

PROGRAM

MONDAY, May 22—7:00 PM

KEYNOTE SPEAKER

Introduced by: **Bo Liu**, University of California, Davis

Hong Ma
Fudan University, Shanghai, China

“New insights into the regulation of gene expression that ensure normal meiosis and anther development”

SESSION 1 MEMBRANE DYNAMICS IN PLANT DEVELOPMENT I

Chairperson: **Liwen Jiang**, The Chinese University of Hong Kong

Organelle biogenesis and function in plants

Liwen Jiang [20'+10']

Presenter affiliation: The Chinese University of Hong Kong, Hong Kong. 1

MAB4 family proteins promote PIN clustering to maintain PIN polarity

Masahiko Furutani, Satoshi Naramoto, Masao Tasaka, Miyo T. Morita [10'+5']

Presenter affiliation: Nagoya University, Nagoya, Japan; JST, Tokyo, Japan. 2

Exocyst subunit EXO70H4 labels specific subdomains of the trichome, where it is responsible for callose synthase delivery

Ivan Kulich, Zdenka Vojtkova, Jitka Ortmannova, Viktor Zarsky [10'+5']

Presenter affiliation: Charles University, Prague, Czech Republic. 3

Study on AtLGM1, a novel male gamete membrane specific protein

Taro Takahashi, Toshiyuki Mori, Lixy Yamada, Hitoshi Sawada, Tomoko Igawa [10'+5']

Presenter affiliation: Chiba University, Matsudo, Japan. 4

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SESSION 2 MEMBRANE DYNAMICS IN PLANT DEVELOPMENT II

Chairperson: **Zhenbiao Yang**, University of California-Riverside,
Riverside, California, USA

Control of organelle biogenesis by the ubiquitin-proteasome system in *Arabidopsis*

Jianping Hu [20'+10']

Presenter affiliation: Michigan State University, East Lansing,
Michigan.

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Genetic FREE1 suppressor screen identifies RST1 involvement in membrane trafficking in *Arabidopsis*

Qiong Zhao, Jinbo Shen, Caiji Gao, Yong Cui, Liwen Jiang [10'+5']

Presenter affiliation: The Chinese University of Hong Kong, Hong Kong, Hong Kong; CUHK Shenzhen Research Institute, Shenzhen, China.

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Coffee / Tea Break

TUESDAY, May 23—10:00 AM

SESSION 3 CELL DIVISION IN PLANT DEVELOPMENT I

Chairperson: **Sabine Mueller**, University of Tübingen,
Tübingen, Germany

Do minichromosomes induce heritable mutations in normal chromosomes? A case study in *Arabidopsis thaliana*

Ravi Maruthachalam, Ramesh Bondada [20'+10']

Presenter affiliation: Indian Institute of Science Education and Research -Thiruvananthapuram, Thiruvananthapuram, India.

7

The *Arabidopsis* embryo as a model for understanding the genetic and cellular basis for multicellular development

Dolf Weijers [20'+10']

Presenter affiliation: Wageningen University, Wageningen, Netherlands.

8

Functions of kinesin-12 POKs in phragmoplast guidance

Sabine Mueller [20'+10']

Presenter affiliation: University of Tuebingen, Tuebingen, Germany. 9

Arabidopsis ICK/KRP cyclin-dependent kinase inhibitors are critical for restricting the differentiation of multiple megaspore mother cells as well as formation of multiple functional megasporoes in each ovule

Ling Cao, Sheng Wang, Prakash Venglat, Lihua Zhao, Yan Cheng, Shengjian Ye, Yuan Qin, Raju Datla, Yongming Zhou, Hong Wang [10'+5']

Presenter affiliation: University of Saskatchewan, Saskatoon, Canada. 10

Gibberellin regulates male meiotic cytokinesis in Arabidopsis

Bing Liu, Nico De Storme, Danny Geelen [10'+5']

Presenter affiliation: Gent University, Gent, Belgium. 11

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SESSION 4 POSTER SESSION

Are root apices and shoot apices looking for the same signal for their activation?

Xiaojuan Li, Wenguo Cai, Yanlin Liu, Hui Li, Liwen Fu, Zengyu Liu, Lin Xu, Hongtao Liu, Tongda Xu, Yan Xiong

Presenter affiliation: Fujian Agriculture and Forestry University, FuZhou, China. 12

Arabidopsis remorins modify root gravitropism against plasmodesmata-mediated virus infection

Xu Chen, Meiyu Ke, Dingquan Huang, Deyan Wang, Zichen Chen, Liwen Jiang

Presenter affiliation: Haixia Institute of Science and Technology, Fuzhou, China. 13

Episturctural control on 5'UTR G-rich element specifies phloem differentiation

Hyunwoo Cho, Hyun Seob Cho, Hunho Jo, Hoyoung Nam, Eunah Kim, Chanyoung Park, Soyoun Park, Jongmin Jeong, Yoontae Lee, Sung Key Jang, Changill Ban, Ildoo Hwang

Presenter affiliation: Pohang University of Science and Technology, Pohang, South Korea. 14

- Signal motifs-dependent ER export of Qc-SNARE BET12 interacts with MEMB12 and affects PR1 trafficking in *Arabidopsis thaliana***
Kin Pan Chung, Yonglun Zeng, Yimin Li, Changyang Ji, Yiji Xia, Liwen Jiang
 Presenter affiliation: The Chinese University of Hong Kong, Hong Kong. 15
- Auxin mediates AI stress signaling to control root growth through the regulation of local cytokinin biosynthesis in *Arabidopsis***
Guangchao Liu, Zhaojun Ding
 Presenter affiliation: College of Life Sciences, Shandong University, Jinan, China. 16
- Identification of endogenous plant compounds regulating auxin transport**
Siamsa M. Doyle, Adeline Rigal, Michal Karady, Ondrej Novák, Karin Ljung, Stéphanie Robert
 Presenter affiliation: Umeå Plant Science Centre, Umeå, Sweden. 17
- Phyllotactic variance is regulated by the Paf1 complex in *Arabidopsis***
Kateryna Fal, Mengying Liu, Assem Duisembekova, Elizabeth S. Haswell, Olivier Hamant
 Presenter affiliation: Université Lyon, ENS de Lyon, UCB Lyon 1, CNRS, INRA, Lyon, France. 18
- Control of plant cell fate transitions by transcriptional and hormonal signals**
Christophe Gaillochet, Thomas Stiehl, Christian Wenzl, Juan-José Ripoll, Bailey-Steinitz J. Lindsay, Anne Pfeiffer, Andrej Miotk, Jana Hakenjos, Joachim Forner, Martin F. Yanofsky, Anna Marciniack-Czochra, Jan Lohmann
 Presenter affiliation: Centre for Organismal Studies, Heidelberg, Germany. 19
- Roles of *Arabidopsis* pollination upregulated pollen tube transcripts in ribosomal integrity**
Siou-Luan He, Guang-Yuh Jauh
 Presenter affiliation: National Taiwan University, Taipei, Taiwan; Academia Sinica, Taipei, Taiwan. 20
- Investigation of CRL3 E3 ligases in plant lateral organ development**
Liu Hong, Liyuan Chen, Liwen Jiang
 Presenter affiliation: The Chinese University of Hong Kong, Hong Kong. 21

VPS36-dependent multivesicular bodies are critical for plasmamembrane protein turnover and vacuolar biogenesis <u>Ya-wen Hsu, Guang-Yuh Jauh</u> Presenter affiliation: Academia Sinica, Taipei, Taiwan.	22
A method for isolation of specific Arabidopsis egg cell membrane protein without gamete isolation procedure <u>Tomoko Igawa, Lixy Yamada, Hitoshi Sawada, Toshiyuki Mori</u> Presenter affiliation: Chiba University, Matsudo, Japan.	23
TDIF-TDR module suppresses the negative action of BIL1 and its downstream component MP/ARF5 in vasculature development Soeun Han, Hyunwoo Cho, Heejae Nam, <u>Jongmin Jeong</u> , Ildoo Hwang Presenter affiliation: Pohang University of Science and Technology, Pohang, South Korea.	24
Molecular characterization of ARFX protein in Arabidopsis <u>Changyang Ji, Liwen Jiang</u> Presenter affiliation: The Chinese University of Hong Kong, Hong Kong.	25
TWIN SISTER OF FT (TSF) binds to fructokinase6 (FRK6) to modulate its kinase activity <u>Suhyun Jin</u> , Sun Young Kim, Ji Hoon Ahn Presenter affiliation: Korea University, Seoul, South Korea.	26
PCA22 acts as a suppressor of <i>atrzf1</i> to mediate proline accumulation in response to abiotic stress in Arabidopsis <u>Cheol Soo Kim</u> Presenter affiliation: Chonnam National University, Gwangju, South Korea.	27
Arabidopsis PRP8a is involved in splicing of early embryo-patterning genes and its transcripts are bi-parentally inherited <u>Katarina Kulichova</u> , Said S. Hafidh, David Honys Presenter affiliation: Institute of Experimental Botany ASCR, Prague 6 Lysolaje, Czech Republic.	28
Structural analysis of ATG9 by cryo-electron microscopy <u>Wilson Chun Yu Lau</u> , Liwen Jiang Presenter affiliation: The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong.	29

Functional study of endomembrane proteins (EMPs) in plants <u>King Pong Leung</u> , Ming Luo, Caiji Gao, Xiaoqiang Yao, Liwen Jiang Presenter affiliation: School of Life Sciences, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong.	30
<i>In vitro</i> COPII reconstitution reveals novel insight of <i>Arabidopsis</i> ER export <u>Baiying Li</u> , Yonglun Zeng, Xiangfeng Wang, Yusong Guo, Liwen Jiang Presenter affiliation: The Chinese University of Hong Kong, Hong Kong.	31
Transcriptional profile analysis of <i>Arabidopsis</i> fertilization-ready sperm cells by single-cell RNA-sequencing <u>Jing Li</u> , Jiaying Huang, Lijia Qu Presenter affiliation: Peking University, Beijing, China.	32
Different endomembrane trafficking pathways exist to establish apical and basal polarities <u>Ruixi Li</u> , Glenn Hicks, Natasha Raikhel Presenter affiliation: South University of Science and Technology of China, Shenzhen, China.	33
How do plants guarantee the rapid switches between growth and defense? <u>Zhongpeng Li</u> , Yanlin Liu, Yanyan Meng, Yan Xiong Presenter affiliation: Chinese Academy of Science, Shanghai, China.	34
The mitotic function of augmin is dependent on its microtubule-associated protein subunit EDE1 in <i>Arabidopsis thaliana</i> Yuh-Ru J. Lee, <u>Bo Liu</u> Presenter affiliation: University of California-Davis, Davis, California.	35
The phosphorylation regulation of cellulose synthase in <i>Arabidopsis thaliana</i> <u>Zengyu Liu</u> , Zhenbiao Yang, Tongda Xu Presenter affiliation: Haixia Institute of Science and Technology, Horticultural Plant Biology and Metabolomics Center, Fuzhou, China.	36
A defence pathway linking plasma membrane to chloroplasts is co-opted by a virus to suppress salicylic acid signaling Laura Medina-Puche, Tabata Rosas-Diaz, Liping Wang, Tamara Jimenez-Gongora, Dan Zhang, Xue Ding, Chanhong Kim, Yuanyuan Zhang, Shanshan Lv, Renyi Liu, <u>Rosa Lozano-Duran</u> Presenter affiliation: Shanghai Center for Plant Stress Biology, Shanghai, China.	37

- Short distance cell-to-cell communication in response to wound stress in *Arabidopsis* root**
Peter Marhavy, Andrzej Kurenda, Shahid M. Siddique, Julia Holbein, Feng Zhou, Edward E. Farmer, Niko Geldner
 Presenter affiliation: University of Lausanne, Lausanne, Switzerland. 38
- Phosphorylation of WHIRLY1 by CIPK14 shifts its localization and dual functions in *Arabidopsis***
 Yujun Ren, Yanyun Li, Binghua Wu, Ying Miao
 Presenter affiliation: Fujian Agriculture and Forestry University, Fuzhou, China. 39
- A Novel ubiquitin-associated protein (AtUAB1) interacts with ubiquitin E3 ligase AtRZF1 to modulate osmotic stress response and ABA signaling in *Arabidopsis***
Ji-Hee Min, Cheol Soo Kim
 Presenter affiliation: Chonnam National University, Gwangju, South Korea. 40
- A MYB transcription factor gene involved in sex determination in *Asparagus officinalis***
Kohji Murase, Shuji Shigenobu, Sota Fujii, Kazuki Ueda, Takanori Murata, Ai Sakamoto, Yuko Wada, Katsushi Yamaguchi, Yuriko Osakabe, Keishi Osakabe, Akira Kanno, Yukio Ozaki, Seiji Takayama
 Presenter affiliation: Nara Institute of Science and Technology, Ikoma, Japan. 41
- Fully functional nonsense-mediated mRNA Decay is required for proper growth and development of *Arabidopsis* at low temperatures**
Zeeshan Nasim, Ji Hoon Ahn
 Presenter affiliation: Korea University, Seoul, South Korea. 42
- atrzs17* mutant modulates glucose and pathogen responses through cysteine- and glucosinolate-dependent manner in *Arabidopsis***
Tinh V. Nguyen, Cheol Soo Kim
 Presenter affiliation: Chonnam National University, Gwangju, South Korea. 43
- Arabidopsis thaliana* glucose regulator 14 (AtGRE14) regulates glucose signaling and abscisic acid sensitivity**
Cho-Rong Park, Hyun-Woo Ju, Ji-Hee Min, Cheol Soo Kim
 Presenter affiliation: Chonnam National University, Gwangju, South Korea. 44

Identification of phosphatidylglycerol as an interacting partner of Flowering Locus T	
<u>Hendry Susila, Snježana Juric, Ji Hoon Ahn</u>	
Presenter affiliation: Korea University, Seoul, South Korea.	45
Hd3a and RCN in rice antagonize in inflorescence development through competition for complex formation with 14-3-3 and FD	
<u>Ken-ichiro Taoka, Miho Suzuki, Hiroyuki Tsuji, Chojiro Kojima, Ko Shimamoto</u>	
Presenter affiliation: Yokohama City University, Yokohama, Japan.	46
Auxin and cytokinin work antagonistically to regulate cut-induced root regeneration in <i>Arabidopsis</i>	
<u>Dongyang Xu, Jiahang Miao, Emi Yumoto, Takao Yokota, Masashi Asahina, Masaaki Watahiki</u>	
Presenter affiliation: Hokkaido University, Sapporo, Japan.	47
Oxidation of cysteine 118 of ATSKP1 inhibits the SCF complex formation	
<u>Jingshi Xue, Jianmin Shi, Chenyuan Wang, Jinfei Chen, Zhongnan Yang, Hai Huang</u>	
Presenter affiliation: Shanghai Normal University, Shanghai, China.	48
SWI1 is required for assembly of the meiotic machinery on chromosomes	
<u>Chao Yang, Shinichiro Komaki, Lena Carstens, Arp Schnittger</u>	
Presenter affiliation: University of Hamburg, Hamburg, Germany.	49
Roles of selective oxysterol-binding protein related proteins in autophagosome formation in <i>Arabidopsis</i>	
<u>Hao Ye, Liwen Jiang</u>	
Presenter affiliation: The Chinese University of Hong Kong, Hong Kong.	50
Methylation had effects on the discovery of genetic information in hickory (<i>Carya cathayensis</i> Sarg.)	
<u>Yanyao Tang, Ang Dong, Wenchong Chen, Leiming Dong, Dengfeng Shen, Yanru Zeng</u>	
Presenter affiliation: The State Key Laboratory of Subtropical Silviculture, Lin'an, China.	51
Role of COPII pathway in autophagy formation in plants	
<u>Yonglun Zeng, Changyang Ji, Baiying Li, Youshun Lin, Liwen Jiang</u>	
Presenter affiliation: The Chinese University of Hong Kong, Hong Kong.	52

DEEP-mediated modification of tRNAs is essential for endosperm-to-embryo communication in Arabidopsis
Sheng Zhong, Jia Wei, Lulu Liu, Hongya Gu, Chengqi Yi, Lijia Qu
Presenter affiliation: Peking University, Beijing, China. 53

The degradation of exocyst-positive organelle is dependent upon AtNBR1-mediated selective autophagy
Jun Zhou, Liwen Jiang
Presenter affiliation: The Chinese University of Hong Kong, Hong Kong, China. 54

Molecular study of SOF10 as a FREE1 suppressor in Arabidopsis
Ying Zhu, Qiong Zhao, Liyuan Chen, Liwen Jiang
Presenter affiliation: The Chinese University of Hong Kong, Hong Kong, China. 55

Membrane origin of plant autophagosome
Xiaohong Zhuang, Kin Pan Chung, Yong Cui, Weili Lin, Liwen Jiang
Presenter affiliation: School of Life Sciences, The Chinese University of Hong Kong, Shatin, Hong Kong. 56

TUESDAY, May 23—4:30 PM

Chinese Tea and Beer Tasting

TUESDAY, May 23—7:00 PM

SESSION 5 CELL DIVISION IN PLANT DEVELOPMENT II

Chairperson: **Juan Dong**, Rutgers the State University of New Jersey, Piscataway, New Jersey, USA

Down regulation of the polarity complex that functions in stomatal asymmetric cell division
Wanchen Shao, Juan Dong [20'+10']
Presenter affiliation: Rutgers the State University of New Jersey, Piscataway, New Jersey. 57

Environmental control of stomatal development
On Sun Lau [20'+10']
Presenter affiliation: National University of Singapore, Singapore. 58

Cytomechanic regulation of pollen tube growth

Hannes Vogler, Tohnyui N. Fabrice, Gautam Munglani, Christian Draeger, Dimitris K. Felekis, Christof Eichenberger, Bradley Nelson, Hans J. Herrmann, Christoph Ringli, Ueli Grossniklaus [20'+10']
Presenter affiliation: University of Zurich, Switzerland.

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Communication of loss—A novel peptide ligand-receptor pair is involved in root cap sloughing in Arabidopsis

Chun-Lin Shi, Ullrich Herrmann, Mari Wildhagen, Reidunn Aalen [10'+5']
Presenter affiliation: University of Oslo, Oslo, Norway.

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Analysis of UV tolerance and somatic homologous DNA repair in Mesoamerican homozygous maize lines

Pablo Bolaños-Villegas, Sergio A. Castro-Pacheco [10'+5']
Presenter affiliation: Universidad de Costa Rica, Alajuela, Costa Rica.

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WEDNESDAY, May 24—8:30 AM

SESSION 6 THE CYTOSKELETON, ANISOTROPIC CELL EXPANSION AND CELL MORPHOGENESIS I

Chairperson: **Takashi Hashimoto**, Nara Institute of Science and Technology, Ikoma, Japan

Microtubule-mediated stress response in plants

Takashi Hashimoto [20'+10']
Presenter affiliation: Nara Institute of Science and Technology, Ikoma, Japan.

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Determination of trichome cell shape—From Arabidopsis leaf trichomes to cotton fibers

Zhaosheng Kong [20'+10']
Presenter affiliation: Institute of Microbiology, Chinese Academy of Sciences, Beijing, China.

63

Overall organization, dynamics and vesicle-transport function of apical actin structure in pollen tubes

Xiaolu Qu, Rui Zhang, Meng Zhang, Min Diao, Yongbiao Xue, Shanjin Huang [10'+5']
Presenter affiliation: Tsinghua University, Beijing, China.

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Profilin oligomerization-regulated actin assembly and plant immunity

He Sun, Zhu Qiao, Khi Pin Chua, Xu Liu, Yong-Gui Gao, Xingliang Hou, Yuguang Mu, Yansong Miao [10'+5']

Presenter affiliation: Nanyang Technological University, Singapore. 65

MOR1, a member of XMAP215/TOG family, modulates unique microtubule dynamics in *Arabidopsis*

Erin Kawazu, Tsuyoshi Fujimoto, Kentaro Tamura, Ikuko Hara-Nishimura, Yuichiro Watanabe, Takahiro Hamada [10'+5']

Presenter affiliation: University of Tokyo, Tokyo, Japan. 66

Coffee / Tea Break

WEDNESDAY, May 24—11:00 AM

SESSION 7 THE CYTOSKELETON, ANISOTROPIC CELL EXPANSION AND CELL MORPHOGENESIS II

Chairperson: **Olivier Hamant**, École Normale Supérieure de Lyon, Lyon, France

MechanoDevo—Proprioception with mechanical signals

Olivier Hamant [20'+10']

Presenter affiliation: ENS Lyon, INRA, Lyon, France. 67

Cellulose biosynthesis and its regulation in plants

Ying Gu, Shundai Li [20'+10']

Presenter affiliation: Pennsylvania State University, University Park, Pennsylvania. 68

An importin-beta like protein mediates lignin modification induced dwarfism in *Arabidopsis*

Chinmayee Panda, Xu Li [10'+5']

Presenter affiliation: North Carolina State University, Kannapolis, North Carolina; North Carolina State University, Raleigh, North Carolina. 69

Cell-specific turgor pressure regulates heterogeneous growth in the *Arabidopsis* shoot apical meristem

Yuchen Long, Ibrahim Cheddadi, Vincent Mirabet, Mathilde Dumond, Léna Beauzamy, Christophe Godin, Arezki Boudaoud [10'+5']

Presenter affiliation: Laboratoire Reproduction et Développement des Plantes, Lyon, France. 70

WEDNESDAY, May 24—1:30 PM

Visit to Old Suzhou

WEDNESDAY, May 24—7:00 PM

SESSION 8 STEM CELLS AND CELL FATE DETERMINATION

Chairperson: **Xuemei Chen**, University of California, Riverside,
Riverside, California, USA

A role of small RNAs in female germline specification

Zhenxia Su, Yuan Qin, Xuemei Chen [20'+10']

Presenter affiliation: University of California, Riverside, Riverside,
California.

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Location and activity of cambial stem cells in the Arabidopsis root

Ari Pekka Mähönen, Riikka Mäkilä, Ondrej Smetana [20'+10']

Presenter affiliation: University of Helsinki, Helsinki, Finland.

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Auxin-mediated dual-step termination of floral stem cell activities in Arabidopsis

Toshiro Ito [10'+5']

Presenter affiliation: Nara Institute of Science and Technology, Ikoma,
Japan.

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KLU suppresses megasporocyte cell fate through SWR1-mediated activation of AKD28 expression in Arabidopsis

Lihua Zhao, Hanyang Cai, Yuan Qin [10'+5']

Presenter affiliation: Fujian Agriculture and Forestry University,
Fuzhou, China.

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Integration of cell wall and brassinosteroid signalling controls vascular cell fate in Arabidopsis

Sebastian Wolf [10'+5']

Presenter affiliation: Centre for Organismal Studies Heidelberg,
Heidelberg, Germany.

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Break

WEDNESDAY, May 24—9:00 PM

SESSION 9 CELL SIGNALING IN PLANT DEVELOPMENT I

Chairperson: **Yan Xiong**, Shanghai Institutes for Biological Sciences, CAS, Shanghai, China

TOR kinase coordinates nutrient with hormone signaling to orchestrate plant growth and defense

Yan Xiong [20'+10']

Presenter affiliation: Shanghai Center for Plant Stress Biology, CAS Center for Excellence in Molecular Plant Sciences, Shanghai, China. 76

Assessment of the biological activity of diverse peptide hormone species isolated from axenic root cultures of *Medicago truncatula*

Neha Patel, Nadiatul A. Mohd-Radzman, Leo Corcilius, Katia Taylor, Stuart Cordwell, Ben Crossett, Angela Connolly, Richard J. Payne, Michael A. Djordjevic [10'+5']

Presenter affiliation: The Australian National University, Canberra, Australia. 77

THURSDAY, May 25—8:30 AM

SESSION 10 CELL SIGNALING IN PLANT DEVELOPMENT II

Chairperson: **Yongbiao Xue**, Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, Beijing, China

Genetic control of thermomorphogenesis in rice

Yongbiao Xue [20'+10']

Presenter affiliation: Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, Beijing, China. 78

Root growth regulation by interconnected brassinosteroids and environmental signals

Sigal Savaldi-Goldstein [20'+10']

Presenter affiliation: Technion - Israel Institute of Technology, Haifa, Israel. 79

TMK mediated auxin signaling in plant

Min Cao, Rong Chen, Tongda Xu [20'+10']

Presenter affiliation: Shanghai Center for Plant Stress Biology,
Shanghai, China.

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Glycosylphosphatidylinositol-anchored proteins function as chaperones and co-receptors for FERONIA receptor kinase signaling in *Arabidopsis*

Chao Li, Alice Y. cheung, H-M Wu [10'+5']

Presenter affiliation: East China Normal University, Shanghai , China.

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Coffee / Tea Break

THURSDAY, May 25—11:00 AM

SESSION 11 CELL SIGNALING IN PLANT DEVELOPMENT III

Chairperson: **Niko Geldner**, University of Lausanne,
Lausanne, Switzerland

The endodermis—Walking the thin line between uptake and protection

Niko Geldner [20'+10']

Presenter affiliation: University of Lausanne, Lausanne, Switzerland.

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Symplastic communication spatially instructs root development of *Arabidopsis thaliana*

Shuang Wu, Yuting Liu, Meizhi Xu, Nengsong Liang, Qiaozhi Yu [20'+10']

Presenter affiliation: Fujian Agriculture and Forestry University,
Fuzhou, China.

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Florigen-induced transposon silencing in the shoot apical meristem

Hiroyuki Tsuji [10'+5']

Presenter affiliation: Yokohama City University, Yokohama, Japan.

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Transcription factor network analyses expedite functional gene discovery in stress response and seed development

Liang Song, Carol S. Huang, Ronan O'Malley, Joseph Ecker [10'+5']

Presenter affiliation: Salk Institute for Biological Sciences / Howard Hughes Medical Institute, La Jolla, California.

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SESSION 12 SEXUAL REPRODUCTION: GAMETOGENESIS

Chairperson: **Takashi Araki**, Kyoto University Graduate School of
Biostudies, Kyoto, Japan

Male germline and gamete development in a basal land plant

Marchantia polymorpha

Takashi Araki [20'+10']

Presenter affiliation: Kyoto University Graduate School of Biostudies,
Kyoto, Japan. 86

The mitosis-to-meiosis transition of pollen mother cells in maize

Ching-Chih Tseng, Shu-Yun Chen, Chi-Ting Wang, Jia-Chi Ku, Yu-
Hsin Kao, Chung-Ju R. Wang [20'+10']

Presenter affiliation: Academia Sinica, Taipei, Taiwan. 87

Control of entry and progression through meiosis

Arp Schnittger [20'+10']

Presenter affiliation: University of Hamburg, Hamburg, Germany. 88

Spatiotemporal expression control of meiotic phasiRNAs in rice

Ken-Ichi Nonomura [10'+5']

Presenter affiliation: National Institute of Genetics, Mishima, Shizuoka,
Japan; Graduate University for Advanced Studies/SOKENDAI,
Mishima, Shizuoka, Japan. 89

**Iron deficiency disrupts tapetum function to cause reduction of
viable pollen**

Tzu-Hsiang Huang, Der-Fen Suen [10'+5']

Presenter affiliation: Academia Sinica, Taipei, Taiwan. 90

Break

THURSDAY, May 25—4:30 PM

SESSION 13 SEXUAL REPRODUCTION: POLLINATION AND FERTILIZATION I
Co-sponsored by "The Birth of New Plant Species" Project

Chairperson: **Tetsuya Higashiyama**, Nagoya University, Nagoya, Japan

Cellular signaling and dynamics in pollen tube guidance

Tetsuya Higashiyama [20'+10']

Presenter affiliation: Nagoya University, Nagoya, Japan.

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Pollen tube guidance in flowering plants—The interplay between male and female gametophytes

Hong-Ju Li, Tong Wang, Meng-Xia Zhang, Wei-Cai Yang [20'+10']

Presenter affiliation: State Key Laboratory of Molecular Developmental Biology, Beijing, China.

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Linking tip growth to pollen tube guidance—A mathematical insight

Nan Luo, An Yan, Zhenbiao Yang [20'+10']

Presenter affiliation: Fujian Agriculture and Forestry University, Fuzhou, China; University of California, Riverside, California.

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Building and bypassing plant polyspermy barriers

Thomas Nakel, Dawit G. Tekleyohans, Yanbo Mao, Golo Fuchert, Dieu Vo, Rita Groß-Hardt [10'+5']

Presenter affiliation: University of Bremen, Bremen, Germany.

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Regulation of pollen wall synthesis in Arabidopsis

Zhong-Nan Yang, Qi-Shi Jia, Shuang-Xi Xiong, Jun Zhu [10'+5']

Presenter affiliation: Shanghai Normal University, Shanghai, China.

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THURSDAY, MAY 25—6:30 PM

COCKTAILS and BANQUET

SESSION 14 SEXUAL REPRODUCTION: POLLINATION AND FERTILIZATION II

Chairperson: **Thomas Dresselhaus**, University of Regensburg, Regensburg, Germany

Fertilization mechanisms and zygotic genome activation in maize

Thomas Dresselhaus [20'+10']

Presenter affiliation: University of Regensburg, Regensburg, Germany. 96

Genetic architecture and function of the S locus supergene that controls heterostyly in *Primula*

Jinhong Li, Jonathan M. Cocker, Jonathan Wright, Magaret A. Webster, Mark McMullen, Sarah Dyer, David Swarbreck, Mario Caccamo, Cock van Oosterhout, Philip M. Gilmartin [20'+10']

Presenter affiliation: University of East Anglia, Norwich, United Kingdom; John Innes Centre, Norwich, United Kingdom. 97

Effects of imbalanced parental genome ratio on zygotic development and possible function of genes expressing in zygotes with paternal allele-specific manner

Erika Toda, Masaaki Kobayashi, Mirei Takahara, Yukinosuke Ohnishi, MD Hassanur Rahman, Yoriko Watanabe, Momoka Iwami, Hiroyuki Sekimoto, Kentaro Yano, Takashi Okamoto [10'+5']

Presenter affiliation: Tokyo Metropolitan University, Tokyo, Japan. 98

Patterns of polymorphism at the self-incompatibility locus in 1,083 *Arabidopsis thaliana* genomes

Takashi Tsuchimatsu, Pauline M. Goubet, Magnus Nordborg, Xavier Vekemans, Vincent Castric [10'+5']

Presenter affiliation: Chiba University, Chiba, Japan; Gregor Mendel Institute, Vienna, Austria. 99

Coffee / Tea Break

SESSION 15 SEXUAL PLANT REPRODUCTION: EMBRYOGENESIS
AND BEYOND

Chairperson: **Meng-Xiang Sun**, Wuhan University, Wuhan, China

Live-cell imaging of the axis formation in Arabidopsis zygote

Yusuke Kimata, Takumi Higaki, Tomokazu Kawashima, Daisuke Kurihara, Yoshikatsu Sato, Tomomi Yamada, Seiichiro Hasezawa, Frederic Berger, Tetsuya Higashiyama, Minako Ueda [20'+10']
Presenter affiliation: Nagoya University, Nagoya, Japan.

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Signaling in embryonic suspensor PCD

Meng-xiang Sun, Pan Luo, Ce Shi, Peng Zhao [20'+10']
Presenter affiliation: Wuhan University College of Life Sciences, Wuhan, China.

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DEEP-mediated modification of tRNAs is essential for endosperm-to-embryo communication in Arabidopsis

Sheng Zhong, Jia Wei, Hongya Gi, Li-Jia Qu [20'+10']
Presenter affiliation: Peking University, School of Life Sciences, Beijing, China.

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O-GlcNAc modification plays an essential role in postembryonic growth and development in plants through regulation of RNA polymerase II activity

Jie Li, Jing Fu, Hongchang Cui [10'+5']
Presenter affiliation: Florida State University, Tallahassee, Florida; Northwest A&F University, Yangling, China.

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