

3月16日(月) 09:30 ~ 12:30 X会場

Epigenetic and transcriptional control of environmental response

Organizers Keiko Sugimoto (RIKEN CSRS)
Hidetaka Ito (Hokkaido Univ.)

● Chairperson: Keiko Sugimoto

09:30 Introduction

● Chairperson: Hidetaka Ito

09:35 S01-1 Coordination between cell growth, cell cycle and tissue patterning during shoot organ growth
Robert Sablowski¹ (¹John Innes Centre)

10:05 S01-2 Role of Polycomb repressive pathways in regulating cell differentiation in Arabidopsis
Francois Roudier¹ (¹Institut de Biologie de l'ENS)

10:35 S01-3 Epigenetic control of plant cell differentiation and environmental response
Momoko Ikeuchi¹, Akira Iwase¹, Keiko Sugimoto¹ (¹RIKEN CSRS)

● Chairperson: Keiko Sugimoto

11:00 S01-4 Epigenetic dynamics in plant drought stress response
Jong-Myong Kim^{1,2}, Taiko Kim To³, Motoaki Seki^{1,2,4} (¹RIKEN CSRS, ²CREST JST, ³NIG, ⁴Yokohama City Univ. Kihara Biol. Inst.)

11:30 S01-5 Epigenetic regulation of a heat-activated transposon in plant
Hidetaka Ito^{1,2} (¹Hokkaido University, Faculty of Science, ²JST PRESTO)

11:55 S01-6 Temperature signalling pathways in plant development
Philip A. Wigge¹ (¹Sainsbury Laboratory, Cambridge University)

● Chairperson: Hidetaka Ito

12:25 Discussion

共 催

新学術領域

「大地環境変動に対する植物の生存・成長突破力の分子的統合解析」

3月16日(月) 09:30 ~ 12:30 Y会場

Molecular dissection of reproductive processes in plants

Organizers Teh-hui Kao (Plant Biol. Grad. Prog. Penn State Univ., Dept. Biochem. & Mol. Biol. Penn State Univ.)
Masao Watanabe (Grad. Sch., Life Sci., Tohoku Univ.)

09:30 Opening remarks
Masao Watanabe¹ (¹Grad. Sch., Life Sci., Tohoku Univ.)

● Chairperson: Masao Watanabe

09:35 S02-1 Molecular function of phytohormone GAs in reproductive processes
Miyako Ueguchi-Tanaka¹, Jyunmu Tanaka¹, Kenji Yano¹, Koichiro Aya¹, Sayaka Takehara¹,
Masatoshi Nakajima², Makoto Matsuoka¹ (¹Biosci Biotechnol Center, Nagoya Univ.,
²University of Tokyo)

10:10 S02-2 Exploring Key Determinants for Reproductive Barrier in Endosperm
Tetsu Kinoshita¹, Kaoru Tonosaki¹ (¹KIBR, Yokohama City Univ.)

10:40 S02-3 Self-Incompatibility in *Petunia*: a Complex Self/non-self Recognition System between Pollen and Pistil
Penglin Sun¹, Justin Williams², Li Shu¹, Teh-hui Kao^{1,2} (¹Plant Biol. Grad. Prog., Penn State Univ., ²Dept. Biochem. & Mol. Biol., Penn State Univ.)

11:15 S02-4 Pollen-stigma interaction in the Brassicaceae
Sota Fujii¹, Megumi Iwano¹, Kanae Ito¹, Seiji Takayama¹ (¹Graduate School of Biological Sciences, Nara Institute of Science and Technology)

11:50 S02-5 Identification of novel key molecules for pollen tube guidance
Tetsuya Higashiyama^{1,2,3} (¹ITbM, Nagoya Univ., ²Grad. Sch. Sci., Nagoya Univ., ³ERATO Live-Holonics)

12:25 Closing remarks
Teh-hui Kao¹ (¹ Plant Biol. Grad. Prog. Penn State Univ., Dept. Biochem. & Mol. Biol. Penn State Univ.)

共 催

文部科学省科学研究費補助金 新学術領域研究
「ゲノム・遺伝子相関—新しい遺伝学分野の創成—」
(Grants-in-Aid for Scientific Research on Innovative Areas
“Correlative Gene System: Establishing Next-Generation Genetics”
from Ministry of Education, Culture, Sports, Science and Technology (MEXT))

3月16日(月) 09:30 ~ 12:15 Z会場

Ectopic meristems and developmental plasticity in plants

Organizers Kimitsune Ishizaki (Grad. Sch. Sci., Kobe Univ.)
Takuya Suzaki (NIBB)

09:30 Opening remarks

● Chairperson: Takuya Suzaki

09:35 S03-1 Shoot meristem formation: core mechanism and its modification
Mitsuhiro Aida¹ (¹Graduate School of Biological Sciences, Nara Institute of Science and Technology)

10:00 S03-2 Vegetative propagation: development of asexual progenies from vegetative tissue
Kimitsune Ishizaki¹ (¹Grad. Sch. Sci., Kobe Univ.)

10:25 S03-3 A novel gibberellin response gene triggers internode elongation in deepwater rice
Keisuke Nagai¹, Yuma Kondo¹, Anzu Minami¹, Masaya Koike¹, Takeshi Kuroha¹,
Motoyuki Ashikari¹ (¹Biosci. Biotech. Cent., Univ. Nagoya)

● Chairperson: Kimitsune Ishizaki

10:50 S03-4 Organogenesis and developmental plasticity triggered by symbiotic bacterial infection
Takuya Suzaki^{1,2}, Takema Sasaki^{1,2}, Hanna Nishida^{1,2}, Masayoshi Kawaguchi^{1,2}
(¹NIBB, ²SOKENDAI)

11:15 S03-5 Studies on the rhizome development of *Oryza logistaminata*
Akiko Yoshida¹, Yasuhiko Terada², Katsumi Kose², Motoyuki Ashikari³, Junko Kyoizuka¹
(¹Grad. Sch. Agric. Sci., The Univ. Tokyo, ²Inst. Appl. Phys., Tsukuba Univ., ³Grad. Sch. Bioagric Sci., Nagoya Univ.)

11:40 S03-6 A modeling approach for the evolution of mass flowering in bamboos: from a perspective of rhizome branching pattern
Yuuya Tachiki¹, Akifumi Makita², Yoshihisa Suyama³, Akiko Satake¹ (¹EES, Hokkaido Univ., ²Bioresouce, Akita Pref. Univ., ³Agric. Tohoku Univ.)

12:05 Discussion

3月16日(月) 13:30～16:30 X会場

植物の能力とその利用—植物の機能を掘り起こす—

オーガナイザー 樋口 恭子 (東京農大)
坂田 洋一 (東京農大)
佐々木 卓治 (東京農大)

13:30		はじめに 樋口恭子 ¹ (東京農大)
13:35		学長挨拶 ●座長：佐々木 卓治
13:40	S04-1	植物科学で食糧増産にチャレンジする 芦荊基行 ¹ (名古屋大学・生物機能開発利用研究センター) ●座長：樋口 恭子
14:05	S04-2	イネのシンク拡大と光合成の改善 牧野周 ¹ , 鈴木雄二 ¹ , 小原実広 ² , 金田吉弘 ³ (東北大学大学院農学研究科植物栄養生理学分野, ² 国際農林水産業研究センター, ³ 秋田県立大学生物資源学部)
14:30	S04-3	成長とストレス耐性のクロストーク：アブシジン酸シグナル伝達機構の進化の視点から 坂田洋一 ¹ , 梅澤泰史 ² , 竹澤大輔 ³ (東京農業大学バイオサイエンス学科, ² 東京農工大学 BASE, ³ 埼玉大学・大学院理工学研究科) ●座長：坂田 洋一
14:50	S04-4	アブシジン酸シグナル伝達を制御する低分子化合物の同定と利用 岡本昌憲 ¹ (鳥取大学・乾地研)
15:10		休憩 ●座長：樋口 恭子
15:20	S04-5	食品における小麦・米内在酵素の作用 野口智弘 ¹ (東農大・応生・食加技セ) ●座長：佐々木 卓治
15:40	S04-6	大根のゲノム解読と肥大根のトランスクリプトーム解析 三井裕樹 ¹ , 小松憲治 ¹ , 下村道彦 ² , 片寄裕一 ³ , 加々美勉 ⁴ , 佐々木卓治 ¹ (東京農業大学, ² 三菱スペース・ソフトウェア株式会社, ³ 農業生物資源研究所, ⁴ 株式会社サカタのタネ)
16:00	S04-7	国際連携によるキャッサババイオマスの量的・質的向上を目指して 内海好規 ¹ , 櫻井哲也 ¹ , 内海稚佳子 ^{1,2} , 武井良郎 ^{1,3} , 阿部知子 ⁴ , 平野智也 ⁴ , Ham Huy Le ⁵ , Dong Van Nguyen ⁵ , Jarunya Narangajavana ⁶ , Kanokporn Triwitayakorn ⁶ , 石谷学 ⁷ , 関原明 ^{1,2,3} (理研・環境資源科学研究センター, ² JST CREST, ³ 横浜市立大・木原生物学研究所, ⁴ 理研・仁科加速器研究センター, ⁵ 農業遺伝学研究所, ⁶ マヒドン大, ⁷ 国際熱帯農業センター)
16:25		おわりに 佐々木卓治 ¹ (東京農大)

3月16日(月) 13:30～16:30 Y会場

植物細胞壁の形成と維持のダイナミズム

オーガナイザー 馳澤 盛一郎(東京大・院・新領域)
 桧垣 匠(東京大・院・新領域)

●座長：馳澤 盛一郎

13:30 はじめに

13:35 S05-1 遺伝子共発現に基づくパラログ遺伝子群の機能多様性の予測
大林武¹, 岡野悠太郎¹, 成瀬孝史¹, 青木裕一¹, 岡村容伸¹, 田高周¹, 木下賢吾^{1,2,3}
(¹東北大・院・情報, ²東北大・加齢研, ³東北大・ToMMo)

14:00 S05-2 植物の細胞板形成を支える分子メカニズム
笹部美知子¹, 桧垣匠², 大和田理恵¹, 相田治寿¹, 西田結花¹, 馳澤盛一郎²,
町田泰則³ (¹弘前大・農生, ²東京大・院・新領域, ³名古屋大・院・理)

14:25 S05-3 植物プロトプラストの細胞壁再生の時間的・空間的制御機構
横山隆亮¹, 九鬼寛明¹, 桧垣匠², 竹内美和¹, 馳澤盛一郎², 西谷和彦¹
(¹東北大・院・生命科学, ²東京大・院・新領域)

●座長：桧垣 匠

15:00 S05-4 葉表皮細胞のジグソーパズル構造形成の数理モデル
今村寿子¹, 朽名夏磨², 桧垣匠², 秋田佳恵², 三浦岳¹ (¹九州大・院・医学, ²東京大・院・新領域)

15:25 S05-5 ペクチン架橋形成によるホウ素栄養環境に応答した成長制御
三輪京子^{1,2} (¹北海道大・地球環境, ²JST・さきがけ)

15:50 S05-6 寄生植物と宿主植物の細胞壁をめぐる攻防
吉田聡子¹, Musembi Mutuku¹, Songkui Cui¹, 堀千明¹, 清水崇史¹, 市橋泰範¹,
瀬尾光範¹, 出村拓^{1,2}, 白須賢¹ (¹理研・CSRS, ²奈良先端大・バイオ)

16:15 総合討論・おわりに

共 催

新学術領域「植物細胞壁機能」

3月16日(月) 13:30 ~ 16:30 Z会場

Next generation researches in plant physiology:
Extensive environmental adaptation in plants

Organizer Yosuke Tamada (Natl. Inst. Basic Biol.)

● Chairperson: Yosuke Tamada

13:30		Opening remarks <u>Yosuke Tamada</u> ¹ (Natl. Inst. Basic Biol.)
13:33	S06-1	Genus <i>Vigna</i> — Finding the Honey in the Wild — <u>Ken Naito</u> ¹ , <u>Hiroaki Sakai</u> ² , <u>Sompong Chankaew</u> ³ , <u>Eri Ogiso</u> ¹ , <u>Kohtaro Iseki</u> ¹ , <u>Takehisa Isemura</u> ¹ , <u>Norihiko Tomooka</u> ¹ (¹ Genetic Resource Center, NIAS, ² Agrogenomics Res. Center, NIAS, ³ Kasetsart Univ.)
14:07	S06-2	Integration of transcriptomics and meteorology <u>Atsushi J. Nagano</u> ^{1,2} (¹ Center for Ecological Research, Kyoto University, ² JST PRESTO)
14:41	S06-3	The Arabidopsis immune signaling network: modeling the topology and beyond <u>Masanao Sato</u> ¹ (Natl. Inst. Basic Biol.)
15:15	S06-4	Molecular convergence of digestive enzymes in carnivorous plants <u>Kenji Fukushima</u> ^{1,2} , <u>Mitsuyasu Hasebe</u> ^{1,2} (Natl. Inst. Basic Biol., ² Dept Basic Biol, Sch Life Sci, Grad Univ Adv Stud)
15:43	S06-5	Theoretical/experimental analysis of robustness and plasticity in biological systems <u>Chikara Furusawa</u> ¹ (QBiC, RIKEN)
16:28		Closing remarks <u>Yosuke Tamada</u> ¹ (Natl. Inst. Basic Biol.)

3月17日(火) 9:00 ~ 12:00 X会場

Learning plant physiology on plant-pathogen interactions

Organizers Hirofumi Nakagami (RIKEN CSRS)
Yusuke Saijo (NAIST)

● Chairperson: Hirofumi Nakagami

09:00		Opening remarks
09:02	S07-1	Extracellular ATP acts as a damage-associated molecular pattern in plants <u>Kiwamu Tanaka</u> ¹ (¹ Department of Plant Pathology, Washington State University)
09:26	S07-2	Defense Activation And Priming Upon Danger Sensing In Plant Immunity Eva-Maria Reimer-Michalski ³ , Barbara Kracher ³ , Franziska Turck ³ , Kohji Yamada ³ , <u>Yusuke Saijo</u> ^{1,2,3} (¹ Nara Institute of Science and Technology, Graduate School of Biological Sciences, ² JST PRESTO, ³ Max Planck Institute for Plant Breeding Research)
09:50	S07-3	Role of Receptor-Like Cytoplasmic Kinases in plant immunity Xiangxiu Liang ¹ , Lei Li ¹ , Meng Li ¹ , Feng Feng ¹ , Wang Guoxun ¹ , Wang Jinlong ¹ , Zhou Zhaoyang ¹ , <u>Jian-Min Zhou</u> ¹ (¹ Institute of Genetics and Developmental Biology, Chinese Academy of Sciences)

● Chairperson: Yusuke Saijo

10:20	S07-4	Virulence-promoting effectors in the corn smut fungus <i>Ustilago maydis</i> <u>Shigeyuki Tanaka</u> ¹ , Thomas Brefort ^{1,2} , Nina Neidig ^{1,3} , Daniel Lanver ¹ , Regine Kahmann ¹ (¹ Max Planck Institute for Terrestrial Microbiology, ² Comprehensive Biomarker Center, ³ Novartis Vaccines and Diagnostics)
10:44	S07-5	Dead or Alive: early MAMP-responsive phosphoprotein watches hypersensitive cell death induction Hidenori Matsui ¹ , Yuko Nomura ¹ , <u>Hirofumi Nakagami</u> ¹ (¹ Plant Proteomics Research Unit, RIKEN CSRS)
11:08	S07-6	Robustness and tunability: design principles of plant immune signaling networks Akira Mine ¹ , Carolin Seyfferth ¹ , <u>Kenichi Tsuda</u> ¹ (¹ Max Planck Inst. Plant Breeding Res.)
11:32	S07-7	Immune co-factor NPR1 regulates reciprocal interaction between salicylic acid and jasmonic acid-mediated signal pathways <u>Yasuomi Tada</u> ¹ , Mika Nomoto ² , Tsukagoshi Hironaka ^{2,5} , Nodoka Oka ² , Takamasa Suzuki ^{2,3} , Tomonao Matsushita ⁶ , Mutsutomo Tokizawa ⁷ , Yoshiharu Yamamoto ⁷ , Tetsuya Higashiyama ^{2,3,4} , Steven Spoel ⁸ (¹ Centr. Gene Res., Nagoya Univ., ² Grad. Sch. Sci., Nagoya Univ., ³ JST, ERATO, Higashiyama Live-Holonics Project, Nagoya Univ., ⁴ WPI-ITbM, Nagoya Univ., ⁵ PRESTO, JST, ⁶ Fac. Agr., Kyushu Univ., ⁷ Fac. Appl. Biol. Sci., Gifu Univ., ⁸ Sch. Biol. Sci., Univ. Edinburgh)
11:56		Closing remarks

3月17日(火) 9:00 ~ 12:05 Y会場

Green chemical biology workshop

Organizers Yukio Kurihara (RIKEN CSRS)
Hiroyasu Motose^{1,2} (¹Grad. Sci. Nat. Sci. & Tech., Okayama Univ., ²Dep. Biol., Fac. Sci., Okayama Univ.)
Yoshiteru Noutoshi (Grad. Sch. Env. LifeSci., Okayama Univ.)

09:00 Opening remarks
Yukio Kurihara¹ (¹RIKEN CSRS)

● Chairperson: Yoshiteru Noutoshi

09:05 S08-1 Chemical Biology of Coronatine; the effect on the guard cell
Minoru Ueda¹, Shusuke Egoshi¹, Yasuhiro Ishimaru¹ (¹Grad. Sch. Sci., Tohoku Univ.)

09:30 S08-2 When Chemistry Meets Biology: Generating New Tools for Scientific Discovery in the Plant Sciences
Erich Kombrink¹ (¹Chemical Biology Laboratory, Max Planck Institute for Plant Breeding Research, Koeln, Germany)

● Chairperson: Yukio Kurihara

09:55 S08-3 Chemical biology of immune priming in *Arabidopsis thaliana*
Yoshiteru Noutoshi¹ (¹Grad. Sch. Env. LifeSci., Okayama Univ.)

10:20 S08-4 Detection of parasitic plant suicide germination compounds using a high-throughput Arabidopsis HTL/KAI2 strigolactone perception system
Yuichiro Tsuchiya¹, Shigeo Toh², Duncan Holbrook-Smith², Toshinori Kinoshita¹, Peter McCourt² (¹Nagoya University WPI-ITbM, ²Department of Cell & Systems Biology, University of Toronto)

10:45 S08-5 Chemical biology of vascular development
Hiroyasu Motose^{1,2}, Kaori Yoshimoto¹, Chika Kobayashi², Kenichiro Hayashi³, Yoshiteru Noutoshi⁴, Hiroyoshi Takamura¹, Isao Kadota¹, Taku Takahashi^{1,2} (¹Grad. Sci. Nat. Sci. & Tech., Okayama Univ., ²Dep. Biol., Fac. Sci., Okayama Univ., ³Dep. Biol. Sci., Okayama Univ. Sci., ⁴Grad. Sci. Env. Life Sci., Okayama Univ.)

● Chairperson: Hiroyasu Motose

11:10 S08-6 Chemical genetic approach for plant cell wall patterning
Arata Yoneda¹, Eri Kamon¹, Taku Demura^{1,2} (¹Biol. Sci., NAIST, ²CSRS, RIKEN)

11:35 S08-7 Chemical phenomics for biomass engineering
Emiko Okubo-Kurihara¹, Yukio Kurihara¹, Misato Ohtani², Natsumaro Kutsuna^{3,7}, Noriko Nagata⁴, Megumi Kobayashi⁴, Masanori Komatsu⁵, Jun Kikuchi^{1,5}, Koichi Kakegawa⁶, WenDee Ong¹, Taku Demura^{1,2}, Minami Matsui¹ (¹RIKEN CSRS, ²Grad Sch of Biological Sci, Nara Institute of Science and Technology, ³Grad Sch of Frontier Sci, The University of Tokyo, ⁴Faculty of Science, Japan Women's University, ⁵Grad Sch of Nanobioscience, Yokohama City University, ⁶Department of Biomass Chemistry, Forestry and Forest Products Research Institute, ⁷LPixel Inc., R&D Division)

12:00 Closing remarks
Yoshiteru Noutoshi¹ (¹Grad. Sch. Env. LifeSci., Okayama Univ.)

3月17日(火) 9:00 ~ 11:55 Z会場

Behavior of meristems in response to environmental factors

Organizers Masaaki Umeda (NAIST; JST, CREST)
Takeshi Izawa (NIAS)

● Chairperson: Takeshi Izawa

09:00		Opening remarks
09:05	S09-1	Stem cell replenishment maintains genome integrity <u>Masaaki Umeda</u> ^{1,2} , Keisuke Fujimoto ¹ , Naoki Takahashi ¹ (¹ Grad. Sch. Biol. Sci., NAIST, ² JST, CREST)
09:30	S09-2	Control of rice inflorescence architecture of rice by <i>TAWAWAI</i> <u>Junko Kyojuka</u> ¹ , Hiroki Tokunaga ¹ , Akiko Yoahida ¹ , Ryo Yamazaki ¹ , Masanobu Chikamori ¹ (¹ University of Tokyo, Graduate School of Agricultural and Life Sciences)
09:55	S09-3	Regulation of shoot meristem activity by strigolactones produced under phosphate deficiency <u>Mikihisa Umehara</u> ¹ (¹ Dept. Appl. Biosci., Fac. Life Sci., Toyo Univ.)
10:20		Break
● Chairperson: Masaaki Umeda		
10:35	S09-4	Jumonji H3K27 demethylases moderate precocious flowering at higher temperature in Arabidopsis <u>Toshiro Ito</u> ^{1,2} (¹ Temasek Life Sciences Laboratory, ² Nara Institute of Science and Technology)
11:00	S09-5	Flowering phenology and environmental change: comparison between temperate and tropical rain forests Suat Hui Yeoh ¹ , <u>Akiko Satake</u> ² , Shinya Numata ³ , Tomoaki Ichie ⁴ , Lee Soon Leong ⁵ , Norlia Basherudin ⁵ , Norwati Muhammad ⁵ , Yu-Yun Chen ⁶ , Yoshiko Kosughi ⁷ , Makoto Tani ⁷ , Naoki Tani ⁸ (¹ University of Malaya, ² Hokkaido University, ³ Tokyo Metropolitan University, ⁴ Kochi University, ⁵ Forest Research Institute Malaysia, ⁶ National Dong Hwa University, ⁷ Kyoto University, ⁸ Japan International Research Center for Agricultural Sciences)
11:25	S09-6	Deciphering of field transcriptome in rice <u>Takeshi Izawa</u> ¹ (¹ NIAS Functional Plant Research Unit)
11:50		Closing remarks

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How Can Leaves Be Free from Sunburn? Kozi Asada Memorial Symposium

Organizers Jun'ichi Mano (Science Research Center, Yamaguchi University)
 Tsuyoshi Endo (Graduate School of Biostudies, Kyoto University)
 Chikahiro Miyake (Graduate School of Agricultural Science, Kobe University, Japan)

13:00 Celebrating the Fifth PCP/OUP Sponsored Symposium
Miki Matoba¹ (¹Oxford University Press)

13:05 Opening Remarks
Tsuyoshi Endo¹ (¹Graduate School of Biostudies, Kyoto University)

● Chairperson: Chikahiro Miyake

13:10 S10-1 The Role of Energy Dissipation and Reactive Oxygen Species in Retrograde Cell Death Signaling in Arabidopsis
Stanislaw Karpinski¹ (¹Department of Plant Genetics, Breeding and Biotechnology, Faculty of Horticulture and Landscape Architecture, Warsaw University of Life Sciences)

13:35 S10-2 Action of Oxylin Carbonyls as Oxidative Signal Agents
Jun'ichi Mano¹ (¹Science Research Center, Yamaguchi University)

● Chairperson: Tsuyoshi Endo

14:00 S10-3 Progress in Non-Intrusive Assessment of Photosystem I by PAM Technology
Ulrich Schreiber¹, Christof Klughammer¹ (¹Botanik I, Julius-von-Sachs Institute of Biosciences, Wuerzburg University)

14:25 S10-4 Regulation of Redox State of Photosynthetic Electron Transport System under the Electron Sink-Limited Photosynthesis
Keiichiro Shaku¹, Ginga Shimakawa¹, Chikahiro Miyake¹ (¹Graduate School of Agricultural Science, Kobe University)

● Chairperson: Ichiro Terashima

14:50 S10-5 Variation in Photosynthetic Electron Flow to Oxygen on Plants, Algae and Cyanobacteria
Murray Badger¹ (¹ARC Centre of Excellence for Translational Photosynthesis, Australian National University)

15:15 S10-6 Role of Flavodiiron Proteins in Oxygenic Photosynthesis
Eva-Mari Aro¹ (¹University of Turku, Department of Biochemistry)

15:40 S10-7 Cyclic Electron Transport around Photosystem I in Higher Plants
Tsuyoshi Endo¹ (¹Graduate School of Biostudies, Kyoto University)

3月17日(火) 13:00 ~ 16:00 Y会場

The frontiers of vascular biology in plants

Organizers Yuki Kondo (Grad. Sch. of Sci., Univ. Tokyo)
Makoto Shirakawa (Grad. Sch. of Biostudies., Kyoto Univ)
Kaori Furuta (Grad. Sch. of Biol. Sci., NAIST)
Shunsuke Miyashima (Grad. Sch. of Biol. Sci., NAIST)

13:00 はじめに
Shunsuke Miyashima¹ (Grad. Sch. of Biol. Sci., NAIST)

● Chairperson: Shunsuke Miyashima

13:05 S11-1 Embryonic vasculature formation
Saiko Yoshida¹, Pierre Barbier de Reuille⁴, Milad Adibi², Richard Smith³, Dolf Weijers²
(¹IST Austria, ²Wageningen Univ., ³MPI, ⁴Univ. Bern)

13:30 S11-2 A signal transduction pathway that regulates cell differentiation in the vascular meristem
Yuki Kondo¹, Hiroo Fukuda¹ (Grad. Sch. Sci., Univ. Tokyo)

● Chairperson: Yuki Kondo

13:55 S11-3 Arabidopsis NAC45/86 direct sieve element morphogenesis culminating in enucleation
Kaori Furuta¹ (Grad. Sch. Biol. Sci., NAIST)

14:20 S11-4 Fate Determination and Differentiation of Myrosin Cells: Guardians for Vascular Tissue
Makoto Shirakawa^{1,2}, Haruko Ueda¹, Atsushi J. Nagano^{3,4}, Tomoo Shimada¹,
Takayuki Kohchi², Ikuko Hara-Nishimura¹ (Graduate School of Science, Kyoto
University, ²Graduate School of Biostudies, Kyoto University, ³Center for Ecological
Research, Kyoto University, ⁴PRESTO, Japan Science and Technology Agency)

● Chairperson: Makoto Shirakawa

14:45 S11-5 Leaf water transport and construction of water-transport pathway in veins
Haruhiko Taneda¹, Akihiro Ohtsuka¹, Mikiko Kojima², Hitoshi Sakakibara² (Graduate
School of Science, The University of Tokyo, ²Center for Sustainable Resource Science,
RIKEN Center)

15:10 S11-6 Evolution of water-conducting cells in land plants; lessons from VNS family genes
Misato Ohtani^{1,2}, Bo Xu¹, Yoshimi Nakano¹, Shiori Terada¹, Minoru Kubo¹, Taku Demura^{1,2}
(Grad. Sch. Biol. Sci., NAIST, ²RIKEN CSRS)

15:35 おわりに
Yuki Kondo¹ (Grad. Sch. of Sci., Univ. Tokyo)

3月17日(火) 13:00 ~ 16:00 Z会場

Response for environmental stimulation: From signaling to gene regulation

Organizers Sachihiro Matsunaga (Dept. Appli. Sci., Fac. Sci. Tech., Tokyo Univ. Sci.)
Toshinori Kinoshita (WPI-ITbM, Nagoya Univ.)

● Chairperson: Toshinori Kinoshita

13:00		Opening remarks <u>Toshinori Kinoshita</u> ¹ (WPI-ITbM, Nagoya Univ.)
13:05	S12-1	Perception of root-derived peptides by shoot LRR-RKs mediates systemic N-demand signaling <u>Yoshikatsu Matsubayashi</u> ¹ , Ryo Tabata ¹ , Kumiko Sumida ¹ , Hidefumi Shinohara ¹ (Grad. Sch. Sci., Nagoya Univ.)
13:35	S12-2	Tissue-specific clocks in Arabidopsis show asymmetric coupling <u>Motomu Endo</u> ¹ (Kyoto University)
14:05	S12-3	Vascular hijack by parasitic plants <u>Ken Shirasu</u> ¹ , Juliane Ishida ¹ , Musembi Mutuku ¹ , Thomas Spallek ¹ , Songkui Cui ¹ , Yasunori Ichihashi ¹ , Simon Saucet ¹ , Satoko Yoshida ¹ (Plant Immunity Research Group, RIKEN CSRS)

● Chairperson: Sachihiro Matsunaga

14:35	S12-4	Carrying the ball for flowering: Florigen distribution and genome-wide epigenetic regulation in the shoot apical meristem <u>Hiroyuki Tsuji</u> ¹ (NAIST)
15:05	S12-5	New insight into blue light-induced stomatal opening in Arabidopsis <u>Shin-ichiro Inoue</u> ¹ (Grad Sch Sci, Nagoya Univ.)
15:30	S12-6	Maintenance of chromatin stability as a basis for environmental response <u>Takuya Sakamoto</u> ¹ , Takeshi Hirakawa ¹ , Satoru Fujimoto ¹ , Yuki Sakamoto ¹ , Sachihiro Matsunaga ¹ , (Dept. Appli. Sci., Fac. Sci. Tech., Tokyo Univ. Sci.)
15:55		Closing remarks <u>Sachihiro Matsunaga</u> ¹ (Dept. Appli. Sci., Fac. Sci. Tech., Tokyo Univ. Sci.)

3月18日(水) 9:00 ~ 12:00 X会場

Frontiers in plant calcium signaling

Organizer Kazuyuki Kuchitsu (Dept. Appl. Biol. Sci., Tokyo Univ. of Science)

09:00		Introduction <u>Kazuyuki Kuchitsu</u> ¹ (Dept. Appl. Biol. Sci., Tokyo Univ. of Science)
● Chairperson: Kazuyuki Kuchitsu		
09:05	S13-1	Integration of calcium and ROS signaling in <i>Arabidopsis</i> <u>Jörg Kudla</u> ¹ (Univ. Münster, IBBP)
09:35	S13-2	ROS-Ca ²⁺ signaling networks in <i>Arabidopsis</i> and <i>Marchantia</i> <u>Kenji Hashimoto</u> ¹ , Kazuyuki Kuchitsu ¹ (Dept. Appl. Biol. Sci., Tokyo Univ. of Science)
09:55	S13-3	Ca ²⁺ signaling in stomatal guard cells <u>Izumi Mori</u> ¹ , Yoshiyuki Murata ² , Shintaro Munemasa ² , Wenxiu Ye ² (IPSR, Okayama Univ., ² Grad. Sch. Env. Life., Okayama Univ.)
10:15	S13-4	Chloroplasts and mitochondria-mediated Ca ²⁺ signaling in plants <u>Takashi Shiina</u> ¹ (Grad. Sch. Life and Env. Sci., Kyoto Pref. Univ.)
10:35	S13-5	Visualization of plant-wide rapid calcium signals underlying systemic resistance responses <u>Masatsugu Toyota</u> ^{1,2} , Simon Gilroy ¹ (Univ. Wisconsin-Madison, ² PRESTO, JST)
11:00	S13-6	Live imaging of calcium dynamics during double fertilization in <i>Arabidopsis</i> <u>Yuki Hamamura</u> ^{1,2,3} , Tetsuya Higashiyama ^{1,2,4} (Div. Biol. Sci. Grad. Sch. Sci., Nagoya Univ., ² JST ERATO Higashiyama Live-Holonics, Nagoya Univ., ³ Dep. Biol. Sci., Univ. Montreal, ⁴ WPI-ITbM, Nagoya Univ.)
11:25	S13-7	Cruising inside cells <u>Atsushi Miyawaki</u> ^{1,2} (RIKEN Brain Sci. Inst., ² RIKEN Center for Advanced Photonics)
11:55		General discussion

3月18日(水) 9:00 ~ 12:10 Y会場

Lipid-based microstructures and microdomains

Organizers Mie Shimojima (Center for Biol. Resour. Inform., Tokyo Tech.)
Koichiro Awai (Grad. Sch. of Sci., Shizuoka Univ.)

09:00

Opening remarks

Mie Shimojima¹ (¹Center for Biol. Resour. Inform., Tokyo Tech.)

● Chairperson: Koichiro Awai

09:05

S14-1

NEW INSIGHTS INTO BIOSYNTHESIS OF PLANT CUTICULAR WAX

Tegan Haslam¹, Ljerka Kunst¹ (¹Dept of Botany, Univ. British Columbia, Vancouver)

09:40

S14-2

Lipid-based microstructures and their possible roles in a charophyte alga *Klebsormidium flaccidum*

Satoshi Kondo¹, Koichi Hori¹, Takashi Nobusawa¹, Kinuka Ohtaka¹, Tei Watanabe¹, Noriaki Tounosu¹, Atsuko Kobayashi³, Yuko Sasaki-Sekimoto³, Mie Shimojima³, Hiroyuki Ohta^{1,2,4} (¹Grad. Sch. Biosci. & Biotech., Tokyo Tech., ²JST CREST, ³ELSI, Tokyo Tech., ⁴Cent. Biol. Res. & Infor, Tokyo Tech.)

10:05

S14-3

Function of plasmamembrane microdomain in plant oxidative stress

Maki Kawai-Yamada¹, Minoru Nagano¹, Toshiki Ishikawa¹ (¹Grad. Sch. Sci. Engineer, Saitama Univ.)

10:30

Coffee break

● Chairperson: Mie Shimojima

10:40

S14-4

TGD1, 2 and 3 are an essential lipid ABC transporter complex for chloroplast lipids

Rebecca Roston¹, Jinpeng Gao², Christoph Benning² (¹University of Nebraska Lincoln, Department of Biochemistry, ²Michigan State University, Department of Biochemistry and Molecular Biology)

11:15

S14-5

Lipids in the thylakoid membranes, a microstructure for photosynthesis

Koichiro Awai^{1,2,3} (¹Graduate School of Science, Shizuoka University, ²Research Institute of Electronics, Shizuoka University, ³JST/PRESTO)

11:40

S14-6

A lipid metabolism required for the constant mitochondrial shape in *Arabidopsis thaliana*

Kenta Katayama¹, Masaaki Demura¹, Tomoki Kiyose¹, Yozo Okazaki², Kazuki Saito², Hajime Wada³, Nobuhiro Tsutsumi¹, Shin-ichi Arimura^{1,4} (¹Grad. Sch. of Agr. & Life Sci., Univ. of Tokyo, ²Center for Sustainable Resource Science, RIKEN, ³Grad. Sch. of Arts & Sci., Univ. of Tokyo, ⁴PRESTO, JST)

12:05

Closing remarks

Koichiro Awai¹ (¹Grad. Sch. of Sci., Shizuoka Univ.)

3月18日(水) 9:00 ~ 12:00 Z会場

Molecular message from the under ground

Organizers Hironaka Tsukagoshi (Nagoya Univ.; JST PRESTO)
Motoyuki Ashikari (Nagoya Univ.; JST CREST)

● Chairperson: Hironaka Tsukagoshi

09:00		Opening remarks
09:05	S15-1	Developmental and Functional Responses of Rice Root System to Soil Water Conditions <u>Yoshiaki Inukai</u> ¹ , Misuzu Takahashi-Nosaka ¹ , Shunsaku Nishiuchi ² , Mana Kano-Nakata ¹ , Emi Kameoka ² , Akihide Shibata ² , Jonathan Niones ³ , Roel Suralta ³ , Akira Yamauchi ² (¹ ICCAE, Nagoya U., ² Grad. Sch. Bioagr. Sci., Nagoya U., ³ PhilRice)
09:30	S15-2	Studies in the Response to Some Environmental Cues of the Rhizome of <i>O. longistaminata</i> <u>Kanako Uehara</u> ¹ , Akiko Yoshida ² , Junko Kyoizuka ² , Motoyuki Ashikari ¹ (¹ Bioscience and Biotechnology center, Nagoya University, ² Tokyo University Graduate school of Agricultural and Life Sciences)
09:55	S15-3	Genetic regulatory mechanisms of lateral root spacing <u>Hidehiro Fukaki</u> ¹ , Koichi Toyokura ¹ , Tatsuaki Goh ¹ (¹ Grad. Sch. Sci., Kobe Univ.)

● Chairperson: Motoyuki Ashikari

10:20	S15-4	The regulation mechanism of root development by ROS <u>Hironaka Tsukagoshi</u> ^{1,2} , Kaho Mabuchi ³ , Hiromasa Maki ³ , Takamasa Suzuki ^{4,5} , Mika Nomoto ⁴ , Wolfgang Busch ⁶ , Benfey Philip ⁷ , Tetsuya Higashiyama ^{4,5,8} , Yasuomi Tada ^{1,4} (¹ The Center for Res, Nagoya univ., ² PRESTO, JST, ³ Grad. Sch. Bioagr. Sci., Nagoya univ., ⁴ Grad. Sch. Sci., Nagoya univ., ⁵ JST ERATO, Higashiyama live-holomics, ⁶ Gregor Mendel Inst, ⁷ Duke Univ., ⁸ WPI-ITbM, Nagoya univ.)
10:45	S15-5	Identification of novel auxin signaling components in root development using GWAS <u>Takehiko Ogura</u> ¹ , Christian Goeschl ¹ , Wolfgang Busch ¹ (¹ GMI-Gregor Mendel Institute of Molecular Plant Biology)
11:10	S15-6	Molecular Genetic Control of Root Protophloem Formation and its Systemic Consequences <u>Christian Hardtke</u> ¹ (¹ University of Lausanne, Department of Plant Molecular Biology)
11:50		Closing remarks

協 賛

JST PREST 及び CREST “二酸化炭素資源化を目指した植物の物質生産力強化と生産物活用のための基盤技術の創出 (Creation of essential technologies to utilize carbon dioxide as a resource through the enhancement of plant productivity and the exploitation of plant products)” 領域