliya Miloslavina², Petar Lambrev², Marc Müller², Alfred Holzwarth²

¹Universität Düsseldorf, Deutschland; ²Max-Planck-Institut Mülheim, D

11:20 – 11:40

Evolution of xanthophyll cycles and carotenoid biosynthesis in chromalveolate algae: Walking the tightrope between light-harvesting and photoprotection - *Martin Lohr*

Johannes Gutenberg-Universität, Mainz, D

11:40 – 12:00

Li818 protein homologues and the acclimation to high light in diatoms: possible involvement in the photoprotective non-photochemical quenching (NPQ) - *Sabine Sturm¹, Sascha Vugrinec¹, Peter Kroth¹, Johann Lavaud²*

¹University of Konstanz, D; ²CNRS_University of La Rochelle, F

12:00 – 12:15

High light photoacclimation of psbA mutants with an impaired linear electron transport in the diatom *Phaeodactylum tricornutum* – *Sabine Sturm¹, Arne Materna², Stefanie Bürger¹, Sascha Vugrinec¹, Peter Kroth¹, Johann Lavaud³*

¹Department of Biology, University of Konstanz, Germany; ²Civil and Environmental Engineering, MIT, Cambridge, USA; ³CNRS, University of La Rochelle, F;

12:15 – 12:30

Independent origin of LHC and PSBS from ancient eukaryotic two-helix proteins - *Johannes Engelken^{1,2}, Henner Brinkmann³, Iwona Adamska¹*

¹Department of Biology, University of Konstanz, Konstanz; ²Pompeu Fabra University, IBE-UPF-CSIC, Barcelona, Spain; ³Université de Montréal, Montréal, Québec, Canada



10:30 – 12:30

S05: Mycology and Lichenology^(HS14)

Chair: *Dominik Begerow (Bochum)*

Poster: *Dominik Begerow*

10:30 – 11:00

Host jumps and adaptive evolution in downy mildews and white blister rusts - *Marco Thines*^{1,2}, *Liliana Cano*², *Sebastian Ploch*¹, *Sophien Kamoun*²

¹Universität Hohenheim, D; ²Sainsbury Laboratory, UK

11:00 – 11:20

Coevolutionary patterns in rust fungi and their hosts - *Wolfgang Maier*

Ruhr-Universität Bochum, D

11:20 – 11:40

Current concepts of phylogenetic relationships of basal fungi - *Martin Eckart*, *Volker Schwartze*, *Johannes Rothhardt*, *Kerstin Hoffmann*, *Kerstin Voigt*

Pilz-Referenz-Zentrum Jena an der Universität Jena, D

11:40 – 12:00

Radiation and host specificity in the genus *Microbotryum*: a phylogenetic perspective – *Martin Kemler*, *Dominik Begerow*

Ruhr-Universität Bochum, D

12:00 – 12:20

Spatial and temporal colonisation patterns of *Fraxinus excelsior* leaves with endophytic fungi - *Almut Reiher*, *Peter Otto*

Universität Leipzig, D



10:30 – 12:30

S06: Secondary Products: Glucosinolates (HS15)

Chair: *Dirk Selmar (Braunschweig)*

Poster: *Maik Kleinwächter (Braunschweig)*

10:30 – 11:00

Engineering the production of benzylglucosinolate in

tobacco - *Barbara Halkier¹, Fernando Geu-Flores¹, Morten Emil Møldrup¹, Carl-Erik Olsen², Morten Thrane Nielsen¹, Saddik Motawia¹, Majse Nafisi¹*

¹Department of Plant Biology and Biotechnology, LIFE, Univ of Copenhagen;

²Department of Chemistry, LIFE, Univ of Copenhagen, Dk

11:00 – 11:20

Enzymes of the branched-chain amino acid metabolism are also involved in biosynthesis of methionine-derived aliphatic glucosinolates - *Stefan*

Binder¹, Tanja Knill¹, Michael Reichelt², Christian Paetz², Jonathan Gershenzon²

¹Molekulare Botanik, Universität Ulm, 89069 Ulm, D; ²MPI für Chemische Ökologie, Biochemie, 07745 Jena, D

11:20 – 11:40

Identification and characterisation of chloroplastidic transporter protein, which is required for the biosynthesis of Met-derived glucosinolates in *A. thaliana* - *Tamara*

Gigolashvili¹, Ruslan Yatusevich¹, Inga Rollwitz¹, Melanie Humphry¹, Jonathan Gershenzon², Ulf-Ingo Flügge¹

¹Botanisches Institut, Universität zu Köln, D; ²Max-Planck-Institut für chemische Ökologie, Jena, D

11:40 – 12:00

Specifier proteins in glucosinolate hydrolysis –

Ute Wittstock¹, Antje Plock¹, Wolfgang Brandt², Jennifer Kuchernig¹, Anja Losansky¹, Meike Burow¹

¹Technische Universität Braunschweig; ²Leibniz-Institut f- Pflanzenbiochemie, Halle, D

12:00 – 12:15

Glucosinolates and the clubroot disease: friend or foe? - *Jutta Ludwig-Müller*

Technische Universität Dresden, D

12:15 – 12:30

Induction of camalexin biosynthesis within the indole-3-acetonitrile (IAN) metabolic network - *Erich*

Glawischnig¹, Thomas Rauhut¹, Christoph Böttcher², Borries Luberacki³

¹TU München, Freising, D; ²Leibniz-Institut für Pflanzenbiochemie, Halle, D; ³Gregor Mendel Institute, Wien, A



1409 - University of Leipzig - 2009

Plants for the Future

**TUESDAY,
Sep 8**

10:30 - 12:30

S16: Abiotic Stress (HS7)

Chair: *Dorothea Bartels (Bonn)*
Poster: *Hans Hubert Kirch (Bonn)*

10:30 – 11:00

Drought tolerance in maize, a crop of agronomic importance - *Montserrat Pages*

Departamento Genetica Molecular de Plantas, CRAG-CSIC Barcelona . E.

11:00 – 11:20

A PIIB-type Ca²⁺-ATPase is essential for stress adaptation in *Physcomitrella patens* - *Wolfgang Frank*^{1, 2}, *Enas Qudeimat*¹, *Alexander Faltusz*¹, *Glen Wheeler*³, *Colin Brownlee*³, *Daniel Lang*¹, *Peter Beyer*⁴, *Florian Wüst*⁴, *Ralf Reski*^{1, 2}

¹Plant Biotechnology, University of Freiburg, Germany; ²Freiburg Initiative for Systems Biology (FRISYS), University of Freiburg; ³Marine Biological Association of the United Kingdom, Citadel Hill, UK; ⁴Cell Biology, University of Freiburg, D

11:20 – 11:40

Impact of drought and salt stress on the accumulation of secondary plant products - *Dirk Selmar*, *Maik Kleinwächter*

Technical University of Braunschweig, D

11:40 – 12:00

Regulation of the plant metabolic network during oxidative stress in *Arabidopsis thaliana* - *Martin Lehmann*

Max-Planck-Institute of Molecular Plant Physiology, D

12:00 – 12:15

A new approach to image mineral elements in plant tissues produces detailed maps of Na - *Ralf Metzner*^{1,2}, *Uwe Breuer*², *Heike Ursula Schneider*¹, *Walter H Schröder*¹

¹Phytosphere Inst., FZ-Jülich; ²Central Division of Analytical Chemistry, FZ-Jülich, D

12:15 – 12:30

Plant reactions to hypoxic stress – Gene expression from the cell-type and organ specific level to cross-species comparisons - *Angelika Mustroph*^{1,2}, *M. Eugenia Zanetti*¹, *Thomas Girke*¹, *Julia Bailey-Serres*¹

¹University of California Riverside, USA; ²Humboldt-Universität zu Berlin, D



1409 - University of Leipzig - 2009

Plants for the Future

**TUESDAY,
Sep 8**

-
- 10:30 – 12:30 **S22: Protein Transport** (HS8)

Chair: *Ralf Bernd Klösgen (Halle)*
Poster: *Mario Jacob (Halle)*
- 10:30 – 11:00 **Structural and functional insights into chloroplast translocation** - *Enrico Schleiff*

CMP and CEF, Molecular Cell Biology of Plants, Goethe-University Frankfurt, D
- 11:00 – 11:20 **Cross-Phyla functionality of plastid targeting presequences in chromists** - *Sascha Vugrinec, Ansgar Gruber, Peter Kroth*

University of Konstanz, D
- 11:20 – 11:40 **Initial step of Tat-dependent protein transport –**
René Schlesier, Ralf Bernd Klösgen

Inst. of Biology, Dep. of Plant Physiology, MLU Halle-Wittenberg, D
- 11:40 – 12:00 **The AtTerC gene product of *Arabidopsis thaliana* is required for proper thylakoid membrane biogenesis –**
Anja Schneider¹, Henning Strissel¹, Danja Schünemann², Ute Armbruster¹, Andre König³, Henning Kunz³, Ulf-Ingo Flügge³, Dario Leister¹

¹LMU München, D; ²Ruhr-Universität Bochum, D; ³Universität zu Köln, D
- 12:00 – 12:15 **Diel and height-dependent differences in xylem sap protein concentration and composition of *Ricinus communis* suggest vibrant protein translocation –**
Van Dy Nguyen, Heike U. Schneider

Forschungszentrum Juelich, D
- 12:15 – 12:30 **Proteomic and transcriptomic analysis provides novel insights into small molecule and protein transport across proplastid membranes** - *Andrea Bräutigam, Andreas P. M. Weber*

Plant Biochemistry, Heinrich Heine Universität Düsseldorf, D



-
- 10:30 – 12:30 **S28: Plants in Changing Climate** Ort: (HS9)
Chair: *Hans-Joachim Weigel (Braunschweig)*
Poster: *Christoph Reisdorff (Hamburg)*
- 10:30 – 11:00 **What plants may dominate our managed and semi-natural ecosystems in a new climate?** - *Jürg Fuhrer*
Forschungsanstalt Agroscope Reckenholz-Tänikon ART, CH
- 11:00 – 11:20 **Growth reaction and climatic response of four beech-stands (*Fagus sylvatica* L.) around the city of Dresden**
- *Sten Gillner, Stephan Dr. Bonn, Andreas Prof. Roloff*
TU Dresden, D
- 11:20 – 11:40 **Interaction of free air carbon dioxide enrichment and water supply on maize: Effects on water use efficiency and radiation use efficiency** - *Remy Manderscheid, Martin Erbs, Enrico Nozinski, Hans-Joachim Weigel*
Bundesforschungsinstitut für Ländliche Räume, Wald und Fischerei, D
- 11:40 – 12:00 **Phylogenetic Relationship and Drought Tolerance of West African *Panicum* Grasses** - *Tanja Zimmermann¹, Benjamin Komenda¹, Thomas Berberich², Wolfgang Brüggemann^{1,2}*
¹Institut für Ökologie, Evolution und Diversität, Goethe-Universität, FfM; ²Biodiversität und Klima Forschungszentrum, Frankfurt; D
- 12:00 – 12:15 **Effects of harvesting and predicted climate change on populations of the brown intertidal seaweed *Ascophyllum nodosum* in Ireland.** - *Christine Eschmann, Dagmar Stengel*
Botany, School of Natural Sciences, National University of Ireland, Galway, IRL
- 12:15 – 12:30 **Hygroscopic substances on leaf surfaces, causing desiccation** - *Jürgen Burkhardt*
Universität Bonn, D



1409 - University of Leipzig - 2009

**TUESDAY,
Sep 8**

Plants for the Future

- | | |
|---------------|---|
| 12:30 – 14:00 | LUNCH BREAK |
| 14:00 – 15:30 | POSTER SESSIONS : S04, S05, S06, S16, S22, S28 |
| 15.30 – 16:00 | COFFEE BREAK |
| 16:00 – 18:15 | SYMPOSIA : S03, S08, S24, S27 |



-
- 16:00 – 18:00 **S03: Redoxregulation (HS13)**
- Chair: *Karl-Josef Dietz (Bielefeld)*
Poster: *Thomas Pfannschmidt (Jena)*
- 16:00 – 16:30 **Reactive oxygen species in plant stress signaling -**
Jaakko Kangasjärvi
Plant Biology, Department of Biological and Environmental Sciences, University of Helsinki, FIN
- 16:30 – 16:50 **Dynamic plastid redox signals integrate gene expression and metabolism to induce distinct metabolic states in photosynthetic acclimation -**
Thomas Pfannschmidt
Friedrich-Schiller-Universität Jena, D
- 16:50 – 17:10 **What actually mediates retrograde signaling in norflurazon treated seedlings? -** *Tatjana Kleine*
Ludwig-Maximilians-Universität München, Department Biologie I, Botanik, D
- 17:10 – 17:30 **New targets of the plastid isoforms of the redox-active linker protein CP12 -** *Simone Holtgreffe, Nicolai Lipinski, Mareike Fröhling, Renate Scheibe*
Universität Osnabrück, D
- 17:30 – 17:45 **Characterization of a novel thioredoxin – target protein module from plants: evidence for an essential role in chloroplast development -** *Ursula Hoja¹, Matthias Wimmelbacher¹, Borjana Arsova², Eva Greiner¹, Suayib Üstün¹, Michael Melzer³, Wolfgang Lein², Frederik Börnke¹*
¹Institut für Biologie, Lehrstuhl für Biochemie, FAU Erlangen-Nürnberg, D; ²Max-Planck Institute of Molecular Plant Physiology, Golm, D; ³Institute of Plant Genetics and Crop Plant Research (IPK), Gatersleben, D
- 17:45 – 18:00 **Comparison of the chloroplast peroxide detoxification systems in *C. reinhardtii*, *P. patens*, *S. moellendorffii*, and *A. thaliana* -** *Nicola T. Pitsch, Margarete Baier*
HHU Düsseldorf, D
- 18:00 – 18:15 **Cysteine modification of a specific repressor protein controls the translational status of nucleus-encoded LHCII mRNAs in *Chlamydomonas* -**
Lutz Wobbe¹, Olga Blifernez¹, Christian Schwarz², Jan H. Mussgnug¹, Nickelsen Jörg², Kruse Olaf¹
¹University of Bielefeld, Dep. of Biology, Algae BioTech Group; ²München, Dept. Biologie I – Molekulare Pflanzenwissenschaften; lutz.wobbe@uni-bielefeld.de



1409 - University of Leipzig - 2009

Plants for the Future

**TUESDAY,
Sep 8**

16:00 – 18:00

S08: Secondary Metabolism (HS7)

Chair: *Dieter Strack (Halle)*

Poster: *Axel Mithöfer (Jena)*

16:00 – 16:30

Before gene expression: Early events in plant-insect interaction – *Wilhelm Boland*

MPI für Chemische Ökologie, D

16:30 – 16:50

Camalexin and glucosinolates control crown gall

development of *Arabidopsis thaliana* - *Regina Kuehner*¹,
*Caroline Mueller*², *Hussam H. Nour-Eldin*³, *Barabara A. Halkier*³, *Jutta Ludwig-Müller*⁴, *Rainer Hedrich*¹, *Rosalia Deeken*¹

¹University of Würzburg, Julius-von-Sachs-Institute, D; ²University of Bielefeld, Department of Chemical Ecology, D; ³University of Copenhagen, Department of Plant Biology, Dk; ⁴Technical University of Dresden, Institute of Botany, D

16:50 – 17:10

Carotenoid cleavage oxygenases: Versatile biological functions by targeting different double bonds - *Salim Al-Babili*, *Adrian Alder*, *Andrea Ilg*, *Danika Trautmann*, *Daniel Scherzinger*

Biologische Fakultät, Albert-Ludwigs Universität Freiburg; D

17:10 – 17:30

Evolution of terpene synthase mechanisms responsible for the production of plant defense signals - *Tobias Köllner*¹, *Jonathan Gershenzon*², *Jörg Degenhardt*¹

¹MLU Halle-Wittenberg, D; ²MPI für Chemische Ökologie, Jena, D

17:30 – 17.45

Back to the roots: Carotenoid crystal formation in *Arabidopsis* and carrot roots caused by increased phytoene synthase protein levels - *Ralf Welsch*, *Dirk Maass*, *Jacobo Arango*, *Florian Wüst*, *Peter Beyer*

Universität Freiburg, D

17:45 – 18:00

Changes in gene expression committed to the elicitation of benzophenanthridine alkaloid biosynthesis in *Eschscholzia* cells - *Werner Roos*, *Zornitsa Angelova*, *Marcus Buchheim*

Martin-Luther-Universität, Institut für Pharmazie, D



-
- 16:00 – 18:00 **S24: Responses to Global Changes** (HS14)
Chair: *Isabell Hensen (Halle)*
Poster: *Alexandra Erfmeier (Halle)*
- 16:00 – 16:30 **Migration, selection and decline: ecological and evolutionary impacts of rapid climate change on woody plant species** – *Alistair S. Jump*
School of Biological and Environmental Sciences, The University of Stirling, UK; and CREAM (Centre for Ecological Research and Forestry Applications) Edifici C Campus de Bellaterra (UAB), 08193 Cerdanyola del Vallès, Barcelona, E
- 16:30 – 16:50 **A novel meta-analysis approach to identify determinants of woody tissue respiration** - *Katherina Pietsch¹, Jens Kattge¹, Kiona Ogle², Christian Wirth¹*
¹Max-Planck-Institut für Biogeochemie, D; ²University of Wyoming, USA
- 16:50 – 17:10 **Effects of CO₂ enrichment on the wheat grain metabolome** - *Andreas Fangmeier¹, Matthias Keck², Karsten Niehaus², Jürgen Franzaring¹, Petra Högy¹*
¹Universität Hohenheim, D; ²Universität Bielefeld, D
- 17:10 – 17:30 **Physiological responses of tropical reef macroalgae to nutrient enrichment along a reef slope** - *Mirta Teichberg¹, Anna Fricke^{1,2}, Maggy Nugues¹, Kai Bischof^{1,2}*
¹Leibniz-Zentrum für Marine Tropenökologie, D; ²Universität Bremen, Meeresbotanik, D
- 17:30 – 17:45 **Phlorotannins and lipids in zoospore development of marine brown algae** - *Franciska Steinhoff¹, Martin Graeve², Christian Wiencke², Kai Bischof¹*
¹Universität Bremen, D; ²Alfred-Wegener-Institut für Polar- und Meeresforschung, Bremerhaven, D
- 17:45 – 18:00 **Single and interactive effects of elevated temperature, CO₂ and O₃ on barley and oilseed rape in multiple generations** - *Georg Frenck^{1,2}, Leon G. Linden¹, Teis N. Mikkelsen¹, Hans Brix², Rikke B. Jørgensen¹*
¹Risø National Laboratory for Sustainable Energy, DTU; ²University of Aarhus, Biological Institute, DK



-
- 16:00 – 18:00 **S27: Biodiversity and Tropical Ecology** (HS15)
Chair: *Martin Freiberg (Leipzig)*
Poster: *Martin Freiberg*
- 16:00 – 16:30 **Pollination systems in upper and lower levels of tropical rainforests** - *Gerhard Gottsberger*
Universität Ulm, D
- 16:30 – 16:50 **A lesson by natural secondary succession or rehabilitation of mining areas In Northeastern Vietnam** - *Petra Finkenbein¹, Cuong The Nguyen², Phuong Xuan Vu², Nicole Winkler¹, Hermann Heilmeyer³, Stefan Klotz¹*
¹Helmholtz Centre for Environmental Research - UFZ, Dept. Community Ecology;
²Institute of Ecology and Biological Resources, Vietnam; ³TU Bergakademie Freiberg, Interdisciplinary Environmental Research Centre, D
- 16:50 – 17:10 **Diversity of responses to flooding stress in trees of Amazonian floodplains** - *Pia Parolin*
Universität Hamburg, D
- 17:10 – 17:30 **Reproductive inter-dependence of a distylic shrub with its pollinator in the Caatinga: *Cordia leucocephala* (Cordiaceae) and *Ceblurgus longipalpis* (Halictidae)** - *Clemens Schlindwein¹, Paulo Milet-Pinheiro²*
¹Universidade Federal de Pernambuco, Department of Botany, BR; ²UFPE, Postgrad. Program in Plant Biology, BR
- 17.30 – 17.45 **Restoration of mining areas of East Asia – species selection for a re-vegetation concept based on litter quality and litter decomposability** - *Nicole Winkler¹, Petra Finkenbein¹, Hermann Heilmeyer², Harald Auge¹, Stefan Klotz¹*
¹Helmholtz Centre for Environmental Research - UFZ, Dept. Community Ecology; ²TU Bergakademie Freiberg, Interdisciplinary Environmental Research Centre, D
- 17:45 – 18:00 **Succession patterns of turf algal communities in a Caribbean coral reef** - *Anna Fricke^{1,2,3}, Mirta Teichberg¹, Svenja Beilfuss¹, Kai Bischof^{1,2}*
¹ZMT Bremen, D; ²Universität Bremen, D; ³Bremen International Graduate School for Marine Sciences GLOMAR, D

18:00 – 19:00 **POSTER SESSIONS : S04, S08, S24, S27**

18:00 – 20:00 **Meeting of the Section “Mykologie-Lichenologie” of the DBG** (HS13)

20:00 – 22:00 **ROUND TABLE** (HS9)

“Volle Tanks und leere Teller“

Participants:

W. Tiefensee - Bundesminister für Verkehr, Bau und Stadtentwicklung

M. Kaltschmitt - Deutsches Biomasse Forschungszentrum

P. Wagner - Martin-Luther-Univ., Halle

R. Lang - Brot für die Welt

J. Leohold - Volkswagen AG

C. Wilhelm - Universität Leipzig

Chair:

A. Martini – MDR



1409 - University of Leipzig - 2009

Plants for the Future

**WEDNESDAY,
Sep 9**

8:30 – 9:15

PLENARY LECTURE (HS 9)

Current Trends in Large-Scale Biodiversity Research
– *B. Schmid (Zürich)*

9:15 – 9:45

COFFEE BREAK

9:45 – 11:45

SYMPOSIA : S02, S07, S14, S21, S23



Plants for the Future

9:45 – 11:45

S02: Biodiversity and Biotic Interaction of Algae
(HS13)

Chair: *Regine Jahn (Berlin)*
Chair: *Georg Pohnert (Jena)*
Poster: *Ansgar Gruber (Konstanz)*

9:45 – 10:15

Microalgal diversity estimates in the crossfire of evolutionary differentiation and historic misconceptions - *Jens Boenigk*

Österreichische Akademie der Wissenschaften, A

10:15 – 10:35

In situ primary production measurements of benthic diatoms in an Arctic fjord - *Ulf Karsten¹, Jana Woelfel¹, Rhena Schumann¹, Christian Wiencke²*

¹Universität Rostock, D; ²Alfred-Wegener Institut für Polar- und Meeresforschung, Bremerhaven, D

10:35 – 10:55

Molecular assessment of diatoms and cyanobacteria in biofilms on tufa stromatolites of karstwater creeks - *Thomas Friedl¹, Nicole Brinkmann¹, Kathrin I. Mohr¹, Ladislav Hodač¹, Regine Jahn²*

¹Universität Göttingen, Deutschland; ²Bot. Garten und Bot. Museum Berlin-Dahlem, FU Berlin, D

10:55 – 11:15

The systematics of "Zoochlorella" revisited employing polyphasic approaches - *Thomas Proeschold¹, Undine Achilles-Day¹, Tatyana Darienko², Paul C. Silva³, Werner Reisser⁴, Lothar Krienitz⁵*

¹Culture Collection of Algae and Protozoa, Oban, Scotland; ²M.G. Kholodny Institute of Botany on National Academy Science of Ukraine; ³University Herbarium, University of California, Berkeley, California, USA; ⁴University Leipzig, Institute of Botany I, Leipzig, Germany; ⁵Leibniz-Institute of Freshwater Ecology and Inland Fisheries, D

11:15 – 11:30

Feeding status of scleractinian corals may alleviate thermal stress on photosynthesis of symbiotic zooxanthellae - *Esther Borell¹, Kai Bischof²*

¹Center for Tropical Marine Ecology, Bremen, Germany; ²Department of Marine Botany, University of Bremen, D

11:30 – 11.45

New isolates with chloroplast complexes confirm the peculiar position of the Synchronophyceae within the heterokont phylogenetic tree - *Maria Schmidt¹, Susanne Horn², Christian Wilhelm¹*

¹Universität Leipzig,D; ²Max Planck Institute for Evolutionary Anthropology, D



Plants for the Future

9:45 – 11:45

S07: Secondary Products : Evolution and Diversification in Plant Secondary Metabolism
(HS14)

Chair: *Maïke Petersen (Marburg)*
Poster: *Elisabeth Fuss (Tübingen)*

9:45 – 10:15

Evolution of pathways in plant secondary metabolism
- *Dietrich Ober*

Botanisches Institut, Universität Kiel, D

10:15 – 10:35

In vivo relevance of bifunctional enzymes within flavonoid pathway - *Stefan Martens, Anja Preuß, Ulrich Matern*

Philipps Universität Marburg, D

10:35 – 10:55

Independent recruitment of nitrilases into the catabolism of secondary metabolites - *Markus Piotrowski, Roland Jenrich, Tim Janowitz, Inga Trompeter*

Ruhr-Universität Bochum, D

10:55 – 11:15

The evolution of pinoresinol-laricirsinol reductases with special consideration of their enantiospecificity –
Elisabeth Fuss

Eberhard-Karls-Universität Tübingen, D

11:15 - 11:30

Enzymatic, expression and structural divergences among carboxyl O-methyltransferases after gene duplication and speciation in *Nicotiana* - *Frank Hippauf¹, Todd James Barkman², Elke Michalsky³, Robert Preissner³, Birgit Piechulla¹*

¹Universität Rostock, D; ²Western Michigan University, U.S.A.; ³Charité Berlin, D

11:30 – 11:45

Putrescine N-methyltransferase – the start for alkaloids - *Stefan Biastoff¹, Wolfgang Brandt², Birgit Dräger¹*

¹Martin-Luther-Universität, Halle, D; ²Leibniz Institute of Plant Biochemistry, Halle, D



9:45 – 11:45

S14: Tree Physiology (HS15)

Chair: *Doris Krabel (Pirna)*
Poster: *Matthias Meyer (Tharandt)*

9:45 – 10:15

Trees in a changing environment: Threats or opportunities - *Reinhart Ceulemans*

University Antwerp, Dept. Biol, Research Center of Excellence ECO, B-2610 Wilrijk, B

10:15 – 10:35

Comparative proteomic analysis of responses to pathogen infection and wounding in *Fagus sylvatica* - *Katja Schlink*¹, *Cristina-Maria Valcu*^{1,3}, *Magno Junqueira*², *Andrej Shevchenko*²

¹Technische Universität München, D; ²Max Planck Institute of Molecular Cell Biology and Genetics, D; ³Experimental Paediatric Cardiology, German Heart Centre, TUM, D

10:35 – 10:55

Poplar extrafloral nectaries represent an indirect herbivore defence system - *María Escalante-Pérez*¹, *Silke Lautner*², *Jörg Fromm*², *Rainer Hedrich*¹, *Peter Ache*¹

¹University Würzburg; ²University Hamburg, D

10:55 – 11:15

The Swiss Querco Project: an eco-physiological approach to study responses of oaks to a warmer and drier climate - *Matthias Arend*, *Thomas Kuster*, *Matthias Dobbertin*, *Madeleine Günthardt-Goerg*

Eidgenössische Forschungsanstalt WSL, CH

11:15 – 11:30

Clonal mass propagation of *Abies nordmanniana* through somatic embryogenesis: Improvement of the biotechnical procedure and acclimatisation - *Claudia Aurich*¹, *Sepp Herrmann*², *Armin Blievernicht*³, *Matthias Zander*³, *Kurt Zoglauer*¹

¹Humboldt-Universität zu Berlin, Institut für Biologie, D; ²Gartenbauzentrum Münster-Wolbeck, D; ³Humboldt-Universität zu Berlin, Institut für Gartenbau, D

11:30 – 11:45

Evaluation of water deficit tolerance of European aspen (*Populus tremula* L.) using wood anatomical and yield characteristics - *Matthias Meyer*¹, *Björn Günther*², *Gerhard Helle*³, *Doris Krabel*¹

¹TU Dresden, Forstbotanik, AG Molekulare Gehölzphysiologie; ²TU Dresden, Forstnutzung; ³Deutsches GeoForschungsZentrum GFZ, Potsdam, D



9:45 – 11:45

S21: EVOLUTION (HS8)

Chair: Uwe Maier (Marburg)

Poster: Stefan Zauner (Marburg)

9:45 – 10:15

Hydrothermal vents and the origin of life. –

William Martin

Institut für Botanik III, Universität Düsseldorf, D

10:15 – 10:35

Deep transcriptome analysis of C₃ and C₄ *Flaveria* Species using 454 sequencing - A new approach to understand the evolution of C₄ photosynthesis –

Udo Gowik, Andrea Bräutigam, Andreas Weber, Peter Westhoff

Heinrich-Heine Universität Düsseldorf, D

10:35 – 10:55

Dual targeting – Organelle specificity of nuclear encoded proteins - *Bianca Baudisch, Anja Rödiger, Ralf-Bernd Klösgen*

MLU Halle-Wittenberg, D

10:55 – 11:15

Glycolysis in stramenopiles - *Carolina Rio Bartulos, Ansgar Gruber, Peter Kroth*

Universität Konstanz, D

11:15 – 11:30

Evolution of vacuolar targeting in algae - *Burkhard Becker, Kerstin Hoef-Emden*

Universität zu Köln, D

11:30 – 11:45

The GLDPA promoter from *Flaveria trinervia* (C₄) – Cis-regulatory determinants for bundle-sheath-specific gene expression - *Christian Wiludda¹, Sascha Engelmann¹, Monika Streubel¹, Maria Koczor¹, Udo Gowik¹, Hermann Bauwe², Peter Westhoff¹*

¹Heinrich-Heine-Universität Düsseldorf, Deutschland; ²Universität Rostock, D



- 9:45 – 11:45 **S23: SENESCENCE** (HS9)
Chair: *Klaus Humbeck (Halle)*
Poster: *Christin Desel (Kiel)*
- 9:45 – 10:15 **Control of leaf senescence by chloroplasts - involvement of the dual-targeted whirly1 protein - Karin Krupinska**
Christian-Albrechts-Universität, D
- 10:15 – 10:35 **Chlorophyll breakdown revised: phytol is cleaved by pheophytinase not chlorophyllase - Silvia Schelbert¹, Karin Krupinska², Stefan Hörtensteiner¹**
¹Universität Zürich, CH; ²Universität Kiel, D
- 10:35 – 10:55 **Epigenetic Programming - one way to control Leaf Senescence in *Arabidopsis thaliana* - Nicole Ay, Kristina Irmeler, Andreas Fischer, Gunter Reuter, Klaus Humbeck**
Martin-Luther Universität Halle-Wittenberg, D
- 10:55 – 11:15 **Ubiquitin ligase knockout makes young plants feel old - Stefan Hoth¹, Sabine Raab¹, Florian Bittner², Gabriele Drechsel¹**
¹Molekulare Pflanzenphysiologie, FAU Erlangen, D; ²Institut für Pflanzenbiologie, TU Braunschweig, D
- 11:15 – 11:30 **Physiological functions of the urea transporter AtDUR3 in *Arabidopsis thaliana* - Anne Bohner¹, Nicolaus von Wirén²**
¹Universität Hohenheim, Deutschland; ²IPK Gatersleben, D
- 11:30 – 11:45 **WRKY53-mediated leaf senescence in *Arabidopsis* is controlled by the dual-located protein Whirly1 - Ying Miao, Rena Isemer, Anke Schäfer, Karin Krupinska**
Botanisches Institut der CAU zu Kiel, D



1409 - University of Leipzig - 2009

**WEDNESDAY,
Sep 9**

Plants for the Future

- 11:45 – 13:15 **POSTER SESSIONS : S02, S07, S14, S21, S23**
- 11:45 – 13:15 **MEETING OF THE VEREINIGUNG ANGEWANDTE
BOTANIK** (HS14)
- 13:15 – 14:15 **LUNCH BREAK**
- 14:15 – 15:00 **MEETINGS OF SECTIONS OF DBG**
- **PHYKOLOGIE** (HS7)
 - **PFLANZENPHYSIOLOGIE / MOLEKULARBIOLOGIE** (HS9)
 - **BIODIVERSITÄT / EVOLUTION** (HS8)
 - **NATURSTOFFE** (HS15)
- 15:00 – 19:00 **EXCURSIONS**
- 20:00 -22:00 **CONCERT : BACH PLAYS JAZZ** (HS9)



1409 - University of Leipzig - 2009

Plants for the Future

**THURSDAY,
Sep 10**

8:30 – 9:15

PLENARY LECTURE (HS 9)

Flagellar Assembly and Function : Lessons from
Chlamydomonas

– L. Pedersen (Kopenhagen)

9:15 – 10:00

PLENARY LECTURE (HS 9)

Mitogen-activated Protein Kinases in Plant Signalling:
Regulation of Ethylene Biosynthesis and Beyond

- S. Zhang (Columbia)

10:00 – 10:30

COFFEE BREAK

10:30 – 12:30

SYMPOSIA : S01, S09, S10, S12, S13



-
- 10:30 – 12:30 **S01: Unicellular Algae as Model Organisms** (HS7)
Chair: *Georg Kreimer (Erlangen)*
Poster: *Martin Lohr (Mainz)*
- 10:30 – 11:00 **Diatoms as model organisms in phycology –**
Peter Kroth
Department of Biology, University of Konstanz, 78457 Konstanz, D
- 11:00 – 11:20 **Analysis of flagellar phosphoproteins from**
Chlamydomonas reinhardtii - *Jens Boesger, Volker Wagner,*
Wolfram Weisheit, Maria Mittag
Friedrich Schiller Universität Jena, D
- 11:20 – 11:40 **Characterization of an ER-localized Serine/Threonine**
Kinase from the diatom *Thalassiosira pseudonana* -
Vonda Sheppard-Smith, Nicole Poulsen, Nils Kröger
Georgia Institute of Technology, USA
- 11:40 – 12:00 **Metabolic profiling of synchronized cultures of the**
chlorophyte *S. vacuolatus* - *Mechthild Schmitt-Jansen,*
Frederic Sans-Piché, Christina Klünder, Rolf Altenburger
Helmholtz Centre for Environmental Research - UFZ, D
- 12:00 – 12:15 ***Chlamydomonas reinhardtii* as an emerging model**
organism for studying the metabolism and function of
ketocarotenoids in green algae - *Sonja Werner, Matthias*
Bauch, Martin Lohr
Johannes-Gutenberg Universität, Mainz, D
- 12:15 – 12:30 **Towards a plastid proteome of red and glaucophyte**
algae - *Julia Wullenweber, Andrea Bräutigam, Andreas PM Weber*
Plant Biochemistry, Heinrich-Heine Universität Düsseldorf, D



1409 - University of Leipzig - 2009

Plants for the Future

**THURSDAY,
Sep 10**

10:30 – 12:30

S09: Biodiversity and Evolution (HS8)

Chair: *Dirk Albach (Mainz)*
Poster: *Dirk Albach*

10:30 – 11:00

150 years of studying speciation: Progress and problems - *Dirk Albach*¹, *Katharina Bardy*², *Gertrud Schorr*¹, *Joachim Kadereit*¹

¹Johannes Gutenberg Universität, Deutschland; ²Universität Wien, A

11:00 – 11:20

Climatic niche conservatism in higher plants –
*Harald Schneider*¹, *Nadia Bysriakova*²

¹Natural History Museum, London, Vereinigtes Königreich; ²University of Cambridge, Cambridge, U.K.

11:20 – 11:40

Geological vs. climatological diversification in the Mediterranean area: micro- and macroevolutionary approaches in *Anthemis* L. (Compositae, Anthemideae) - *Rosa Maria Lo Presti*, *Christoph Oberprieler*

Universität Regensburg, D

11:40 – 12:00

Global-scale biodiversity and macroecology of plants: environmental and regional effects on gradients of species richness - *Holger Kreft*^{1,2}

¹Nees Institute for Biodiversity of Plants, University of Bonn, D; ²Department of Ecology & Evolutionary Biology, Yale University

12:00 – 12:15

Do we have evidence for ecological speciation in liverworts? - *Jochen Heinrichs*¹, *Andrea Bombosch*¹, *Jörn Hentschel*^{1, 2}, *Harald Schneider*³

¹Georg-August-Universität Göttingen, Deutschland; ²Friedrich-Schiller-Universität Jena, D; ³Natural History Museum London, U.K.;

12:15 – 12:30

Future potentials and challenges in global plant trait research - *Christian Wirth*, *Jens Kattge*, *Gerhard Boenisch*

Max-Planck-Institut für Biogeochemie, D



- 10:30 – 12:30 **S10: Signal Transduction** (HS14)
Chair: *Dierk Scheel (Halle)*
Poster: *Justin Lee (Halle)*
- 10:30 – 11:00 **Deciphering PAMP-triggered immunity in *Arabidopsis***
- Cyril Zipfel
The Sainsbury Laboratory, U. K.
- 11:00 – 11:20 **MAP Kinase Phosphatase1 and Protein Tyrosine Phosphatase1 are repressors of salicylic acid and SNC1-mediated responses in *Arabidopsis*** - Sebastian Bartels¹, Jeffrey C. Anderson², Marina A. González Besteiro¹, Antony Buchala³, Jean-Pierre Métraux³, Scott C. Peck², Roman Ulm¹
¹University Freiburg, D; ²University of Missouri-Columbia, USA; ³University of Fribourg, CH
- 11:20 – 11:40 **Regulation of PIN-mediated auxin transport by the D6 Protein Kinases** - Melina Zourelidou^{1,2}, Isabel K. Müller^{1,2}, Björn C. Willige^{1,2}, Claus Schwechheimer^{1,2}
¹Technische Universität München, D; ²Zentrum für Molekularbiologie der Pflanzen, D
- 11:40 – 12:00 **Structure-based analysis of plant phosphatidylinositol-4-phosphate 5-kinase functionality** - Ingo Heilmann, Franziska Hempel, Irene Stenzel
Georg-August-Universität Göttingen, D
- 12:00 – 12:15 **Guard cell anion channel SLAC1 is controlled by OST1 and CPK23 in an ABI1-dependent manner** - Sönke Scherzer, Dietmar Geiger, Rainer Hedrich
Lehrstuhl für Botanik I - Universität Würzburg, D
- 12:15 – 12:30 **The NtMPK4 MAP kinase is essential for CO₂ responses in guard cells of *Nicotiana tabacum*** - Rob Roelfsema, Holger Marten, Rainer Hedrich
Universität Würzburg, D



10:30 – 12:30

S12: CROP PLANTS (HS15)

Chair: *Thomas Altmann (Potsdam-Golm)*

Poster: *Rhonda Meyer (Gatersleben)*

10:30 – 11:00

Towards genomics-based plant breeding in maize –

Alain Charcosset¹, Guylaine Blanc¹, Sébastien Ducrocq¹, Domenica Manicacci², Laurence Moreau¹

¹INRA, F; ²UPS, F

11 :00 – 11 :20

Is there an effect of increased source capacity on the yield of potato plants with increased sink strength? -

Claudia Jonik, Lizhi Zhang, Christian Greiten, Ulf-Ingo Flügge, Frank Ludewig

Universität Köln, D

11:20 – 11:40

Microarray-based analysis of developing caryopses of barley: Light and carbon supply act as global integrators in the regulation of diurnal gene

expression - *Elke Mangelsen¹, Dierk Wanke², Joachim Kilian², Eva Sundberg¹, Klaus Harter², Christer Jansson³*

¹Swedish University of Agricultural Sciences, SLU, S; ²ZMBP, University of Tuebingen, D; ³Lawrence Berkeley National Laboratory, USA

11:40 – 12:00

Potato tuber starch biosynthesis is diurnally regulated by sucrose supply and growth velocity -

Stephanus J Ferreira, Melanie Senning, Uwe Sonnewald

FAU Erlangen-Nürnberg, D

12:00 – 12:15

Genetics of seed longevity in wheat (*Triticum*) –

Mian Abdur Rehman Arif, Manuela Nagel, Ulrike Lohwasser, Andreas Börner

Institute für Pflanzengenetik und Kulturpflanzenforschung (IPK), D

12:15 – 12:30

Specific transcriptional and metabolic changes of N:C metabolism in *Pisum sativum* embryos -

Kathleen Weigelt¹, Helge Küster², Aaron Fait³, Alidair Fernie³, Isolde Saalbach¹, Hans Weber¹

¹Leibniz-Institut für Pflanzengenetik und Kulturpflanzenforschung; ²Institut für Pflanzengenetik, Leibniz Universität Hannover, D; ³Max-Planck-Institut für Molekulare Pflanzenphysiologie, Potsdam-Golm, D



10:30 – 12:30

S13: PHYTOHORMONES (HS13)

Chair: *Claus Wasternack (Halle)*
Poster: *Marcel Quint (Halle)*

10:30 – 11:00

Hormon signaling pathways and proteolysis –

Claus Schwechheimer

Plant Systems Biology Center of Life and Food Sciences Weihenstephan, D

11:00 – 11:20

Genetic variation of the auxin signaling pathway and transcriptional auxin response networks in

Arabidopsis thaliana - *Marcel Quint*¹, *Carolin Delker*¹, *Anja Raschke*¹, *Yvonne Pöschl*², *Ivo Grosse*²

¹Leibniz-Institut für Pflanzenbiochemie Halle; ²Institut für Bioinformatik, Martin-Luther-Universität Halle-Wittenberg; D

11:20 – 11:40

Knocking down the cyclopentenone production results in lack of spore formation in the moss

Physcomitrella patens - *Michael Stumpe*¹, *Cornelia Göbel*¹, *Bettina Hause*², *Julia Bode*¹, *Bernd Faltin*³, *Kiyoshi Himmelsbach*³, *Robert Kramell*⁴, *Claus Wasternack*⁴, *Wolfgang Frank*³, *Ralf Reski*³, *Ivo Feussner*¹

¹University Göttingen, Dept. Plant Biochemistry; ²Leibniz-Institute of Plant Biochemistry, Dept. of Secondary Metabolism; ³Freiburg University, Dept. of Plant Biotechnology; ⁴Leibniz-Institute of Plant Biochemistry, Dept. of Natural Prod Biotechnol, D

11:40 – 12:00

Unraveling the evolution of the cytokinin signal transduction pathway - *Alexander Heyl*¹, *Birgit Pils*²

¹Freie Universität Berlin, D; ²University of Oxford, U.K.

12:00 – 12:15

DELLA dependent interaction between Gibberellic acid signal transduction and Auxin transport - *Christian Löffke*¹, *Anne Vieten*², *Jiri Friml*², *Thomas Teichmann*¹

¹Zellbiologie der Pflanze, Georg-August-Universität Göttingen; D; ²Department of Plant Systems Biology, Flanders Institute for Biotechnology; Ghent; B

12:15 – 12:30

Jasmonates function in phytochrome signaling in rice - *Michael Riemann*¹, *Ken Haga*², *Katharina Svyatyna*¹, *Makoto Takano*³, *Moritoshi Iino*², *Peter Nick*¹

¹Universität Karlsruhe, D; ²Osaka City University, Osaka, J; ³National Institute of Agrobiological Sciences, Tsukuba, J



1409 - University of Leipzig - 2009

**THURSDAY,
Sep 10**

Plants for the Future

- | | |
|---------------|--|
| 12:30 – 14:00 | LUNCH BREAK |
| 14:00 – 15:30 | POSTER SESSIONS : S01, S09, S10, S12, S13 |
| 15.30 – 16:00 | COFFEE BREAK |
| 16:00 – 17:30 | MEETING OF THE DEUTSCHE BOTANISCHE
GESELLSCHAFT (DBG) (HS9) |
| 17:30 – 19:00 | POSTER AWARDS AND CLOSING CEREMONY (HS9) |
| 20:00 – 22:00 | FAREWELL DINNER |