

TUE

MARCH 25th

12:00 - 14:00 **Registration**

14:00 - 14:15 **Opening and welcome**
Annette Becker, Giessen

**Session 1 Innovation of Pollen and of their Reception /
Rejection Systems**

Chair Thomas Dresselhaus, Regensburg

14:15 - 14:45 Self-incompatibility: diverse mechanisms involved in
allorecognition and prevention of self-fertilization
Noni Franklin-Tong (*University of Birmingham*)

14:45 - 15:05 Transcriptional regulation of dominance at the self-
incompatibility locus in *Arabidopsis*
Matteo Barois (*University of Lille*) ●

15:05 - 15:25 Unravelling pollen-ovule cross-talk in *Ginkgo biloba*:
insights into gymnosperm reproductive biology
Silvia Moschin (*University of Padova*)

15:25 - 15:45 Coffee Break

15:45 - 16:05 Functional analysis of *RALF* gene family members in maize
and their evolution
Xia Chen (*University of Regensburg*)

16:05 - 16:25 Molecular evolution of epigenetically regulated pollen genes
Daniel Bouyer (*CNRS - Lyon*)

16:25 - 16:45 Evolving as a couple: diversification of the ligand-receptor
interaction for self-incompatibility
Marie Monniaux (*University of Lille*)

16:45 - 18:00 **Poster Session 1**
Foyer

18:30 - 20:00 **Reception**
Restaurant Landhaus in the botanical garden
Unter den Eichen 5-10, 12203 Berlin

WED

MARCH 26th

Session 2

Chair

Evolution of Multicellular Embryos and Endosperm

Duarte Figueiredo, MPI - Potsdam

8:30 - 9:00

Embryo-endosperm communication in developing seeds:
Establishing the boundaries of an ambiguous relationship
Gwyneth Ingram (*ENS - Lyon*)

9:00 - 9:20

Paternally derived brassinosteroid effectors as regulators of
ab initio cellular endosperm formation

Rency Tomy Pulickal (*MPI - Potsdam*) ●

9:20 - 9:40

Unravelling the molecular basis of endosperm evolution
Daniela Barro-Trastoy (*MPI - Potsdam*)

9:40 - 10:00

MAP kinase signaling in cell polarity – how parental signals
shape the plant embryo

Martin Bayer (*University of Tübingen*)

10:00 - 10:20

Coffee break

10:20 - 10:40

The origin and evolution of apomixis-associated
chromosomes in *Boechera*

Terezie Mandakova (*Masaryk University*)

10:40 - 11:10

Transposon-driven endosperm evolution and its
consequences for angiosperm diversity

Claudia Köhler (*MPI - Potsdam*)

Session 3

Chair

Evolution of Ovules and Seeds

Günter Theissen, Jena

11:10 - 11:40

Angiosperm seeds are a mess!

William Friedman (*Harvard University*)

11:40 - 12:10

SPOROCTELESS and *MADS*-domain factors are required
for differentiation of megaspore mother cell (MMC)

Lucia Colombo (*University of Milan*)

12:10 - 13:30

Lunch

13:30 - 13:50

SEPALLATA driven *MADS* complex formation is required for
ovule and seed development in *Arabidopsis*

Véronique Hugouvieux (*CNRS/CEA/UGA - Grenoble*)

13:50 - 14:10 Deciphering the diversity of the 3D cellular basis of ovule curvature
Kay Schneitz (*Technical University of Munich*)

14:10 - 14:30 Tools for genetic studies of the model fern *Ceratopteris richardii*
Robin Schulz (*University of Jena*) ●

14:30 - 15:00 Finding the 'seed' in seedless plants
Andrew Plackett (*University of Birmingham*)

Session 4 Evolution of Carpels and Fruits
Chair Annette Becker, Giessen

15:00 - 15:30 Development sculpting floral sexuality and floral fertility in the grasses
Madelaine Bartlett (*Cambridge University*)

15:30 - 15:50 Coffee break

15:50 - 16:10 The problem of carpel identity and gynoeceum diversity in grasses (Poaceae)
Dmitry Sokoloff (*Tel Aviv University*)

16:10 - 16:30 The role of *LEUNIG* and *SEUSS* transcriptional regulators during land plant evolution
Julian Garrecht (*University of Giessen*) ●

16:30 - 16:50 Characterisation of *MADS* transcription factors complexes in Gymnosperms and the origin of the flower
Aline Janeau (*Grenoble Alpes University*) ●

16:50 - 17:10 How to grow apart: the evolution of sex determination in *Cannabis sativa*
Rainer Melzer (*University College Dublin*)

17:10 - 17:40 The mechanism and evolution of ovule curvature and its importance to hypotheses for the origin of angiosperms
Charlie Scutt (*ENS - Lyon*)

17:40 - 18:10 **Flash Talks**

18:10 - 19:00 **Poster Session 2**
Poster presentations (odd-numbered)
Foyer

THU

MARCH 27th

Session 5

Chair

Evolution of Fertilization Mechanisms in Plants

Stefanie Sprunck, Regensburg

8:30 - 9:00

Evolutionary insights into double fertilization

Tetsuya Higashiyama (*University of Tokyo*)

9:00 - 9:20

Evolution and function of *EC1* and other *ECA1* gametogenesis-related small secreted cysteine-rich proteins

Sophie Tiedemann (*University of Regensburg*) ●

9:20 - 9:40

Science to soil: unlocking three-parent breeding for sustainable agriculture

Saurabh Joshi (*University of Bremen*)

9:40 - 10:00

Tissue-specific transcriptome analysis and chemotactic behavior observation reveal the intermediate evolutionary state in male reproductive cells of Gymnosperm cycad

Yukiho Toyama (*University of Tokyo*) ●

10:00 - 10:20

Coffee break

10:20 - 10:40

Accessing the inaccessible: microinjection in *Arabidopsis thaliana* reproductive cells

Joakim Palovaara (*University of Bremen*)

10:40 - 11:10

The evolution and roles of endopeptidases in plant fertilization

Meng-xiang Sun (*Wuhan University*)

Session 6

Chair

From ROS to hormones: Regulatory processes shaping land plant growth and fertility

Stefanie Müller-Schüssele, Kaiserslautern-Landau

11:10 - 11:40

Phenolic oxidative polymerization as an unexplored facet of cuticle formation

Hugues Renault (*University of Strasbourg*)

11:40 - 12:00

Interplay of the *TGA* transcription factor *MpTGA* and its glutaredoxin co-regulators the *ROXYs* in *Marchantia polymorpha* sexual reproduction

Nora Gutsche (*Osnabrück University*)

12:00 - 13:30

Lunch break

- 13:30 - 13:50 Conservation of sporophyte secondary cell wall development and pectin biosynthesis in land plants by Class II KNOX
Tom Dierschke (University of Zürich)
- 13:50 - 14:10 Maternal regulation of nutrients availability plays a pivotal role during ovule and seed development
Nicola Babolin (University of Milan) ●
- 14:10 - 14:30 Pollen-mediated control of ovule development in *Ginkgo biloba*: insights into auxin regulation and epigenetic mechanisms
Emanuela Talarico (University of Calabria)
- 14:30 - 15:00 Evolution of receptor kinases signaling in land plants: from immunity to reproduction
Isabel Monte (University of Tübingen)

15:00 - 18:00 **Social Activities**
Visit of the Herbarium collections / Dahlem Seed Bank / Botanical Garden

18:30 - 21:00 **Conference Dinner**
Restaurant Landhaus in the botanical garden
Unter den Eichen 5-10, 12203 Berlin

FRI **MARCH 28th**

Session 7 **Co-Evolution of Signaling Systems and Gene Regulatory Networks in Plant Development**

Chair Sabine Zachgo, Osnabrück

8:30 - 9:00 Reproductive strategy control in *Marchantia polymorpha*
Sebastian Schornack (University of Cambridge)

9:00 - 9:20 Contribution of the *TGA TF* to the evolution of sexual reproduction
Melanie Trupp (Osnabrück University) ●

9:20 - 9:40 Conservation and divergence of the *FERONIA* signal-transduction pathway in *Marchantia polymorpha*
Ueli Grossniklaus (University of Zürich) *

9:40 - 10:00 Arrested development: How do plants control the timing of identity transitions in embryonic stomatal cells?
Margot Smith (University of Tübingen)

10:00 - 10:20	Coffee break
10:20 - 10:40	Mechanical control of germ cell specification in <i>Arabidopsis</i> anthers Feng Zhao (<i>Northwestern Polytechnical University</i>)
10:40 - 11:10	Unraveling epidermal cell differentiation in <i>Arabidopsis</i> flowers Kerstin Kaufmann (<i>Humboldt University of Berlin</i>)
Session 8	Bioinformatics solutions to harness the EvoDevo data universe chaos
Chair	Alexander Goesmann, Giessen
11:10 - 11:35	Cross-plant comparison of gene expression Oliver Rupp (<i>University of Giessen</i>)
11:35 - 12:00	California poppy (<i>Eschscholzia californica</i>) genome and transcriptome atlas shed light on the concerted evolution of complete metabolic pathways Clemens Rössner (<i>University of Giessen</i>) ●
12:00 - 12:30	Coffee break & Lunch bag
12:30 - 12:55	<i>Open Flower</i> : a blooming model for teaching, outreach and research Nicholas Desnoyer (<i>University of Zürich</i>)
12:55 - 13:20	Genomic imprinting and regulatory networks in seed initiation of an early-diverging Angiosperms Ana Marcela Florez-Rueda (<i>MPI - Postdam</i>) ●
13:20 - 13:55	Genomic and phenotypic coevolution in land plants James Clark (<i>University of Bath</i>)
14:00 - 14:15	Poster and PhD-talk prices
14:15 - 14:30	Closing remarks Annette Becker, Giessen

● **PhD-students**

* Last minute change: Nicholas Desnoyer replaced Ueli Grossniklaus (sick) (and presented several future projects of Grossniklaus' lab)