

PROGRAM

SUNDAY, November 3—6:00 PM

**Welcome Reception**

SUNDAY, November 3—7:00 PM

**PLENARY TALK**

**Evolution of chloroplasts and mitochondria—A new look through a window of the cellular system, protein targeting mechanism**

Inhwan Hwang, Doong Wook Lee, Junho Lee [35'+10']

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

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MONDAY, November 4—9:00 AM

**SESSION 1**      EMBRYOGENESIS

**Chairperson:**    **Dolf Weijers**, Wageningen University,  
Wageningen, the Netherlands

**A conserved biochemical paradigm underlies cell polarity across multicellular kingdoms**

Maritza van Dop, Marc Fiedler, Sumanth Mutte, Jeroen de Keijzer, Lisa Olijslager, Marcel Janson, Mariann Bienz, Dolf Weijers [20'+10']

Presenter affiliation: Wageningen University, Wageningen, the Netherlands.

2

**Small RNA functions in *Arabidopsis* embryos**

Michael D. Nodine [20'+10']

Presenter affiliation: Gregor Mendel Institute, Vienna, Austria.

3

**Modulation of cellular pluripotency by cell proliferation**

Yoo-Sun Noh [20'+10']

Presenter affiliation: Seoul National University, Seoul, South Korea.

4

**Coffee Break**

**Initiation of the shoot meristem stem cells in *Arabidopsis thaliana***

Wen Gong, Thomas Laux [20'+10']

Presenter affiliation: Signalling Research Centres BIOS and CIBSS, University of Freiburg, Germany; Sino-German Joint Research Center on Agricultural Biology, Taian, China.

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**An excision-triggered ultradian rhythm positively regulates de novo root regeneration via ABA signaling in *Arabidopsis* leaves**

Vu Thi Quy, Kitae Song, Hyo Jung Kim, Sungjin Park, Gayoung Seo, Hong Gil Nam, Sunghyun Hong [10'+5']

Presenter affiliation: IBS (Institute for Basic Science), Daegu, South Korea.

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**De novo root regeneration—From wounding to stem cell fate transition**

Lin Xu [10'+5']

Presenter affiliation: Chinese Academy of Sciences, Institute of Plant Physiology and Ecology, Shanghai, China.

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MONDAY, November 4—2:00 PM

**SESSION 2**      MERISTEMS

**Chairperson:**    **Jan Lohmann**, Heidelberg University,  
Heidelberg, Germany

**Transcriptional control of auxin responses in the shoot meristem**

Jan U. Lohmann [20'+10']

Presenter affiliation: Heidelberg University, Heidelberg, Germany.

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**The role of adaxial-abaxial cell type boundaries in controlling plant architecture**

Xiulian Yu, Yuzhou Wu, Carolyn Ohno, Marcus Heisler [20'+10']

Presenter affiliation: European Molecular Biology Laboratory, Heidelberg, Germany.

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**Coordination of tissue layer-specific behaviors of stem cells in the shoot apical meristem**

Naoyuki Uchida [20'+10']

Presenter affiliation: Nagoya University, Nagoya, Japan.

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**Coffee Break**

<b>Spatio-temporal requirement of auxin during periderm development</b> <u>Laura Ragni</u> [20'+10'] Presenter affiliation: University of Tübingen, Tübingen, Germany.	11
<b>Multistep regulation of vascular cell fates</b> Yuki Kondo, Kyoko Ohashi-Ito, <u>Hiroo Fukuda</u> [20'+10'] Presenter affiliation: The University of Tokyo, Tokyo, Japan.	12
<b>Integration of hormonal and transcriptional control during vascular development</b> <u>Yka Helariutta</u> [20'+10'] Presenter affiliation: University of Cambridge, Cambridge, United Kingdom.	13
<b>Cell cycle regulation coordinating the transient stem cell and differentiation in stomatal development</b> <u>Soon-Ki Han</u> , Keiko U. Torii [10'+5'] Presenter affiliation: Nagoya University, Nagoya, Japan.	14
<b>CEP-CEPR1 signalling plays a major role in controlling root system architecture in Arabidopsis</b> Kelly Chapman, Michael Taleski, Huw A. Ogilvie, Christina Delay, Nijat Imin, <u>Michael A. Djordjevic</u> [10'+5'] Presenter affiliation: Australian National University, Canberra, Australia.	15

MONDAY, November 4—7:00 PM

**SESSION 3** POSTER SESSION

<b>EMF1 acts as a transcriptional repressor of <i>VIN3</i>, a gene required for sensing long-term winter cold for flowering</b> <u>Jina Bae</u> , Ilha Lee Presenter affiliation: National Research Laboratory of Plant Developmental Genetics, Seoul, South Korea.	16
<b>Translational regulatory module determines the rate of protofloem development</b> <u>Hyun Seob Cho</u> , Soyoung Park, Sang-Gyu Choi, Ildoo Hwang Presenter affiliation: POSTECH, Pohang, South Korea.	17

<b>Functional characterization of the ARPF2/ARRS1 complex in 60S ribosome assembly in <i>Arabidopsis</i></b> <u>Ilyeong Choi</u> , Hyun-Sook Pai Presenter affiliation: Yonsei University, Seoul, South Korea.	18
<b>Effects of sodium chloride on chloroplast division in the moss <i>Physcomitrella patens</i></b> <u>Thi Huong Do</u> , Prapaporn Pongthai, Hiroyoshi Takano, Ooi-Kock Teh, Yasushi Yoshioka, Tomomichi Fujita Presenter affiliation: Hokkaido University, Sapporo, Japan.	19
<b>AT-hook transcription factors restrict petiole growth by antagonizing PIFs</b> <u>David S. Favero</u> , Ayako Kawamura, Jae-Hoon Jung, Takamasa Suzuki, Michitaro Shibata, Katja E. Jaeger, Philip A. Wigge, Michael M. Neff, Keiko Sugimoto Presenter affiliation: RIKEN, Yokohama, Japan; Washington State University, Pullman, Washington.	20
<b>Brassinosteroids inhibits ABA-induced stomatal closure by repressing the production of reactive oxygen species and ABA biosynthesis</b> <u>Yunmi Ha</u> , Dami Yang, Kyoung Hee Nam Presenter affiliation: Sookmyung Women's University, Seoul, South Korea.	21
<b>ROS-mediated regulation of cell proliferation and differentiation at the apical meristematic zones of <i>Marchantia polymorpha</i></b> <u>Yuki Hagiwara</u> , Kenji Hashimoto, Daisuke Miyamoto, Tomohiro Takagawa, Ryuichi Nishihama, Kimitsune Ishizaki, Takayuki Kohchi, Kazuyuki Kuchitsu Presenter affiliation: Tokyo University of Science, Noda, Japan.	22
<b>Light Primes the thermally induced detoxification of reactive oxygen species during thermotolerance development in <i>Arabidopsis</i></b> <u>Shin-Hee Han</u> , Young-Joon Park, Ju-Heon Kim, Chung-Mo Park Presenter affiliation: Seoul National University, Seoul, South Korea.	23
<b>TAWAWA1, ALOG transcription factor, marks the asymmetric cell fate in shoot apical meristem of <i>Physcomitrella patens</i></b> <u>Yuki Hata</u> , Satoshi Naramoto, Yuji Hiwatashi, Junko Kyozuka Presenter affiliation: Tohoku University, Sendai, Japan.	24

- Protein-unbound cytosolic pool of mature miRNAs in plant cells reveals a novel regulatory step at AGO1 loading**  
 Agnes Dalmadi, Peter Gyula, Jeannette Balint, Gyorgy Szittyta, Zoltan Havelda  
 Presenter affiliation: NAIK, Agricultural Biotechnology Institute, Godollo, Hungary. 25
- Exogenous acetate alleviated arsenate toxicity in lentil by ROS detoxification and inhibition of arsenic uptake and translocation**  
Md. Shahadat Hossain, Mahmudul Hasan Sohag, Masayuki Fujita  
 Presenter affiliation: Kagawa University, Miki, Kagawa, Japan. 26
- Identification and characterization of a novel mutant defective in the root development**  
Yoon-Sun Hur, Sooah Woo, Myeong Min Lee  
 Presenter affiliation: Yonsei University, Seoul, South Korea. 27
- Cycling DOF transcription factor determines photoperiodic response on secondary growth via direct control of cambium activity**  
 Hyunwoo Cho, Hyuna Hwang, Dongbo Shi, Thomas Greb  
 Presenter affiliation: Chungbuk National University, Cheongju, South Korea. 28
- A leucine-rich repeat receptor-like kinase involves in ABA-induced leaf yellowing**  
Tho Nguyen, Mei Wang, Young Hyeon Do, Hong Hanh Nguyen, Juhoon Lee, Youngmin Park, Daehee Hwang, Inhwan Hwang  
 Presenter affiliation: Pohang University of Science and Technology, Pohang, South Korea. 29
- A molecular framework for CRABS CLAW-mediated nectary development in *Arabidopsis***  
Hideaki Iimura, Nobutoshi Yamaguchi, Toshiro Ito  
 Presenter affiliation: Nara Institute of Science and Technology, Ikoma, Nara, Japan. 30
- Potential trade-off between tissue repair and *de novo* organogenesis in *Arabidopsis***  
Momoko Ikeuchi, Akira Iwase, Keiko Sugimoto  
 Presenter affiliation: RIKEN, Yokohama, Japan. 31
- Lignin-based apoplastic structure spatially restricts pathogens and enhances disease resistance in plants**  
Hwi Seong Jeon, Myoung-Hoon Lee, Seu Ha Kim, Ohkmae K. Park  
 Presenter affiliation: Korea University, Seoul, South Korea. 32

<b>Distal regulatory element of <i>FLOWERING LOCUS C</i> allows plants to distinguish different types of cold</b> <u>Myeongjune Jeon</u> , Goowon Jeong, Ilha Lee Presenter affiliation: Seoul National University, Seoul, South Korea.	33
<b>Monoubiquitination of <i>SCRAMBLED</i> regulated by <i>QUIRKY</i> is responsible for its vacuolar degradation</b> Jae Hyo Song, <u>Young Jeon</u> , Su-Hwan Kwak, Kyoung Hee Nam, John Schiefelbein, Myeong Min Lee Presenter affiliation: Yonsei University, Seoul, South Korea.	34
<b>Cytosolic chaperonin complex mediates signalings of vernalization and cold acclimation in <i>Arabidopsis</i></b> <u>Goowon Jeong</u> , Jinwoo Shin, Ilha Lee Presenter affiliation: Seoul National University, Seoul, South Korea.	35
<b>Determination of the fate of <i>SVP</i> protein by <i>FLM</i> isoforms in temperature-responsive flowering</b> <u>Suhyun Jin</u> , Ji Hoon Ahn Presenter affiliation: Korea University, Seoul, South Korea.	36
<b>Development of a micro-grafting chip for <i>Arabidopsis</i> and its application aiming to control nutrition and symbiosis with microbiota</b> <u>Yaichi Kawakatsu</u> , Hiroki Tsutsui, Ryo Tabata, Hirokazu Toju, Michitaka Notaguchi Presenter affiliation: Nagoya University, Nagoya, Japan.	37
<b><i>ORE15</i> functions as a key regulator of cell proliferation network in leaf growth</b> Sang Eun Jun, Jin Hee Kim, Jeongsik Kim, Hong Gil Nam, Hye Ryun Woo, <u>Gyung-Tae Kim</u> Presenter affiliation: Dong-A University, Busan, South Korea.	38
<b><i>Arabidopsis</i> Elongator regulates leaf patterning and cell proliferation</b> Thien Tu Huynh Le, Sang Eun Jun, <u>Gyung-Tae Kim</u> Presenter affiliation: Dong-A University, Busan, South Korea.	39
<b><i>WAT1</i> determines the high levels of auxin signalling in cambium stem cells during wood formation</b> <u>Hyemin Kim</u> , Jinsu Lee, Hyunwoo Cho, Hojin Ryu Presenter affiliation: Chungbuk National University, Cheongju, South Korea.	40

- Shoot meristem activity is involved in salt tolerance on *Arabidopsis* shoot growth**  
Jeong Hyun Kim, Ye Sol Jun, Ok-Kyoung Cha, Horim Lee  
 Presenter affiliation: Duksung Women's University, Seoul, South Korea. 41
- HCR2 restricts crossover formation via transcriptional repression of *HEI10* in *Arabidopsis thaliana***  
Juhyun Kim, Jaeil Kim, Eun-Jung Kim, Jihye Park, Heejin Kim, Yeong Mi Park, Ildoo Hwang, Kyuha Choi  
 Presenter affiliation: POSTECH, Pohang, South Korea. 42
- Arabidopsis* seedling growth under high humidity requires a surface cuticle layer constructed by the ABCG5 transporter**  
 Eun-Jung Lee, Kyung Yoon Kim, Jie Zhang, Yasuyo Yamaoka, Peng Gao, Hoyjin Kim, Jae-Ung Hwang, Mi Chung Suh, Byungho Kang, Youngsook Lee  
 Presenter affiliation: Pohang University of Science and Technology, Pohang-si, South Korea. 43
- The function of nectar proteins in a wild tobacco**  
 Moonyoung Kang, Youngsung Joo, Sang-Gyu Kim  
 Presenter affiliation: KAIST, Daejeon, South Korea. 44
- The IAA-mediated inhibition of auxin signaling contribute to seed germination through down-regulation of *ABI3* expression under stresses condition in *Arabidopsis***  
Sun Ho Kim, Shah Hussain, Sunghwa Bahk, Woo Sik Chung  
 Presenter affiliation: Gyeongsang National University, Jinju, South Korea. 45
- microRNAs—Dynamic regulators of stomatal development**  
 Jiali Zhu, Ji-Hwan Park, Seulbee Lee, Jae Ho Lee, Daehee Hwang, June M. Kwak, Yun Ju Kim  
 Presenter affiliation: Institute for Basic Science, Deagu, South Korea. 46
- Transcriptomic approach to identify the molecular regulators of zygote polarity**  
Yusuke Kimata, Takamasa Suzuki, Miya Mizutani, Tomomi Yamada, Masahiro M. Kanaoka, Tetsuya Higashiyama, Minako Ueda  
 Presenter affiliation: Nagoya University, Nagoya, Japan. 47

- Identification of long-distance mobile mRNA and discovery of consensus sequence for RNA mobility in plants**  
Ken-ichi Kurotani, Hiroki Tsutsui, Yu Sawai, Takamasa Suzuki, Michitaka Notaguchi  
 Presenter affiliation: Nagoya University, Nagoya-city, Japan. 48
- A molecular basis behind heterophylly in an amphibious plant, *Ranunculus trichophyllus***  
Jinseul Kyung, Juhyun Kim, Ilha Lee  
 Presenter affiliation: Seoul National University, Seoul, South Korea. 49
- Histone acetylation orchestrates wound-induced transcriptional activation and cellular reprogramming in *Arabidopsis***  
 Bart Rymen, Ayako Kawamura, Alice Lambolez, Soichi Inagaki, Arika Takebayashi, Akira Iwase, Yuki Sakamoto, Kaori Sako, David S. Favero, Momoko Ikeuchi, Takamasa Suzuki, Motoaki Seki, Tetsuji Kakutani, François Roudier, Keiko Sugimoto  
 Presenter affiliation: RIKEN, Yokohama, Japan; The University of Tokyo, Tokyo, Japan. 50
- Chaperon-like protein which is dual-localized in the endomembrane system and chloroplasts mediates photomorphogenesis with its holdase activity for BRI1 and POR**  
Ho-Seok Lee, Ilyeong Choi, Youssef Belkhadir, Hyun-Sook Pai  
 Presenter affiliation: Gregor Mendel Institute (GMI), Vienna Biocenter (VBC), Vienna, Austria; Yonsei University, Seoul, South Korea. 51
- Identification of molecular mechanisms regulating cell fate transition after abscission in *Arabidopsis***  
Jinsu Lee, Hyun-ho Kim, Yuree Lee  
 Presenter affiliation: Seoul National University, Seoul, South Korea. 52
- Natural variations at the *Stay Green* gene promoter control lifespan and yield in rice cultivars**  
Sichul Lee, Dongjin Shin, Tae-Heon Kim, Jong-Hee Lee, Joonheum Park, Jinwon Lee, Lae-Hyeon Cho, Jae Young Choi, Ji-Hwan Park, Dae-Woo Lee, Hisashi Ito, Dae Heon Kim, Ayumi Tanaka, Daehee Hwang, Michael D. Purugganan, Jong-Seong Jeon, Gynheung An, Hong Gil Nam  
 Presenter affiliation: Institute for Basic Science (IBS), Dae-gu, South Korea. 53



**Cell type- and developmental stage-specific cell wall dynamics in pericycle cells**

Min Jung Jung, Yuree Lee

Presenter affiliation: Seoul National University, Seoul, South Korea;  
Seoul National University, Seoul, South Korea.

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**Gigantic chloroplasts trigger controlled cell death via lipidostasis-associated retrograde signaling**

Bingqi Li, Jun Fang, Vivek Dogra, Chanhong Kim

Presenter affiliation: Chinese Academy of Sciences, Shanghai, China;  
University of the Chinese Academy of Sciences, Beijing, China.

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**LESION-SIMULATING DISEASE 1 interacts with GOLDEN2-LIKE transcription factors to sustain  $^1\text{O}_2$  homeostasis**

Mengping Li, Keun Pyo Lee, Tong Liu, Vivek Dogra, Jianli Duan, Weiman Xing, Chanhong Kim

Presenter affiliation: Shanghai Center for Plant Stress Biology and Center of Excellence in Molecular Plant Sciences, Shanghai, China;  
University of the Chinese Academy of Sciences, Beijing, China.

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**DeepTetrad—High-throughput image analysis of meiotic tetrads by deep learning in *Arabidopsis thaliana***

Eun-Cheon Lim, Jaeil Kim, Jihye Park, Eun-Jung Kim, Juhyun Kim, Yeong Mi Park, Hyun Seob Cho, Dohwan Byun, Ian R. Henderson, Gregory P. Copenhaver, Ildoo Hwang, Kyuha Choi

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

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**Transcriptional regulation of *APO2* in early stage of inflorescence development in rice**

Yiling Miao, Taiyo Toriba, Satoshi Naramoto, Chengqiang Ding, Junko Kyoizuka

Presenter affiliation: Tohoku University, Sendai, Japan.

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**Inhibition of floral transition during juvenile phase of rice**

Kazuma Nagasawa, Taiyo Toriba, Junko Kyoizuka

Presenter affiliation: Tohoku University, Sendai, Japan.

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**Non-canonical auxin signaling via post-translational regulation of ARFs and IAAs**

Heejae Nam, Garam Lee, Hoyoung Nam, Chanyoung Park, Sang-Gyu Choi, Ildoo Hwang

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

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- Nonsense-mediated mRNA decay (NMD) plays a key role in temperature-modulated tradeoff between growth and defense in *Arabidopsis***  
Zeeshan Nasim, Muhammad Fahim, Katarzyna Gawarecka, Ji Hoon Ahn  
 Presenter affiliation: Korea University, Seoul, South Korea. 61
- PHYTOCHROME INTERACTING FACTOR 8 inhibits phytochrome A-mediated far-red light responses in *Arabidopsis***  
Jeonghwa Oh, Eunae Park, Kijong Song, Gabyong Bae, Giltsu Choi  
 Presenter affiliation: KAIST, Daejeon, South Korea. 62
- Sniffing bacterial volatile compounds for promoting plant growth**  
Choong-Min Ryu  
 Presenter affiliation: KRIBB, Daejeon, South Korea. 63
- Dual mode of action of the *Arabidopsis* ESR1 transcription factor ensures efficient *de novo* shoot regeneration**  
 Kyounghee Lee, Ok-Sun Park, Pil Joon Seo  
 Presenter affiliation: Seoul National University, Seoul, South Korea. 64
- The ATXR2 protein represses *de novo* shoot regeneration by controlling cytokinin signaling in *Arabidopsis***  
 Kyounghee Lee, Pil Joon Seo  
 Presenter affiliation: Seoul National University, Seoul, South Korea. 65
- Two alternative splicing variant isoforms of *AtERF73/HRE1*, regulate differential gene expression as transcriptional activators in hypoxia response and root development**  
Hye-Yeon Seok, Doai V. Nguyen, Jimin Ha, Vaishali N. Tarte, Sun-Young Lee, Yong-Hwan Moon  
 Presenter affiliation: Pusan National University, Busan, South Korea. 66
- Functional characterization of *Arabidopsis* non-tandem CCCH zinc finger protein genes in osmotic stress response and development**  
Hye-Yeon Seok, Doai V. Nguyen, Linh V. Nguyen, Hyoungjoon Bae, Dong-Hyuk Woo, Sun-Young Lee, Yong-Hwan Moon  
 Presenter affiliation: Pusan National University, Busan, South Korea. 67
- Epigenetic regulation of flowering time and plant reproduction**  
 Xue Zhang, Zepeng Li, Kangxi Du, Qiang Luo, Alexandre Berr, Yu Yu, Aiwu Dong, Wen-Hui Shen  
 Presenter affiliation: IBMP-CNRS, Strasbourg, France. 68

- Functional analysis of CsRCI2 proteins under abiotic stresses in *Camelina sativa* L.**  
 Hyun-Sung Kim, Hyeon-Sook Lee, Jung-Ho Shin, Sehee Kim, Sung-Ju Ahn  
 Presenter affiliation: Chonnam National University, Gwangju, South Korea. 69
- Characterizing the function of AtABCA10 in development of seeds**  
Seungjun Shin, Jaeung Hwang, Chayanee Chairattawat, Yasuyo Yamaoka, Youngsook Lee 70  
 Presenter affiliation: POSTECH, Pohang, South Korea.
- Interaction of FT with Phospholipids modulate temperature-responsive flowering time in Arabidopsis**  
Hendry Susila, Snježana Juric, Katarzyna Gawarecka, Ji Hoon Ahn 71  
 Presenter affiliation: Korea University, Seoul, South Korea.
- Suppression of NB-LRR genes by miRNAs promotes nitrogen-fixing nodule development in *Medicago truncatula***  
 Anita Sos-Hegedus, Agota Domonkos, Tamas Toth, Peter Gyula, Peter Kalo, Gyorgy Szittyá 72  
 Presenter affiliation: National Agricultural Research and Innovation Center, Agricultural Biotechnology Institute, Godollo, Hungary.
- Genotoxic stress inhibits root growth by enhancing cytokinin biosynthesis above the meristem**  
Naoki Takahashi, Masaaki Umeda 73  
 Presenter affiliation: Graduate School of Science and Technology, Nara Institute of Science and Technology, Nara, Japan.
- BLADE-ON-PETIOLE orthologs regulate development of rhizome leaf enabling underground stem growth in the wild rice *Oryza longistaminata***  
Taiyo Toriba, Hiroki Tokunaga, Kazuma Nagasawa, Fanyu Nie, Junko Kyojuka 74  
 Presenter affiliation: Tohoku University, Sendai, Japan.
- Auxin-WOX pathway in plant root evolution**  
Qihui Wan, Jie Yu, Lin Xu 75  
 Presenter affiliation: Chinese Academy of Sciences, Shanghai, China; University of Chinese Academy of Sciences, Beijing, China.

**Multiple sequence motifs and quality control of dual targeting of the Arabidopsis AtSufE1**

Seungjin Woo, Byeongho Moon, Inhwan Hwang

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

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**Protein acyltransferase 24 (PAT24) is important in cytokinin signaling of Arabidopsis thaliana**

Qianying Yang, Jie Zhang, Haiyan Song, Youngsook Lee

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

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**ORA59 transcription factor positively regulates resistance to necrotrophic fungal pathogens through binding to two distinct cis-acting elements in Arabidopsis**

YoungNam Yang, Hyeri Kim, Dong Sook Lee, Youngsung Kim, Ohkmae K. Park

Presenter affiliation: Korea University, Seoul, South Korea.

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TUESDAY, November 5—9:00 AM

**SESSION 4 POSTEMBRYONIC TISSUE DEVELOPMENT**

**Chairperson:** **Keiko Sugimoto**, RIKEN Center for Sustainable Resource Science, Yokohama, Japan

**Epigenetic control of cellular reprogramming in plants**

Keiko Sugimoto [20'+10']

Presenter affiliation: RIKEN, Yokohama, Japan.

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**Light shapes the complexities of transcriptome and translome for a highly coordinated transition from skotomorphogenic to photomorphogenic development in Arabidopsis seedlings**

Shu-Hsing Wu, Guan-Hong Chen, Geng-Jen Jang, Chun-Kai Huang [20'+10']

Presenter affiliation: Academia Sinica, Taipei, Taiwan.

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**DNA methylation and histone H1 jointly repress transposable elements and aberrant intragenic transcripts**

Jaemyung Choi, David B. Lyons, M. Yvonne Kim, Jonathan D. Moore, Daniel Zilberman [10'+5']

Presenter affiliation: John Innes Centre, Norwich, United Kingdom.

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***Arabidopsis* ABCG28 is required for the apical accumulation of reactive oxygen species in growing pollen tubes**

Thanh Ha T. Do, Hyunju Choi, Michael Palmgren, Enrico Martinoia, Jae-Ung Hwang, Youngsook Lee [10'+5']

Presenter affiliation: POSTECH, Pohang, South Korea.

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***Coffee Break***

**The single-cell CAPability of plant roots**

Jian Xu [20'+10']

Presenter affiliation: Radboud University, Nijmegen, the Netherlands.

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**Default activation and nuclear translocation of the plant cellular energy sensor SnRK1 regulate metabolic stress responses and development**

Matthew Ramon, Tuong Vi T. Dang, Tom Broeckx, Sander Hulsmans, Nathalie Crepin, Jen Sheen, Filip Rolland [20'+10']

Presenter affiliation: KU Leuven, Leuven, Belgium.

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**A regulatory module controlling cell cycle arrest in response to multiple stresses**

Masaaki Umeda, Naoki Takahashi [10'+5']

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

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**HPY2/MMS21 E3 ligase mediates SUMOylation of the type-B response regulator ARR1 for cold signaling and cytokinin response in *Arabidopsis***

Na Young Kang, Seon Jeong, Min-Jung Kim, Sun Young Moon, Jin Jeon, Boyoung Lee, Mi Rha Lee, Jungmook Kim [10'+5']

Presenter affiliation: Chonnam National University, Gwangju, South Korea.

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TUESDAY, November 5—2:00 PM

**Visit to Old Gyeongju**

**SESSION 5**      NEW TECHNOLOGIES

**Chairperson:**    **Jian-Kang Zhu**, Shanghai Center for Plant Stress Biology, CAS, Shanghai, China / Purdue University, West Lafayette, Indiana, USA

**Using CRISPR/Cas in plants—From gene editing to genome engineering**

Holger Puchta [20'+10']

Presenter affiliation: Karlsruhe Institute of Technology, Karlsruhe, Germany.

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**Strategies for efficient gene targeting in *Arabidopsis***

Fangnan Peng, Wenxin Zhang, Wenjie Zeng, Daisuke Miki, Jian-Kang Zhu [20'+10']

Presenter affiliation: Chinese Academy of Sciences, Shanghai, China; Purdue University, West Lafayette, Indiana.

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**Synthetic apomixis in hybrid rice**

Kejian Wang [20'+10']

Presenter affiliation: China National Rice Research Institute, Hangzhou, China.

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**Coffee Break**

**Future Green Revolutions enabled via GRF4-mediated enhancement of crop nitrogen use efficiency**

Shan Li, Xiangdong Fu [10'+5']

Presenter affiliation: Nanjing Agricultural University, Nanjing, China.

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**Precision genome engineering through adenine base editing in plants**

Jae-Young Yun, Jin-Soo Kim [10'+5']

Presenter affiliation: Institute for Basic Science, Daejeon, South Korea.

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**Downregulation of RdDM during strawberry fruit ripening**

Jingfei Cheng, Qingfeng Niu, Bo Zhang, Kunsong Chen, Ruihua Yang, Jian-Kang Zhu, Yijing Zhang, Zhaobo Lang [10'+5']

Presenter affiliation: University of the Chinese Academy of Sciences, Beijing, China; Chinese Academy of Sciences, Shanghai, China.

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WEDNESDAY, November 6—9:00 AM

**SESSION 6**      **ORGANELLAR BIOLOGY**

**Chairperson:**    **Georgia Drakakaki**, University of California-Davis,  
Davis, California, USA

**New insights into the interplay between endomembrane dynamics  
and cell wall build up**

Georgia Drakakaki [20'+10']

Presenter affiliation: University of California Davis, Davis, California.      93

**Scaffold proteins define substrate specificity of *Arabidopsis*  
*thaliana* SHAGGY-like kinases**

Jenny (E.) Russinova [20'+10']

Presenter affiliation: Ghent University, Ghent, Belgium; VIB, Ghent,  
Belgium.      94

**Functions and regulation of vacuoles in stomata and gravitropism**

Carla Brillada, Belinda Akpa, John Selwanes, Mengying Wang,

Katherine Danz, Marcela Rojas-Pierce [20'+10']

Presenter affiliation: North Carolina State University, Raleigh, North  
Carolina.      95

**Coffee Break**

**Organelle biogenesis and biogenesis in plants**

Liwen Jiang [20'+10']

Presenter affiliation: The Chinese University of Hong Kong, Hong  
Kong, Hong Kong.      96

**Oxidative post-translational modification—Its impact on  
chloroplasts-nucleus communication**

Vivek Dogra, Mingyue Li, Somesh Singh, Mengping Li, Chanhong Kim  
[10'+5']

Presenter affiliation: Shanghai Center for Plant Stress Biology,  
Shanghai, China; University of the Chinese Academy of Sciences,  
Beijing, China.      97

**Intracellular PD-targeting of mobile mRNA is mediated through  
endomembranous vesicles in *N. benthamiana***

Kai-Ren Luo, Nien-Chen Huang, Tien-Shin Yu [10'+5']

Presenter affiliation: Academia Sinica, Taipei, Taiwan.      98

**SESSION 7** PHOTORECEPTOR AND TEMPERATURE SENSING

**Chairperson:** **Jorge Casal**, Universidad de Buenos Aires and CONICET, Buenos Aires, Argentina

**Perception and signalling of shade and warm temperatures**

Jorge J. Casal [20'+10']

Presenter affiliation: Universidad de Buenos Aires and CONICET, Buenos Aires, Argentina; Fundación Instituto Leloir, Buenos Aires, Argentina.

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**Sequestration of florigen by membrane phosphatidylglycerol modulates ambient temperature-responsive flowering**

Ji Hoon Ahn [20'+10']

Presenter affiliation: Korea University, Seoul, South Korea.

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**Temperature sensors of redox protein in plants that enhance multi-stress tolerance to plants**

Eun Seon Lee, Joung Hun Park, Ho Byeong Chae, Chang Ho Kang, Yong Hun Chi, Seol Ki Paeng, Woe Yeon Kim, Dae Jin Yun, Sang Yeol Lee [20'+10']

Presenter affiliation: Gyeongsang National University, Jinju, South Korea.

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**Regulation of thermomorphogenesis by expression of PhyB variants in Arabidopsis**

Youn-Il Park, Jin Jeon, Dong Ho Shin [10'+5']

Presenter affiliation: Chungnam National University, Daejeon, South Korea.

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**Coffee Break**

**Phytochrome light receptors control metabolite dynamics and set the trajectory for biomass production at the seedling stage**

Johanna Krahmer, Ammad Abbas, Virginie Mengin, Hirofumi Ishihara, Thiago Moraes, Nicole Krohn, Maria-Grazia Annunziata, Mark Stitt, Karen J. Halliday [20'+10']

Presenter affiliation: University of Edinburgh, Edinburgh, United Kingdom.

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**Phytochrome diversifies the proteome through alternative promoter selection to confer adaptability to light environments**  
Tomonao Matsushita [20'+10']  
Presenter affiliation: Kyushu University, Fukuoka, Japan. 104

**Temperature perception by phototropin to optimize chloroplast positioning**  
Yutaka Kodama [20'+10']  
Presenter affiliation: Utsunomiya University, Utsunomiya, Japan. 105

**Epidermal phyB promotes light responses via HY5 by integrating both light and temperature conditions**  
Giltsu Choi [20'+10']  
Presenter affiliation: KAIST, Daejeon, South Korea. 106

WEDNESDAY, November 6—7:00 PM

**CONFERENCE BANQUET**

THURSDAY, November 7—9:00 AM

**SESSION 8 VASCULATURE DEVELOPMENT**

**Chairperson:** **Christian Hardtke**, University of Lausanne, Lausanne, Switzerland

**Long distance peptide signaling mediating nitrogen homeostasis**  
Yoshikatsu Matsubayashi [20'+10']  
Presenter affiliation: Nagoya University, Nagoya, Japan. 107

**Developing phloem in the Arabidopsis root meristem—A balancing act**  
Christian S. Hardtke [20'+10']  
Presenter affiliation: University of Lausanne, Lausanne, Switzerland. 108

**SHORTROOT-mediated phloem development in Arabidopsis roots**  
Ji-Young Lee, Hyojin Kim, Deepak Kumar [10'+5']  
Presenter affiliation: Seoul National University, Seoul, South Korea. 109

**Reshaping tomato yield with flowering time variants**

Sujeevan Rajendran, Jung Heo, Yong Jun Kim, Sukgui Oh, Jong Hyang Bae, Soon Ju Park [10'+5']

Presenter affiliation: Wonkwang University, Iksan, South Korea.

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**Cycling DOF transcription factor determines photoperiodic response on secondary growth via direct control of cambium activity**

Hyunwoo Cho, Hyeona Hwang, Dongbo Shi, Thomas Greb [10'+5']

Presenter affiliation: Chungbuk National University, Cheongju, South Korea.

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***Coffee Break***

**Controlling cell division orientation during vascular proliferation in plants**

Bert De Rybel [20'+10']

Presenter affiliation: VIB, Ghent, Belgium; Ghent University, Ghent, Belgium.

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**Translational control by RNA G-quadruplex/zinc-finger protein in plant development**

Ildoo Hwang [20'+10']

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

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