The 33rd International Conference on Arabidopsis Research

Arabidopsis for SDGs

CHIBA, Japan
June 5-9
Makuhari Messe

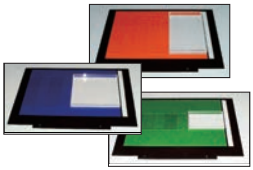
Image Analysis Tools for Roots and Seedlings

WinRHIZO™ • Four Versions

• Basic, Regular & Pro

Automatic Analysis Systems for Washed Roots

Scan washed roots with Regent's scanners and accessories.



See analysis results summarized on screen after scanning.

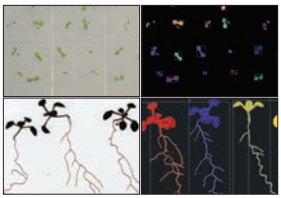
- √ Root morphology in function of root diameter and color: length, area, volume and number of tips
- √ Number of forks and crossings
- √ Root overlap detection for accurate measurement
- √ Topology, link and architecture with fractals
- √ Developmental classification
- •• Available measurements and features vary according to WinRHIZO's version.

• Arabidopsis

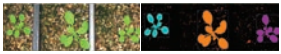
Automatic Analysis System for Washed Roots and Seedlings grown in Petri Dish

Analyse seedlings and leaves:

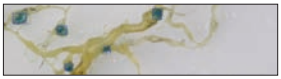
Globally *Individually*



- √ Leaf area of seedlings in Petri dish
- √ Germination Count
- √ Leaf area - leaf/hypocotyl distinction
- √ Root morphology
- √ Topology and developmental analysis



- √ Leaf area, length and width of plant in soil



- √ Surface area and automatic count of non-touching nodules
- •• Includes also all measurements and features of WinRHIZO Pro.

WinRHIZO™ Tron • Two Versions

• Tron & Tron MF

Software Programs for Interactive Analysis of Images of Roots in Soil and Rhizotron

Trace roots manually with a mouse or by touching the screen of all-in-one or tablet computers.

Monitor root growth by analysing Multiple Frames (images) of a root system taken at different times.

- √ Root morphology in function of root diameter and color: length, area, volume and number of tips
- √ Topology and developmental analysis
- √ Data retrievable from file names using the ICAP naming scheme
- √ Previous analysis can be retrieved to resume analysis of the same location at a later time simply by adding new or dead roots since the last analysis.

We offer eight software product families for research on plants and trees.
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SESSION OVERVIEW

Monday, June 5,2023	
14:00-15:00	Work shop 1-4
15:50-16:00	Opening
16:00-17:30	Keynote 1-2
18:00-20:00	Reception

Tuesday, June 6, 2023	
9:00-10:30	Plenary 1: From single cells to an organism
11:00-12:30	Plenary 2: Interactions between organism
	Work shop 5
14:30-16:00	Concurrent 1: Advances in plant nutrition under changing environment
	Concurrent 2: The environmentally responsive plant epigenome
	Concurrent 3: New tools and applications in plant molecular genetics
	Concurrent 4: Cellular reprogramming in regeneration and development
	Concurrent 5: Organelle- organelle communication under stress
	Concurrent 6: Plant proteostasis: The dynamic proteome in plant cell signalling
16:30-18:00	Concurrent 7: Arabidopsis and its translational research in the Global South
	Concurrent 8: Understanding circadian regulation in unpredictable environments
	Concurrent 9: Guard cell signaling and metabolism
	Concurrent 10: Development and environmental respomes: What are kept and what are lost over the evolutionary history or land plants
	Concurrent 11: Role of biomolecular condensates in abiotic stress signaling
	Concurrent 12: Translation regulation in plants
18:00-20:00	Poster discussion

Wednesday, June 7, 2023	
9:00-10:30	Concurrent 13: Integration of Arabidopsis and research in plant biotic interactions
	Concurrent 14: Stress-induced signaling peptides
	Concurrent 15: Arabidopsis relatives from laboratories to natural fields
	Concurrent 16: Plant epigenetic and chromatin dynamics
	Concurrent 17: Hidden message of RNAs for environmental responses
	Concurrent 18: Making contacts: Membrane contact sites between pant organelles

11:00-12:30	Concurrent 19: Temporal regulation of environmental responses, growth, and development
	Concurrent 20: Interdisciplinary approaches applied to plasmodesmata research
	Concurrent 21: Molecular signaling in plant-insect interactions
	Concurrent 22: Molecular condensation for reproductive and biotic stress regulation: From cell biology to biophysical mechanism
	Concurrent 23: A systems perspective: Omics Integration and modeling
	Concurrent 24: Transposable elements, epigenetics, and environmental adaptation
14:30-16:00	Plenary 3: Sustainable society and plants
16:30-18:00	Plenary 4:Functional metabolomics
18:00-20:00	Poster Discussion

Thursday, June 8, 2023

9:00-10:00	Workshop 6-10
10:30-12:00	Concurrent 25: The road recovery: Elucidating stress recovery pathways and reversing stress effects
	Concurrent 26: Receptor kinase signaling in development
	Concurrent 27: Chemical priming as a sustainable tool for improved productivity under stress conditions
	Concurrent 28: Cross-kingdom RNA communications and innocative disease comtrol solitions
	Concurrent 29: Visualizing the dynamic of the circadian clock
12:45-	Workshop 11
14:00-15:30	Concurrent 30: Living on the edge: Adaptation of Arabidopsis extremophyte relatives to harsh environments
	Concurrent 31: Short and long range signaling by RNA
	Concurrent 32: Mechanisms and functions of endocytosis in plants
	Concurrent 33: Front-line of plant genome engineering
	Workshop 12 MASC: Arabidopsis for SDGs/4th Decadal Vision
16:00-17:30	Plenary 5: Evolution and ecology
18:00-22:30	Banquet

Friday, June 9, 2023

9:00-10:30	Plenary 6: Integration of environmental cues
11:00-11:45	Keynote: 3
11:45-12:00	Closing

Meeting information

Contact

If you have any questions, please contact:

Corporate 3rd Office, Kinki Nippon Tourist Co., Ltd
General inquiries: secretariat@icar2023.org
Abstract submission: icar2023-abst@or.knt.co.jp
Registration: icar2023-rgst@or.knt.co.jp

Registration desk Opening hours

The registration and information booth will be open from:
June 5th: 1:00 pm- 7:00 pm
June 6th: 8:00 am- 18:00 pm
June 7th: 8:00 am- 18:00 pm
June 8th: 8:00 am- 17:00 pm
June 9th: 8:00 am- 12:00 noon

Meeting Venue

Makuhari Messe
International Conference hall
2-1, Nakase, Mihama-ku, Chiba-city, 261-8550 Japan

- Approx. 5 minutes on foot from Kaihimmakuhari Station on the JR Keiyō Line
  (approx. 30 minutes on the rapid train from Tokyo Station)
  *Approx. 20 minutes on foot from Makuharitoyosuna Station on the JR Keiyō Line

- Approx. 17 minutes by bus for Makuhari Messe Chuo from Makuharihongō Station on the JR Sōbu Line or Keisei Line

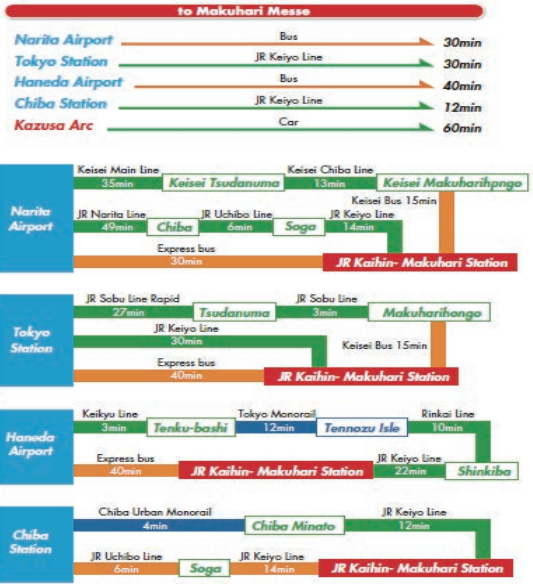
Banquet

“YAKATABUNE” Traditional Cruising Japanese Style
Website: http://yakatabune-tokyo.com/index.html
■ Date : June 8 (Thu) From 19:00 ~ (2.5 hour)
■ Bus will depart at 18:00 from Makuhari Messe to “YAKATABUNE”.
*Please make your own way home for return.
■ Boarding place of “YAKATABUNE” : Kasaibashi Boat Pier
■ Disembarkation place : Harumi Asashio Boat Pier

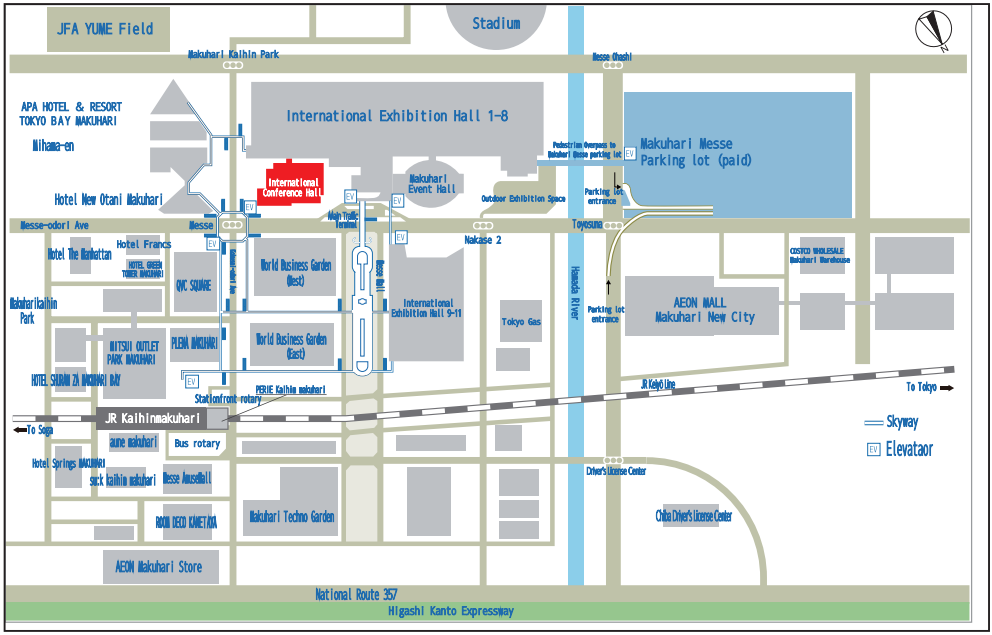
Local Access

With world-class transportation networks such as trains, subways, and buses allows easy access to your destination to any part of Japan. Multilingual signage and digital apps are available for easy navigation. IC passes such as SUICA and PASMO allow hop on and off trains and buses with ease.

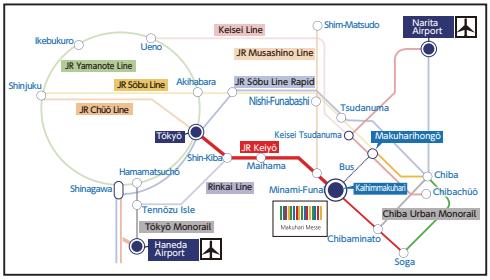
Makuhari Messe is only 30 minutes away from Central Tokyo.



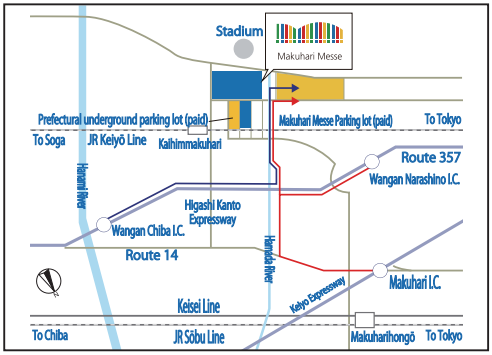
Area MAP



■By train

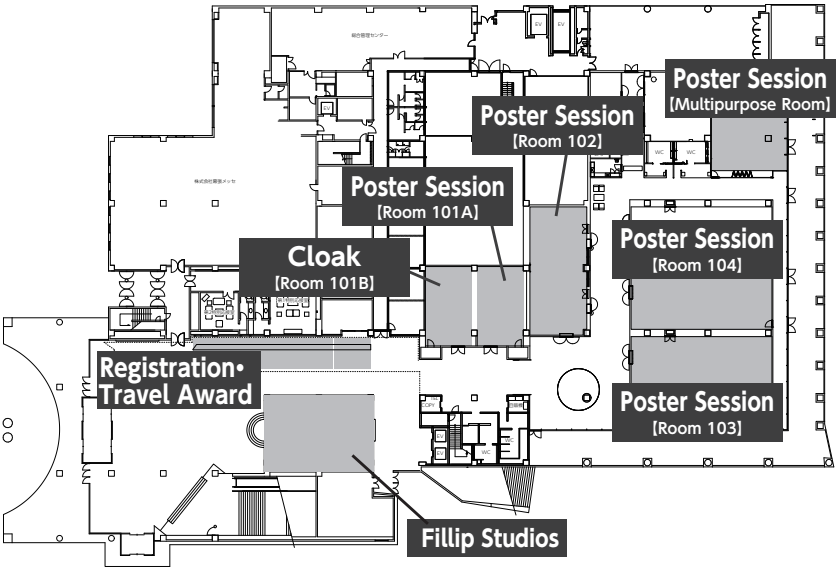


■By car



Layout of the venue

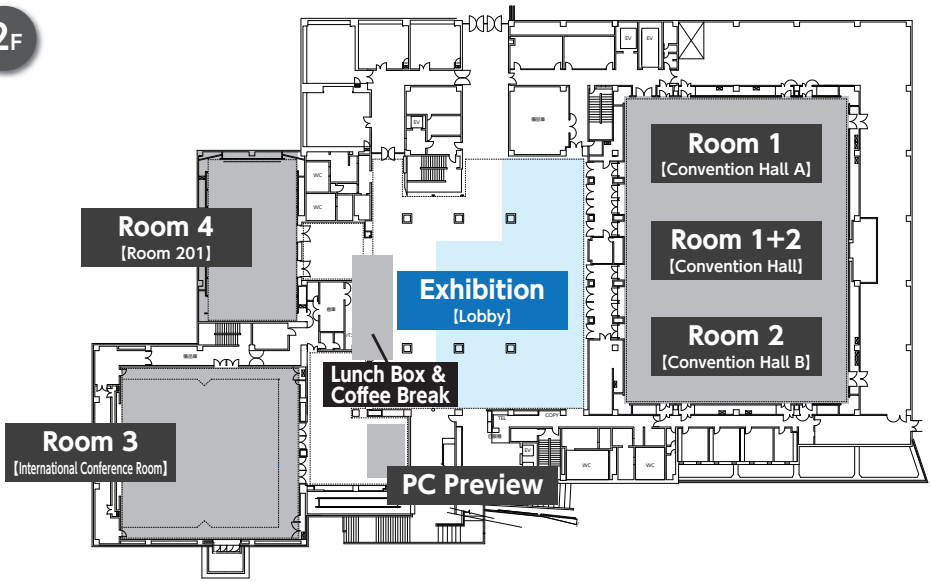
1F



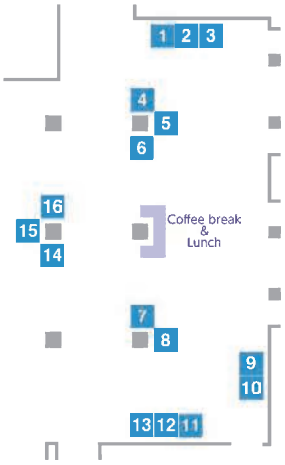
Poster Session

	ODD	EVEN
Room101A	PO001-PO039	PO002-PO040
Room102	PO041-PO119	PO042-PO120
Room103	PO121-PO249	PO122-PO250
Room104	PO251-PO379	PO252-PO380
Multipurpose Room	PO381-PO479	PO382-PO480
Room303	PO481-PO603	PO482-PO604
Room304	PO605-PO719	PO606-PO720

2F



1	Yale University - Plant Molecular Biology (PMB)
2	RIKEN CSRS
3	RIKEN BRC / NBRP Arabidopsis
4	Bio Medical Science Inc.
5	LECO Japan Corporation
6	Agrisera antibodies
7	Nottingham Arabidopsis Stock Centre (NASC) / ABRC
8	Berthold Technologies GmbH& Co. KG
9	Oxford University Press
10	Journal of Experimental Botany
11	Journal of Integrative Plant Biology
12	The Arabidopsis Information Resource / Phoenix
13	Plant Cell Atlas
14	XUNON INSTRUMENTS
15	PhytoAB Inc
16	Kazusa DNA Research Institute



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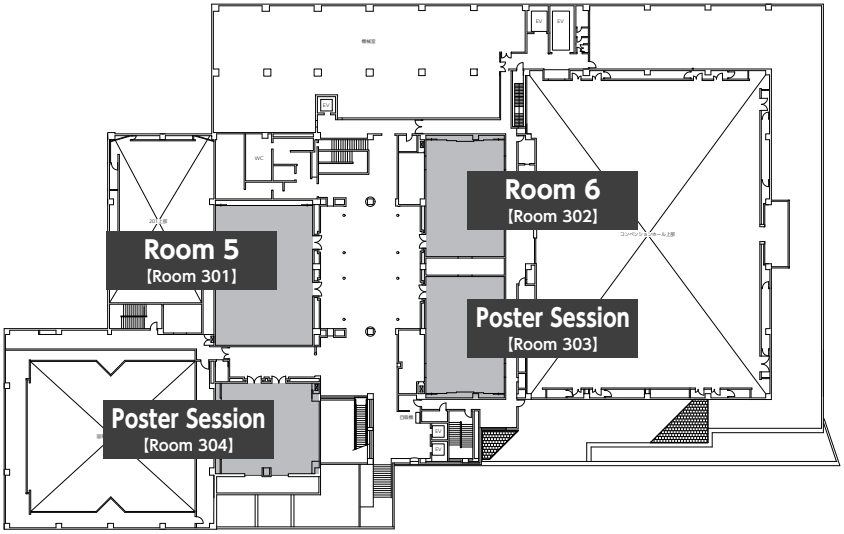

ICAR2023 Code of Conduct.

The Multinational Arabidopsis Steering Committee (MASC) and the organisers of ICAR2023 are committed to ensuring that ICAR conferences are a welcoming and inclusive space for sharing of ideas, knowledge exchange and for developing collaborative opportunities for everyone who attends.

To this end, ICAR2023 will provide a safe environment that promotes equal opportunity and treatment for all participants and that is free of harassment and discrimination.

This code of conduct applies to all registered attendees, speakers, exhibitors, staff, contractors, volunteers, and guests; and it applies both within the ICAR2023 conference venue, within the online-platform and in associated events and locations where ICAR2023 conference delegates are present.

Download full Code of Conduct from MASC website.

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Academic Sponsors and Scientific Journals

tair ABRC Arabidopsis Biological Resource Center abrc.osu.edu NAASC The North American Arabidopsis Steering Committee Periodicity and its Modulation in Plants 植物の周期と変調

IPMB ABRC ACADEMIA SINICA Innovative plant reproductive systems Genomic dynamics underlying the plastic hermaphroditism in plants: the basis of exploratory reproductive adaptations. Plant Molecular Biology Springer

KIBR YOKOHAMA CITY UNIVERSITY Kihara Institute for Biological Research CER 京都大学 生態学研究センター Center for Ecological Research, Kyoto University.

文部科学省 科学研究費助成事業 学術変革領域研究(A) 不均一環境と植物 Plant Resilience under Fluctuating Environment KEPLR Key-Molecule-Network in Plant Reproduction Molecular Plant

JIPB Journal of Integrative Plant Biology Kazusa DNA Res. Inst. Current Biology A Cell Press journal

Plant Physiology OXFORD UNIVERSITY PRESS PCP PLANT & CELL PHYSIOLOGY

PLANT CELL ATLAS THE PLANT CELL THE EMBO JOURNAL Quantitative Plant Biology

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Host City and Venue

Chiba prefecture

CHIBA CITY

公益財団法人 ちば国際コンベンションビューロー Chiba Convention Bureau and International Center(CCB-IC)

Start your future 幕張メッセ Makuhari Messe

Keynote | Keynote | Keynote

[Keynote 01] Transcriptional regulatory network of plant abiotic stress responses

Kazuko Yamaguchi-Shinozaki(Tokyo University of Agriculture)
Chair:Motoaki Seki(RIKEN CSRS)
Mon. Jun 5, 2023 4:00 PM - 4:45 PM Makuhari Messe 2F(Room 1+2)
This session is sponsored by RIKEN BRC and RIKEN CSRS.

[Keynote_01] Transcriptional regulatory network of plant abiotic stress responses

*Kazuko Yamaguchi-Shinozaki[1,2], Kazuo Shinozaki[3] (1. Tokyo University of Agriculture, Japan, 2. The University of Tokyo, Japan, 3. RIKEN CSRS, Japan)
4:00 PM - 4:45 PM

Keynote | Keynote | Keynote

[Keynote 02] Regulation of Arabidopsis leaf growth and applications in crops

Dirk Inzé(VIB Center for Plant Systems Biology)
Chair:Keiko Sugimoto(RIKEN CSRS)
Mon. Jun 5, 2023 4:45 PM - 5:30 PM Makuhari Messe 2F(Room 1+2)
This session is sponsored by RIKEN BRC and RIKEN CSRS.

[Keynote_02] Regulation of Arabidopsis leaf growth and applications in crops

*Dirk Inzé[1,2] （1. VIB Center for Plant Systems Biology, 2. UGent）
4:45 PM - 5:30 PM

Keynote | Keynote | Keynote

[Keynote 03] Deconstructing Plant Processes: Cell by Cell

Joseph R. Ecker(Salk Institute for Biological Studies)
Chair:Tetsuya Higashiyama(University of Tokyo, Japan)
Fri. Jun 9, 2023 11:00 AM - 11:45 AM Makuhari Messe 2F(Room 1+2)
This session is sponsored by RIKEN BRC and RIKEN CSRS.

[Keynote_03] Deconstructing Plant Processes: Cell by Cell

*Joseph Ecker[1,2], Travis Lee[1,2], Tatsuya Nobori[1], Natanella Illouz-Eliaz[1], Joseph Swift[1], Jiaying Xu[1], Bruce Jow[2], Joseph Nery[1] (1. Salk Institute for Biological Studies, 2. Howard Hughes Medical Institute)
11:00 AM - 11:45 AM

Plenary | Plenary | Plenary

[Plenary 01] From single cells to an organism

【Plenary 01-01】 Anja Geitmann(McGill University)
【Plenary 01-02】 Kalika Prasad(Indian Institute of Science Education and Research)
【Plenary 01-03】 Bert De Rybel(Ghent University)
Chair:Keiji Nakajima(Nara Institute of Science and Technology), Ikram Blilou(King Abdullah University of Science and Technology), Ken Birnbaum(New York University)
Tue. Jun 6, 2023 9:00 AM - 10:30 AM Makuhari Messe 2F(Room 1)
This session is sponsored by MEXT Grant-in-Aid for Scientific Research on Innovative Areas "Periodicity and Its Modulation in Plants".

Periodicity and its Modulation in Plants
植物の周期と変調

[Plenary_01-01] Fast and invasive cell growth requires resilient cell wall assembly

Karuna Kapoor[1], *Anja Geitmann[1] （1. McGill University, Montreal, Canada）
9:00 AM - 9:30 AM

[Plenary_01-02] Mechanical conflict and cell polarity in *de novo* shoot initiation

*Kalika Prasad[1] （1. Department of Biology, Indian Institute of Science Education and Research, Pune, 411008 INDIA ）
9:30 AM - 10:00 AM

[Plenary_01-03] Understanding vascular development using chemical and single cell biology

BaoJun Yang[1,2], Yanbiao Sun[1,2], Akshay Gokulendran Nair[1,2], Claudia Von der Mark[1,2], Thomas Depuydt[1,2], Klaas Vandepoele[1,2], *Bert De Rybel[1,2] （1. VIB Centre for Plant Systems Biology, 2. Ghent University, Department of Plant Biotechnology and Bioinformatics）
10:00 AM - 10:30 AM

Plenary | Plenary | Plenary

[Plenary 02] Interactions between organisms

【Plenary 02-01】 Eunyoung Chae (National University of Singapore)
【Plenary 02-02】 Kee Hoon Sohn(Seoul National University)
【Plenary 02-03】 Xiufang Xin(John Innes Centre)
Chair:Satoko Yoshida(Nara Institute of Science and Technology), Yasuhiro Kadota(RIKEN Center for Sustainable Resource Science (CSRS)), Kei Hiruma(The University of Tokyo)
Tue. Jun 6, 2023 11:00 AM - 12:30 PM Makuhari Messe 2F(Room 1)
This session is sponsored by SUMITOMO CHEMICAL Co.,Ltd..

[Plenary_02-01] Leveraging *DANGEROUS MIX* Autoimmunity to Understand Host-Microbe Interactions

*Eunyoung Chae[1] （1. National University of SinGapore）
11:00 AM - 11:30 AM

[Plenary_02-02] Overlapping and distinct pathogen effector recognition specificities conferred by independently evolved NLR proteins in plants

Ye Jin Ahn[1], Haseong Kim[2], Sera Choi[1], Carolina Mazo-Molina[3], Maxim Prokchorchik[1], Ning Zhang[3], Boyoung Kim[6], Hyunggon Mang[1], Hayeon Yoon[1], Cecile Segonzac[2,6], Gregory B Martin[3], Alex Schultink[4], *Kee Hoon Sohn[1,2,5] （1. Department of Life Sciences, Pohang University of Science and Technology, Pohang 37673, Republic of Korea, 2. Plant Immunity Research Center, Seoul National University, Seoul 08826, Republic of Korea, 3. Boyce Thompson Institute for Plant Research, Cornell University, Ithaca, NY 14853, USA, 4. Fortiphyte Inc., Berkeley CA, USA, 5. Department of Agricultural Biotechnology, Seoul National University, Seoul 08826, Republic of Korea, 6. Department of Agriculture, Forestry and Bioresources, Seoul National University, Seoul 14 08826, Republic of Korea）
11:30 AM - 12:00 PM

[Plenary_02-03] Understanding environmental influence on plant-pathogen interactions

*Xiufang Xin[1], Yezhou Hu[1], Yanxia Ding[1], Lingya Yao[1], Zeyu Jiang[1], Minhang Yuan[1] （1. Center for Excellence in Molecular Plant Sciences, Institute of Plant Physiology and Ecology, Chinese Academy of Sciences; CEPAMS, Chinese Academy of Sciences-John Innes Center joint program）
12:00 PM - 12:30 PM

Plenary | Plenary | Plenary

[Plenary 03] Sustainable society and plants

【Plenary 03-01】 Gabriela Auge (CONICET / University of Buenos Aires)
【Plenary 03-02】 Kim Johnson(La Trobe Institute for Agriculture &Food (LIAF))
【Plenary 03-03】 Steven Runo(Kenyatta University)
Chair:Minako Ueda(Graduate School of Life Sciences, Tohoku University), Taku Demura(Nara Institute of Science and Technolgy), Miyo Terao-Morita(National Institute for Basic Biology)
Wed. Jun 7, 2023 2:30 PM - 4:00 PM Makuhari Messe 2F(Room 1)
This session is sponsored by RIKEN CSRS.

[Plenary_03-01] Plant environmental memory: adaptive plasticity in the context of climate change

*Gabriela Auge[1] (1. Consejo Nacional de Investigaciones Científicas y Tecnologicas (CONICET))
2:30 PM - 3:00 PM

[Plenary_03-02] Investigating the role of Wall-associated kinases (WAKs) during secondary wall development

*Kim Johnson[1,4], Yingxuan Ma[2,1], John Humphries[1], Antony Bacic[1,4], Guiqin Qu[3] (1. La Trobe University, Australia, 2. Nanjing Forestry University, China, 3. China Agricultural University, Beijing, China, 4. Zhejiang Agriculture and Forestry University, China)
3:00 PM - 3:30 PM

[Plenary_03-03] The parasitic plant (Striga) and sorghum arms race

*Steven Maina Runo[1] (1. Kenyatta University)
3:30 PM - 4:00 PM

Plenary | Plenary | Plenary

[Plenary 04] Functional metabolomics

【Plenary 04-01】 Asaph Aharoni (Weizmann Institute of Science)
【Plenary 04-02】 Sibongile Mafu(University of Massachusetts Amherst)
【Plenary 04-03】 Masami Yokota Hirai(RIKEN)
Chair:Mami Yamazaki(Graduate School of Pharmaceutical Sciences, Chiba University), Miyako Kusano(University of Tsukuba), Yuki Nakamura(RIKEN Center for Sustainable Resource Science)
Wed. Jun 7, 2023 4:30 PM - 6:00 PM Makuhari Messe 2F(Room 1)
This session is sponsored by RIKEN CSRS.

[Plenary_04-01] How do Plants Evolve Specialized Metabolites and Pathways?

*Asaph Aharoni[1] （1. Department of Plant &Environmental Sciences, Weizmann Institute of Science, Israel）
4:30 PM - 5:00 PM

[Plenary_04-02] Dissecting gene-metabolite relationships in the legume terpenome

*Sibongile Mafu[1] （1. University of Massachusetts Amherst）
5:00 PM - 5:30 PM

[Plenary_04-03] Exploring plant metabolite functions beyond the conventional view

*Masami Yokota Hirai[1,2] （1. RIKEN Center for Sustainable Resource Science, Japan, 2. Nagoya University, Japan）
5:30 PM - 6:00 PM

Plenary | Plenary | Plenary

[Plenary 05] Evolution and ecology

【Plenary 05-01】 Filip Kolář (Charles University)
【Plenary 05-02】 Cheng-Ruei Lee(National Taiwan University)
【Plenary 05-03】 Edwige Moyroud(University of Cambridge)
Chair:Takashi Tsuchimatsu(University of Tokyo), Eriko Sasaki(Kyushu University), Vincent Castric(CNRS - University of Lille)
Thu. Jun 8, 2023 4:00 PM - 5:30 PM Makuhari Messe 2F(Room 1)
This session is sponsored by Plant &Cell Physiology, the official journal of JSPP.

[Plenary_05-01] Adaptation in natural populations of outcrossing *Arabidopsis* species

*Filip Kolář Kolář[1] （1. Charles University）
4:00 PM - 4:30 PM

[Plenary_05-02] The Mendelian and polygenic bases of weedy *Arabidopsis thaliana* evolution

Cheng-Yu Lo[1], *Cheng-Ruei Lee[1] （1. National Taiwan University, Taiwan）
4:30 PM - 5:00 PM

[Plenary_05-03] All bullseyes great and small: Eco-Evo-Devo of petal patterning in Hibiscus

*Edwige Moyroud[1], May T. S. Yeo[1], Alice L.M. Fairnie[1], Lucie Riglet[1], Joseph F Walker[1,2], Elena Salvi[1], Stefano Gatti[1], Valentina Travaglia[1,3] （1. University of Cambridge, United Kingdom, 2. University of Illinois at Chicago, USA, 3. University of Copenhagen, Denmark）
5:00 PM - 5:30 PM

Plenary | Plenary | Plenary

[Plenary 06] Integration of environmental cues

【Plenary 06-01】 José M. Estevez (UNAB/Fundació n Instituto Leloir)
【Plenary 06-02】 Debora Gasperini(Leibniz Institute of Plant Biochemistry (IPB))
【Plenary 06-03】 Yoshikatsu Matsubayashi(Nagoya university)
Chair:Jian-Kang Zhu(Southern University of Science and Technology), Shu-Hsing Wu(Institute of Plant and Microbial Biology, Academia Sinica, Taiwan), Tomonao Matsushita(Graduate School of Science, Kyoto University)
Fri. Jun 9, 2023 9:00 AM - 10:30 AM Makuhari Messe 2F(Room 1+2)
This session is sponsored by MEXT Grants-in-Aid for Scientific Research (KAKENHI) , Plant Resilience under Fluctuating Environment.

不均一環境と植物
Plant Resilience under Fluctuating Environment

[Plenary_06-01] " To GROW or not to GROW": molecular mechanism of cell elongation at low temperature in single plant cells.

*José M. Estevez[1,2,3] （1. Centro de Biotecnología Vegetal, Facultad de Ciencias de la Vida, Universidad Andres Bello, Santiago, Chile, 2. Fundación Instituto Leloir-IIBBA, 3. ANID - Millennium Science Initiative Program - Millennium Institute for Integrative Biology (iBio) and Millennium Nucleus for the Development of Super Adaptable Plants (MN-SAP), Santiago, Chile.）
9:00 AM - 9:30 AM

[Plenary_06-02] Integrating osmotic potential with Jasmonate-mediated plant acclimation

*Debora Gasperini[1] （1. Leibniz Institute of Plant Biochemistry (IPB), Halle, Germany）
9:30 AM - 10:00 AM

[Plenary_06-03] Peptide signal-mediated adaptation to spatially and temporally fluctuating environments in plants

*Yoshikatsu Matsubayashi[1] （1. Nagoya University）
10:00 AM - 10:30 AM

Concurrent | Concurrent | Concurrent 01-06

[Concurrent 01] Advances in plant nutrition under changing environment

Plants have evolved highly effective transport, sensing and signaling systems to ensure acquisition of sufficient minerals for growth and development. This session aims to share new results on newly identified genes/regulatory pathways or metabolites involved in the regulation of ion homeostasis in plants. These include, but are not limited to: (i) effects of limitation or excess of various macro- and microelements on plant growth capacity; (ii) effects of components of global climate changes (drought, CO2, heat, etc.) on the regulation of ions transport and assimilation.
Chair:Hatem Rouached(Michigan State University), Benoit Lacombe(CNRS)
Tue. Jun 6, 2023 2:30 PM - 3:54 PM Makuhari Messe 2F(Room 1)

[Concurrent_01-01] *Plant growth stimulation by elevated CO2 depends on phosphorus homeostasis in chloroplasts*
*Hatem ROUACHED[1,2,3] (1. Michigan State University, 2. The Plant Resilience Institute, 3. Department of Plant, Soil and Microbial Sciences)
2:30 PM - 2:37 PM

[Concurrent_01-02] *Nutritional interactions in plants (N x P) and new type of GWAS providing full epistatic maps with a gene resolution.*
*Gabriel KROUK[1] (1. CNRS)
2:38 PM - 2:48 PM

[Concurrent_01-03] Plasticity of root permeability for nutrient acquisition
*Marie Barberon[1] (1. University of Geneva, Switzerland)
2:49 PM - 3:01 PM

[Concurrent_01-04] BUZZ: An essential gene in post-initiation root hair growth and root architecture in response to nitrate
*Karen Anne Sanguinet[1], Thiel A Lehman[4], Miguel A Rosas[1], Rhoda Brew-Appiah, Shyam Solanki[3], Zara B York, Rachel Dannay, Ying Wu[5], Eric H Roalson[1], Ping Zheng[1], Dorrie Main[1], Tobias I Baskin[2] (1. Washington State University, 2. University of Massachusetts-Amherst, 3. South Dakota State University, 4. University of North Carolina, 5. Northeast Normal University)
3:02 PM - 3:14 PM

[Concurrent_01-05] Live transcription imaging of plant Pi starvation response
*Laurent Nussaume[1], Sahar Hani[1], Pascale David[1], Neelima Boora[1], Thierry Desnos[1], Edouard Bertrand[2] (1. Institute of Biosciences and Biotechnologies of Aix-Marseille, CEA-CNRS-Université Aix Marseille UMR 7265 , FRANCE, 2. Institute of Human Genetics - CNRS UMR9002, FRANCE)
3:15 PM - 3:27 PM

[Concurrent_01-06] Nitrogen signaling mechanisms modulating root gravitropism: involvement of flowering repressor and peptide hormone signaling
Katerina S. Lay-Pruitt[1], Takao Araya[1,2], Nadia Bouain[1], Rashed Abualia[3], Ricardo F.H. Giehl[2], Eva Benková[3], Nicolaus von Wirén[2], *Hideki Takahashi[1] (1. Michigan State University, USA, 2. Leibniz Institute of Plant Genetics and Crop Plant Research, Germany, 3. Institute of Science and Technology

Austria, Austria）
3:28 PM - 3:38 PM

[Concurrent_01-07] 【 Short Talk】 Histone chaperone NAP1 proteins are involved in plant growth under nitrogen deficient conditions in *Arabidopsis thaliana*

*Jie Linnan[1], Miho Sanagi[1], Yongming Luo[1], Haruna Maeda[1], Yoichiro Fukao[2], Yukako Chiba[1], Shuichi Yanagisawa[3], Junji Yamaguchi[1], Junpei Takagi[1], Takeo Sato[1] （1. Hokkaido University, 2. Ritsumeikan University, 3. The University of Tokyo）

3:39 PM - 3:46 PM

[Concurrent_01-08] 【 Short Talk】 The genetic diversity provided by natural Arabidopsis accessions to identify potentially adaptive differences in root morphology and soil resource capture

Christopher I Vincent[1], Taraka Ramji Moturu[2], Thomas Drouet de la Thibauderie[2], Silvana Porco[2], Florence Reyé[2], Hugues De Gernier[3,4], Takehiro Kamiya[5], Natsuko Kobayashi[5], Keitaro Tanoi[5], Malcolm Bennett[6], Dirk Inzé[3,4], Mark Aarts[7], Arthur Korte[8], *Christian RM Hermans[2] （1. University of Florida, USA, 2. Université libre de Bruxelles, Belgium, 3. Ghent University, Belgium, 4. VIB Center for Plant Systems Biology, Belgium, 5. University of Tokyo, Japan, 6. University of Nottingham, United Kingdom, 7. Wageningen University, the Netherlands, 8. University of Würzburg, Germany）

3:47 PM - 3:54 PM

Concurrent | Concurrent | Concurrent 01-06

[Concurrent 02] The environmentally responsive plant epigenome

The environmental responsiveness of the plant epigenome is an emerging and fascinating research area. To shed new light on the underlying mechanisms, our speaker list covers exciting topics ranging from immediate impacts of stress over vernalization to technologies capturing epigenome dynamics.
Chair:Hong Qiao(University of Texas at Austin), Mark Zander(Rutgers, State University of New Jersey)
Tue. Jun 6, 2023 2:30 PM - 4:00 PM Makuhari Messe 2F(Room 2)

[Concurrent_02-01] Jasmonate signaling through the lens of epigenomics

*Mark Zander[1], Aanchal Choudhary[1], Moonia Ammari[1], Hyuk Sung Yoon[1] (1. Waksman Institute of Microbiology, Rutgers State University of New Jersey)

2:32 PM - 2:48 PM

[Concurrent_02-02] (Re)programming Cell Identity and Function in Response to intrinsic and extrinsic cues

Tomasz Bieluszwski[1], Sandhan Prakash[1], *Doris Wagner[1] (1. University of Pennsylvania)

2:49 PM - 3:05 PM

[Concurrent_02-03] A DNA element to remember ' winter cold' in Arabidopsis

Zheng GAO[1], Yaxiao LI, *Yuehui HE[1] (1. Peking University)

3:06 PM - 3:22 PM

[Concurrent_02-04] TANDEM ZINC-FINGER/PLUS3 integrates light and temperature signalling in plant nuclear hubs.

*Eirini Kaiserli[1], Anna Zioutopoulou[1], Elisa Vellutini[1], Giorgio Perrella[1,2], Weiwei Fang[1], Tianyuan Xu[1], Micaela Milani[1] (1. School of Molecular Biosciences, College of Medical, Veterinary and Life Sciences, University of Glasgow, Scotland, UK, 2. Department of Bioscience University of Milan, Italy)

3:23 PM - 3:39 PM

[Concurrent_02-05] 【Short Talk】 Sensory plastids in growth- and defense-related epigenetic phenotype adjustment

*Ha Eun Jeh[1], Jesús Beltrán[1,4], Robersy Sanchez[1], Xiaodong Yang[1,5], Isaac Dopp[1], Yashitola Wamboldt[2,3], Hardik Kundariya[1], Alenka Hafner[1], Sally A Mackenzie[1] (1. Pennsylvania State University, PA, USA, 2. University of Nebraska, Lincoln, NE, USA, 3. MatMaCorp, Lincoln, NE, USA, 4. University of California, Riverside, CA, USA , 5. Yangzhou University, Yangzhou, China)

3:40 PM - 3:49 PM

[Concurrent_02-06] 【Short Talk】 Epidermal Cell Type-Specific Chromatin Dynamics Underlying Arabidopsis Heat Stress Memory

*Daniel Slane[1,2], Kenneth W Berendzen[3], Yoshihiro Yoshitake[4], Christopher Grefen[5], Takayuki Kohchi[4], Takuya Sakamoto[2,6], Sachihiro Matsunaga[1] (1. Department of Integrated Biosciences, Graduate School of Frontier Sciences, The University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa, Chiba, 277-8562, Japan, 2. Department of Applied Biological Science, Faculty of Science and Technology, Tokyo University of Science, 2641 Yamazaki, Noda, Chiba 278-

8510, Japan, 3. Center for Plant Molecular Biology, University of Tübingen, Auf der Morgenstelle 32, Tübingen, 72076, Germany, 4. Graduate School of Biostudies, Kyoto University, Kyoto, 606-8502, Japan, 5. Faculty of Biology and Biotechnology, Molecular and Cellular Botany, University of Bochum, Universitätsstraße 150, 44780 Bochum, Germany, 6. Department of Science, Faculty of Science, Kanagawa University, 3-27-1, Rokkakubashi, Kanagawa-ku, Yokohama, Kanagawa, 221-8586, Japan）
3:50 PM - 3:59 PM

Concurrent | Concurrent | Concurrent 01-06

[Concurrent 03] New tools and applications in plant molecular genetics

The session will focus on developing new genetic and biotechnological discoveries in plant biology. This year's outstanding achievements in CRISPR biology (e.g., cell-type-specific genome editing, genome-scale sgRNA libraries), imaging mass spectrometry, TF interactomics, Cryo-electron microscopy of membrane proteins, flux metabolomics, plant phenomics, root micro-fluidics, super-resolution microscopy, and single-cell methylation, spatial transcriptomics and more have gained significant success worldwide. The session will allow scientists to present their most advanced discoveries and discuss the cutting technologies transforming plant science.

Chair:Eilon Shani(Tel Aviv University)

Tue. Jun 6, 2023 2:30 PM - 4:00 PM Makuhari Messe 2F(Room 3)

This session is sponsored by Plant Physiology.

Plant Physiology

[Concurrent_03-01] Identifying Transcriptional Activation Domains

*Lucia Strader[1], Nicholas Morffy[1], Clean Miller[1], Lisa Van den Broeck[2], Max Staller[3], Rosangela Sozzani[2] (1. Duke University, 2. North Carolina State University, 3. University of California Berkeley)

2:32 PM - 2:47 PM

[Concurrent_03-02] Natural and artificial regulation of plant cell states

*Ryan Lister[1] (1. University of Western Australia)

2:48 PM - 3:03 PM

[Concurrent_03-03] Time to sow: *In planta* CRISPR screens are ready

*Thomas Benjamin Jacobs[1,2], Ward Develtere[1,2], Marie Pfeiffer[1,2], Ward Decaestecker[1,2], Debbie Rombaut[1,2], Tom Ruttink[3], Moritz K. Nowack[1,2] (1. Department of Plant Biotechnology and Bioinformatics, Ghent University, Ghent, Belgium, 2. VIB Center for Plant Systems Biology, Ghent, Belgium, 3. ILVO, Flanders Research Institute for Agriculture, Fisheries and Food, Plant Sciences Unit, Melle, Belgium)

3:04 PM - 3:19 PM

[Concurrent_03-04] 【Short Talk】 Location, location, location: a system-wide assesment of subcellular protein localization in Arabidopsis roots by mass-spectrometry

*Monique van Schie[1], Mark Roosjen[1], Dolf Weijers[1] (1. Wageningen University, the Netherlands)

3:20 PM - 3:32 PM

[Concurrent_03-05] 【Short Talk】 A single-nucleus transcriptome atlas of seed-to-seed development in Arabidopsis

*Travis Lee[1,2,3], Tatsuya Nobori[1,2], Natanella Illouz-Eliaz[1,2], Bruce Jow[1,2], Joseph Nery[1,2], Joseph Ecker[1,2,3] (1. Plant Biology Laboratory, Salk Institute for Biological Studies, La Jolla, CA 92037, 2. Genomic Analysis Laboratory, Salk Institute for Biological Studies, La Jolla, CA 92037, 3. Howard Hughes Medical Institute, Salk Institute for Biological Studies, La Jolla, CA 92037)

3:33 PM - 3:45 PM

[Concurrent_03-06] Multi-Knock – a multi-targeted genome-scale CRISPR toolbox to overcome functional redundancy in plants

*Eilon Shani[1] (1. Tel Aviv University, Israel)

3:46 PM - 3:58 PM

Concurrent | Concurrent | Concurrent 01-06

[Concurrent 04] Cellular reprogramming in regeneration and development

At the heart of plants' developmental plasticity is the broad ability of their cells to undergo rapid and coordinated changes in cell identity and function. This is manifested during post-embryonic formation of new organs and in their ability to repair damaged organs and tissues. The session will focus on the parallels and convergences in cellular reprogramming mechanisms during development and regeneration.
Chair:Idan Efroni(The Hebrew University), Alexis Maizel(Heidelberg University), Momoko Ikeuchi (Nara Institute of Science and Technology)
Tue. Jun 6, 2023 2:30 PM - 4:00 PM Makuhari Messe 2F(Room 4)

[Concurrent_04-01] Specific regulation on diverse regenerative responses in Arabidopsis

*Momoko Ikeuchi[1] (1. Nara Institute of Science and Technology)
2:32 PM - 2:48 PM

[Concurrent_04-02] Born Again: The Early Stages of Plant Cell Reprogamming

*Kenneth David Birnbaum[1], Bruno Guillotin[1], Laura Lee[1], Ramin Rahni[1], Graeme Vissers[1], Alyaa Hessin[1] (1. New York University)
2:49 PM - 3:05 PM

[Concurrent_04-03] A molecular framework for regeneration competency in plants

*Abdul Kareem[1], Charles Melnyk[1] (1. Swedish University of Agricultural Sciences, Uppsala, Sweden)
3:06 PM - 3:22 PM

[Concurrent_04-04] 【Short Talk】 Transcriptional Regulation of Cell-cell Movement During Root Tip Regeneration

*Itay Cohen[1], Idan Efroni[1] (1. Hebrew University of jerusalem)
3:23 PM - 3:34 PM

[Concurrent_04-05] 【Short Talk】 It's All in the Timing: Enhancing Regeneration Efficiency Using Morphogenic Factors

*Bastiaan Bargmann[1], Kelsey Reed[1] (1. Virginia Tech)
3:35 PM - 3:46 PM

[Concurrent_04-06] 【Short Talk】 Leaf epidermal patterning and fate determination

*Chin-Min Kimmy Ho[1] (1. Institute of plant and microbial biology, Academia Sinica)
3:47 PM - 3:58 PM

Concurrent | Concurrent | Concurrent 01-06

[Concurrent 05] Organelle-organelle communication under stress

Organelles coordinate the complex intracellular metabolism in eukaryotic cells by imposing a physical barrier to sequester metabolites and macromolecules. The intricate organization of organelle-organelle communication under biotic and abiotic stresses is a recently emerging research topic and highly relevant to understanding the plant' s responses to the changing environment. In this concurrent session, we will highlight the recent findings in a broad range of inter-organellar communication pathways under various stresses.

Chair:Eunsook Park(University of Wyoming), Inge De Clercq(VIB Center for Plant Systems Biology, Ghent University)

Tue. Jun 6, 2023 2:30 PM - 4:00 PM Makuhari Messe 3F(Room 5)

[Concurrent_05-01] Chloroplast-nuclear communication in plant immunity

*Eunsook Park[1], Seungmee Jung[1], Jongchan Woo[1], Ashley Park[1], Solhee In[1] (1. Department of Molecular Biology, University of Wyoming, USA)

2:32 PM - 2:42 PM

[Concurrent_05-02] Energy Metabolism vs. Moonlighting: A Balancing Act To Prevent Oxidative Stress

*Jennifer Selinski[1] (1. Christian-Albrechts University Kiel)

2:43 PM - 2:58 PM

[Concurrent_05-03] Investigating how chloroplast-initiated intracellular signals control intercellular trafficking mediated by plasmodesmata in *Nicotiana benthamiana*

*Andrea Alejandra Zanini[1], Mohammad Fazle Azim[1], Tessa Burch-Smith[1] (1. Donald Danforth Plant Science Center)

2:59 PM - 3:14 PM

[Concurrent_05-04] 【Short Talk】 Light-induced chloroplast biogenesis: photobodies control alternative promoter selection as a mechanism of nucleus-chloroplast communication

Jaehyung Lee[1], Sandhya Senthilkumar[1], Scott Perkins[1], Heejin Yoo[1], *Chan Yul Yoo[1] (1. School of Biological Sciences, University of Utah, Salt Lake City, UT, 84112, USA)

3:15 PM - 3:25 PM

[Concurrent_05-05] 【Short Talk】405nm Photostimulation of the Endoplasmic Reticulum-Chloroplast Contact Site in *Arabidopsis* Hypocotyls Causes Rapid Cytoskeletal Depolymerization, Elevated Cytoplasmic Calcium, and Elevated Organellar ROS

*Sara Maynard[1], Lawrence R Griffing[1] (1. Texas A&M University)

3:26 PM - 3:36 PM

[Concurrent_05-06] 【Short Talk】 Functional characterization of *Arabidopsis thaliana* Synaptotagmin1 domains using Tricalbin3 chimeras in *Saccharomyces cerevisiae.*

*Francisco Benitez-Fuente[1], Javier Collado[2], Vito Amorim-Silva[1], Ruben Fernández-Busnadiego[2], Miguel Angel Botella[1] (1. Departamento de Biologia Molecular y Bioquimica, Instituto de Hortofruticultura Subtropical y Mediterranea "La Mayora", Universidad de Malaga-CSIC, Malaga 29071, Spain,

2. Institute of Neuropathology, University Medical Center Goettingen, Goettingen 37099, Germany）

3:37 PM - 3:47 PM

[Concurrent_05-07] Elucidating organelle-organelle and organelle-to-nucleus signaling pathways during plant stress responses

*Inge De Clercq[1,2], Jonas De Backer[1,2], Xiaopeng Luo[1,2], Laura Antuña Hörlein[1,2], Elena Sanchez Martin-Fontecha[1,2], Siel Goethals[1,2] （1. Department of Plant Biotechnology and Bioinformatics, Ghent University, Ghent, Belgium., 2. Vlaams Instituut voor Biotechnologie (VIB)-Center for Plant Systems Biology, Ghent, Belgium.）

3:48 PM - 3:58 PM

Concurrent | Concurrent | Concurrent 01-06

[Concurrent 06] Plant proteostasis: The dynamic proteome in plant cell signalling

This ICAR session has a dual purpose in highlighting recent discoveries in plant Proteostasis as well as the tools that have been made available through the Plant Proteostasis community to enable new researchers to explore the role of proteostasis in diverse aspects of plant development and response to environment.

Chair:Uli Bechtold(Durham University), Ari Sadanandom(Durham University)

Tue. Jun 6, 2023 2:30 PM - 4:00 PM Makuhari Messe 3F(Room 6)

[Concurrent_06-01] SUMOcode: Deciphering how SUMOylation enables plants to adapt to their environment.

*Ari Sadanandom Sadanandom[1], Kathryn Lilley[3], Malcolm Bennett[2], Andrew Jones[4], Miguel DeLucas[1], Anthony Bishopp[2], Rahul Bhosale[2], Leah Band[2], Darren Wells[2], Jonathan Atkinson[2], Sumesh Kakkunath[1], Dipan Roy[1], Shraboni Ghosh[1], Lisa Clark[1], Kawinnat Sue-Ob[4], Jason Banda[2] （1. University of Durham, 2. University of Nottingham, 3. University of Cambridge, 4. University of Liverpool）

2:32 PM - 2:48 PM

[Concurrent_06-02] Regulation of proteostasis and activation of Ca^{2+} channels by two distinct receptor kinases in maintaining immune integrity

*Libo Shan[1] （1. Texas A&M University）

2:49 PM - 3:05 PM

[Concurrent_06-03] Proximity labeling proteomics identified an inner nuclear membrane protein degradation system in plants

*Yangnan Gu[1] （1. University of California, Berkeley）

3:06 PM - 3:22 PM

[Concurrent_06-04] Regulation of the homeostasis of immune signaling proteins through proteasome-mediated degradation

*Xin Li Li[1] （1. University of British Columbia）

3:23 PM - 3:39 PM

[Concurrent_06-05] 【Short Talk】 Identification of interacting factors of the TARANI/ Ubiquitin-specific protease 14 (UBP14) in *Arabidopsis thaliana*

*Anjana S Hegde[1], Dr. Utpal Nath[1] （1. Department of Microbiology and Cell Biology, Indian Institute of Science, Bengaluru, India）

3:40 PM - 3:49 PM

[Concurrent_06-06] 【Short Talk】 Molecular mechanism for peroxisomal protein transport via the ubiquitin system

*Shoji Mano[1,2], Shino Goto-Yamada[3], Yasuko Hayashi[4], Kazumi Hikino[1], Masatake Kanai[1], Mikio Nishimura[5] （1. National Institute for Basic Biology, Japan, 2. The Graduate University for Advanced Studies, Japan, 3. Jagiellonian University, Poland, 4. Niigata University, Japan, 5. Konan University, Japan）

3:50 PM - 3:59 PM

Concurrent | Concurrent | Concurrent 07-12

[Concurrent 07] Arabidopsis and its translational research in the Global South

Arabidopsis research globally has provided invaluable tools to understand the plant world at different biological scales. A sizable proportion of that research is carried out by researchers in the Global South (i.e. countries located around the tropics and the Southern hemisphere), even though these countries face many political and budget limitations for scientific endeavours. This symposium aims to highlight the work of researchers from the Global South, oftentimes under-represented in international conferences, to bring a more diverse perspective to the meeting.

Chair:Gabriela Auge(CONICET - iB3, University of Buenos Aires), José Estevez(Fundación Instituto Leloir - CONICET, Argentina / Universidad Andrés Bello, Chile)

Tue. Jun 6, 2023 4:30 PM - 6:00 PM Makuhari Messe 2F(Room 1)

This session is sponsored by The Plant Cell.

[Concurrent_07-01] The power of haploid genetics in plants - Lessons from *Arabidopsis thaliana*

*Ravi Maruthachalam[1], Ramesh Bondada[1], Mohit Pradip Rajabhoj[1], Sudev Sankar[1], Saravanakumar Somasundaram[1], Mohan Premanand Marimuthu[3], Mohammed Afsal Badarudeen[1], Vaishak Kanjirakol Puthiyaveedu[1], Anju P Shanmukhan[2], Mohammed Aiyaz[2], Kalika Prasad[2] （1. Indian Institute of Science Education and Research(IISER), Thiruvananthapuram, 2. Indian Institute of Science Education and Research(IISER), Pune, 3. University of California, Davis）

4:32 PM - 4:47 PM

[Concurrent_07-02] Plants to humans: Arabidopsis for translational research

*Sridevi Sureshkumar[1] （1. Monash University, Clayton, Australia）

4:48 PM - 5:03 PM

[Concurrent_07-03] TOC1 is a direct regulator of the Arabidopsis defence response against necrotrophic pathogens

Shannon Leigh-Sparks[1], Laura Roden[2], *Robert Ingle[1] （1. University of Cape Town, 2. University of Coventry）

5:04 PM - 5:19 PM

[Concurrent_07-04] 【Short Talk】 ROLE OF THE ARABIDOPSIS AtbZIP63 TRANSCRIPTION FACTOR STABILITY IN ENERGY MANAGEMENT

*Pamela Carlson[1], Luis Felipe Correa da Silva[2], João Guilherme Portugal Vieira[1], Raphael de Araújo Campos[1], Thyelen Engel de Jesus[1], Nubia Barbosa Eloy[2], Cleverson Carlos Matiolli[3], Michel Vincentz[1] （1. University of Campinas, 2. University of São Paulo, 3. UNIVERSIDADE NOVA DE LISBOA）

5:20 PM - 5:29 PM

[Concurrent_07-05] 【Short Talk】 NLP7 is a central integrator of transcription networks in nitrogen signaling and drought stress

Nathan Johnson[3], Tomás C Moyano[1], Viviana Araus[2], Jonathan Canan[3], Ji Huang[4], Carly Shanks[4], Samantha Frangos[4], Ariel Herrera[1], Francisca Blanco-Herrera[1,2], Gloria M Coruzzi[4], Elena A Vidal[3,2], *Jose M Alvarez[1,2] （1. Centro de Biotecnologia Vegetal, Facultad de Ciencias de la Vida, Universidad Andres Bello, Santiago 8370186, Chile, 2. ANID–Millennium Science Initiative–Millennium Institute for Integrative Biology (iBIO), Santiago 7500565, Chile, 3. Centro de Genómica y Bioinformática, Facultad de Ciencias, Universidad Mayor, 8580745 Santiago, Chile., 4. Center for Genomics and Systems Biology, New York University, New York, NY 10003）
5:30 PM - 5:39 PM

[Concurrent_07-06] 【 Short Talk】 A B-Box protein suppresses flowering in Arabidopsis through multi-level regulation of the photoperiod pathway

*Rahul Puthan Valappil[1], Yadukrishnan Premachandran[1], Sourav Datta[1] （1. Plant Cell and Developmental Biology Laboratory, Indian Institute of Science Education and Research (IISER) Bhopal, Madhya Pradesh - 462066, India）
5:40 PM - 5:49 PM

[Concurrent_07-07] 【 Short Talk】 What did the grasses gain by losing PEAPOD?

Evolution and conserved functionality of organ size and shape regulator PEAPOD

*Ruth Cookson[1], Somrutai Winichayakul[1], Hong Xue[1], Kim Richardson[1], Roger Moraga[2], Aurelie Laugraud[2], Ambarish Biswas[2], Greg Bryan[1], Nick Roberts[1] （1. Plant Biotechnology, Grasslands Research Centre, AgResearch Ltd., Palmerston North, New Zealand, 2. Bioinformatics and Statistics, Grasslands Research Centre, AgResearch Ltd., Palmerston North, New Zealand）
5:50 PM - 5:59 PM

Concurrent | Concurrent | Concurrent 07-12

[Concurrent 08] Understanding circadian regulation in unpredictable environments

Circadian clocks provide a temporal structure within plants, which contributes their responses to the fluctuating environment. Understanding how the circadian clock adapts plant physiology and development to environmental fluctuations forms a crucial part of forecasting the responses of plants- including crops- to an increasingly unpredictable climate.

Chair:Antony Dodd(John Innes Centre), Tokitaka Oyama(Kyoto University)

Tue. Jun 6, 2023 4:30 PM - 6:00 PM Makuhari Messe 2F(Room 2)

[Concurrent_08-01] Integration of circadian and environmental cues

*Antony Dodd[1] (1. John Innes Centre)

4:32 PM - 4:46 PM

[Concurrent_08-02] Behaviors of cell-autonomous- and non-cell-autonomous circadian rhythms in the plant body

*Tokitaka Oyama[1] (1. Kyoto University, Graduate School of Science)

4:47 PM - 5:01 PM

[Concurrent_08-03] A spatial model of the plant clock reveals design principles for coordinated timing under noisy environments

*James Locke[1] (1. Sainsbury Laboratory, University of Cambridge)

5:02 PM - 5:16 PM

[Concurrent_08-04] Gene expression noise reduction for a robust circadian clock in Arabidopsis

*Shu-Hsing Wu[1], Ho-Wei Wu[1], Erickson Fajiculay[2], Jing-Fen Wu[1], Ching-Cher Yan[2], Chao-Ping Hsu[2] (1. Institute of Plant and Microbial Biology, Academia Sinica, Taiwan, 2. Institute of Chemistry, Academia Sinica, Taiwan)

5:17 PM - 5:31 PM

[Concurrent_08-05] Molecular mechanisms underlying light-induced resetting of the circadian clock in the green alga Chlamydomonas

*Takuya Matsuo[1] (1. Kitasato University, Japan)

5:32 PM - 5:46 PM

[Concurrent_08-06] 【Short Talk】 Quantity regulation of TOC1 and PRR5 for temperature compensation in the Arabidopsis circadian clock

*Akari Maeda[1], Hiromi Matsuo[1], Norihito Nakamichi[1] (1. Nagoya university, Japan)

5:47 PM - 5:57 PM

Concurrent | Concurrent | Concurrent 07-12

[Concurrent 09] Guard cell signalling and metabolism

Over the past few years, it has become evident that guard cell signalling and membrane ion transport are tightly coordinated with the metabolic changes occurring within the guard cells. How this intricate network is regulated at the molecular level is a fascinating question with global influence. In our session, we will discuss some of the most recent breakthrough discoveries on this topic.

Chair:Diana Santelia(ETH Zurich), Toshinori Kinoshita(Nagoya University)

Tue. Jun 6, 2023 4:30 PM - 6:00 PM Makuhari Messe 2F(Room 3)

[Concurrent_09-01] Light regulation of stomatal movement and plasma membrane H^+-ATPase in guard cells

*Toshinori Kinoshita[1] (1. ITbM, Nagoya University)

4:32 PM - 4:40 PM

[Concurrent_09-02] Sugars are mesophyll messengers regulating stomatal opening under red light

*Yotam Zait[1,2], Mengmeng Zhu[2], Masami Hirai [5], Sixue Chen[4], Eigo Ando[3], Toshinori Kinoshita [3], Sarah M. Assmann[2] (1. Hebrew University of Jerusalem, 2. Dept. of Biology, Penn State University, 3. Nagoya University, 4. Dept. of Biology, University of Mississippi, 5. RIKEN Center for Sustainable Resource Science)

4:41 PM - 5:06 PM

[Concurrent_09-03] Hydrogen peroxide promotes stomatal development and opening through inducing the nuclear localization of KIN10

*Mingyi Bai[1], Wen Shi[1], Lingyan Wang[1], Lianmei Yao[1], Chao Han[1] (1. The Key Laboratory of Plant Development and Environmental Adaptation Biology, Ministry of Education, School of Life Sciences, Shandong University, Qingdao, 266237, China.)

5:07 PM - 5:32 PM

[Concurrent_09-04] 【Short Talk】 Investigating the Role of Carbohydrate Metabolism in Bacterial-Triggered Stomatal Movements Using the Model System *Arabidopsis thaliana* and *Pseudomonas syringe pv tomato*

*Lucia Piro[1] (1. ETH Zurich)

5:33 PM - 5:41 PM

[Concurrent_09-05] 【Short Talk】 Phosphorylation of WD-repeat protein WDR by phototropins is essential for starch degradation to promote stomatal opening

*Shota Yamauchi[1], Naoyuki Sugiyama[2], Yutaka Kodama[3], Luca Distefano[4], Haruki Fujii[5], Mika Nomoto[6,7], Yasuomi Tada[6,7], Kazuhiro Hotta[8], Diana Santelia[4], Ken-ichiro Shimazaki[9], Atsushi Takemiya[1] (1. Department of Biology, Graduate School of Sciences and Technology for Innovation, Yamaguchi University, Yamaguchi, Japan, 2. Department of Molecular &Cellular BioAnalysis, Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, Japan, 3. Center for Bioscience Research and Education, Utsunomiya University, Tochigi, Japan, 4. Institute of Integrative Biology,

ETH Zürich, Zürich, Switzerland, 5. Department of Electrical and Electronic Engineering, Graduate School of Science and Technology, Meijo University, Nagoya, Aichi, Japan , 6. Center for Gene Research, Nagoya University, Nagoya, Japan, 7. Division of Biological Science, Graduate School of Science, Nagoya University, Aichi, Japan, 8. Department of Electrical and Electronic Engineering, Faculty of Science and Technology, Meijo University, Nagoya, Aichi, Japan, 9. Department of Biology, Faculty of Science, Kyushu University, Fukuoka, Japan）

5:42 PM - 5:50 PM

[Concurrent_09-06]【 Short Talk】 Stomatal CO_2/bicarbonate Sensor Consists of Two Interacting Protein Kinases HT1 and MPK4/12 in Arabidopsis

*Yohei Takahashi[1,2], Krystal C Bosmans[1], Po-Kai Hsu[1], Karnelia Paul[1], Christian Seitz[1], Chung-Yueh Yeh[3], Yuh-Shuh Wang[3], Dmitry Yarmolinsky[3], Maija Sierla[4], Triin Vahisalu[4], J. Andrew McCammon[1], Jaakko Kangasjarvi[4], Li Zhang[1], Hannes Kollist[3], Thien Trac[1], Julian I Schroeder[1] （1. University of California San Diego, USA, 2. Nagoya University, Japan, 3. University of Tartu, Estonia, 4. University of Helsinki, Finland）

5:51 PM - 5:59 PM

Concurrent | Concurrent | Concurrent 07-12

[Concurrent 10] Development and environmental responses: What are kept and what are lost over the evolutionary history of land plants

Developmental strategies for adaptations to ever-changing environment have been diversified during the long history of land plant evolution. This session focuses on developmental processes and stress responses commonly present or different between the bryophyte models and Arabidopsis, and discusses how the complexity, specificity, and divergence have evolved.

Chair:Daisuke Urano(Temasek Life Sciences Laboratory), Kimitsune Ishizaki(Kobe University)

Tue. Jun 6, 2023 4:30 PM - 6:00 PM Makuhari Messe 2F(Room 4)

This session is sponsored by The Botanical Society of Japan (Journal of Plant Research) and Institute of Plant and Microbial Biology, Academia Sinica.

[Concurrent_10-01] Adapting to Adversity: Evolutionary Insights into G-protein Networks and Stress Readiness in Land Plants

*Ting-Ying Wu[1], Shalini Krishnamoorthi[2], Kulaporn Boonyaves[6], Isam Al-Darabsah[5], Richalynn Leong[2], Alan M Jones[3], Kimitsune Ishizaki[4], Kang-Ling Liao[5], Daisuke Urano[2] (1. IPMB, AS, Taiwan, 2. Temasek Life Sciences Laboratory, SinGapore, SinGapore, 3. Departments of Biology and Pharmacology, University of North Carolina, Chapel Hill, NC, USA, 4. Graduate School of Science, Kobe University, Kobe, Hyogo 657-8501, Japan, 5. Department of Mathematics, University of Manitoba, Winnipeg, MB, Canada, 6. Department of Biology, Faculty of Science, Mahidol University, Thailand)

4:31 PM - 4:49 PM

[Concurrent_10-02] Reproductive strategy control by a Marchantia GRAS transcriptional regulator

David Hoey[1], Philip Carella[1,2], *Sebastian Schornack[1] (1. University of Cambridge, Sainsbury Laboratory, Cambridge, UK, 2. John Innes Centre, Norwich, UK)

4:50 PM - 5:08 PM

[Concurrent_10-03] Functional evolution of thermospermine in land plants

Anna Solé-Gil[1], Yuuki Sakai[2], Cristina Urbez[1], Kimitsune Ishizaki[2], Barbara A Ambrose[3], *Miguel A Blázquez[1], Javier Agustí[1] (1. IBMCP (CSIC-U Politècnica de València), Spain, 2. Graduate School of Science, Kobe University, Japan, 3. The New York Botanical Garden, USA)

5:09 PM - 5:27 PM

[Concurrent_10-04] Cross-stress gene expression atlas of *Marchantia polymorpha* reveals the hierarchy and regulatory principles of abiotic stress responses

*Marek Mutwil Mutwil[1], Qiao Wen Tan[1], Peng Ken Lim[1], Chen Zhong, Asher Pasha, Nicholas Provart, Marius Arend, Zoran Nikoloski (1. Nanyang Technological University)

5:28 PM - 5:46 PM

[Concurrent_10-05]【 Short Talk】 Analysis of stem cell-promoting CLE peptide signaling in the shoot apical meristems of land plants

*Yuki Hirakawa[1], Go Takahashi[1], Tomohiro Kiyosue[1] （1. Gakushuin University, Japan）

5:47 PM - 5:59 PM

Concurrent | Concurrent | Concurrent 07-12

[Concurrent 11] Role of biomolecular condensates in abiotic stress signaling

The session focuses on the role of biomolecular condensates in abiotic stress response. Abstracts related to BMC, formation mechanism, composition of BMC under abiotic stress are very welcome.
Chair:Monika Chodasiewicz(King Abdullah University of Science and Technology (KAUST)), Emilio Gutierrez-Beltran(University of Sevilla)
Tue. Jun 6, 2023 4:30 PM - 6:00 PM Makuhari Messe 3F(Room 5)

[Concurrent_11-01] Functional idling in membrane-bound condensates

*Panagiotis N Moschou[1] (1. University of Crete)

4:35 PM - 4:55 PM

[Concurrent_11-02] Uncovering the function of FLOE1, a phase separating and prion-like hydration sensor protein involved in seed germination

*Sterling Field[1], Yanniv Dorone[1], Seung Y. Rhee[1] (1. Carnegie Institution for Science, Stanford, CA 94305, USA)

4:56 PM - 5:16 PM

[Concurrent_11-03] 【Short Talk】 Control of meiosis under heat stress

Joke de Jaeger-Braet[1], Lev Boettger[1], Yinqi Wang[1], *Arp Schnittger[1] (1. University of Hamburg, Germany)

5:17 PM - 5:30 PM

[Concurrent_11-04] 【Short Talk】 Heat-regulated phosphorylation of TOT43 is a switch for stress granule association to contribute to heat tolerance in *Arabidopsis*

*Shao-Li Yang[1,2], Cassio Flavio Fonseca De Lima[1,2], Tingting Zhu[1,2], Brigitte Van de Cotte[1,2], Lam Dai Vu[1,2], Ive De Smet[1,2] (1. Department of Plant Biotechnology and Bioinformatics, Ghent University, Ghent, Belgium, 2. VIB Center for Plant Systems Biology, Ghent, Belgium)

5:31 PM - 5:44 PM

[Concurrent_11-05] 【Short Talk】 Characterization of Arabidopsis ECT family in stress tolerance and stress granules assembly

*Nicolas Figueroa Fuentealba[1], Laura Arribas-Hernandez[2], Peter Brodersen[2], Monika Chodasiewicz[1] (1. King Abdullah University of Science and Technology (KAUST), Saudi Arabia, 2. University of Copenhagen, Denmark)

5:45 PM - 5:58 PM

Concurrent | Concurrent | Concurrent 07-12

[Concurrent 12] Translation regulation in plants

Translation is an integral component of the Central Dogma of molecular biology. Although its general mechanism is relatively well understood, little is known about the selective translation of specific mRNAs and its regulation. The emergence of technologies that allow in-depth study of translation resulted in new plant-specific translation mechanisms being unveiled and translationally-regulated mRNAs have been found to be key in the plant's adaptational responses. Recent examples have demonstrated the biological significance of translational regulation in plants and its potential in the generation of new, powerful biotechnological tools.

Chair:Catharina Merchante(Universidad de Málaga), Gemma Sans-Coll(Universidad de Málaga), Jose Antonio Duarte-Conde(Universidad de Málaga)

Tue. Jun 6, 2023 4:30 PM - 6:00 PM Makuhari Messe 3F(Room 6)

This session is sponsored by Agricultural Biotechnology Research Center, Academia Sinica.

[Concurrent_12-01] Uncovering the Hidden Message of mRNAs: The Exploration of Alternative Translation Initiation Sites

*Ming-Jung Liu[1] （1. Academia Sinica, Taiwan）

4:32 PM - 4:44 PM

[Concurrent_12-02] Diel and Circadian Dynamics of Translation in Arabidopsis via Ribosome Profiling

*Michael Ting[1,2], Reimo Zoschke[1], Michael J Haydon[2] （1. Max Planck Institute of Molecular Plant Physiology, Potsdam Germany, 2. The University of Melbourne, Melbourne Australia）

4:45 PM - 4:57 PM

[Concurrent_12-03] Dynamic regulation of translation upon pathogen infection

*Jinlong Wang[1], Xing Zhang[1], George H. Greene[2,1], Guoyong Xu[3,1], Xinnian Dong[1] （1. Duke University, USA, 2. Upstream Biotechnology Inc., UAS, 3. Wuhan University, USA）

4:58 PM - 5:10 PM

[Concurrent_12-04] 【 Short Talk】 NMD and translation of intergenic splicing-mediated polycistronic transcripts

*Yukio Kurihara[1,3], Yuko Makita[2,3], Masaharu Kawauchi[3], Tomoko Kuriyama[3], Minami Matsui[3] （1. The University of Tokyo, Japan, 2. Maebashi Institute of Technology, Japan, 3. RIKEN CSRS, Japan）

5:11 PM - 5:22 PM

[Concurrent_12-05] 【 Short Talk】 Plant miRNA-target 3′-end pairing affects miRNA-mediated translational repression

*Ho-Ming Chen[1] （1. Academia Sinica, Taiwan）

5:23 PM - 5:34 PM

[Concurrent_12-06] 【 Short Talk】 Deciphering the role of specialized ribosomes in plants´ translation efficiency

*Jose Antonio Duarte-Conde[1], Gemma Sans-Coll[1], Catharina Merchante [1] （1. Instituto de Hortofruticultura Subtropical y Mediterránea, Universidad de Málaga-Consejo Superior de Investigaciones Científicas (IHSM-UMA-CSIC)）

5:35 PM - 5:46 PM

[Concurrent_12-07] 【 Short Talk】 Translation-coupled Epigenetic Regulation of Transposable Elements in Plants

*Zhen Lei[1,2], Ling Wang[1,2], Hui Li[1,2], Jungnam Cho[1,2,3] （1. CAS Center for Excellence in Molecular Plant Sciences, 2. University of Chinese Academy of Sciences, 3. CAS-JIC Centre of Excellence for Plant and Microbial Science）

5:47 PM - 5:58 PM

Concurrent | Concurrent | Concurrent 13-18

[Concurrent 13] Integration of Arabidopsis and crop research in plant biotic interactions

This session will present and discuss comparative and integrative studies on Arabidopsis and crop plants in different areas of plant biotic interactions. We hope this helps to stimulate a new way of thinking, elucidate new molecular principles and develop solutions for SDGs, in the research field and beyond.
Chair:Yusuke Saijo(Nara Institute of Science and Technology), Kenichi Tsuda(Huazhong Agricultural University)
Wed. Jun 7, 2023 9:00 AM - 10:30 AM Makuhari Messe 2F(Room 1)

[Concurrent_13-01] Mitigation of plant growth-defense trade-off through damage-associated Pep peptides and receptors under phosphate deficiency

Natsuki Tsuchida[1], Masako Fuji[1], Shota Kido[1], Masahiro Nagayasu[1], Tae-Hong Lee[1], Taiga Ishihara[1], Kentaro Okada[1], Taishi Hirase[1], Asahi Adachi[1], Takumi Murakami[2], Masanao Sato[3], Miki Fujita[4], Yuri Tajima[1], Kei Hiruma[1], Shigetaka Yasuda[1], *Yusuke Saijo[1] (1. Nara Institute of Science and Technology, Japan, 2. National Institute of Genetics, Japan, 3. Hokkaido University, Japan, 4. RIKEN CSRS, Japan)
9:01 AM - 9:16 AM

[Concurrent_13-02] Interactions between plants and root microbiome in rice and Arabidopsis

*Yang Bai[1] (1. Institute of Genetics and Developmental Biology)
9:17 AM - 9:32 AM

[Concurrent_13-03] RCR1, a pericycle-expressed ion channel, safe-guards the stele and confers broadspectrum resistance to clubroot

*Wei Wang[1], Li Qin[1], Wenjing Zhang[1], Linhui Tang[1], Xiaojing Dong[1], Pei Miao[1], Meng Shen[1], Huilong Du[1], Ke Wang[1], Xiaoyun Zhang[1], Min Su[1], Hongwei Lu[1], Chang Li[1], Hangyuan Cheng[1], Qiang Gao[1], Xiaojuan Zhang[1], Chengzhi Liang[1], Jian-min Zhou[1], Yu-hang Chen[1] (1. Institute of Genetics and Developmental Biology, Chinese Academy of Sciences)
9:33 AM - 9:47 AM

[Concurrent_13-04] 【Short Talk】 Microbiome colonization leads to emergent plant phenotypes at elevated temperature.

*Hannah M. McMillan[1], Sheng Yang He[1,2] (1. Department of Biology, Duke University, Durham, NC 27708, USA, 2. Howard Hughes Medical Institute)
9:48 AM - 10:00 AM

[Concurrent_13-05] 【Short Talk】 Drought Recovery Induced Immunity Confers Pathogen Resistance

*Natanella Illouz-Eliaz[1], Kathryn Lande[1], Jingting Yu[1], Joseph R Ecker[1] (1. Salk Institute)
10:01 AM - 10:13 AM

[Concurrent_13-06] Plant immunity and microbiota tame potentially harmful commensal bacteria

Miaomiao Ding[1], Frederickson Entila[2], Qingyun Zhang[1], *Kenichi Tsuda[1,2] （1. State Key Laboratory of Agricultural Microbiology, Hubei Hongshan Laboratory, Hubei Key Lab of Plant Pathology, College of Plant Science and Technology, Huazhong Agricultural University, China, 2. Department of Plant Microbe Interactions, Max Planck Institute for Plant Breeding Research, Germany）
10:14 AM - 10:29 AM

Concurrent | Concurrent | Concurrent 13-18

[Concurrent 14] Stress-induced signalling peptides

The workshop focuses on plant peptides and receptors, other components of signalling pathways and downstream signalling events in plant development, adaptation, and in particular plant response to the environment.

Chair:Nijat Imin(Western Sydney University), Cyril Zipfel(University of Zurich)

Wed. Jun 7, 2023 9:00 AM - 10:30 AM Makuhari Messe 2F(Room 2)

[Concurrent_14-01] Regulation and execution of plant immunity by phytocytokines

*Cyril Zipfel[1,2] (1. Institute of Plant and Microbial Biology, University of Zurich, Zurich, Switzerland, 2. The Sainsbury Laboratory, University of East Anglia, Norwich, United Kingdom)

9:00 AM - 9:16 AM

[Concurrent_14-02] 【Short Talk】 Wound induced small-peptide mediated signalling cascade regulated by a receptor like kinase- RLK1 dictates growth vs defense decision in rice

*HARSHITH CHITHAVALLI YOGESH GOWDA[1], Avik Kumar Pal[1], Ashwin Nair[1,2], Monoswi Chakraborty[3], Steffi Raju[1,2], Shivaprasad P V[1] (1. National Centre For Biological Sciences, TIFR, India, 560 065, 2. SASTRA University, Thirumalaisamudram, Thanjavur 613401, India., 3. Institute of Bioinformatics and Applied Biotechnology, Electronics City, Bangalore, India, 560 100)

9:17 AM - 9:26 AM

[Concurrent_14-03] Elucidating the peptide-receptor signalling pathways that regulates root architecture and nitrogen acquisition

*Nijat Imin Imin[1,2], Sarah Jessup[1], Michael Taleski[3], Kelly Chapman[3], Katia Taylor[3], Han-Chung Lee[3] (1. University of Auckland, New Zealand, 2. Western Sydney University, 3. Australian National University)

9:27 AM - 9:43 AM

[Concurrent_14-04] Coordination of cell surface immunity and N limitation by CEP-mediated signalling

Jakub Rzemieniewski[1], Henriette Leicher[1], Hyun Kyung Lee[2], Caroline Broyart[2], Sharan Nayem[4], Christian Wiese[1], Julian Maroschek[1], Zeynep Camgöz[1], Vilde Olsson Lalun[5], Michael Anthony Djordjevic[3], A. Corina Vlot[4], Ralph Hückelhoven[1], Julia Santiago[2], *Martin Stegmann[1] (1. Phytopathology, TUM School of Life Sciences, Technical University Munich, Germany, 2. University of Lausanne, Switzerland, 3. Australian National University, Canberra, Australia, 4. Helmholtz Zentrum Munich, Germany, 5. University of Oslo, Norway)

9:44 AM - 10:00 AM

[Concurrent_14-05] 【Short Talk】 A cell wall-modifying gene-dependent CLE peptide transport in conferring drought resistance

*Satoshi Endo[1], Hiroo Fukuda[1,2] (1. Kyoto Univ. Adv. Sci., Japan, 2. Akita Pref. Univ., Japan)

10:01 AM - 10:10 AM

[Concurrent_14-06] 【 Short Talk】 An Evolutionarily Conserved Long-distance Migrating Peptide Regulates Lignin Biosynthesis Pathway and Plant Immunity

Chang-Hung Chen[1,2], Pin-Chien Liou[1,2], Kuan-Hao Huang[1], Ying-Chung Jimmy Lin[2], *Ying-Lan Chen[1] （1. Department of Biotechnology and Bioindustry Sciences, College of Bioscience and Biotechnology, National Cheng Kung University, Tainan, Taiwan, 2. Department of Life Sciences and Institute of Plant Biology, College of Life Science, National Taiwan University, Taipei, Taiwan）

10:11 AM - 10:20 AM

[Concurrent_14-07] 【 Short Talk】 The phytocytokine AtCAPE9 and its receptor AtCAPER1 functions on plant systemic stomatal immunity

*Chi-Hsin Chang[1,2,3], Kai-Tan Cheng[1], Fan-Wei Lin[1], Yet-Ran Chen[1] （1. Agricultural Biotechnology Research Center, Academia Sinica, Taiwan, 2. Molecular and Biological Agricultural Sciences, Taiwan International Graduate Program, Academia Sinica, Taiwan, 3. Graduate Institute of Biotechnology, National Chung Hsing University, Taiwan）

10:21 AM - 10:30 AM

Concurrent | Concurrent | Concurrent 13-18

[Concurrent 15] Arabidopsis relatives from laboratories to natural fields

The phenotype of wild-type and mutants in natural fields is often distinct from that in regulated laboratory conditions. Recently, Arabidopsis and its relatives are emerging as model systems to understand gene function in naturally fluctuating environments, which is coined in natura. The workshop will welcome researchers from diverse disciplines including long-term regular monitoring of gene expression, epigenome and phenome in natura, predicting plant responses to global climate changes, ecological networks of diverse herbivores and pathogens, laboratory experiments capturing natural complexity such as the food web.

Chair:Kentaro K. Shimizu(University of Zurich), Hiroshi Kudoh(Kyoto University)

Wed. Jun 7, 2023 9:00 AM - 10:30 AM Makuhari Messe 2F(Room 3)

This session is sponsored by Center for Ecological Research, Kyoto University and Kihara Institute for Biological Research, Yokohama City University.

[Concurrent_15-01] A keystone genes underlies the persistence of an experimental food web

*Matthew Barbour[1,2], Daniel Kliebenstein[3], Jordi Bascompte[2] （1. Université de Sherbrooke, 2. University of Zurich, 3. University of California Davis）

9:03 AM - 9:22 AM

[Concurrent_15-02] Seasonality of virus-host interactions between Turnip mosaic virus and *Arabidopsis halleri* during the long-term infection in a natural environment

*Mie N. Honjo[1], Mari Kamitani[1,2], Hiroshi Kudoh[1] （1. Center for Ecological Research, Kyoto University, Japan, 2. CiRA Foundation, Kyoto University, Japan）

9:23 AM - 9:42 AM

[Concurrent_15-03] Keystone pairs of *Arabidopsis* accessions increase plant resistance to field herbivory

*Yasuhiro Sato[1,2], Rie Shimizu-Inatsugi[1], Kazuya Takeda[2], Atsushi J. Nagano[2,3], Kentaro K. Shimizu[1,4] （1. University of Zurich, 2. Ryukoku University, 3. Keio University, 4. Yokohama City University）

9:43 AM - 10:02 AM

[Concurrent_15-04] 【Short Talk】 Rapid evolution in Arabidopsis thaliana in global field experiments in the pan-genomic era

*Xing Wu[1], Yunru Peng[1], Lucas Czech[1], Tati Bellagio[2,1], Meixi Lin[1], Francois Vasseur[4], Niek Scheepens[3], Moises Exposito-Alonso[1,2] （1. Carnegie Institution for Science, USA, 2. Stanford University, USA, 3. Goethe University, Germany, 4. University of Tübingen, Germany）

10:03 AM - 10:14 AM

[Concurrent_15-05] 【Short Talk】 Time-series field phenotyping system PlantServation using machine learning revealed seasonal pigment fluctuation trends in diploid and polyploid

Arabidopsis

*Toshiaki Tameshige[1,2], Reiko Akiyama[3], Takao Goto[4], Jiro Sugisaka[5,1], Ken Kuroki[6], Jianqiang Sun[7], Junichi Akita[8], Masaomi Hatakeyama[3,9], Hiroshi Kudoh[5], Tanaka Kenta[10], Aya Tonouchi[4], Yuki Shimahara[4], Jun Sese[11,12,13], Natsumaro Kutsuna[4], Rie Shimizu-Inatsugi[3], Kentaro K Shimizu[1,3] (1. Yokohama City University, Japan, 2. Nara Institute of Science and Technology, Japan, 3. University of Zurich, Switzerland, 4. LPixel Inc., Japan, 5. Kyoto University, Japan, 6. The University of Tokyo, Japan, 7. NARO, Japan, 8. Kanazawa University, Japan, 9. Functional Genomics Center Zurich, Switzerland , 10. University of Tsukuba, Japan, 11. AIST, Japan , 12. Humanome Lab, Inc., Japan, 13. AIST-Tokyo Tech RWBC-OIL, Japan)

10:15 AM - 10:26 AM

Concurrent | Concurrent | Concurrent 13-18

[Concurrent 16] Plant epigenetics and chromatin dynamics

Chromatin modifications have emerged as an important regulatory mechanism for versatile biological processes. Although the DNA in each nucleus of an individual is essentially identical, the manner in which it is interpreted by the cell is dependent on its spatial and environmental context. Research incorporating innovative methods to unravel these mechanisms as well as those that incorporate the study of histone and DNA modifications, transcription factor dynamics, small RNAs, and chromatin structure will be featured within this session.

Chair:Robert Schmitz(University of Georgia), Xuehua Zhong(Washington University, St. Louis)

Wed. Jun 7, 2023 9:00 AM - 10:30 AM Makuhari Messe 2F(Room 4)

[Concurrent_16-01] Molecular basis of non-CG methylation landscape in plants

*Xuehua Zhong[1] (1. Washington University in St. Louis)

9:01 AM - 9:15 AM

[Concurrent_16-02] Dynamic regulatory mechanism of H3K27me3 demethylase REF6 responding to environment

Jiaping Zhu[1], Yan Yan[1], Kaixuan He[1], Ying Liu[1], Falong Lu[1], Xian Deng[1], *Xiaofeng Cao[1] (1. Institute of Genetics and Developmental Biology, Chinese Academy of Sciences,)

9:16 AM - 9:30 AM

[Concurrent_16-03] Crosstalk among epigenetic marks during establishment of heterochromatin

*Taiko Kim To[1,2], Shoko Oda[1], Tetsuji Kakutani[1] (1. The University of Tokyo, School of Science, Japan, 2. Tokyo Institute of Technology, School of Life Science and Technology, Japan)

9:31 AM - 9:45 AM

[Concurrent_16-04] An evolutionary epigenetic clock in plants

Nan Yao[2], Zhilin Zhang[1], Lei Yu [3], Rashmi Hazarika[1], Chengyou Yu[1], Hosung Jang [2], Lisa Smith[4], Jurriaan Ton[4], Liang Liu[5], Jay Stachowicz [6], Thorsten Reusch[3], Robert Schmitz[2], *Frank Johannes[1] (1. Plant Epigenomics, Technical University of Munich, Freising, Germany, 2. Department of Genetics, University of Georgia, Athens, USA, 3. Marine Evolutionary Ecology, GEOMAR Helmholtz Centre for Ocean Research Kiel, Kiel, Germany, 4. School of Biosciences, University of Sheffield, UK, 5. Department of Statistics, University of Georgia, Athens, USA, 6. Department of Evolution and Ecology, University of California, Davis, USA)

9:46 AM - 10:00 AM

[Concurrent_16-05] 【Short Talk】 Distinct chromatin signatures in the Arabidopsis male gametophyte

*Zhe Wu[1], Danling Zhu[1], Yi Wen[1], Xi Chen[1] (1. School of Life Sciences, Southern University of Science and Technology, China)

10:01 AM - 10:10 AM

[Concurrent_16-06] 【Short Talk】 Erasure of Epigenetic Memory in Arabidopsis Flowering Control

*Toshiro Ito[1], Nana Otsuka[1], Makoto Shirakawa[1] (1. Nara Institute of

Science and Technology）
10:11 AM - 10:20 AM

[Concurrent_16-07]【 Short Talk】 Temporal expression of *BLADE-ON-PETIOLE 1* and *2* in successive leaves define the shape of their lamina

*Mingli Xu[1], Tieqiang Hu[1], Darren Manuela[1]（1. University of South Carolina, USA）

10:21 AM - 10:30 AM

Concurrent | Concurrent | Concurrent 13-18

[Concurrent 17] Hidden messages of RNAs for environmental responses

How do the regulatory networks between environmental factors and RNA molecules trigger plant physiological and stress responses? This concurrent session will feature the recent advances in RNA sequences- and structure-based strategies for regulating gene expression. How plant mRNAs produce novel proteins, how non-coding RNAs and RNA-binding proteins regulate RNA fates, and how RNA functionalities are diversified both at genome-wide and single-molecule levels will be discussed.
Chair:Ming-Jung Liu(Academia Sinica, Taiwan), Misato Ohtani(University of Tokyo, Japan)
Wed. Jun 7, 2023 9:00 AM - 10:30 AM Makuhari Messe 3F(Room 5)
This session is sponsored by Plant Molecular Biology (Springer).

[Concurrent_17-01] Long non coding RNAs modulate the transcriptome by modifying alternative splicing regulations in Arabidopsis

*Martin Crespi[1], Michel Heidecker[1], Aurelie Christ[1], Richard Rigo[1], Thomas Blein[1], Moussa Benhamed[1], Celine Charon[1], Federico Ariel[2], Jeremie Bazin[1] (1. Institute of Plant Sciences Paris Saclay IPS2, CNRS, INRA, Universities Paris-Saclay, Evry and Paris- Cité, 91192 Gif sur Yvette, France, 2. Instituto de Agrobiotecnología del Litoral, CONICET, FBCB, Universidad Nacional del Litoral, Santa Fe, Argentina)
9:02 AM - 9:15 AM

[Concurrent_17-02] Plants can sense and respond to environmental stress via pre-mRNA splicing regulation

*Misato Ohtani[1,2,3], Hirokazu Takahashi[2], Natsu Takayanagi[1], Kodai Ishibashi[1], Toshihiro Arae[1] (1. The University of Tokyo, Japan, 2. Nara Institute of Science and Technology, Japan, 3. RIKEN, Japan)
9:16 AM - 9:29 AM

[Concurrent_17-03] RNA structure, a hidden regulator in living cells

*YILIANG DING[1] (1. JOHN INNES CENTRE)
9:30 AM - 9:43 AM

[Concurrent_17-04] Prevalent Unannotated ORFs Revealed by Improved Super-Resolution Ribosome Profiling

Hsinyen Larry Wu[1], Qiaoyun Ai[1], Rita Teixeira[1], Gaoyuan Song[2], J. Mitch Elmore[2], Christian Montes[2], Justin Walley[2], *Polly Hsu[1] (1. Michigan State University, 2. Iowa State University)
9:44 AM - 9:57 AM

[Concurrent_17-05] Ribosomal RNA turnover and cellular homeostasis

*Gustavo MacIntosh[1], Ang-Yu Liu[1], Zakayo Kazibwe[1], Brice Floyd[1], Diane Bassham[1] (1. Iowa State University)
9:58 AM - 10:11 AM

[Concurrent_17-06] 【Short Talk】 Arabidopsis DXO1, a decapping enzyme for NAD-capped RNAs, activates RNMT1 to methylate the mRNA guanosine cap

*Chen Xiao[1], Hailei Zhang[1], Kaien Li[1], Jingmin Hua[1], Feng Zhang[1], Qiongfang Li[1], Shumin Liang[1], Wuzhen Liu[1], Huan Zhong[1], Zongwei Cai[1], Yiji Xia[1] （1. HongKong Baptist University, HongKong）

10:12 AM - 10:19 AM

[Concurrent_17-07] 【 Short Talk】 siRNAs derived from nitrate reductases, *NIA1* and *NIA2*, play vital roles in growth and stress adaptation

*Yan Yan[1], Yinpeng Xie[1], Qian Gao[1], Yajie Pan[1], Xianli Tang[1], Wei Yan[1], Hongwei Guo[1] （1. Institute of Plant and Food Science, Department of Biology, Southern University of Science and Technology, Shenzhen, 518055, China）

10:20 AM - 10:27 AM

Concurrent | Concurrent | Concurrent 13-18

[Concurrent 18] Making contacts: Membrane contact sites between plant organelles

Membrane contact sites (MCSs) are defined as areas of close apposition and tethering between the membranes of two organelles but crucially, the membranes do not fuse. These sites function as specific microdomains for the bi-directional exchange of molecular cargo and are linked to the propagation of intracellular signals enabling a coordinated cellular response to internal and external cues. This session will bring together plant cell biologists researching the molecular mechanisms of MCS tethers using new experimental tools and imaging techniques, with plant physiologists and pathologists interested in the wider role of MCSs in developmental and stress signalling.

Chair:Joe McKenna(University of Warwick), Emily Breeze(University of Warwick)

Wed. Jun 7, 2023 9:00 AM - 10:30 AM Makuhari Messe 3F(Room 6)

[Concurrent_18-01] Near-UV light signaling at the chloroplast-endoplasmic reticulum-plasma membrane contact site.

*Lawrence Griffing[1], Sara Maynard[1] (1. Texas A&M University, Biology Department, 3258 TAMU, College Station, USA 77843)

9:02 AM - 9:20 AM

[Concurrent_18-02] Plant endoplasmic reticulum-membrane contact sites and selective autophagy

*Pengwei Wang[1,2,3] (1. College of Horticulture &Forestry Sciences, Huazhong Agricultural University, Wuhan, China, 2. National Key Laboratory for Germplasm Innovation &Utilization of Horticultural Crops, Huazhong Agricultural University, Wuhan, China, 3. Hubei Hongshan Laboratory, Wuhan, China)

9:21 AM - 9:39 AM

[Concurrent_18-03] Lipid transport at chloroplast-mitochondria contact sites in *Arabidopsis thaliana*

Matteo Arrighi[1,2], Paul Montmayeul[1], Sébastien Leterme[1], Catherine Albrieux[1], Sabine Brugière[3], Marianne Tardif[3], Myriam Ferro[3], Yohann Coutté[3], Juliette Jouhet[1], *Morgane Michaud[1] (1. Univ. Grenoble Alpes, CNRS, UGA, INRAE, CEA, LPCV, 2. Present adress: Univ. of Geneva, 3. Univ. Grenoble Alpes, INSERM, CEA, UMR BioSanté U1292, CNRS, CEA)

9:40 AM - 9:58 AM

[Concurrent_18-04] Structure and functions of plant synaptotagmins

*Miguel A Botella[1] (1. Instituto de Hortofruticultura Subtropical y Mediterránea UMA-CSIC)

9:59 AM - 10:17 AM

[Concurrent_18-05] 【Short Talk】SEED LIPID DROPLET PROTEIN 1 and 2 and LD-PLASMA MEMBRANE ADAPTOR form a lipid droplet-plasma membrane contact site that might play a role under stress

*Janis Dabisch[1], Till Ischebeck[1] (1. Uni Münster)

10:18 AM - 10:23 AM

[Concurrent_18-06]【 Short Talk】 The role of DGK1 and DGK2 in Membrane Contact Sites and Stress Tolerance

*Selene Garcia-Hernandez[1], Noemi Ruiz-Lopez[1], Miguel A. Botella Mesa[1] （1. Instituto de Hortofruticultura Subtropical y Mediterránea, Universidad de Málaga-Consejo Superior de Investigaciones Científicas (IHSM-UMA-CSIC)）

10:24 AM - 10:29 AM

Concurrent | Concurrent | Concurrent 19-24

[Concurrent 19] Temporal regulation of environmental responses, growth, and development

Plant cells respond to the same types of stimuli differently depending on when (time of the day, season, developmental ages, etc.), how often (frequency, gradual changes, and stochasticity), and how long (duration – secs, mins, hours, days, etc. - and kinetics) they were given. In this session, we will discuss plant responses (from cellular to developmental) that are impacted by environmental stress and regulated by time in different scales and context.

Chair:Takato Imaizumi(University of Washington), Dawn Nagel(University of California, Riverside)

Wed. Jun 7, 2023 11:00 AM - 12:30 PM Makuhari Messe 2F(Room 1)

This session is sponsored by MEXT Grants-in-Aid for Scientific Research (KAKENHI) , Plant Resilience under Fluctuating Environment.

[Concurrent_19-01] The induction of florigen *FLOWERING LOCUS T* gene is controlled by phytochrome A high-irradiance response and external coincidence mechanism under natural long-day conditions

*Takato Imaizumi[1] （1. University of Washington）

11:02 AM - 11:17 AM

[Concurrent_19-02] Cold tolerance of membranes is a matter of timing and metabolic state – not just a saturation story

*Rebecca Roston[1], Zachery Shomo[1], Allison C Barnes[1,2], Sunil K Kenchanmane Raju[1,3], James C Schnable[1] （1. University of Nebraska-Lincoln, USA, 2. North Carolina State University, USA, 3. New York University, USA）

11:18 AM - 11:33 AM

[Concurrent_19-03] Circadian effects in seconds, minutes, hours, weeks and months.

Gareth Steed[1], Laura Taylor[1], Dora Ramirez[1], Gabby Pingarron-Cardenas[1], Basi Teng[1], Jorge Gonclaves[1], James Locke[1], *Alex Webb[1] （1. University of Cambridge）

11:34 AM - 11:49 AM

[Concurrent_19-04] 【 Short Talk】 Phloem cells - from single cell transcriptomics to development and function

*Jiyun Kim[1], Diana Weidauer[1], Shahrzad Majari Kasmaei[1], Marcela Renger[1], Wolf B. Frommer[1,2] （1. Institute for Molecular Physiology, Heinrich-Heine-University Düsseldorf, Düsseldorf 40225, Germany, 2. Institute of Transformative Bio-Molecules (WPI-ITbM), Nagoya University, Chikusa, Nagoya 464-8601, Japan）

11:50 AM - 11:59 AM

[Concurrent_19-05] 【 Short Talk】 Nitrogen-responsive SnRK1-FBH4 module affects flowering time and metabolism in Arabidopsis

*Miho Sanagi[1], Akio Kubo[1], Van Quoc Giang[1], Filip Rolland[2], Junpei Takagi[1], Takeo Sato[1] （1. Hokkaido University, Japan, 2. KU Leuven, Belgium）

12:00 PM - 12:09 PM

[Concurrent_19-06] 【 Short Talk】 Rational approaches to synchronizing germination in seed populations

*Liam Walker[1], Iain G. Johnston[2], George W. Bassel[1] （1. School of Life Sciences, University of Warwick, 2. Department of Mathematics, University of Bergen）

12:10 PM - 12:19 PM

[Concurrent_19-07] 【 Short Talk】 A Comparative Study of Adaptive Stress Tolerance in the Brassicaceae Family

*Andrea Ramirez Ramirez[1], Prashanth Ramachandran[1], José Dinneny[1] （1. Stanford University）

12:20 PM - 12:29 PM

Concurrent | Concurrent | Concurrent 19-24

[Concurrent 20] Interdisciplinary approaches applied to plasmodesmata research

Plasmodesmata provide a route for the transport of signalling proteins and RNAs, metabolites and hormones to coordinate cellular functions within tissues and across distant organs. This session aims to uncover the broad range of interdisciplinary approaches that have been recently applied to understand plasmodesmata formation and function. We will hear from researchers combining genetic and bioorthogonal chemistry approaches, and physico mechanical models to dissect plasmodesmata function as well as developing new devices and using interfamily grafts and bryophytes to follow Plasmodesmata development and their role in multicellularity. We will also discuss the potential of engineering this mechanism to improve crops in a changing environment

Chair:Yoselin Benitez-Alfonso(Centre for Plant Sciences. University of Leeds)

Wed. Jun 7, 2023 11:00 AM - 12:30 PM Makuhari Messe 2F(Room 2)

[Concurrent_20-01] Plasmodesmata walls: a study of the mechanical and structural properties that control their biological function

*Yoselin Benitez-Alfonso[1], Pallavi Kumari[1,2], Lazar Novakovic[1], Richa Yeshvekar[1], Simon Connell[2] (1. Centre for Plant Sciences. University of Leeds, UK, 2. Bragg Centre for Material Research. School of Physics and Astronomy. University of Leeds, UK)

11:01 AM - 11:15 AM

[Concurrent_20-02] The development of a microfluidic chip for entrapping tobacco BY-2 cells has enabled the analysis of plasmodesmata permeability using cultured cells in real-time.

*Ken-ichi Kurotani[1], Kazunori Shimizu[2,3], Yaichi Kawakatsu[1], Masahiro Kikkawa[2], Ryo Tabata[3,4], Daisuke Kurihara[5,6], Hiroyuki Honda[2], Michitaka Notaguchi[1,3,4,5] (1. Nagoya University, Bioscience and Biotechnology Center, Japan, 2. Nagoya University, Department of Biomolecular Engineering, Graduate School of Engineering, Japan, 3. Nagoya University, Institute for Advanced Research, Japan, 4. Nagoya University, Graduate School of Bioagricultural Sciences, Japan, 5. Nagoya University, Institute of Transformative Bio-Molecules (ITbM), Japan, 6. Nagoya University, Institute for Advanced Research (IAR), Japan)

11:16 AM - 11:30 AM

[Concurrent_20-03] Regulation of brassinosteroid homeostasis in the Arabidopsis root

*Jenny Russinova[1,2] (1. Department of Plant Biotechnology and Bioinformatics, Ghent University, 9052 Ghent, Belgium, 2. Center for Plant Systems Biology, VIB, 9052 Ghent, Belgium)

11:31 AM - 11:45 AM

[Concurrent_20-04] Environmental fluctuation and regulation of intercellular communication in the moss, *Physcomitrium patens*

*Tomomichi Fujita[1], Munenori Kitagawa[1,2], Takumi Tomoi[1,3], Kensuke Kawade[1,4], Chiyo Jinno[1] (1. Hokkaido University, 2. Huazhong Agricultural University,

3. Utsunomiya University, 4. National Institute for Basic Biology）
11:46 AM - 12:00 PM

[Concurrent_20-05] 【 Short Talk】 A long-distance top-down movement of a transcription factor regulating the root phloem development

*Ji-Young Lee[1], Hyoujin Kim[1], Jongsung Park[1], Heewon Shin[1], Sooyoun Kim[1]
（1. Seoul National University）
12:01 PM - 12:10 PM

[Concurrent_20-06] 【 Short Talk】 A novel mechanism for plasmodesmata mediated cell-cell communication in plants

*Marija Smokvarska[1], Jessica Perez Sancho[1], Marie Glavier[1], Ziqiang Li[1], Magali Grison[1], Laetitia Fouillen[1], Patrick Moreau[1], Matthieu Platre[2], Yaowei Yang[3], Yongming Luo[3], Wolfgang Busch[2], Eugenia Russinova[3], Emmanuelle Bayer[1] （1. Laboratoire de Biogenèse Membranaire, UMR5200, CNRS, Université de Bordeaux, Villenave d'Ornon, France, 2. Salk Institute for Biological Studies, La Jolla, California, 3. Department of Plant Biotechnology and Bioinformatics, Ghent University, Ghent, Belgium. Center for Plant Systems Biology, VIB, Ghent, Belgium）
12:11 PM - 12:20 PM

[Concurrent_20-07] 【 Short Talk】 Cellular adaptations for long-distance transport through the phloem sieve tube

*Lothar Kalmbach[1], Yka Helariutta （1. University of Lausanne, Department of Plant Molecular Biology）
12:21 PM - 12:30 PM

Concurrent | Concurrent | Concurrent 19-24

[Concurrent 21] Molecular signaling in plant-insect interactions

Molecular signaling in plant defense against herbivory is an emerging area of study with identity of receptors, channels and early signaling genes that connects it to jasmonate pathway relatively unknown. The regulation of phytohormone and glucosinolate pathway by various signaling components are also unexplored. The session will cover the latest discoveries in the field

Chair:Jyothilakshmi Vadassery(National Institute of Plant Genome Research (NIPGR)), Gen-Ichiro Arimura(Tokyo University of Science)

Wed. Jun 7, 2023 11:00 AM - 12:30 PM Makuhari Messe 2F(Room 3)

[Concurrent_21-01] Geographic, Ecological and Transcriptional Forces Shaping Glucosinolate Defense Metabolite Variation

*Daniel Kliebenstein[1] (1. University of California, Davis)

11:01 AM - 11:17 AM

[Concurrent_21-02] Plant defense system in arabidopsis-*Spodoptera* interactions

*Gen-ichiro Arimura[1], Yoshitake Desaki[1] (1. Tokyo University of Science)

11:18 AM - 11:34 AM

[Concurrent_21-03] Hunting for insect secreted proteins that modulate plant immunity: *Spodoptera litura*- Arabidopsis interaction as a model system

Vinod Prajapati[1], Paramita Bera[1], Sameer Dixit[1], Vishakh Vijayan[1], *Jyothilakshmi Vadassery[1] (1. National Institute of Plant Genome Research(NIPGR), Delhi)

11:35 AM - 11:51 AM

[Concurrent_21-04] Damage-activated proteolysis as a potential key player in the plant wound response

*Simon Stael[1] (1. Swedish University of Agricultural Sciences)

11:52 AM - 12:08 PM

[Concurrent_21-05] 【Short Talk】CIRCADIAN CLOCK-ASSOCIATED1 (CCA1) controls resistance to aphid by altering indole glucosinolate production

*Keyan Zhu Salzman[1], Jiaxin Lei[1] (1. Texas A&M University)

12:09 PM - 12:18 PM

[Concurrent_21-06] 【Short Talk】Is Ca^{2+}-induced activation of Arabidopsis lipoxygenase 2 involved in green leaf volatile burst?

*Kenji Matsui[1], Moena Tanaka, Kano Yamanaka, Mone Ohtaguro, Satoshi Mochizuki[2] (1. Yamaguchi University, Japan, 2. RIBS Okayama, Japan)

12:19 PM - 12:28 PM

Concurrent | Concurrent | Concurrent 19-24

[Concurrent 22] Molecular condensation for reproductive and biotic stress regulation: From cell biology to biophysical mechanism

Biomolecular condensation (BMC) has emerged as a critical regulatory mechanism that dynamically tunes the constituents and biophysical properties of signaling complexes during plant response to diverse developmental and environmental cues. This session focuses on BMC-mediated signaling research that integrates advanced imaging, biochemical, biophysical, and mathematical approaches to understand the spatiotemporal regulation of plant immune responses and reproduction.

Chair:Yansong Miao(Nanyang Technological University, Singapore), Yangnan Gu(University of California Berkeley)

Wed. Jun 7, 2023 11:00 AM - 12:30 PM Makuhari Messe 2F(Room 4)

[Concurrent_22-01] Molecular Condensation at Host-Pathogen Interface for Plant Immunity

*YANSONG MIAO[1] (1. Nanyang Technological University SInGapore)

11:00 AM - 11:13 AM

[Concurrent_22-02] Formation of NPR1 condensates promotes cell survival during the plant immune response

*Xinnian Dong[1], Raul Zavaliev[1], Rajinikanth Mohan[1], Tianyuan Chen[1] (1. Howard Hughes Medical Institute and Duke University)

11:14 AM - 11:34 AM

[Concurrent_22-03] Dynamic proteostasis and protein condensation in malectin-like receptor kinase-mediated activation of an intracellular immune receptor

*Ping He[1], Jun Liu[1], Fausto Andres Ortiz-Morea[1], Libo Shan[1] (1. Texas A&M University)

11:35 AM - 11:50 AM

[Concurrent_22-04] Phenolic acid-induced stress granule formation mediates plant interspecific competition

Zhouli Xie[1,2], Shuai Zhao[1,2], Ying Li[1,2], Yuhua Deng[1], Yabo Shi[1], Xiaoyuan Chen[1], Yue Li[1], Haiwei Li[3,4], Changtian Chen[1,2,5], Xingwei Wang[1], Enhui Liu[3,4], Yuchen Tu[1], Peng Shi[1,2], Jinjin Tong[1,2], Emilio Gutierrez-Beltran[6,7], Peter Bozhkov[6], Weiqiang Qian[1,2], Mian Zhou[3,4,5], *Wei Wang[1,2,5] (1. Peking University, China, 2. Center for Life Sciences, China, 3. Capital Normal University, China, 4. Beijing Key Laboratory of Plant Gene Resources and Biotechnology for Carbon Reduction and Environmental Improvement, China, 5. Iowa State University, USA, 6. Swedish University of Agricultural Sciences and Linnean Center for Plant Biology, Sweden, 7. Universidad de Sevilla, Spain)

11:51 AM - 12:06 PM

[Concurrent_22-05] The compaction of flowering plant sperm through chromatin phase separation

Toby Buttress[2], Shengbo He[2], Liang Wang[3,4], Shaoli Zhou[2], Gerhard Saalbach[2], Martin Vickers[2], Guohong Li[4], Pilong Li[3], *Xiaoqi Feng[1,2] (1. Institute of Science and Technology, Austria, 2. John Innes Centre, UK, 3. Tsinghua

University, China, 4. Institute of Biophysics, Chinese Academy of Science, China）

12:07 PM - 12:22 PM

[Concurrent_22-06] 【 Short Talk】 AGO2 condensates behavior after bacterial inoculation

*Moriaki Saito[1], Po Hu[1], Hailing Jin[1] （1. Department of Microbiology and Plant Pathology, Center for Plant Cell Biology, Institute for Integrative Genome Biology, University of California, Riverside, USA）

12:23 PM - 12:30 PM

Concurrent | Concurrent | Concurrent 19-24

[Concurrent 23] A systems perspective: Omics integration and modeling

The characterization and quantification of interconnections among molecules is fundamental to providing a systemic view about how plants integrate, attenuate, and respond to developmental and environmental cues. Complementary, predictive modeling of gene regulatory networks, phosphorylation cascades, hormone signaling, or metabolic pathways are powerful approaches to guide new hypotheses and base future experiments. This session will focus on studies that aim to integrate -omics datasets, unravel molecular networks, and elaborate predictive models to address functional questions in Arabidopsis.

Chair:Lisa Van den Broeck(North Carolina State University), Antoni Garcia(Centre for research in agricultural Genomics)

Wed. Jun 7, 2023 11:00 AM - 12:30 PM Makuhari Messe 3F(Room 5)

This session is sponsored by Cambridge University Press (Quantitative Plant Biology Journal, co-published with John Innes Centre).

[Concurrent_23-01] Functional characterization of Arabidopsis protein-coding genes and lincRNAs using multi-omics networks

*Klaas Vandepoele[1], Li Liu[1], Michel Heidecker[2], Thomas Depuydt[1], Nicolas Manosalva Perez[1], Martin Crespi[2], Thomas Blein[2] (1. VIB-UGent Center for Plant Systems Biology, Belgium, 2. Université Paris-Saclay, CNRS, INRAE, Université Evry, France)

11:03 AM - 11:18 AM

[Concurrent_23-02] A quantitative model of carbon partitioning during plant cold acclimation

*Anastasia Kitashova[1], Stephan Adler[2], Andreas Richter[3], Svenja Eberlein[1], Dejan Dziubek[1], Edda Klipp[2], Thomas Nägele[1] (1. Plant Evolutionary Cell Biology, Faculty of Biology, Ludwig Maximilian University of Munich, Germany, 2. Theoretical Biophysics, Institute of Biology, Humboldt University of Berlin, Germany, 3. Institute for Biosciences, Physiology of Plant Metabolism, University of Rostock, Germany)

11:19 AM - 11:34 AM

[Concurrent_23-03] Modelling hormone transport within the *Arabidopsis* root

*Kristian Kiradjiev[1], Leah Band[1], Eilon Shani[2], Hussam Nour-Eldin[3], Jenia Binenbaum[4], Nikolai Wulff[3] (1. University of Nottingham, 2. University of Tel Aviv, 3. University of Copenhagen, 4. University of Cambridge)

11:35 AM - 11:50 AM

[Concurrent_23-04] Understanding the Molecular Mechanisms Underlying FERONIA Receptor Kinase-mediated Signalling Using Multiomics Approach

*Hongqing Guo Guo[1], Jie Tang[1], Ping Wang[1], Trevor M Nolan[2], Justin W Walley[1], Philip N Benfey[2], Yanhai Yin[1], Hongqing Guo[1] (1. Iowa State University, 2.

Duke University）
11:51 AM - 12:06 PM

[Concurrent_23-05] 【 Short Talk】 New elements of cis-regulatory code of plant genes revealed by deep learning models

Fritz Frobang Peleke[2], Simon Maria Zumkeller[1], *Jedrzej Szymanski Szymanski[1,2] （1. Forschungszentrum Juelich, CEPLAS, BioSC, Institute of Bio- and Geosciences, IBG4 Bioinformatic, 52428 Juelich, Germany, 2. Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Correnssstraße 3, D-06466 Seeland, OT Gatersleben, Germany）
12:07 PM - 12:17 PM

[Concurrent_23-06] 【 Short Talk】 Assessing the impacts of genetic defects on starch metabolism in *Arabidopsis* plants using the carbon homeostasis model

*Shuichi Kudo[1], Anthony Artins[2], Carolina C. M. Bello[2], Camila Caldana[2], Akiko Satake[1] （1. Kyushu Univ., Japan, 2. Max Planck Inst. of Mol. Plant Physiol., German）
12:18 PM - 12:28 PM

Concurrent | Concurrent | Concurrent 19-24

[Concurrent 24] Transposable elements, epigenetics, and environmental adaptation

This concurrent session will cover multiple aspects of epigenetic regulation and its role in environmental adaptation: DNA methylation, chromatin modifications, transposon control, reproduction, transgenerational epigenetics, and population epigenomics.

Chair:Leandro Quadrana(Institut of Plant Science Paris-Saclay (IPS2)), Eriko Sasaki(Kyushu University)

Wed. Jun 7, 2023 11:00 AM - 12:30 PM Makuhari Messe 3F(Room 6)

[Concurrent_24-01] The genetic basis of non-CG transposon methylation variation in *Arabidopsis thaliana*

*Eriko Sasaki[1], Magnus Nordborg[2] (1. Kyushu University, 2. Gregor Mendel Institute of Molecular Plant Biology)

11:01 AM - 11:13 AM

[Concurrent_24-02] Transposable element sequences and their epigenetic control in plants: engines of rapid adaptation?

*Pierre Baduel[1], Louna De Oliveira[1], Grégoire Bohl-Viallefond[1], Mounia El Messaoudi[1], Vincent Colot[1] (1. Institut de Biologie de l'École Normale Supérieure (IBENS))

11:14 AM - 11:26 AM

[Concurrent_24-03] Novel mechanism of transposon repression by histone deacetylases

*Hidetaka Ito[1], Xiaoying Niu[1], Yoko Ikeda[2], Hidetoshi Saze[3], Reiko Kanehira[1], Xin Sun[1] (1. Hokkaido University, Japan, 2. IPSR, Japan, 3. OIST, Japan)

11:27 AM - 11:39 AM

[Concurrent_24-04] Targeted integrations of retrotransposons into centromeric regions in *Arabidopsis*

*Sayuri Tsukahara[1], Akira Kawabe[2], Kae Kato[3], Leandro Quadrana[4], Basile Laduque[4,1], Tetsuji Kakutani[1] (1. The University of Tokyo, Japan, 2. Kyoto Sangyo University, Japan, 3. National Institute of Genetics, Japan, 4. Institute of Plant Sciences Paris-Saclay, France)

11:40 AM - 11:52 AM

[Concurrent_24-05] Targeted Transposition in Arabidopsis

*Richard Keith Slotkin[1,2], Peng Liu[1], Seth A. Edwards[1,2], Pratheek Pandesha[1,3], Ryan Swanson[1,2], Yu-Hung Hung[1], Gerald Trey Klaas[1], C. Nathan Hancock[4] (1. Danforth Plant Science Center &University of Missouri, 2. Division of Biological Sciences, University of Missouri-Columbia, 3. Department of Biology, Washington University in St. Louis, 4. University of South Carolina-Aiken)

11:53 AM - 12:05 PM

[Concurrent_24-06] Unique aspects of transposable element silencing in duckweeds (lemnaceae)

*Arturo Mari-Ordonez[1], Rodolphe Dombey[1], Daniel Buendia-Avila[1], Veronica Barragan-Borrero[1], Rana Elias[1], Arturo Ponce-Mane[1] (1. Gregor Mendel Institute (GMI))

12:06 PM - 12:18 PM

[Concurrent_24-07] 【 Short Talk】 RNA deadenylation pathway suppresses transposable elements in *Arabidopsis*

*Ling Wang[1,2], Hui Li[1,2], Mengxiao Yan[3], Jun Yang[1,3], Jungnam Cho[1,2,4] （1. CAS Center for Excellence in Molecular Plant Sciences / Institute of Plant Physiology and Ecology, 2. University of Chinese Academy of Science, 3. Shanghai Key Laboratory of Plant Functional Genomics and Resources, Shanghai Chenshan Botanical Garden, 4. CAS-JIC Centre for Excellence in Plant and Microbial Science）

12:19 PM - 12:24 PM

[Concurrent_24-08] 【 Short Talk】 Gene-transposon transcripts can be epigenetically regulated and impact gene response to stress conditions in *Arabidopsis thaliana*

*Jeremy Berthelier[1], Leonardo Furci[1], Shuta Asai[2], Munissa Sadykova[1], Tomoe Shimazaki[1], Ken Shirasu[2], Hidetoshi Saze[1] （1. Plant Epigenetics Unit, Okinawa Institute of Science and Technology (OIST), Okinawa, Japan, 2. Center for Sustainable Resource Science, RIKEN, Yokohama, Japan）

12:25 PM - 12:30 PM

Concurrent | Concurrent | Concurrent 25-29

[Concurrent 25] The road to recovery: Elucidating stress recovery pathways and reversing stress effects

Plants manifest a plethora of responses from the molecular to the phenotypic level when exposed to different environments. For example, plants under water deprivation often develop smaller and darker leaves than their well-watered counterparts. Extensive empirical work has shown that gene expression is a key determinant of the physiological and developmental responses of plants to environmental cues. Further, the return to homeostasis following environmental challenges can be associated with processes distinct from the stressor proper, yet are of equal importance for plant survival. In this session, we will focus on the frontier between stress tolerance and recovery to understand mechanisms affecting reproductivity and yield after encountering stress. Although some studies consider stress recovery, it is mostly presented as a control that stressful conditions have relieved. In order to reshape a plant' s ability to cope with stress and recovery responses and to enhance plant performance under fluctuating environments there is a need to gain a greater understanding of the margin between the stress, differences in response to various stress severities, and stress recovery as a process that can be studied and improved.

Chair:Natanella Illouz-Eliaz(Salk Institute), Travis Lee(Salk Institute)

Thu. Jun 8, 2023 10:30 AM - 11:59 AM Makuhari Messe 2F(Room 1)

[Concurrent_25-01] Conflicts in phenotypic natural selection constrain adaptation to climate change in Arabidopsis thaliana

Megan Ruffley[1], Laura Leventhal[1,2], Shannon Hateley[1], Sue Rhee[1], *Moi Exposito-Alonso[1,2] （1. Carnegie Institution for Science, 2. Stanford University）

10:35 AM - 10:55 AM

[Concurrent_25-02] Molecular and evolutionary basis of selective autophagy-mediated heat stress recovery in plants

*Yasin Dagdas[1] （1. Gregor Mendel Institute）

10:56 AM - 11:16 AM

[Concurrent_25-03] Leveraging ecological specialization to understand plant drought tolerance strategies and their genetic modulation: a focus on ecological divergent Arabidopsis species

*Juliette de Meaux[1] （1. University of Cologne）

11:17 AM - 11:37 AM

[Concurrent_25-04] 【 Short Talk】 Transcription factor and chromatin-based heat memory in plants

*Nobutoshi Yamaguchi[1] （1. Nara Institute of Science and Technology ）

11:38 AM - 11:48 AM

[Concurrent_25-05] 【 Short Talk】 Response of *Arabidopsis thaliana* to flooding with physical flow

*Nobuhiro Suzuki[1], Momoko Kaji[2], Kazuma Katano[3], Ryotaro Yamaji[2], Hiroshi Nitta[2], Rio Shimizu[1], Shunsuke Shigaki[4], Hiroyuki Suzuki[5] （1. Sophia University, Japan, 2. National Institute of Technology, Ishikawa College, Japan, 3. University of Massachusetts, Amherst, USA, 4. National Institute of Informatics, Japan, 5. Hokkai-Gakuen University, Japan）

11:49 AM - 11:59 AM

Concurrent | Concurrent | Concurrent 25-29

[Concurrent 26] Receptor kinase signaling in development

In recent years, receptor kinase pathways have gained prominence in developmental processes. This session features the latest developments in their characterization in phenomena as diverse as polarity, cell division orientation or regeneration.

Chair:Christian Hardtke(University of Lausanne), Jamie Van Norman(UC Riverside)

Thu. Jun 8, 2023 10:30 AM - 12:00 PM Makuhari Messe 2F(Room 2)

[Concurrent_26-01] Which side are you on? Linking polarized receptor kinases to root cell division control

*Jaimie M. Van Norman[1], R.M. Imtiaz Karim Rony[1], Roya Campos[1], Jason Goff[1] （1. University of California, Riverside）

10:31 AM - 10:50 AM

[Concurrent_26-02] Beyond stem cells: Novel roles for CLE peptide signaling in shoot apical meristems and the environmental control of plant growth.

*Zachary Nimchuk[1,2] （1. Department of Biology, University of North Carolina at Chapel Hill. , 2. Curriculum in Genetics and Molecular Biology, University of North Carolina at Chapel Hill. ）

10:51 AM - 11:10 AM

[Concurrent_26-03] CLE-BAM/CIK signaling in root vascular patterning

*Pingping Qian[1], Tatsuo Kakimoto[1] （1. Osaka University）

11:11 AM - 11:30 AM

[Concurrent_26-04] 【 Short Talk】 Coordinating root system architecture: the intersection of CEP and Cytokinin hormone pathways in Arabidopsis

*Michael Taleski[1], Kelly Chapman[1], Ondřej Novák[4], Thomas Schmülling[3], Manuel Frank[2], Michael Djordjevic[1] （1. ANU, Australia, 2. Aarhus University, Denmark, 3. Freie Universität Berlin, Germany, 4. The Czech Academy of Sciences, Czech Republic）

11:31 AM - 11:40 AM

[Concurrent_26-05] 【 Short Talk】 Stomata-derived intercellular signaling that directs mesophyll air space formation

*Yuki Yoshida[1], Shinichiro Sawa[1] （1. Kumamoto University, Japan）

11:41 AM - 11:50 AM

[Concurrent_26-06] 【 Short Talk】 A phosphoinositide hub connects CLE peptide signaling and polar auxin efflux regulation

*Qian Wang[1], A. Cecilia Aliaga Fandino[1], Moritz Graeff[1], Thomas A. DeFalco[2,3], Cyril Zipfel[2], Christian S. Hardtke[1] （1. Department of Plant Molecular Biology, University of Lausanne, CH-1015 Lausanne, Switzerland, 2. Institute of Plant and Microbial Biology, University of Zurich, Zurich-Basel Plant Science Center, CH-8008 Zurich, Switzerland, 3. Department of Biology, Western University, London, Canada）

11:51 AM - 12:00 PM

Concurrent | Concurrent | Concurrent 25-29

[Concurrent 27] Chemical priming as a sustainable tool for improved productivity under stress conditions

Chemical biology could contribute towards crop improvement while improving farmers' income and ultimately contributing towards good health and sustainable agricultural practices. This could also help achieve sustainable development goals (SDGs) such as SDG1: No Poverty (Through improving farmers' income) SDG2: Zero hunger (Through enhanced crop production) SDG3: Good Health and Well-being (Through improved nutritional quality) The session would provide an opportunity to share the latest trends in the chemical biology of plants.

Chair:Vassilis Fotopoulos(The Cyprus University of Technology), Khurram Bashir(Lahore University of Management Sciences)

Thu. Jun 8, 2023 10:30 AM - 12:00 PM Makuhari Messe 2F(Room 3)

This session is sponsored by Plant Molecular Biology (Springer).

Plant Molecular Biology

[Concurrent_27-01] Signalling and epigenetic maintenance of plant immune memory by chemical priming agents.

*Jurriaan Ton[1], David Pascual-Pardo[1], Adam Hannan Parker[1], Roland Schwarzenbacher[1], Chia-Nan Tao[1], Louis Tirot[1], Sam Wilkinson[1], Mustafa Yassin[1], Peijun Zhang[1] (1. University of Sheffield, School of Biosciences)

10:31 AM - 10:46 AM

[Concurrent_27-02] Employment of functionalized nanoparticles and polymers towards climate-smart crops

*Vasileios Fotopoulos[1] (1. Cyprus University of Technology)

10:47 AM - 11:02 AM

[Concurrent_27-03] Ethanol-mediated chemical priming to mitigate drought stress in plants

*Khurram Bashir Bashir[1,2], Sultana Rasheed[2], Daisuke Todaka[2], Kaori Sako[2,3], Maho Tanaka[2], Satoshi Takahashi[2], Shunsuke Watanabe[2], Eigo Ando[4,5], Kwang-Chul Shin[4], Miki Fujita[2], Miyako Kusano[2,7], Yoshiki Habu[7,8], Kanako Kawaura[6], Jun Kikuchi[2,4,6], Kazuki Saito[2], Masami Yokota Hirai[2,4], Mitsunori Seo[2], Kazuo Shinozaki[2], Toshinori Kinoshita[2], Motoaki Seki[2,6] (1. Lahore University of Management Sciences, 2. RIKEN, Kanagawa, 230-0045, Japan, 3. Kindai University, Nara, 631-8505, Japan, 4. Nagoya Univ., Aichi, 464-8602, Japan, 5. The University of Tokyo, Tokyo, 113-0033, Japan , 6. Yokohama City Univ., Kanagawa, 244-0813, Japan, 7. University of Tsukuba, Ibaraki, 305-8577, Japan, 8. NARO, Ibaraki, 305-8602, Japan)

11:03 AM - 11:18 AM

[Concurrent_27-04] Screening chemicals regulating ion channels and modulating plant growth mechanism

*Nobuyuki Uozumi[1], Kanane Sato[1], Shunya Saito[1], Yasuhiro Ishimaru[1] (1. Tohoku University, Japan)

11:19 AM - 11:30 AM

[Concurrent_27-05] VDAL, a new protein biostimulant from Verticillium dahliae and its applications in Agriculture

*Zhizhong Gong[1], Junsheng Qi[1] （1. China Agricultural University, Beijing, China）

11:31 AM - 11:42 AM

[Concurrent_27-06] 【 Short Talk】 Chemical biology study of jasmonate signaling by development of a biased agonist derived from stereoisomers of coronatine

*Kengo Hayashi[1], Nobuki Kato[1], Khurram Bashir[2,3], Haruna Nomoto[1], Misuzu Nakayama[1], Andrea Chini[4], Satoshi Takahashi[2], Hiroaki Saito[5], Raku Watanabe[6], Yousuke Takaoka[1], Maho Tanaka[2], Atsushi J. Nagano[7,8], Motoaki Seki[2], Roberto Solano[4], Minoru Ueda[1,6] （1. Graduate School of Science, Tohoku University, Japan, 2. RIKEN, Japan, 3. Syed Babar Ali School of Science and Engineering, Lahore University of Management Sciences, Pakistan, 4. Department of Plant Molecular Genetics, Centro Nacional de Biotecnología, Consejo Superior de Investigaciones Científicas, Spain, 5. Faculty of Pharmaceutical Sciences, Hokuriku University, Japan, 6. Graduate School of Life Science, Tohoku University, Japan, 7. Faculty of Agriculture, Ryukoku University, Japan, 8. Institute for Advanced Biosciences, Keio University, Japan）

11:43 AM - 11:51 AM

[Concurrent_27-07] 【 Short Talk】 Identification of new targets for improving abiotic stress tolerance in plants

*María del Rosario González Bermúdez[1], Irene García-Maquilón[1], Jorge Lozano-Juste[1] （1. Instituto de Biologia Molecular y Celular de Plantas (IBMCP-UPV-CSIC), Universitat Politècnica de València (UPV), Consejo Superior de Investigaciones Científicas (CSIC), 46022, Spain.）

11:52 AM - 12:00 PM

Concurrent | Concurrent | Concurrent 25-29

[Concurrent 28] Cross-kingdom RNA communications and innovative Eco-friendly disease control solutions

Cross-kingdom RNA communications between plants and interaction organisms is a newly emerging field. Understanding the molecular mechanisms and regulatory pathways underlying the RNA communications will help us design RNA-based new generation of plant protection solutions that are more effective and environmentally friendly.

Chair:Hailing Jin(University of California, Riverside)

Thu. Jun 8, 2023 10:30 AM - 12:00 PM Makuhari Messe 2F(Room 4)

Click here for Zoom

[Concurrent_28-01] Cross-kingdom RNA trafficking between plants and fungal pathogens

*Hailing Jin[1], Shumei Wang[1], Baoye He[1], Qiang Cai[2], Obed Ramírez-Sánchez[3], Cei Abreu-Goodger[4], Paul Birch[5], Huaitong Wu[1] (1. University of California, Riverside, USA, 2. State Key Laboratory of Hybrid Rice, College of Life Science, Wuhan University, Wuhan, China. , 3. National Laboratory of Genomics for Biodiversity (Langebio), Cinvestav, Irapuato, 36821 Guanajuato, Mexico., 4. Institute of Ecology and Evolution, School of Biological Sciences, The University of Edinburgh, Edinburgh EH9 3FL, United Kingdom, 5. Division of Plant Sciences, School of Life Science, University of Dundee at James Hutton Institute, Invergowrie, Dundee DD2 5DA, United Kingdom)

10:32 AM - 10:52 AM

[Concurrent_28-02] Extracellular vesicles: Emerging Players in Plant Defense Against Pathogens

*Qiang Cai[1] (1. Wuhan University, China)

10:53 AM - 11:13 AM

[Concurrent_28-03] Extracellular small RNAs direct gene silencing in a plant-interacting bacterium

Antinéa Ravet[1], Jérôme Zervudacki[2], Meenu Singla-Rastogi[1], Magali Charvin[1], Odon Thiebeauld[2], Alvaro L Perez-Quintero[1], Antonio Emidio Fortunato[2], Adrien Candat[1], Venugopal Mendu[1], *Lionel Navarro[1] (1. Institut de Biologie de l'École normale supérieure (IBENS), 75005 Paris, France, 2IRT, 75005 Paris, France)

11:14 AM - 11:34 AM

[Concurrent_28-04] 【Short Talk】 Proof of concept: circular antisense RNAs (caRNAs) as a new mode of action for RNA-based plant protection

*Timo Schlemmer[1,2], Aline Koch[1], Albrecht Bindereif[2] (1. University of Regensburg, Regensburg, 2. Justus-Liebig-University, Gießen)

11:35 AM - 11:45 AM

[Concurrent_28-05] 【Short Talk】 Expanding the horizons of plant RNA research using single molecule FISH

*Susan Duncan[1], Yiliang Ding[1] (1. John Innes Centre)

11:46 AM - 11:56 AM

Concurrent | Concurrent | Concurrent 25-29

[Concurrent 29] Visualizing the dynamics of the circadian clock

Plant circadian clocks continuously adjust their rhythm in accordance with the ever-changing environments at different temporal and spatial levels. The advance in techniques and imaging systems along with the development of algorithms allow us to visualize the circadian clock interacting with environments at a whole plant to single-cell levels.

Chair:Chin-Mei Lee(National Taiwan University), Huang-Lung Tsai(National Taiwan University)

Thu. Jun 8, 2023 10:30 AM - 11:52 AM Makuhari Messe 3F(Room 5)

This session is sponsored by Institute of Plant and Microbial Biology, Academia Sinica.

[Concurrent_29-01] Investigating the dynamic regulation of stress-responsive genes in plants.

*Dawn Nagel[1] (1. University of California, Riverside)

10:31 AM - 10:46 AM

[Concurrent_29-02] Characterization of the long-distance circadian communication through micro-grafting techniques

*Nozomu Takahashi[1,2], Kyohei Uemoto[1,3], Fumito Mori[4], Shota Yamauchi[5], Haruki Egashira[1], Yumi Kunimoto[1], Takashi Araki[3], Atsushi Takemiya[5], Hiroshi Ito[4], Hikari Ikeda[1], Taiga Uchikawa[1], Yohei Kondo[6], Masaaki Watahiki[7], Akane Kubota[1], Motomu Endo[1] (1. Nara Institute of Science and Technology, Japan, 2. JST PRESTO, Japan, 3. Kyoto University, Japan, 4. Kyushu University, Japan, 5. Yamaguchi University, Japan, 6. National Institutes of Natural Sciences, Japan, 7. Hokkaido University, Japan)

10:47 AM - 11:02 AM

[Concurrent_29-03] 【Short Talk】 Microfocus X-ray CT Analysis of *Arabidopsis* Petioles for Leaf Movement

*Maika Hayashi[1], Tadashi Kunieda[1], Ryo Kumagai[1], Makito Haruta[1], Yoshito Otake[1], Hirokazu Kato[1], Hiroyuki Shima[2], Taku Demura[1] (1. NAIST, Japan, 2. Univ. of Yamanashi, Japan)

11:03 AM - 11:15 AM

[Concurrent_29-04] 【Short Talk】 Identification of LWD1-interacting proteins reveals novel regulators for Arabidopsis circadian clock

*Chun-Kai Huang[1], Shu-Hsing Wu[1] (1. Institute of Plant and Microbial Biology, Academia Sinica, Taiwan, ROC)

11:16 AM - 11:28 AM

[Concurrent_29-05] 【Short Talk】 ROS around the clock: Superoxide as a metabolic signal affecting circadian rhythms and growth

*Mike Haydon[1] (1. University of Melbourne)

11:29 AM - 11:41 AM

[Concurrent_29-06] 【Short Talk】 Long-distance circadian coordination via a phloem-delivered mobile transcript

*András Székely[1], Eleftheria Saplaoura[1], Dorothee Staiger[2], Friedrich Kragler[1] (1. Max Planck Institute of Molecular Plant Physiology, 2. Bielefeld

University）
11:42 AM - 11:54 AM

Concurrent | Concurrent | Concurrent 30-33/ MASC WS

[Concurrent 30] Living on the edge: Adaptation of Arabidopsis extremophyte relatives to harsh environments

Extremophytes, plants that inhabit harsh environments, represent novel genetic resources underexplored for their adaptations to multiple environmental stresses. Specifically, extremophytes that are closely related to Arabidopsis are ideal models for comparative multi-level analyses. This session will focus on systems biology research of Arabidopsis extremophyte relatives from physiological through molecular, "omics", evolutionary, and ecological studies to elucidate mechanisms allowing these intriguing plants to survive the most extreme environments on the planet.

Chair:Maheshi Dassanayake(Louisiana State University), Simon Barak(Jacob Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev)

Thu. Jun 8, 2023 2:00 PM - 3:30 PM Makuhari Messe 2F(Room 2)

[Concurrent_30-01] A counterintuitive conundrum: Salt inhibition of halophytic seed germination

Yana Kazachkova[1], He Junyi[1], Alexandre Marques[1], Inna Khozin-Goldberg[1], Aaron Fait[1], *Simon Barak[1] (1. Ben-Gurion University of the Negev)

2:01 PM - 2:15 PM

[Concurrent_30-02] Role and Functional Differences of HIGH-AFFINITY K^+ TRANSPORTER1 (HKT1)-Type Transporters in Plants under Salt Stress

*Dae-Jin Yun[1] (1. Konkuk University, Korea)

2:16 PM - 2:30 PM

[Concurrent_30-03] Exploring plant adaptations to aquatic environments: A study of *Rorippa aquatica*, an amphibious plant living at the edge of the water

*Seisuke Kimura[1,2] (1. Faculty of Life Sciences, Kyoto Sangyo University, Japan, 2. Center for Plant Sciences, Kyoto Sangyo University, Japan)

2:31 PM - 2:45 PM

[Concurrent_30-04] Discovering how evolutionary innovations in growth regulation contribute to plant stress tolerance

*Prashanth Ramachandran[1], Andrea Ramirez[1], Evelyn Alferez[1], José Dinneny[1] (1. Stanford University)

2:46 PM - 3:00 PM

[Concurrent_30-05] 【Short Talk】 Enhanced Salt Tolerance by an Antarctic moss gene

*NoA Bae[1], Jun Hyuck Lee[2], Hyoungseok Lee[2], Byeong-ha Lee[1] (1. Sogang university, Korea, 2. Korea Polar Research Institute, Korea)

3:01 PM - 3:10 PM

[Concurrent_30-06] 【Short Talk】 Altitudinal genetic differentiation in the leaf wax-mediated flowering bud protection against frost in an early-spring flowering herb, *Arabidopsis halleri*

*Hiroshi Kudoh[1], Genki Yumoto[1], Biva Aryal[1,2], Mie N. Honjo[1], Yuko Sasaki-Sekimoto[3], Wataru Shinohara[4], Hiroyuki Ohta[3] (1. Kyoto University, Japan, 2. Tribhuvan University, Nepal, 3. Tokyo Institute of Technology, Japan, 4.

Kagawa University. Japan）
3:11 PM - 3:20 PM

[Concurrent_30-07] 【 Short Talk】 Seasonal dynamics of epigenome in a natural population of *Arabidopsis halleri*

*Haruki Nishio[1,2], Tasuku Ito[3], Mie N. Honjo[2], Tomoaki Muranaka[4], Naoko Emura[4], Hanako Shimizu[2], Hiroshi Kimura[5], Taiko Kim To[6,7], Tetsuji Kakutani[6,7], Hiroshi Kudoh[2] （1. Shiga Univ., Japan, 2. Kyoto Univ., Japan, 3. Institute of Science and Technology Austria, 4. Kagoshima Univ., Japan, 5. Tokyo Institute of Technology, Japan, 6. Tokyo Univ., Japan, 7. NIG, Japan）
3:21 PM - 3:30 PM

Concurrent | Concurrent | Concurrent 30-33/ MASC WS

[Concurrent 31] Short and long range signaling by RNA

Plant development, physiology and defense are controlled by several classes of mobile RNAs that move both cell-to-cell, through plasmodesmata, and into the phloem for systemic movement. Mobile mRNAs control meristem, leaf and tuber development, among other processes. Small RNA silencing signals and miRNAs also move systemically through plasmodesmata and the phloem, for example, to control nutrient homeostasis. The workshop will present new findings in this exciting emerging area of plant biology research.

Chair:Dave Jackson(Cold Spring Harbor Laboratory), Margaret Frank(Cornell University), Fritz Kragler(Max Planck Institute of Molecular Plant Physiology), Michitaka Notaguchi(Nagoya University)

Thu. Jun 8, 2023 2:00 PM - 3:30 PM Makuhari Messe 2F(Room 3)

Click here for Zoom

[Concurrent_31-01] Deciphering signals from the noise in the mRNA mobileome using comparative Solanaceae genomics

*Margaret Hannah Frank[1], Michelle Heeney[1] (1. Cornell University)

2:02 PM - 2:16 PM

[Concurrent_31-02] An RNA exosome subunit promotes cell-to-cell trafficking of a homeobox mRNA via plasmodesmata

*Munenori Kitagawa[1], Peipei Wu[2], Rachappa Balkunde[3], Patrick Cunniff[2], David Jackson[2] (1. Huazhong Agricultural University, China, 2. Cold Spring Harbor Laboratory, USA, 3. Bayer Crop Science LLC, USA)

2:17 PM - 2:31 PM

[Concurrent_31-03] Investigation of mRNAs that move long-distance

*Michitaka Notaguchi[1,2] (1. Kyoto University, Japan, 2. Nagoya University, Japan)

2:32 PM - 2:46 PM

[Concurrent_31-04] Lost in translation? The long-distance travel of messenger RNAs

*Friedrich Kragler[1] (1. Max-Planck-Institute of Molecular Plant Physiology)

2:47 PM - 3:01 PM

[Concurrent_31-05] 【Short Talk】 Arabidopsis cyclophilins direct intracellular transport of mobile mRNA via organelle hitchhiking

*Tien-Shin Yu[1], Kai-Ren Luo[1], Nien-Chen Huang[1], Yu-Hsin Chang[1,2], Yu-Wen Jan[1] (1. Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan, 2. Institute of Plant Biology, National Taiwan University, Taipei, Taiwan)

3:02 PM - 3:10 PM

[Concurrent_31-06] 【Short Talk】 A cell wall-modifying enzyme controls symplastic movement of RNA silencing in aerial Arabidopsis tissues

*Florence Brioudes[1], Florian Brioudes[1], André Imboden[1], Lazar Novaković[2], Yoselin Benitez-Alfonso[2], Olivier Voinnet[1] (1. Swiss Federal Institute of Technology (ETH-Zürich), Switzerland, 2. Centre for Plant Science, School of Biology, University of Leeds, United Kingdom)

3:11 PM - 3:19 PM

[Concurrent_31-07]【 Short Talk】 Dose-dependent long-distance movement of microRNA399 duplex regulates phosphate homeostasis in Arabidopsis

*Chih-Pin Chiang[1], Jia-Ling Li[1], Tzyy-Jen Chiou[1] （1. Agricultural Biotechnology Research Center, Academia Sinica, Taiwan）

3:20 PM - 3:28 PM

Concurrent | Concurrent | Concurrent 30-33/ MASC WS

[Concurrent 32] Mechanisms and functions of endocytosis in plants

Plant endocytosis underlies a plethora of biological processes including nutrient uptake, signal transduction, development, polarity and tropic growth, immunity and responses to abiotic stress. However, the molecular machinery of endocytosis, its regulation and exact biological impacts are only beginning to be understood in plants. This session will cover the following topics (1) Molecular mechanisms of endocytosis in plants; (2) Endocytosis and plant polarity, development and nutrient uptake; (3) Endocytosis and plant-pathogen interactions; (4) Endocytosis and cell wall biogenesis; (5) Crosstalk between endocytosis, exocytosis and autophagy

Chair:Jenny Russinova(VIB-UGent Center for Plant Systems Biology), Takashi Ueda(NIBB)

Thu. Jun 8, 2023 2:00 PM - 3:30 PM Makuhari Messe 2F(Room 4)

This session is sponsored by MEXT Grant-in-Aid for Scientific Research on Innovative Areas "Periodicity and Its Modulation in Plants".

Periodicity and its Modulation in Plants 植物の周期と変調

[Concurrent_32-01] Mechanistic insight into plant endocytosis

*Daniel Van Damme[1,2] （1. Ghent University Department of Plant Biotechnology and Bioinformatics, Ghent, Belgium , 2. VIB Center for Plant Systems Biology, Ghent, Belgium）

2:02 PM - 2:20 PM

[Concurrent_32-02] 【 Short Talk】 Mechanisms underlying polar membrane targeting of SOSEKI protein

*Andriy Volkov[1], Dolf Weijers[1] （1. Laboratory of Biochemistry, Wageningen University, Netherlands）

2:21 PM - 2:30 PM

[Concurrent_32-03] A novel reciprocal regulation mechanism for SH3P2 in crosstalk between endocytosis and autophagy

Kai-Ching Law[1], Lanlan Feng[1], Hongbo Li[2], Caiji Gao[2], *Xiaohong Zhuang[1] （1. Centre for Cell &Developmental Biology and State Key Laboratory of Agrobiotechnology, School of Life Sciences, The Chinese University of Hong Kong, Hong Kong, China, 2. Guangdong Provincial Key Laboratory of Biotechnology for Plant Development, School of Life Sciences, South China Normal University, Guangzhou, China）

2:31 PM - 2:49 PM

[Concurrent_32-04] 【 Short Talk】 Brassinosteroid receptor BRI1 deubiquitination by UBP12/UBP13 fine-tunes plant growth

*Yongming Luo[1,2,3], Junpei Takagi[3], Lucas Alves Neubus Claus[1,2], Chao Zhang[5,6], Shigetaka Yasuda[3], Yoko Hasegawa[4], Junji Yamaguchi[3], Libo Shan[5,6], Eugenia Russinova[1,2], Takeo Sato[3] （1. Department of Plant Biotechnology and Bioinformatics, Ghent University, Belgium, 2. Center for Plant Systems Biology, VIB, Belgium, 3. Faculty of Science, Hokkaido University, Japan, 4. Graduate School of Science, Hokkaido University, Japan, 5. Department of Plant Pathology &Microbiology, Texas A&M University, USA, 6. Department of Biochemistry &Biophysics, Texas A&M University, USA）

2:50 PM - 2:59 PM

[Concurrent_32-05] Understanding the Evolution of Endosomal Sorting Mechanisms in Plants

Elizabeth Berryman[1], Ethan Weiner[1], Ariadna Gonzalez Solis[1], Felix Frey[2], Charles Hamilton[2], Andela Saric[2], *Marisa Otegui Otegui[1] （1. University of Wisconsin-Madison, USA, 2. Institute of Science and Technology, Austria）

3:00 PM - 3:18 PM

[Concurrent_32-06] 【 Short Talk】 Ca^{2+}-induced removal of inner vegetative plasma membrane in Arabidopsis sperm cells

*Naoya Sugi[1], Daichi Susaki[1], Kazuo Ebine[2,3], Tetsu Kinoshita[1], Daisuke Maruyama[1] （1. KIBR, Yokohama City Univ., 2. Div. Cellular Dynamics, NIBB, 3. Sch. Life Sci., SOKENDAI）

3:19 PM - 3:28 PM

Concurrent | Concurrent | Concurrent 30-33/ MASC WS

[Concurrent 33] Front-line of plant genome engineering

Genome engineering are revolutionizing life sciences and plant biotechnology that seek to develop new technologies for the precise manipulation of genes and genomes in vivo. In addition to its use for advancing our understanding of basic biology, genome engineering has numerous applications for improving agronomically traits. In this session, we will present and discuss recent advances in nuclear and organelle genome engineering approaches, novel tools and delivery system.

Chair:Daisuke Miki(Center of Excellence for Molecular Plant Sciences, Chinese Academy of Sciences), Masaki Endo(National Agriculture and Food Research Organization (NARO)), Yuriko Osakabe(School of Life Science and Technology, Tokyo Institute of Technology)

Thu. Jun 8, 2023 2:00 PM - 3:30 PM Makuhari Messe 3F(Room 5)

[Concurrent_33-01] Genome engineering for plastid and mitochondria

*Shin-ichi Arimura[1], Chang Zhou[1], Issei Nakazato[1] (1. University of Tokyo)

2:01 PM - 2:18 PM

[Concurrent_33-02] Towards versatile plant gene editing systems: the wisker-based direct delivery method and small-size Cas protein

*Shigeo S. Sugano[1] (1. National Institute of Advanced Industrial Science and Technology (AIST))

2:19 PM - 2:36 PM

[Concurrent_33-03] CRISPR/Cas-meditated Chromosome and Tissue Engineering in Arabidopsis

*Holger Puchta[1] (1. Karlsruhe Institute of Technology)

2:37 PM - 2:54 PM

[Concurrent_33-04] Gene editing in Arabidopsis using RNA viruses

*Daniel Voytas[1] (1. University of Minnesota)

2:55 PM - 3:12 PM

[Concurrent_33-05] 【Short Talk】 Insights into tRNA-like structures (TLS) as motifs facilitating long-distance transport of mRNAs

*Eleftheria Saplaoura[1], Lei Yang[1], Frank Machin[1], Shuangfeng Wang[1], Friedrich Kragler[1] (1. Max Planck Institute for Molecular Plant Physiology)

3:13 PM - 3:21 PM

[Concurrent_33-06] 【Short Talk】 Single-cell targeted chemical or genetic boosting of genome editing in maize

*Ling Meng[1] (1. KWS Group)

3:22 PM - 3:29 PM

Workshop | Workshop | Workshop 01-04

[Workshop 01] Integration of engineering, plant sciences, and agricultural research for translational research

This workshop focuses on the integration of engineering and biology for plant improvement. Networks of scientists that conduct basic and applied research are critical for advancing this field. The workshop aims to cover data acquisition, data intergration,and data mining while promoting knowledge transfer and skill sharing. Biotech-enabled plant advances incorporating whole-plant structure and physiology will be essential to solve global agriculture problems.

Chair:Ross Sozzani(NCSU), Lucia Strader(Duke)

Mon. Jun 5, 2023 2:00 PM - 3:00 PM Makuhari Messe 2F(Room 3)

[Workshop_01-01] Integrating Engineering, Plant Sciences, and Agricultural Research for Translational Research: An Introduction to the Workshop and Case Study Presentation

*Ross Sozzani[1] (1. North Carolina State University)

2:03 PM - 2:18 PM

[Workshop_01-02] Multi-scale modeling approaches for understanding plant and agronomic systems across biological scales

*Cranos Williams[1] (1. North Carolina State University)

2:19 PM - 2:34 PM

[Workshop_01-03] The nexus of plant peptide-receptor modules and environmental adaptation

*Akie Shimotohno[1] (1. Nagoya University, Japan)

2:35 PM - 2:50 PM

Workshop | Workshop | Workshop 01-04

[Workshop 02] Coordinating and utilizing the rapidly growing collection of independently assembled Arabidopsis genomes

Advances in long-read sequencing technology have made it possible to complement the Arabidopsis reference genome with hundreds of independently assembled genomes. For these data to be useful to the community they need to be integrated with previously existing resources from the 1001 Genomes Project. We will discuss how this can be accomplished, and what we can learn from complete genome information on species-wide scale.

Chair:Magnus Nordborg(Gregor Mendel Institute, Austrian Academy of Sciences), Detlef Weigel(Max Planck Institute for Biology, Tübingen)

Mon. Jun 5, 2023 2:00 PM - 3:00 PM Makuhari Messe 2F(Room 4)

[Workshop_02-01] Rapid cycles of satellite homogenization and retrotransposon invasion drive Arabidopsis pancentromere evolution

*Ian Henderson[1], Piotr Wlodzimierz[1], Fernando Rabanal[2], Robin Burns[1], Matthew Naish[1], Elias Primetis[3], Alison Scott[4], Terezie Mandakova[5], Nicola Gorringe[1], Andrew Tock[1], Max Collenberg[2], Miriam Mielke[2], Gautam Shirsekar[2], Carlos Alonso-Blanco[8], Fabrice Roux[7], Martin Lysak[5], Polina Novikova[4], Magnus Nordborg[6], Alexandros Bousios[3], Detlef Weigel[2] (1. Department of Plant Sciences, University of Cambridge, 2. Department of Molecular Biology, Max Planck Institute for Biology Tübingen, Tübingen, Germany, 3. School of Life Sciences, University of Sussex, Brighton, United Kingdom, 4. Department of Chromosome Biology, Max Planck Institute for Plant Breeding Research, Cologne, Germany, 5. Central European Institute of Technology, Masaryk University, Kamenice 5, Brno 625 00, Czech Republic, 6. Gregor Mendel Institute, Vienna, Austrian Academy of Sciences, Vienna BioCenter, Dr. Bohr-Gasse 3, 1030, Vienna, Austria, 7. LIPME, INRAE, CNRS, Université de Toulouse, Castanet-Tolosan, France, 8. Departamento de Genética Molecular de Plantas, Centro Nacional de Biotecnología, Consejo Superior de Investigaciones Cientí ficas, Madrid, Spain)

2:01 PM - 2:10 PM

[Workshop_02-02] The pan-genome and local adaptation of *Arabidopsis thaliana*

*Jianquan Liu[1,2], Minghui Kang[1,2], Haolin Wu[2], Wenyu Liu[1], Mingjia Zhu[1], Yu Han[2], Wei Liu[2], Chunlin Chen[2], Kangqun Yin[2], Yusen Zhao[2], Zhen Yan[2], Huanhuan Liu[2], Shangling Lou[1,2], Yanjun Zan[3] (1. State Key Laboratory of Grassland Agro-ecosystem, College of Ecology, Lanzhou University, Lanzhou, 730000, China, 2. Key Laboratory of Bio-resource and Eco-environment of Ministry of Education, College of Life Sciences, Sichuan University, Chengdu, 610065, China, 3. Key Laboratory of Tobacco Improvement and Biotechnology, Tobacco Research Institute, Chinese Academy of Agricultural Sciences, Qingdao, 266000, China)

2:11 PM - 2:20 PM

[Workshop_02-03] Assembling and Annotating Arabidopsis Genomes to Model Protein Abundance

*Richard Mott[1], Mark Bailey[2], Ziming Zhong[1], Yong-In Kim[3], Bryony Parker[2],

Robert King[2], Gancho Slavov[4], Kirsty Hassell[2], Keywan Hassani-Pak[2], Kathryn Lilley[3], Frederica Theodoulou[2], Nazanin Pesaran Afsharyan[2] （1. University College London, 2. Rothamsted Research, 3. University of Cambridge, 4. Forest Genetics and Biotechnology, Scion Research, NZ）

2:21 PM - 2:30 PM

[Workshop_02-04] The Actual Mobilome of Arabidopsis thaliana

*Anna Igolkina[1], Magnus Nordborg[1] （1. GMI - Gregor Mendel Institute of Molecular Plant Biology）

2:31 PM - 2:40 PM

[Workshop_02-05] Benchmarking graph building pipeline on plant genome assemblies

*Zhigui Bao[1,2], Sebastian Vorbrugg[1], Sanwen Huang[2], Detlef Weigel[1] （1. Max Planck Institute for Biology Tübingen, 2. Agricultural Genomics Institute at Shenzhen, Chinese Academy of Agricultural Sciences）

2:41 PM - 2:50 PM

[Workshop_02-06] Challenges of annotating complex genes in the Arabidopsis long read genome collection

*Luisa Teasdale[1], Gautam Shirsekar[1], Max Collenberg[1], Kevin Murray[1], Adrian Contreras-Garrido[1], Leon Van Ess[1], Justina Juettner[1], Christa Lanz[1], Joffrey Fitz[1], Hajk-Georg Drost[1], Detlef Weigel[1] （1. Max Planck Institute - Department of Biology）

2:51 PM - 3:00 PM

Workshop | Workshop | Workshop 01-04

[Workshop 03] Systems biology of plant-microbes interactions

A systems perspective on mechanisms of pathogen infection and plants' responses to such biotic stresses can lead to significant advances in plant biology and agriculture in general. This session will highlight exciting new discoveries being made in plant-pathogen interactions by leveraging functional genomics and systems biology approaches in the model system Arabidopsis and agronomically important crop plants. We will seek topics pertinent to plant receptor networks to perceive diverse pathogens, transcriptional gene regulatory networks at different scales (e.g. tissue/single cell), mechanisms of pathogen manipulation of host plants, and systemic outcomes of infection.

Chair:Shahid Mukhtar(University of Alabama at Birmingham)

Mon. Jun 5, 2023 2:00 PM - 3:00 PM Makuhari Messe 3F(Room 5)

[Workshop_03-01] Spatial and systems biology of plant-microbe interactions

*Shahid M Mukhtar[1] (1. University of Alabama at Birmingham)

2:02 PM - 2:15 PM

[Workshop_03-02] MAMP and DAMP signalling contributes resistance to *Fusarium graminearum* in Arabidopsis

*Gopal Subramaniam[1,2], Maryam Nourimand[1], Nimrat Manes[1], Elizabeth Brauer[1] (1. Agriculture and Agri-Food Canada, Canada, 2. Carleton University, Canada)

2:16 PM - 2:29 PM

[Workshop_03-03] Attraction of Herbivores for Survival from Virulent Pathogens in Arabidopsis

*Kazuha Mori[1], Mika Nomoto[1,2], Liu Zhang[3], Hiroshi Mori[1], Shinya Ariyasu[4], Susumu Uehara[1,2], Osami Shoji [4], Akiko Maruyama[3], Yasuomi Tada[1,2] (1. Department of Biological Science, Graduate School of Science, Nagoya University, Japan, 2. Center for Gene Research, Nagoya University, Japan, 3. Department of Bioscience and Biotechnology Faculty of Agriculture, Kyushu University, Japan, 4. Department of Chemistry, Graduate School of Science, Nagoya University, Japan)

2:30 PM - 2:43 PM

[Workshop_03-04] Functional or NAT? RNA control of receptor expression

Hemal Bhasin[1], Hasna Khan[1], *Adam Mott[1] (1. University of Toronto - Scarborough)

2:44 PM - 2:57 PM

Workshop | Workshop | Workshop 01-04

[Workshop 04] Molecular dialogues in reproductive development

The workshop will cover different aspects of molecular dialogues controling reproduction in plants.
Chair:Julia Santiago(University of Lausanne), Tetsuya Higashiyama(University of Tokyo, Japan)
Mon. Jun 5, 2023 2:00 PM - 3:00 PM Makuhari Messe 3F(Room 6)
This session is sponsored by MEXT Grants-in-Aid for Scientific Research (KAKENHI), Innovative Plant Reproductive Systems and JSPS Grants-in-Aid for Scientific Research (KAKENHI), International Leading Research "Key-Molecule-Network in Plant Reproduction".

[Workshop_04-01] Cell wall recognition and patterning by a sensor complex coordinates cell wall architecture and drives pollen tube expansion.

*Julia Santiago[1], Steven Moussu[1], Hyung Kyung Lee[1], Kalina Haas[2], Caroline Broyart[1], Ursina Rathgeb[1], Estelle Bonnin[3], Niko Geldner[1], Bernard Catala[3], Herman Hofte[2] (1. University of Lausanne, 2. Institut Jean-Pierre Bourgin (IJPB), 3. INRAE, Nantes)
2:01 PM - 2:19 PM

[Workshop_04-02] Turning up the volume on intercellular communication during pollen tube reception.

*Sharon Kessler[1], Sienna Ogawa[1], Yan Ju[1] (1. Purdue University)
2:20 PM - 2:38 PM

[Workshop_04-03] Multiple roles of aspartic endopeptidases ECS1 and ECS2 in fertilization

*Meng-xiang Sun[1], Xuecheng Zhang[1], Ce Shi[1], Tianhe Cheng[1], Wei Wang[1], Xiaorong Huang[1] (1. Wuhan University, China)
2:39 PM - 2:57 PM

Workshop | Workshop | Workshop 05

[Workshop 05] Science as stories: From data to presentations. The untold story of your research

The aim of the workshop is to learn how to prepare scientific presentations that convey a clear message and maximize the output of your research. Our framework combines storytelling with how the brain process oral information along with images. We will dissect the anatomy of a presentation and discuss what makes it memorable.

Chair:Belén Moro(Centre for Research in Agricultural Genomics (CRAG))

Tue. Jun 6, 2023 1:15 PM - 2:15 PM Makuhari Messe 2F(Room 1)

[Workshop_05] Science as Stories: From data to presentations. The untold story of your research.

*Belén Moro[1] (1. Centre for Research in Agricultural Genomics (CRAG))

1:15 PM - 2:15 PM

Workshop | Workshop | Workshop 06-10

[Workshop 06] Single cell technologies and its diversity of applications

The fast development of single cell technology is revolutionizing the field of omics study. In the past few years, plant biologists have successfully adopted single cell technology and generated multiple plant cell atlases. These datasets allow us to capture the transcriptomic diversity in different cell types and help us understand cellular heterogeneity, as well as the basis of cell identity and cell fate transitions. For this session, we would like to focus on the most recent advances in the application of single cell technologies.

Chair:Ao Liu(HHMI-Stanford University), Bruno Guillotin(NYU-Center of Genomics and Systems Biology)

Thu. Jun 8, 2023 9:00 AM - 10:00 AM Makuhari Messe 2F(Room 1)

[Workshop_06-01] Origin and diversification of the cell types of the flower

*Luke Nikolov[1] (1. Indiana University)

9:02 AM - 9:15 AM

[Workshop_06-02] Constructing an Arabidopsis Embryonic Expression Atlas using snRNA-seq

*Ping Kao[1] (1. Graduate School of Life Sciences, Tohoku University, Japan)

9:16 AM - 9:29 AM

[Workshop_06-03] Cell Cycle Dynamics During Plant Cell Reprogramming

*Laura Rose Lee[1], Kenneth Birnbaum[1] (1. New York University)

9:30 AM - 9:43 AM

[Workshop_06-04] Time-resolved single-cell and spatial gene regulatory atlas of plants under pathogen attack

*Tatsuya Nobori[1,2], Alexander Monell[3], Travis A Lee[1,2], Joseph R Ecker[1,2] (1. Salk Institute, 2. HHMI, 3. UCSD)

9:44 AM - 9:57 AM

Workshop | Workshop | Workshop 06-10

[Workshop 07] Watching and quantifying biochemical processes in intact plants

The understanding of signaling and metabolic processes in multicellular organisms requires knowledge of the spatial dynamics of small molecules and the activities of enzymes, transporters and other proteins in vivo, as well as biophysical parameters inside cells and across tissues. Genetically encoded sensors are engineered fluorescent proteins that have been developed for a wide range of small molecules, such as ions and metabolites, or to report biophysical processes, such as transmembrane voltage or tension.
Chair:Cheng-Hsun Ho(ABRC, Academia Sinica)
Thu. Jun 8, 2023 9:00 AM - 10:00 AM Makuhari Messe 2F(Room 2)
This session is sponsored by Agricultural Biotechnology Research Center, Academia Sinica.

[Workshop_07-01] Live show of nitrate dynamics in root nd developemt of Arabidopsis

*Ho Cheng-Hsun[1] （1. ABRC, Academia Sinica, Taiwan）
9:02 AM - 9:17 AM

[Workshop_07-02] Towards Soil-on-a-Chip — structured micro-environments for root science

Christian-Frederic Kaiser[1,2], Marjorie Guichard[1,2], Milan Župunski[1], Mayuri Sadoine[1], *Guido Grossmann[1,2] （1. Heinrich-Heine-University Duesseldorf, Institute of Cell and Interaction Biology, Germany, 2. Cluster of Excellence in Plant Sciences CEPLAS, Germany）
9:18 AM - 9:38 AM

[Workshop_07-03] CO_2 Sensing and Signaling Components are Required for Stomatal Responses to Elevated Temperatures

*Nattiwong Pankasem[1], Julian I. Schroeder[1] （1. Cell and Developmental Biology Department, School of Biological Sciences, University of California San Diego, La Jolla, CA 92093-0116, USA.）
9:39 AM - 9:59 AM

Workshop | Workshop | Workshop 06-10

[Workshop 08] Spatiotemporal dynamics of protein and protein complexes in the cell

Recent advances in biochemistry and biophysics, plant molecular and cell biology revealed that the differential fate of proteins in cell space including transport, modification, and even aggregation leads to contrasting cellular output in abiotic and biotic defense responses and plant development. Hence, the need for the detection and visualization of protein complex dynamics in living cells has become the technology of utmost importance. This workshop aims to showcase cutting-edge technologies and findings in spatiotemporal dynamics of cellular proteins and protein complexes.

Chair:Hisashi Koiwa(Texas A&M University), Libo Shan(Texas A&M University), Juan Dong(Rutgers University)

Thu. Jun 8, 2023 9:00 AM - 9:58 AM Makuhari Messe 2F(Room 3)

[Workshop_08-01] Tandem fluorescent timer in Plants: A Tool for Acquiring Spatiotemporal Information about Proteins

*Yukihiro Nagashima[1], Jun Liu[2], Xue Ding[3,4], Juan Dong[3,4], Libo Shan[2,5], Hisashi Koiwa[1,5] (1. Vegetable and Fruit Improvement Center and Department of Horticultural Sciences, Texas A&M University, 2. Department of Biochemistry &Biophysics, Texas A&M University, 3. Waksman Institute of Microbiology, Rutgers, The State University of New Jersey, 4. Department of Plant Biology, Rutgers, The State University of New Jersey, 5. Molecular and Environmental Plant Sciences, Texas A&M University)

9:02 AM - 9:15 AM

[Workshop_08-02] Ironing out the issues: protein dynamics in response to iron deficiency

*Terri A. Long[1] (1. North Carolina State University)

9:16 AM - 9:29 AM

[Workshop_08-03] Plant plasma membrane nano-organization and cell polarization

*Xue Pan[1] (1. Department of Biological Sciences, University of Toronto Scarborough, Toronto, Canada)

9:30 AM - 9:43 AM

[Workshop_08-04] Unraveling the molecular and cellular mechanisms underlying a MLR-NLR complex-regulated autoimmunity

*Fausto Andres Ortiz Morea[1,2], Jun Liu[1], Libo Shan[1], Ping He[1] (1. Department of Biochemistry &Biophysics, Texas A&M University, 2. Universidad de la Amazonia)

9:44 AM - 9:57 AM

Workshop | Workshop | Workshop 06-10

[Workshop 09] Arabidopsis small RNA biology

This workshop will focus on newly discovered roles of small RNAs, highlighting two hot areas of research in the field: 1) The function of small RNAs that are generated only in very specific reproductive cells, and 2) The role of small RNA warfare during the Arabidopsis-pathogen/pest interaction.
Chair:Keith Slotkin(Donald Danforth Plant Science Center &University of Missouri)
Thu. Jun 8, 2023 9:00 AM - 10:00 AM Makuhari Messe 2F(Room 4)

[Workshop_09-01] Mating system influences the requirement for RdDM during reproduction in Brassicaceae

Kelly A Dew-Budd[1], Hiu-Tung Chow[1], Timmy Kendall[1], Mark A Beilstein[1], *Rebecca A Mosher[1] (1. The School of Plant Sciences, The University of Arizona, Tucson, AZ 85721, USA)
9:01 AM - 9:12 AM

[Workshop_09-02] Interspecies regulatory small RNAs in plant-parasite interactions

Allison Zvarick[1], Elizabeth Brandt[2], Zoe Hester[2], *Saima Shahid[2] (1. The Pennsylvania State University, USA, 2. Oklahoma State University, USA)
9:13 AM - 9:24 AM

[Workshop_09-03] Translation-dependent epigenetic silencing of transposon

*Jungnam Cho[1,2] (1. CAS Center for Excellence in Molecular Plant Sciences, China, 2. CAS-JIC Centre of Excellence for Plant and Microbial Science, China)
9:25 AM - 9:36 AM

[Workshop_09-04] Reproductive barriers established by epigenetic mechanisms in the endosperm

*Claudia Köhler[1,2], Katarzyna Dziasek[1,2], Juan Santos-González[1,2] (1. Max Planck Institute of Molecular Plant Physiology, 2. Swedish University of Agricultural Sciences)
9:37 AM - 9:48 AM

[Workshop_09-05] Regulating Pol-IV to generate epigenetic diversity

*Julie Ann Law[1] (1. Salk Institute for Biological Studies)
9:49 AM - 10:00 AM

Workshop | Workshop | Workshop 06-10

[Workshop 10] Arabidopsis bioinformatics

This workshop will feature updates and introductions of online resources that are part of the Arabidopsis scientist' s modern research toolkit, just like laboratory equipment, enzymes, and buffers. Essential resources like TAIR and BAR will be revisited in addition to highlighting resources created and maintained by community members in the Asia Pacific region that are of global importance.
Chair:Nicholas Provart(University of Toronto), Tanya Berardini(Phoenix Bioinformatics)
Thu. Jun 8, 2023 9:00 AM - 10:00 AM Makuhari Messe 3F(Room 5)
This session is sponsored by RIKEN CSRS.

[Workshop_10-01] Updates to the Bio-Analytic Resource

*Nicholas J Provart[1,2] (1. University of Toronto, 2. Centre for the Analysis of Genome Evolution and Function)

9:02 AM - 9:14 AM

[Workshop_10-02] To integrate or not to integrate: how to collaborate with conversational AI programs

*Masanori Arita[1] (1. RIKEN Center for Sustainable Resource Science)

9:15 AM - 9:27 AM

[Workshop_10-03] Complete sequence assembly of Arabidopsis ribosomal DNA (rDNA) arrays provides insight into rDNA variation, epigenetic regulation and large scale recombination

*Ramya Enganti[1,2], Dalen Fultz[1,2], Anastasia McKinlay[1,2], Craig Pikaard[1,2] (1. Howard Hughes Medical Institute, 2. Indiana University)

9:28 AM - 9:40 AM

[Workshop_10-04] The 2023 TAIR update: From basics to the progress with the community-developed v12 of the genome

*Tanya Z Berardini[1], Leonore Reiser[1], Shabari Subramaniam[1], Erica Bakker[1], Xingguo Chen[1], Swapnil Sawant[1], Trilok Prithvi[1] (1. The Arabidopsis Information Resource/Phoenix Bioinformatics)

9:41 AM - 9:53 AM

Workshop | Workshop | Workshop 11

[Workshop 11] Diversity and inclusion for excellence in science

Research and training using Arabidopsis has been vital to the success of plant science due, in large part, to sustained global collaborations in the plant science community. While recent studies indicate clear benefits of diversity and inclusion, progress in these areas is slow and has been driven by a few countries. This moderated workshop will feature a panel of plant biology faculty that will provide diverse perspectives on the challenges of working within academia, and the benefits of creating and sustaining a diverse community to achieving excellence.

Chair:Joanna Friesner(North American Arabidopsis Steering Committee), Yoselin Benitez-Alfonso(Centre for Plant Sciences. University of Leeds), Kanako Bessho-Uehara(Tohoku University), Keith Slotkin(Donald Danforth Plant Science Center &University of Missouri)

Thu. Jun 8, 2023 12:45 PM - 1:45 PM Makuhari Messe 2F(Room 1)

[Workshop_11] Diversity and Inclusion for Excellence in Science

*Joanna Friesner[1], Kanako Bessho-Uehara[3], Yoselin Benitez-Alfonso[2], R. Keith Slotkin[1,4,5], José Dinneny[6], Terri Long[7], Hironaka Tsukagoshi[8], Gabriela Auge[9], Keiko Torii[10,11] (1. North American Arabidopsis Steering Committee (NAASC), USA, 2. Leeds University, UK, 3. Tohoku University, Japan, 4. Donald Danforth Plant Science Center, USA, 5. University of Missouri, USA, 6. Stanford University, USA, 7. North Carolina State University, USA, 8. Meijo University, Japan, 9. Consejo Nacional de Investigaciones Científicas y Tecnológicas (CONICET), 10. HHMI/University of Texas, Austin, USA, 11. Nagoya University, Japan)

12:45 PM - 1:45 PM

Workshop | Workshop | Workshop 12

[Workshop 12] MASC: Arabidopsis for SDGs/4th Decadal Vision

The theme of this year's ICAR is Arabidopsis for Sustainable Development Goals. Participants will discuss how research in Arabidopsis can be leveraged to help achieve some of the United Nation's 17 SDGs, especially in the area of zero hunger, climate action, and life on land. In addition, participants will discuss how Arabidopsis research can help address important plant science questions (such as those posed in Armstrong et al., 2023; doi. 10.1111/nph.18771) and the kinds of international projects that might be considered as part of a 4th decadal vision for Arabidopsis research, following on from successful collaborations that have arisen from 3 decades of coordinated efforts.
Chair:Nicholas Provart (University of Toronto, Canada), Masatomo Kobayashi (RIKEN BRC, Japan)
Thu. Jun 8, 2023 2:00 PM - 3:30 PM Makuhari Messe 2F(Room 1)
This session is sponsored by RIKEN BRC and RIKEN CSRS.

[Workshop_12] MASC: Arabidopsis for SDGs/4th Decadal Vision

2:00 PM - 3:00 PM

Gabriela Auge[1], Mentewab Ayalew[2], Sureshkumar Balasubramanian[3], Dirk Inze[4], Kazuki Saito[5]
(1. CONICET, Univ. of Buenos Aires, Argentina, 2. Spelman College, USA, 3. Monash Univ, Australia, 4. VIB, Belgium, 5. RIKEN CSRS, Japan)

[P] 01 Abiotic response (salt/dehydration/water)

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 1(Meeting Room 10)

[PO-001] Overexpression of soybean Class II acyl-CoA-binding proteins unveils an oxylipin signaling mechanism in salt-stressed Arabidopsis

*Terry Shiu-Cheung Lung[1], Sze Han Lai[1], Haiyang Wang[1], Mee-Len Chye[1] (1. School of Biological Sciences, The University of Hong Kong, Pokfulam, Hong Kong, China)

[PO-003] *Chenopodium quinoa* as a model plant to study salt stress

*Lucia Acosta-Gamboa[1], Kirk Czymmek[2], Anastasiya Klebanovych[2], Samuel Kenney[1], Jared Gordon[1], Noah Fahlgren[1], Jorge Gutierrez[1], Haley Schuhl[1], Malia Gehan[1] (1. Donald Danforth Plant Science Center, 2. Advanced Bioimaging Laboratory, Donald Danforth Plant Science Center)

[PO-005] Overexpression of eelgrass *Rare Cold Inducible 2* (*RCI2*) encoding a small-membrane protein maintains chlorophyll content in *Arabidopsis* subjected to high salinity and dehydration

Masahiro Senuma[1], Shohei Dobashi[1], Yukiko Bando[1], Sukmin Ko[2], *Hajime Shiota[1] (1. Yokohama City Univ., Japan, 2. Genecell Biotech Inc., Korea)

[PO-007] Physiological and molecular alterations in *Schrenkiella parvula* under mild salt stress

*Keriman Şekerci[1], Nahoko Higashitani[1], Rengin Ozgur[1,2], Baris Uzilday[1,2], Atsushi Higashitani[1], Ismail Turkan[2] (1. Tohoku University, Graduate School of Life Sciences, 2. Ege University, Faculty of Science, Department of Biology)

[PO-009] A Ca^{2+} sensor switch for SOS1 Na^{+}/H^{+} antiporter activation confers tolerance to elevated salt stress in Arabidopsis

*Joerg Kudla[1], Gefeng He[1], Leonie Steinhorst[1], Lena K. Moore[1], Yibo Cao[2], Zaida Andrés[3], Paula Ragel[3], Caifu Jiang[2], Yan Guo[2], Francisco J. Quintero[3] (1. Institut für Biologie und Biotechnologie der Pflanzen, Westfälische Wilhelms-Universität Münster, 48149 Münster, Germany, 2. State Key Laboratory of Plant Physiology and Biochemistry (SKLPPB), College of Biological Sciences, China Agricultural University, Beijing 100193, China, 3. Instituto de Biología Vegetal y Fotosíntesis, Consejo Superior de Investigaciones Cientificas, 41092 Seville, Spain)

[PO-011] Analyses of salt susceptibility of Arabidopsis inositol transporter (INT) loss-of-function mutants

*Li See Ng[1], Cheng-Hsun Li[1], Hungchen Emilie Yen[1] (1. National Chung Hsing University, Taiwan)

[PO-013] Identification of proteins interacting with CBL4 using a proximity biotinylation enzyme, AirID

*Akira Nozawa[1], Ryosuke Hori[1], Souta Shinohara[1], Kohei Nishino[2], Hidetaka Kosako[2], Tatsuya Sawasaki[1] (1. Ehime University, 2. Tokushima University)

[PO-015] Defects in Arabidopsis *N-Acetylglucosamine-1-P Uridylyltransferase* Expression Impairs Protein N-glycosylation and Induces ABA-Mediated Salt Sensitivity

*Ya-Huei Chen[1,2], Hwei-Ling Shen[1], Wan-Hsing Cheng[1,2] (1. Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan, 2. National Defense Medical Center, Graduate

Institute of Life Sciences, Taipei, Taiwan）

[PO-017] From root to leaf: The effects of high soil salinity on the defense mechanisms of the phyllosphere

*Paula Collado Cordon[1], Sheng-Yang He[1,2] （1. Duke University, 2. Howard Hughes Medical Institute）

[PO-019] Pectin lyase 1 (PEL1) and *Arabidopsis thaliana* Ring Zinc Finger 1 (AtRZF1) coordinately regulate osmotic stress response to control vascular development

*CHORONG PARK[1], Beom Ryong Kang[2], Cheol Soo Kim[1] （1. Department of Applied Biology, Chonnam National University, Gwangju 61186, Republic of Korea, 2. Institute of Environmentally-Friendly Agriculture, Chonnam National University, Gwangju 61186, Republic of Korea）

[PO-021] Meta-Analysis of Public RNA Sequencing Data of Multiple Abiotic Stresses in *Arabidopsis thaliana* Provides New Insights into both ABA-Dependent and ABA-Independent Stress Responsive Genes

*Mitsuo Shintani[1], Keita Tamura[1], Hidemasa Bono[1] （1. Hiroshima University, Japan）

[PO-023] An NPH3 domain protein mediates safe proline accumulation and drought resistance via function in intra-cellular trafficking.

*Neha Upadhyay Tiwari[1], Xin Jie Huang[1], Shashikant Singh, Yi Chen Lee, Paul E Verslues[1] （1. IPMB, Academia Sinica, Taipei, Taiwan）

[PO-025] Identification of upstream kinases that regulate SnRK2 kinases in Arabidopsis

*Fumiyuki Soma[1,2], Fuminori Takahashi[3], Satoshi Kidokoro[2], Haruka Kameoka[2], Takamasa Suzuki[4], Yusaku Uga[1], Kazuo Shinozaki[3], Kazuko Yamaguchi-Shinozaki[2,5] （1. Institute of Crop Science, National Agriculture and Food Research Organization, 2. Graduate School of Agricultural and Life Sciences, University of Tokyo, 3. Gene Discovery Research Group, RIKEN Center for Sustainable Resource Science, 4. College of Bioscience and Biotechnology, Chubu University, 5. Research Institute for Agricultural and Life Sciences, Tokyo University of Agriculture）

[PO-027] Hyperosmolarity-induced suppression of Raf-like protein kinase modulates physiological trade-off between growth and stress responses in *Arabidopsis*.

*Yoshiaki Kamiyama[1,2], Sotaro Katagiri[1], Kota Yamashita[1], Yangdan Li[1], Taishi Umezawa[1] （1. Tokyo Univ. Agric. Tech., Japan, 2. Kyoto Univ., Japan）

[PO-029] Identification of new targets for improving abiotic stress tolerance in plants

*María del Rosario González Bermúdez[1], Irene García-Maquilón[1], Jorge Lozano-Juste[1] （1. Instituto de Biologia Molecular y Celular de Plantas (IBMCP-UPV-CSIC), Universitat Politè cnica de València (UPV), Consejo Superior de Investigaciones Científicas (CSIC), 46022, Spain.）

[PO-031] Diverse transcriptional regulation in response to drought in *Brachypodium distachyon* ecotypes

*Anzu Minami[1], Shimizu Minami[1], Asaka Kanatani[1], Miki Fujita[4], Jun-Sik Kim[1], Keiichi Mochida[1,2,3] （1. RIKEN Center for Sustainable Resource Science, Japan, 2. Kihara Institute for Biological Research, Yokohama City University, Japan, 3. School of Information and Data

Sciences, Nagasaki University, Japan, 4. RIKEN Center for Sustainable Resource Science, Japan）

[PO-033] 1-Butanol treatment enhances drought stress tolerance in *Arabidopsis thaliana*

*Quynh Thi Nhu Do[1,4], Daisuke Todaka[1], Maho Tanaka[1,2], Satoshi Takahashi[1,2], Junko Ishida[1,2], Hoi Xuan Pham[4], Motoaki Seki[1,2,3] （1. Plant Genomic Network Research Team, RIKEN Center for Sustainable Resource Science, Japan, 2. Plant Epigenome Regulation Laboratory, RIKEN Cluster for Pioneering Research, Japan, 3. Kihara Institute for Biological Research, Yokohama City University, Japan, 4. Agricultural Genetics Institute, Vietnam Academy of Agricultural Science, Vietnam）

[PO-035] Using Thermal Imaging to Assess the Water Status of Rice

*Yan-Ci Zhang[1,3], Ya-Ling Hou[2], Chin-Ying Yang[1,3] （1. Department of Agronomy, National Chung Hsing University, Taiwan, 2. Crop Science Division, Taiwan Agricultural Research Institute, Council of Agriculture, Taiwan, 3. Smart Sustainable New Agriculture Research Center (SMARTer), National Chung Hsing University, Taiwan）

[PO-037] Phenome analysis focusing on small open reading frames found an Arabidopsis-specific emerged *de novo* gene enhancing drought tolerance.

*Tomoyuki Takeda[1], Kentaro Nakaminami[2], You-wang Kim[1], Kazumasa Shirai[1], Mieko Higuchi-Takeuchi[2], Minami Shimizu[2], Takayuki Kondo[1], Masanori Okamoto[2], Takeshi Yoshizumi[2], Ranko Nishi[2], Motoaki Seki[2], Kazuo Shinozaki[2], Minami Matsui[2], Kousuke Hanada[1] （1. Kyushu Institute of Technology, Japan, 2. RIKEN Center for Sustainable Resource Science, Japan）

[PO-039] SnRK2 mediates SIZ1 phosphorylation and global SUMOylation increment upon osmotic stresses

*sang tian[1], Wang Peng cheng[1] （1. SUSTC, China）

[PO-041] Response of *Arabidopsis thaliana* to flooding with physical flow

*Nobuhiro Suzuki[1], Momoko Kaji[2], Kazuma Katano[3], Ryotaro Yamaji[2], Hiroshi Nitta[2], Rio Shimizu[1], Shunsuke Shigaki[4], Hiroyuki Suzuki[5] （1. Sophia University, Japan, 2. National Institute of Technology, Ishikawa College, Japan, 3. University of Massachusetts, Amherst, USA, 4. National Institute of Informatics, Japan, 5. Hokkai-Gakuen University, Japan）

[PO-043] Drought Recovery Induced Immunity Confers Pathogen Resistance

*Natanella Illouz-Eliaz[1], Kathryn Lande[1], Jingting Yu[1], Joseph R Ecker[1] （1. Salk Institute）

[P] 01 Abiotic response (salt/dehydration/water)

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 1(Meeting Room 10)

[PO-002] Enhanced Salt Tolerance by an Antarctic moss gene

*NoA Bae[1], Jun Hyuck Lee[2], Hyoungseok Lee[2], Byeong-ha Lee[1] (1. Sogang university, Korea, 2. Korea Polar Research Institute, Korea)

[PO-004] Investigation of heterosis in the salinity tolerance of intraspecific hybrid in *Arabidopsis thaliana*

*Yoshiki Kamiya[1], Hasan Mehraj[1], Ryo Fujimoto[1] (1. Kobe University, Japan)

[PO-006] Arabidopsis APYs interact with PATL4 and co-regulate stress response in plants

*Jia-Hong Tang[1], Mei-Chun Cheng [1] (1. National Taiwan University, Taiwan)

[PO-008] A Comparative Study of Adaptive Stress Tolerance in the Brassicaceae Family

*Andrea Ramirez Ramirez[1], Prashanth Ramachandran[1], José Dinneny[1] (1. Stanford University)

[PO-010] Dissecting genetic mechanism of natural variation in salt tolerance among *Arabidopsis thaliana*

*Takuma Kajino[1], Kaori Uchiyama[1], HIrotaka Ariga[2], Tomoaki Horie[3], Akihisa Shinozawa[1], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] (1. Dept. of Bioscience, Tokyo Univ. of Agriculture, 2. Res. Cent. of Gen. Res., NARO, 3. Div. of Applyed Bioscience, Fac. of Textile Science and Technology, Shinshu Univ.)

[PO-012] Soybean acyl-CoA-binding proteins modulate the activity of their protein interactor lipoxygenase in transgenic Arabidopsis during salinity stress

*Mee-Len Chye[1], Shiu-Cheung Lung[1] (1. University of Hong Kong)

[PO-014] Phosphorylation of Arabidopsis Glycine-Rich RNA-Binding Protein 8 by ABA-non-activated SnRK2s triggers its localization to the stress granules upon salinity stress by promoting its liquid-liquid phase separation

*Adrian Mateusz Kasztelan[1], Justyna Maszkowska[1], Dominika Cieślak[1], Karolina Kasztelan[1], Anna Anielska-Mazur[1], Lidia Polkowska-Kowalczyk[1], Christiane Nöh[2], Alexander Steffen[2], Jarosław Poznański[1], Emilio Gutierrez-Beltran[3], Michał Dadlez[1], Dorothee Staiger[2], Olga Sztatelman[1], Grażyna Dobrowolska[1] (1. Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Poland, 2. RNA Biology and Molecular Physiology, Faculty of Biology, Bielefeld University, Germany, 3. Departamento de Bioquimica Vegetal y Biologia Molecular, Facultad de Biologia, Universidad de Sevilla, Spain)

[PO-016] HAT22/ABIG1 represses the transcription of *AtERF71/HRE2* through a HD-Zip II-binding-like *cis*-regulatory element in Arabidopsis

*Md Bayzid[1], Hye-Yeon Seok[1], Huong Thi Tran[1], Sun-Young Lee[1], Mairaj Bibi[1], Swarnali Sarker[1], Yong-Hwan Moon[1] (1. Pusan National University, Republic of Korea)

[PO-018] *proline content alterative 8* (*pca8*) acts as a suppressor mutant of *atrzf1* (*Arabidopsis thaliana ring zinc finger 1*) to regulate dehydration and abscisic acid responses in *Arabidopsis*

*Ying Gong[1], Ji-Hee Min[2], Cheol Soo Kim[1] （1. Department of Applied Biology, Chonnam National University, Gwangju 61186, Korea, 2. Department of Biochemistry and Biophysics, Texas A&M University, 300 Olsen Blvd, College Station, Texas 77843-2128, USA）

[PO-020] Functional characterization of *Glycine max RING Zinc Finger-Like 1* (*GmRZFL1*) and *Solanum lycopersicum RING Zinc Finger-Like 1* (*SlRZFL1*) regulates dehydration sensitivity in *Arabidopsis thaliana*

Ying Gong[1], Van Hien La[2], *Cheol Soo Kim[1] （1. Department of Applied Biology, Chonnam National University, Gwangju 61186, Republic of Korea, 2. Institute of Life Sciences, Thai Nguyen University of Agriculture and Forestry, Thai Nguyen 24119, Vietnam）

[PO-022] Analysis of the transcription factor SGR5 that functions in the drought resistance mechanism

*Moeca Arai[1,2], Keiko Kigoshi[1], Maki Kawai[1,2], Yoshimi Nakano[1], Nobutaka Mitsuda[1], Sumire Fujiwara[1,2] （1. Bioproduction Research Institute, AIST, 2. University of Tsukuba, Japan）

[PO-024] Improving plant productivity and drought tolerance by regulating the NAD salvage pathway in *Arabidopsis*

*Zarnab Ahmad[1,2,3], Khurram Bashir[2,1], Akihiro Matsui[1,4], Maho Tanaka[1,4], Ryosuke Sasaki[5], Akira Oikawa[5,6], Masami Yokota Hirai[5,7,8], Chaomurilege Chaomurilege[9], Yanhui Zu[9], Maki Kawai Yamada[9], Bushra Rashid[10], Tayyab Husnain[10], Motoaki Seki[1,4,11] （1. Plant Genomic Network Research Team, RIKEN Center for Sustainable Resource Science (CSRS), Yokohama 230-0045, Japan, 2. Laboratory of Plant Biotechnology, Department of Biology, Syed Babar Ali School of Science and Engineering, Lahore University of Management Sciences (LUMS), Lahore, Pakistan, 3. Fred Hutchinson Cancer Center, 1100 Fairview Avenue North, Seattle, 98109-1024, Washington, United States, 4. Plant Epigenome Regulation Laboratory, RIKEN Cluster for Pioneering Research, Wako, Saitama, 351-0198, Japan, 5. Mass Spectrometry and Microscopy Unit, RIKEN Center for Sustainable Resource Science (CSRS), Yokohama 230-0045, Japan, 6. Faculty of Agriculture, Yamagata University, Tsuruoka 997-8555, Japan, 7. Metabolic Systems Research Team, RIKEN Center for Sustainable Resource Science (CSRS), Yokohama 230-0045, Japan, 8. Graduate School of Bioagricultural Sciences, Nagoya University, Nagoya 464-8601, Japan, 9. Graduate School of Science and Engineering, Saitama University, 225 Shimo-Okubo, Sakura-ku, Saitama 338-8570, Japan, 10. Plant Genomics Laboratory, Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, Pakistan, 11. Kihara Institute for Biological Research, Yokohama City University, Yokohama 244-0813, Japan）

[PO-026] Functional Analyses of Arabidopsis bZIP Transcription Factor Involved in Drought Tolerance

*Yoshimi Nakano[1], Keiko Kigoshi[1], Sumire Fujiwara[1] （1. National Institute of Advanced Industrial Science and Technology (AIST)）

[PO-028] SnRK2-substrate 1 is phosphorylated in response to drought stress and accumulated to maintain plant growth.

*Sotaro Katagiri[1], Yoshiaki Kamiyama[1], Kota Yamashita[1], Akihisa Shinozawa[3], Risa Suzuki[1], Sara Iizumi[1], Kozue Ishizuka[1], Yuki Aoi[1], Mika Nomoto[1], Fuminori Takahashi[7], Takamasa Suzuki[5], Soichi Inagaki[6], Toshinori Kinoshita[4], Yasuomi Tada[2], Hiroyuki Kasahara[1], Yoichi Sakata[3], Taishi Umezawa[1] （1. Tokyo Univ. of Agric. and Thec., Japan, 2. Nagoya Univ., Japan, 3. Tokyo Univ. of Agric. , Japan, 4. Nagoya Univ., Japan, 5. Chubu Univ., Japan, 6. The Univ. of Tokyo, Japan, 7. Riken, Japan）

[PO-030] Plant GSK-like kinase partcipates in the activation the B-RAF kinase under osmotic stress in Arabidopsis

*Zhen Lin[1], Xiaolei Liu[2], Pengcheng Wang[1] （1. Southern University of Science and Technology, China, 2. CAS Center for Excellence in Molecular Plant Sciences, Chinese Academy of Sciences, China）

[PO-032] Ethanol treatment enhances drought stress avoidance in cassava (*Manihot esculenta* Crantz)

*Anh Thu Vu[1,8], Yoshinori Utsumi[1], Chikako Utsumi[1], Maho Tanaka[1,2], Satoshi Takahashi[1,2], Daisuke Todaka[1], Yuri Kanno[3], Mitsunori Seo[3], Eigo Ando[4], Kaori Sako[1,5], Khurram Bashir[1,6], Toshinori Kinoshita[7], Pham Xuan Hoi[8], Motoaki Seki[1,2,9] （1. Plant Genomic Network Research Team, CSRS, RIKEN, Japan, 2. Plant Epigenome Regulation Laboratory, CPR, RIKEN, Japan, 3. Dormancy and Adaptation Research Unit, CSRS, RIKEN, Japan, 4. Department of Biological Sciences, School of Science, The University of Tokyo, Japan, 5. Department of Advanced Bioscience, Faculty of Agriculture, Kindai University, Japan, 6. Department of Biology, Lahore University of Management Sciences, Lahore, Pakistan, 7. Institute of Transformative Bio-Molecules (WPI-ITbM), Nagoya University, Japan, 8. Agricultural Genetics Institute, Vietnam, 9. Kihara Institute for Biological Research, Yokohama City University, Japan）

[PO-034] Physiological responses of drought tolerant and sensitive Kimchi cabbage varieties during seedling stage drying exposure

*Yoonah Jang[1], Jinhee Kim[1], Junho Lee[1], Kyungran Do[1], Hwahyun Jung[1] （1. National Institute of Horticulral and Herbal Science, Republic of Korea）

[PO-036] Determining the Levels of Water Deficiency in *Oryza sativa* by Using Remote Sensor

*Tzu-Chiao Liao[1,3], Chin-Ying Yang[1,3], Ming-Der Yang[2,3] （1. Department of Agronomy, National Chung Hsing University, Taiwan, 2. Department of Civil Engineering, National Chung Hsing University, Taiwan, 3. Smart Sustainable New Agriculture Research Center (SMARTer), National Chung Hsing University, Taiwan）

[PO-038] Characterization and molecular improvement of isothiocyanate-based inhibitors on stomatal opening that act as drought tolerance-conferring agrochemicals

*Yusuke Aihara[1,2], Bumpei Maeda[3], Kanna Goto[3], Mika Nomoto[2,4,5], Koji Takahashi[4], Shigeo Toh[4,6], Wenxiu Ye[4,7], Yosuke Toda[1,8], Yasuomi Tada[4,5], Ayato Sato[1], Kenichiro Itami[1,4], Kei Murakami[1,3], Toshinori Kinoshita[1,4] （1. ITbM, Nagoya Univ., Japan, 2. PRESTO, JST, Japan, 3. Grad. Sch. Sci. Tech., Kwansei Gakuin Univ., Japan, 4. Grad. Sch. Sci., Nagoya Univ., Japan, 5. Cent. Gene Res., Nagoya Univ., Japan, 6. Grad. Sch. Agr., Meijo Univ., Japan, 7. Inst. Adv. Agri. Sci., Peking Univ., China, 8. Phytometrics Co., Ltd., Japan）

[PO-040] Molecular Characterization and Expression Analysis of Nuclear Factor Y in wheat (*Triticum aestivum* L.)

*Ji woo Kim[1], Meng Chen[1], Young-Chen Kim[1], Jeong Hwan Lee[1] （1. Division of Life Sciences, Jeonbuk National University, Republic of Korea）

[PO-042] A translational agricultural study from Arabidopsis to cabbage: determination of mechanisms enhancing submergence tolerance in cabbage (*Brassica oleracea* L. var. capitata)

Shih-Jie Huang[1], Tze-Ching Chan[1], Yao-Cheng Lin[2], Yu-Lin Wu[1,2], Hsuan-Ting Liu[1], Chun-Hao

Hu[1], *Fu-Chiun Hsu[1] （1. National Taiwan University, Taiwan, 2. Academia Sinica, Taiwan）

Poster2 | Poster | 02 Abiotic response (temperature)

[P] 02 Abiotic response (temperature)

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 2(Meeting Room 10)

[PO-045] Analysis of transcriptional regulations of temperature-stress inducible genes mediated by clock-related transcription factors in Arabidopsis

*Satoshi Kidokoro[1,2], Izumi Konoura[2], Kentaro Hayashi[2], Fumiyuki Soma[2], Takamasa Suzuki[3], Takuya Miyakawa[2,4], Masaru Tanokura[2], Kazuo Shinozaki[5], Kazuko Yamaguchi-Shinozaki[2,6] (1. Sch. of Life Sci. and Tech., Tokyo Tech, Japan, 2. Grad. Sch. Agr. Life Sci., Univ. Tokyo, Japan, 3. Biosci. Biotech., Chubu Univ., Japan, 4. Grad. Sch. of Biostudies, Kyoto Univ., Japan, 5. Center for Sustainable Resource Science, RIKEN, Japan, 6. Res. Inst. Agr. Life Sci., Tokyo Univ. Agr., Japan)

[PO-047] Genome-wide epigenetic changes by warm temperature trigger developmental reprogramming in Arabidopsis

*Junghyun Kim[1], Sibum Sung[1] (1. The University of Texas at Austin, USA)

[PO-049] Genetic determinants of thermal response

*Sourav Mukherjee[1], Avilash Singh Yadav[1], Nikita Bungay[1], Amy Smith[1], Craig I Dent[1], Partha P Das[2], Yalong Guo[3], Sridevi Sureshkumar[1], Sureshkumar Balasubramanian[1] (1. School of Biological Sciences, Monash University, VIC 3800, AUSTRALIA, 2. Monash Biomedicine Discovery Institute, Monash University, VIC 3800, AUSTRALIA, 3. State Key Laboratory of Systemic and Evolutionary Botany, Institute of Botany, Chinese Academy of Sciences, Beijing, CHINA)

[PO-051] Memory of 5-min heat stress is associated with pathogen defense mechanisms in Arabidopsis

*Rio Shimizu[1], Mai Yunose[1], Kohei Oyoshi[1], Nobuhiro Suzuki[1] (1. Sophia University, Japan)

[PO-053] Transcription factor and chromatin-based heat memory in plants

*Nobutoshi Yamaguchi[1] (1. Nara Institute of Science and Technology)

[PO-055] Maintenance of abiotic stress memory in plants: Lessons learned from heat acclimation

*Yee-yung Charng[1,2,3,4], Suma Mitra[1,2,5], Shih-Jiun Yu[1,4] (1. Agricultural Biotechnology Research Center, Academia Sinica, Taiwan, 2. Molecular and Biological Agricultural Sciences Program, TIGP, Academia Sinica, Taiwan, 3. Biotechnology Center, National Chung-Hsing University, Taiwan, 4. Department of Biochemical Sciences and Technology, National Taiwan University, Taiwan, 5. Graduate Institute of Biotechnology, National Chung-Hsing University, Taiwan)

[PO-057] Regulatory roles of microRNA164 enhanced thermotolerance

*JENG-SHANE LIN[1], Wei-An Tsai[2], Po-Han Sung[1], Yun-Wei Kuo[4,1], Ming-Cheng Chen[1], Shih-Tong Jeng[3] (1. National Chung Hsing University, 2. The University of Queensland, 3. National Taiwan University, 4. Sanming Academy of Agricultural Sciences)

[PO-059] Deciphering the role of the conserved microRNA169 in enhancing yield and thermotolerance in *Arabidopsis*

*Apoorva Gupta[1], Sombir Rao[1], Saloni Mathur[1] (1. National Institute of Plant Genome Research (NIPGR), New Delhi, India)

[PO-061] Prolonged Exposure to High Temperature Inhibits Shoot Primary and Root Secondary Growth in Panax ginseng

*Jeongeui Hong[1], Hojin Ryu[1] （1. Chungbuk National University, Republic of Korea）

[PO-063] atDjB3, a class II J-domain protein, regulates heat stress response in *Arabidopsis thaliana*

*Gouri Satheesh[1], Chandan Sahi[1] （1. Indian Institute of Science Education and Research, Bhopal, India）

[PO-065] Heat-regulated phosphorylation of TOT43 is a switch for stress granule association to contribute to heat tolerance in *Arabidopsis*

*Shao-Li Yang[1,2], Cassio Flavio Fonseca De Lima[1,2], Tingting Zhu[1,2], Brigitte Van de Cotte[1,2], Lam Dai Vu[1,2], Ive De Smet[1,2] （1. Department of Plant Biotechnology and Bioinformatics, Ghent University, Ghent, Belgium, 2. VIB Center for Plant Systems Biology, Ghent, Belgium）

[PO-067] Ethanol treatment induces heat tolerance in plants

*Daisuke Todaka[1], Quynh Thi Nhu Do[1,4], Maho Tanaka[1,2], Akihiro Ezoe[1], Satoshi Takahashi[1,2], Junko Ishida[1,2], Miyako Kusano[5,6,7], Makoto Kobayashi[5], Kazuki Saito[5], Atsushi J. Nagano[8,9], Motoaki Seki[1,2,3] （1. Plant Genomic Network Research Team, RIKEN CSRS, Japan, 2. Plant Epigenome Regulation Laboratory, RIKEN CPR, Japan, 3. Kihara Institute for Biological Research, Yokohama City University, Japan, 4. Agricultural Genetics Institute, Vietnam, 5. Metabolomics Research Group, RIKEN CSRS, Japan, 6. Graduate School of Life and Environmental Sciences, University of Tsukuba, Japan, 7. Tsukuba Plant Innovation Research Center, University of Tsukuba, Japan, 8. Faculty of Agriculture, Ryukoku University, Japan, 9. Institute for Advanced Biosciences, Keio University, Japan）

[PO-069] *REVEILLE2* Thermosensitive Splicing: A Molecular Basis for the Integration of Nocturnal Temperature Information by the Arabidopsis Circadian Clock

*Matt Jones[1], Allan B James[1], Chantal Sharples[1,4], Janet Laird[1], Emily May Armstrong[1], Wenbin Guo[2], Nikoleta Tzioutziou[2,3], Runxuan Zhang[2], John WS Brown[2,3], Hugh G Nimmo[1] （1. University of Glasgow, 2. James Hutton Institute, 3. University of Dundee, 4. Bielefeld University）

[PO-071] Revealing the role of GNOM ARF-GEF in regulating cold stress response through a comparative proteomic approach

*Sumaiya Jannat Tapati[1], Nagib Ahsan[2], Abidur Rahman[3,4,5] （1. The United Graduate School of Agricultural Sciences, Iwate University, Morioka 020-8550, Japan, 2. Department of Chemistry and Biochemistry, The University of Oklahoma, Norman, OK, USA, 3. The United Graduate School of Agricultural Sciences, Iwate University, Morioka 020-8550, Japan, 4. Department of Plant Biosciences, Faculty of Agriculture, Iwate University, Morioka 020-8550, Japan, 5. Department of Plant Sciences, College of Agriculture and Bioresources, University of Saskatchewan, Saskatoon, SK S7N 5A8, Canada）

[P] 02 Abiotic response (temperature)

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 2(Meeting Room 10)

[PO-044] Latitudinal gradient of molecular phenology unravels the physiological mechanism of bud dormancy

*Atsuko Miyawaki Kuwakado[1,2], Masaaki Shimizu[1], Keiko Kitamura[3], Qingmin Han[3], Akiko Satake[1] (1. Kyushu University, Japan, 2. Research Fellow of Japan Society for the Promotion of Science, Japan, 3. Forestry and Forest Products Research Institute (FFPRI), Japan)

[PO-046] SMAX1 potentiates phytochrome B-mediated hypocotyl thermomorphogenesis

Young-Joon Park[1,2], Hye-Young Choi[1], *Chung-Mo Park[1] (1. Seoul National University, Korea, 2. Kyung Hee University, Korea)

[PO-048] Evolution of plant responses to elevated ambient temperature

*Alvaro Montiel Jorda[1], James Clark[1], Keara Franklin[1] (1. School of Biological Sciences, University of Bristol, Bristol BS8 1TQ, United Kingdom)

[PO-050] Thermosensory Transcription Factors Activate Thermoresponsive Gene Expression by Forming Biomolecular Condensates with the Mediator Complex

*Yongjian Qiu[1], Abhishesh Bajracharya[1], Eden E Bayer[1], Alyssa L Stoner[1] (1. The University of Mississippi, USA)

[PO-052] BrbZIP-S, a bZIP transcription factor from *Brassica rapa*, enhanced stress tolerance in *Nicotiana benthamiana*.

Seung Hee Eom[1], *Tae Kyung Hyun[1] (1. Department of Industrial Plant Science and Technology, Chungbuk National University)

[PO-054] Sensitized expression of *LEARNED HEAT MEMORY 1* through histone modification confers thermotolerance in *Arabidopsis thaliana*.

*xuejing wang[1], Nobutoshi Yamaguchi[1], Toshiro Ito[1] (1. Nara institute of science and technology, Japan)

[PO-056] Epidermal Cell Type-Specific Chromatin Dynamics Underlying Arabidopsis Heat Stress Memory

*Daniel Slane[1,2], Kenneth W Berendzen[3], Yoshihiro Yoshitake[4], Christopher Grefen[5], Takayuki Kohchi[4], Takuya Sakamoto[2,6], Sachihiro Matsunaga[1] (1. Department of Integrated Biosciences, Graduate School of Frontier Sciences, The University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa, Chiba, 277-8562, Japan, 2. Department of Applied Biological Science, Faculty of Science and Technology, Tokyo University of Science, 2641 Yamazaki, Noda, Chiba 278-8510, Japan, 3. Center for Plant Molecular Biology, University of Tü bingen, Auf der Morgenstelle 32, Tübingen, 72076, Germany, 4. Graduate School of Biostudies, Kyoto University, Kyoto, 606-8502, Japan, 5. Faculty of Biology and Biotechnology, Molecular and Cellular Botany, University of Bochum, Universitätsstraße 150, 44780 Bochum, Germany, 6. Department of Science, Faculty of Science, Kanagawa University, 3-27-1, Rokkakubashi, Kanagawa-ku, Yokohama, Kanagawa, 221-8586, Japan)

[PO-058] The Regulated Mechanism of miR163 and Its Target Genes on Plant Thermotolerance

*ZHEN YUAN KOK[1], Bo-Shun Tseng[1], Hao-Chen Huang[1], Jeng-Shane Lin[1] （1. National Chung Hsing University, Taiwan）

[PO-060] Characterization of Arabidopsis ECT family in stress tolerance and stress granules assembly

*Nicolas Figueroa Fuentealba[1], Laura Arribas-Hernandez[2], Peter Brodersen[2], Monika Chodasiewicz[1] （1. King Abdullah University of Science and Technology (KAUST), Saudi Arabia, 2. University of Copenhagen, Denmark）

[PO-062] Identification of Protein Kinases Involved in the Post-translational Regulation of the Stress-Responsive Transcription Factor DREB2A

Touko Nakazawa[1], So Sugimoto[1], Ryosuke Takahashi[1], Haruho Funamori[1], Fuminori Takahashi[2], Norihito Nakamichi[3,4], Toshinori Kinoshita[3,4], Kazuo Shinozaki[2], Kazuko Yamaguchi-Shinozaki[1,5], *Junya Mizoi[1] （1. Graduate School of Agricultural and Life Sciences, The University of Tokyo, Japan, 2. Center for Sustainable Resource Science, RIKEN, Japan, 3. ITbM, Nagoya University, Japan, 4. Graduate School of Science, Nagoya University, Japan, 5. Research Institute for Agricultural and Life Sciences, Tokyo University of Agriculture, Japan）

[PO-064] *Arabidopsis* F-box protein EID1 regulates acquired thermotolerance through post-translational modification of HEAT SHOCK FACTOR BINDING PROTEIN

*GUAN-LIN CHUO[1], Chin-Mei Lee[1] （1. National Taiwan Univeristy, Taiwan）

[PO-066] On the mechanism of maintaining heat acclimation memory by the HSP101-HSA32 module in Arabidopsis

*Suma Mitra[1,2], Nai-yu Liu[1], Shih-Jiun Yu[1,3], Hong-Yi Li[1,3], Yu-Yen Shen[1], Yee-yung Charng[1,2,3] （1. Agricultural Biotechnology Research Center (ABRC), Academia Sinica, Taipei, 2. Graduate Institute of Biotechnology, National Chung Hsing University, Taichung, Taiwan, 3. Department of Biochemical Science and Technology, National Taiwan University, Taipei, Taiwan）

[PO-068] Phototropin mediates periodic cold priming in *Arabidopsis*

*Minoru Noguchi[1], Hitomi Takahashi[1], Issei Keino[1], Yutaka Kodama[1] （1. Utsunomiya University, Japan）

[PO-070] Role of thioredoxins and regulation of carbon metabolism in acclimation to low temperatures

*David Gonzalez-Campo[1], Peter Geigenberger[1] （1. LMU Munich ）

[PO-072] Exploration of functional short peptides for protection against protein aggregation and instability in plants

*Hidefumi Hamasaki[1], Setsuko Shimada[1], Yukio Kurihara[2], Minami Matsui[1] （1. Riken Yokohama Institute, 2. Tokyo University, Japan）

Poster1 | Poster | 03 Abiotic response (others)

[P] 03 Abiotic response (others)

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 3(Meeting Room 10)

[PO-073] Forward genetic screens to elucidate the molecular mechanism of alternative promoter selection in plants and yeasts

*Yoshiro Murakami[1], Ryutaro Tokutsu[1], Kazumasa Shirai[2], Mitsuhiko Tomita[6], Noriyuki Suetsugu[1], Tomokazu Ushijima[3], Takamasa Suzuki[4], Tomoo Shimada[1], Atsushi Shimada[5], Hidetoshi Saze[5], Kousuke Hanada[2], Yoshito Oka[1], Tomonao Matsushita[1] （1. Kyoto University, Japan, 2. Kyusyu Institute of Technology, Japan, 3. Setsunan University, Japan, 4. Chubu University, Japan, 5. Okinawa Institute of Science and Technology, Japan, 6. Kyushu University, Japan）

[PO-075] Stomatal CO_2/bicarbonate Sensor Consists of Two Interacting Protein Kinases HT1 and MPK4/12 in Arabidopsis

*Yohei Takahashi[1,2], Krystal C Bosmans[1], Po-Kai Hsu[1], Karnelia Paul[1], Christian Seitz[1], Chung-Yueh Yeh[3], Yuh-Shuh Wang[3], Dmitry Yarmolinsky[3], Maija Sierla[4], Triin Vahisalu[4], J. Andrew McCammon[1], Jaakko Kangasjarvi[4], Li Zhang[1], Hannes Kollist[3], Thien Trac[1], Julian I Schroeder[1] （1. University of California San Diego, USA, 2. Nagoya University, Japan, 3. University of Tartu, Estonia, 4. University of Helsinki, Finland）

[PO-077] LZY3 is localized on the plasma membrane to transduce the gravity signal in columella cells

*Hiromasa Shikata[1,2], Takeshi Nishimura[1,2], Shogo Mori[1], Miyo Terao Morita[1,2] （1. National Institute for Basic Biology, NINS, Japan, 2. Department of Basic Biology, Faculty of Life Science, SOKENDAI (Graduate University for Advanced Studies), Japan）

[PO-079] Genetic framework for the coordination of shoot gravitropic setpoint angle by *TILLER ANGLE CONTROL1*

*Nozomi Kawamoto[1], Takeshi Nishimura[1], Miyo Morita[1] （1. National Institute for Basic Biology）

[PO-081] Overexpression of a *Tagetes patula Ascorbate peroxidase 1* in *Arabidopsis* enhances cadmium tolerance

*Chwan-Yang Hong[1], Yu-Ting Liu[1], Vokkaliga T. Harshavardhan[1] （1. National Taiwan University, Taiwan）

[PO-083] RECONFIGURATION OF CENTRAL METABOLITES DURING ABIOTIC STRESS PERIODS MODULATE DEFENCE TO PATHOGENS IN ARABIDOPSIS

*ANTONI GARCIA-MOLINA[1], CRISTIAN VICENT[2], VICTOR FLORS[2], VICTORIA PASTOR[2] （1. CENTER OF RESEARCH IN AGRIGENOMICS (CRAG), 2. Universitat Jaume I Castelló ）

[PO-085] Abiotic Stress Modulated Plant U-Box Ubiquitin Ligases – Expression, Phenotype and Regulation

*Dudy Bar-Zvi[1], Tzofia Maymon[1], Avinash Sharma[1] （1. Ben-Gurion University of the Negev）

Poster1 | Poster | 03 Abiotic response (others)

[P] 03 Abiotic response (others)

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 3(Meeting Room 10)

[PO-074] Stomatal characteristics of an *Arabidopsis*: Natural accession with high sensitivity to increased CO_2 concentration

*Tomoki Shuno[1], Satoko Nakae[1], Atsushi Mabuchi[1], Juntaro Negi[1], Koh Iba[1], Keina Monda[1] （1. Dept. Biol., Fac. Sci., Univ. Kyushu）

[PO-076] Analysis of the role of RLDs in the gravity response of shoot using *Arabidopsis thaliana*

*Takeshi Nishimura Nishimura[1], Miyo Terao Morita[1] （1. National Institute for Basic Biology ）

[PO-078] The role of LAZY1-LIKE 4 in the signaling process in the gravity sensing cells in root gravitropism.

*Miyo Terao Morita[1], Takeshi Nisimura[1], Shogo Mori[1], Hiromasa Shikata[1], Yoshinori Abe[2], Takuma Hagihara[2], Masatsugu Toyota[2], Hiroshi Yoshikawa[3], Takumi Higaki[4] （1. National Institute for Basic Biology, Japan, 2. Saitama University, Japan, 3. Osaka University, Japan, 4. Kumamoto University, Japan）

[PO-080] Nicotianamine secretion for Zinc tolerance

*Kuo-Chen Yeh[1], Munkhtsetseg Tsednee[1], Yi-Tze Chen[1], Jing-chi Lo[1] （1. Academia Sinica）

[PO-082] Environmental pH governs the phospho-switching of major plasma-membrane transporters

*Dharmesh Jain[1,2,3], Wolfgang Schmidt[1,3,4,5] （1. Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, Academia Sinica and National Chung-Hsing University, Taipei 11529, Taiwan, 2. Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung 40227, Taiwan, 3. Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, 4. Biotechnology Center, National Chung-Hsing University, Taichung 40227, Taiwan, 5. Genome and Systems Biology Degree Program, College of Life Science, National Taiwan University, Taipei 10617, Taiwan）

[PO-084] Meta-Analysis of RNA Sequencing Data of Arabidopsis and Rice under Hypoxia

*Keita Tamura[1], Hidemasa Bono[1] （1. Hiroshima University, Japan）

Poster2 | Poster | 04 Pathogen & insect response/Immunity

[P] 04 Pathogen &insect response/Immunity

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 4(Meeting Room 10)

[PO-087] Transcriptome Analysis of *Dangerous Mix* Autoimmunity in *A. thaliana*

*Donghui HU[1], Eunyoung CHAE[1] （1. National University of SinGapore, SinGapore）

[PO-089] Genetic Requirements of *DM10-DM11* Autoimmunity in *Arabidopsis thaliana*

*Jinge Wang[1], Rachelle Lee[1], Wei Yuan Cher[1], Eunyoung Chae[1] （1. National University of SinGapore, SinGapore）

[PO-091] A Self-Compartmentalized Alpha/Beta Hydrolase Complex Participates in NLR-mediated Immunity in Plants

*Wei-Lin Wan[1], Gijeong Kim[2], Nuri Charoennit[1], Yizhong Zhang[1,3], Ji-Joon Song[2], Eunyoung Chae[1] （1. National University of SinGapore, SinGapore, 2. Korea Advanced Institute of Science and Technology, Republic of Korea, 3. Agency for Science, Technology and Research, SinGapore）

[PO-093] Bacterial effector hopAM1 activity reconfigures ETI responses.

*Nestoras Kargios[1], Adam Bayless[2], Marc Nishimura[2], Lijiang Song[1], Vardis Ntoukakis[1], Murray Grant[1] （1. University of Warwick, UK, 2. Colorado State University, USA）

[PO-095] Bacteria Pathogen Subvert Plant Innate Immunity via Phase Separating Effectors

*Yi Xie[1], Xin-Lu Zhu[1], Wei-Bing Wang[1], Yan-Song Miao[1] （1. School of Biological Sciences, Nanyang Technological University, SinGapore）

[PO-097] Study on the interaction between *Ralstonia solanacearum* effector RsT3E-P and ACC oxidases in pattern-triggered immunity

*YU CHUAN CHANG[1], Ya Yi Chung[1], Yi Fan Chen[1], Chien Sheng Wu[1], Chiu Ping Cheng[1] （1. Institute of Plant Biology and Department of Life Science, National Taiwan University, Taipei, Taiwan）

[PO-099] Bacterial pathogens deliver water/solute-permeable channels as a virulence strategy

*Kinya Nomura[1], Felipe Andreazza[2], Jie Cheng[3], Ke Dong[2], Pei Zhou[3], Sheng Yang He[1] （1. Howard Hughes Medical Institute, Duke University, USA, 2. Duke University, USA, 3. Duke University School of Medicine, USA）

[PO-101] Characterization of high mobility group box proteins as conserved plant damage-associated molecular patterns

*Yukihisa Goto[1], Simon Flückiger[1], Jiashu Chu[1], Paul Derbyshire[2], Frank L.H. Menke[2], Cyril Zipfel[1,2] （1. Institute of Plant and Microbial Biology, Zürich-Basel Plant Science Center, University of Zürich, Zürich, Switzerland, 2. The Sainsbury Laboratory, University of East Anglia, Norwich, United Kingdom）

[PO-103] Assessing the Impact of Plant Immunity on *Agrobacterium*-Mediated Transformation by Floral Inoculation: Insights from the *EFR* Gene in Arabidopsis

*Mao-Sen Liu[1], Teng-Kuei Huang[1], Chih-Hang Wu[1], Chih-Horng Kuo[1], Erh-Min Lai[1] （1. Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan）

[PO-105] Valinomycin, a putative bi-directional natural compound with antifungal and immune-priming activity

*Nayeon Yoo[1], Ji Eun Kang[1,2], Huiwon Lee[1], Dohee Ko[1], Harin Kim[1], Eui-Hwan Chung[1] （1. Department of Plant Biotechnology, Korea University, Seoul 02841, Republic of Korea, 2. Boyce Thompson Institute (BTI), Cornell University, Ithaca, NY 14853, USA）

[PO-107] Effects of Turnip mosaic virus on *Arabidopsis halleri*-aphid interaction and the exploration of its causal genes in a natural environment.

*Miyabi Otsubo[1], Hiroshi Kudoh[1], Mie N Honjo[1] （1. Center for Ecological Research, Kyoto University, Japan）

[PO-109] Decision factors of morphological diversity in insect galls

*Kanako Bessho-Uehara[1] （1. Tohoku University）

[PO-111] Small cyclic peptides that enhance disease resistance in *Arabidopsis thaliana* and *Brachypodium distachyon*

*Yoshiteru Noutoshi[1], Megumi Watanabe[1], Ayako Moriya[1], Yusuke Kouzai[1], Yurie Yamanaka[1], Mamiko Kimura[1], Mai M.A. Abdelghany[1], Naofumi Shoji[2], Hyungjin Kim[2], Takao Saito[2], Mizuki KItamatsu[3] （1. Okayama University, 2. Sanyo Chemical Industries, 3. Kindai University）

[PO-113] XCP1 cleaves Pathogenesis-related protein 1 into CAPE9 for systemic immunity in *Arabidopsis*

Ying-Lan Chen[1,2], Fan-Wei Lin[1], Kai-Tang Cheng[1], Chi-Hsin Chang[1,3,4], Sheng-Chi Hung[1,5], *Yu-Hsuan Huang[1], Thomas Efferth[6], Yet-Ran Chen[1,3,4,5] （1. Agricultural Biotechnology Research Center, Academia Sinica, Taiwan, 2. Department of Biotechnology and Bioindustry Sciences, College of Bioscience and Biotechnology, National Cheng Kung University, Taiwan, 3. Molecular and Biological Agricultural Science Program, Taiwan International Graduate Program, Academia Sinica, Taiwan, 4. Taiwan Graduate Institute of Biotechnology, National Chung-Hsing University, Taiwan, 5. Institute of Biotechnology, National Taiwan University, Taiwan, 6. Department of Pharmaceutical Biology, Institute of Pharmaceutical and Biomedical Science, Johannes Gutenberg University, Germany）

[PO-115] Dimerization and activation of Arabidopsis MAPKKKs in chitin-induced immunity.

*Koji Yamaguchi[1], Hiroto Komori[1], Kanako Fujio[1], Masayuki Fujiwara[2], Tsutomu Kawasaki[1] （1. Grad. Sch. Agri., Kindai Univ, 2. YANMAR HOLDINGS Co. Ltd.）

[PO-117] Bacterial effectors disrupt host chloroplast functions for virulence

*Charles Roussin-Leveillee[1], Meliane St-Amand[1], Philippe Desbiens-Fortin[1], Moffett Peter[1] （1. Universite de Sherbrooke, Canada）

[PO-119] The perception of quinones and reactive oxygen species by CARD1/HPCA1 in *Arabidopsis*

*Anuphon Laohavisit[1], Nobuaki Ishihama[2], Ryoko Hiroyama[2], Kaori Takizawa[2], Ken Shirasu[2] （1. Institute of Transformative Bio-Molecules, Nagoya University, Japan, 2. Plant Immunity Research Group, RIKEN Center for Sustainable Resource Science, Japan）

[PO-121] Conserved molecular regulatory mechanism of the ROS-producing activity of RBOHs by phosphorylation and Ca^{2+} binding in land plants

*Takafumi Hashimoto[1], Kenji Hashimoto[1], Takuya Miyakawa[2], Masaru Tanokura[3], Kazuyuki Kuchitsu[1] （1. Tokyo University of Science, Japan, 2. Kyoto University, Japan, 3. University of Tokyo, Japan）

[PO-123] Involvement of two cyclic nucleotide-gated ion channel subunits in jasmonic acid-mediated immune signaling

*Hyunsuh Lee[1], Robin Goh[1], Angelica Mae Miraples[1], Mariane Ga Min Jeong[1], Shingo Maruyama[2], Andreea Bosorogan[3], Eliana Gonzales-Vigil[3], Wolfgang Moeder[1], Hanae Kaku[2], Keiko Yoshioka[1] （1. University of Toronto, Canada, 2. Meiji University, Japan, 3. University of Toronto (Scarborough), Canada）

[PO-125] An attractive case of plant-virus coevolution supports the idea that non-canonical nucleotides within the host play an antiviral role

*Adrian Alejandro Valli[1], Rafael García López[1], Irene Gonzalo Magro[1], Juan Antonio García[1] （1. Spanish National Centre for Biotechnology (CNB-CSIC)）

[PO-127] Molecular mechanism of tenoxicam that inhibits plant immune responses

*Nobuaki Ishihama[1], Seung-won Choi[1], Yoshiteru Noutoshi[2], Ivana Saska[1], Kaori Takizawa[1], Yuko Nomura[1], Hirofumi Nakagami[3], Yasumitsu Kondoh[1], Hiroyuki Osada[1], Ken Shirasu[1] （1. RIKEN CSRS, Japan, 2. Grad. Sch. Env. Life Sci., Okayama Univ., Japan, 3. MPIPZ, Germany）

[PO-129] Identification of epigenetically regulated genes in plant-virus interaction

*Regis Lopes Correa[1], Silvia Ambrós[1], Monica Bustos[1], Denis Kutnjak[2], Santiago F Elena[1] （1. Institute for Integrative Systems Biology (I2SysBio), Consejo Superior de Investigaciones Cientificas (CSIC) and Universidad de Valencia, Spain, 2. Department of Biotechnology and Systems Biology, National Institute of Biology, Ljubljana, Slovenia）

[PO-131] ELF18 INDUCED LONG NONCODING RNA 2 regulates the defense response by modulating *CHITINASE* expression

*Jun Sung Seo[1] （1. Institution of GreenBio Science and Technology, Seoul National University, Republic of Korea）

[PO-133] AGO2 condensates behavior after bacterial inoculation

*Moriaki Saito[1], Po Hu[1], Hailing Jin[1] （1. Department of Microbiology and Plant Pathology, Center for Plant Cell Biology, Institute for Integrative Genome Biology, University of California, Riverside, USA）

[PO-135] TRANSLATION DYNAMICS OF THE PLANT-VIRUS INTERACTION

*Gemma Sans-Coll[1], Araceli G. Castillo[1,3], Eduardo R. Bejarano[1,3], Catharina Merchante[1,2] （1. Instituto de Hortofruticultura Subtropical y Mediterránea “La Mayora”, Universidad de Málaga-Consejo Superior de Investigaciones Científicas (IHSM-UMA-CSIC), 2. Dpto. Biología Molecular y Bioquímica, UMA, 3. Dpto. Biología Celular, Genética y Fisiología, UMA）

[PO-137] DNA binding activity of CAMTA3 is essential for its function: Identification of critical amino acids for its transcriptional activity

*KASAVAJHALA V.S.K. Prasad[1], Amira Abdel-Hameed[1], Qiyan Jiang[1], Anireddy Reddy[1] （1. Department of Biology, Colorado State University, Fort Collins, CO-80526, USA）

[PO-139] Should I stay or should I go: nuclear mRNA retention during plant defense

*Tessa Visscher[1], Guido van den Ackerveken[2], Saskia C.M. van Wees[1] （1. Plant-Microbe Interactions, Utrecht University, the Netherlands, 2. Translational Plant Biology, Utrecht University, the Netherlands）

[PO-141] Novel eINTACT system dissects bacterial exploitation of plant osmosignaling to promote disease

*Yuan You[1], Grzegorz Koczyk[2], Maria Nuc[2], Robert Morbitzer[3], Danalyn R. Holmes[3], Edda von Roepenack-Lahaye[3], Zhihao Jiang[3], Shiji Hou[4], Axel Giudicatti[6], Carine Gris[5], Pablo A. Manavella[6], Laurent D. Noël[5], Paweł Krajewski[2], Thomas Lahaye[3] （1. Technical University of Munich, Germany, 2. Polish Academy of Sciences, Poland, 3. Eberhard-Karls-University Tü bingen, Germany, 4. Huazhong Agricultural University, China, 5. Université de Toulouse, INRAE, CNRS, France, 6. Universidad Nacional del Litoral, Argentina）

[PO-143] Toward identification of host cell death-inducing genes of *Colletotrichum higginsianum* via transient gene expression in *Arabidopsis thaliana* leaves

*Katsuma Yonehara[1,2], Naoyoshi Kumakura[1], Ken Shirasu[1,2] （1. RIKEN, Japan, 2. Tokyo University, Japan）

[PO-145] Microbiota-mediated immunocompetence in Arabidopsis

*Bradley C. Paasch[1,2], Reza Sohrabi[1,2], James M. Kremer[3], Sheng Yang He[1,2] （1. Duke University, USA, 2. Howard Hughes Medical Institute, USA, 3. MSU-DOE Plant Research Laboratory, USA）

[PO-147] Functional analysis of *rym*-mediated resistance against *Barley yellow mosaic virus* infection to root and leaf in barley

*Hongjing Zhu[1,2], Kohei Mishina[1], Tetsuo Oikawa[1], Gang Chen[1,2], Shinji Kikuchi[2], Hidenori Sassa[2], Takao Komatsuda[1,2,3], Youko Oono[1,2] （1. Institute of Crop Science, National Agriculture and Food Research Organization (NARO), Tsukuba, Japan, 2. Graduate School of Horticulture, Chiba University, Matsudo, Japan, 3. Crop Research Institute, Shandong Academy of Agricultural Sciences, Shandong, China）

[PO-149] Functions of Green Leaf Volatiles in Direct and Indirect Defense of Plants against Herbivores

*Rika Ozawa[1], Ryohei Fujita[2], Takuma Nakao[2], Yuka Ohno[2], Wataru Ota[2], Kaori Shiojiri[2], Kyutaro Kishimoto[3], Kenji Matsui[3], Junji Takabayashi[1] （1. Kyoto University, Japan, 2. Ryukoku University, Japan, 3. Yamaguchi University, Japan）

[PO-151] Single-cell gene expression profiles of glucosinolate-myrosinase defense system-associated cells

*Taro Maeda[1], Sugano S Shigeo[2], Makoto Shirakawa[3], Sagara Mayu[3], Toshiro Ito[3], Atsushi J Nagano[1,4] （1. Keio University, Japan, 2. National Institute of Advanced Industrial Science and Technology, Japan, 3. Nara Institute of Science and Technology, Japan, 4. Ryukoku University, Japan）

[PO-153] Investigating the Role of Carbohydrate Metabolism in Bacterial-Triggered Stomatal Movements Using the Model System *Arabidopsis thaliana* and *Pseudomonas syringe pv tomato*

*Lucia Piro[1] （1. ETH Zurich）

[PO-155] Preserving salicylic acid-mediated plant immunity in a warming climate

*Jonghum Kim[1,2], Christian Danve M. Castroverde[3,4,5], Chi Kuan[1], Sheng Yang He[1,2,3] （1. Department of Biology, Duke University, USA, 2. Howard Hughes Medical Institute, USA, 3. Department of Energy Plant Research Laboratory, Michigan State University, USA, 4. Plant Resilience Institute, Michigan State University, USA, 5. Department of Biology, Wilfrid Laurier University, Canada）

[P] 04 Pathogen &insect response/Immunity

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 4(Meeting Room 10)

[PO-086] Characterisation of a TIR-NLR mediated immune activation with an alpha/beta-hydrolase fold protein

*Yi Yun Tan[1], Wei-Lin Wan[1], Nuri Charoennit[1], Shen Kai Ng[1], Jing Wei Keoni Chan[1], Eunyoung Chae[1] （1. National University of SinGapore, SinGapore）

[PO-088] Characterization of an antagonistic NLR pair in plant autoimmunity

*Yin Yin Liew[1], Eunyoung Chae[1] （1. National University of SinGapore）

[PO-090] Highly variable plant immune receptors share distinct genomic and epigenomic features

Chandler Sutherland[1], Daniil M Prigozhin[2], J Grey Monroe[3], *Ksenia Krasileva[1] （1. University of California, Berkeley, 2. Lawrence Berkeley National Laboratory, 3. University of California, Davis）

[PO-092] 2D-Phase separation of pathogen effectors subverts plant defence

*xinlu zhu[1], Yi XIE[1], Simou SUN[2], Choon-Peng CHNG[3], Ben CAO[3], He SUN[1], Changjin HUANG[3], Jay T. Groves[2], Yansong MIAO[1,2] （1. School of Biological Sciences, Nanyang Technological University, 637551,SinGapore, 2. Institute for Digital Molecular Analytics and Science, Nanyang Technological University, 636921, SinGapore, 3. School of Mechanical and Aerospace Engineering, Nanyang Technological University, 639798,SinGapore）

[PO-094] A plant defence metabolite disarms bacterial type III injectisome assembly

*Pei Miao[1], Haijun Wang[2], Wei Wang[1], Jinjing Ni[3], Jingnan Liang[4], Yu-Feng Yao[3], Jian-Min Zhou[1], Xiaoguang Lei[2] （1. Institute of Genetics and Developmental Biology, Beijing, 2. Peking University, Beijing, 3. Shanghai Jiao Tong University School of Medicine, Shanghai, 4. Institute of Microbiology, Beijing）

[PO-098] The effector protein RipBJ of *Ralstonia solanacearum* elicits plant immunity

*Chun yu Kuo[1], Chi Hsin Chang[1], Li Wen Chu[1], Tai Hsiang Chu[1], Chien Hui Li[1], Pei Shan Liao[1], Chien Sheng Wu[1], Chiu Ping Cheng[1,2,3] （1. Institute of Plant Biology, National Taiwan University, Taipei, Taiwan, 2. Department of Life Science, National Taiwan University, Taipei, Taiwan, 3. Global Agriculture Technology and Genomic Science Master Program, National Taiwan University, Taipei, Taiwan）

[PO-100] Identification of yeast-secreted proteins to induce plant immune responses

Keunchun Park[1], Hyeokjin Kwon[1], Hae Ri Kwon[1], Minjeong Jo[1], Mi Kyung Kim[1], Hye Sup Yun[2], *Chian Kwon[1] （1. Dankook University, Korea, 2. Konkuk University, Korea）

[PO-102] Functional study on roles of Solyc12gA-interacting proteins in plant innate immunity

*Yu Chuan Chiu[1], Chun You Kou[1], Ching Jung Lin[1], Chiu Ping Cheng[1] （1. Institute of Plant Biology, National Taiwan University）

[PO-104] A bacterial typeIII effector requires the LRR-RK KIN7 to negatively regulate FLS2 homeostasis in *Arabidopsis thaliana*

Yukihisa Goto[1,2], Hidenori Matsui[3], Jan Sklenar[4], Paul Derbyshire[4], Frank L.H. Menke[4],

Hirofumi Nakagami[5], Darrell Desveaux[6], Cyril Zipfel[4,7], *Yasuhiro Kadota[1], Ken Shirasu[1,2] （1. RIKEN Center for Sustainable Resource Science (CSRS), 2. Graduate School of Science, The University of Tokyo, 3. Graduate School of Environment and Life Science, Okayama University, 4. The Sainsbury Laboratory, University of East Anglia, Norwich Research Park, Norwich, UK., 5. Max Planck Institute for Plant Breeding Research, 6. Department of Cell and System Biology and Centre for the Analysis of Genome Function and Evolution, University of Toronto, 7. Institute of Plant and Microbial Biology, Zurich-Basel Plant Science Center, University of Zurich, Zurich, Switzerland）

[PO-106] Gene regulatory network induced by Western flower thrips

Merel Steenbergen[1], Niels Aerts[1], Richard Hickman[1], *Saskia van Wees[1] （1. Utrecht University）

[PO-108] Quantitative analysis of the feeding behavior of herbivorous insects on Arabidopsis leaves reveals detailed mechanisms of trichomes contribution to plant defense

*Naoyuki Sotta[1], Toru Fujiwara[1] （1. The University of Tokyo, Japan）

[PO-110] Wound induced small-peptide mediated signalling cascade regulated by a receptor like kinase- RLK1 dictates growth vs defense decision in rice

*HARSHITH CHITHAVALLI YOGESH GOWDA[1], Avik Kumar Pal[1], Ashwin Nair[1,2], Monoswi Chakraborty[3], Steffi Raju[1,2], Shivaprasad P V[1] （1. National Centre For Biological Sciences, TIFR, India, 560 065, 2. SASTRA University, Thirumalaisamudram, Thanjavur 613401, India., 3. Institute of Bioinformatics and Applied Biotechnology, Electronics City, Bangalore, India, 560 100）

[PO-112] Defense signal sensitization in response to damage-associated Pep peptides during phosphate starvation response

*Natsuki Tsuchida[1], Lee Tae Hong[1], Kentaro Okada[1], Kei Hiruma[1], Shigetaka Yasuda[1], Yusuke Saijo[1] （1. Nara Institute of Science and Technology）

[PO-114] 14-3-3 proteins facilitate the activation of MAP kinase cascades by upstream immunity-related kinases

*Xiaojing Dong[1], Feng Feng[3], Yangjun Li[1], Lin Li[2], Chen She[2], Jian-Min Zhou[1] （1. Institute of Genetics and Developmental Biology, 2. National Institute of Biological Sciences, 3. Department of Biochemistry and Molecular Biology）

[PO-118] Receptor-like cytosolic kinase RIPK confers broad-spectrum disease resistance without yield penalties

*Yan Liang[1] （1. Zhejiang University, China）

[PO-120] The cytosolic thiol peroxidase PRXIIB is an intracellular sensor for H_2O_2 that regulates plant immunity through a redox relay

*Man Hu[1,2,3], Guozhi Bi[1,2], Ling Fu[4], Xiaojuan Zhang[1], Jianru Zuo[1,3,5], Jiayang Li[1,3,5], Jing Yang[4], Jian-Min Zhou[1,2,3,5] （1. Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, 2. CAS Center for Excellence in Biotic Interactions, University of Chinese Academy of Sciences, 3. College of Advanced Agricultural Sciences, University of Chinese Academy of Sciences, 4. State Key Laboratory of Proteomics, Beijing Proteome Research Center, National Center for Protein Sciences, 5. Hainan Yazhou Bay Seed Laboratory）

[PO-122] Oomycete effector AVRblb2 inhibits Ca^{2+} influx by targeting cyclic nucleotide-gated channel through Ca^{2+} sensors to suppress immune

response

*Soeui Lee[1,2], Joo Hyun Lee[1,2], Ye-Eun Seo[1,2], Hye-Young Lee[2], Doil Choi[1,2] （1. Plant Immunity Research Center, Plant Genomics and Breeding Institute, Seoul National University, Seoul, 08826, Republic of Korea , 2. Horticultural Biotechnology, Department of Agriculture, Forestry, and Bioresources, College of Agriculture and Life Science, Seoul National University, Seoul, 08826, Republic of Korea）

[PO-124] An Interactor of CYCLIC NUCLEOTIDE-GATED ION CHANNEL 12 enhances downstream immune signaling events

*Robin Hon Ming Goh[1], Angelica Mae Miraples[1], Wolfgang Moeder[1], Keiko Yoshioka[1] （1. Department of Cell &Systems Biology, University of Toronto）

[PO-126] Ethylene signal modulates survival of leaf explants in Arabidopsis

*Chae-min Lee[1,2], Seung Yong Shin[1,3], Jin Ho Yang[1], Hyun-Soon Kim[1,4], Changsoo Kim[2], Jae-Heung Jeon[1], Hyo-Jun Lee[1,3,5] （1. Plant Systems Engineering Research Center, Korea Research Institute of Bioscience and Biotechnology, Korea, 2. Department of Crop Science, Chungnam National University, Korea, 3. Department of Functional Genomics, KRIBB School of Bioscience, University of Science and Technology, Korea, 4. Department of Biosystems and Bioengineering, KRIBB School of Biotechnology, University of Science and Technology, Korea, 5. Department of Biological Sciences, Sungkyunkwan University, Korea）

[PO-128] Extracellular NAD(P) is a central signaling molecule of systemic acquired resistance

*Zhonglin Mou[1,2], Qi Li[1], Mingxi Zhou[2] （1. Department of Microbiology and Cell Science, University of Florida, USA, 2. Plant Molecular and Cellular Biology Program, University of Florida, USA）

[PO-130] A novel function for transcriptional regulators IBM2 and EDM2 as limiters of salicylic acid-dependant defence genes in Arabidopsis.

*Leonardo Furci[1], Hidetoshi Saze[1] （1. OIST）

[PO-132] Identification of binding proteins of long non-coding RNA that act in plant infection defense

*HUIYUAN JIA[1], Juan Wu[2], Shuang Li[1], Yasushi Yukawa[1] （1. Nagoya City University, Japan, 2. Northeast Forestry University, China）

[PO-134] Translational control of pathogen-triggered gene expression in the *Arabidopsis* root: global and gene-specific approaches

Alexander Marsell[1], Amir Maboubi[2], Johannes Hanson[2], Arthur Korte[1], *Wolfgang Dröge-Laser[1] （1. University of Würzburg, 2. Umeå Plant Science Center）

[PO-136] Translation initiation landscape profiling reveals hidden open-reading frames required for the pathogenesis of tomato yellow leaf curl Thailand virus

*Chin-Wen Chiu[1], Ya-Ru Li[1], Cheng-Yuan Lin[1], Hsin-Hung Yeh[1], Ming-Jung Liu[1] （1. The Agricultural Biotechnology Research Center of Academia Sinica, Taiwan）

[PO-138] Subgenome-dominant expression and alternative splicing in response to *Sclerotinia* infection in polyploid *Brassica napus* and progenitor species

Grant de Jong[1], *Keith Adams[1] （1. University of British Columbia）

[PO-140] The Role of Nuclear Pore during Effector-triggered Immunity

*Xing Zhang[1], Andres V Reyes[2], Shou-Ling Xu[2], Xinnian Dong[1] （1. Howard Hughes Medical

Institute and Duke University, 2. Carnegie Institution for Science）

[PO-142] Proteomic analysis to understand chloroplast-nucleus communication in plant immunity.

*Seungmee Jung[1], Jongchan Woo[1], Eunsook Park[1] （1. Department of Molecular Biology, College of Agriculture, Life Sciences and Natural Resources, University of Wyoming, Laramie, WY USA.）

[PO-144] Dynamics of Plasma Membrane Nanodomains during Disease Response in *Arabidopsis thaliana*

*Saki Takayama[1], Yoichiro Fukao[1], Minoru Nagano[1] （1. Ritsumeikan University, Japan）

[PO-146] The gene regulatory network in roots that create a disease suppressive soil

*Run Qi[1], Jelle Spooren[1], Roeland L. Berendsen[1], Corné M.J. Pieterse[1], Saskia C.M. Van Wees[1] （1. Plant-Microbe Interactions, Department of Biology, Faculty of Science, Utrecht University, Utrecht, Netherlands）

[PO-148] Is Ca^{2+}-induced activation of Arabidopsis lipoxygenase 2 involved in green leaf volatile burst?

*Kenji Matsui[1], Moena Tanaka, Kano Yamanaka, Mone Ohtaguro, Satoshi Mochizuki[2] （1. Yamaguchi University, Japan, 2. RIBS Okayama, Japan）

[PO-150] Real-time visualization of green leaf volatile-sensory Ca^{2+} signaling in *Arabidopsis*

Yuri Aratani[1], Takuya Uemura[1], *Masatsugu Toyota[1,2,3] （1. Saitama University, 2. Suntory Foundation for Life Sciences, 3. University of Wisconsin-Madison）

[PO-152] The phytocytokine AtCAPE9 and its receptor AtCAPER1 functions on plant systemic stomatal immunity

*Chi-Hsin Chang[1,2,3], Kai-Tan Cheng[1], Fan-Wei Lin[1], Yet-Ran Chen[1] （1. Agricultural Biotechnology Research Center, Academia Sinica, Taiwan, 2. Molecular and Biological Agricultural Sciences, Taiwan International Graduate Program, Academia Sinica, Taiwan, 3. Graduate Institute of Biotechnology, National Chung Hsing University, Taiwan）

[PO-154] High humidity-induced abscisic acid catabolism critical for plant resistance against bacterial water acquisition and pathogenesis

*Shigetaka Yasuda[1], Taishi Hirase[1], Haruka Ishizaki[1], Ryuji Suzuki[2], Akihisa Shinozawa[3], Shioriko Ueda[1], Izumi Yotsui[3], Masatsugu Toyota[2], Yusuke Saijo[1] （1. Nara Institute of Science and Technology, Japan, 2. Saitama University, Japan, 3. Tokyo University of Agriculture, Japan）

Poster1 | Poster | 05 Symbiosis/Parasitism

[P] 05 Symbiosis/Parasitism

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 5(Meeting Room 10)

[PO-157] A role for phytocytokines during parasitic plant haustorium formation

*Maxwell Fishman[1], Anuphon Laohavisit[2], Takanori Wakatake[3], Ryoko Hiroyama[1], Bruno Ngou[1], Ken Shirasu[1] （1. RIKEN Center for Sutainable Resource Science, 2. Institute of Transformative Bio-Molecules, Nagoya University, 3. Research Center of Genetic Resources, NARO）

[PO-159] Characterization of rhizobacteria-induced immunity using Arabidopsis

*Mack Loranger[1], Arvin Nickzad [2], Eric Déziel[2], Wolfgang Moeder, Keiko Yoshioka[1] （1. Department of Cell &Systems Biology, University of Toronto, 2. INRS）

[PO-161] Involvement of receptor proteins for peptidoglycans in mediation of growth promoting effects by *Bacillus pumilus* TUAT1 in *Arabidopsis thaliana.*

*Md Monirul Islam[1,2], Shin-ichiro Agake[3], Tetsuya Yamasda[4], Naoko Ohkama Ohtsu[3,4] （1. Institute of Food and Radiation Biology, Bangladesh Atomic Energy Commission, Dhaka-1207, Bangladesh. , 2. United Graduate School of Agriculture, Tokyo University of Agriculture and Technology, Tokyo, Japan., 3. Institute of Global Innovation Research, Tokyo University of Agriculture and Technology, Tokyo, Japan., 4. Institute of Agriculture, Tokyo University of Agriculture and Technology, Tokyo, Japan. ）

[PO-163] *Rhizobium vitis* VAR03-1 enhances *Arabidopsis thaliana* primary root growth under nutrient-limited conditions

*Niarsi Merry Hemelda[1], Bao Jiyuan[1], Hidenori Matsui[1], Mikihiro Yamamoto[1], Kazuhiro Toyoda[1], Yuki Ichinose[1], Akira Kawaguchi[2], Yoshiteru Noutoshi[1] （1. Okayama University, 2. Western Region Agricultural Research Center, National Agriculture and Food Research Organization (NARO), Japan ）

[PO-165] Deciphering the molecular mechanism of plant growth-promoting rhizobacterium *Pseudomonas* sp. CM11 on plant promotion

*Zhuang Yang[1], Roman Lakerveld[1], Qian Li[2], Joel Klein[1], Huchen Li[2,1], Viola Willemsen[1] （1. Cluster of Plant Developmental Biology, Wageningen University and Research, Netherlands, 2. Beijing Advanced Innovation Center for Tree Breeding by Molecular Design, Beijing University of Agriculture, China）

[PO-167] Designing the assessment platform for determining the impacts of microbes to plant stress resilience

*Tao-Ho Chang[1], Chia-Cheng Hsieh[1], Jenn-Wen Huang[1,2], Pi-Fang Linda Chang[1,2] （1. Academy of Circular Economy, National Chung Hsing University, Taiwan, 2. Department of Plant Pathology, National Chung Hsing University, Taiwan）

[PO-169] Root endophyte *Colletotrichum tofieldiae* promotes plant growth and recruits beneficial bacteria to roots under laboratory and field conditions with nitrogen deficiency

Nhi Tan Anh Nguyen[1], Yuniar Devi Utami[1], Masami Nakamura[1], *Kei Hiruma[1] （1. The University of Tokyo）

Poster1 | Poster | 05 Symbiosis/Parasitism

[P] 05 Symbiosis/Parasitism

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 5(Meeting Room 10)

[PO-156] Iron effects on prehaustorium formation in *Phtheirospermum japonicum*

*MOHD HAFIFI BIN ABU BAKAR[1], Satoko Yoshida[1] （1. Nara Institute of Science and Technology）

[PO-158] snRNA-seq reveals the transcriptional landscape for host-regulated vascular connections in Arabidopsis and parasitic plant interaction.

*Mengqi Cui[1], Momoko Yamaji[1], Kaori M. Furuta[1], Natsumi Masumoto[1], Kie Kumaishi[2], Yasunori Ichihashi[2], Dongbo Shi[3], Ayako Kawamura[3], Keiko Sugimoto[3], Satoko Yoshida[1] （1. Nara Institute of Science and Technology, 2. Biological Resource Center, RIKEN, 3. Center for Sustainable Resource Science, RIKEN）

[PO-162] The missing link between Casparian strip integrity and rhizobacterial colonization

*Huei-Hsuan Tsai[1], Yuanjie Tang[2], Niko Geldner[1], Feng Zhou[2] （1. University of Lausanne, Switzerland, 2. Chinese Academy of Sciences, China）

[PO-164] A plant endophytic bacterium, *Burkholderia sp.* strain 869T2, promotes plant growth of *Arabidopsis*, lettuces, and several other vegetables

*Hau-Hsuan Hwang[1,2], Pei-Ru Chien[1], Fan-Chen Huang[1], Chih-Lin Wu[1], Liang-Yu Chen[1], Shih-Hsun Walter Hung[1], Chieh-Chen Huang[1,2] （1. Department of Life Sciences, National Chung Hsing University, Taichung, Taiwan 402, 2. Innovation and Development Center of Sustainable Agriculture, National Chung Hsing University, Taichung, Taiwan 402）

[PO-166] Dissecting bacterial root colonization strategies using complex synthetic communities on diverse hosts

*Gijs Selten[1], Florian Lamouche[2], Adrián Gomez Repolles[2], Dr. Simon Kelly[2], Prof. dr. ir. Simona Radutoiu[2], dr. Ronnie de Jonge[1] （1. Utrecht University, 2. Aarhus University）

[PO-168] Microbiome colonization leads to emergent plant phenotypes at elevated temperature.

*Hannah M. McMillan[1], Sheng Yang He[1,2] （1. Department of Biology, Duke University, Durham, NC 27708, USA, 2. Howard Hughes Medical Institute）

[PO-170] Root ER bodies and tryptophan derived secondary metabolites modulate root microbiota assembly

*Arpan Kumar Basak[1,2,3], Anna Piasecka[4], Jana Hucklenbroich[3], Gözde Merve Türksoy[3], Rui Guan[3], Pengfan Zhang[3], Felix Getzke[3], Ruben Garrido-Oter[3,5], Stephane Hacquard[3,5], Kazimierz Strzałka[2,6], Paweł Bednarek[4], Kenji Yamada[2], Ryohei Thomas Nakano[3] （1. Institute of Environmental Sciences, Faculty of Biology, Jagiellonian University, Krakow, Poland, 2. Malopolska Centre of Biotechnology, Jagiellonian University, Krakow, Poland, 3. Department of Plant Microbe Interactions, Max Planck Institute for Plant Breeding Research, Cologne, Germany, 4. Institute of Bioorganic Chemistry, Polish Academy of Sciences, Poznan, Poland, 5. Cluster of Excellence on Plant Sciences (CEPLAS), Max Planck Institute for Plant Breeding Research, Cologne, Germany, 6. Faculty of Biochemistry, Biophysics and Biotechnology, Department of Plant Physiology and Biochemistry, Jagiellonian University, Krakow, Poland）

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[P] 06 Epigenetics

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 6(Meeting Room 10)

[PO-171] Site-specific epigenetic regulation-mediated plant defense resposne

*Yuan Wang Wang[1] (1. Institute of Genetics and Developmental Biology, Chinese Academy of Sciences)

[PO-173] Hi-C Analyses Reveal Altered Chromatin Conformation Under Elevated CO_2

*Scott Lewis[1,2], Alex Harkess[3], Kaushik Panda[1], Keith Slotkin[1,4], Blake Meyers[1,4] (1. Donald Danforth Plant Science Center, MO, USA, 2. Washington University in St. Louis, MO, USA, 3. HudsonAlpha Institute for Biotechnology, AL, USA, 4. University of Missouri - Columbia, MO, USA)

[PO-175] Compensation of H2A.Z and Polycomb Repressive Complex 2 in Determining Plant Cell Fate under Low Ambient Temperature

*Kehui Zhu[1,2], Long Zhao[1,2], Fangfang Lu[1,2], Doris Wagner[3], Yue Zhou[4], Jun Xiao[1,2,5] (1. Key Laboratory of Plant Cell and Chromosome Engineering, Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, Beijing, 2. University of Chinese Academy of Sciences, Beijing, 3. Department of Biology, University of Pennsylvania, Philadelphia, 4. State Key Laboratory of Protein and Plant Gene Research, School of Advanced Agricultural Sciences, Peking-Tsinghua Center for Life Sciences, Peking University, Beijing, 5. CAS-JIC Centre of Excellence for Plant and Microbial Science (CEPAMS), Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, Beijing)

[PO-177] Co-transcriptional regulation of *VIN3* expression by a RNA binding protein during vernalization

*Yusheng Zhao[1], Fengying Chen[1] (1. CAS, institute of genetics and developmental biology)

[PO-179] Down to earth: VAL1 and VAL2 affect root development in Arabidopsis

*José María Olvera Herrera[1], Atzhiry Deni Vigueras Enciso[1], Berenice García Ponce[1], Adriana Garay Arroyo[1], Elena Alvarez-Buylla[1], María De la Paz Sanchez[1] (1. Laboratorio de Genética Molecular, Epigenética, Desarrollo y Evolución de plantas. Instituto de Ecología, Universidad Nacional Autónoma de México, México)

[PO-181] Transposition and silencing mechanisms of *Tpn1* family transposable elements in the Japanese morning glory

*Yuki Mizunaru[1], Kenta Shirasawa[2], Atsushi Hoshino[3,4], Eiji Nitasaka[5] (1. Grad. Sch. of SLS., Kyushu Univ., 2. Kazusa DNA Res. Inst., 3. NIBB, 4. Dept. of Basic Biol., SOKENDAI, 5. Dept. of Biol., Fac. Sci., Kyushu Univ.)

[PO-183] Antagonistic regulation of endosperm development by maternally and paternally imprinted genes in *Arabidopsis thaliana*

*Yuko Wada[1], Sho Yamaguchi[1], Tamaki Shitabo[1], Aoi Hosaka[2], Kei Yamaguchi[1], Keishiro Yamada[1], Ryoko Ebihara[1], Asuka Higo[3], Kaoru Tonosaki[2], Hiroyuki Tsuji[3], Seiji Takayama[4], Tetsu Kinoshita[2], Toshiro Ito[1] (1. Nara Inst. of Sci. and Tech., Japan, 2. Yokohama City University, Japan, 3. Nagoya University, Japan, 4. Tokyo University, Japan)

[PO-185] Upstream regulator of genomic imprinting in rice is a small RNA-associated chromatin remodeler

*Avik Kumar Pal[1], Vivek Hari Sundar G[1], Amruta B Nambiar[1], Shivaprasad P V[1] （1. National Centre for Biological Sciences, Tata Institute of Fundamental Research, GKVK Campus, Bangalore 560 065, India）

[PO-187] Single-molecule Targeted Accessibility and Methylation Sequencing of Centromeres, Telomeres, and rDNAs in Arabidopsis

*Weipeng Mo[1], Yi Shu[1], Bo Liu[1], Yangping Long[1], Jixian Zhai[1] （1. Department of Biology, School of Life Sciences, Southern University of Science and Technology, Shenzhen 518055, China）

[PO-189] Regulatory mechanisms and roles of centromere arrangement in *Arabidopsis thaliana*

*Takuya Sakamoto[1,2], Yuki Sakamoto[3], Stefan Grob[4], Daniel Slane[5], Nanami Ito[5], Ueli Grossniklaus[4], Sachihiro Matsunaga[5] （1. Fac. Sci. Tech., Tokyo Univ. Sci., Japan, 2. Fac. Sci., Kanagawa Univ., Japan, 3. Grad. Sch. Sci., Osaka Univ., Japan, 4. Dep. Plant Microbial Biol., Zurich-Basel PSC, Univ. Zurich, Switzerland, 5. Grad. Sch. Front. Sci., Univ. Tokyo, Japan）

[PO-191] Gene-transposon transcripts can be epigenetically regulated and impact gene response to stress conditions in *Arabidopsis thaliana*

*Jeremy Berthelier[1], Leonardo Furci[1], Shuta Asai[2], Munissa Sadykova[1], Tomoe Shimazaki[1], Ken Shirasu[2], Hidetoshi Saze[1] （1. Plant Epigenetics Unit, Okinawa Institute of Science and Technology (OIST), Okinawa, Japan, 2. Center for Sustainable Resource Science, RIKEN, Yokohama, Japan）

[PO-193] Translation-coupled Epigenetic Regulation of Transposable Elements in Plants

*Zhen Lei[1,2], Ling Wang[1,2], Hui Li[1,2], Jungnam Cho[1,2,3] （1. CAS Center for Excellence in Molecular Plant Sciences, 2. University of Chinese Academy of Sciences, 3. CAS-JIC Centre of Excellence for Plant and Microbial Science）

[PO-195] RNA-directed DNA Methylation promotes genome integrity in *Arabidopsis* epiRILs

*ATSUSHI SHIMADA[1], HIDETOSHI SAZE[1] （1. Okinawa Institute of Science and Technology, Japan）

[PO-197] Comprehensive characterization of transposable element-encoded genes and their function in *Arabidopsis thaliana*

*Carles Borredá[1,2], Basile Leduque[1,2], Erwann Cailleux[2,3], Vincent Colot[2,3], Leandro Quadrana[1,2] （1. Institute of Plant Sciences Paris-Saclay (IPS2), Université Paris-Saclay, INRAE, Université Evry, Université Paris Diderot, 2. Centre National de la Recherche Scientifique (CNRS), 3. Institut de Biologie de l'Ecole Normale Supérieure (IBENS), Institut National de la Santé et de la Recherche Médicale (INSERM), Ecole Normale Supérieure, PSL Research University）

[PO-199] Induction of T-DNA amplification by retrotransposon-derived sequences

*Wenxin Yuan[1], Lauren Dickinson[1], Chantal LeBlanc[1], Geoffrey Thomson[1], Siyuan Wang[2,3], Yannick Jacob[1] （1. Yale University, Department of Molecular, Cellular and Developmental Biology, New Haven, Connecticut, USA, 2. Yale University, Department of Genetics, Yale School of Medicine; New Haven, Connecticut, USA, 3. Yale University, Department of Cell

Biology, Yale School of Medicine; New Haven, Connecticut, USA）

[PO-201] Re-analysis of publicly available methylomes using signal detection yields new information

*Alenka Hafner[1], Sally Mackenzie[1] （1. Pennsylvania State University）

[PO-203] The Influence of loss of *DECREASE IN DNA METHYLATION 1* function on heterosis in *Arabidopsis thaliana*

*Keita Nishimura[1], Yoshiki Kamiya[1], Kodai Matsuo[1], Motoki Shimizu[2], Elizabeth S. Dennis[3], Ryo Fujimoto[1] （1. Kobe University, Graduate School of Agricultural Science, Kobe, Japan, 2. Iwate Biotechnology Research Center, Department of Genomics and Breeding, Kitakami, Japan, 3. CSIRO, Agriculture and Food, Canberra, Australia）

[PO-205] Live-cell imaging of H3K4me3 in *Arabidopsis thaliana*

*Megumi Matsuoka[1], Takuya Sakamoto[2], Mio Shibuta[3], Yuko Sato[4], Hiroshi Kimura[4], Sachihiro Matsunaga[1] （1. Department of Integrative Biosciences, The University of Tokyo, Japan, 2. Department of Applied Biological Science, Tokyo University of Science, Japan, 3. Faculty of Science, Yamagata University, Japan, 4. Department of Life Science and Technology, Tokyo Institute of Technology, Japan）

[PO-207] Real-time visualization of somatic retrotransposition reveals principles of genomic permissivity to transposon integration

*Jie Chu[1,2], Rui Xiao Zhang[1,2], Jungnam Cho[1,2,3] （1. National Key Laboratory of Plant Molecular Genetics, CAS Center for Excellence in Molecular Plant Sciences, Chinese Academy of Sciences, Shanghai 200032, China., 2. University of Chinese Academy of Science, Beijing 100049, China., 3. CAS-JIC Centre for Excellence in Plant and Microbial Science, Shanghai 200032, China.）

[P] 06 Epigenetics

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 6(Meeting Room 10)

[PO-172] Elucidation of molecular mechanism underlying the antagonistic roles of class I and II RPD3-like histone deacetylases in response to environmental stresses

*Minoru Ueda[1,2], Akihiro Ito[3,4], Takehiro Suzuki[5], Satoshi Takahashi[1,2], Maho Tanaka[1,2], Junko Ishida[1,2], Naoshi Dohmae[5], Minoru Yoshida[3,6], Motoaki Seki[1,2,7] （1. Plant Genomic Network Research Team, RIKEN CSRS, Japan, 2. Plant Epigenome Regulation Lab., RIKEN CPR, Japan, 3. Chemical Genomics Research Group, RIKEN CSRS, Japan, 4. Dept. Mol. Biol., Tokyo Univ. Pharmacy &Life Sci., Japan, 5. Biomolecular Characterization Unit, RIKEN CSRS, Japan, 6. Grad. Sch. Agr. &Life Sci., Univ. Tokyo, Japan, 7. Kihara Inst., Yokohama City Univ., Japan）

[PO-174] Regulatory mechanism of heat-active retrotransposons by SET Domain Proteins SUVH2

*Niu Xiaoying[1], Ge Zhiyu[1], Ito Hidetaka[1] （1. Hokkaido university, Japan）

[PO-176] Epigenetic regulation by a long-term environment-responsive promoter of *Arabidopsis halleri*

*Hanako Shimizu[1], Haruki Nishio[1,2], Hiroshi Kudoh[1] （1. Kyoto University, Japan, 2. Shiga University, Japan）

[PO-178] A coiled-coil protein associates Polycomb Repressive Complex 2 with KNOX/BELL transcription factors to maintain silencing of cell differentiation-promoting genes in the shoot apex

*Wentao Wang[1], Feng-Quan Tan[1], Junjie Li[1], Yue Lu [2], Bo Zhu[1], Fangfang Hu[1], Qi Li[1], Yu Zhao [1], Dao-Xiu Zhou[3] （1. Huazhong Agricultural University , 2. Yangzhou University, 3. University Paris-Saclay）

[PO-180] Chromatin remodeling in the regulation of somatic genome integrity and meiotic inheritance in Arabidopsis

*Wen Hui Shen[1], Mathieu Bruggeman[1], Sebastien Staerck[1], Amit Kumar Singh[1], Salimata Ousmane Sall[1], Jean Molinier[1] （1. IBMP-CNRS, 12 rue du Général Zimmer, 67084 Strasbourg, France）

[PO-182] Effect of transposon mobilization on genomic imprinting in Arabidopsis

*Gerardo del Toro de León[1], Juan Santos-González[1], Claudia Köhler[1] （1. Max Planck Institute of Molecular Plant Physiology）

[PO-184] Dissecting parent-of-origin allele specific expression in *Arabidopsis* hybrids using fluorescence-activated nuclear sorting

*Ida Velle Myking[1], Karina Stensland Hornslien[1], Renate Marie Alling[1], Kristin Kimo Gannestad[1], Anne Krag Brysting[1], Paul Eivind Grini[1] （1. University of Oslo, Norway）

[PO-186] *Sbf* I-based DNA double-strand breaks induce histones H4K16ac and H2A.Z deposition at multiple cleavage sites in *Arabidopsis thaliana*

*Kohei Kawaguchi[1], Mei Kazama[1], Takayuki Hata[2], Mitsuhiro Matsuo[3], Junichi Obokata[3], Soichirou Satoh[1] （1. Kyoto Prefectural University, Kyoto, Japan, 2. Hirosaki University, Aomori, Japan, 3. Setsunan University, Osaka, Japan）

[PO-188] Cotranscriptional demethylation induces global loss of H3K4me2 from active genes in *Arabidopsis*

*Shusei Mori[1], Satoyo Oya[1], Mayumi Takahashi[2], Kazuya Takashima[2], Soichi Inagaki[1], Tetsuji Kakutani[1] （1. The University of Tokyo, Japan, 2. National Institute of Genetics, Japan）

[PO-190] Transition of histone H2A.Z distribution on the genic region in the evolution of *Arabidopsis*

*Soichirou Satoh[1], Kazuki Mukae[1], Shoma Morita[1], Haruno Narukawa[1], Kohei Kawaguchi[1], Takayuki Hata[2], Junichi Obokata[3] （1. Kyoto Prefectural University, Kyoto, Japan, 2. Hirosaki University, Aomori, Japan, 3. Setsunan University, Osaka, Japan）

[PO-192] Investigating small RNA-mediated silencing mechanisms in duckweeds

*Veronica Barragan-Borrero[1], Rana Elias[1], Rodolphe Dombey[1,2], Christian Parteli[1], Arturo Mari-Ordoñez[1] （1. Gregor Mendel Institute of Molecular Plant Biology, Vienna, Austria, 2. Vienna BioCenter PhD Program, Doctoral School of the University of Vienna and Medical University of Vienna, Austria）

[PO-194] RNA deadenylation pathway suppresses transposable elements in *Arabidopsis*

*Ling Wang[1,2], Hui Li[1,2], Mengxiao Yan[3], Jun Yang[1,3], Jungnam Cho[1,2,4] （1. CAS Center for Excellence in Molecular Plant Sciences / Institute of Plant Physiology and Ecology, 2. University of Chinese Academy of Science, 3. Shanghai Key Laboratory of Plant Functional Genomics and Resources, Shanghai Chenshan Botanical Garden, 4. CAS-JIC Centre for Excellence in Plant and Microbial Science）

[PO-196] Identification of underlying mechanisms involved in transposon activity and distribution in natural accessions of *Arabidopsis thaliana*

*Laura Diezma Navas[1], Mayela Soto[1], Arturo Marí-Ordóñez[1], Magnus Nordborg[1] （1. Gregor Mendel Institute (GMI), Vienna, Austria）

[PO-198] The roles of histone H2A variants for the establishment of transposon-specific silent modification in Arabidopsis

*Shoko Oda[1], Sayaka Tominaga[1], Shumpei Takeuchi[1], Taiko Kim To[1], Tetsuji Kakutani[1] （1. The University of Tokyo）

[PO-200] Molecular mechanisms on the maintenance of epigenetic silent marks regulated by histone variant H2A.W and chromatin remodeler DDM1

*Akihisa Osakabe[1,2], Yoshimasa Takizawa[3], Naoki Horikoshi[3], Suguru Hatazawa[3], Lumi Negishi[3], Frédéric Berger[4], Hitoshi Kurumizaka[3], Tetsuji Kakutani[1] （1. Department of Biological Sciences, The University of Tokyo, Japan, 2. JST PRESTO, Japan, 3. Institute for Quantitative Biosciences, The University of Tokyo, Japan, 4. Gregor Mendel Institute, Austrian Academy of Sciences, Vienna Biocenter, Austria）

[PO-202] High parent dominance of trimethylation of lysine 27 of histone H3 level in intraspecific hybrids of *Arabidopsis thaliana*

Saaya Shiraki[1], Kodai Matsuo[1], Satoshi Takahashi[2], Motoki Shimizu[3], Elizabeth S Dennis[4], Motoaki Seki[2], *Ryo Fujimoto[1] （1. Kobe University, Japan, 2. RIKEN, Japan, 3. IBRC, Japan, 4. CSIRO, Australia）

[PO-204] Contribution of epigenetic mutations to the adaptive evolution of plant by regulating specialized metabolism

*Kazumasa Shirai[1], Mitsuhiko P Sato[2], Ranko Nishi[3], Masahide Seki[4], Yutaka Suzuki[4], Kousuke Hanada[1] （1. Kyushu Institute of Technology, Japan, 2. Tohoku University, Japan, 3. RIKEN

Center for Sustainable Resource Science, Japan, 4. The University of Tokyo, Japan）

[PO-206] Enzyme-based fluorescence labeling of DNA methylation on a chromosome scale

*Min Jeong Kim[1,2], Woo Lee Choi[1], Jin Hoe Huh[1,2,3] （1. Department of Agriculture, Forestry and Bioresources, Seoul National University, Seoul 08826, Korea, 2. Plant Genomics and Breeding Institute, Seoul National University, Seoul 08826, Korea, 3. Research Institute for Agriculture and Life Sciences, Seoul National University, Seoul 08826, Korea）

[PO-208] A Novel strategy to enhance phenotypic variation in plants

*Hidayah Faisal Alotaibi[1], Ryan Merrit[1], Korawit Opassathian[1], Javier Antunez-Sanchez [1], Jose Gutierrez-Marcos[1] （1. Doctor）

[P] 07 RNA biology

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[PO-209] RNA triple helical structure facilitates retrotransposon mobilization in Arabidopsis

*Hui Li[1,2], Ling Wang[1,2], Zhen Lei[1,2], Jungnam Cho[1,2,3] (1. CAS Center for Excellence in Molecular Plant Sciences / Institute of Plant Physiology and Ecology, 2. University of Chinese Academy of Science, Beijing 100049, China., 3. CAS-JIC Centre for Excellence in Plant and Microbial Science, Shanghai 200032, China.)

[PO-211] siRNAs derived from nitrate reductases, *NIA1* and *NIA2*, play vital roles in growth and stress adaptation

*Yan Yan[1], Yinpeng Xie[1], Qian Gao[1], Yajie Pan[1], Xianli Tang[1], Wei Yan[1], Hongwei Guo[1] (1. Institute of Plant and Food Science, Department of Biology, Southern University of Science and Technology, Shenzhen, 518055, China)

[PO-213] ARGONAUTE1 nuclear/cytoplasmic shuttling controls small RNA regulation in *Arabidopsis thaliana*.

*Belén Moro[1], Violeta Sanchez Retuerta[1], Antoine Bouet[1], Andrea Martin Merchan[1], Nicolás Bologna[1] (1. Centre for Research in Agricultural Genomics (CRAG))

[PO-215] Plant miRNA-target 3'-end pairing affects miRNA-mediated translational repression

*Ho-Ming Chen[1] (1. Academia Sinica, Taiwan)

[PO-217] Reevaluation of Intracellular DCL1 Localization of Wild-type and Mutant Alleles in Relevance to Functional Ability and Phenotypes

*Yuichiro Watanabe[1] (1. Dept. of Life Sciences, Grad. School of Arts and Sciences, University of Tokyo)

[PO-219] Chromatin-associated microprocessor assembly is regulated by the U1 snRNP auxiliary protein PRP40

Agata Stepien[1], Jakub Dolata[1], Tomasz Gulanicz[1,3], Dawid Bielewicz[1], Mateusz Bajczyk[1], Dariusz J Smolinski[2,3], Zofia Szweykowska Kulinska[1], *Artur Jarmolowski[1] (1. Department of Gene Expression, Faculty of Biology, Institute of Molecular Biology and Biotechnology, Adam Mickiewicz University, Poznan 61-614, Poland., 2. Department of Cellular and Molecular Biology, Nicolaus Copernicus University, Torun 87-100, Poland., 3. Centre for Modern Interdisciplinary Technologies, Nicolaus Copernicus University, Torun 87-100, Poland.)

[PO-221] A U1 snRNP component regulates thermomorphogenesis through alternative RNA splicing in Arabidopsis

*Geeng-Loo Chong[1], Ping Chang[1], Hsin-Yu Hsieh[1], Shih-Long Tu[1] (1. Institute of Plant and Microbial Biology, Academia Sinica, Taiwan)

[PO-223] Minor-intron splicing is required for proper HSP-mediated plant response to heat shock

Katarzyna Kruszka[1], Dawid Bielewicz[1], Roman Malinowski[2], Misato Ohtani[3], Yuichiro Watanabe[4], Artur Jarmolowski[1], *Zofia Szweykowska Kulinska[1] (1. Department of Gene Expression, Institute of Molecular Biology and Biotechnology, Faculty of Biology, Adam Mickiewicz University, Poznan, Poland, 2. Integrative Plant Biology Team, Institute of Plant

Genetics PAS, Strzeszyńska 34, 60-479 Poznan, Poland, 3. Department of Integrated Biosciences, Graduate School of Frontier Sciences, The University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa, Japan, 4. Department of Life Sciences, University of Tokyo, Tokyo 153-8902, Japan）

[PO-225] Cleavage Factor I is essential for maintaining the diversity at the 3' ends of mRNA in plants

*Tomohiko TSUGE[1], Xiaojuan ZHANG[1], Łukasz SZEWC[2], Mika NOMOTO[3], Marta GARCIA-LEÓN[4], Mariko KATO[1], Kei YURA[5,6], Vicente RUBIO[4], Yasuomi TADA[3], Tsuyoshi FURUMOTO[7], Dorothee STAIGER[8], Takashi AOYAMA[1], Artur JARMOLOWSKI[2] （1. ICR, Kyoto University, Japan, 2. Adam Mickiewicz University, Poland, 3. Nagoya University, Japan, 4. CSIC, Spain, 5. Waseda University, Japan, 6. Ochanomizu University, Japan, 7. Ryukoku University, Japan, 8. Bielefeld University, Germany）

[PO-229] Interaction between polyadenylation and C-to-U editing of mitochondrial mRNA involved in *cytochorome c* maturation

*Akihito Mamiya[1,4], Kayoko Yamamoto[1], Takehito Kobayashi[2], Yusuke Yagi[2], Takahiro Nakamura[2], Takashi Hirayama[3], Hidehiro Fukaki[4], Munetaka Sugiyama[1] （1. Dept. Biol. Sci., Grad. Sch. Sci., Univ. Tokyo, 2. Dept. Biosci. &Biotech., Fac. Agr. Sci., Kyusyu Univ., 3. Inst. Plant Sci. &Res., Okayama Univ., Okayama, 4. Dept. Biol., Grad. Sch. Sci., Kobe Univ）

[PO-231] Role of pre-mRNA splicing in lateral root morphogenesis regulated by plastid signal

*Natsu Takayanagi[1], Toshihiro Arae[1], Takayuki Shimizu[1], Gorou Horiguchi[2], Mitsuhiro Aida[3], Hidehiro Fukaki[4], Tatsuru Masuda[1], Michitaka Notaguchi[5], Takashi Hirayama[6], Misato Ohtani[1,7,8] （1. The University of Tokyo, Japan, 2. Rikkyo University, Japan, 3. Kumamoto University, Japan, 4. Kobe University, Japan, 5. Nagoya University, Japan, 6. Okayama University, Japan, 7. Nara Institute of Science and Technology, Japan, 8. RIKEN, Japan）

[PO-233] Arabidopsis mRNA decay landscape shaped by XRN 5′-3′ exoribonucleases

*Wan-Yin Han[1,2], Bo-Han Hou[1], Wen-Chi Lee[1], Tze-Ching Chan[1], Tzu-Hsiang Lin[1], Ho-Ming Chen[1,2] （1. Agricultural Biotechnology Research Center, Academia Sinica, 2. Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, National Chung-Hsing University, Taichung 40227, Taiwan, and Academia Sinica, Taipei 11529, Taiwan）

[PO-235] Assessing global impact of alternative splicing using multi-omics strategy

*Andres Reyes[1,2], Ruben Shrestha[1], Tarabryn Grismer[1,2], Shouling Xu[1,2] （1. Department of Plant Biology, Carnegie Institution for Science, Stanford, CA, USA., 2. Carnegie Mass Spectrometry Facility, Carnegie Institution for Science, Stanford, CA, USA.）

[PO-237] Structural feature and function of pre-tRNA splicing enzymes from *Arabidopsis thaliana* and rice

Naoki Okamoto[1], Moniruzzaman Mohammad[1], *Kazuhito Akama[1,2] （1. Graduate School of Natural Science and Technology, Shimane University, Japan, 2. Department of Life Science, Shimane University, Japan）

[PO-239] Dose-dependent long-distance movement of microRNA399 duplex regulates phosphate homeostasis in Arabidopsis

*Chih-Pin Chiang[1], Jia-Ling Li[1], Tzyy-Jen Chiou[1] （1. Agricultural Biotechnology Research

Center, Academia Sinica, Taiwan）

[PO-241] The emergent complexity of systemic mRNA transport by m^5C-methylation

*Ying Xu[1], Saurabh Gupta[1], Lei Yang[1], Federico Apelt[1], Eleni Mavrothalassiti[1], Eleftheria Saplaoura[1], Steffen Ostendorp[2], Julia Kehr[2], Richard Morris[3], Friedrich Kragler[1] （1. Max Planck Institute of Molecular Plant Physiology, 2. Universität Hamburg, Institute for Plant Science and Microbiology, 3. Computational and Systems Biology, John Innes Centre）

[PO-245] Simultaneous detection of miRNA and mRNA at the single-cell level in plant tissues

*Wen-Hsiung Li[1], Chi-Chih Wu[1], Kun-Ting Hsieh[1] （1. Academia Sinica）

[PO-247] A defect in an RNA metabolic enzyme suppresses the adverse effect of the accumulation of polyadenylated mitochondrial mRNA in Arabidopsis.

*Takashi Hirayama[1,2], June-Sik Kim[1,3], Aleksandr Sorokin[2], Keiichi Mochida[3,4,5] （1. Okayama Univ. IPSR, 2. Okayama Univ. Graduate School of Environment &Life Science, 3. RIKEN CSRS, 4. Yokohama City Univ. KIBR, 5. Nagasaki Univ. School of Information &Data Sciences）

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[P] 07 RNA biology

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[PO-210] Proof of concept: circular antisense RNAs (caRNAs) as a new mode of action for RNA-based plant protection

*Timo Schlemmer[1,2], Aline Koch[1], Albrecht Bindereif[2] （1. University of Regensburg, Regensburg, 2. Justus-Liebig-University, Gießen）

[PO-212] The negative effect of flavonoids against dsRNA-cleaving activities of Dicer-like proteins

*Midori Tabara[1], Toshiyuki Fukuhara[2], Atsushi Takeda[1] （1. Ritsumeikan University, 2. Tokyo University of Agriculture and Technology）

[PO-214] Functions of Arabidopsis FHA2 in miRNA biogenesis

*Joong-Tak Yoon[1], Seung Jun Park[1], Hyun-Sook Pai[1] （1. Yonsei University, Republic of Korea）

[PO-216] Forward genetics identifies a DEAD box RNA helicase and a DnaJ-domain chaperone as new miRNA biogenesis factors

*Florian Brioudes[1], Florence Jay[1], Angel Vergara Cruces[1], Axel Giudicatti[2], Pablo Manavella[2], Olivier Voinnet[1] （1. Swiss Federal Institute of Technology (ETH), Zürich, Switzerland, 2. Instituto de Agrobiotecnología del Litoral (IAL), Centro Científico Tecnológico Santa Fe (CCT), Santa Fe, Argentina）

[PO-218] An Evolutionarily Conserved Secondary Structure motif regulates the miRNA cleavage

*Yueying Zhang[1], Yiliang Ding[1] （1. John Innes Centre,UK）

[PO-220] A mutation in the Arabidopsis tri-snRNP associated protein suppresses the *sta1-1* defects by restoring protein-protein interaction

*Heejin Kim[1], Kyoung-jae Yu[1], Dong Hye Seo[2], Woo Taek Kim[2], Byeong-ha Lee[1] （1. Sogang university, Korea, 2. Yonsei university, Korea）

[PO-222] Dynamic RNA methylation modulates growth in response to light and temperature in *Arabidopsis*

*Ullas Pedmale[1] （1. Cold Spring Harbor Laboratory）

[PO-224] Serine/Arginine-rich 45-mediated Transcriptional and Splicing Regulation in Plant Immunity in *Arabidopsis thaliana*

Audrey Bui[1], Arden Bui[1], Hunter S Beard[2], Wesley M Garrett[2], Bret Cooper[2], Min Gao[3], Serena Fan[1], Iesh Gujral[1], Anthony Long[1], Hua Lu[3], *Xiao-Ning Zhang[1] （1. St. Bonaventure University, USA, 2. USDA-ARS, USA, 3. University of Maryland Baltimore County, USA）

[PO-226] Minor-intron splicing is important for nutrient-dependent growth regulation in plants

*Kodai Ishibashi[1], Toshihiro Arae[1], Takeshi Yoshizumi[2], Yukio Kurihara[2,3], Takashi Kuromori[2], Zofia Szweykowska Kulińska[4], Artur Jarmołowski[4], Katarzyna Kruszka[4], Minami Matsui[2], Misato Ohtani[1,2,5] （1. Grad. Sch. Front. Sci., Univ. Tokyo, 2. RIKEN, CSRS, 3. Grad. Sch. Art Sci., Univ. Tokyo, 4. IBMiB, Adam Mickiewicz Univ., 5. Div. Biol. Sci. NAIST）

[PO-228] Dissecting the molecular mode of action of Restorer-of-Fertility-like proteins in plant mitochondria

*Sang Dang Huynh[1], Joanna Melonek[1], Catherine Colas des Francs-Small[1], Harvey Millar[1], Ian

Small[1] （1. ARC Centre of Excellence in Plant Energy Biology - School of Molecular Sciences, The University of Western Australia）

[PO-230] Suppression of the dwarf phenotype of *acl5*, a mutant defective in thermospermine biosynthesis by a single-base change in a uORF of *SAC51*

*Yuichi Nishii[1], Daiki Koyama[1], Hiroko Fukushima[1], Taku Takahashi[1] （1. Okayama University, Japan）

[PO-232] A GWAS-driven CROSS-SPECIES APPROCH TOWARDS A SPLICING CODE

Craig I Dent[1], Stefan Prodic[1], Aiswarya Balakrishnan[1], James Georges[1], Sourav Mukherjee[1], Jordyn Coutts[1], Ya-Long Guo[2], Alex Fournier-Level[3], Richard Burke[1], Sridevi Sureshkumar[1], David Powell[4], *Sureshkumar Balasubramanian[1] （1. School of Biological Sciences, Monash University, VIC 3800, AUSTRALIA, 2. Institute of Botany, Chinese Academy of Sciences, Beijing, CHINA, 3. School of Biosciences, University of Melbourne, VIC3010, AUSTRALIA, 4. Monash Bioinformatics Platform, Monash University, VIC3800, AUSTRALIA）

[PO-234] Arabidopsis DXO1, a decapping enzyme for NAD-capped RNAs, activates RNMT1 to methylate the mRNA guanosine cap

*Chen Xiao[1], Hailei Zhang[1], Kaien Li[1], Jingmin Hua[1], Feng Zhang[1], Qiongfang Li[1], Shumin Liang[1], Wuzhen Liu[1], Huan Zhong[1], Zongwei Cai[1], Yiji Xia[1] （1. HongKong Baptist University, HongKong）

[PO-236] NMD and translation of intergenic splicing-mediated polycistronic transcripts

*Yukio Kurihara[1,3], Yuko Makita[2,3], Masaharu Kawauchi[3], Tomoko Kuriyama[3], Minami Matsui[3] （1. The University of Tokyo, Japan, 2. Maebashi Institute of Technology, Japan, 3. RIKEN CSRS, Japan）

[PO-238] Single-cell transcriptome map and distribution of mobile mRNAs in heterografted *Arabidopsis thaliana* in response to nutritional changes

*Yagmur Hasbioglu[1], Federico Apelt[1], Eleni Mavrothalassiti[1], Saurabh Gupta[1], Melissa Tomkins[2], Richard Morris[2], Friedrich Kragler[1] （1. Max Planck Institute of Molecular Plant Physiology, Potsdam-Golm, Germany, 2. John Innes Centre, Norwich, UK）

[PO-240] The role of Arabidopsis Cold Shock Proteins in the regulation of RNA mobility

*Diego Pinheiro Brito[1], Steffen Ostendorp[2], Julia Kehr[2], Friedrich Kragler[1] （1. Max Planck Institute of Molecular Plant Physiology, Germany, 2. University of Hamburg, Germany）

[PO-242] Insights into tRNA-like structures (TLS) as motifs facilitating long-distance transport of mRNAs

*Eleftheria Saplaoura[1], Lei Yang[1], Frank Machin[1], Shuangfeng Wang[1], Friedrich Kragler[1] （1. Max Planck Institute for Molecular Plant Physiology）

[PO-244] Expanding the horizons of plant RNA research using single molecule FISH

*Susan Duncan[1], Yiliang Ding[1] （1. John Innes Centre）

[PO-246] Transcripts with long or structured translated upstream open reading frames (uORFs) can escape nonsense-mediated mRNA decay (NMD) in plants

Miriam Ayala Cymerman[1], Helen Saul[1], Ronit Farhi[1], Karina Vexler[1], Dror Gottlieb[1], Irina

Berezin[1], *Orit Shaul[1] （1. Bar-Ilan University, Israel）

[PO-248] Cell-type specific mRNA delivery in heterografted Arabidopsis revealed by single-cell transcriptomics

*Federico Apelt[1], Saurabh Gupta[1], Eleni Mavrothalassiti[1], Yagmur Hasbioglu[1], Eleftheria Saplaoura[1], Richard Morris[2], Friedrich Kragler[1] （1. Max Planck Institute of Molecular Plant Physiology, Germany, 2. John Innes Centre, UK）

[P] 08 Translation

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[PO-249] The phosphorylation of carboxyl-terminal eIF2α by SPA kinases contributes to enhanced translation efficiency during photomorphogenesis

*Hui-Hsien Chang[1], Lin-Chen Huang[1], Mei-Chun Cheng[1] （1. National Taiwan University, Taiwan）

[PO-251] Dynamic phosphorylation of ribosomal protein S6A ensures the successful development of young *Arabidopsis* seedlings

*Yueh Cho[1], Guan-Hong Chen[1], Shu-Hsing Wu[1] （1. Institute of Plant and Microbial Biology, Academia Sinica, Taiwan）

[PO-253] Functional characterization of the deubiquitinase OTU2 role in *Arabidopsis thaliana* stress granules biology.

*Violeta Londono Velez[1], Itzell E. Hernandez Sanchez[1], Monika Chodasiewicz[1] （1. Center for Desert Agriculture, Biological and Environmental Science and Engineering Division, King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia）

[PO-255] Linking cold induced variation in RPL7 paralog abundances to the emergence of specialized ribosomes

*Dione Gentry Torfer[1,2], Federico Martinez-Seidel[1,2], Joachim Kopka[1] （1. Max Planck Institute of Molecular Plant Physiology, Potsdam-Golm, Germany, 2. School of Biosciences, The University of Melbourne, Parkville, VIC, Australia）

[PO-257] Genome-wide identification of Arabidopsis non-AUG-initiated upstream ORFs with evolutionarily conserved regulatory sequences that control protein expression levels

*Yuta Hiragori[1], Hiro Takahashi[2,3], Taihei Karino[1], Atsushi Kaido[1], Noriya Hayashi[1], Shun Sasaki[1], Kodai Nakao[1], Yui Yamashita[1,4], Satoshi Naito[4,5], Hitoshi Onouchi[1,4] （1. Graduate School of Agriculture, Hokkaido University, 2. Graduate School of Medical Sciences, Kanazawa University, 3. Graduate School of Horticulture, Chiba University, 4. Research Faculty of Agriculture, Hokkaido University, 5. Graduate School of Life Science, Hokkaido University）

[P] 08 Translation

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[PO-250] Functional study of PHYTOCHROME INTERACTING FACTOR in the translational regulation during photomorphogenesis

*Wei Lin[1], Mei-Chun Cheng[1] （1. Department of Biochemical Science &Technology, National Taiwan University）

[PO-252] Role of G3BP1 in Plant Stress Granules

*Fatimah Abdulhakim[1], Aala Abulfaraj[2,1], Itzell Herandez Sanchez[1], Israel Lopez[1], Monika Chodasiewicz[1], Naganand Rayapuram[1], Heribert Hirt[1] （1. Biological and Environmental Sciences and Engineering, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia, 2. King Abdulaziz University, Jeddah, Saudi Arabia）

[PO-254] Deciphering the role of specialized ribosomes in plants´ translation efficiency

*Jose Antonio Duarte-Conde[1], Gemma Sans-Coll[1], Catharina Merchante [1] （1. Instituto de Hortofruticultura Subtropical y Mediterránea, Universidad de Málaga-Consejo Superior de Investigaciones Científicas (IHSM-UMA-CSIC)）

[PO-256] Characterization of AtSQTL1, the Dedicated Chaperone of AtRPL10 in *Arabidopsis*

*Zhi Xing Lau[1], Wan-Hsing Cheng[1] （1. IPMB, Academia Sinica）

[PO-258] Modeling plant alternative translation initiation sites reveals evolutionarily conserved *cis*-regulatory codes in eukaryotes

*Ya-Ru Li[1], Ting-Ying Wu[2], Kai-Jyun Chang[1], Daisuke Urano[4,5], Ming-Jung Liu[1,3] （1. Biotechnology Center in Southern Taiwan, Academia Sinica, Taiwan, 2. Institute of Plant and Microbial Biology, Academia Sinica, Taiwan , 3. Agricultural Biotechnology Research Center, Academia Sinica, Taiwan, 4. Temasek Life Sciences Laboratory, SinGapore, 5. National University of SinGapore, SinGapore）

Poster1 | Poster | 09 Nutrition

[P] 09 Nutrition

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[PO-259] NLP7 is a central integrator of transcription networks in nitrogen signaling and drought stress

Nathan Johnson[3], Tomás C Moyano[1], Viviana Araus[2], Jonathan Canan[3], Ji Huang[4], Carly Shanks[4], Samantha Frangos[4], Ariel Herrera[1], Francisca Blanco-Herrera[1,2], Gloria M Coruzzi[4], Elena A Vidal[3,2], *Jose M Alvarez[1,2] (1. Centro de Biotecnologia Vegetal, Facultad de Ciencias de la Vida, Universidad Andres Bello, Santiago 8370186, Chile, 2. ANID–Millennium Science Initiative–Millennium Institute for Integrative Biology (iBIO), Santiago 7500565, Chile, 3. Centro de Genómica y Bioinformática, Facultad de Ciencias, Universidad Mayor, 8580745 Santiago, Chile., 4. Center for Genomics and Systems Biology, New York University, New York, NY 10003)

[PO-261] Coregulation of *glutamine synthetase1;2* (*GLN1;2*) and *NADH-dependent glutamate synthase* (*GLT1*) gene expression in Arabidopsis roots in response to ammonium supply

*Soichi Kojima[1,2], Hideki Takahashi[2,3], Keiki Ishiyama[1,2] (1. Tohoku University, 2. RIKEN, Japan, 3. Michigan State University, USA)

[PO-263] Histone chaperone NAP1 proteins are involved in plant growth under nitrogen deficient conditions in *Arabidopsis thaliana*

*Jie Linnan[1], Miho Sanagi[1], Yongming Luo[1], Haruna Maeda[1], Yoichiro Fukao[2], Yukako Chiba[1], Shuichi Yanagisawa[3], Junji Yamaguchi[1], Junpei Takagi[1], Takeo Sato[1] (1. Hokkaido University, 2. Ritsumeikan University, 3. The University of Tokyo)

[PO-265] Regulation of high-affinity nitrate uptake activity by NRT2.1 phosphorylation

*Yuri Ohkubo[1], Saki Noda[1], Yoshikatsu Matsubayashi[1] (1. Nagoya University, Japan)

[PO-267] Glucosinolate catabolism maintains glucosinolate profiles and transport in sulfur-starved *Arabidopsis*

*Liu Zhang[1], Ryota Kawaguchi[1], Tomomi Morikawa-Ichinose[1], Alaa Allahham[2], Takuo Enomoto[3], Sho Nishida[3], Meike Burow[4], Akiko Maruyama-Nakashita[1] (1. Kyushu University, Japan, 2. University of Freiburg, Germany, 3. Saga University, Japan, 4. University of Copenhagen, Denmark)

[PO-269] Plant iron nutrition: towards a new paradigm?

Kevin Robe[1], Geneviève Conejero[1], Fei Gao[1], Marie barberon[2], Pierre Fourcroy[1], Shunsuke Watanabe[1], Esther Izquierdo[1], *Christian DUBOS[1] (1. IPSiM, Univ Montpellier, CNRS, INRAE, Institut Agro, Montpellier, France, 2. UNIGE, university of Geneva, Geneva, Switzerland)

[PO-271] The Effect of Chromatin Remodeling on Iron Homeostasis

*Justin Su[1], Emily Y Park[1], Isabella G Han[1], Elizabeth M Parsons[1], Kaitlyn M Tsuyuki[1], Jeeyon Jeong[1] (1. Department of Biology, Amherst College, USA)

[PO-273] Identification of *Sorghum bicolor* iron transporter gene using Arabidopsis gene knockout line.

*Ryoichi Araki[1,2], Nanaka Tsuji[1], Matsugi Kashiwagi[1], Hiroyuki Ii[3] (1. Faculty of Education, Wakayama University, Japan, 2. Center for Food &Agriculture Research and Education, Wakayama University, Japan, 3. Faculty of Systems Engineering, Wakayama University,

Japan）

[PO-275] A FIT/WRKY complex modulates the biosynthesis of coumarins in response to environmental pH

*Jorge Enrique Salazar Henao[1], Dharmesh Jain[2,3,1], Wolfgang Schmidt[2,1,4,5] （1. Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, 2. Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, Academia Sinica and National Chung-Hsing University, Taipei 11529, Taiwan, 3. Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung 40227, Taiwan, 4. Biotechnology Center, National Chung-Hsing University, Taichung 40227, Taiwan, 5. Genome and Systems Biology Degree Program, College of Life Science, National Taiwan University, Taipei 10617, Taiwan）

[PO-277] Understanding the molecular mechanisms mediating the crosstalk between iron and sulfur networks in Arabidopsis.

*David Mendoza[1], Ron Mittler[1] （1. University of Missouri）

[PO-279] Inhibition of TOR, a positive growth regulator, rescues root growth suppression under limited boron condition in *Arabidopsis thaliana*

*Ramita Jamornjureekul[1], Naoki Iwasa[1], Kyoko Miwa[1] （1. Hokkaido University, Japan）

[PO-281] Functional Analysis of Arabidopsis Magnesium Ion Transporter AtMRS2-1

*Xiaoyu Yang[1], Natsuko I. Kobayashi[1], Yoshiki Hayashi[2], Koichi Ito[2], Motoyuki Hattori[3], Yoshitaka Moriwaki[1], Keitaro Tanoi[1] （1. Graduate School of Agricultural and Life Sciences, The University of Tokyo, 2. Graduate School of Frontier Sciences, The University of Tokyo, 3. School of Life Sciences, Fudan University）

[PO-283] Starvation-induced transcriptional control: metabolic signals, transmission via the central metabolic kinase SnRK1 and downstream gene regulation

*Jan Draken[1], Regina Feil[2], John Lunn[2], Christoph Weiste[1], Wolfgang Dröge-Laser[1] （1. Julius-Maximilians-University Würzburg Department of Pharmaceutical Biology, Germany, 2. Max Planck Institute of Molecular Plant Physiology Potsdam-Golm, Germany）

[PO-285] Functional analysis of IDD4, a transcription factor which regulates root growth through sugar signaling in early developmental stages

*Ryoichi Shiroma[1], Akiko Kozaki[1] （1. Shizuoka University, Japan）

[PO-287] bZIP1, 53 and 63 Transcription Factors are required in Starch Metabolism and Energy Homeostasis to maintain Vigorous Growth

*Raphael de Araújo Campos[1], Américo José Carvalho Viana[1], João Guilherme Portugal Vieira[1], Pamela Tavares Carlson[1], Thyelen Engel de Jesus[1], Michel Vincentz[1] （1. University of Campinas）

[PO-289] Extrachromosomal circular DNA in response to phosphate starvation in Arabidopsis

*Monica Rojas-Triana[1], Juan Antonio Garcia-Martin[3], Miguel Miñambres[4], Juan Carlos Oliveros[3], Javier Paz-Ares[2] （1. Section of Ecology and Evolution, Department of Biology, University of Copenhagen, 2. Department of Plant Molecular Genetics, National Centre for Biotechnology (CNB-CSIC), 3. Bioinformatics for Genomics and Proteomics, National Centre for Biotechnology (CNB-CSIC), 4. Singleron Biotechnologies）

[P] 09 Nutrition

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[PO-260] Nitrogen-responsive SnRK1-FBH4 module affects flowering time and metabolism in Arabidopsis

*Miho Sanagi[1], Akio Kubo[1], Van Quoc Giang[1], Filip Rolland[2], Junpei Takagi[1], Takeo Sato[1] (1. Hokkaido University, Japan, 2. KU Leuven, Belgium)

[PO-262] Nitrate fluctuation impacts cytokinin biosynthesis through modification of *IPT3* chromatin profiles in Arabidopsis roots.

*Fanny Bellegarde[1], Olivia Tjahjono [1], Miki Shibutani[1], Hitoshi Sakakibara[1] (1. Nagoya University, Nagoya, Japan)

[PO-264] Elevated CO_2 impairs *Arabidopsis* N nutrition through the inhibition of the root high-affinity nitrate uptake system

*Alain Gojon[1], Océane Cassan[1], Léa-Lou Pimparé[1], Antoine Beckers[1], Lîen Bach[1], Sophie Lè bre[2,3], Antoine Martin[1] (1. IPSiM, Univ Montpellier, CNRS, INRAE, Institut Agro, Montpellier, France, 2. IMAG, Univ Montpellier, CNRS, Montpellioer, France, 3. Univ Paul Valery, Montpellier, France)

[PO-266] Role of potassium-dependent alternative splicing of *MYB59* in maintenance of potassium concentration in shoots of *Arabidopsis thaliana*

Takuo Eomoto[1], Nobuhiro Tanaka[2], Toru Fujiwara[3], *Sho Nishida[1,4] (1. Faculty of Agriculture, Saga University, Japan, 2. Institute of Crop Science, NARO, Japan, 3. Graduate School of Agricultural and Life Sciences, The University of Tokyo, Japan, 4. United Graduate School of Agricultural Sciences, Kagoshima University, Japan)

[PO-268] The Necessity of SLIM1 C-Terminal Region for Sulfur Deficiency Response

*Akiko Maruyama-Nakashita[1], Yuki Jodoi[1], Justyna Piotrowska[2], Nguyen Ha Trang[1], Anna Wawrzynska[2], Hideki Takahashi [3], Agnieszka Sirko[2] (1. Kyushu University, Japan, 2. Institute of Biochemistry and Biophysics Polish Academy of Sciences, Poland, 3. Michigan State University, USA)

[PO-270] FEP/IMA peptides are required for Fe regulation in vascular plants.

*Aleksandr Sorokin[1,8], Gui J Lei[2], Naoki Yamaji[2], Sheng Huang[2], Satoshi Okada[1], Keiichi Mochida[3,4,5,6,7], Jian F Ma[2], Takashi Hirayama[1,3] (1. Group of Environmental Stress Response Systems, Institute of Plant Science and Resources, Okayama University, Okayama, Japan, 2. Group of Plant Stress Physiology, Institute of Plant Science and Resources, Okayama University, Okayama, Japan, 3. Crop Design Research Team, Institute of Plant Science and Resources, Okayama University, Okayama, Japan, 4. RIKEN Center for Sustainable Resource Science, Yokohama, Kanagawa, Japan, 5. Kihara Institute for Biological Research, Yokohama City University, Yokohama, Kanagawa, Japan, 6. Microalgae Production Control Technology Laboratory, RIKEN Baton Zone Program, RIKEN Cluster for Science, Technology and Innovation Hub, Yokohama, Japan, 7. School of Information and Data Sciences, Nagasaki University, Nagasaki, Japan, 8. Graduate School of Environmental and Life Science, Okayama University, Okayama, Japan)

[PO-272] Investigating the Biological Role of Ferroportin 3

*Jeeyon Jeong[1], Sara Omer[1], Claire Macero[1], Kelly Zheng[1], Kaitlyn Tsuyuki[1], Dayishaa Daga[1], Leah Kim[1], Jenny Gallegos Iraheta[1] （1. Department of Biology, Amherst College, USA）

[PO-274] A novel Arabidopsis uptake transporter of coumarin plays a crucial role in root Fe uptake

*Shunsuke WATANABE[1], Yuri KANNO[2], Chérhazad BOUSTANI[1], Mitsunori SEO[2], Christian DUBOS[1] （1. IPSiM, Univ Montpellier, CNRS, INRAE, Institut Agro, France, 2. RIKEN, CSRS, Japan）

[PO-276] Coumarins delineate the cross-talk between manganese and iron uptake

*Yi-Hsiu Tsai[1,2], Wolfgang Schmidt[2] （1. Institute of Plant Biology, National Taiwan University, Taiwan, R.O.C, 2. Institute of Plant and Microbial Biology, Academia Sinica, Taiwan, R.O.C）

[PO-278] Global ribosome sequencing analysis of Arabidopsis mutant having mutation in a ribosomal protein uL13: boron-dependent growth change and expression of boron transporter genes

*Hirofumi Fukuda[1], Naoyuki Sotta[1], Mayuki Tanaka[1], Yukako Chiba[2,3], Kyoko Miwa[4], Yui Yamashita[5], Haruka Aoyama[3], Satoshi Naito[3,5], Toru Fujiwara[1] （1. Grad. Schl. Agr. Life Sci., Univ. Tokyo, Japan, 2. Grad. Schl. Sci., Hokkaido Univ., Japan, 3. Grad. Schl. Life Sci., Hokkaido Univ., Japan, 4. Grad. Schl. Envr. Sci., Hokkaido Univ., Japan, 5. Grad. Schl. Agr., Hokkaido Univ., Japan）

[PO-280] Phosphorylation/Dephosphorylation-mediated Regulation of the Polar Localization of a Borate Transporter BOR1 in *Arabidopsis thaliana*

*Keita Muro[1], Rintaro Yoshida[1], Yudai Shimizu[2], Keisuke Ohashi[3], Yuka Ogino[3], Koji Kasai[4], Chiaki Hori[3], Taichi Takasuka[3], Toru Fujiwara[4], Junpei Takano[1] （1. Osaka Metropolitan University, Japan, 2. Osaka Prefecture University, Japan, 3. Hokkaido University, Japan, 4. The University of Tokyo, Japan）

[PO-282] Defensin-like proteins induced by zinc deficiency are involved in Arabidopsis root elongation

Sachie Kimura[1], Aleksia Vaattovaara[2], Hidetaka Kaya[3], Mami Kobayashi[1], Izumi C Mori[4], Minoru Nagano [1], *Yoichiro Fukao[1] （1. Ritsumeikan University, 2. University of Helsinki, 3. Ehime University, 4. Okayama University）

[PO-284] The Arabidopsis ACR9 protein is a repressor of the glucose signaling pathways

*Hong-Sheng Liao[1], Ying-Jhu Chen[1], Wei-Yu Hsieh[1], Yi-Chiou Li[1], Ming-Hsiun Hsieh[1,2] （1. Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, 2. Department of Life Sciences, National Central University, Taoyuan 32001, Taiwan）

[PO-286] Nutrient sensing in plants by O-GlcNAcylation and O-Fucosylation

*Shouling Xu[1], Yang Bi[1], Ruben Shrestha[1], Zhenzhen Zhang[1], Zhiyong Wang[1] （1. Carnegie Institution at Stanford）

[PO-288] Mechanisms for phosphorylation and granule formation of a Raf-like kinase, PHOTOSYNTHESIS-RELATED RAF, in the liverwort *Marchantia polymorpha*

Asuka Shintaku[1], Nodoka Handa[2], Eri Koide[1], Megumi Iwano[1], Takayuki Kohchi[1], *Ryuichi Nishihama[1,2] （1. Graduate School of Biostudies, Kyoto University, Japan, 2. Department of

Poster2 | Poster | 10 Photosynthesis/Energy

[P] 10 Photosynthesis/Energy

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[PO-291] The Role of NTRC, 2-Cys-Peroxiredoxins and thioredoxin f in photosynthesis in *Arabidopsis thaliana* when acclimated to different light conditions

*Louis Poeker[1], Peter Geigenberger[1] （1. Ludwig-Maximilians-Universität München (LMU)）

[PO-293] UV-B acclimation in *Arabidopsis thaliana* decreases the efficacy of the herbicide atrazine, which is mediated through the UVR8 signaling pathway

*Chris Groves[1], Kerry Franklin[1] （1. University of Bristol）

[PO-295] The molecular mechanisms underlying floral organ photosynthesis

*Roisin Fattorini[1], Jesse McCarthy [1], Diarmuid O'Maoileidigh[2,1] （1. University of Liverpool, 2. Maynooth University ）

[P] 10 Photosynthesis/Energy

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[PO-290] The Zinc-Finger Thylakoid-Membrane Protein FIP in involved in photosynthesis apparatus adaptation to changing light condition

*Maciej Jerzy Bernacki[1], Damian Witoń[1], Weronika Czarnocka[1], Anna Rusaczonek[2], Piotr Gawroński[1], Roshanak Zarrin Ghalami[1], Muhammad Kamran[1], Stanisław Karpiński[1] (1. Department of Plant Genetics, Breeding and Biotechnology, Institute of Biology, Warsaw University of Life Sciences, Nowoursynowska Street 159, 02-776 Warsaw, Poland, 2. Department of Botany, Institute of Biology, Warsaw University of Life Sciences, Nowoursynowska Street 159, 02-776 Warsaw, Poland)

[PO-292] Difference between leaf and single-plant photosynthesis of *Arabidopsis thaliana* under fluctuating light conditions

*Kazuma Sakoda[1], Sousuke Imamura[1], Kazuhiro Takaya[1] (1. NTT Space Environment and Energy Laboratories)

[PO-294] The function of thylakoid membrane fusion by FZL protein in sustaining optimized photosynthetic electron transfer

*Yu Ogawa[1], Megumi Iwano[2], Akihiro Kawamoto[3], Genji Kurisu[3], Toshiharu Shikanai[2], Wataru Sakamoto[1] (1. Okayama University, Japan, 2. Kyoto University, Japan, 3. Osaka University, Japan)

[PO-296] Chloroplast functions in photoautotrophically cultured green cells of *Arabidopsis*

Kotaro Ogasa[1], Gen Takenaka[1], Akiko Yoshihara[2], Koichi Kobayashi[2], *Satomi Takeda[2] (1. Graduate School of Science, Osaka Prefecture University, 2. Graduate School of Science, Osaka Metropolitan University)

Poster1 | Poster | 11 Metabolism/Metabolome

[P] 11 Metabolism/Metabolome

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[PO-297] BrMYBR1, an R2R3 MYB transcription factor, directly inhibits anthocyanin biosynthesis in Chinese cabbage

*DaHye Kim[1,2], JiYeon Kim[1,2], YooJin Lee[1,2], SunHyung Lim[1,2] （1. 1Division of Horticultural Biotechnology, School of Biotechnology, Hankyong National University, 2. Research Institute of International Technology and Information, Hankyong National University, ）

[PO-299] MHP1 and MHL generate odd-chain fatty acids from 2-hydroxy fatty acids in sphingolipids and are related to immunity in *Arabidopsis thaliana*

Marina Ushio[1], Toshiki Ishikawa[2], Takakazu Matsuura[3], Izumi C Mori[3], Maki Kawai-Yamada[2], Yoichiro Fukao[1], *Minoru Nagano[1] （1. Ritsumeikan University, Japan, 2. Saitama University, Japan, 3. Okayama University, Japan）

[PO-301] A pair of differentially localized lipid phosphate phosphatases mediate endoplasmic reticulum glycerolipid metabolism in Arabidopsis.

*Van Cam Nguyen[1,2,3,4], Yuki Nakamura[1,2,3,5,6] （1. Plant lipid research team, RIKEN Center for Sustainable Resource Science (CSRS), RIKEN Yokohama, 2. Institute of Plant and Microbial Biology, Academia Sinica, 128 sec.2 Academia Road, Nankang, Taipei 11529, Taiwan, 3. Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, Academia Sinica and National Chung Hsing University, Taipei 11529, Taiwan, 4. Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 40227, Taiwan, 5. Biotechnology Center, National Chung Hsing University, Taichung 40227, Taiwan, 6. Department of Biological Sciences, Graduate School of Science, The University of Tokyo, Tokyo 113-8654, Japan）

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[P] 11 Metabolism/Metabolome

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[PO-298] Multi-omics approach to elucidate the biosynthesis of diterpene alkaloids in *Aconitum japonicum*

*Megha Rai[1,2,3], Amit Rai[2,4], Tetsuya Mori[4], Ryo Nakabayashi[4], Michimi Nakamura[1], Hideyuki Suzuki[5], Hiroki Takahashi[2,6], Mareshige Kojoma[7], Kazuki Saito[2,3,4], Mami Yamazaki[1,2] (1. Graduate School of Pharmaceutical Sciences, Chiba University, 2. Plant Molecular Science Center, Chiba University, 3. Institute for Advanced Academic Research, Chiba University, 4. RIKEN Center for Sustainable Resource Science, 5. Kazusa DNA Research Institute, 6. Medical Mycology Center, Chiba University, 7. Health Science University of Hokkaido)

[PO-300] LIPID RICH 1 regulates the metabolic balance between triacylglycerols and starch in plastids of *Arabidopsis thaliana*

Mebae Yamaguchi[1], Shuji Shigenobu[2], Katsushi Yamaguchi[2], Yasuhiro Higashi[3], Yozo Okazaki[4], Kazuki Saito[3], Emi Mishiro-Sato[5], Keiko Kano[5], Shigeo S. Sugano[6], Shuichi Fukuyoshi[7], Haruko Ueda[8], Ikuko Hara-Nishimura[8], *Takashi L. Shimada[1] (1. Graduate School of Horticulture, Chiba University, 2. National Institute for Basic Biology, 3. RIKEN Center for Sustainable Resource Science, 4. Graduate School of Bioresources, Mie University, 5. Institute of Transformative Bio-Molecules, Nagoya University, 6. National Institute of Advanced Industrial Science and Technology, 7. Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, 8. Faculty of Science and Engineering, Konan University)

[P] 12 Hormone synthesis

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 12(Meeting Room 10)

[PO-303] Isolation of interactors of *Agrobacterium* cytokinin synthase Tmr by Proximity Labeling method (PL method)

*Shuhei Komori[1], Hitoshi Sakakibara[1], Mimi Hashimoto[1] （1. Nagoya University, Nagoya, Japan）

[PO-305] D27-like isomerases in Arabidopsis: at the crossroads of strigolactone and ABA biosynthesis?

*Vilmos Soos[1], Zoltan Tolnai[1], Zsolt Gulyas[1] （1. Centre for Agricultural Research, Martonvá sár, Hungary）

[PO-307] Survey the tissue localization of brassinosteroid biosynthesis enzymes by using fluorescent labeled specific inhibitors combined with mutants of CYP90s

*Keimei Oh[1], Akio Watanabe[2], Sumiya Tomio[1], Tomoki Hoshi[1], Yamada Kazuhiro[1] （1. Department of Biotechnology, Akita Prefectural University, 2. Department of Bioproduction, Akita Prefectural University）

[PO-309] Genetic analysis of β-carotene isomerase genes in Arabidopsis

*Hitomi Kobuna[1], Daisuke Fukuhara[1], Yoshiya Seto[2], Tetsuo Kushiro[2], Masanori Okamoto[1,3] （1. Utsunomiya Univ., Japan, 2. Meiji Univ., Japan, 3. RIKEN CSRS, Japan）

[PO-311] Genetic mutant analysis of Arabidopsis *CYP707As*, which encode key enzymes for ABA catabolism.

*Masanori Okamoto[1,2], Momoka Miyata[1], Ryosuke Mega[3], June-Sik Kim[2], Mitsunori Seo[2], Eiji Nambara[4] （1. Utsunomiya Univ., Japan, 2. RIKEN CSRS, Japan, 3. Yamaguchi Univ., Japan, 4. Univ. of Toronto, Canada）

Poster2 | Poster | 12 Hormone synthesis

[P] 12 Hormone synthesis

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 12(Meeting Room 10)

[PO-302] Towards resolving the contribution of the IAOx pathway to auxin biosynthesis in *Arabidopsis thaliana*

*Mario Fenech-Torres[1], Javier Brumos[1,2], Jose Alonso[1], Anna Stepanova[1] (1. North Carolina State University, 2. Institute for Plant Molecular and Cellular Biology - IBMCP (CSIC-UPV))

[PO-304] Uncovering Regulatory Mechanisms of Salicylic Acid Biosynthesis and plant systemic immunity in Brassicaceae species

Rabia Ahuja[1,2], Jiyeon Hyun[1], Saborni Maiti[1], Amanda Navodani[1,2], Chan Yul Yoo [1], *Heejin Yoo[1,2] (1. School of Biological Science, University of Utah, Salt Lake City, UT 84112 USA, 2. Department of Plant Biology, Ecology, and Evolution, Oklahoma State University, Stillwater, OK 74078 USA,)

[PO-306] Steps catalyzed by unknown enzymes in brassinosteroid biosynthesis.

*Rikuto Hamada[1], Akira Yata[2], Sae Sumiya[1], Toshiyuki Ohnishi[3], Kenji Miura[2], Takahito Nomura[1] (1. Utsunomiya Univ., Japan, 2. Univ. of Tsukuba, Japan, 3. Shizuoka Univ., Japan)

[PO-308] Initiation of root Jasmonate biosynthesis

*Yunjing Ma[1,2], Debora Gasperini[2] (1. Martin Luther University Halle-Wittenberg, 2. Leibniz Institute of Plant Biochemistry (IPB))

[PO-310] Strigolactone biosynthesis in Arabidopsis and bryophytes

*Kozue Hiugano[1], Xiaonan Xie[1], Masaki Shimamura[2], Takahito Nomura[1] (1. Utsunomiya Univ., Japan, 2. Hiroshima Univ., Japan)

[PO-312] Knockout of an ER-localized HSP90 family protein impairs seedling development and cellular auxin homeostasis in Arabidopsis

*Rongmin Zhao[1], Jenan Noureddine[1], Bona Mu[1], Homaira Hamidzada[1], Wai Lam Mok[1], Diana Bonea[1], Eiji Nambara[1] (1. University of Toronto)

Poster1 | Poster | 13 Hormone signaling

[P] 13 Hormone signaling

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 13(Meeting Room 10)

[PO-313] An activity of phytoene desaturase negatively regulates auxin biosynthesis and signaling

*KANG XU[1], Haoran Zeng[1], Hisashi Ito[2], Emi Yumoto[3], Masashi Asahina[3,4], Ken-ichiro Hayashi[5], Hidehiro Fukaki[6], Masaaki K Watahiki[1,7] (1. Grad. Sch. Life., Univ. Hokkaido, 2. Inst. Low Temp. Sci., Univ. Hokkaido, 3. Adv. Inst. Anal. Center., Univ. Teikyo, 4. Dept. Biosci., Univ. Teikyo, 5. Dept. Biosci. Univ. Okayama of Science, 6. Grad. Sch. Sci., Univ. Kobe, 7. Div. Biosci., Fac. Sci., Univ. Hokkaido)

[PO-315] Genetic analysis of the TGN-localized membrane trafficking factor Sec1/Munc18 protein BEN2/VPS45 in Arabidopsis development

*Kosuke Ogita[1], Yuki Matsuura[2], Hirokazu Tanaka[1] (1. Life Sciences Program, Graduated School of Agriculture, Meiji University, 2. Department of Biological Sciences, Graduate School of Science, Osaka University)

[PO-317] Physiological studies on the auxinic regulation of hydrotropism in *Arabidopsis thaliana*

*Kotaro Akita[1], Yutaka Miyazawa[1] (1. Yamagata University, Japan)

[PO-319] Auxin-sensitive autonomous bioluminescence to visualize auxin in near-to-nature conditions

*Michael Karampelias[1], Nikola Drážná[1], Zuzana Vondrakova[1], Karel Müller[1], Karen Sarkisyan[2], Jan Petrasek[1] (1. Laboratory of Plant Hormonal Regulations in Plants, Institute of Experimental Botany, Prague, Czech Republic, 2. Institute of Clinical Sciences, Faculty of Medicine and Imperial College Centre for Synthetic Biology, Imperial College London, London, UK)

[PO-321] A phosphoinositide hub connects CLE peptide signaling and polar auxin efflux regulation

*Qian Wang[1], A. Cecilia Aliaga Fandino[1], Moritz Graeff[1], Thomas A. DeFalco[2,3], Cyril Zipfel[2], Christian S. Hardtke[1] (1. Department of Plant Molecular Biology, University of Lausanne, CH-1015 Lausanne, Switzerland, 2. Institute of Plant and Microbial Biology, University of Zurich, Zurich-Basel Plant Science Center, CH-8008 Zurich, Switzerland, 3. Department of Biology, Western University, London, Canada)

[PO-323] Characterization of the BIMP family in *Arabidopsis thaliana* as a link between brassinosteroid signaling and cortical microtubules in plant growth

*Charlotte Delesalle[1], Alvaro Montiel Jorda[2], Julie Neveu[1], Satoshi Fujita[1], Grégory Vert[1] (1. Laboratoire de Recherche en Sciences Végétales, University of Toulouse, France, 2. University of Bristol, United Kingdom)

[PO-325] Brassinosteroid receptor BRI1 deubiquitination by UBP12/UBP13 fine-tunes plant growth

*Yongming Luo[1,2,3], Junpei Takagi[3], Lucas Alves Neubus Claus[1,2], Chao Zhang[5,6], Shigetaka Yasuda[3], Yoko Hasegawa[4], Junji Yamaguchi[3], Libo Shan[5,6], Eugenia Russinova[1,2], Takeo Sato[3] (1. Department of Plant Biotechnology and Bioinformatics, Ghent University, Belgium, 2. Center for Plant Systems Biology, VIB, Belgium, 3. Faculty of Science, Hokkaido University,

Japan, 4. Graduate School of Science, Hokkaido University, Japan, 5. Department of Plant Pathology &Microbiology, Texas A&M University, USA, 6. Department of Biochemistry &Biophysics, Texas A&M University, USA）

[PO-327] Chemical biology study of jasmonate signaling by development of a biased agonist derived from stereoisomers of coronatine

*Kengo Hayashi[1], Nobuki Kato[1], Khurram Bashir[2,3], Haruna Nomoto[1], Misuzu Nakayama[1], Andrea Chini[4], Satoshi Takahashi[2], Hiroaki Saito[5], Raku Watanabe[6], Yousuke Takaoka[1], Maho Tanaka[2], Atsushi J. Nagano[7,8], Motoaki Seki[2], Roberto Solano[4], Minoru Ueda[1,6] （1. Graduate School of Science, Tohoku University, Japan, 2. RIKEN, Japan, 3. Syed Babar Ali School of Science and Engineering, Lahore University of Management Sciences, Pakistan, 4. Department of Plant Molecular Genetics, Centro Nacional de Biotecnología, Consejo Superior de Investigaciones Científicas, Spain, 5. Faculty of Pharmaceutical Sciences, Hokuriku University, Japan, 6. Graduate School of Life Science, Tohoku University, Japan, 7. Faculty of Agriculture, Ryukoku University, Japan, 8. Institute for Advanced Biosciences, Keio University, Japan）

[PO-329] Transcriptome landscape under combinations of Salicylic Acid and Jasmonic Acid in various concentrations

*Atsuki Tomita[1,2], Taro Maeda[2,3], Natsumi Mori-Moriyama[3], Yasuyuki Nomura[3], Yuko Kurita[4], Makoto Kashima[5], Masaru Tomita[1,2], Shigeyuki Betsuyaku[6], Atsushi J Nagano[2,3,6] （1. Dept. Environment &Info. Studies., Keio Univ., 2. IAB, Keio Univ., 3. Res. Inst. Food Agr., Ryukoku Univ., 4. Fac. Agr., Tokyo Univ., 5. Coll. Sci. Eng., Aoyama Gakuin Univ. , 6. Fac. Agr., Ryukoku Univ. ）

[PO-331] Significance of EIN2 Phosphorylation Status to EIN2 Stability and CTR1-independent Ethylene Signaling

*HangWei Zhao[1], Ying Zhang, Chi-Kuang Wen[1] （1. CAS Center for Excellence in Molecular Plant Sciences）

[PO-333] Dissecting apical hook development with small molecules

*Kai Jiang[1], Yalikunjiang Aizezi[1], Xinran Xie[1], Guangshuo Guo[1], Yinpeng Xie[1], Hongwei Guo[1] （1. Southern University of Science and Technology）

[PO-335] Isolation of an *Arabidopsis* mutant involved in abscisic acid-independent stomatal closure

*Satoko Nakae[1], Tomoki Shuno[1], Sho Takahashi[1], Atsushi Mabuchi[1], Juntaro Negi[1], Mikiko Kojima[2], Yumiko Takebayashi[2], Hitoshi Sakakibara[2,3], Koh Iba[1], Keina Monda[1] （1. Dept. Biol., Fac. Sci., Univ. Kyushu, 2. RIKEN CSRS, 3. Grad. Sch. Bioagric. Sci., Nagoya Univ.）

[PO-337] bHLH transcription factor AKSs mediate ABA-dependent down regulation of gene expression in guard cells and seedlings

*Yuki Hayashi[1], Yohei Takahashi[2], Toshinori Kinoshita[1,2] （1. Division of Biological Science, Graduate School of Science, Nagoya University, 2. WPI-ITbM, Nagoya University）

[PO-339] Integrating multi-omics data reveals energy and stress signaling activated by abscisic acid in Arabidopsis

*Takuya Yoshida[1,2], Julia Mergner[3,4], Zhenyu Yang[1], Jinghui Liu[1], Alisdair R. Fernie[2], Erwin Grill[1] （1. Lehrstuhl für Botanik, Technische Universität München, Germany, 2. Max-Planck-Institut für Molekulare Pflanzenphysiologie, Germany, 3. Bavarian Center for Biomolecular Mass Spectrometry at Klinikum rechts der Isar (BayBioMS@MRI), Technical University of Munich, Germany, 4. Chair of Proteomics and Bioanalytics, Technical University of Munich,

Germany）

[PO-341] The evolution of ABA receptors: Transition to hormone-regulated signaling.

*Assaf Mosquna[1], Yufei Sun[1], Gil Zimran[1], Michal Shpilman[1]（1. the Hebrew University of Jerusalem）

[PO-343] Abscisic acid and G-protein regulated redox proteome of Arabidopsis

*Sona Pandey[1], Amanda L Smythers[2], Parinita Majumdar[1], Leslie M Hicks[2]（1. Donald Danforth Plant Science Center, St. Louis, MO USA 63132, 2. University of North Carolina, Chapel Hill, NC USA 27599）

[P] 13 Hormone signaling

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 13(Meeting Room 10)

[PO-314] PIN-Interacting Protein 1 (PIP1), a phospho-lipid modifier, modulates PINs' intracellular trafficking in *Arabidopsis*

*KWANG HO MAENG MAENG[1], Hyodong Lee[1], Hyung-Taeg Cho[1] (1. Department of Biological Sciences, Seoul National University)

[PO-316] SYP4 Qa-SNARE proteins redundantly regulate auxin distribution and root development in Arabidopsis

Narumi Fukasawa[1], Kosuke Ogita[1], Kaori Katagiri[2], Tsubasa Fujisaki[2], Tomohiro Uemura[3], *Hirokazu Tanaka[1,2] (1. Life Sciences Program, Graduate School of Agriculture, Meiji University, 2. Department of Life Sciences, School of Agriculture, Meiji University, 3. Graduate School of Humanities and Sciences, Ochanomizu University)

[PO-318] An intronic enhancer directs stomatal lineage and epidermal-specific expression of *PIN-FORMED 3* (*PIN3*) in *Arabidopsis*

*ZIMIN ZHOU[1], ON SUN LAU[1] (1. National University of SinGapore)

[PO-320] ABP1-likes and TMKs are co-receptors for extracellular auxin in plants

*Tongda Xu[1], Yongqiang Yu[1], Wenxin Lin[1], Wenwei Lin[1], Zhenbiao Yang[2] (1. Fujian Agriculture and Forestry University, Fuzhou, Fujian, China, 2. University of California, Riverside)

[PO-322] MAJOR LATEX PROTEINs affect auxin signaling

*Michael Liebthal[1], Victoria Russ[1], Thuy Thanh Truong[2,3], Alexander Christmann[1], Philippe Schmitt-Kopplin[2,3], Erwin Grill[1] (1. Chair of Botany, TUM School of Life Sciences Weihenstephan, Technical University Munich, Freising, Germany, 2. Research Unit Analytical BioGeoChemistry (BGC), German Research Center for Environmental Health, Helmholtz Zentrum München, Neuherberg, Germany, 3. Chair of Analytical Food Chemistry, TUM School of Life Sciences Weihenstephan, Technical University Munich, Freising, Germany)

[PO-324] A signaling circuit maintains cell integrity during hormone induced cell expansion

*Ajeet Chaudhary[1], Yu Chun Hsiao, Zhuoran Lyu[1], Alice Cheung[2], Hen-Ming Wu[2], Zhiyong Wang[1] (1. Department of Plant biology, Carnegie Science Stanford , 2. Department of Biochemistry and Molecular Biology, Molecular and Cell Biology Program, Plant Biology Program, University of Massachusetts, Amherst, MA 01003, USA.)

[PO-326] Ectopic expression of a corepressor *OsTPR1* in *Arabidopsis* to dissect the crosstalk between GA and JA signaling pathways

*Shing Lon Ho[1], Yi Wen Liu[1], Zhen Lau Bae[1], Wan Yu Hsieh[1] (1. Department of Agronomy, National Chiayi University, Taiwan)

[PO-328] Mode of action of a novel putative plant defense activator that induces the accumulation of both jasmonic acid and salicylic acid in Arabidopsis

*Kazuyuki Kuchitsu[1], Kentaro Namiki[1], Taiki Funahashi[1], Nobutaka Kitahata[1,2], Yuho Saito[1], Masataka Nakano[1], Kenji Hashimoto[1], Tadao Asami[2], Seisuke Kimura[3], Kouji Kuramochi[1] (1. Tokyo University of Science, Japan, 2. University of Tokyo, 3. Kyoto Sangyo University)

[PO-330] The carboxy terminal transmembrane domain of SPL7 mediates interaction with RAN1 at the endoplasmic reticulum to regulate ethylene signalling in Arabidopsis

*Yanzhi YANG[1], Lei LI[1] （1. Peking University）

[PO-332] The miRNA156/SPL9 module controls apical hook development via auxin responses

*Flaviani Gabriela Pierdona[1,2], Ullas Pedmale[2], Fabio Tebaldi Silveira Nogueira[1] （1. University of Sao Paulo, 2. Cold Spring Harbor Laboratory）

[PO-334] More than just ABA receptors: Ligand spectrum of RCARs from Arabidopsis and Marchantia

*Isabel Doch[1], Daniel Hemmler[2,3], Thuy Thanh Truong[2,3], Alexander Christmann[1], Philippe Schmitt-Kopplin[2,3], Rishikesh P Bhalerao[4], D Magnus Eklund[5], Erwin Grill[1] （1. Chair of Botany, TUM School of Life Sciences Weihenstephan, Technical University Munich, Freising, Germany, 2. Research Unit Analytical BioGeoChemistry (BGC), German Research Center for Environmental Health, Helmholtz Zentrum München, Neuherberg, Germany, 3. Chair of Analytical Food Chemistry, TUM School of Life Sciences Weihenstephan, Technical University Munich, Freising, Germany, 4. Umeå Plant Science Centre, Department of Forest Genetics and Plant Physiology, Swedish University of Agricultural Sciences, Umeå, Sweden, 5. Department of Ecology and Genetics, Evolutionary Biology Centre, Uppsala University, Uppsala, Sweden）

[PO-336] Guard-cell expression of abscisic acid receptors for engineering water efficient-productive plants

*Zhenyu Yang[1], Jinghui Liu[1], Lisa Groß[1], Alexander Chistmann[1], Rudi Schäufele[2], Bernard Genty[3], Erwin Grill[1] （1. Department of Botany, Technical University of Munich, Germany, 2. Department of Grassland Science, Technical University of Munich, Germany, 3. CEA-CNRS-Aix Marseille University, Cadarache, Saint Paul lez Durance, France）

[PO-338] Structure-guided engineering of a receptor-agonist pair for inducible activation of the ABA adaptive response to drought

*Jorge Lozano-Juste[1], Lourdes Infantes[2], Irene García-Maquilón[1], Rafael Ruíz-Partida[1], Ebe Merilo[3], Juan Luis Benavente[2], Adrian Velázquez-Campoy[4,5,6], Alberto Coego[1], Mar Bono[1], Javier Forment[1], Begoña Pampín[7,8], Paolo Destito[7], Adrian Monteiro[7,8], Ramón Rodríguez[7], Jacobo Cruces[7], Pedro Luis Rodriguez[1], Armando Albert[2] （1. Instituto de Biologia Molecular y Celular de Plantas (IBMCP-UPV-CSIC), 2. Instituto de Quimica Fisica Rocasolano (IQFR-CSIC), 3. University of Tartu, 4. Universidad de Zaragoza, 5. Fundacion Instituto de Investigacion Sanitaria Aragon, 6. Centro de Investigacion Biomedica en Red Enfermedades Hepaticas y Digestivas, 7. GalChimia S.A., 8. Agomab Therapeutics）

[PO-340] Functional analysis of DOG1-dependent ABA signaling cascade

*Noriyuki Nishimura[1], Wataru Tsuchiya[1], Nahomi Suzuki[1], Takashi Hirayama[2], Toshimasa Yamazaki[1] （1. National Agriculture and Food Research Organization, Japan, 2. Okayama University, Japan）

[PO-342] Phosphoproteomic analysis of Arabidopsis guard cells for screening of SnRK2 substrates

*Kota Yamashita[1], Anzu Oishi[1], Mizuki Saigusa[1], Sotaro Katagiri[1], Yoshiaki Kamiyama[1], Yangdan Li[1], Shota Yamauchi[2], Atsushi Takemiya[2], Taishi Umezawa[1] （1. BASE, Tokyo Univ. Agric. Tech., 2. Yamaguchi Univ.）

[PO-344] Characterization of the PEAPOD Jas domain to understand their interaction partner specificity

*Michele Schneider[1,2], Issl Kimpe[1,2], Dominique Eeckhout[1,2], Geert De Jaeger[1,2], Dirk Inzé[1,2], Alexandra Baekelandt[1,2] （1. Department of Plant Biotechnology and Bioinformatics, Ghent University, 9052 Ghent, Belgium, 2. Department of Plant Systems Biology, Vlaams Instituut voor Biotechnologie (VIB), 9052 Ghent, Belgium）

[P] 14 Organelles/Membranes

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 14(Meeting Room 10)

[PO-345] Analysis of a nuclear lamina protein CRWN and its interacting proteins

*Sachihiro Matsunaga[1], Yoshiki Akiyama[1], Takuya Sakamoto[2,5], Mio Shibuta[3], Hikaru Sato[1], Yuki Sakamoto[4] (1. Graduate School of Frontier Sciences, The University of Tokyo, Japan, 2. Faculty of Science, Kanagawa University, Japan, 3. Faculty of Science, Yamagata University, Japan, 4. Graduate School of Science, Osaka University, Japan, 5. Faculty pf Science and Technology, Tokyo University of Science, Japan)

[PO-347] Light-dependent nuclear relocation in land plants: differences and similarities between *Arabidopsis thaliana* and the liverwort *Marchantia polymorpha*

*Ikuko Hara-Nishimura[1], Kosei Iwabuchi[1,2], Hiroki Yagi[1], Kenta Moriya[3], Nanaka Oki[1], Reina Yokohata[1], Asami Nakata[1], Saya Hiromoto[1], Aino Komatsu[3,4], Yuuki Sakai[5], Shingo Takagi[6], Tomoo Shimada[3], Ryuichi Nishihama[7], Takayuki Kohchi[3], Yo-hei Watanabe[1], Haruko Ueda[1] (1. Konan Univ., 2. Osaka Med. Pharm. Univ., 3. Kyoto Univ., 4. Tohoku Univ., 5. Kobe Univ., 6. Osaka Univ., 7. Tokyo Univ. Sci.)

[PO-349] Localization dynamics of BGLU18, a β-glucosidase that releases ABA from its glucose conjugates, in Arabidopsis leaf cells under dehydration stress

*Yutong Song[1], Tayebeh Abedi[1], Yuma Mitsuzono[1], Hiroshi Shimada[1], Atsushi Sakamoto[1] (1. Graduate School of Integrated Sciences for Life, Hiroshima University, Japan)

[PO-351] MAIGO3-dependent mechanism underlying dynamic capture-and-release process of ER exit sites by Golgi stacks in Arabidopsis

*Junpei Takagi[1], Hideyuki Takahashi[2], Minoru Nagano[3], Yoshitaka Kimori[4], Yoichiro Fukao[3], Haruko Ueda[5], Kentaro Tamura[6], Tomoo Shimada[2], Ikuko Hara-Nishimura[5] (1. Fac. Sci. and Grad. Sch. Life Sci., Hokkaido Univ., Japan, 2. Grad. Sch. Sci., Kyoto Univ., Japan, 3. Col. Life Sci., Ritsumeikan Univ., Japan, 4. Fac. Environ. and Info. Sci., Fukui Univ. of Tech., Japan, 5. Fac. Sci. and Eng., Konan Univ., Japan, 6. Dept. Environ. Life Sci., Univ. of Shizuoka, Japan)

[PO-353] Elucidating the final stages of plant Clathrin-Mediated Endocytosis *in vivo* and *in vitro*

*Nataliia Gnyliukh[1], Alexander Johnson[1], Marie-Kristin Nagel[2], Annamaria Hlavata[1], Erika Isono[2], Martin Loose[1], Jiří Friml[1] (1. Institute of Science and Technology Austria (ISTA), 2. University of Konstanz, Konstanz, Germany)

[PO-355] Location, location, location: a system-wide assesment of subcellular protein localization in Arabidopsis roots by mass-spectrometry

*Monique van Schie[1], Mark Roosjen[1], Dolf Weijers[1] (1. Wageningen University, the Netherlands)

[PO-357] Functional characterization of *Arabidopsis thaliana* Synaptotagmin1 domains using Tricalbin3 chimeras in *Saccharomyces cerevisiae.*

*Francisco Benitez-Fuente[1], Javier Collado[2], Vito Amorim-Silva[1], Ruben Fernández-Busnadiego[2], Miguel Angel Botella[1] (1. Departamento de Biologia Molecular y Bioquimica, Instituto de Hortofruticultura Subtropical y Mediterranea “La Mayora”, Universidad de Malaga-CSIC, Malaga 29071, Spain, 2. Institute of Neuropathology, University Medical

Center Goettingen, Goettingen 37099, Germany）

[PO-359] SEED LIPID DROPLET PROTEIN 1 and 2 and LD-PLASMA MEMBRANE ADAPTOR form a lipid droplet-plasma membrane contact site that might play a role under stress

*Janis Dabisch[1], Till Ischebeck[1] （1. Uni Münster）

[PO-361] Defining and dissecting mitochondrial specific stress signalling pathways in *Arabidopsis thaliana*

*Cunman He[1,2,3], Oliver Berkowitz[2], James Whelan[1,2,3] （1. College of Life Science, Zhejiang University, Hangzhou, Zhejiang 310058, P.R. China., 2. Department of Animal, Plant and Soil Science, School of Agriculture, Biomedical and Environmental Sciences, La Trobe University, Bundoora, 3086, VIC, Australia., 3. International Science and Technology Cooperation Base on Engineering Biology, International Campus of Zhejiang University, Haining, Zhejiang 314400, P.R. China.）

[PO-363] Overexpression of the transcription factor ANAC017 results in a genomes uncoupled phenotype under lincomycin

*Yanqiao Zhu[1,2], Reena Narsai[3], Cunman He[1,2,3], Oliver Berkowitz[3], Lim Chee Liew[3], James Whelan[1,2,3] （1. College of Life Science, Zhejiang University, Hangzhou, Zhejiang 310058, P.R. China, 2. International Science and Technology Cooperation Base on Engineering Biology, International Campus of Zhejiang University, Haining, Zhejiang 314400, P.R. China, 3. Department of Animal, Plant and Soil Science, School of Agriculture, Biomedical and Environmental Sciences, La Trobe University, Bundoora 3086, Vic, Australia）

[PO-365] Analysis for the molecular mechanism of chloroplast development via BPGs, novel brasinosteroid signaling factors

*Ryo Tachibana[1], Susumu Abe[2], Momo Marugami[2], Ayumi Yamagami[1], Shohei Nosaki[3], Takuya Miayakwa[1], Takehito Inaba[4], Minami Matsui[5], Kentaro Ifuku[1], Ryouichi Tanaka[6], Tetsuo Kushiro[2], Tadao Asami[7], Takeshi Nakano[1] （1. Kyoto University, Japan, 2. Meiji University, Japan, 3. Tsukuba University, Japan, 4. Miyazaki University, Japan, 5. RIKEN, Japan, 6. Hokkaidou University, Japan, 7. University of Tokyo, Japan）

[PO-367] Comparative transcriptomic analysis to characterize Stromule Regulatory Genes

*Jongchan Woo[1], Ashley Park[1], Ji Yoon Guk[2], Solhee In[1], Seungil Kim[2], Eunsook Park[1] （1. University of Wyoming, 2. University of Seoul）

[PO-369] Nanotechnology research in Arabidopsis for developing precision agriculture and plant biomanufacturing tools

*Juan Pablo Giraldo[1] （1. University of California, Riverside）

[PO-371] Linkage between ADP-ribosylation and chloroplast stress response under thylakoid proteostasis perturbation

*Kenji Nishimura[1], Reiko Nakagawa[2], Ken Tamaru[1], Yuri Nakajima Munekage[1] （1. Kwansei Gakuin University, Japan, 2. RIKEN BDR, Japan）

[PO-373] A tonoplast-localized magnesium transporter is crucial for stomatal opening in Arabidopsis under high Mg^{2+}condition

*Shin-ichiro Inoue[1], Maki Hayashi[1], Sheng Huang[2], Kengo Yokosho[2], Eiji Gotoh[3], Shuka Ikematsu[1], Masaki Okumura[1], Takamasa Suzuki[4], Takumi Kamura[1], Toshinori Kinoshita[1], Jian Feng Ma[2] （1. Nagoya University, Japan, 2. Okayama University, Japan, 3. Kyushu University, Japan, 4. Chubu University, Japan）

[PO-375] An Arabidopsis Rab GTPase regulates ER association of ATG18a to promote ER-phagy in response to carbon starvation

*Jiaqi Sun[1,2], Yang Shao[1], Huanquan Zheng[2] （1. Shandong University, China, 2. McGill University, Canada）

[PO-377] Dissecting the plant ATG9 vesicle trafficking in autophagy pathway

*KA KIT CHUNG[1], Xiaohong ZHUANG[1] （1. Centre for Cell &Developmental Biology and State Key Laboratory of Agrobiotechnology, School of Life Sciences, The Chinese University of Hong Kong, Hong Kong, China）

[PO-379] Chloroplast chaperone HSP90C C-terminal extension regulates client binding and plant stress resilience

*Bona Mu[1], Adheip Monikantan Nair[1], Wei-tse Tseng[2], Rongmin Zhao[1] （1. University of Toronto, Scarborough, 2. University of Melbourne）

[P] 14 Organelles/Membranes

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 14(Meeting Room 10)

[PO-346] The nuclear pore complex is involved in the two-step regulation of centromere arrangement in *Arabidopsis thaliana*

*Nanami Ito[1], Takuya Sakamoto[2], Yuki Sakamoto[3], Sachihiro Matsunaga[1] (1. Dept. of Integr. Biosci., Grad. Sch. of Front. Sci., Univ. of Tokyo, Japan, 2. Dept. of Appl. Biol. Sci., Fac. of Sci. and Tech., Tokyo Univ. of Sci., Japan, 3. Dept. of Biol. Sci., Grad. Sch. of Sci., Osaka Univ., Japan)

[PO-348] A pair of phosphoinositide-binding proteins act downstream of the IRE1-bZIP60 pathway and function redundantly in the unfolded protein response

*Chao-Yuan Yu[1], Yuki Nakamura[1], Kazue Kanehara[2] (1. RIKEN Center for Sustainable Resource Science, Yokohama, Japan, 2. Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan)

[PO-350] Endoplasmic reticulum body in the lateral root cap: Visualization of direct transport of β-glucosidase to the vacuole by correlative light and electron microscopy

*Kiminori Toyooka[1], Yumi Goto[1], Kei Hashimoto[1], Mayumi Wakazaki[1], Mayuko Sato[1], Masami Yokota Hirai[1] (1. RIKEN Center for Sustainable Resource Science)

[PO-352] Nanobody-epitope interaction-based intracellular *in vivo* immunotracing reveals the bidirectional trafficking of vacuolar sorting receptors

*Peter Pimpl[1,2,3,4], Xiaoyu Shao[1,2,3,4], Hao XU[1,2,3,4], Zeming Liang[1,2,3,4], Xuewen Wang[1,2,3,4], Yizhan Li[1,2,3,4], Wenyu Yao[1,2,3,4], Xiaodi Zhao[1,2,3,4], Huangjinzi Li[1,2,3,4], Merlinda Terana[1,2,3,4] (1. Southern University of Science and Technology (SUSTech), 2. Key Laboratory of Molecular Design for Plant Cell Factory of Guangdong Higher Education Institutes, 3. Institute of Plant and Food Science, 4. School of Life Sciences)

[PO-354] Subcellular localization of NPR1 shifts between chloroplast and nucleus in accordance with the circadian rhythm

*So Yeon Seo[1], Ky Young Park (1. Sunchon national university)

[PO-356] The role of DGK1 and DGK2 in Membrane Contact Sites and Stress Tolerance

*Selene Garcia-Hernandez[1], Noemi Ruiz-Lopez[1], Miguel A. Botella Mesa[1] (1. Instituto de Hortofruticultura Subtropical y Mediterránea, Universidad de Málaga-Consejo Superior de Investigaciones Científicas (IHSM-UMA-CSIC))

[PO-358] 405nm Photostimulation of the Endoplasmic Reticulum-Chloroplast Contact Site in *Arabidopsis* Hypocotyls Causes Rapid Cytoskeletal Depolymerization, Elevated Cytoplasmic Calcium, and Elevated Organellar ROS

*Sara Maynard[1], Lawrence R Griffing[1] (1. Texas A&M University)

[PO-360] Balanced activities of chloroplasts and mitochondria is crucial for optimal plant growth

*Boon Leong Lim[1] (1. The University of Hong Kong)

[PO-362] Title: The ANAC017 transcription factor links transcriptional and post-translational regulation of mitochondrial biogenesis and signalling.

*James Whelan Whelan[1], Yang Zhao[1,2], Ghazanfar Abbas Khan[2], Cunman He[1,2], Reena Narsai[2], Ronghui Pan[1], Jianping Hu[3], Yan Wang[2] （1. Zhejiang University, China, 2. La Trobe University, Australia, 3. Michigan State University, USA）

[PO-364] An isoform of the plastid RNA polymerase-associated protein FSD3 affects chloroplast development

Yang Do Choi[1], Young Hee Joung[2], *Geupil Jang[2] （1. The National Academy of Sciences, Republic of Korea, 2. Chonnam National University, Republic of Korea）

[PO-366] Sensory plastids in growth- and defense-related epigenetic phenotype adjustment

*Ha Eun Jeh[1], Jesús Beltrán[1,4], Robersy Sanchez[1], Xiaodong Yang[1,5], Isaac Dopp[1], Yashitola Wamboldt[2,3], Hardik Kundariya[1], Alenka Hafner[1], Sally A Mackenzie[1] （1. Pennsylvania State University, PA, USA, 2. University of Nebraska, Lincoln, NE, USA, 3. MatMaCorp, Lincoln, NE, USA, 4. University of California, Riverside, CA, USA , 5. Yangzhou University, Yangzhou, China）

[PO-368] Light-induced chloroplast biogenesis: photobodies control alternative promoter selection as a mechanism of nucleus-chloroplast communication

Jaehyung Lee[1], Sandhya Senthilkumar[1], Scott Perkins[1], Heejin Yoo[1], *Chan Yul Yoo[1] （1. School of Biological Sciences, University of Utah, Salt Lake City, UT, 84112, USA）

[PO-370] Fluorescent staining of the chloroplast outer envelope membrane in living plant cells

*Shintaro Ichikawa[1], Yutaka Kodama[1] （1. Utsunomiya University, Japan）

[PO-372] Molecular mechanism for peroxisomal protein transport via the ubiquitin system

*Shoji Mano[1,2], Shino Goto-Yamada[3], Yasuko Hayashi[4], Kazumi Hikino[1], Masatake Kanai[1], Mikio Nishimura[5] （1. National Institute for Basic Biology, Japan, 2. The Graduate University for Advanced Studies, Japan, 3. Jagiellonian University, Poland, 4. Niigata University, Japan, 5. Konan University, Japan）

[PO-374] IntEResting: RHD3 and RTN3/4 Oppose in ER network connectivity but cooperate in ER-phagy in response to environmental stresses

Weina Wang[1], Jiaqi Sun[1], *Huanquan Zheng[1] （1. McGill University）

[PO-376] KNO1-mediated autophagic degradation of the Bloom syndrome complex component RMI1 promotes homologous recombination

*Poyu Chen[1], Nancy De Winne[3,4], Geert De Jaeger[3,4], Masaki Ito[1], Heese Maren[2], Arp Schnittger[2] （1. Kanazawa University, School of Biological Science and Technology, 2. University of Hamburg, Institute of Plant Science and Microbiology, 3. Ghent University, Department of Plant Biotechnology and Bioinformatics, 4. VIB Center for Plant Systems Biology）

[PO-378] A novel reciprocal regulation mechanism for SH3P2 in crosstalk between endocytosis and autophagy

*Kai Ching Law[1], Lanlan Feng[1], Hongbo Li[2], Caiji Gao[2], Xiaohong Zhuang[1] （1. The Chinese University of Hong Kong, Hong Kong China, 2. South China Normal University, China）

[P] 15 Cytoskeleton/Cell polarity

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 15(Meeting Room 10)

[PO-381] Microtubule-dependent phase separation tunes cell wall spacing in xylem vessels

Takeshi Higa[1], Saku Kijima[2], Takema Sasaki[2], Shogo Takatani[2], Yohei Kondo[3,4,5], Mayumi Wakazaki[6], Mayuko Sato[6], Kiminori Toyooka[6], Taku Demura[7], Hiroo Fukuda[8], *Yoshihisa Oda[2] （1. The University of Tokyo, Japan, 2. Nagoya University, Japan, 3. Exploratory Research Center on Life and Living Systems, Japan, 4. National Institute for Basic Biology, Japan, 5. SOKENDAI, Japan, 6. RIKEN Center for Sustainable Resource Science, Japan, 7. Nara Institute of Science and Technology, Japan, 8. Kyoto University of Advanced Science, Japan）

[PO-383] Elucidating molecular mechanisms of anchoring complexes that stabilize the association of daughter microtubule minus end to their nucleation sites

Noriyoshi Yagi[1], *Masayoshi Nakamura[1] （1. Nagoya University, Japan）

[PO-385] GraFT - Robust spatiotemporal filament disentanglement using a network theoretic framework

*Isabella Østerlund[1,2], Staffan Persson[1], Zoran Nikoloski[2,3] （1. Department of Plant and Environmental Sciences, University of Copenhagen, 1871 Frederiksberg C, Denmark, 2. Bioinformatics, Institute of Biochemistry and Biology, University of Potsdam, 14476 Postdam, Germany, 3. Systems Biology and Mathematical Modeling, Max Planck Institute of Molecular Plant Physiology, 14476 Postdam, Germany）

[PO-387] Functional Differentiation among the lipid signaling producing Genes *PIP5K1*, *PIP5K2,* and *PIP5K3* in Arabidopsis

*Machiko Watari[1], Mariko Kato[1], Branc-Mathieu Roman[2], Tomohiko Tsuge[1], Hiroyuki Ogata[1], Takashi Aoyama[1] （1. Institute for Chemical Research, Kyoto university, Japan, 2. Laboratoire Physiologie Cellulaire &Vegetale, University of Grenoble Alpes, IRIG, INRA, CNRS, CEA, France）

[PO-389] Evolution of RHO cell polarity signalling in plants

*Hugh Mulvey[1], Liam Dolan[1] （1. Gregor Mendel Institute (GMI), Austria）

[P] 15 Cytoskeleton/Cell polarity

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 15(Meeting Room 10)

[PO-380] *Arabidopsis* MPK6 Phosphorylates MAP18 to Mediate Root Growth Control in Response to Salt Stress

Mingzhi Zheng[1], Liyuan Xu[1], Takashi Hashimoto[2], Lei Zhu[1], *Ying Fu[1] （1. China Agricultural University, China, 2. NAIST, Japan）

[PO-382] NIMA-related protein kinases regulate microtubule response to tensile stress in *Arabidopsis thaliana*

*Yumeko Nomura[1], Shogo Takatani[2,3], Olivier Hamant[2], Hiroyasu Motose[1] （1. Department of Biological Science, Faculty of Science, Okayama University, Japan, 2. ENS-Lyon, France, 3. Graduate School of Science, Nagoya University, Japan）

[PO-384] Enzymatic activities and tissue-specific expression of *Arabidopsis thaliana* class XI and VIII myosins

*Shizuha Ito[1], Takeshi Haraguchi[1], Zhongrui Duan[2], Sa Rula[1], Kento Takahashi[1], Yuno Shibuya[3], Nanako Hagino[3], Yuko Miyatake[3], Rie Matsumoto[1], Kei Sato[4], Akihiko Nakano[4,5], Motoki Tominaga[2,3], Kohji Ito[1] （1. Department of Biology, Graduate School of Science, Chiba University, Japan, 2. Faculty of Education and Integrated Arts and Sciences, Waseda University, Japan, 3. Department of Integrative Bioscience and Biomedical Engineering, Graduate School of Science and Engineering, Waseda University, Japan, 4. Department of Biological Sciences, Graduate School of Science, University of Tokyo, Japan, 5. Live Cell Molecular Imaging Research Team, RIKEN Center for Advanced Photonics, Wako, Saitama, Japan）

[PO-386] Structure and regulation of *Arabidopsis* Myosin XI, MYA2

*Takeshi Haraguchi[1], Masanori Tamanaha[1], Kano Suzuki[2], Kohei Yoshimura[1], Takuma Imi[1], Takamitsu Morikawa[3], Nao Shoji[1], Atsushi Kimura[1], Motoki Tominaga[4,5], Hidetoshi Sakayama[6], Tomoaki Nishiyama[7], Mitsuhiro Iwaki[3], Takeshi Murata[2,8,9], Kohji Ito[1,8] （1. Department of Biology, Graduate School of Science, Chiba University, Japan, 2. Department of Chemistry, Graduate School of Science, Chiba University, Japan, 3. RIKEN Center for Biosystems Dynamics Research, RIKEN, Japan, 4. Faculty of Education and Integrated Arts and Sciences, Waseda University, Japan, 5. Department of Integrative Bioscience and Biomedical Engineering, Graduate School of Science and Engineering, Waseda University, Japan, 6. Department of Biology, Graduate School of Science, Kobe University, Japan, 7. Research Center for Experimental Modeling of Human Disease, Kanazawa University, Japan, 8. Membrane Protein Research and Molecular Chirality Research Center, Chiba University, Japan, 9. Structure Biology Research Center, Institute of Materials Structure Science, High Energy Accelerator Research Organization (KEK), Japan）

[PO-388] Molecular mechanisms underlying rapid cell growth in the root epidermis

*Hirotomo Takatsuka[1], Naoki Takahashi[2], Michitaro Shibata[3], Keiko Sugimoto[3,4], Maho Tanaka[3,5], Motoaki Seki[3,5], Masaaki Umeda[2] （1. Kanazawa University, Japan, 2. Nara Institute of Science and Technology, Japan, 3. RIKEN Center for Sustainable Resource Science, Japan, 4. The University of Tokyo, Japan, 5. RIKEN Cluster for Pioneering Research, Japan）

[PO-390] Mechanisms underlying polar membrane targeting of SOSEKI protein

*Andriy Volkov[1], Dolf Weijers[1] （1. Laboratory of Biochemistry, Wageningen University, Netherlands）

[P] 16 Cell walls

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 16(Meeting Room 10)

[PO-391] Mutations in Golgi-localised proton pyrophosphatase, *AVP2;1* enhances root growth under limited boron supply by changes in cell wall stability

*Amarachukwu Faith ONUH[1], Kyoko MIWA[1] (1. Hokkaido University, Japan)

[PO-393] Hormone-regulated expansins localization and their putative role in cell wall biomechanics controlling the *Arabidopsis* root growth

*Marketa Samalova[1,2], Alesia Melnikava[2], Kareem Elsayad[3], Alexis Peaucelle[4], Evelina Gahurova[1], Jaromir Gumulec[1], Jan Hejatko[2] (1. Masaryk University, Czech Republic, 2. CEITEC MU, Czech Republic, 3. Medical University of Vienna, Austria, 4. INRAE, France)

[PO-395] Contribution of Epidermis and Vasculature to the Mechanical Integrity of Arabidopsis Inflorescence Stem

*Mariko Asaoka[1,2,3], Shingo Sakamoto[4], Shizuka Gunji[1], Nobutaka Mitsuda[4], Hirokazu Tsukaya[5], Shinichiro Sawa[6], Olivier Hamant[2], Ali Ferjani[1] (1. Tokyo Gakugei University, Tokyo, Japan, 2. ENS de Lyon, France, 3. Present address, Kanagawa University, Japan, 4. National Institute of Advanced Industrial Science and Technology, Japan, 5. The University of Tokyo, Japan, 6. Kumamoto University, Japan)

[PO-397] CALCIUM-DEPENDENT PROTEIN KINASE32 regulates cellulose biosynthesis through post-translational modification of cellulose synthase

*Ying Gu[1], Donghui Wei[1], Xiaoran Xin[1], Lei Lei[1], Haiyan Zheng, Ian Wallace, Shundai Li[1] (1. Pennsylvania State University)

[PO-399] Periodicity and disorder in protoxylem secondary cell wall of Arabidopsis is orchestrated by an ABA-ROP11 toggle switch

*Shaul Yalovsky[1], Valentina Alberti[1], Erik Gengel[1] (1. School of Plant Sciences and Food Security, Tel Aviv University)

[PO-401] Cloning and Functional Analyses of *SET* Gene Whose Loss-of-Function Suppresses *de-etiolatedt3-1* Inflorescence Stem Dwarfism

*Shizuka Gunji[1], Ryosuke Kizu[1,2], Hiromu Kimura[1], Reina Hashimoto[1], Natsuko Ishizuki[1], Mao Ichikawa[1], Tamae Motoike[1], Hiroyuki Koga[3], Kenya Hanai[1], Tomonari Hirano[4], Yusuke Kazama[5], Tomoko Abe[6], Nobutaka Mitsuda[7], Shingo Sakamoto[7], Gorou Horiguchi[8,9], Shinichiro Sawa[10], Hirokazu Tsukaya[3], Ali Ferjani[1] (1. Department of Biology, Tokyo Gakugei University, 2. Department of Life Sciences, Graduate School of Arts and Sciences, The University of Tokyo, 3. Department of Biological Sciences, Graduate School of Science, The University of Tokyo, 4. Faculty of Agriculture, University of Miyazaki, 5. Faculty of Bioscience and Biotechnology, Fukui Prefectural University, 6. Nishina Center for Accelerator-Based Science, RIKEN, 7. Plant Gene Regulation Research Group, Bioproduction Research Institute, National Institute of Advanced Industrial Science and Technology (AIST), 8. Department of Life Science, College of Science, Rikkyo University, 9. Research Center for Life Science, College of Science, Rikkyo University, 10. International Research Center for Agriculture and Environmental Biology, Kumamoto University)

[PO-403] Elucidating the role of lignification during silique development in *Arabidopsis thaliana*

*Justin Nichol[1], Logan Skori[1], Marcus Samuel[1] （1. University of Calgary）

[P] 16 Cell walls

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 16(Meeting Room 10)

[PO-392] Analysis of regulatory mechanisms of cell wall construction during fruit morphological changes under calcium deficiency conditions in Tomato (*Solanum lycopersicum*) cv. 'Micro Tom'

*Kiei Soyama[1], Akari Miyakoshi[2], Momoko Miyachi[2], Haruka Sugiyama[2], Manatsu Itano[2], Takumi Higaki[3], Shinobu Satoh[2], Jun Furukawa[2], Hiroaki Iwai[2] （1. Graduate School of Science and Technology, University of Tsukuba, Japan, 2. Institute of Life and Environmental Science, University Tsukuba, Japan, 3. Faculty of Advanced Science and Technology, Kumamoto University, Japan）

[PO-394] TMK-based cell-surface auxin signalling activates cell-wall acidification

*Wenwei Lin[1,2] （1. Fujian Agriculture and Forestry University, 2. Prof.）

[PO-396] Transcriptional Control of Hypocotyl Cell Elongation by SHORT-ROOT

*Jun Lim[1], Seung Woo Kim[1], Souvik Dhar[1], Jinkwon Kim[1], Jiyeong Oh[1] （1. Dept. of Systems Biotechnology, Konkuk University, Seoul 05029, Korea）

[PO-398] A cell wall-modifying gene-dependent CLE peptide transport in conferring drought resistance

*Satoshi Endo[1], Hiroo Fukuda[1,2] （1. Kyoto Univ. Adv. Sci., Japan, 2. Akita Pref. Univ., Japan）

[PO-400] Proper synthesis of Secondary Cell Wall in Arabidopsis requires regulation by copper-miRNAs and the miRNA-processing protein Dicer-like 1

*Alessandro Giannetti[1], Staffan Persson[1] （1. University of Copenhagen）

[PO-402] An Evolutionarily Conserved Long-distance Migrating Peptide Regulates Lignin Biosynthesis Pathway and Plant Immunity

Chang-Hung Chen[1,2], Pin-Chien Liou[1,2], Kuan-Hao Huang[1], Ying-Chung Jimmy Lin[2], *Ying-Lan Chen[1] （1. Department of Biotechnology and Bioindustry Sciences, College of Bioscience and Biotechnology, National Cheng Kung University, Tainan, Taiwan, 2. Department of Life Sciences and Institute of Plant Biology, College of Life Science, National Taiwan University, Taipei, Taiwan）

[PO-404] Redox partner preference of monolignol cytochrome P450 monooxygenases C4H and F5H

*Xianhai Zhao[1], Yunjun Zhao[1], Mingyue Gou[1], Chang-Jun Liu[1] （1. Brookhaven National Laboratory）

[P] 17 Symplasmic signaling/Plasmodesmata

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 17 (Meeting Room 10)

[PO-405] Changes in plasmodesmal stress responses across development

*Emma C. Raven[1], Catherine Walker[1], Annalisa Bellandi[1], Christine Faulkner[1] (1. John Innes Centre, Norwich, United Kingdom)

[PO-407] The primary PD density is reduced in brood cells of the moss *Physcomitrium patens*

*Chiyo Jinno[1], Satoshi Naramoto[1], Tomomichi Fujita[1] (1. Hokkaido University, Japan)

[PO-409] AGP polysaccharide chains are required for normal biogenesis of plasmodesmata

Ryoya Okawa[1], Yoko Hayashi[1], Yasuko Yamashita[1], Yoshikatsu Matsubayashi[1], *Mari Ohnishi Ogawa[1] (1. Nagoya university)

[PO-413] Arabidopsis cyclophilins direct intracellular transport of mobile mRNA via organelle hitchhiking

*Tien-Shin Yu[1], Kai-Ren Luo[1], Nien-Chen Huang[1], Yu-Hsin Chang[1,2], Yu-Wen Jan[1] (1. Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan, 2. Institute of Plant Biology, National Taiwan University, Taipei, Taiwan)

[P] 17 Symplasmic signaling/Plasmodesmata

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 17 (Meeting Room 10)

[PO-406] Reaction Without Diffusion: Role Of Plasmodesmata in Floral Pigmentation Patterning

*Steven Harmon-Jarsen[1], Yaowu Yuan[1], Ya Min[1] (1. University of Connecticut)

[PO-408] A novel mechanism for plasmodesmata mediated cell-cell communication in plants

*Marija Smokvarska[1], Jessica Perez Sancho[1], Marie Glavier[1], Ziqiang Li[1], Magali Grison[1], Laetitia Fouillen[1], Patrick Moreau[1], Matthieu Platre[2], Yaowei Yang[3], Yongming Luo[3], Wolfgang Busch[2], Eugenia Russinova[3], Emmanuelle Bayer[1] (1. Laboratoire de Biogenèse Membranaire, UMR5200, CNRS, Université de Bordeaux, Villenave d'Ornon, France, 2. Salk Institute for Biological Studies, La Jolla, California, 3. Department of Plant Biotechnology and Bioinformatics, Ghent University, Ghent, Belgium. Center for Plant Systems Biology, VIB, Ghent, Belgium)

[PO-410] Exploring the intercellular plasmodesmal protein transport in *Marchantia polymorpha*

*Kuan-Ju Lu[1], Chia-Yun Hsu[1], Pin-Lun Lin[1], Chia-Huan Hsu[1], Hui-Yu Chang[1] (1. Graduate Institute of Biochemistry, National Chung Hsing University)

[PO-412] A cell wall-modifying enzyme controls symplastic movement of RNA silencing in aerial Arabidopsis tissues

*Florence Brioudes[1], Florian Brioudes[1], André Imboden[1], Lazar Novaković[2], Yoselin Benitez-Alfonso[2], Olivier Voinnet[1] (1. Swiss Federal Institute of Technology (ETH-Zürich), Switzerland, 2. Centre for Plant Science, School of Biology, University of Leeds, United Kingdom)

[P] 18 Circadian &biotic rhythms

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 18(Meeting Room 10)

[PO-415] Microfocus X-ray CT Analysis of *Arabidopsis* Petioles for Leaf Movement

*Maika Hayashi[1], Tadashi Kunieda[1], Ryo Kumagai[1], Makito Haruta[1], Yoshito Otake[1], Hirokazu Kato[1], Hiroyuki Shima[2], Taku Demura[1] (1. NAIST, Japan, 2. Univ. of Yamanashi, Japan)

[PO-417] Association of NPR1 with ROS and ethylene signaling pathways in relation to the circadian rhythm

*Yumi Kim[1], So Yeon Seo[1], Ky young Park[1] (1. Sunchon national university)

[PO-419] Identifying E3 ubiquitin ligases interacting with *Arabidopsis* circadian clock regulators

*Chen-An Chen[1], Yi-Tsung Tu[1], Joshua M Gendron[2], Chin-Mei Lee[1] (1. Institute of Plant Biology, National Taiwan University, Taipei, Taiwan, 2. Department of Molecular, Cellular and Developmental Biology, Yale University, New Haven, USA)

[PO-421] Quantity regulation of TOC1 and PRR5 for temperature compensation in the Arabidopsis circadian clock

*Akari Maeda[1], Hiromi Matsuo[1], Norihito Nakamichi[1] (1. Nagoya university, Japan)

[PO-423] Long-distance circadian coordination via a phloem-delivered mobile transcript

*András Székely[1], Eleftheria Saplaoura[1], Dorothee Staiger[2], Friedrich Kragler[1] (1. Max Planck Institute of Molecular Plant Physiology, 2. Bielefeld University)

[PO-425] BIG regulates the circadian clock and development

*Dora Luz Cano Ramirez[1,2], Elena Bidash[2], Sally Ward[1], Ottoline Leyser[1], Alex Webb[2] (1. Sainsbury Laboratory, University of Cambridge, Bateman Street, Cambridge CB2 1LR, UK, 2. Department of Plant Sciences, University of Cambridge, Downing Street, Cambridge CB2 3EA, UK)

[PO-427] Assessing the impacts of genetic defects on starch metabolism in *Arabidopsis* plants using the carbon homeostasis model

*Shuichi Kudo[1], Anthony Artins[2], Carolina C. M. Bello[2], Camila Caldana[2], Akiko Satake[1] (1. Kyushu Univ., Japan, 2. Max Planck Inst. of Mol. Plant Physiol., German)

[PO-429] Comparing circadian activity of CAM plant *Kalanchoë laxiflora* promoters in their native environment and in the C_3 *Arabidopsis thaliana*

*Jessica Harding Pritchard[1], James Hartwell[1] (1. University of Liverpool)

[PO-431] Identification of LWD1-interacting proteins reveals novel regulators for Arabidopsis circadian clock

*Chun-Kai Huang[1], Shu-Hsing Wu[1] (1. Institute of Plant and Microbial Biology, Academia Sinica, Taiwan, ROC)

Poster2 | Poster | 18 Circadian & biotic rhythms

[P] 18 Circadian &biotic rhythms

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 18(Meeting Room 10)

[PO-414] Weather-dependent flower movement: the functions and mechanisms for downward-facing of flowers during rain

*Akari Shibata[1], Hanako Shimizu[1], Mie N. Honjo[1], Hiroshi Kudoh[1] （1. Kyoto university, Japan）

[PO-416] CIRCADIAN CLOCK-ASSOCIATED1 (CCA1) controls resistance to aphid by altering indole glucosinolate production

*Keyan Zhu Salzman[1], Jiaxin Lei[1] （1. Texas A&M University）

[PO-418] Circadian-period variation underlies the local adaptation of photoperiodism

*Tomoaki Muranaka[1], Shogo Ito[2], Hiroshi Kudoh[2], Tokitaka Oyama[2] （1. Nagoya University, Japan, 2. Kyoto University, Japan）

[PO-420] The essential role of TOC1 phosphorylation in selective circadian clock gene regulation

*David Somers[1], Jiapei Yan[1] （1. Ohio State University, USA）

[PO-422] Circadian rhythms under controlling light irradiation in accordance with lunar rhythm.

*Naoki Seki[1], Yoko Hattori[1] （1. Toyota Boshoku Corporation）

[PO-424] Imaging and functional analysis of 24-h rhythmic interactions of circadian core oscillators in Arabidopsis

Li Yuan[1], Mingming Liu[1], Qiguang Xie[1], *Xiaodong Xu[1] （1. Henan University, China）

[PO-426] ROLE OF THE ARABIDOPSIS AtbZIP63 TRANSCRIPTION FACTOR STABILITY IN ENERGY MANAGEMENT

*Pamela Carlson[1], Luis Felipe Correa da Silva[2], João Guilherme Portugal Vieira[1], Raphael de Araújo Campos[1], Thyelen Engel de Jesus[1], Nubia Barbosa Eloy[2], Cleverson Carlos Matiolli[3], Michel Vincentz[1] （1. University of Campinas, 2. University of São Paulo, 3. UNIVERSIDADE NOVA DE LISBOA）

[PO-428] ROS around the clock: Superoxide as a metabolic signal affecting circadian rhythms and growth

*Mike Haydon[1] （1. University of Melbourne）

[PO-430] Multiple uORFs-mediated Light-dependent Translational Repression in the Arabidopsis Clock Gene *LHY*

*Haruka Aoyama[1], Yuma Ise[1], Akinori Takahashi[2], Tadashi Yamamoto[2], Yukako Chiba[1,3] （1. Graduate School of Life Science, Hokkaido University,Japan, 2. OIST, Japan, 3. Faculty of Science, Hokkaido University, Japan）

[PO-432] Investigating the circadian regulation of TAG biosynthesis in nitrogen-starved *Arabidopsis* seedlings

*Kristen Edgeworth Edgeworth[1], Sang-Chul Kim[2,3], Xuemin Wang[2,3], Dmitri A Nusinow[2] （1. Washington University in St. Louis, 2. Donald Danforth Plant Science Center, 3. University of Missouri - St. Louis）

[P] 19 Light signaling

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 19(Meeting Room 10)

[PO-433] Light-induced SUMOylation of NF-YC3 regulates stepwise histone modification switch for inhibition of hypocotyl elongation

Mengxia Zhang[1], Jinchao Chen[1,3], Hua Jing[2,3], Long Zhao[1,3], Yiman Yang[4], Doris Wagner[5], Jiafu Jiang[4], Jingbo Jin[2,3], *Jun Xiao[1,3,6] (1. Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, P.R.China, 2. Institute of Botany, Chinese Academy of Sciences, P.R.China, 3. University of Chinese Academy of Sciences, P.R. China, 4. Nanjing Agricultural University, P.R. China, 5. University of Pennsylvania, USA, 6. CAS-JIC Centre of Excellence for Plant and Microbial Science (CEPAMS), UK)

[PO-435] Understanding the role of DNA-DNA interactions in regulating de-etiolation in Arabidopsis

*Laila Dabab Nahas[1], Miguel De-Lucas[1] (1. Durham University)

[PO-437] Investigation of PCH1 in promoting liquid-liquid phase separation of photoreceptor photobodies in Arabidopsis thaliana

*Sarah Pardi[1,2], Matt King[2], Kirk Czymmek[1], Alex Holehouse[2], Dmitri Nusinow[1,2] (1. Donald Danforth Plant Science Center, 2. Washington University in St. Louis)

[PO-439] Phosphorylation of two Thr residues in the C-terminal auto-inhibitory domain of plasma membrane H^+-ATPase is crucial for light-induced stomatal opening

*Saashia Fuji[1], Shota Yamauchi[1], Naoyuki Sugiyama[2], Takayuki Kohchi[3], Ryuichi Nishihama[3,4], Ken-ichiro Shimazaki[5], Atsushi Takemiya[1] (1. Department of Biology, Graduate School of Sciences and Technology for Innovation, Yamaguchi University, Japan, 2. Department of Molecular &Cellular BioAnalysis, Graduate School of Pharmaceutical Sciences, Kyoto University, Japan, 3. Graduate School of Biostudies, Kyoto University, Japan, 4. Department of Applied Biological Science, Faculty of Science and Technology, Tokyo University of Science, Japan, 5. Department of Biology, Faculty of Science, Kyushu University, Japan)

[PO-441] Phosphorylation of WD-repeat protein WDR by phototropins is essential for starch degradation to promote stomatal opening

*Shota Yamauchi[1], Naoyuki Sugiyama[2], Yutaka Kodama[3], Luca Distefano[4], Haruki Fujii[5], Mika Nomoto[6,7], Yasuomi Tada[6,7], Kazuhiro Hotta[8], Diana Santelia[4], Ken-ichiro Shimazaki[9], Atsushi Takemiya[1] (1. Department of Biology, Graduate School of Sciences and Technology for Innovation, Yamaguchi University, Yamaguchi, Japan, 2. Department of Molecular &Cellular BioAnalysis, Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, Japan, 3. Center for Bioscience Research and Education, Utsunomiya University, Tochigi, Japan, 4. Institute of Integrative Biology, ETH Zürich, Zürich, Switzerland, 5. Department of Electrical and Electronic Engineering, Graduate School of Science and Technology, Meijo University, Nagoya, Aichi, Japan , 6. Center for Gene Research, Nagoya University, Nagoya, Japan, 7. Division of Biological Science, Graduate School of Science, Nagoya University, Aichi, Japan, 8. Department of Electrical and Electronic Engineering, Faculty of Science and Technology, Meijo University, Nagoya, Aichi, Japan, 9. Department of Biology, Faculty of Science, Kyushu University, Fukuoka, Japan)

[PO-443] Characterization of a protein kinase inhibitor for stomatal opening and H^+-ATPase phosphorylation inhibition.

*Shogo Kuwayama[1], Koji Takahashi[1], Maki Hayashi[1,2], Ayato Sato[3], Toshinori Kinoshita[1,3] （1. Grad. Sch. Sci., Nagoya University, Japan, 2. Grad. Sch. Life Sci., Tohoku University, Japan, 3. ITbM, Nagoya University, Japan）

[P] 19 Light signaling

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 19(Meeting Room 10)

[PO-434] Dynamic H3K27me3 regulatory mechanism mediated by histone demethylase REF6 responding to red light

*Yan Yan[1], Jiaping Zhu[1], Jigang Li[2], Xian Deng[1], Xiaofeng Cao[1] (1. Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, 2. China Agricultural University)

[PO-436] Complex genetic interactions among MYC transcription factors underlie seedling photomorphogenesis in Arabidopsis

*Vikas Garhwal[1], Sreeramaiah N. GanGappa[1] (1. Department of Biological Sciences, Indian Institute of Science Education and Research Kolkata, Mohanpur 741246 West Bengal, India)

[PO-438] Phenotypic analysis in suppressors of phototropin double mutant

*Taku Sakakibara[1], Shogo Kuwayama[1], Kyomi Taki[1], Toshinori Kinoshita[1] (1. Nagoya University, Japan)

[PO-440] Characterization of blue light-induced phosphorylation and dephosphorylation in guard cells.

*Kohei Fukatsu[1], Yuki Hayashi[1], Takamasa Suzuki[2], Keiko Kuwata[3], Toshinori Kinoshita[1,3] (1. Devision of Biological Science, Nagoya University, Japan, 2. Devision of Biological Chemistry, Chubu University, Japan, 3. ITbM, Nagoya University, Japan)

[PO-442] Functional analysis of novel compounds that inhibit stomatal opening

*Kwang Chul Shin[1], Yusuke Aihara[1], Shigeo Toh[2], Ayato Sato[3], Toshinori Kinoshita[1,3] (1. Graduate School of Science, Nagoya, University, Japan, 2. Department of Environmental Bioscience, Faculty of Agriculture, Meijo University, Japan, 3. WPI-ITbM, Nagoya University, Japan)

[P] 20 Flowering/Growth phase transition

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 20(Meeting Room 10)

[PO-445] The role of *AtDRIFs* in the promotion of flowering under long days

*Ana Cunha[1], João Raimundo[1], Sara Laranjeira[1], Rómulo Sobral[1], Maria Manuela Costa[1] (1. University of Minho)

[PO-447] A B-Box protein suppresses flowering in Arabidopsis through multi-level regulation of the photoperiod pathway

*Rahul Puthan Valappil[1], Yadukrishnan Premachandran[1], Sourav Datta[1] (1. Plant Cell and Developmental Biology Laboratory, Indian Institute of Science Education and Research (IISER) Bhopal, Madhya Pradesh - 462066, India)

[PO-449] A study on the florigen transport mechanisms around the shoot apical meristem in *Arabidopsis*

*Yusuke Murata[1], Mitsutomo Abe[1] (1. Graduate School of Arts and Sciences, The University of Tokyo)

[PO-451] Beyond FD: the bZIP AREB3 mediates FT signalling and floral transition at the Arabidopsis shoot apical meristem

*Damiano Martignago[1], Vitor da Silveira Falavigna[2], Alessandra Lombardi[1], He Gao[2], Paolo Korwin Kurkovski[1], Massimo Galbiati[1], Chiara Tonelli[1], George Coupland[2], Lucio Conti[1] (1. University of Milan, 2. Max Planck Institute for Plant Breeding Research)

[PO-453] Arabidopsis EAF6 is part of the NuA4 Histone Acetyl Transferase complex and participates in plant developmental control

Loreto Espinosa-Cores[1], María Guillem-Bernal[1], Javier Barrero-Gil[1], Verónica Jiménez-Suá rez[1], Alfonso Mouriz[1], José Antonio Jarillo[1], *Manuel Piñeiro[1] (1. Centro de Biotecnología y Genómica de Plantas (CBGP; UPM-INIA/CSIC))

[PO-455] WRKY63 transcriptional activation of COOLAIR and COLDAIR regulates vernalization-induced flowering

*Keqiang Wu[1], Fu-Yu Hung[1], Yuan-Hsin Shih[1], Pei-Yu Lin[1], Yun-Ru Feng[1] (1. Institute of Plant Biology, National Taiwan University)

[PO-457] CBFs have a function to directly activate the expression of *COOLAIR,* an antisense RNA of *FLC*, during vernalization

*Ilha Lee[1,2], Myeongjune Jeon[1,2], Goowon Jeong[1,2], Yupeng Yang[3], Xiao Luo[3], Daesong Jeong[1,2], Jinseul Kyung[1,2], Youbong Hyun[1,2], Yuehui He[3] (1. Seoul National University, 2. Research Center for Plant Plasticity, Seoul National University, 3. Peking University Institute of Advanced Agricultural Sciences, Weifang 261325, China)

[PO-459] An *Arabidopsis* nucleoporin acts as a regulator for photoperiodic flowering

*Jae-Hyeok Park[1], Young-Cheon Kim[1], Jeong Hwan Lee[1] (1. Division of Life Sciences, Jeonbuk National University, 567 Baekje-daero, Deokjin-gu, Jeonju, Jeollabuk-do 54896, Republic of Korea)

[PO-461] The size of the Arabidopsis inflorescence meristem and stem is regulated in response to photoperiod by the bZIP transcription factor bZIP13

*Vitor da Silveira Falavigna[1], Sara Cioffi[1], Latifah Bimpe Azeez[1], Pedro de los Reyes[1], He

Gao[1], Yohanna Evelyn Miotto[1], Martina Cerise[1], George Coupland[1] （1. Max Planck Institute for Plant Breeding Research）

[PO-463] Insights into polycarpic plant development through natural variation in longevity phenotypes in *Arabidopsis thaliana*

*Thalia Luden[1], Marieke Koekkoek[1], Remko Offringa[1] （1. Universiteit Leiden, the Netherlands）

[PO-465] TERMINAL FLOWER 1, a FT homolog interacts with FD in shoot apical meristem during floral transition

*Momoka Matsuoka[1], Mitsutomo Abe[1] （1. The University of Tokyo）

[PO-467] Degradation of SHORT VEGETATIVE PHASE (SVP) at high temperature is mediated by the CUL3A– LFH1– UBC15 ubiquitin ligase complex in Arabidopsis

*Geummin Youn[1], Suhyun Jin[1], Ji Hoon Ahn[1] （1. Korea university, Republic of Korea）

[P] 20 Flowering/Growth phase transition

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 20(Meeting Room 10)

[PO-444] Changes in daily temperature control the expression patterns of *FT* to optimize flowering time in nature

*Akane Kubota[1], Ryosuke Ozaki[1], Yoshinori Kondo[1], Motomu Endo[1], Takato Imaizumi[2] (1. Nara Institute of Science and Technology, 2. University of Washington)

[PO-446] A cryptic role of BASIC PENTACYSTEINEs in the temporal development of Arabidopsis

Jing-Fen Wu[2], Yi-Chen Lee[1], Pei-Ting Tsai[1], Xun-Xian Huang[1], *Huang-Lung Tsai[1], Shu-Hsing Wu[2] (1. Institute of Molecular and Cellular Biology, National Taiwan University, Taiwan, 2. Institute of Plant and Microbial Biology, Academia Sinica, Taiwan)

[PO-448] *Arabidopsis MAC3A* and *MAC3B* integrates environmental signals in modulating flowering time

*Yu-Wen Huang[1], Yu-Sen Wang[1], Chin-Mei Lee[1] (1. Institute of Plant Biology, National Taiwan University, Taiwan)

[PO-450] Multilevel interactions of drought signals with the floral genes network

*Lucio Conti[1], Alice Robustelli Test[1], Sara Colanero[1], Paolo Korwin Krukowski [1], Damiano Martignago[1], Aldo Sutti[1], Giorgio Perrella[1], Thomas E. Juenger[2] (1. University of Milan, Italy, 2. University of Texas at Austin, USA)

[PO-452] For identification of factors on early flowering in *ddm1* mutant of C24 accession in *Arabidopsis thaliana*

*KOHEI KUNITA[1], Motoki Shimizu[2], Ryo Fujimoto[1] (1. Kobe University, Japan, 2. Iwate Biotechnology research center)

[PO-454] UNRAVELING THE ROLE OF INHIBITOR OF GROWTH FACTOR (ING) PROTEINS IN THE REGULATION OF FLOWERING TIME IN ARABIDOPSIS

Alfonso Mouriz[1], Raquel Piqueras[1], Javier Barrero-Gil[1], Manuel Piñeiro[1], *Jose Antonio Jarillo[1] (1. Centro de Biotecnología y Genómica de Plantas, Universidad Politécnica de Madrid (UPM) – Centro Nacional Instituto de Investigación y Tecnología Agraria y Alimentaria (INIA-CSIC), Madrid)

[PO-456] Erasure of Epigenetic Memory in Arabidopsis Flowering Control

*Toshiro Ito[1], Nana Otsuka[1], Makoto Shirakawa[1] (1. Nara Institute of Science and Technology)

[PO-458] Retrotransposon-induced epigenetic regulation of *FLC* accelerates Arabidopsis life cycling in response to herbicide

Mathieu Raingeval[1,2], Basile Leduque[1], Pierre Baduel[2], Vincent Colot[2], *Leandro Quadrana Quadrana[1] (1. Institute of Plant Sciences Paris-Saclay, CNRS, 2. Institut de Biologie de l'Ecole Normale Supérieure, CNRS)

[PO-460] Mutual repression of *AP2* and *SOC1* couples changes in shoot apical meristem morphology with floral transition in Arabidopsis

*Enric Bertran Garcia de Olalla[1], Alice Vayssières[1], Martina Cerise[1], Gabriel Rodríguez Maroto[1], Edouard Severing[1], Yaiza López Sampere[1], Pau Casanova-Ferrer[1], Sabine Schäfer[1], Pau Formosa-Jordan[1], George Coupland[1] (1. Max Planck Institute for Plant Breeding

Research, Germany）

[PO-462] TWAS coupled with eQTL analysis reveals the genetic connection between gene expression and flowering time in Arabidopsis

Pei-Shan Chien[1], Pin-Hua Chen[1], *Tzyy-Jen Chiou[1], Cheng-Ruei Lee[2] （1. Academia Sinica, Taiwan, 2. National Taiwan University, Taiwan）

[PO-464] CRISPR/Cas9-mediated genomic editing of crucial gene regulating flowering time in lettuce (*Lactuca sativa* L.)

*Young jae YUN[1], Jeong Hwan LEE[1], Young Cheon KIM[1] （1. Jeonbuk national university）

[PO-466] Transcriptional repression of *FLOWERING LOCUS C* by LUMINIDEPENDENS involved in the autonomous pathway for flowering

*Daesong Jeong[1], Ramin Bahmani[1], Ilha Lee[1] （1. Seoul National University）

[PO-468] C-TERMINAL DOMAIN PHOSPHATASE-LIKE 1 protein interacts with TAF15b and together promote the repression of *FLOWERING LOCUS C.*

*Jinseul Kyung[1], Ilha Lee[1] （1. Seoul National University, Republic of Korea）

[P] 21 Flower development

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 21(Meeting Room 10)

[PO-469] To ventral or not to ventral, it may depend on SISTER-OF-PIN1

*Ya Min[1], Qiaoshan Lin[1], Yaowu Yuan[1] （1. Department of Ecology and Evolutionary Biology, University of Connecticut）

[PO-471] Molecular dissection of floral proximal-distal patterning in *Torenia fournieri*

*Shihao Su[1,2], Yawen Lei[3], Xuan Zhou[1], Takamasa Suzuki[4], Wei Xiao[1], Tetsuya Higashiyama[2,5] （1. Sun Yat-sen University, China, 2. Nagoya University, Japan, 3. Guangdong Academy of Science, China, 4. Chubu University, Japan, 5. The University of Tokyo, Japan）

[PO-473] Effects of mechanical forces on the floral development in *Arabidopsis thaliana* using a novel experimental system

*Akitoshi Iwamoto[1], Yuna Yoshioka[2], Oriko Okabe[2], Yohei Tanoue[1], Ryuta Karube[1], Sumire Yamamoto[1], Mizuki Negishi[1], Toshiyuki Ohno[1], Yuma Sumitomo[1], Ryoka Nakamura[1], Takeshi Yajima[1], Wakana Inoue[1], Kaho Nagakura[1] （1. Kanagawa University, 2. Tokyo Gakugei University）

[PO-475] *SPATULA*'s role in radial symmetry establishment via cell-cycle coordination.

*Samuel Wee Han Koh[1], Laila Moubayidin[1] （1. John Innes Centre, UK）

[PO-477] Comparing the fruit development between *Arabidopsis thaliana* and other Brassicaceae species

*Binghan Wang[1], Andrea Gómez-Felipe[1], Jean-Sébastien Parent[2], Daniel Kierzkowski[1] （1. Institut de Recherche en Biologie Végétale, Département de Sciences Biologiques, Université de Montréal, Canada, 2. Agriculture and Agri-Food Canada, Canada）

[PO-479] The molecular origin of sensitive stigmas: using *Torenia fournieri* as a model

*Xuan Zhou[1], Shihao Su[1] （1. Sun Yat-sen University, China）

[PO-481] Auxin and gibberellic acid coordinate gene expression networks during receptacle growth

Xiong Liao[3,2], Yin Zhang [3,2], Zhongtian Xu[5], Tianxinag Li[3,2], Xiaoyue Gao[3,2], Renyi Liu[4], *Chizuko Yamamuro[1,2] （1. College of life science, Fujian Agriculture and Forestry University, Fuzhou 350002, Fujian, China, 2. FAFU-UCR Joint Center for Horticultural Biology and Metabolomics, Haixia Institute of Science and Technology, Fujian Agriculture and Forestry University, Fuzhou 350002, Fujian, China, 3. College of Horticulture, Fujian Agriculture and Forestry University, Fuzhou 350002, Fujian, China, 4. Center for Agroforestry Mega Data Science, Haixia Institute of Science and Technology, Fujian Agriculture and Forestry University, 13 Fuzhou 350002, China, 5. Fujian Agriculture and Forestry University, Fuzhou 350002, Fujian, China）

[PO-483] A ZINC FINGER PROTEIN plays a role in mediating silique development through integration of phytohormone signaling

Pui Man Low[1], Que Kong[1], Trisha Quek[1], Peng Ken Lim[1], Yuzhou Yang[1], Wan Ting Tee[1], Marek Mutwil[1], Staffan Persson[2], Ling Yuan[3], *Wei Ma[1] （1. School of Biological Sciences, Nanyang Technological University, SinGapore 637551, SinGapore., 2. Department of Plant and

Environmental Sciences, University of Copenhagen, 1871 Frederiksberg, Denmark., 3. Department of Plant and Soil Sciences, Kentucky Tobacco Research and Development Center, University of Kentucky, Lexington, KY, 40546, USA.）

[PO-485] Characteristics of a Radish Mutant with Longer Siliques

*shisheng li[1]（1. Huanggang Normal University, China）

Poster1 | Poster | 21 Flower development

[P] 21 Flower development

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 21(Meeting Room 10)

[PO-470] Organ-specific transcriptome analysis reveals candidate genes involved in floral organogenesis in wild barley

*Gang Chen[1,2], Mishina Kohei[1], Qi Wang[3], Hongjing Zhu[1,2], Akemi Tagiri[1], Shinji Kikuchi[2], Hidenori Sassa[2], Youko Oono[1,2], Takao Komatsuda[1,2,4] (1. Institute of Crop Science, National Agriculture and Food Research Organization, Tsukuba, JAPAN, 2. University of Chiba, Matsudo, JAPAN, 3. Key Laboratory of Fishery Biotechnology, Chinese Academy of Fishery Sciences, Beijing, CHINA, 4. Crop Research Institute, Shandong Academy of Agricultural Sciences, Shandong, CHINA)

[PO-472] Molecular mechanisms patterning the petal of *Hibiscus trionum*

*Elena Salvi[1], Stefano Gatti[1], May Yeo[1], Lucie Riglet[1], Edwige Moyroud[1] (1. Sainsbury Laboratory - University of Cambridge)

[PO-474] Histone Demethylases ELF6 and JMJ13 Antagonistically Regulate Self-Fertility in Arabidopsis

*Charlie Keyzor[1], Benoit Mermaz[1], Efstathios Trigazis[1], SoYoung Jo[1], Jie Song[1] (1. Imperial College London)

[PO-476] Investigating the role of CYCLIN-P3s in *Arabidopsis* style development

*Iqra Jamil[1], Laila Moubayidin[1] (1. John Innes Centre)

[PO-478] Competing developmental gradients coordinate gynoecium morphogenesis in *Arabidopsis thaliana*

*Andrea Gomez Felipe[1], Marco Marconi[2], Elvis Branchini[1], Binghan Wang[1], Hanna Bertrand-Rakusova[1], Teodora Stan[1], Jeromme Burkiewicz[1], Stefan de Folter[3], Anne-Lise Routier-Kierzkowska[1], Krzysiek Wabnik[2], Daniel Kierzkowski[1] (1. Institut de Recherche en Biologie Végétale, Département des Sciences Biologiques, Université de Montréal, Canada, 2. Centro de Biotecnología y Genómica de Plantas (Universidad Politécnica de Madrid—Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria), Spain, 3. Unidad de Genómica Avanzada (UGA-LANGEBIO), Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV-IPN), Mexico)

[PO-480] Sugars on SPATULA: The Bitter and Sweet of Symmetry Establishment During Plant Organogenesis

*Seamus Curran[1], Yuxiang Jiang[1], Luca Argiro[2], Carlo Martins[1], Gerhard Saabach[1], Laila Moubayidin[1] (1. John Innes Centre, 2. Max Planck Insititue for Plant Breeding Research)

[PO-482] Jasmonate biosynthesis gene *SlDAD1* regulates reproductive development in tomato

*Yukako Nomura[1], Yu Lu[2], Hirofumi Enomoto[3], Keiichiro Harada[1], Yoshihito Shinozaki[2], Ryoichi Yano[4], Mikiko Kojima[5], Yumiko Takebayashi[5], Hitoshi Sakakibara[6], Hiroshi Ezura[2,7], Tohru Ariizumi[2,7] (1. Graduate School of Life and Environmental Sciences, University of Tsukuba, Japan, 2. Faculty of Life and Environmental Sciences, University of Tsukuba, Japan, 3. Department of Biosciences, Teikyo University, Japan, 4. Advanced Analysis Center, National Agriculture and Food Research Organization (NARO), Japan, 5. RIKEN Center for Sustainable Resource Science, Japan, 6. Graduate School of Bioagricultural Sciences, Nagoya

University, Japan, 7. Tsukuba Plant Innovation Research Center, University of Tsukuba, Japan）

[PO-484] Fruit indehiscence mutation increases seed size in Arabidopsis

*Somin Song[1], Jeong Eun Park[1,2], Jin Hoe Huh[1,2,3]（1. Department of Agriculture, Forestry and Bioresources, Seoul National University, 1 Gwanak-ro, Gwanak-gu, Seoul 08826, Republic of Korea, 2. Plant Genomics and Breeding Institute, Seoul National University, 1 Gwanak-ro, Gwanak-gu, Seoul 08826, Republic of Korea, 3. Research Institute for Agriculture and Life Sciences, Seoul National University, 1 Gwanak-ro, Gwanak-gu, Seoul 08826, Republic of Korea）

Poster2 | Poster | 22 Meiosis/Gamete/Fertilization

[P] 22 Meiosis/Gamete/Fertilization

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 22(Meeting Room 10)

[PO-487] The Plant Pontin and Reptin Homologues, RUVBL1 and RUVBL2A, are involved in plant gametophyte development

*Petra Prochazkova Schrumpfova[1], Eva Dvorak Tomastikova[2], Fen Yang[2], Kristina Mlynarova[1], Said Hafidh[2], Alzbeta Kusova[1], Marketa Pernisova[1], Tereza Prerovska[1], David Honys[2], Jiri Fajkus[1], Ales Pecinka[2] (1. Masaryk University, Czech Rep., 2. Czech Acad Sci, Czech Rep.)

[PO-489] Cell-cycle synchronized organelles clustering in meiocytes

*Yuki Hamamura[1], Shinichiro Komaki[2], Nancy De Winne[3,4], Geert De Jager[3,4], Arp Schnittger[1] (1. University of Hamburg, Germany, 2. NAIST, Japan, 3. Ghent University, Belgium, 4. VIB, Belgium)

[PO-491] A cytological framework of female meiosis in Arabidopsis by live-cell imaging

*Bingyan Hu[1], Maria Ada Prusicki[1], Arp Schnittger[1] (1. University of Hamburg, Germany)

[PO-493] Identification of a novel U-chromosomal gene required for egg cell differentiation in *Marchantia polymorpha*

*Yen-Ting Lu[1], Yihui Cui[1], Masaki Shimamura[2], Emiko Yoro[3], Sakiko Ishida[1], Tomoaki Kajiwara[4], Tetsuya Hisanaga[1,5], Takayuki Kohchi[4], Keiko Sakakibara[3], Tatsuaki Goh[1], Keiji Nakajima[1] (1. Graduate School of Biological Science, Nara Institute of Science and Technology (NAIST), Ikoma 630-0192 Japan, 2. Graduate School of Integrated Science for Life, Hiroshima University, Hiroshima, 739-8528 Japan, 3. Department of Life Science, Rikkyo University, Tokyo, 171-8501 Japan, 4. Graduate School of Biostudies, Kyoto University, Kyoto 606-8502 Japan, 5. Gregor Mendel Institute of Molecular Plant Biology, Dr. Bohr-Gasse 3, 1030 Vienna, Austria)

[PO-495] Functions of serine from the phosphorylated pathway on growth, male gametogenesis, and metabolism in *Marchantia polymorpha*

*Mengyao Wang[1,2], Hiromitsu Tabeta[1,3,4], Kinuka Ohtaka[1,2,5], Ayuko Kuwahara[1], Ryuichi Nishihama[6,7], Toshiki Ishikawa[8], Kiminori Toyooka[1], Mayuko Sato[1], Mayumi Wakazaki[1], Hiromichi Akashi[1], Hiroshi Tsugawa[1,9], Tsubasa Shoji[1], Okazaki Yozo[1], Keisuke Yoshida[10], Ryoichi Sato[1], Ali Ferjani[4], Takayuki Kohchi[6], Masami Yokota Hirai[1,2] (1. RIKEN Center for Sustainable Resource Science, Japan, 2. Nagoya University, Japan, 3. The University of Tokyo, Japan, 4. Tokyo Gakugei University, Japan, 5. Japan Women's University, Japan, 6. Kyoto University, Japan, 7. Tokyo University of Science, Japan, 8. Saitama University, Japan, 9. Tokyo University of Agriculture and Technology, Japan, 10. Tokyo Institute of Technology, Japan)

[PO-497] Live imaging of chromosome behavior in pollen mother cells of Arabidopsis meiotic mutant

*Yoshitaka Azumi[1] (1. Faculty of Science, Kanagawa University)

[PO-499] Effect of callose on symplast and apoplast related events in controlling proper meiosis initiation in rice anther locules

*Harsha Somashekar[1,2], Ken-Ichi Nonomura[1,2], Keiko Takanami[3], Rie Hiratsuka[4] (1. Plant Cytogenetics Laboratory, National Institute of Genetics, Mishima, Japan, 2. School of Life sciences, The Graduate University for Advanced studies (SOKENDAI), 3. Department of

Environmental Health, Faculty of Human Life and Environmental Sciences, National Nara Women's University, 4. Faculty of Medicine School of Medicine, The Jikei University school of Medicine）

[PO-501] KNOLLE/SYP111 and SYP112 cooperate in cytokinesis during gametogenesis in *Arabidopsis thaliana*

*Kazuo Ebine[1,2], Daisuke Kurihara[3], Shohei Yamaoka[4], Tetsuya Higashiyama[5], Takashi Ueda[1,2]（1. NIBB, Japan, 2. SOKENDAI, Japan, 3. Nagoya Univ., Japan, 4. Kyoto Univ., Japan, 5. Univ. Tokyo, Japan）

[PO-503] Cytosolic phosphoglucose isomerase is essential for microsporogenesis and embryogenesis in *Arabidopsis*

*Hung-Chi Liu[1], Hsiu-Chen Chen[1], Tzu-Hsiang Huang[1], Wei-Ling Lue[2], Jychian Chen[2], Der-Fen Suen[1]（1. Agricultural Biotechnology Research Center, Academia Sinica, Taipei, Taiwan, 2. Institute of Molecular Biology, Academia Sinica, Taipei, Taiwan）

[PO-505] DNA demethylases act together to regulate reproductive development in Arabidopsis

*Joo Young Lim[1,2], Seung Hwa Yu[3], Jin Hoe Huh[1,2,3,4]（1. Department of Agriculture, Forestry and Bioresources, College of Agriculture and Life Science, Seoul National University, Seoul 08826, South Korea, 2. Plant Genomics and Breeding Institute, Seoul National University, Seoul 08826, South Korea, 3. Interdisciplinary Program in Agricultural Genomics, Seoul National University, Seoul 08826, South Korea, 4. Research Institute for Agriculture and Life Sciences, Seoul National University, Seoul 08826, South Korea）

[PO-507] A novel *Arabidopsis thaliana* protein, POTI, plays an important role in maintaining pollen tubes' integrity

*Natalia Julia Rzepecka[1], Emi Ito[2], Yoko Ito[2], Tomohiro Uemura[1]（1. Graduate School of Humanities and Sciences, Ochanomizu University, Japan, 2. Institute for Human Life Sciences, Ochanomizu University, Japan）

[PO-509] Proposed molecular mechanism for persistent growth capability in physiologically anuclear pollen tubes

*Kazuki Motomura[1,2], Naoya Sugi[3], Atsushi Takeda[1], Shohei Yamaoka[4], Daisuke Maruyama[3]（1. Ritsumeikan Univ., Japan, 2. PRESTO, JST, Japan, 3. Kihara Inst. Biol. Res., Yokohama City Univ., Japan, 4. Kyoto Univ., Japan）

[PO-511] Investigation of genes involved in species-specific pollen tube guidance and gametophyte development.

*Masahiro Kanaoka[1,2], Nao Kamiya[2], Kana Hisabayashi[2], Tetsuya Higashiyama[3]（1. Prefectural University of Hiroshima, 2. Nagoya University, 3. University of Tokyo）

[PO-513] Quantification of species-preferential pollen tube guidance by the ovule in *Arabidopsis* species

*Takuya T Nagae[1], Hidenori Takeuchi[2], Shiori Nagahara[2], Yoko Mizuta[2,3], Tetsuya Higashiyama[4]（1. Graduate School of Agricultural and Life Sciences, The University of Tokyo, 2. Institute of Transformative Bio-Molecules (WPI-ITbM), Nagoya University, 3. Institute for Advanced Research (IAR), Nagoya University, 4. Graduate School of Science, The University of Tokyo）

[PO-515] Roles of cytoskeleton in *Arabidopsis* synergid cells

*Daichi Susaki[1], Rie Izumi[1], Takao Oi[2], Hidenori Takeuchi[2], Ji Min Shin[3], Naoya Sugi[1], Tetsu Kinoshita[1], Tetsuya Higashiyama[4], Tomokazu Kawashima[3], Daisuke Maruyama[1]（1.

Yokohama City University, Japan, 2. Nagoya University, Japan, 3. University of Kentucky, USA, 4. The University of Tokyo, Japan）

[PO-517] Analysis of a key factor regulating cell fusion between early endosperm and persistent synergid.

*Daisuke Maruyama[1], Kaoru Ohta[1], Daichi Susaki[1], Tetsu Kinoshita[1] （1. Kihara Institute for Biological Research, Yokohama City University）

[PO-519] Molecular control of dominance/recessivity interactions between self-incompatibility alleles in Arabidopsis

Rita A Batista[1], Eléonore Durand[1], Manu Dubin[1], Samson Simon[1], Nicolas Burghgraeve[1], Jacinthe Azevedo-Favory[2], Xavier Vekemans[1], *Vincent Castric[1] （1. CNRS - University of Lille, 2. CNRS - University of Perpignan）

[PO-521] Studies toward unveiling the molecular scenario of double fertilization in *Arabidopsis thaliana*

*Tomoko Igawa[1], Taro Takahashi[1], Yuka Shiba[1], Jin Sugimoto[1] （1. Chiba University, Japan）

[PO-523] Sperm nuclear fusion is not required for the onset of embryogenesis

*Shuh-ichi Nishikawa[1], Yuri Takagi[1], Yuna Takamatsu[1], Hikari Matsumoto[2], Minako Ueda[2] （1. Faculty of Science, Niigata University, 2. Graduate School of Life Sciences, Tohoku University）

Poster2 | Poster | 22 Meiosis/Gamete/Fertilization

[P] 22 Meiosis/Gamete/Fertilization

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 22(Meeting Room 10)

[PO-486] DGK2 and DGK4 are the essential kinase for gametogenesis and eukaryotic phospholipid metabolism

*Artik Elisa Angkawijaya[1,2], Van Cam Nguyen[1,2], Farrel Gunawan[2], Yuki Nakamura[1,3] (1. Center for Sustainable Resource Science, RIKEN, Yokohama, 230-0045 Japan, 2. Institute of Plant and Microbial Biology, Academia Sinica, 128 sec.2 Academia Rd., Nankang, Taipei 11529, Taiwan, 3. Graduate School of Science, The University of Tokyo, Tokyo 113-8654, Japan)

[PO-488] Deciphering the molecular mechanism of sporogenesis mediated by SPOROCYTELESS/NOZZLE

*Heecheol Yu[1,2], Youbong Hyun[1,2] (1. Seoul National University, South Korea, 2. Research Center for Plant Plasticity, Seoul National University, South Korea)

[PO-490] Molecular dynamics of rice MEL2 as a component of cytoplasmic RNP granules regulating proper meiosis initiation

Manaki Mimura[1], Seijiro Ono[1], Harsha Somashekar[1,2], *Kenichi Nonomura[1,2] (1. Plant Cytogenetics, Dept. Gene Function &Phenomics, National Institute of Genetics, 2. Genetics course, School of Life Science, The Graduate University for Advanced Studies (SOKENDAI))

[PO-492] DNA methylation profiling in *Arabidopsis* egg cells

*Hiroki Tsutsui[1,2], Marc W Schmid[3], Ueli Grossniklaus[1] (1. Department of Plant and Microbial Biology &Zurich-Basel Plant Science Center, University of Zurich, Zurich, Switzerland, 2. Okinawa Institute of Science and Technology (OIST), Okinawa, Japan, 3. MWSchmid GmbH, Glarus, Switzerland)

[PO-494] Distinct chromatin signatures in the Arabidopsis male gametophyte

*Zhe Wu[1], Danling Zhu[1], Yi Wen[1], Xi Chen[1] (1. School of Life Sciences, Southern University of Science and Technology, China)

[PO-496] Extensive N4 Cytosine Methylation is Essential for *Marchantia* Transcriptional Programming and Sperm Function

*James M Walker[1,2], Jingyi Zhang[2], Yalin Liu[2], Shujuan Xu[2], Martin Vickers[2], Judit Talas[2], Liam Dolan[3], Keiji Nakajima[4], Xiaoqi Feng[2] (1. Salk Institute, 2. John Innes Centre, 3. Gregor Mendel Institute, 4. Nara Institute of Science and Technology)

[PO-498] Control of meiosis under heat stress

Joke de Jaeger-Braet[1], Lev Boettger[1], Yinqi Wang[1], *Arp Schnittger[1] (1. University of Hamburg, Germany)

[PO-500] Arabidopsis novel proteins required for the construction of pollen exine reticulate structure

Kota Suzuki[1], *Sumie Ishiguro[1] (1. Nagoya University, Japan)

[PO-502] Ca^{2+}-induced removal of inner vegetative plasma membrane in Arabidopsis sperm cells

*Naoya Sugi[1], Daichi Susaki[1], Kazuo Ebine[2,3], Tetsu Kinoshita[1], Daisuke Maruyama[1] (1. KIBR, Yokohama City Univ., 2. Div. Cellular Dynamics, NIBB, 3. Sch. Life Sci., SOKENDAI)

[PO-504] Gene expression dynamics in developing pollen of *Arabidopsis thaliana* addressed by multi-omics approaches

*Božena Klodová[1,2], David Potěšil[3], Lenka Steinbachová[1], Christos Michailidis[1], Dieter Hackenberg[4], Jörg Dieter Becker[5], David Honys[1,2], David Twell[4] （1. Institute of Experimental Botany of the Czech Academy of Sciences, Laboratory of Pollen Biology, Czech Republic, 2. Faculty of Science, Department of Experimental Plant Biology, Charles University, Czech Republic, 3. Mendel Centre for Plant Genomics and Proteomics, Central European Institute of Technology, Masaryk University, Czech Republic, 4. Department of Genetics and Genome Biology, University of Leicester, Leicester, United Kingdom, 5. Instituto de Tecnologia Química e Biológica António Xavier, Universidade Nova de Lisboa. Oeiras, Portugal）

[PO-506] Requirement of Non-specific Phospholipase C (NPC) in Plant Viability

*Anh Hai Ngo[1,2,3,6], Debayan Bose[2,3,4], Ying-Chen Lin[2,3,4], Yu-chi Liu[2], Katharina Gutbrod[5], Helga Peisker[5], Van C. Nguyen[1,2,3,4], Peter Dörmann[5], Kazue Kanehara[2,3,6], Yuki Nakamura[1,2,3,6,7] （1. RIKEN Center for Sustainable Resource Science (CSRS), 2. Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, 3. Molecular and Biological Agricultural Sciences Program, Academia Sinica, Taiwan International Graduate Program, Taipei 11529, Taiwan , 4. Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung 40227, Taiwan , 5. Institute of Molecular Physiology and Biotechnology of Plants, University of Bonn, D-53115 Bonn, Germany, 6. Biotechnology Center, National Chung-Hsing University, Taichung 40227, Taiwan, 7. Graduate School of Science, The University of Tokyo, Tokyo 113-8654, Japan）

[PO-508] Analysis of a Rab GTPase in pollen tube guidance

*Kumi Matsuura-Tokita[1,2], Kazuo Ebine[3], Tomohiro Uemura[4], Takashi Ueda[3], Akihiko Nakano[2], Tetsuya Higashiyama[1] （1. The University of Tokyo, Japan, 2. RIKEN, Japan, 3. National Institute for Basic Biology, Japan, 4. Ochanomizu University, Japan）

[PO-510] The Regulation of *Arabidopsis MALE STERILITY1 (MS1)* in Pollen Development

*Helen White[1], Wenzhe Yin[1], Zoe Wilson[1] （1. University of Nottingham）

[PO-512] Tip-localized receptor modules orchestrate pollen tube behavior in angiosperms

*Hidenori Takeuchi[1], Takuya T. Nagae[2], Miki Imoto[1], Nozomi Naiki[1], Shiori Nagahara[1], Kanako Bessho-Uehara[3], Tetsuya Higashiyama[2] （1. Nagoya University, Japan, 2. The University of Tokyo, Japan, 3. Tohoku University, Japan）

[PO-514] Novel function of cuticles as a reproductive barrier in Brassicaceae

*Yoshinobu Kato[1,2], Yuka Kimura[1], Seiji Takayama[1], Sota Fujii[1,3] （1. Grad. Sch. Agric. Lif. Sci., The University of Tokyo, 2. JST-PRESTO, 3. Suntory-SunRiSE）

[PO-516] Type II arabinogalactans play important roles in pollen - pistil interactions

Diana Moreira[1], Jessy Silva[2], Ana Marta Pereira[1], Maria João Ferreira[1], Sara Pinto[1], Sara Mendes[1], Dasmeet Kaur[4], Frederico Lopez-Hernandez[5], Michael Held[6], Matthew Tucker[7], Allan Showalter[3], Paul Dupree[5], Manuela Costa[8], *Sílvia Coimbra[1] （1. LAQV/REQUIMTE, Departamento de Biologia, Faculdade de Ciências, Universidade do Porto, Rua Campo Alegre s/n, 4169-007 Porto, Portugal, 2. Department of Biology, University of Minho, Campus de Gualtar, 4710-057 Braga, Portugal, 3. Department of Environmental &Plant Biology, Ohio University, Athens, OH 45701-2979, USA, 4. Molecular and Cellular Biology Program, Ohio University, Athens, OH 45701, USA, 5. Department of Biochemistry, University of

Cambridge, CB2 1QW Cambridge, UK, 6. Department of Chemistry and Biochemistry, Ohio University, Athens, OH 45701, USA, 7. School of Agriculture, Food and Wine, Level 4, Main WIC Building, University of Adelaide, Waite Campus, Urrbrae, SA, 5064, Australia, 8. Centre of Molecular and Environmental Biology (CBMA), Department of Biology, University of Minho, Campus of Gualtar, 4710-057 Braga, Portugal）

[PO-518] Cytological Analysis of Cell Invasion during Gametophyte Interactions in Arabidopsis

*Nicholas James Desnoyer[1], Ueli Grossniklaus [1] （1. University of Zurich）

[PO-520] Molecular basis of multi-phased pistil defense mechanism against foreign pollen

*Sota Fujii[1,2], Hiroki Miura[1], Eri Yamamoto[1], Seiji Takayama[1] （1. The University of Tokyo, 2. Suntory Rising Stars Encouragement Program in Life Sciences (SunRiSE)）

[PO-522] Identification and analysis of the putative GCS1-interacting proteins in Arabidopsis

*Ari Yoshimura[1], Yuki Yanagawa[1], Amane Mimuro[1], Tomoko Igawa[1] （1. Chiba University, Japan）

[PO-524] The female gametes expressed protein FOG3 is required for gamete fusion in *Arabidopsis thaliana*

*Yuan Wang[1], Zi jun Lan[1], Ji xuan Yang[1], Tian xu Liu[1], Sheng Zhong[1], Li -Jia Qu[1,2] （1. State Key Laboratory of Protein and Plant Gene Research, Peking-Tsinghua Center for Life Sciences at College of Life Sciences, Peking University, China, 2. The National Plant Gene Research Center (Beijing), China）

Poster1 | Poster | 23 Embryogenesis/Seed development

[P] 23 Embryogenesis/Seed development

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 23(Meeting Room 10)

[PO-525] Approach to elucidate the molecular mechanism regulating the basal meristem of hornwort sporophytes

*Kazune Ezaki[1], Keiko Sakakibara[1] (1. Rikkyo university)

[PO-527] Quantification of zygote polarization dynamics for body axis formation in Arabidopsis

*Minako Ueda[1,2], Zichen Kang[3], Tomonobu Nonoyama[3], Hikari Matsumoto[1], Sakumi Nakagawa[1], Yukitaka Ishimoto[3], Satoru Tsugawa[3], Yusuke Kimata[1], Takumi Higaki[4], Yuuki Matsushita[5], Naoya Kamamoto[5], Koichi Fujimoto[5] (1. Tohoku University, Japan, 2. SunRiSE, Japan, 3. Akita Prefectural University, Japan, 4. Kumamoto University, Japan, 5. Hiroshima University, Japan)

[PO-529] Antagonistic effects on *Arabidopsis* hybrids exhibiting endosperm based post-zygotic hybridization barriers

*Renate Marie Alling[1], Katrine Bjerkan[1], Ida Velle Myking[1], Anne Krag Brysting[1], Paul Eivind Grini[1] (1. University of Oslo)

[PO-531] The identification of type I MADS box genes as the upstream activators of an endosperm-specific invertase inhibitor in Arabidopsis

*Dongfang Wang[1] (1. Spelman College)

[PO-533] "Identification and functional investigation of diversifying seed genes at the maternal-offspring interface in *Arabidopsis thaliana*"

*Caroline Anne Martin[1,2], Alesandra Pusey[1,2], Rebecca Povilus[2], Souraya Khouider[2], Mary Gehring[1,2] (1. MIT, USA, 2. Whitehead Institute for Biomedical Research, USA)

[PO-535] Impact of LYSOPHOSPHATIDIC ACID ACYLTRANSFERASE 2 (LPAT2) in *de novo* glycerolipid metabolism and developmental control: Two sides of the same coin?

*Niña Alyssa Barroga[1,2,3,4], Yuki Nakamura[1,5] (1. Center for Sustainable Resource Science, RIKEN, Yokohama 230-0045, Japan, 2. Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, Academia Sinica and National Chung Hsing University, Taipei 11529, Taiwan , 3. Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan , 4. Graduate Institute of Biotechnology, National Chung Hsing University, Taichung 40227, Taiwan , 5. Graduate School of Science, The University of Tokyo, Tokyo 113-8654, Japan)

[PO-537] Molecular basis of the key regulator WRINKLED1 in plant oil biosynthesis

Zhu Qiao[1,2], *Que Kong[1], Wan Ting Tee[1], Audrey R.Q. Lim[1], Miao Xuan Teo[1], Vincent Olieric[3], Pui Man Low[1], Yuzhou Yang[1], Guoliang Qian[4], Wei Ma[1], Yong-Gui Gao[1,2] (1. School of Biological Sciences, Nanyang Technological University, SinGapore 637551, SinGapore., 2. NTU Institute of Structural Biology, Nanyang Technological University, SinGapore 636921, SinGapore., 3. Swiss Light Source, Paul Scherrer Institute, 5232 Villigen PSI, Switzerland., 4. College of Plant Protection (Key Laboratory of Integrated Management of Crop Diseases and Pests), Nanjing Agricultural University, Nanjing, 210095, China.)

[PO-541] Apetala 2 regulates seed longevity through lipid polyester accumulation

*Eduardo Bueso Rodenas[1], Joan Renard[1], Isabel Molina[2], Gaetano Bissoli[1], Maria Dolores Planes[1], Eduardo Burillo[1] （1. Instituto de Biología Molecular y Celular de Plantas, Universitat Politecnica de València, 46022 Valencia, Spain, 2. Department of Biology, Algoma University, Sault Ste Marie, ON, Canada, P6A 2G4）

[PO-543] AtC3H59/ZFWD3, an Arabidopsis nuclear protein, interacts with Desi1 and is involved in seed germination, seedling development, and seed development

*Hye-Yeon Seok[1], Hyungjoon Bae[1], Taehyoung Kim[1], Syed Muhammad Muntazir Mehdi[1], Linh Vu Nguyen[1], Sun-Young Lee[1], Md Bayzid[1], Mairaj Bibi[1], Swarnali Sarker[1], Yong-Hwan Moon[1] （1. Pusan National University, Republic of Korea）

[PO-545] Constructing and testing a genetic network for controlling seed germination in Arabidopsis

*Ming Yang[1], Yixing Wang[1] （1. Department of Plant Biology, Ecology, and Evolution, Oklahoma State University, Stillwater, OK 74078, USA）

[PO-547] AtC3H12, an Arabidopsis non-TZF transcriptional activator, negatively affects seed germination and seedling development

*Mairaj Bibi --[1], Hye-Yeon Seok[1], Taehyoung Kim[1], Sun-Young Lee[1], Md Bayzid[1], Swarnali Sarker[1], Yong-Hwan Moon[1] （1. PUSAN NATIONAL UNIVERSITY）

[PO-549] Heterosis in Intraspecific Hybrid of *Arabidopsis thaliana* during Early Development

*Putri Wijayanti[1], Yuko Wada[1], Kazuaki Utsugi[1], Arei Isaka[1], Yuya Tanaka[1], Tatsuya Nunohira[1], Yuki Hane[1], Seiji Takayama[2], Toshiro Ito[1] （1. Division of Biological Science, Graduate School of Science and Technology, Nara Institute of Science and Technology, Japan, 2. Graduate School of Agricultural and Life Science, Tokyo University, Japan）

Poster1 | Poster | 23 Embryogenesis/Seed development

[P] 23 Embryogenesis/Seed development

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 23(Meeting Room 10)

[PO-526] Delayed embryo-proper development triggers suspensor derived polyembryony in Arabidopsis

*Honglei Wang[1], Ben Scheres[1], Renze Heidstra[1] (1. Wageningen University &Research, The Netherlands)

[PO-528] Elucidation of elongation mechanism of Arabidopsis zygote using image analysis methods based on live-cell imaging

*Hikari Matsumoto[1], Zichen Kang[2], Tomonobu Nonoyama[2], Sakumi Nakagawa[1], Yukitaka Ishimoto[2], Satoru Tsugawa[2], Minako Ueda[1,3] (1. Tohoku University, Japan, 2. Akita Prefectural University, Japan, 3. Suntory Rising Stars Encouragement Program in Life Sciences (SunRiSE), Japan)

[PO-530] Endosperm cellularization is initiated by a family of auxin related factors

*Nicolas Butel[1], Wenjia Xu[2], Juan Santos-González[2], Claudia Köhler[1,2] (1. Max Planck Institute of Molecular Plant Physiology, Potsdam-Golm, Germany, 2. Department of Plant Biology, Uppsala BioCenter, Swedish University of Agricultural Sciences and Linnean Centre for Plant Biology, Uppsala, Sweden)

[PO-532] Natural variation in *WHITE-CORE RATE 1* regulates redox homeostasis in rice endosperm to affect grain quality

*Bian Wu[1], Yuqing He[2] (1. Food Crops Institute, Hubei Academy of Agricultural Sciences, Wuhan, China, 2. National Key Laboratory of Crop Genetic Improvement and Hubei Hongshan Laboratory, Huazhong Agricultural University, Wuhan, China)

[PO-534] The plant hormone ABA alleviates the interploidy barrier

*Hikaru Sato[1,3], Wenjia Xu[1,2], Heinrich Bente[1,4], Juan Santos-González[1], Claudia Köhler[1,4] (1. Swedish University of Agricultrual Sciences, Sweden, 2. National Institute of Agricultural Research, France, 3. University of Tokyo, Japan, 4. Max Planck Institute, Germany)

[PO-536] Comparative Omics of Arabidopsis Developing Seed with Enhanced Fatty Acid Synthesis

*Brian P Mooney[1], Amr Kataya[1], Jose Roberto S Nascimento[1], Chunhui Xu[1], Somnath Koley[3], Athen Kimberlin[1], Matthew G Garneau[2], Dong Xu[1], Abraham Koo[1], Philip D Bates[2], Doug Allen[3], Jay J Thelen[1] (1. University of Missouri, 2. Washington State University, 3. Donald Danforth Plant Science Center)

[PO-538] A MYB transcription factor regulates the biosynthesis of very-long-chain fatty acids in Arabidopsis

*Yuzhou Yang[1], Que Kong[1], Sitakanta Pattanaik[2], Ling Yuan[2], Wei Ma[1] (1. School of Biological Sciences, Nanyang Technological University, 2. Department of Plant and Soil Sciences, Kentucky Tobacco Research and Development Center, University of Kentucky)

[PO-540] Exploring *RRT1* function in the synthesis of Arabidopsis seed mucilage RG1

*Yuki Aoi[1,2], Abdelilah Benamar[1], Luc Saulnier[2], Marie-Christine J. Ralet[2], Helen M. North[1] (1. INRAE, Institut Jean-Pierre Bourgin, Université Paris-Saclay, AgroParisTech, 78000, Versailles, France, 2. INRAE, UR1268 BIA, 3 impasse Yvette Cauchois, CS71627, 44316

Cedex3, Nantes, France）

[PO-542] Rational approaches to synchronizing germination in seed populations

*Liam Walker[1], Iain G. Johnston[2], George W. Bassel[1] （1. School of Life Sciences, University of Warwick, 2. Department of Mathematics, University of Bergen）

[PO-544] AtC3H12, an Arabidopsis non-TZF transcriptional activator, negatively affects seed germination and seedling development

Hye-Yeon Seok[1], Taehyoung Kim[1], Sun-Young Lee[1], Md Bayzid[1], Mairaj Bibi --[1], Swarnali Sarker[1], *Yong-Hwan Moon[1] （1. Pusan National University）

[PO-546] Arabidopsis *INDETERMINATE DOMAIN 4* is involved in the control of seed germination by light

*Akiko Kozaki[1], Takuya Aoyanagi[1], Ryoichi Shiroma[1], shun Ikeya[1] （1. Shizuoka University, Japan）

[PO-548] Structure-function analysis of TMB-RESISTANT1, a B2 Raf-like kinase in *Arabidopsis thaliana*

*Eunsun Kim[1], Soobin Choi[1], Hyunjin Lim[1], Sumin Lee[1], Moon-Soo Soh[1] （1. Sejong University, Republic of Korea）

[PO-550] Identification and characterization of soybean KIX genes by comparative analysis with *Arabidopsis thaliana*

*MI-SUK SEO[1], Gyu-Tae Park[1], Soo-Kwon Park[1], Yu-Na Kim[1], Dool-Yi Kim[1], Hyeon Jung Kang[1], Jung Kyung Moon[1] （1. National institute of crop science, Republic of Korea ）

[P] 24 Stem cell/Regeneration

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 24(Meeting Room 10)

[PO-551] Analysis of a blue light receptor CRY1 during plant regeneration

*Min Li[1], Hikaru Sato[1], Takuya Sakamoto[2], Yayoi Inui[1], Kazunari Yamamoto[1], Tomonao Matsushita[3], Sachihiro Matsunaga[1] (1. University of Tokyo, Japan, 2. Tokyo University of Science, Japan, 3. University of Kyushu, Japan)

[PO-553] HY5-mediated light signals determine the new meristem fate during plant regeneration

*Yu Chen[1,2], David S. Favero[2], Ayako Kawamura[2], Takamasa Suzuki[3], Keiko Sugimoto[1,2] (1. Department of Biological Sciences, The University of Tokyo, Japan, 2. Center for Sustainable Resource Science, RIKEN, Japan, 3. College of Bioscience and Biotechnology, Chubu University, Japan)

[PO-555] Hyperosmotic stress-induced somatic embryogenesis and its continuous culture in Japanese honewort (*Cryptotaenia japonica*; Apiaciae)

*Sana Takahashi[1], Mugito Kato[1], Hajime Shiota[1] (1. Yokohama City University, Japan)

[PO-557] Roles of At2-MMP during tissue reunion in incised *Arabidopsis* inflorescence stem

*Afiifah Machfuudzoh[1], Ryo Koshiba[1], Yusuke Ohba[1], Hirotaka Yokogawa[2], Weerasak Pitaksaringkarn[2], Keita Matsuoka[4], Masashi Asahina[4,5], Rakwal Randeep[6], Takumi Higaki[7], Shinobu Satoh[3], Hiroaki Iwai[3] (1. Graduate School of Science and Technology, University of Tsukuba, Japan, 2. Graduate School of Life and Environmental Sciences, University of Tsukuba, Japan, 3. Institute of Life and Environmental Sciences, University of Tsukuba, Japan, 4. Department of Biosciences, Teikyo University, Japan, 5. Advanced Instrumental Analysis Center, Teikyo University, Japan, 6. Faculty of Health and Sport Sciences, University of Tsukuba, Japan, 7. Faculty of Advanced Science and Technology, Kumamoto University, Japan)

[PO-559] Mechanistic analysis of the improvement of shoot regeneration ability by gamma irradiation

*Ryuhei Hashimasa[1], Hikaru Sato[1], Takuya Sakamoto[2], Yuki Sakamoto[3], Takamasa Suzuki[4], Sachihiro Matsunaga[1] (1. The University of Tokyo, Japan, 2. Tokyo University of Science, Japan, 3. The University of Osaka, Japan, 4. Chubu University, Japan)

[PO-561] Utilization of *Arabidopsis thaliana* developmental regulator genes for differentiation control of transgenic plant cells

*Shohei Koyama[1], Yuka Sato[1], Berbudi Bingtang Pratama[1], Tomoko Igawa[1] (1. Chiba University, Japan)

[PO-563] Genetics and Multi-Omics Integration Analyses Identified Cell Differentiation State Maintenance Mechanisms in *hope-1* Mutant Hypocotyls

*Ali Ferjani[1], Mizuki Shiratori[1,2], Kazuki Takahashi[1], Hiromitsu Tabeta[1,2,3], Hiroyuki Koga[4], Shizuka Gunji[1], Muneo Sato[3], Gorou Horiguchi[5,6], Masami Yokota Hirai[3], Hirokazu Tsukaya[4] (1. Department of Biology, Tokyo Gakugei University, 2. Department of Life Sciences, Graduate School of Arts and Sciences, The University of Tokyo, 3. RIKEN Center for

Sustainable Resource Science, 4. Department of Biological Sciences, Graduate School of Science, The University of Tokyo, 5. Department of Life Science, College of Science, Rikkyo University, 6. Research Center for Life Science, College of Science, Rikkyo University）

[PO-565] Finding the sweet spot – How brassinosteroids interfere with shoot regeneration processes

*Luiselotte Rausch[1], Robin Journot[1], Yu Chen[1,2], Hatsune Morinaka[1], Ayako Kawamura[1], Akira Iwase[1], Keiko Sugimoto[1,2] （1. RIKEN Center for Sustainable Resource Science, Tsurumi, Yokohama, Kanagawa 230-0045, Japan, 2. Department of Biological Sciences, Graduate School of Science, The University of Tokyo, Tokyo 113-0033, Japan）

[PO-567] Functional analysis of histone methyltransferase required for shoot regeneration

*Masako Migihashi[1], Takuya Sakamoto[2], Hikaru Sato[1], Satoyo Oya[1], Soichi Inagaki[1], Yutaka Suzuki[1], Tetsuji Kakutani[1,3], Sachihiro Matsunaga[1] （1. The University of Tokyo, Japan, 2. Tokyo University of Science, Japan, 3. National Institute of Genetics, Japan）

[PO-569] Functional analysis of a chromatin remodeling factor involved in the process of plant regeneration

*Ayaka Horie[1], Takuya Sakamoto[2], Hikaru Sato[1], Mariana Diaz[3], Yayoi Inui[1], Daniel Slane[1], Yutaka Suzuki[1], Sachihiro Matsunaga[1] （1. University of Tokyo, Japan, 2. Tokyo University of Science, Japan, 3. University of Zurich, Switzerland）

[PO-571] Molecular mechanisms underlying local histone modification changes during stem cell formation in the moss *Physcomitrium patens*

*Masaki Ishikawa[1,2], Mitsuyasu Hasebe[1,2] （1. National Institute for Basic Biology, Japan, 2. SOKENDAI (The Graduate University for Advanced Studies), Japan）

[PO-573] Cytokinin-dependent regulation of plant cell dedifferentiation via pre-mRNA splicing in Arabidopsis

*Ami Takeuchi[1], Kenji Nagamiya[1], Takuyuki Ikeda[1], Iwai Ohbayashi[2], Munetaka Sugiyama[1], Misato Ohtani[1,3,4] （1. The University of Tokyo, Japan, 2. National Cheng Kung University, Taiwan, 3. Nara Institute of Science and Technology, Japan, 4. RIKEN, Japan）

[PO-575] Transcriptional Regulation of Cell-cell Movement During Root Tip Regeneration

*Itay Cohen[1], Idan Efroni[1] （1. Hebrew University of jerusalem）

[PO-577] An *induced pluripotent stem cell* (iPS) tool to overcome regenerative recalcitrance in plants

*Jana Wittmer[1], Menno Pijnenburg [1], Ben Scheres [1], Renze Heidstra[1] （1. Wageningen University and Research ）

[PO-579] Confocal microscopy-enabled morphometric reverse tracking of Arabidopsis callus development from leaf mesophyll protoplasts

*Patience Chatukuta[1], Detlef Weigel[1] （1. Max Planck Institute for Biology Tübingen, Germany）

[PO-581] CLE peptides modulate shoot development through WUS regulation

*Nadiatul A. Mohd-Radzman[1], Siyu Miao[1], Heather McLaughlin[1], Henrik Jönsson[1] （1. Sainsbury Laboratory Cambridge University (SLCU), Bateman Street, CB2 1LR, Cambridge, United Kingdom.）

[PO-583] Functional analysis of JINGASA transcription factor in stem cell dynamics in *Marchantia polymorpha*

*Go Takahashi[1], Tomohiro Kiyosue[1], Yuki Hirakawa[1] （1. Gakushuin University, Japan）

[PO-585] Budding Heads: Activation and Competition of Arabidopsis Axillary Buds

*Zoe Nahas[1], Torkel Loman[1], James Locke[1], Ottoline Leyser[1] （1. Sainsbury Laboratory, University of Cambridge）

[P] 24 Stem cell/Regeneration

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 24(Meeting Room 10)

[PO-552] Molecular Mechanisms of Light-Mediated Regulation of Plant Regeneration

*Yetkin Caka Ince[1], Keiko Sugimoto[1] (1. RIKEN)

[PO-554] ASHH2 regulates plant regeneration through regulation of photosynthesis and glucose metabolic pathways

*Kana Yoshida[1], Takuya Sakamoto[2], Yuki Katsuyama[2], Yayoi Inui[1], Sachihiro Matsunaga[1] (1. University of Tokyo, Japan, 2. Tokyo University of Science, Japan)

[PO-556] Molecular identities of wounding signals that promote plant regeneration and their perception mechanisms

*Yosuke Sasai[1,2], Akira Iwase[2,3], Keiko Sugimoto[1,2] (1. The University of Tokyo, Japan, 2. RIKEN, Japan, 3. JST, Japan)

[PO-558] Exposure to long-term cold enhances callus formation in *Arabidopsis*

*Fu-Yu Hung[1], Keiko Sugimoto[1] (1. RIKEN, CSRS)

[PO-560] Brassinosteroid receptor-mediated regulation of tissue regeneration in *Arabidopsis*

*Ye Zhang[1], Kazuki Suita[1], Naoki Takahashi[1], Masaaki Umeda[1] (1. Nara Institute of Science and Technology, Japan)

[PO-562] Transcriptome and metabolome profiles during cellular differentiation of tobacco transgenic cells expressing *Arabidopsis* developmental regulator genes

*Yuka Sato[1], Mai Minamikawa[1], Tomoko Igawa[1] (1. Chiba University, Japan)

[PO-564] It’ s All in the Timing: Enhancing Regeneration Efficiency Using Morphogenic Factors

*Bastiaan Bargmann[1], Kelsey Reed[1] (1. Virginia Tech)

[PO-566] Submergence promotes auxin-induced callus formation through ethylene-mediated post-transcriptional control of auxin receptors

*Seung Yong Shin[1,2], Yuri Choi[3], Sang-Gyu Kim[3], Su-Jin Park[1,4], Ji-Sun Park[1], Ki-Beom Moon[1], Hyun-Soon Kim[1,4], Jae Heung Jeon[1], Hye Sun Cho[1,4], Hyo-Jun Lee[1,2,5] (1. Plant Systems Engineering Research Center, Korea Research Institute of Bioscience and Biotechnology, Korea, 2. Department of Functional Genomics, KRIBB School of Bioscience, University of Science and Technology, Korea, 3. Department of Biological Sciences, Korea Advanced Institute of Science and Technology, Korea, 4. Department of Biosystems and Bioengineering, KRIBB School of Biotechnology, University of Science and Technology, Korea, 5. Department of Biological Sciences, Sungkyunkwan University, Korea)

[PO-568] Checkpoints in cellular programming during root regeneration

*Bruno Guillotin[1], Ramin Rahni[1], Kenneth Brinbaum[1,2] (1. New York University, Center for Genomics and Systems Biology, 2. New York University Abu Dhabi, Center for Genomics and Systems Biology)

[PO-570] WIND1 controls site-specific histone acetylation/deacetylation and promotes somatic embryogenesis in Arabidopsis

*Akira Iwase[1,2], Arika Takebayashi[1], Ayako Kawamura[1], Fu-Yu Hung[1], Takamasa Suzuki[3],

Keiko Sugimoto[1,4] （1. RIKEN CSRS, Japan, 2. JST PRESTO, Japan, 3. Chubu University, Japan, 4. The University of Tokyo, Japan）

[PO-572] Single-nuclei transcriptome and chromatin accessibility analyses reveal gene regulatory networks underlying stem cell formation in the moss *Physcomitrium patens*

*Ruan Morne De Villiers[1], Gergo Palfalvi[2], Mitsuyasu Hasebe[1], Masaki Ishikawa[1] （1. National Institute for Basic Biology, Japan, 2. Max Planck Institute for Plant Breeding Research, Germany）

[PO-574] Single-nucleus RNA-seq revealed transcriptomic landscapes of epidermal reprogramming

*Hatsune Morinaka[1], Dongbo Shi[1,2], Ayako Kawamura[1], Akihito Mamiya[3], Hiroaki Tamaki[4], Takamasa Suzuki[5], Akira Iwase[1], Tetsuya Higashiyama[4], Munetaka Sugiyama[4], Keiko Sugimoto[1,4] （1. CSRS, RIKEN, Kanagawa, Japan, 2. IBB, Univ. Potsdam, Brandenburg, Germany, 3. Dept. Biol., Grad. Sch. Sci., Kobe Univ., Hyogo, Japan, 4. Dept. Biol. Sci., Grad. Sch. Sci., Univ. Tokyo, Tokyo, Japan, 5. Dept. Biol. Chem., Coll. Biosci. Biotech., Chubu Univ., Aichi, Japan）

[PO-576] Plant Regeneration: To Cell and Back

*Kelsey Reed[1], Bastiaan Bargmann[1] （1. Virginia Tech, USA）

[PO-578] Uncovering the transcriptional regulatory network involved in boosting wheat regeneration and transformation

*Xuemei Liu[1], Xiaomin Bie[2], Xuelei Lin[1], Xiansheng Zhang[2], Jun Xiao[1] （1. Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, 2. Shandong Agricultural University, Tai'an 271018, Shandong, China）

[PO-580] Molecular genetic analysis of the role of BTAF1, a TBP-associated factor, in shoot regeneration

*Takaaki Yonekura[1], Hatsune Morinaka[2], Ryu Morikawa[1], Akihito Mamiya[3], Munetaka Sugiyama[1] （1. University of Tokyo, Japan, 2. RIKEN, Japan, 3. Kobe University, Japan）

[PO-582] Analysis of stem cell-promoting CLE peptide signaling in the shoot apical meristems of land plants

*Yuki Hirakawa[1], Go Takahashi[1], Tomohiro Kiyosue[1] （1. Gakushuin University, Japan）

[PO-584] Conserved expression of a core plant stem cell regulator despite extreme divergence in *cis*-regulatory sequence and organization

*Danielle Ciren[1], Zachary Lippman[1,2] （1. Cold Spring Harbor Laboratory, 2. Howard Hughes Medical Institute ）

[P] 25 Leaf development

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 25(Meeting Room 10)

[PO-587] Spiralling out of Control: Regulation of Phyllotactic Stability

*Merijn Kerstens[1], Ben Scheres[1,2], Viola Willemsen[1] (1. Plant Developmental Biology, Wageningen University and Research, 2. Rijk Zwaan Breeding BV)

[PO-589] Multi-platform Metabolomics Identified Key Metabolites that Coordinate Cell Number and Size During Leaf Morphogenesis

*Hiromitsu TABETA[1,2], Hiroyuki Koga[3], Muneo Sato [1], Hirokazu Tsukaya[3], Masami Yokota Hirai[1,4], Ali Ferjani[2] (1. RIKEN Center for Sustainable Resource Science, 2. Department of Biology, Tokyo Gakugei University, 3. Department of Biological Sciences, Graduate School of Science, The University of Tokyo Department of Applied Biosciences, 4. Graduate School of Bioagricultural Science, Nagoya University)

[PO-591] TCP transcription factors regulate cell expansion in leaf development

*Tomotsugu Koyama[1], Nobutaka Mitsuda[2], Motoaki Seki[3], Koji Takahashi[4,5], Toshinori Kinoshita[4,5], Ayumu Bessho[6], Tadashi Kunieda[6,7], Taku Demura[6,7], Masaru Ohme-Takagi[8] (1. Suntory Foundation for Life Sciences, 2. AIST, Bioproduction Research Institute, 3. RIKEN, Center for Sustainable Resource Science, 4. Nagoya University, Graduate School of Science, 5. Nagoya University, ITbM , 6. Nara Institute of Science and Technology, Division of Biological Science, 7. Nara Institute of Science and Technology, Center for Digital Green-innovation, 8. Saitama University, Graduate School of Science and Engineering)

[PO-593] Analysis of gene expression patterns in specific meristems of one-leaf plant *Monophyllaea glabra* by whole-mount *in situ* hybridization

*Shunji Nakamura[1], Ayaka Kinoshita[1], Hiroyuki Koga[1], Hirokazu Tsukaya[1] (1. Grad. Sch. Sci., Univ. Tokyo, Japan)

[PO-595] Identification of interacting factors of the TARANI/ Ubiquitin-specific protease 14 (UBP14) in *Arabidopsis thaliana*

*Anjana S Hegde[1], Dr. Utpal Nath[1] (1. Department of Microbiology and Cell Biology, Indian Institute of Science, Bengaluru, India)

[PO-597] A quantitative study of pavement cell shape in the upper leaf epidermis

*Jacqueline Nowak[1] (1. University of Potsdam, Germany)

[PO-599] Fluorescence imaging analysis of the structure and development of hydathodes in Arabidopsis

*Hiroki Yagi[1], Iori Mihara[1], Kentaro Tamura[2], Tomonao Matsushita[3], Ikuko Hara-Nishimura[1], Haruko Ueda[1], Tomoo Shimada[3] (1. Konan Univ., 2. Univ. of Shizuoka, 3. Kyoto Univ.)

Poster1 | Poster | 25 Leaf development

[P] 25 Leaf development

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 25(Meeting Room 10)

[PO-586] Competition for resources during semi-sequential growth of developmental units drive allometric patterns in the grass *Setaria*

*Renée Dale[1], Darshi Banan[2], Ivan Baxter[1], Shankar Mukherji[3] (1. Donald Danforth Plant Science Center, USA, 2. University of Washington, USA, 3. Washington University Saint Louis, USA)

[PO-588] Temporal expression of *BLADE-ON-PETIOLE 1* and *2* in successive leaves define the shape of their lamina

*Mingli Xu[1], Tieqiang Hu[1], Darren Manuela[1] (1. University of South Carolina, USA)

[PO-590] Molecular functions of AS2, a plant-specific AS2/LOB domain protein essential for leaf development and differentiation

*Sayuri Ando[1], Mika Nomoto[2], Hidekazu Iwakawa[1], Simon Vial-Pradel[1], Yasuomi Tada[2], Kotaro Yamamoto[3], Yasunori Machida[2], Shoko Kojima[1], Chiyoko Machida[1] (1. Chubu University, Japan, 2. Nagoya University, Japan, 3. Hokkaido University, Japan)

[PO-592] ORESARA15 and ANGUSTIFOLIA3: Key Regulators of Cell Proliferation during Arabidopsis Leaf Growth

*Sang Eun Jun[1], Jin Hee Kim[2], Thi Mnh Hue Cao[1], Adenia Arih Utarini[1], Gyung-Tae Kim[1] (1. Dong-A University, Republic of Korea, 2. Jeju National University, Republic of Korea)

[PO-594] What did the grasses gain by losing PEAPOD? *Evolution and conserved functionality of organ size and shape regulator PEAPOD*

*Ruth Cookson[1], Somrutai Winichayakul[1], Hong Xue[1], Kim Richardson[1], Roger Moraga[2], Aurelie Laugraud[2], Ambarish Biswas[2], Greg Bryan[1], Nick Roberts[1] (1. Plant Biotechnology, Grasslands Research Centre, AgResearch Ltd., Palmerston North, New Zealand, 2. Bioinformatics and Statistics, Grasslands Research Centre, AgResearch Ltd., Palmerston North, New Zealand)

[PO-596] Genetic interaction of Arabidopsis ELP4 and DRL1 in the regulation of cell proliferation and establishment of leaf dorsoventral polarity

Sang Eun Jun[1], Kiu-Hyung Cho[2], Muhammad Aamir Manzoor[3], Tae Young Hwang[1], Youn Soo Kim[1], Raffael Schaffrath[4], *Gyung-Tae Kim[1] (1. Dong-A University, Republic of Korea, 2. Gyeongbuk Institute for Bioindustry, Republic of Korea, 3. Anhui Agricultural University, China, 4. University of Kassel, Germany)

[PO-598] Puzzle-shaped plant cells are developmental constraints driven by mechanical stress

*Nicola Trozzi[1], Mateusz Majda[1,2], Brendan Lane[1], Adam Runions[3], Mylan Ansel[4], Corentin Mollier[4], Alice Malivert[4], Olivier Hamant[4], Arezki Boudaoud[5], Dorota Kwiatkowska[6], Richard S. Smith[1] (1. John Innes Centre, United Kingdom, 2. University of Lausanne, Switzerland, 3. University of Calgary, Canada, 4. University of Lyon, France, 5. Polytechnic Institute of Paris, France, 6. University of Silesia in Katowice, Poland)

[PO-600] Thallus development controlled with *Marchantia*-specific peptide hormone-receptor pair

*Hidefumi Shinohara[1] (1. Fukui Prefectural University, Japan)

[P] 26 Root development

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[PO-601] A group of C2H2 Zinc Finger proteins coordinates the developmental reprogramming mediated by danger signals in the *Arabidopsis* root meristem

*Souvik Dhar[1], Ji-Young Lee[1,2,3] (1. School of Biological Sciences, Seoul National University, Korea, 2. Plant Genomics and Breeding Institute, Seoul National University, Korea, 3. Plant Immunity Research Center, Seoul National University, Korea)

[PO-603] Does LHP1 act independently of Polycomb in roots?

*Gabriela Guzmán-Favila[1], Diego Ornelas-Ayala[1], María Teresa Alejo-Vinogradova[1], Rosario Vega-León[1], José Olvera-Herrera[1], Bénédicte Desvoyes[2], Laura Rodríguez-Casillas[2], Berenice Garcia-Ponce[1], Adriana Garay-Arroyo[1], Elena Alvarez-Buylla[1], Crisanto Gutierrez[2], María De la Paz Sanchez[1] (1. Laboratorio de Genética Molecular, Epigenética, Desarrollo y Evolución de plantas. Instituto de Ecología, Universidad Nacional Autónoma de México, México, 2. Centro de Biologia Molecular Severo Ochoa, Madrid, Spain)

[PO-605] SCF^{FBS1} Regulates Root Quiescent Center Cell Division via Protein Degradation of $APC/C^{CCS52A2}$

*Kyoung Rok Geem[1], Hojin Ryu[1] (1. Chungbuk National University, Korea)

[PO-607] Uncovering the hidden aspects of cell division and elongation dynamics at the tip of growing Arabidopsis roots using 4D-microscopy, AI-assisted image processing, and data sonification

*Tatsuaki Goh[1], Yu Song[2], Takaaki Yonekura[1,3], Noriyasu Obushi[4], Zeping Den[2], Katsutoshi Imizu[1], Yoko Tomizawa[5], Yohei Kondo[5], Shunsuke Miyashima[1], Yutaro Iwamoto[2,6], Masahiko Inami[7], Yen-Wei Chen[2], Keiji Nakajima[1] (1. Div. Biol. Sci., NAIST, Japan, 2. CISE, Ritsumeikan Univ., Japan, 3. Grad. Sch. Sci., Univ. Tokyo, Japan, 4. Grad. Sch. Engineer., Univ. Tokyo, Japan, 5. ExCELLS, Natl. Inst. Nat. Sci., Japan, 6. Fac. Inform. Commun. Engineer., OECU, Japan, 7. RCAST, Univ. Tokyo, Japan)

[PO-609] A comprehensive developmental atlas of suberized tissues at the single cell level

*Charlotte Noelle Miller[1], manisha v haag[1], ling Zhang[1], Sean jarell hurtado[1], Wolfgang Busch[1] (1. The Salk Institute of Biological studies)

[PO-611] An inquiry into the origin of radial patterning of root-hair-cell distribution

*Kyeonghoon Lee[1], Hyung-Taeg Cho[1] (1. Department of Biological Sciences, Seoul National University)

[PO-613] Auxin biosynthesis inhibitors impair auxin-induced directional nuclear migration in lateral root founder cells in *Arabidopsis thaliana*

*Sanae Kaneta[1], Tatsuo Kakimoto[1] (1. Osaka University, Japan)

[PO-615] Functional Analysis of RLF, a Cytochrome b_5-Like Heme Binding Protein, in Plant Organ Development

*Kentaro Iwata[1], Chieko Goto[1], Hinatamaru Fukumura[1], Takayuki Shimizu[2], Kaisei Maruyama[3], Tomoyuki Furuya[1,4], Yuki Kondo[1], Hiroyuki Kasahara[3,5], Tatsuru Masuda[2], Kimitsune Ishizaki[1], Hidehiro Fukaki[1] (1. Grad. Sch. of Sci., Kobe Univ., Japan, 2. Grad. Sch. of Arts and Sci.,

Univ. Tokyo, Japan, 3. Grad. Sch. of Agri., Tokyo Univ. of Agri. and Tech., Japan, 4. Col. Life Sci., Ritsumeikan Univ., Japan, 5. RIKEN, CSRS, Japan）

[PO-617] Coordinating root system architecture: the intersection of CEP and Cytokinin hormone pathways in Arabidopsis

*Michael Taleski[1], Kelly Chapman[1], Ondřej Novák[4], Thomas Schmülling[3], Manuel Frank[2], Michael Djordjevic[1] （1. ANU, Australia, 2. Aarhus University, Denmark, 3. Freie Universität Berlin, Germany, 4. The Czech Academy of Sciences, Czech Republic）

[PO-619] MYB93-mediated Very Long-Chain Fatty Acid Signaling networks in lateral root primordium development

*Yuta Uemura[1], Saori Kimura[1], Tomomichi Ota[1], Kosuke Mase[1], Kazuhiro Hotta[1], Takamasa Suzuki[2], Atsushi Morikami[1], Hironaka Tsukagoshi[1] （1. Meijo University, Japan, 2. Chubu University, Japan）

[P] 26 Root development

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[PO-602] Roles of *XAL2*, *SOC1* and *AGL24* MADS-box genes in *Arabidopsis thaliana* root development and osmotic stress responses

*Claudio Augusto Castañón-Suárez[1], Maite Arrizubieta[1], Estephânia Zluhan-Martínez[1], Diana Belén Sánchez-Rodríguez[1], Sandra C. Patiño-Olvera[1], Natalia Castelán-Muñoz[3], J. Arturo Arciniega-González[2], Berenice García-Ponce[1], María de la Paz Sánchez[1], Elena R. Á lvarez-Buylla[1,2], Adriana Garay-Arroyo[1,2] (1. Laboratorio de Genética Molecular, Epigené tica y Desarrollo de Plantas, Instituto de Ecología, Universidad Nacional Autónoma de Mé xico, Ciudad de México, México, 2. Centro de Ciencias de la Complejidad (C3), Universidad Nacional Autónoma de México, Ciudad de México, México., 3. Postgrado en Recursos Gené ticos y Productividad-Fisiología Vegetal, Colegio de Postgraduados, Texcoco, Estado de Mé xico, México.)

[PO-604] As above so below? ULTRAPETALA1 regulation in Arabidopsis root development

*Carlos Emiliano Cortés-Quiñones[1], Diego Arturo Ornelas-Ayala[1], Berenice García-Ponce[1], Adriana Garay-Arroyo[1], Elena Alvarez-Buylla[1], María De La Paz Sanchez[1] (1. Laboratorio de Genética Molecular, Epigenética, Desarrollo y Evolución de Plantas, Instituto de Ecología, Universidad Nacional Autónoma de México (UNAM), México)

[PO-606] Combined Approach of GWAS and Phylogenetic Analyses to Identify New Candidate Genes That Participate in Arabidopsis thaliana Primary Root Development Using Cellular Measurements and Primary Root Length

*Brenda Anabel Lopez-Ruiz[1], Elsa H. Quezada-Rodríguez[2], Alma Piñeyro-Nelson[2], Hugo Tovar [3], Berenice García-Ponce [1], María de la Paz Sánchez[1], Elena R. Álvarez-Buylla[1], Adriana Garay-Arroyo[1] (1. Laboratorio de Genética Molecular, Desarrollo y Evolución de Plantas, Departamento de Ecología Funcional, Instituto de Ecología, UNAM, 2. Departamento de Producción Agrícola y Animal, UAM-X, 3. División de Genómica Computacional, INMEGEN)

[PO-608] Dissecting the role of miR160-dependent regulation of *ARF* gene expression in root cap differentiation

*Keita Tanaka[1], Asuka Furukawa[1], Seiya Iida[1], Hiroki Saito[1], Yoko Okushima[2], Hidehiro Fukaki[2], Tatsuaki Goh[1], Shunsuke Miyashima[1], Keiji Nakajima[1] (1. Nara Institute of Science and Technology, Graduate School of Science and Technology, Division of Biological Science, 2. Kobe University, Graduate School of Science, Department of Biology)

[PO-612] SUPERROOT2-dependent Fine-tuning of Local Auxin Distribution for *Arabidopsis* Lateral Root Formation

*Chieko Goto[1], Akira Ikegami[1], Tatsuaki Goh[1,2], Hiroyuki Kasahara[3,4], Yumiko Takebayashi[4], Yuji Kamiya[4], Koichi Toyokura[1], Yuki Kondo[1], Kimitsune Ishizaki[1], Tetsuro Mimura[1,5,6], Hidehiro Fukaki[1] (1. Grad. Sch. of Sci., Kobe Univ., 2. Div. Biol. Sci., NAIST, 3. Grad. Sch. of Agri., Tokyo Univ. of Agri. and Tech., 4. RIKEN, CSRS, 5. Col. Biosci. Biotech., National Cheng Kung Univ., 6. Fac. of Bioenviron. Sci., KUAS)

[PO-614] Dimorphism of LR growth regulated by auxin and cytokinin

*Feiyang Lin[1], Hidehiro Fukaki[2], Masaaki K Watahiki[1,3] (1. Grad. Sch. Life Sci., Hokkaido

Univ., Japan, 2. Grad. Sch. of Sci., Kobe Univ., Japan, 3. Fac. Sci, Hokkaido Univ., Japan）

[PO-616] Two-step regulation of lateral root spacing in *Arabidopsis thaliana*

*Shohei Oshiro[1], Tatsuaki Goh[1], Yohei Kondo[2], Takaaki Yonekura[3], Hidehiro Fukaki[4], Keiji Nakajima[1] （1. Div. Bio. Sci., NAIST, 2. ExCELLS, Natl. Inst. Nat. Sci., 3. Grad. Sch. Sci., Univ. Tokyo, 4. Grad. Sch. Sci., Kobe Univ. ）

[PO-618] Transcriptional network to synchronize alteration in the developing lateral root primordium (LRP) and LRP-overlay cells

*Kosuke Mase[1], Honomi Mizuno[1], Koki Tomida[1], Keigo Nakamura[1], Nanari Furukawa[1], Shiho Ueno[1], Takamasa Suzuki[2], Atsuhi Morikami[1], Hironaka Tsukagoshi[1] （1. Faculty of Agriculture, Meijo University, 2. College of Bioscience and Biotechnology, Chubu University）

Poster1 | Poster | 27 Cell division/Cell cycle

[P] 27 Cell division/Cell cycle

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[PO-621] Cell proliferation control mediated by *ANAC082* in response to nucleolar stress in *Arabidopsis thaliana*

*Tai-yin Hsu[1], Akitoshi Iwamoto[2], Munetaka Sugiyama[3], Iwai Ohbayashi[1] （1. National Cheng Kung University, Taiwan, 2. Kanagawa University, Japan, 3. The University of Tokyo, Japan）

[PO-623] A GRAS family transcription factor, SCARECROW-LIKE28, regulates cell size by inhibiting G2 progression in Arabidopsis

Yuji Nomoto[1], Hirotomo Takatsuka[1], Kesuke Yamada[1], Keito Mineta[1], Po-yo Chen[1], Hidekazu Iwakawa[1], Takumi Nishiuchi[1], *Masaki Ito[1] （1. Sch. Biol. Sci. Tech., Col. Sci. Eng., Kanazawa Univ., Japan）

[PO-625] Functional analyses of HPY2/NSE2 and SMC5/6 complex.

Mika Yoshimura[1], Tomoya Isayama[1], *Takashi Ishida[1] （1. Kumamoto University, Japan）

[PO-627] CDKG2 and SKIP act downstream of UBP14 to control endoreduplication and cell growth in Arabidopsis

*Shan Jiang[1], Na Li[1], Yunhai Li[1,2] （1. Institute of Genetics and Developmental Biology, Chinese Acadamy of Sciences, China, 2. College of Advanced Agricultural Sciences, University of Chinese Academy of Sciences, China.）

[PO-629] Keeping it together: The role of scaffold proteins during division plane control

*Jonas Buhl[1], Pradeep Dahiya[1], Gina Stamm[1], Katharina Bürstenbinder[1] （1. Leibniz-Institute of Plant Biochemistry, Halle (Saale), Germany）

[PO-631] Plant-specific mitotic microtubule structures and cell division modes

*Takema Sasaki[1], Kimitsune Ishizaki[2], Hiroyasu Motose[3], Yoshihisa Oda[1] （1. Graduate School of Science, Nagoya University, Japan, 2. Graduate School of Science, Kobe University, Japan, 3. Graduate School of Natural Science and Technology, Okayama University, Japan）

[PO-633] Shaping root architecture

*V Willemsen[1], Merijn Kerstens[1], Kavya Yalamanchili[1], Zhuang Yang[1], Vera Hesen[1], Andrea Bimbo[1], Jordi Floriach-Clark[1], Jiawei Yao[1] （1. Cluster Plant Developmental Biology, Wageningen University &Research, Droevendaalsesteeg 1, Wageningen, The Netherlands）

[P] 27 Cell division/Cell cycle

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[PO-620] Two *Arabidopsis* cyclins are sensitive targets to intracellular acidification acting as a hub between perception and stress response

*gaetano bissoli[1], María D. Planes[1], Iñigo de Martín-Aguirre[1], Ramón Serrano[1], Eduardo Bueso[1] (1. Universitat Politecnica Valencia, Spain)

[PO-622] Control of DNA replication by histone methyltransferases ATXR5 and ATXR6 in *Arabidopsis thaliana*

*Kar Yee Moo[1], Akiko Masada[1], Haruka Manabe[1], Hirotomo Takatsuka[2], Shiori S Aki[1], Masaaki Umeda[1] (1. Graduate School of Science and technology, Nara Institute of Science and Technology, Japan, 2. School of Biological Science and Technology, College of Science and Engineering, Kanazawa University, Japan)

[PO-624] CRISPR/Cas9-mediated mutagenesis of *SAMBA* gene alters growth and development in plants.

*Nubia Eloy[1], Perla Novais Oliveira[1], Carlos Barrera Rojas[1], Marina Lyra Soriano Saleme[1], Fabio Tebaldi Silveira Nogueira[1] (1. Universidade de São Paulo, Department of Biological Sciences, Escola Superior de Agricultura 'Luiz de Queiroz')

[PO-626] Analysis of the effect of autopolyploidization on root growth in *Arabidopsis thaliana* with spatial reference to " high-ploidy syndrome"

*Suzuka Kikuchi[1], Takuya Sakamoto[2,3], Sachihiro Matsunaga[4], Munetaka Sugiyama[5], Akitoshi Iwamoto[2] (1. Fac. Adv. Sci. and Tech., Kumamoto Univ., Japan, 2. Fac. Sci., Kanagawa Univ., Japan, 3. Fac. Sci. and Tech., Tokyo Univ. Sci., Japan, 4. Grad. Sch. Front. Sci., Univ. Tokyo, Japan, 5. Grad. Sch. Sci., Univ. Tokyo, Japan)

[PO-628] Expanding the kinetochore universe in flowing plants

Pettkó-Szandtner Aladár[2], Zoltán Magyar[2], *Shinichiro Komaki[1] (1. Nara Institute of Science and Technology, Graduate School of Biological Sciences, Japan, 2. Institute of Plant Biology, Biological Research Centre, Szeged, Hungary)

[PO-630] Novel plant cell division inhibitors identified by chemical screening using *Arabidopsis* zygote

*Yusuke Kimata[1], Moé Yamada[2], Takashi Murata[3], Keiko Kuwata[4], Ayato Sato[4], Takamasa Suzuki[5], Daisuke Kurihara[2,4], Mitsuyasu Hasebe[6,7], Tetsuya Higashiyama[4,8], Minako Ueda[1,9] (1. Tohoku University, Japan, 2. Nagoya University, Japan, 3. Kanagawa Institute of Technology, Japan, 4. WPI-ITbM, Japan, 5. Chubu University, Japan, 6. National Institute for Basic Biology, Japan, 7. The Graduate University for Advanced Studies, Japan, 8. The University of Tokyo, Japan, 9. Suntory Rising Stars Encouragement Program in Life Sciences (SunRiSE), Japan)

[PO-632] GRAS Family Transcription Factor Is A New Regulator Of Asymmetric Cell Division And Polarity In Moss *Physcomitrium Patens*

*Alisa Vyacheslavova[1], Teh Ooi-Kock[3], Renqi Wang[1], Mitsuyasu Hasebe[4], Tomomichi Fujita[2] (1. Hokkaido University, Graduate School of Life Science, 2. Hokkaido University, School of Science, 3. Institute of plant and microbial biology, Academia Sinica, 4. National Institute for Basic Biology, Division of Evolutionary Biology)

[P] 28 Cell &tissue differentiation

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 28(Meeting Room 10)

[PO-635] CRISPR activation (CRISPRa) as a powerful tool for engineering gene regulatory networks in plants

*Anaxi Houbaert[1], Valérie Tendon Dénervaud[1], Niko Geldner[1] (1. UNIL - DBMV)

[PO-637] Light regulates xylem cell differentiation via PIF in Arabidopsis

Shraboni Ghosh[1], Nelson Joseph[1], Cobb Geoffrey[1], Etchells Peter[1], *Miguel de Lucas[1] (1. Durham University - UK)

[PO-639] A zinc-finger transcription factor, LGA1, negatively regulates lateral growth in *Arabidopsis* and trees

*Wiktoria Fatz[1], George Malcolm Woodward[1], Ari Pekka Mähönen[1], Melis Kucukoglu-Topcu[1] (1. Organismal and Evolutionary Biology Research Programme, Faculty of Biological and Environmental Sciences, Viikki Plant Science Centre (ViPS), University of Helsinki, 00790, Helsinki, Finland)

[PO-641] Ubiquitination-mediated xylem vessel element formation in response to pathogen in plants

*Ya MA[1], Rune Kurokawa[1], Ryosuke Sano[2], Taku Demura[2], Kei Hiruma[3], Misato Ohtani[1,2,4] (1. Grad Sch Front Sci, Univ Tokyo, 2. Div Biol Sci, NAIST, 3. Grad Sch Art Sci, Univ Tokyo, 4. RIKEN, CSRS)

[PO-643] Investigation of the function of Clade B AT-hook motif nuclear-localized proteins in the root xylem development

*Hee-Ji Shin[1], Minji Seo[1], Souvik Dhar[1], Hyoujin Kim[1], Sooyoun Kim[1], Ji-young Lee[1] (1. Seoul national university)

[PO-645] Characterization of NAC-REGULATED SEED MORPHOLOGY1 transcription factor for regulating the root phloem development

*Jongsung Park[1], Hyoujin Kim[1], Ji-young Lee[1] (1. School of Biological Sciences, College of Natural Science, Seoul National University, 1 Gwanak-ro, Gwanak-gu, Seoul 08826, Korea)

[PO-647] Phloem cells - from single cell transcriptomics to development and function

*Jiyun Kim[1], Diana Weidauer[1], Shahrzad Majari Kasmaei[1], Marcela Renger[1], Wolf B. Frommer[1,2] (1. Institute for Molecular Physiology, Heinrich-Heine-University Düsseldorf, Düsseldorf 40225, Germany, 2. Institute of Transformative Bio-Molecules (WPI-ITbM), Nagoya University, Chikusa, Nagoya 464-8601, Japan)

[PO-649] Revealing autolytic mechanisms of sieve elements by an improved induction system

*Yuki Sugiyama[1], Ilya Belevich[2], Satoshi Fujita[3], Kaori Furuta[4], Bernhard Blob[5], Eija Jokitaro[2], Sebastian Schornack[5], Yoshihisa Oda[6], Ykä Herariutta[7] (1. Institute for Advanced Research, Nagoya University, 2. Electron Microscopy Unit, Institute of Biotechnology, Helsinki Institute of Life Science, University of Helsinki, 3. Laboratoire de Recherche en Sciences Végétales, UMR5546 CNRS, Toulouse-INP, University of Toulouse , 4. Graduate School of Science and Technology, Nara Institute of Science and Technology, 5. Sainsbury Laboratory, University of Cambridge, 6. Department of Biological Science, Graduate School of Science, Nagoya University, 7. Institute of Biotechnology, HiLIFE/Organismal and

Evolutionary Biology Research Programme, Faculty of Biological and Environmental Sciences, Viikki Plant Science Centre, University of Helsinki）

[PO-651] Leaf epidermal patterning and fate determination

*Chin-Min Kimmy Ho[1] （1. Institute of plant and microbial biology, Academia Sinica）

[PO-653] Cell type-specific attenuation of brassinosteroid signaling precedes stomatal asymmetric cell division

*Boyu Guo[1,2,3], Eun-Ji Kim[1,2], Cheng Zhang[1,2], Thomas Eekhout[1,2,4], Anaxi Houbaert[1,2], Jos Wendrich[1,2], Niels Vandamme[4], Manish Tiwari[1,2], Claire Simon--Vezo[1,2], Isabelle Vanhoutte[1,2], Yvan Saeys[1,5], Kun Wang[1,2,3], Yuxian Zhu[3], Bert De Rybel[1,2], Eugenia Russinova[1,2] （1. Ghent University, Belgium, 2. Center for Plant Systems Biology, VIB, Belgium, 3. Wuhan University, China, 4. VIB Single Cell Core, Belgium, 5. Center for Inflammation Research, VIB, Belgium）

[PO-655] The epigenetic regulation of the master stomatal regulator SPEECHLESS by the *Arabidopsis* VAL family of transcriptional repressors

*Li Cong Chua[1], On Sun Lau[1] （1. National University of SinGapore）

[PO-657] HOMEODOMAIN-LIKE protein (HDL) mediated chromatin organization modulates leaf epidermal patterning

*Ansar Ali[1,2], Chi Kuan[1], Hui Chun[1], Chin-Min Kimmy Ho[1,2] （1. Institute of Plant and Microbial Biology, Academia Sinica, 2. National Chung Hsing University, Taichung, Taiwan）

[PO-659] Experimental Validation of the Mechanism of Stomatal Development Diversification

*Yuki Doll[1], Hiroyuki Koga[2], Hirokazu Tsukaya[2] （1. NAIST, Japan, 2. The University of Tokyo, Japan）

[PO-661] Comparative analysis of airspace formation process between *Arabidopsis* and Duckweed

*Kyungyoon Kim[1], Min Kim[1], Yasuyo Yamaoka[1,2], Thanh Ha Thi Do[1], Yuree Lee[3] （1. Research Institute of Basic Sciences, Seoul National University, Seoul 08826, Republic of Korea, 2. Department of Biotechnology, The Catholic University of Korea, Bucheon 14662, Republic of Korea, 3. School of Biological Sciences, Seoul National University, Seoul 08826, Republic of Korea）

[PO-663] *De novo* specification of epidermal cells in Arabidopsis abscission zone

*Xiaohong Wen[1], Chan Woong Lee[2], Sunghwan Kim[1], Dong Gon Cha[1], Eunmin Lee[1], Yoon Ha Choi[2], Teak Han Yoon[1], Jieun Jeon[1], Jiyoun Lee[1], Yuree Lee[3], Jaeung Hwang[1], Soonki Han[1], Jong Kyoung Kim[2], June M. Kwak[1] （1. Department of New Biology, DGIST, Daegu 42988, Republic of Korea, 2. Department of Life Science, POSTECH, Pohang 37673, Republic of Korea, 3. School of Biological Sciences, Seoul National University, Seoul 08826, Republic of Korea）

[PO-665] MnSOD fine-tunes the root growth and floral organ abscission by modulating ROS metabolism in Arabidopsis

*Jinsu Lee[1], Huize Chen, Gisuk Lee, Aurélia Emonet, Sang-Gyu Kim, Donghwan Shim, Yuree Lee[1] （1. Seoul national university, Republic of Korea）

[P] 28 Cell &tissue differentiation

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 28(Meeting Room 10)

[PO-634] PBLs and their role in defining root endodermis signaling specificity

*Irene Guzmán-Benito[1], Niko Geldner[1] (1. University of Lausanne, Switzerland)

[PO-636] Patterning in 3D: imaging three-dimensional anatomy and epidermal cell fate in Arabidopsis roots

*George Janes[1], Hayley Smith[2,1], Dylan Jones[1], Anthony Bishopp[1], Natasha Savage[2] (1. University of Nottingham, School of Biosciences, UK, 2. University of Liverpool, Institute of Systems, Molecular and Integrative Biology, UK)

[PO-638] Visualization of spatiotemporal dynamics of cytokinin responses and its role in secondary growth initiation in Arabidopsis roots

*Shunji Shimadzu[1,2], Shusei Mori[1], Nurani Alif Meem[1], Kazuki Yamada[3], Kyomi Shibata[3], Tomoyuki Furuya[4], Kyoko Ohashi-Ito[1], Kimitsune Ishizaki[2], Hidehiro Fukaki[2], Masashi Asahina[3], Soichi Inagaki[1], Tetsuji Kakutani[1], Hiroo Fukuda[5], Yuki Kondo[2] (1. University of Tokyo, Japan, 2. Kobe University, Japan, 3. Teikyo University, Japan, 4. Ritsumeikan University, Japan, 5. Akita Prefectural University, Japan)

[PO-640] Towards elucidation of the molecular mechanisms of tuberous root development in cassava

*Yoshinori Utsumi[1], Chikako Utsumi[1], Maho Tanaka[1,2], Prat Salomé[3], Motoaki Seki[1,2,4] (1. RIKEN CSRS, 2. RIKEN CPR, 3. Centro Nacional de Biotecnología-CSIC, 4. Yokohama City Univ.)

[PO-642] FLY Ubiquitin E3 Ligases Are Transcriptionally Regulated by VND7 during Xylem Vessel Cell Differentiation

*Tadashi Kunieda[1], Mitsuki Jifuku[1], George W. Haughn[2], Ikuko Hara-Nishimura[3], Taku Demura[1] (1. NAIST, Japan, 2. UBC, Canada, 3. Konan Univ., Japan)

[PO-644] A long-distance top-down movement of a transcription factor regulating the root phloem development

*Ji-Young Lee[1], Hyoujin Kim[1], Jongsung Park[1], Heewon Shin[1], Sooyoun Kim[1] (1. Seoul National University)

[PO-646] Cellular adaptations for long-distance transport through the phloem sieve tube

*Lothar Kalmbach[1], Yka Helariutta (1. University of Lausanne, Department of Plant Molecular Biology)

[PO-648] Regulatory Functions of NAC domain Transcription Factors for Root Phloem Development in *Arabidopsis thaliana*

*Heewon Shin[1], Hyoujin Kim[1], Sooyoun Kim[1], Ji-Young Lee[1,2] (1. School of Biological Sciences, College of Natural Science, Seoul National University, Seoul 08826, Republic of Korea, 2. Plant Genomics and Breeding Institute, Seoul National University, Seoul 08826, Republic of Korea)

[PO-650] Specification of epidermal cell fate in plant shoots

Hiroyuki Iida[2,1], Ayaka Yoshida[1], Ari Pekka Mähönen[2], Gerd Jürgens[3], *Shinobu Takada[1] (1. Osaka University, Japan, 2. University of Helsinki, Finland, 3. University of Tübingen, Germany)

[PO-652] Identification and expression analysis of six CsCPC genes in tea leaves (*Camellia sinensis*).

*Juri WAKAMATSU[1], Mina YAMAMOTO[1], Wakana TANAKA[1], Rumi TOMINAGA[1] （1. Hiroshima University, Japan）

[PO-654] Abscisic acid regulates stomatal production by imprinting a SnRK2 kinase– mediated phosphocode on the master regulator SPEECHLESS

*XIN YANG[1], Lalitha Gavya S[1], Zimin Zhou[1], Daisuke Urano[1,2], On Sun Lau[1] （1. National University of SinGapore, SinGapore, 2. Temasek Life Sciences Laboratory, SinGapore）

[PO-656] A ROADMAP TO GUARD CELL: HOW THE CIS-TRANS REGULOME DRIVES FATE TRANSITIONS

*Ao Liu[1], Andrea Mair[1], Dominique Bergmann[1] （1. Stanford University）

[PO-658] Turn over a new leaf: A single cell view of leaf epidermis in *Arabidopsis*

*Chi Kuan[1,2], Chin-Ming Kimmy Ho[1] （1. Institute of Plant and Microbial Biology, Academia Sinica, Taiwan, 2. Department of Biology, Duke University, USA）

[PO-660] Stomata-derived intercellular signaling that directs mesophyll air space formation

*Yuki Yoshida[1], Shinichiro Sawa[1] （1. Kumamoto University, Japan）

[PO-662] Co-option of the conserved and reduced stomatal transcriptional network FAMA-WASABI MAKER for the myrosinase-glucosinolate defense system

*Makoto Shirakawa[1,2], Tomoki Oguro[1], Shigeo S. Sugano[3], Shohei Yamaoka[4], Mayu Sagara[1], Mai Tanida[1], Kie Kumaishi[5], Soma Yoshida[6], Mutsumi Watanabe[1], Takayuki Tohge[1], Takamasa Suzuki[7], Yasunori Ichihashi[2,5], Atsushi Takemiya[6], Nobutoshi Yamaguchi[1], Takayuki Kohchi[4], Toshiro Ito[1] （1. Nara Institute of Science and Technology, Japan, 2. Precursory Research for Embryonic Science and Technology, Japan Science and Technology Agency, Japan, 3. National Institute of Advanced Industrial Science and Technology, Japan, 4. Kyoto University, Japan, 5. RIKEN BioResource Research Center, Japan, 6. Yamaguchi University, Japan , 7. Chubu University, Japan）

[PO-664] Conserved (Epi)Genetic Mechanisms of Aging in Plants: Insights from Laminopathies in *Arabidopsis thaliana*

*Oscar Juez[1], Hidetoshi Saze[1] （1. Okinawa Institute of Science and Technology）

[P] 29 Cell death/Senescence

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[PO-667] MBD10 is involved in ABA-inducible leaf senescence in Arabidopsis

*Yangdan Li[1], Yoshiaki Kamiyama[1], Fuko Minegishi[1], Yuki Tamura[1], Kota Yamashita[1], Sotaro Katagiri[1], Takamasa Suzuki[2], Naoto Kawakami[3], Taishi Umezawa[1] （1. Tokyo University of Agriculture and Technology, 2. Chubu University, 3. Meiji University）

[PO-669] Uncovering the possible link between cytosolic and apoplastic glutathione degradation

*Takehiro Ito[1,2], Naoko Ohkama-Ohtsu[1] （1. Tokyo University of Agriculture and Technology, Japan, 2. RIKEN Center for Sustainable Resource Science, Japan）

[PO-671] Genetic Variants Driving Distinct Senescence Programs in Arabidopsis Accessions from the Kyrgyz-Tajik Mountainous Region

*PHAN PHUONG THAO DOAN[1], Hyosub Chu[2], Jae Il Lyu[2], Jin Hee Kim[3], Jeongsik Kim[1,3,4] （1. Interdisciplinary Graduate Program in Advanced Convergence Technology &Science, Jeju National University, Jeju 63243, Republic of Korea, 2. Center for Plant Aging Research, Institute for Basic Science, Daegu 42988, South Korea, 3. Subtropical Horticulture Research Institute, Jeju National University, Jeju 63243, Republic of Korea, 4. Faculty of Science Education, Jeju National University, Jeju 63243, Republic of Korea）

[P] 29 Cell death/Senescence

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[PO-666] PLTs and VNDs oppositely regulate ZAT transcription factors to control cell death in the *Arabidopsis* root

*Ming Feng[1], Ai Zhang[1], Amrit Kaur Nanda[1], Shamik Mazumdar[1], Kareem Abdul[1], Pawel Roszak[2], Ykä Helariutta[3], Charles Melnyk[1] (1. Swedish university of agricultural sciences, 2. University of Cambridge, 3. University of Helsinki)

[PO-668] Multiple N-conjugated forms of Cytokinins are Involved in Delaying Natural and Abiotic Stress Senescence

*Aaron M Rashotte[1], Risheek Khanna[1], Omar Hasannin[1] (1. Auburn University)

[PO-670] Comprehensive transcriptomic analysis of age-, dark-, and salt-induced senescence reveals underlying mechanisms and key regulators of leaf senescence in *Zoysia japonica*

*Lanshuo Wang[1], Phan Phuong Thao Doan[1], Nguyen Nguyen Chuong[1], Hyo-Yeon Lee[2,3], Jin Hee Kim[2], Jeongsik Kim[1,2,4] (1. Interdisciplinary Graduate Program in Advanced Convergence Technology &Science, Jeju National University, Jeju, South Korea, 2. Subtropical Horticulture Research Institute, Jeju National University, Jeju, South Korea, 3. Department of Biotechnology, Jeju National University, Jeju 63243, Republic of Korea, 4. Faculty of Science Education, Jeju National University, Jeju, South Korea)

[PO-672] Genetic variants of *Accelerated Cell Death 6* drive natural diversity of age-induced leaf senescence through accession-dependent cell death process in Arabidopsis

*Jin Hee Kim[1], Jae Il Lyu[2], Hyosub Chu[2], Phan Phuong Thao Doan[3], Jeongsik Kim[1,3,4] (1. Subtropical Horticulture Research Institute, Jeju National University, Republic of Korea, 2. Institute for Basic Science, South Korea, 3. Interdisciplinary Graduate Program in Advanced Convergence Technology &Science, Jeju National University, Republic of Korea, 4. Faculty of Science Education, Jeju National University, Republic of Korea)

[P] 30 Genetic variation/Population

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 30(Meeting Room 10)

[PO-673] Altitudinal genetic differentiation in the leaf wax-mediated flowering bud protection against frost in an early-spring flowering herb, *Arabidopsis halleri*

*Hiroshi Kudoh[1], Genki Yumoto[1], Biva Aryal[1,2], Mie N. Honjo[1], Yuko Sasaki-Sekimoto[3], Wataru Shinohara[4], Hiroyuki Ohta[3] （1. Kyoto University, Japan, 2. Tribhuvan University, Nepal, 3. Tokyo Institute of Technology, Japan, 4. Kagawa University. Japan）

[PO-675] Genetic basis of semi-dwarfism and increased branching phenotypes in Tibetan *Arabidopsis thaliana*

*Jixuan Yang[1], Tianshu Sun[1,2], Hongya Gu[1,3] （1. State Key Laboratory of Protein and Plant Gene Research, School of Life Sciences, Peking University, China, 2. Department of Plant Sciences, University of Cambridge, United Kingdom, 3. The National Plant Gene Research Center (Beijing), China）

[PO-677] Seasonal dynamics of epigenome in a natural population of *Arabidopsis halleri*

*Haruki Nishio[1,2], Tasuku Ito[3], Mie N. Honjo[2], Tomoaki Muranaka[4], Naoko Emura[4], Hanako Shimizu[2], Hiroshi Kimura[5], Taiko Kim To[6,7], Tetsuji Kakutani[6,7], Hiroshi Kudoh[2] （1. Shiga Univ., Japan, 2. Kyoto Univ., Japan, 3. Institute of Science and Technology Austria, 4. Kagoshima Univ., Japan, 5. Tokyo Institute of Technology, Japan, 6. Tokyo Univ., Japan, 7. NIG, Japan）

[PO-679] The genetic diversity provided by natural Arabidopsis accessions to identify potentially adaptive differences in root morphology and soil resource capture

Christopher I Vincent[1], Taraka Ramji Moturu[2], Thomas Drouet de la Thibauderie[2], Silvana Porco[2], Florence Reyé[2], Hugues De Gernier[3,4], Takehiro Kamiya[5], Natsuko Kobayashi[5], Keitaro Tanoi[5], Malcolm Bennett[6], Dirk Inzé[3,4], Mark Aarts[7], Arthur Korte[8], *Christian RM Hermans[2] （1. University of Florida, USA, 2. Université libre de Bruxelles, Belgium, 3. Ghent University, Belgium, 4. VIB Center for Plant Systems Biology, Belgium, 5. University of Tokyo, Japan, 6. University of Nottingham, United Kingdom, 7. Wageningen University, the Netherlands, 8. University of Würzburg, Germany）

[PO-681] Remote-sensing-combined haplotype analysis using MAGIC population reveals the characters of phenology QTLs for canopy height in rice

*Daisuke Ogawa[1], Toshihiro Sakamoto[2], Hiroshi Tsunematsu[1], Noriko Kanno[1], Yasunori Nonoue[1], Jun-ichi Yonemaru[1] （1. Institute of Crop Science, National Agriculture and Food Research Organization , 2. Institute for Agro-Environmental Sciences, National Agriculture and Food Research Organization）

[PO-683] Staying alive: resistant evaluation to acetolactate synthesis-inhibitors herbicides in *Amaranthus palmeri* recombinant proteins.

*Alfredo Manicardi[1], Joel Torra [1], Jorge Lozano Juste[2] （1. Department of Forestry and Agricultural Science and Engineering, Agrotecnio-CERCA Center, University of Lleida, Lleida, Spain, 2. Institute of Plant Molecular and Cellular Biology (IBMCP), Polytechnic University of Valencia (UPV), Higher Council for Scientific Research (CSIC), 46022,

Valencia, Spain.)

[P] 30 Genetic variation/Population

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[PO-674] Altitudinal divergence of cold tolerance in *Arabidopsis halleri* and their genetic background: investigation of the key leaf traits and genome in F2 population

*Naofumi Yoshida[1], Shin-ichi Morinaga[2], Yuu Ishii[1], Kazumasa Shirai[3], Shosei Kubota[4], Kousuke Hanada[3], Kouki Hikosaka[1] （1. Tohoku University, 2. Teikyo University of Science, 3. Kyutech University, 4. FASMAC Co.,Ltd.）

[PO-676] Larger genomes evolve under temperature-stable environments in allohexaploid *Rorippa indica* (Brassicaceae)

*Ting-Shen Han[1] （1. Xishuangbanna Tropical Botanical Garden, the Chinese Academy of Sciences）

[PO-678] Seasonally distinct controls of leaf senescence in response to self-shading and sink demand in *Arabidopsis helleri*

*Genki Yumoto[1], Tomoaki Muranaka[1,2], Jiro Sugisaka[1], Mie N Honjo[1], Hiroshi Kudoh[1] （1. Kyoto university, Japan, 2. Kagoshima university, Japan）

[PO-680] Field transcriptome dynamics of barley during winter cultivation

*June-Sik Kim[1,2], Jun Ito[3], Kotaro Takahagi[3], Asaka Kanatani[1], Minami Shimizu[1], Yukiko Uehara-Yamaguchi[1], Komaki Inoue[1], Satoshi Okada[2,4], Takakazu Matsuura[2], Koosuke Hattori[5], Yoko Ikeda[2], Daisuke Saisho[2], Hiroyuki Tsuji[3,4], Takashi Hirayama[2], Kazuhiro Sato[2], Keiichi Mochida[1,2,3,6,7] （1. RIKEN Center for Sustainable Resource Science, Japan, 2. Okayama University, Japan, 3. Yokohama City University, Japan, 4. Nagoya University, Japan, 5. Chubu University, Japan, 6. Nagasaki University, Japan, 7. RIKEN Cluster for Science, Japan）

[PO-682] Rapid evolution in Arabidopsis thaliana in global field experiments in the pan-genomic era

*Xing Wu[1], Yunru Peng[1], Lucas Czech[1], Tati Bellagio[2,1], Meixi Lin[1], Francois Vasseur[4], Niek Scheepens[3], Moises Exposito-Alonso[1,2] （1. Carnegie Institution for Science, USA, 2. Stanford University, USA, 3. Goethe University, Germany, 4. University of Tübingen, Germany）

[PO-684] 1001 Phenomes: a community resource

*Almudena Mollá Morales[1], Pieter Clauw[1], Ethan Stewart[2], Sebastian Seitner[2], Jakub Jez[2], Magnus Nordborg[1] （1. Gregor Mendel Institute of Molecular Plant Biology, Austrian Academy of Sciences, Vienna BioCenter, Austria, 2. Plant Sciences Facility, Vienna BioCenter Core Facilities GmbH, Austria）

Poster1 | Poster | 31 Genomics/Bioinfomatics

[P] 31 Genomics/Bioinfomatics

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 31(Meeting Room 10)

[PO-685] Construction of Genetic Engineering System for Robust and Versatile Inter-species Gene Function Analysis in *Viola*

*Donghyeon Kim[1,2], Jong-Yoon Park[1], Jihyun Won[1,2], Adil Muhammad[1,2], Ju Young Bang[1,2], Seula Lee[1], Youbong Hyun[1,2] (1. Seoul National University, Korea, 2. Research Center for Plant Plasticity, Seoul National University, South Korea)

[PO-687] Functional annotation of proteins for signaling network inference in non-model species

*Lisa Van den Broeck[1], Dinesh Bhosale[1], Kuncheng Song[1], Cássio Fonseca de Lima[3], Tingting Zhu[3], Jonas Alper[4], Peter Lootens[4], Anna M Locke[2], Ive De Smet[3], Rosangela Sozzani[1] (1. North Carolina State University, US, 2. USDA-ARS Soybean &Nitrogen Fixation Research Unit, US, 3. VIB Center for Plant Systems Biology, Belgium, 4. Flanders Research Institute for Agriculture Fisheries and Food (ILVO), Belgium)

[PO-689] Controlling transcription from within transcribed regions in plants

*Yoav Voichek[1], Gabriela Hristova[1], Almudena Molla Morales[1], Detlef Weigel[2], Magnus Nordborg[1] (1. Gregor Mendel Institute (GMI), Vienna, 2. Department of Molecular Biology, Max Planck Institute for Developmental Biology, Germany)

[PO-691] Development of a unified theory for molecular biology

*Ryoichi Sato[1], Masami Hirai[1] (1. RIKEN Center for Sustainable Resource Science)

[PO-693] A single-nucleus transcriptome atlas of seed-to-seed development in Arabidopsis

*Travis Lee[1,2,3], Tatsuya Nobori[1,2], Natanella Illouz-Eliaz[1,2], Bruce Jow[1,2], Joseph Nery[1,2], Joseph Ecker[1,2,3] (1. Plant Biology Laboratory, Salk Institute for Biological Studies, La Jolla, CA 92037, 2. Genomic Analysis Laboratory, Salk Institute for Biological Studies, La Jolla, CA 92037, 3. Howard Hughes Medical Institute, Salk Institute for Biological Studies, La Jolla, CA 92037)

[PO-695] Phylogenetic profiling in *Arabidopsis thaliana* as a new annotation platform for revealing gene functions in plants

*Elad Sharon[1,2], Alexander Vainstein[1], Yuval Tabach[2] (1. The Robert H. Smith Institute of Plant Sciences and Genetics in Agriculture, The Hebrew University of Jerusalem, Israel, 2. Department of Developmental Biology and Cancer Research, Institute of Medical Research-Israel-Canada, The Hebrew University of Jerusalem, Jerusalem, Israel.)

[PO-697] Application of a method detecting functionally diversified duplicate pairs from Arabidopsis duplicate genes to wheat homoeologous genes

*Akihiro Ezoe[1], Daisuke Todaka[1], Kousuke Hanada[2], Motoaki Seki[1] (1. Riken, 2. Kyushu Institute of Technology)

[PO-699] Optimization of sampling conditions for predicting gene expression in rice

*Dan Eiju[1], Yoichi Hasida[2], Daisuke Kyogoku[3], Taro Maeda[4,5], Nagano Atsushi [4,5,6] (1. Keio University Faculty of Environment and Information Studies, 2. Takasaki University of Health and Welfare Facaluty of Agriculture, 3. The Museum of Nature and Human

Activitiesb, 4. Keio University,The Institute for Advanced Biosciences, , 5. Ryukoku University , Research Institute of food and agriculture, 6. Ryukoku University Facaluty of Agriculture）

Poster1 | Poster | 31 Genomics/Bioinfomatics

[P] 31 Genomics/Bioinfomatics

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[PO-686] Col-CC: An Updated Reference Genome of Arabidopsis thaliana

*Xiao Dong[1], Raúl Wijfjes[2], The Community-Consensus Arabidopsis Assembly Consortium （1. Max Planck Institute for Plant Breeding Research, 2. Ludwig Maximilian University of Munich）

[PO-688] New elements of cis-regulatory code of plant genes revealed by deep learning models

Fritz Frobang Peleke[2], Simon Maria Zumkeller[1], *Jedrzej Szymanski Szymanski[1,2] （1. Forschungszentrum Juelich, CEPLAS, BioSC, Institute of Bio- and Geosciences, IBG4 Bioinformatic, 52428 Juelich, Germany, 2. Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Corrensstraße 3, D-06466 Seeland, OT Gatersleben, Germany）

[PO-690] Improve the coverage of Arabidopsis proteome by alternative proteases and mass spectrometry data independent acquisition mode

*Runxuan Zhang Zhang[1], Sophia Pluiasis[1], Dominika Lowandowska[1], Piers Hemesley[2] （1. The James Hutton Institute, 2. University of Dundee）

[PO-692] Inference of developmental trajectories from single-cell sequencing data

*Philip Shushkov[1] （1. Indiana University）

[PO-694] Implementation of the single-nucleus atlas of *Arabidopsis thaliana* to the entire plant research

*Jaewook Kim[1], Bae Young Choi[1], Donghwan Shim[1] （1. Department of Biological Sciences, Chungnam National University, Daejeon 34134, Republic of Korea）

[PO-696] Updated phylogeny and protein structure predictions revise the hypothesis on the origin of MADS-box transcription factors in land plants

*Yichun Qiu[1,2], Zhen Li[3,4], Dirk Walther[1], Claudia Köhler[1,2] （1. Max Planck Institute of Molecular Plant Physiology, Germany, 2. Swedish University of Agricultural Sciences &Linnean Center for Plant Biology, Uppsala BioCenter, Sweden, 3. Department of Plant Biotechnology and Bioinformatics, Ghent University, Belgium,, 4. VIB Center for Plant Systems Biology, Belgium, ）

[PO-698] Single-plant omics : profiling individual plants in a field to identify processes affecting yield

Sam De Meyer[1,2], Michael Van de Voorde[1,2], Daniel Felipe Cruz[1,2], Stijn Hawinkel[1,2], Tom De Swaef[3], Peter Lootens[3], Jolien De Block[1,2], Kevin Bird[1,2,4], Heike Sprenger[1,2], Tom Van Hautegem[1,2], Dirk Inzé[1,2], Hilde Nelissen[1,2], Isabel Roldán-Ruiz[3], *Steven Maere[1,2] （1. Department of Plant Biotechnology and Bioinformatics, Ghent University, Technologiepark 71, 9052 Ghent, Belgium, 2. VIB Center for Plant Systems Biology, Technologiepark 71, 9052 Ghent, Belgium, 3. Plant Sciences Unit, Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), Caritasstraat 39, 9090 Melle, Belgium, 4. Department of Plant Sciences, University of California-Davis, Davis, California 95616, USA）

[PO-700] Cellular Clarity: A Logistic Regression Approach to Identify Root Epidermal Regulators of Iron Deficiency Response

*Selene R Schmittling[1], DurreShahwar Muhammad[2], Samiul Haque[3], Terri A. Long[4], Cranos M Williams[1] （1. Department of Electrical &Computer Engineering, NC State University, 2. Department of Biosciences, Rice University, 3. SAS Institute, 4. Department of Plant &Microbial Biology, NC State University）

Poster2 | Poster | 32 Gene transfer/Gene editing

[P] 32 Gene transfer/Gene editing

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 32(Meeting Room 10)

[PO-701] The simple and useful Agrobacterium-mediated infiltration method for transient expression assays and single-cell genome editing in Arabidopsis thaliana

*Miho Ikeda[1], Jun Nakayama[2], Tsubasa Yamagata[2] (1. Fukui Prefectural University, Japan, 2. Saitama University, Japan)

[PO-703] Single-cell targeted chemical or genetic boosting of genome editing in maize

*Ling Meng[1] (1. KWS Group)

[PO-705] Pooled CRISPR/Cas9-induced perturbations followed by single-cell RNA-sequencing in *Arabidopsis thaliana* protoplasts

*Graeme Oliver Vissers[1] (1. New York University)

[PO-707] Insights into the molecular mechanisms of CRISPR/Cas9-mediated gene targeting at multiple loci in Arabidopsis

*Daisuke Miki[1] (1. Shanghai Center for Plant Stress Biology, CAS Center for Excellence in Molecular Plant Sciences, Chinese Academy of Science)

[PO-709] Targeted A-to-G base editing in chloroplast and mitochondrial genomes in *Arabidopsis thaliana*

*Chang Zhou[1], Issei Nakazato[1], Yoshiko Tamura[1], Reiko Masuda[1], Nobuhiro Tsutsumi[1], Shin-ichi Arimura[1] (1. Tokyo University, Japan)

[PO-711] The development of a new gene editing technology based on *Brassica rapa* microspore regeneration system and carbon nanotube

*Jinhee Kim Kim[1], Hwa Hyun Jeong[1], Solhee Bae[1], Eun-young Yang[1], Hye-Eun Lee[1], Jun Ho Lee[1], Yoonah Jang[1] (1. Institute of horticultural and herbal science, Korea)

[P] 32 Gene transfer/Gene editing

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 32(Meeting Room 10)

[PO-704] Generating minimum set of gRNA to cover multiple targets in multiple genomes with MINORg

*Rachelle R. Q. Lee[1], Wei Yuan Cher[1], Jinge Wang[1], Yujie Chen[1,2], Eunyoung Chae[1] (1. National University of SinGapore, 2. Xi'an Jiaotong University)

[PO-706] Allelic Variations in GA20ox1 via CRISPR-Mediated Base Editing Lead Quantitative Clines of Growth in Arabidopsis

*Jun-Hyuk Kim[1], Sang-Tae Kim[1] (1. The Catholic University of Korea, Republic of Korea)

[PO-708] Developing tools for targeted C-to-T base editing in the plastid and mitochondrial genome of *Arabidopsis thaliana*

*Issei Nakazato[1], Miki Okuno[2], Yoshiko Tamura[1], Chang Zhou[1], Takehiko Itoh[3], Nobuhiro Tsutsumi[1], Hideki Takanashi[1], Shin-ichi Arimura[1] (1. Graduate School of Agricultural and Life Sciences, The University of Tokyo, 2. Division of Microbiology, Department of Infectious Medicine, Kurume University School of Medicine, 3. School of Life Science and Technology, Tokyo Institute of Technology)

[PO-710] PRIMA: PRobe-Induced heteroduplex Mobility Assay, a reliable method to detect single-nucleotide variations time- and cost-effectively

*Misako YAMAZAKI[1], Hiroyuki Kakui[1,2], Kentaro K. Shimizu[1,2] (1. Department of Evolutionary Biology and Environmental Studies, University of Zurich, Switzerland, 2. Kihara Institute of Biological Research, Yokohama City University, Japan)

[PO-712] Establishing transformation protocols for efficient genome editing and transgene expression across the Brassicaceae family

*Evelyn Cassandra Alferez[1,2], Prashanth Ramachandran[2,3], Andrea Ramirez[2,4], Jose Dinneny[2,5] (1. Faculty/Staff, 2. Stanford University Biology Department Dinneny Lab, United States, 3. Post Doc, 4. Biology PhD Candidate, 5. PI)

[P] 33 Imaging/Quantification

Tue. Jun 6, 2023 9:00 AM - 6:00 PM Poster 33(Meeting Room 10)

[PO-713] Plant Accessible Tissue Clearing Solvent System for 3-D Imaging of Whole Plant

*Hantao Zhang[1] （1. China Agricultural University）

[PO-715] A live imaging system to analyze spatiotemporal dynamics of transcription activity.

*Mio K. Shibuta[1], Sachihiro Matsunaga[2] （1. Yamagata University, Japan, 2. University of Tokyo, Japan）

[PO-717] Time-series field phenotyping system PlantServation using machine learning revealed seasonal pigment fluctuation trends in diploid and polyploid *Arabidopsis*

*Toshiaki Tameshige[1,2], Reiko Akiyama[3], Takao Goto[4], Jiro Sugisaka[5,1], Ken Kuroki[6], Jianqiang Sun[7], Junichi Akita[8], Masaomi Hatakeyama[3,9], Hiroshi Kudoh[5], Tanaka Kenta[10], Aya Tonouchi[4], Yuki Shimahara[4], Jun Sese[11,12,13], Natsumaro Kutsuna[4], Rie Shimizu-Inatsugi[3], Kentaro K Shimizu[1,3] （1. Yokohama City University, Japan, 2. Nara Institute of Science and Technology, Japan, 3. University of Zurich, Switzerland, 4. LPixel Inc., Japan, 5. Kyoto University, Japan, 6. The University of Tokyo, Japan, 7. NARO, Japan, 8. Kanazawa University, Japan, 9. Functional Genomics Center Zurich, Switzerland , 10. University of Tsukuba, Japan, 11. AIST, Japan , 12. Humanome Lab, Inc., Japan, 13. AIST-Tokyo Tech RWBC-OIL, Japan）

[P] 33 Imaging/Quantification

Wed. Jun 7, 2023 9:00 AM - 6:00 PM Poster 33(Meeting Room 10)

[PO-714] Whole-mount smFISH allows combining RNA and protein quantification at cellular and subcellular resolution

*Lihua Zhao[1] （1. Swedish University of Agricultural Sciences）

[PO-716] Deep Learning-based Recognition of Arabidopsis Accessions using Time-Series RGB High-Throughput Measurements

*Rijad Saric[1,2,3], Amila Akagic[4], Edhem Custovic[2,3], Oliver Berkowitz[1,2], Mathew G. Lewsey[1,2], James Whelan[1,2,5] （1. La Trobe Institute for Sustainable Agriculture &Food (LISAF), Department of Animal, Plant and Soil Sciences, La Trobe University, VIC 3086, Australia., 2. Australian Research Council Research Hub for Medicinal Agriculture, AgriBio Building, La Trobe University, Bundoora, VIC 3086, Australia , 3. Department of Engineering, School of Computing, Engineering and Mathematical Sciences, La Trobe University, Bundoora, VIC 3086, Australia , 4. Faculty of Electrical Engineering, University of Sarajevo, 71000 Sarajevo, Bosnia and Herzegovina, 5. College of Life Sciences, Zhejiang University, Hangzhou, 310027, China）

[PO-718] An automated robotic system on the RIPPS for chemical stimulation to plants

*Miki Fujita[1], Junbo Zhang[2], Weiwei Wan[2], Nobuyuki Tanaka[1], Kensuke Harada[2], Koichi Takahashi[1], Kazuo Shinozaki[1] （1. RIKEN, Japan, 2. Osaka University, Japan）

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