Production mechanisms of reactive oxygen species and molecular mechanisms of PSI photoinhibition in higher plants

Organizers Chikahiro Miyake (Kobe University)
Kentaro Ifuku (Kyoto University)

● Chairperson: Kentaro Ifuku

09:30 Opening Remarks
Chikahiro Miyake

09:45 **S01-1** Photoprotection of photosystems in fluctuating light intensities
Marjaana Suorsa[1], Arjun Tiwari[1], Sari Jarvi[1], Mikko Tikkanen[1], Eva-Mari Aro[1] ([1]Department of Biochemistry, University of Turku, Finland)

10:15 **S01-2** PGR5-Dependent PSI Cyclic Electron Transport Alleviates PSI Photoinhibition via Balancing Regulation of PSI-Acceptor and -Donor Side Limitations in Fluctuating Light
Hiroshi Yamamoto[1,2], Toshiharu Shikanai[1,2] ([1]Grad. Sch. Sci., Kyoto Univ., [2]CREST)

● Chairperson: Chikahiro Miyake

10:45 **S01-3** Molecular Mechanism for the regulation of reactive oxygen species production within photosystem I in vivo
Daisuke Takagi[1], Chikahiro Miyake[1] ([1]Graduate School of Agricultural Science, Kobe University)

11:15 **S01-4** Management of PSII photoinhibition to suppress ROS production in thylakoid membranes
Kentaro Ifuku[1] ([1]Grad. Sch. Biostudies, Kyoto Univ.)

11:45 **S01-5** Biochemical characterization and physiological role of the plastid terminal oxidase PTOX
Anja Krieger-Liszkay[1] ([1]I[2]BC, CEA Saclay, CNRS, Université Paris-Saclay)

12:15 Closing Remarks
Kentaro Ifuku

— CREST —
"Creation of fundamental technologies contribute to the elucidation and application for the robustness in plants against environmental changes!"

Augmented Symplasm: supracellular structure associated with the secondary organogenesis.

Organizers Michitaka Notaguchi (Nagoya Univ., PRESTO)
Koh Aoki (Grad. Sch. Life Environ. Sci., Osaka Pref. Univ.)

● Chairperson: Michitaka Notaguchi

09:30 **S02-1** Introduction to "Augmented Symplasm"
Koh Aoki[1], Akitaka Hozumi[1], Kohki Shimizu[1], Minako Ekawa[1] ([1]Grad. Sch. of Life Environ. Sci., Osaka Pref. Univ.)

09:50 **S02-2** Plasmodesmata as intercellular signaling coordinators and their regulators
Jae-Yean Kim[1], Arya Bagus Boedi Iswanto[1], Shuwei Wu[1], Lee Jinsu[1] ([1]Gyeongsang National University)

10:20 **S02-3** Cell-to-cell connectivity and wound response in the multicellularity of filamentous fungi
Jun-ichi Maruyama[1] ([1]Department of Biotechnology, The University of Tokyo)

10:40 **S02-4** Molecular mechanisms regulating tissue reunion in incised plant tissues
Masashi Asahina[1], Miyuki Nakanowatari[1], Keita Matsuoka[1], Weerasak Pitaksaringkarn[2], Shinobu Satoh[2] ([1]Dept. Biosci, Teikyo Univ., [2]Life & Environ Sci., Univ. Tsukuba.)

● Chairperson: Koh Aoki

11:00 **S02-5** Carpel Closure by Protodermal Tissue Adhesion in *Arabidopsis thaliana*
Mitsuhiro Aida[1] ([1]Graduate School of Biological Sciences, Nara Institute of Science and Technology)

11:20 **S02-6** How do phytoparasitic nematodes induce feeding cells in plant roots?
Yasuka Yamaguchi[1], Reira Suzuki[1], Tomomi Sagara[1], Chika Ejima[1], Satoru Nakagami[1], Hiroshi Sato[1], Takashi Ishida[2], Shinichiro Sawa[1] ([1]Kumamoto University, Graduate School of Science and Technology, [2]Kumamoto University, International Research Organization for Advanced Science and Technology (IROAST))

11:40 **S02-7** Genome structure and gene transfer in parasitic plants
Satoko Yoshida[1,2], Ken Shirasu[2,3] ([1]NAIST, Grad. Schol. Bioscience, [2]RIKEN, CSRS, [3]Univ. Tokyo, Grad. Schol. Bioscience)

12:00 **S02-8** iPAG, interfamily grafting, and Closing Remarks
Michitaka Notaguchi[1,2] ([1]Nagoya University, [2]PRESTO)

New insights into the phospholipid signaling in plants

Organizers Masa H. Sato (Kyoto Pref. Univ.)
Takashi Aoyama (Kyoto Univ.)

● Chairperson: Masa H. Sato

09:30 Opening Remarks
Masa H. Sato

09:35 **S03-1** Biological Functions of Type-B Phosphatidylinositol Phosphate 5-kinase genes of *Arabidopsis thaliana*
Takashi Aoyama[1], Mariko Kato[1], Yukika Wada[1], Machiko Watari[1], Tomohiko Tsuge[1], Blanc-Mathieu Romain[1], Hiroyuki Ogata[1], Hiroaki Kusano[2,3] ([1]ICR, Kyoto Univ., [2]RISH, Kyoto Univ., [3]NEDO)

10:00 **S03-2** [Cancelled]

10:25 **S03-3** Distinct roles of phosphatidylinositol 3-kinase and 4-kinase in intracellular trafficking of cellulose synthase complexes in *Arabidopsis thaliana*
Masaru Fujimoto[1], Yasuyuki Suda[2,3], Nobuhiro Tsutsumi[1], Akihiko Nakano[3,4], Takashi Ueda[5,6,7] ([1]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [2]Lab. Mol. Cell Biol., Faculty Med., Univ. Tsukuba, [3]RIKEN RAP, [4]Grad. Sch. Sci., Univ. Tokyo, [5]Natl. Inst. Basic Biol., [6]Grad. Univ. Advanced Studies, [7]PRESTO, JST)

10:50 Coffee break

● Chairperson: Takashi Aoyama

11:00 **S03-4** Role of anionic phospholipids in signal transduction from the plant plasma membrane
Matthieu Platre[1], Vincent Bayle[1], Yvon Jaillais[1] ([1]Plant Development and Reproduction lab, ENS Lyon, France)

11:25 **S03-5** Regulation of chloroplast division by phosphatidylinositol 4-phosphate
Kumiko Okazaki[1], Shin-ya Miyagishima[2], Hajime Wada[3] ([1]Grad. Sch. Sci., Hiroshima Univ., [2]Dept. Cell Genetics, Natl. Inst. of Genet., [3]Grad. Sch. Arts and Sci., Univ. of Tokyo)

11:50 **S03-6** Distinct localization of phosphatidylinositol 4, 5-bisphospate and phosphatidylinositol 3, 5-bisphospate controls root hair morphogenesis in Arabidopsis
Tomoko Hirano[1], Mariko Kato[2], Seiji Takeda[1], Takashi Aoyama[2], Yalovsky Shaul[3], Masa H. Sato[1] ([1]Grad. Schl. Life and Envir., Kyoto Pref. Univ., [2]Inst. Chem. Res., Kyoto Univ., [3]Dept. of Mol. Biol. Eco. Tel Aviv Univ.)

12:15 Closing Remarks
Takashi Aoyama

New aspects in plant nutrition

Organizer Shuichi Yanagisawa (The University of Tokyo)

● Chairperson: Shuichi Yanagisawa

14:00 Opening remarks
Shuichi Yanagisawa

14:02 **S04-1** Plant nitrogen acquisition under low availability: the mechanism of efficient uptake
Takatoshi Kiba[1] ([1]RIKEN CSRS)

14:27 **S04-2** Roles of autophagy in nitrogen remobilization and vegetative growth in rice plants
Hiroyuki Ishida[1] ([1]Lab. of Plant Nutrition, Grad. Schl. Agric., Tohoku Univ.)

● Chairperson: Takehiro Kamiya

14:52 **S04-3** The Central Role of NLP Transcription Factors in Nitrate Response
Mineko Konishi[1] ([1]Biotechnology Research Center, The University of Tokyo)

15:17 **S04-4** Insight into CO_2 signal transduction mechanisms in guard cells
Juntaro Negi[1] ([1]Dept. Biol., Fac. Sci., Kyushu Univ.)

15:42 **S04-5** The role of red-light signaling in nutrient uptake and utilization systems
Yasuhito Sakuraba[1] ([1]Biotechnology Research Center, The University of Tokyo)

● Chairperson: Hiroyuki Ishida

16:07 **S04-6** Apoplastic barrier formation and function in roots
Takehiro Kamiya[1] ([1]Dept. Agr. Chem., Univ. Tokyo)

16:32 **S04-7** Polar Localization Of Boric acid/borate Transport Proteins
Junpei Takano[1] ([1]Graduate School of Life and Environmental Sciences, Osaka Prefecture University)

16:57 Closing remarks
Hiroyuki Ishida

Patronage

Japan Science and Technology Agency

A new horizon in photosynthesis research: Regulation via Proton Motive Force

Organizers Jun Minagawa (NIBB)
Yuichiro Takahashi (Okayama University)
Toshiharu Shikanai (Kyoto University)

● Chairperson: Yuichiro Takahasi

14:00 **S05-1** Regulation of photosynthesis by the power of proton
Jun Minagawa[1] ([1]National Institute for Basic Biology)

14:20 **S05-2** The Molecular Machinery of Photosynthesis in its Working Environment
David M. Kramer[1] ([1]Biochemistry and Molecular Biology, DOE-Plant Research Laboratory, Michigan State University)

14:50 **S05-3** Plastid thylakoid architecture optimizes photosynthesis in diatoms by regulating the pmf
Serena Flori[1], Pierre-Henri Jouneau[2], Benjamin Bailleul[3], Benoit Gallet[4], Leandro F. Estrozi[4], Christine Moriscot[4], Olivier Bastien[1], Simona Eicke[5], Alexander Schober[6], Carolina Rio Bartulos[6], Eric Marechal[1], Peter G. Kroth[6], Dimitris Petroutsos[1], Samuel Zeeman[5], Cecile Breyton[4], Guy Schoehn[4], Denis Falconet[1], Giovanni Finazzi[1] ([1]Universite Grenoble Alpes (UGA), Laboratoire de Physiologie Cellulaire et Vegetale, UMR 5168, Centre National de la Recherche Scientifique (CNRS), Commissariat a l'Energie Atomique et aux Energies Alternatives (CEA), Institut National Recherche Agronomique (INRA), Institut de Biosciences et Biotechnologie de Grenoble (BIG), [2]UGA, Laboratoire d'Etudes des Materiaux par Microscopie Avancee; Institut Nanosciences et Cryogenie; Service de Physique des Materiaux et Microstructures. Grenoble, France, [3]UMR 7141 CNRS, Universite Pierre et Marie Curie, Institut de Biologie Physico-Chimique (IBPC), Paris, France, [4]CNRS, UMR 5075 CNRS, CEA, UGA, Institut de Biologie Structurale, Grenoble, France, [5]Plant Biochemistry, Department of Biology, ETH Zurich, CH-8092, Zurich, Switzerland, [6]Department of Biology, University of Konstanz, 78457 Konstanz, Germany)

15:20 Break

● Chairperson: Toru Hisabori

15:40 **S05-4** Ion channels affecting bioenergetic efficiency in chloroplasts and mitochondria
Luca Carraretto[1], Ildiko Szabo[1] ([1]Department of Biology, University of Padova)

16:10 **S05-5** H^+/K^+ antiporter KEA3 optimizes induction of photosynthesis by regulating the partitioning of proton motive force
Toshiharu Shikanai[1], Caijuan Wang[1] ([1]Graduate School of Science, Kyoto University)

16:40 General discussion

Increasing the strength of genome editing to elucidate molecular mechanisms in plants.

Organizer Keishi Osakabe (Faculty of Biosci. & Biioindustry, Tokushima University)

● Chairperson: Keishi Osakabe

09:00		Opening remarks
09:05	**S06-1**	Genome editing in higher plants using CRISPR/Cas9 Yuriko Osakabe[1,2] ([1]Faculty of Bioscience and Bioindustry, Tokushima University, [2]RIKEN, RInC)
09:30	**S06-2**	Genome editing in haploid dominant species, the liverwort *Marchantia polymorpha* and the mushroom-forming fungi *Coprinopsis cinerea* Shigeo S Sugano[1,2] ([1]Graduate School of Science, Kyoto University, [2]JST PRESTO)
09:55	**S06-3**	Development of peripheral technologies on genome editing using peptide-based DNA carriers. Takeshi Yoshizumi[1], KiawKiaw Ng[1], Keiji Numata[1,2] ([1]Enzyme Research Team, RIKEN CSRS, [2]JST ERATO)
10:20		Coffee break
10:30	**S06-4**	High-efficient CRISPR/Cas9-mediated genome engineering to generate knockout mutants in *Arabidopsis thaliana* Hiroki Tsutsui[1,2], Tetsuya Higashiyama[1,2,3] ([1]Grad. Sch. of Sci., [2]JST ERATO Higashiyama Live Holonics, [3]WPI-ITbM, Nagoya Univ.)
10:55	**S06-5**	Elucidation of copper tolerance mechanisms in *Scopelophila cataractae* using genome editing technology Toshihisa Nomura[1], Tetsuya Sakurai[1,2], Yuriko Osakabe[3], Keishi Osakabe[3], Seiichiro Hasezawa[4], Hitoshi Sakakibara[1,5] ([1]RIKEN, CSRS, [2]Int. Sci., Kochi Univ., [3]Fac. Biosci. Bioind., Tokushima Univ., [4]Grad. Sch. Front. Sci., Univ. Tokyo, [5]Grad. Sch. Bioagri. Sci., Nagoya Univ.)
11:20	**S06-6**	TAQing system: Inducing genome rearrangement by thermo-stable restriction enzyme Hidenori Tanaka[1], Nobuhiko Muramoto[1], Arisa Oda[2], Takahiro Nakamura[2], Kazuto Kugou[2], Kunihiro Ohta[2], Norihiro Mitsukawa[1] ([1]Toyota Central R&D Labs., Inc., [2]Grad. Sch. of Arts and Sci., The Univ. of Tokyo)
11:45		Discussion

Frontier of Plant Epigenome Regulation in Environmental Stress Adaptation and Development

Organizers Motoaki Seki (RIKEN CSRS, JST CREST, Yokohama City Univ)
Tetsu Kinoshita (Yokohama City Univ)

09:00 Opening Remark
Motoaki Seki

● Chairperson: Tetsu Kinoshita

09:05 **S07-1** A new survival strategy in plants: Acetate-Jasmonate network for plant drought tolerance
Jong-Myong Kim[1,2], Taiko To[3], Motoaki Seki[1,2,4] ([1]RIKEN CSRS, [2]JST CREST, [3]Dept. of Biol. Sci., Univ. of Tokyo, [4]Kihara Biol. Inst., Yokohama City Univ.)

09:30 **S07-2** Histone deacetylases act as the regulatory hub in gene silencing and plant development
Keqiang Wu[1] ([1]Institute of Plant Biology, National Taiwan University)

09:55 **S07-3** Transposons create environmental stress tolerant plants.
Hidetaka Ito[1] ([1]Hokkaido University)

● Chairperson: Motoaki Seki

10:20 **S07-4** Unique cell-type-specific patterns of DNA methylation in the root meristem
Taiji Kawakatsu[1,2] ([1]NIAS, [2]Salk Institute for Biological Studies)

10:45 **S07-5** Florigen function and epigenomic regulation during floral transition
Hiroyuki Tsuji[1] ([1]Kihara Institute for Biological Research, Yokohama City University)

11:10 **S07-6** FACT histone chaperon contributes to genome-wide DNA demethylation in Arabidopsis endosperm
Tetsu Kinoshita[1] ([1]Yokohama City University, Kihara Institute for Biological Research)

11:35 Closing Remark
Tetsu Kinoshita

Patronage	Cosponsor
Japan Science and Technology Agency	Grant-in-Aid for Scientific Research on Innovative Areas "The Birth of New Plant Species"

Molecular Basis for "Extended Phenotypes" in Plant/Animal-Microbe Interactions

Organizer Yusuke Saijo (Grad. Sch. Biol. Sci. NAIST)

09:00 Opening Remarks
Ryohei Terauchi

● Chairperson: Yusuke Saijo

09:03 **S08-1** Co-evolutionary dynamics of pathogen and host: a case study of Magnaporthe-rice interactions
Ryohei Terauchi[1,2] ([1]Laboratory of Crop Evolution, Graduate School of Agriculture, Kyoto University, [2]Iwate Biotechnology Research Center)

09:30 **S08-2** The long reach of the effectors of plant associated organisms
Sophien Kamoun[1] ([1]The Sainsbury Laboratory, Norwich Research Park, Norwich, United Kingdom)

10:05 **S08-3** Battle between rice immune system and *Xanthomonas oryzae* effectors
Koji Yamaguchi[1], Tsutomu Kawasaki[1] ([1]Dept. Adv. Biosci. Kindai Univ.)

10:25 **S08-4** Profiling Plant and Bacterial Transcriptome during Interaction
Akira Mine[1,2], Tatsuya Nobori[1], Carolin Seyfferth[1], Sajjad Khani[1], Kenichi Tsuda[1] ([1]Max Planck Inst. for Plant Breeding Res., [2]Centr. Gene Res., Nagoya Univ.)

● Chairperson: Kenichi Tsuda

10:50 **S08-5** Recognition of PAMPs and DAMPs by mammalian innate immunity
Taro Kawai[1] ([1]Lab. Molecular Immunobiology, Nara Institute of Science and Technology)

11:15 **S08-6** Viral infection and anti-viral innate immune responses in animal cells
Mitsutoshi Yoneyama[1] ([1]Medical Mycology Research Center, Chiba University)

11:35 **S08-7** Phosphate status-dependent control of interactions with pathogenic and endophytic fungi in *Arabidopsis thaliana*
Kei Hiruma[1,2], Tae-Hong Lee[1], Kentaro Okada[1], Taishi Hirase[1], Midori Tanaka[1], Nozomi Kitagawa[1], Paul Schulze-Lefert[3], Yusuke Saijo[1,2] ([1]Grad Sch Biol Sci, NAIST, [2]JST PRESTO, [3]Max Planck Institute for Plant Breeding Research)

11:55 Closing Remarks
Yusuke Saijo

New aspects in plant endomembrane research

Organizers Tomohiro Uemura (Grad. Sch. Sci., Univ. Tokyo)
Massahiko Furutani (Grad. Sch. Bioagr. Sci., Nagoya Univ.)

● Chairperson: Tomohiro Uemura

09:00 Opening remarks
Tomohiro Uemura

09:05 **S09-1** Dynamics of the Golgi apparatus in plant cells during regeneration after BFA treatment revealed by live imaging
Yoko Ito[1], Tomohiro Uemura[2], Takashi Ueda[3,4,5], Akihiko Nakano[1,2] ([1]RIKEN RAP, [2]Grad. Sch. Sci., Univ. Tokyo, [3]Division of Cellular Dynamics, NIBB, [4]Dep. Basic Biol., SOKENDAI, [5]PRESTO, JST)

09:25 **S09-2** Lipid-dependent sorting mechanisms at trans-Golgi Network
Yohann Boutte[1], Nicolas Esnay[1], Yoko Ito[2], Tomohiro Uemura[2] ([1]CNRS, Membrane Biogenesis Laboratory, [2]Department of Biological Sciences , Graduate School of Science, University of Tokyo)

09:55 **S09-3** Morphological analysis of clathrin-mediated endocytotic process by fast-scanning atomic force microscope
Aiko Yoshida[1], Yanshu Zhan[1], Yoshitsuna Itagaki[1], Masahiro Kumeta[1], Yuki Suzuki[2], Nobuaki Sakai[3], Yoshitsugu Uekusa[3], Shige H. Yoshimura[1] ([1]Grad. Sch. Biostudies, Kyoto Univ., [2]Frontier Res, Inst., Tohoku Univ., [3]R&D Group, Olympus, Co.)

10:20 **S09-4** The formation and maintenance of PIN polarity by NPH3-like proteins and PID kinases
Masahiko Furutani[1], Satoshi Naramoto[2], Miyo Terao Morita[1,3], Masao Tasaka[4] ([1]Graduate School of Bioagricultural Sciences, Nagoya University, [2]Graduate School of Life Sciences, Tohoku University, [3]CREST, Japan Science and Technology Agency, [4]Graduate School of Biological Sciences, Nara Institute of Science and Technology)

10:40 Coffee break

● Chairperson: Masahiko Furutani

10:50 **S09-5** Genetic screen to identify endosomal trafficking components involved in localization of plasma membrane proteins in Arabidopsis thaliana
Hirokazu Tanaka[1] ([1]Grad. Sch. Sci., Osaka Univ.)

11:10 **S09-6** Ubiquitin signal involved in membrane trafficking for plant environmental stress responses
Takeo Sato[1], Yoko Hasegawa[1], Shigetaka Yasuda[1], Junji Yamaguchi[1] ([1]Faculty of Science, Hokkaido University)

11:30 **S09-7** Molecular mechanisms of vacuolar membrane fusion regulated by SNARE proteins in plant cells
Kazuo Ebine[1,2], Kodai Takemoto[1,3], Chieko Saito[3], Tomohiro Uemura[3], Akihiko Nakano[3,4], Takashi Ueda[1,2,5] ([1]Div. Cellular Dynamics, NIBB, [2]Sch. Life Sci., SOKENDAI, [3]Grad. Sch. Sci, The Univ. Tokyo, [4]RIKEN Center for Advanced Photonics, [5]PRESTO, JST)

11:50 Discussion
Masahiko Furutani

Plant cell wall as information processing system in development, immune, nutrition, paraticism and movement of plants

Organizer Kazuhiko Nishitani (Grad. Sch. Life Sci. Tohoku Univ.)

● Chairperson: Shin-Ichiro Sawa

13:30 **S10-1** Diversification of membrane trafficking pathways during land plant evolution
Takashi Ueda[1,2,3] ([1]National Institute for Basic Biology, [2]Graduate University for Advanced Studies, [3]PRESTO)

13:55 **S10-2** Plant cell-wall dynamics based on new functions of XTH family of enzymes
Naoki Shinohara[1], Naoki Sunagawa[2], Satoru Tamura[3], Ryusuke Yokoyama[1], Minoru Ueda[3], Kiyohiko Igarashi[2,4], Kazuhiko Nishitani[1] ([1]Graduate School of Life Sciences, Tohoku University, [2]Graduate School of Agricultural and Life Sciences, The University of Tokyo, [3]Graduate School of Science, Tohoku University, [4]VTT Technical Research Centre of Finland)

● Chairperson: Takashi Ueda

14:20 **S10-3** Evolution of Gene Regulatory Network Governing Plant Cell Wall Formation
Taku Demura[1] ([1]Graduate School of Biological Sciences, Nara Insitute of Science and Technology)

14:45 **S10-4** Plants have a restoration mechanism to straighten the posture
Haruko Ueda[1], Ikuko Hara-Nishimura[1] ([1]Faculty of Science and Engineering, Konan University)

● Chairperson: Taku Demura

15:10 **S10-5** Roles of cell wall in Ca transport and Ca-dependent growth
Yusuke Shikanai[1], Baohai Li[1], Takehiro Kamiya[1], Toru Fujiwara[1] ([1]Graduate School of Agricultural and Life Sciences, The University of Tokyo)

15:35 **S10-6** Plant cell wall in plant parasitic nematode infection mechanisms.
Morihiro Oota[1], Allen Yi-Lun Tsai[1], Reira Suzuki[1], Chie Shimaoka[1], Takashi Ishida[1], Shinichiro Sawa[1] ([1]Kumamoto University)

Cosponsor
The Plant Cell Wall as Information Processing System

Signaling pathways and growth regulation in response to environmental signals

Organizers Toshinori Kinoshita (WPI-ITbM, Nagoya Univ.)
Yoshikatsu Matsubayashi (Grad. Sch. Sci., Nagoya Univ.)

13:00 Opening remarks
Toshinori Kinoshita

● Chairperson: Yoshikatsu Matsubayashi

13:05 **S11-1** Regulation of stomatal movements in response to environmental signals
Toshinori Kinoshita[1] ([1]WPI-ITbM, Nagoya Univ.)

13:25 **S11-2** A peptide-receptor system shaping leaf margins
Toshiaki Tameshige[1], Satoshi Okamoto[2], Jun Suk Lee[3], Mitsuhiro Aida[2], Masao Tasaka[2], Keiko Torii[1,3,4], Naoyuki Uchida[1] ([1]WPI-ITbM, Nagoya Univ., [2]NAIST, [3]Univ. Washington, [4]HHMI)

13:50 **S11-3** Phytochrome globally modulates protein subcellular localization in Arabidopsis
Tomonao Matsushita[1] ([1]Laboratory of Plant Photophysiology, Faculty of Agriculture, Kyushu University)

14:15 **S11-4** Genetic framework for nitrogen-mediated control of root nodule symbiosis
Hanna Nishida[1,2,3], Masayoshi Kawaguchi[2,3], Takuya Suzaki[1] ([1]Graduate School of Life and Environmental Sciences, University of Tsukuba, [2]National Institute for Basic Biology, [3]SOKENDAI)

● Chairperson: Toshinori Kinoshita

14:40 **S11-5** Identification of Novel Peptide Ligand-Receptor Pairs in Plants
Yoshikatsu Matsubayashi[1] ([1]Grad. Sch. Sci., Nagoya Univ.)

15:05 **S11-6** Characterization of *FYF* regulatory network that regulates floral organ senescence and abscission in Arabidopsis
Wei-Han Chen[1], Pei-Fang Li[1], Pei-Tzu Lin[1], Chang-Hsien Yang[1] ([1]Institute of Biotechnology, National Chung Hsing University,)

15:30 **S11-7** Shoot meristem control by signals from differentiating primordia.
David Jackson[1] ([1]Cold Spring Harbor Lab)

15:55 Closing remarks
Yoshikatsu Matsubayashi

Cosponsor

Scientific Research on Innovative Areas, a MEXT Grant-in Aid Project
Integrative system of autonomous environmental signal recognition and memorization for plant plasticity

OXFORD UNIVERSITY PRESS PCP PLANT & CELL PHYSIOLOGY PCP sponsored symposium

Dynamic Vacuoles in Plants 2017

Organizer Katsuhiro Shiratake (Nagoya Univ.)

● Chairperson: Katsuhiro Shiratake

09:00		Opening remarks Hitoshi Sakakibara (Editor-in-Chief of PCP, Nagoya Univ., RIKEN CSRS)
09:01		Opening remarks Miki Matoba (Oxford Univ. Press)
09:04	**S12-1**	Dynamic vacuoles in plants Katsuhiro Shiratake[1] ([1]Grad. Sch. Bioagricultural Sci., Nagoya Univ.)
09:10	**S12-2**	The role of vacuolar malate/chloride channels in stomatal movement Enrico Martinoia[1], Cornelia Eisenach[1], Ulrike Baetz[1], Jingbo Zhang[1], Alexis De Angeli[1,2] ([1]University Zurich, [2]CNRS Gif-sur-Yvette)
09:50	**S12-3**	Transporters for vacuolar sequestration of toxic metals and arsenic Youngsook Lee[1], Jian Feng Ma[2], Enrico Martinoia[1,3], Won-Yong Song[1] ([1]Department of Integrative Bioscience and Biotechnology, Pohang University of Science and Technology, [2]Institute of Plant Science and Resources, Okayama University, [3]Institute of Plant Biology, University Zurich)
10:30		Break

● Chairperson: Tetsuro Mimura

10:40	**S12-4**	Plants use vacuoles for defense in multiple ways Ikuko Hara-Nishimura[1] ([1]Faculty of Sci and Eng, Konan Univ.)
11:05	**S12-5**	Multiple facets of vacuolar H^+-pyrophosphatase and vacuolar functions: visible and invisible parts Masayoshi Maeshima[1] ([1]Grad. Sch. Bioagricultural Sci., Nagoya Univ.)
11:30	**S12-6**	Molecular components of vacuoles and their possible functions in plant cells Tetsuro Mimura[1], Miwa Ohnishi[1], Aya Anegawa[1,2], Kotaro Yamamoto[1], Yuko Kurita[1], Katsuhisa Yoshida[1,3] ([1]Dept. Biol., Grad. Sch. Sci., Kobe. Univ., [2]Agilent Technologies, [3]Res. Inst. Biol. Sci., Okayama)
11:55		Closing remarks Tetsuro Mimura (Kobe Univ.)

Science and technology research promotion program for agriculture, forestry, fisheries and food industry
"Development of innovative grafting combinations and new grafting techniques"

Venturing into the world of single cell analysis

Organizers Yuki Kondo (Univ. of Tokyo)
Aki Minoda (RIKEN)

● Chairperson: Yuki Kondo

09:00 Opening Remarks
Aki Minoda

09:05 **S13-1** Identifying cell types and subpopulations by single cell RNA-seq
Kosuke Hashimoto[1], Satoshi Kojo[2], Ichiro Taniuchi[2], Aki Minoda[1] ([1]CLST-DGT, RIKEN, [2]IMS, RIKEN)

09:25 **S13-2** Current situation of quantitative single cell plant hormone analysis by mass spectrometry
Takafumi Shimizu[1], Tomokazu Koshiba[2], Mitsunori Seo[1,2] ([1]RIKEN CSRS, [2]Department of Biological Sciences, Tokyo Metropolitan Univ.)

09:45 **S13-3** Triggering single-cell response for understanding intercellular signaling in plant immunity
Shigeyuki Betsuyaku[1] ([1]Univ. Tsukuba, Fac. Life & Env. Sci.)

10:05 **S13-4** Translational control by G-quadruplex recognition via REPRESSOR OF PHLOEM DEVELOPMENT determines differentiation of energy transducing vascular tissue in plants
Hyunwoo Cho[1], Hyunseob Cho[1], Ildoo Hwang[1] ([1]Department of Life Sciences, Pohang University of Science and Technology)

● Chairperson: Aki Minoda

10:35 **S13-5** Finding out cellular states in plants by single cell transcriptome analysis
Minoru Kubo[1] ([1]Inst. Research Initiative, NAIST)

10:55 **S13-6** Live imaging and optical manipulation of plant reproduction at a single cell level
Daisuke Kurihara[1,2] ([1]Grad. Sch. Sci., Nagoya Univ., [2]JST, ERATO)

11:15 **S13-7** Time-lapse cell fate imaging during vascular cell differentiation
Yuki Kondo[1] ([1]Department of Biological Sciences, Graduate School of Science, The University of Tokyo)

11:35 Closing Remarks
Yuki Kondo