Program: POSTER PRESENTATION

Poster [First half] 2017.3.16

■ Plant hormones/Signaling molecules

PF-001 Karrikin signaling pathway in livewort, Marchantia polymorpha

Yohei Mizuno[1], Satoshi Naramoto[1], Kimitsune Ishizaki[2], Junko Kyozuka[1] ([1]Grad. Sch., Life Sci., Tohoku Univ., [2]Grad. Sch. Sci., Kobe Univ.)

PF-002 Study on the response to thermospermine of 5' leader regions of *SAC51* homologs in plants

Mai Yamamoto, Hiroyasu Motose, Taku Takahashi (Grad. Sch. Nat. Sci. & Tech., Okayama Univ.)

PF-003 Physical and functional interactions between SnRK2s and MAPKKKs in ABA signaling.

Yoshiaki Kamiyama[1], Misaki Hirotani[1], Mika Nomoto[2], Tomotaka Itaya[2], Ryo Yoshimura[2], Yasuomi Tada[3], Taishi Umezawa[1,4] ([1]BASE, Tokyo Univ. Agric. Tech., [2]Grad. Sch. Sci., Nagoya Univ., [3]Centr. Gene Res., Nagoya Univ., [4]PRESTO, JST)

PF-004 Role of ABA receptors and OST1 protein kinase in methyl jasmonate-induced stomatal closure

Ye Yin[1], Yuji Adachi[1], Yoshimasa Nakamura[1], Shintaro Munemasa[1], Izumi Mori[2], Yoshiyuki Murata[1] ([1]Grad. Sch. Environ. Life Sci., Okayama Univ., [2]IPSR, Okayama Univ.)

PF-005 Site-directed mutagenesis of a*Fragaria vesca D14* gene by CRISPR/Cas9

Shoya Tagami[1], Kanari Shimada[1], Keiko Shinohara[2], Keishi Osakabe[1], Yuriko Osakabe[1] ([1]Fac. Biosci. Bioindust., Tokushima Univ., [2]Tokushima Agriculture, Forestry, and Fisheries Technology support Center)

PF-006 The specificity of anthranilic acid and its derivatives on an adventitious root formation

Yuko Maki[1], Masaru Iwakura[2], Hiroshi Soejima[1], Masaaki Watahiki[3], Keiji Tanino[4], Junji Yamaguchi[3] ([1]Technical Research Institute, Snow Brand Seed Co., LTD., [2]Grad. Chem. Sci. & Eng., Hokkaido Univ., [3]Dept. Biol., Fuc. Sci., Hokkaido Univ., [4]Dept. Chem., Fuc. Sci., Hokkaido Univ.)

PF-007 Involvement of cyotokinins in stress-induced phytoalexin production in rice

Koji Miyamoto[1], Masanobu Ishituka[1], Masaki Shinozaki[1], Takurou Hirayama[1], Tadashi Motoe[1], Tomoko Sakazawa[1], Emi Yumoto[1], Kyomi Shibata[1], Takao Yokota[1], Masashi Asahina[1], Moritoshi Iino[2], Kazunori Okada[3], Hisakazu Yamane[1] ([1]Teikyo Univ., [2]Osaka City Univ., [3]The Univ. of Tokyo)

PF-008 Characterization of Ethylene-mediated Cotyledon Curling of Japanese Radish(Raphanus sativus var. Longipinnatus)

Yusuke Kubo[1], Nobuyoshi Nakajima[2], Toshinori Kinoshita[1], Shinobu Satoh[3] ([1]Nagoya University, [2]National Institute for Environmental Studies, Japan, [3]University of Tsukuba)

PF-009 Analysis of compound regulating both auxin and brassinosteroid signal transductions

Naiyanate Tanaka-Jaroensanti[1], Jung-Min Yoon[1], Masato Otani[1], Ikuya Shirai[1], Seung-Hyun Park[1], Ken-ichiro Hayashi[3], Yuji Nakai[2], Masatoshi Nakajima[1], Tadao Asami[1] ([1]Graduate School of Agricultural and Life Sciences, Faculty of Agriculture, Department of Applied Biological Chemistry, The Chemical Biology Laboratory, [2]Hirosaki University, Institute for Food Sciences, [3]Okayama University of Science, Department of Biochemistry)

PF-010 Effects of jasmonates on the content of photosynthetic pigments in *Euglena gracilis*

Shota Kato, Koji Takahashi, Yuri Tanno, Hisakazu Yamane, Tomoko Shinomura (Sch. Sci. Eng., Teikyo Univ.)

PF-011 Spatio-temporal analysis of gene expression and phytohormones during tissue-reunion in incised Arabidopsis flowering stem using laser micro-dissection.

Miyuki Nakanowatari[1], Kazuki Yamada[2], Keita Matsuoka[2], Emi Yumoto[2], Takao Yokota[2], Hisakazu Yamane[2], Shinobu Satoh[3], Masashi Asahina[1,2] ([1]Grad. Sch. Sci. & Eng., Teikyo Univ., [2]Dept. Biosci, Teikyo Univ., [3]Life & Environ Sci., Univ. Tsukuba.)

PF-012 Invovlement of auxin and brassinosteroid in gravity resistance of Arabidopsis inflorescence stem treated with hypergravity

Nodoka Ishiyama[1], Yusuke Kakei[1], Chiaki Yamazaki[1,2], Masashi Suzuki[3], Akari Kimura[1], Kouichi Soga[4], Takayuki Hoson[4], Yukihisa Shimada[1] ([1]Kihara Inst. for Biol. Res., [2]Japan Space Forum, [3]Dept. Appl. Biol. Chem., Univ. of Tokyo, [4]Dept of Biology, Fac. of Science, Osaka City Univ.)

PF-013 TBP-associated factor 2 (TAF2), a Regulator of IBA response in Arabidopsis

Mohammad Aslam, Taiki Hanzawa, Miori Yoshida, Abidur Rahman (Cryobiofrontier Research Center, Faculty of Agriculture, Iwate University, Ueda 3-18-8, Morioka, 020-8550, Japan)

PF-014 Critiquing concerted effect of close-set auxin response elements

Keita Tanaka[1], Alejandra Freire-Rios[1], Andre Kuhn[1], Victoria Mironova[2], Dolf Weijers[1] ([1]Wageningen University, Laboratory of Biochemistry, [2]Novosibirsk State University)

PF-015 Primitive Auxin Response Without TIR1 and Aux/IAA in the Charophyte Alga *Klebsormidium flaccidum*

Kinuka Ohtaka[1], Koichi Hori[2], Yuri Kanno[3], Mitsunori Seo[3], Hiroyuki Ohta[1,2,4,5] ([1]Tokyo Tech, Grad Sch Biosci & Biotech, [2]Tokyo Tech, Sch of Life Sci & Tech, [3]Center for Sustainable Resource Science, RIKEN, [4]JST, CREST, [5]Tokyo Tech, Earth-Life Science Institute)

PF-016 Biochemical characterization of 2-oxoglutarate dependent dioxygenase LBO involved in strigolactone biosynthesis

Kaori Yoneyama[1], Philip Brewer[2], Kohki Akiyama[3], Akiyoshi Yoda[1], Xiaonan Xie[1], Yoshiya Seto[4], Shinjiro Yamaguchi[4], Christine Beveridge[2], Koichi Yoneyama[1], Takahito Nomura[1] ([1]Ctr. for Biosi. Res. & Educ., Utsunomiya Univ., [2]Queensland Uni., [3]Grad. Sch. of Life & Environ. Sci., Osaka Pref. Univ., [4]Grad. Sch. of Life Sci., Tohoku Univ.)

PF-017 Thermoinhibition Uncovers Highly Sensitive Strigolactone Receptors in Striga

Shigeo Toh[1,2], Yuichiro Tsuchiya[1,2], Toshinori Kinoshita[1], Peter McCourt[2] ([1]Division of Biological Science, Graduate School of Science, Nagoya University, [2]University of Toronto)

PF-018 Exploring the biological functions of gibberellin-related diterpenes in the basal land plant *Marchantia polymorpha*

Rui Sun, Keisuke Inoue, Ryunosuke Kusunoki, Ryuichi Nishihama, Shohei Yamaoka, Takayuki Kohchi (Graduate School of Biostudies, Kyoto University)

PF-019 A Novel Phenotype of a *PLDζ1* T-DNA-insertional Mutant

Ryota Shimamura, Naoko Anzai, Mariko Kato, Takashi Aoyama (Institute for Chemical Research, Kyoto University)

PF-020 Functional Analysis of *PIP5K2* and *PIP5K4* in Gametogenesis and Embryogenesis

Machiko Watari, Yukika Wada, Tomohiko Tsuge, Mariko Kato, Takashi Aoyama (Insutitute for Chemical Research, Kyoto University)

■ Vegetative growth

PF-021 Phloem-specific transcription factors regulate the vascular pattern

Miki Zaizen[1], Sawa Kume[1], Ye Zhang[1], Nobutaka Mitsuda[2], Takeshi Yoshizumi[3], Yoichi Kondo[3], Masaru Takagi[2,4], Minami Matsui[3], Tatsuo Kakimoto[1] ([1]Grad. Sch. Sci., Univ. Osaka, [2]AIST, Japan, [3]Riken, Japan, [4]IEST., Univ. Saitama)

PF-022 Control of haploid organ size by CLE peptide signaling

Yuki Hirakawa[1], Naoyuki Uchida[1], Takayuki Kohchi[2], Shinichiro Sawa[3], John Bowman[4] ([1]ITbM, Nagoya Uni, [2]Grad. Sch. Biostud., Kyoto Univ., [3]Grad. Sch. Sci. Tech., Kumamoto Uni., [4]Sch. Biol. Sci., Monash Uni.)

PF-023 Lipid Binding Domain Plays Crucial Role In The Protoderm Differentiation

Kenji Nagata[1], Taku Takahashi[2], Mitsutomo Abe[1] ([1]Grad. Sch. Sci., Univ. Tokyo, [2]Grad. Sch. Sci., Univ. Okayama)

PF-024 Transportation of materials and signaling molecules via vascular system in plants

Yumi Iwai, Satoshi Endo, Hiroo Fukuda (Department of Biological Sciences, Graduate School of Science, The University of Tokyo)

PF-025 ATML1 activity is restricted to the outermost cells by several layers of regulation

Hiroyuki Iida[1], Nozomi Takada[1], Ayaka Yoshida[1], Gerd Jürgens[2], Shinobu Takada[1] ([1]Dept. Biol. Sci., Grad. Sch. Sci., Osaka Univ, [2]Univ. Tübingen)

PF-026 Characterization of somatic embryogenesis derived from Arabidopsis shoot apical tip

Satoshi Kadokura, Kaoru Sugimoto, Sachihiro Matsunaga (Dept. Applied Bio. Sci., Fac. Sci. Tech., Tokyo Univ. Sci.)

PF-027 ERECTA-family signaling coordinates layer-specific stem cell maintenance in the shoot apical meristem

Yuka Kimura[1], Masao Tasaka[2], Keiko Torii[3,4], Naoyuki Uchida[1] ([1]WPI-ITbM, Nagoya Univ., [2]Grad. Sch. Biol. Sci., NAIST, [3]Univ. Washington, [4]HHMI)

PF-028 Challenge of the identification of root meristem growth factor signaling pathway by chemical screening

Hidefumi Sninohara, Yoko Hayashi, Yoshikatsu Matsubayashi (Grad. Sch. of Sci., Nagoya Univ.)

PF-029 Identification and molecular characterization of SHABONDAMA1 gene responsible for stomatal mutant in *Arabidopsis thaliana*

Amit Kumar Dutta[1], Takamasa Suzuki[2,4], Tetsuya Higashiyama[3,4,5], Tsuyoshi Nakagawa[1] ([1]Dept. Mol. Func. Genet., Int. Center Sci. Res., Shimane Univ., [2]Col. Biosci. Biotech., Chubu Univ., [3]WPI-ITbM, Nagoya Univ., [4]JST, ERATO, [5]Grad. Sch. Sci., Nagoya Univ.)

PF-030 Expression pattern analysis of *FbDOF* during the leaf development in C_4 *Flaveria bidentis*

Ken Okudono, Yukimi Y. Taniguchi, Yuri N. Munekage (Sch. Sci&Tec, Univ. Kwansei Gakuin)

PF-031 Analysis of a Mathematical Model for Polar Auxin Transport

Hironori Fujita[1], Masahiko Furutani[2], Masayoshi Kawaguchi[1,3] ([1]Natl. Inst. Basic Biol., [2]Grad. Sch. Bioagricul. Sci., Nagoya Univ., [3]SOKENDAI)

PF-032 AN3-mediated regulation of amino acid metabolism and TCA cycle in Arabidopsis thaliana

Mamoru Nozaki[1], Kensuke Kawade[1,2,3,4], Gorou Horiguchi[5,6], Shuji Shigenobu[2,4], Katsushi Yamaguchi[2], Yuji Sawada[3], Yumi Hirai[4], Hirokazu Tsukaya[1,7] ([1]Okazaki Institute for Integrative Bioscience (OIIB), [2]National Institute for Basic Biology (NIBB), [3]School of Life Science, Graduate University for Advanced Studies (SOKENDAI), [4]RIKEN Center for Sustainable Resource Science (CSRS), [5]College of Science, Rikkyo University (Coll. Sci., Rikkyo Univ.), [6]Research Center for Life Science, Rikkyo University (Res. Cent. Life Sci., Rikkyo Univ.), [7]Faculty of Science, Hokkaido University (Fac. Science, Hokkaido Univ.))

PF-033 Analysis of mutants showing an altered response to TOLS2 peptide that is involved in *Arabidopsis* lateral root initiation

Yuka Aoki, Koichi Toyokura, Akinori Shinoda, Tatsuaki Goh, Kimitsune Ishizaki, Tetsuro Mimura, Hidehiro Fukaki (Graduate School of Science, Kobe University)

PF-034 Analysis of *COP1*-regulated inflorescence morphology

Mayu Nakagawa, Yuta Asano (Fac. Sci. Engn., Ishinomaki Senshu Univ.)

PF-035 Gene expression profiling during adventitious root formation of stem cutting in Cryptomeria japonica

Yuki Fukuda[1], Tomonori Hirao[2], Kentaro Mishima[1], Mineko Ohira[1], Yuichiro Hiraoka[1], Makoto Takahashi[1], Atsushi Watanabe[3] ([1]Forest Tree Breeding Center, [2]Forest Bio-Research Center, [3]Faculty of Agriculture, Kyushu University)

PF-036 Critical role of *GEMMA CUP-ASSOCIATED MYB2* in the formation of gemma cup in *Marchantia polymorpha*.

Hideyuki Takami[1], Shigeyuki Tsukamoto[1], Akihide Masuda[2], Hidehiro Fukaki[1], Tetsuro Mimura[1], Takayuki Kohchi[2], Kimitsune Ishizaki[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]Grad. Sch. Biostudies, Kyoto Univ.)

PF-037 Characterization of *eda1*, a novel *Marchantia polymorpha* mutant with ectopic branching protrusions in thallus.

Yuya Mori[1], Kento Otani[2], Shohei Yamaoka[3], Ryuichi Nishihama[3], Takayuki Kohchi[3], Taku Takahashi[1,2], Hiroyasu Motose[1,2] ([1]Dep.Biol.,Fac.Sci., Okayama Univ., [2]Grad. Sch. Nat. Sci. & Tech., Okayama Univ., [3]Grad. Sch. Biostudies, Kyoto Univ.)

PF-038 The analysis of RTFL family function on the control of rhizoid development in Marchantia polymorpha

Pin Guo[1], Tomoyuki Furuya[1], Takayuki Kohchi[2], Hirokazu Tsukaya[1,3] ([1]Department of Biological Sciences, Graduate School of Science, The University of Tokyo, Bunkyo-ku, Tokyo, 113-0033, Japan, [2]Graduate School of Biostudies, Kyoto University, Kyoto 606-8502, Japan, [3]Bio-Next Project, Okazaki Institute for Integrative Bioscience, National Institutes of Natural Sciences, Yamate Building no. 3, 5-1, Higashiyama, Myodaiji, Okazaki, Aichi, 444-8787, Japan)

PF-039 Essential role of RopGEF gene, *KARAPPO*, in the initial stage of gemma formation in *Marchantia polymorpha*

Takuma Hiwatashi[1], Katsushi Yamaguchi[2], Shuji Shigenobu[2], Shinichiro Sawa[3], Hiroyuki Kirita[4], Hidehiro Fukaki[1], Tetsuro Mimura[1], Takayuki Kohchi[4], Kimitsune Ishizaki[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]NIBC, [3]Grad. Sch. Sci. Tech., Kumamoto Univ., [4]Grad. Sch. Bio., Kyoto Univ)

PF-040 Phenotype and lipid profile under phosphate deficiency in liverwort Marchantia polymorpha

Hiromichi Akashi[1,2], Ayuko Kuwahara[1], Yuji Sawada[1], Hiroshi Tsugawa[1], Masami Hirai[1,2] ([1]RIKEN CSRS, [2]Grad. Sch. Bioagri., Univ. Nagoya)

■ Reproductive growth

PF-041 [Cancelled]

PF-042 Early events of the arrested stamen development in female asparagus (Asparagus officinalis) flowers

Mayui Ide[1], Daisuke Tsugama[2], Kaien Fujino[2], Kohei Matsuyama[1], Kiyoshi Masuda[2] ([1]Grad. Sch. Agr., Hokkaido Univ., [2]Res. Fac. Agr., Hokkaido Univ.)

PF-043 Gene expression profiles of early embryos from organogenesis defective mutants in rice.

Shino Sonohara[1], Yutaka Sato[1,2,3] ([1]Graduate School of Bioagricultural Sciences, Nagoya University, [2]Plant genetics Lab, National Institute Genetics, [3]School of Life Science, Graduate University for Advanced Science(SOKENDAI))

PF-044 Isolation of gametes and zygotes from *Setaria viridis* and culture of isolated zygotes

Erika Toda[1], Takashi Okamoto[1,2], Norio Kato[1,2,3] ([1]RInC, RIKEN, [2]Dept of Biol Sci., Tokyo Metropolitan Univ., [3]Plant Innovation Center, Japan Tobacco Inc.)

PF-045 The role of blue light signals in sun leaf formation in Arabidopsis

Rina Hoshino[1], Yuki Yoshida[1], Hirokazu Tsukaya[1,2] ([1]Grad.Sch.Shi.,Univ.Tokyo, [2]OIIB, NIIS)

PF-046 [Cancelled]

PF-047 Genetic interaction of three key genes that control flower meristem termination in Arabidopsis

Akira Uemura, Nobutoshi Yamaguchi, Toshiro Ito (Nara institute of science and technology Biological sciences)

PF-048 Cooccurrence of adenylyl cyclase with phosphodiesterase domain to basal plants with motile sperm system

Masahiro Kasahara[1,2], Noriyuki Suetsugu[3], Yuuki Urano[1], Chiaki Yamamoto[2], Mikiya Ohmori[2], Yuki Takada[2], Shujiro Okuda[4], Tomoaki Nishiyama[5], Hidetoshi Sakayama[6], Takayuki Kohchi[3], Fumio Takahashi[2] ([1]Grad. Sch. Life Sci., Ritsumeikan Univ., [2]Coll. Life Sci., Ritsumeikan Univ., [3]Grad. Sch. Biostudies, Kyoto Univ., [4]Grad. Sch. Med. Dent. Sci., Niigata Univ., [5]Adv. Sci. Res. Center, Kanazawa Univ., [6]Grad. Sch. Sci., Kobe Univ.)

PF-049 Modification of seed coat cuticle based on tissue specific cuticle regulation

Yoshimi Oshima[1], Takako Narumi[2], Yasuko Kaneko[3], Toshiki Ishikawa[4], Maki Kawai-Yamada[4], Masaru Ohme-Takagi[1,4], Nobutaka Mitsuda[1] ([1]Bioprod. Res. Inst., Natl. Adv. Ind. Sci. & Tech. (AIST), [2]Fac. Agr. Kagawa univ., [3]Fac. Educ., Saitama Univ., [4]Grad. Sch. Sci & Eng., Saitama univ.)

PF-050 Composition Analysis of the Extracts from Sugi Immature Male Strobili

Tomohiro Igasaki, Koichi Kakegawa, Norihisa Kusumoto, Naoyuki Matsui, Shojiro Hishiyama, Koh Hashida, Tatsuro Ohira, Norihiro Futamura (FFPRI)

PF-051 Ultrastructural observation of the fertilization region in *Arabidopsis thaliana*

Yuki Hamamura[1], Louise Pelletier[2], Anja Geitmann[3], Kiminori Toyooka[1] ([1]RIKEN, CSRS, [2]University of Montreal, [3]McGill University)

■ Flowering/Clock

PF-052 Analysis of the local adaptation strategy based on flowering phenotypes of wild accessions of *Lotus japonicus*

Yasuko Kawamura, Wang Mingzhuo, Shohei Kusakabe, Yuki Kikuchi, Shusei Sato (Grad. Sch. Life Sci., Tohoku Univ.)

PF-053 SsSLAC1 triggers nyctinastic leaf opening of *Samanea saman*

Takaya Oikawa, Yasuhiro Ishimaru, Kento Washiyama, Hiroto Kaneko, Minoru Ueda (Grad. Sch. Sci., Tohoku Univ.)

PF-054 Identification and functional analysis of circadian clock associated genes in *Lemna minor*, an aquatic monocot in the duckweed group

Shogo Ito[1], Minako Isoda[2], Jun Yomo[1], Tokitaka Oyama[1] ([1]Dept. Botany, Grad. Sch. Sci., Kyoto Univ., [2]Dept. Botany,fuc. Sci., Kyoto Univ.)

PF-055 Cellular circadian rhythms in Arabidopsis leaves and effects of *ELF3* gene deficiency on their circadian properties

Masaaki Okada, Tokitaka Oyama (Department of Botany, Graduate School of Science, Kyoto University)

PF-056 The Important Role of The Expression Period of *PRR7* in The Phase Setting of Circadian Rhythms of *Arabidopsis thaliana*

Yusuke Takata, Yuto Mineno, Yuji Nomoto, Shiori Sasada, Takafumi Yamashino (Nagoya university graduate school of bioagricultural sciences)

PF-057 Small molecules controlling Arabidopsis circadian clock

Norihito Nakamichi[1,2], Yoshiyuki Mizutani[2], Takahiro Uehara[2], Keiko Kuwata[1], Ayato Sato[1], Junichiro Yamaguchi[3], Kenichiro Itami[1,2], Toshinori Kinoshita[1,2] ([1]ITbM, Nagoya Univ., [2]Grad., Sch., Sci., Nagoya Univ., [3]Dept. Appl. Chem., Waseda Univ.)

■ Photoreceptors/Photoresponses

PF-058 Expression analysis of microbial rhodopsin-like genes in *Guillardia theta*

Masae Konno[1,2], Keiichi Inoue[1,2,3], Hideki Kandori[1,2] ([1]Life Sci. Appl. Chem., Grad. Sch. Eng., Nagoya Inst. Tech., [2]OPTRC, Nagoya Inst. Tech., [3]PRESTO, JST)

PF-059 Light-regulation of Asexual Reproduction in *Pediastrum duplex*

Narumi Miyamoto[1], Reina Iwazaki[2], Shota Kato[1,2], Yutaka Kodama[3], Noriko Nagata[4], Masashi Asahina[1,2], Tomoko Shinomura[1,2] ([1]Grad. Sch. Sci. & Tech., Teikyo Univ., [2]Dept. Biosci., Sch. Sci. & Eng., Teikyo Univ., [3]Utsunomiya Univ., [4]Japan Women's Univ.)

PF-060 Spectral sensitivity of phototaxis in the symbiotic alga *Symbiodinium* sp.

Yusuke Aihara[1], Shinichiro Maruyama[2], Akira Iguchi[3], Andrew Baird[4], Shun-ichi Takahashi[1], Jun Minagawa[1] ([1]National Institute of Basic Biology, [2]Grad. Sch. Life Sci., Tohoku Univ., [3]NIT, Okinawa College, [4]James Cook Univ.)

PF-061 Subcellular localization of blue-light-signaling proteins, PixD and PixE, that control phototaxis in cyanobacteria

Atsuko Kobayashi[1], Hiroshi Nakamura[2], Yuki Sugimoto[2], Shinji Masuda[3] ([1]ELSI, Tokyo Institute of Technology, [2]School of Life Science and Technology, Tokyo Institute of Technology, [3]Cent. Biol. Sci. Inform., Tokyo Institute of Technology)

PF-062 Interaction between the shade and low-temperature responses in Arabidopsis seedlings

Yuko Sakurai[1], Nobuyoshi Mochizuki[1], Tomomi Suzuki[1], Masaaki Watahiki[2], Akira Nagatani[1] ([1]Graduate School of Science, Kyoto University, [2]Graduate School of Life Science, Hokkaido University, Sapporo, 060-0810 Japan)

PF-063 Transcriptome analysis of gene expression responses to the shade within *Arabidopsis* cotyledons

Sujung Kim[1], Nobuyoshi Mochizuki[1], Ayumi Deguchi[2], Atsushi Nagano[2,3,4], Tomomi Suzuki[1], Akira Nagatani[1] ([1]Grad. Sch. Sci., Kyoto Univ., [2]Fac. Agri., Ryukoku Univ., [3]JST CREST, [4]Center Eco. Res., Kyoto Univ.)

PF-064 Functional analysis of phosphorylated-NPH3 and dephosphorylated-NPH3 in *Arabidopsis* phototropic response.

Taro Kimura[1,2], Ken Haga[3], Yuko Nomura[4], Hirofumi Nakagami[5], Tatsuya Sakai[1] ([1]Grad. Sch. Sci. Tech., Niigata Univ., [2]JSPS Research Fellow, [3]Dept. Human Sci. Common Educ., Nippon Inst. Tech., [4]RIKEN CSRS, [5]Max Planck Inst. Plant Breeding Res.)

PF-065 Involvement of the tongue stsructure in the sensitization of phytochrome to light.

Misato Kikuchi, Tomomi Suzuki, Nobuyoshi Mochizuki, Akira Nagatani (Laboratory of Plant Physiology, Graduate School of Science, Kyoto University)

■ Cell cycle/Cell division

PF-066 Transcription Analysis Of The Cell Division Genes Under Acid Stress In Cyanobacterium *synechocystis* sp, PCC6803

Hidetaka Kohga[1], Ayumi Matsuhashi[1], Ayako Itagaki[1], Mina Agatsuma[1], Junji Uchiyama[2], Hisataka Ohta[1,2] ([1]Grad. Sch. of Math. and Sci. Edu.Sci., Tokyo univ. of Sci., [2]Fac. of Sci., Tokyo univ. of Sci.)

PF-067 Characterization of cell cycle dynamics by using a newly established Arabidopsis S phase marker PCNA1

Tamako Yamaoka, Takuya Sakamoto, Sachihiro Matsunaga (Department of Applied Biological Science Faculty of Science and Technology)

■ Organelles/Cytoskeletons

PF-068 Physiological role of organelle DNA degradation by DPD1 during leaf senescence or starvation

Tsuneaki Takami[1], Norikazu Ohnishi[1], Yuko Kurita[2], Shoko Iwamura[2], Tetsuro Mimura[2], Wataru Sakamoto[1] ([1]IPSR., Okayama Univ., [2]Grad. Sch. Sci., Kobe Univ.)

PF-069 Physiological and biochemical analyses of ABC transporters on Arabidopsis chloroplast envelopes

Kenji Nishimura[1], Takaaki Miyaji[2], Motoyuki Ishimori[3], Tsuneaki Takami[1], Yusuke Kato[1], Wataru Sakamoto[1] ([1]IPSR, Okayama Univ., [2]Adv. Sci. Res. Center, Okayama Univ., [3]Grad. Sch. Agr. Life Sci., Univ. Tokyo)

PF-070 Analysis of nuclear lamina interacting protein in *Arabidopsis thaliana*

Hitomi Ando[1], Yuki Sakamoto[2], Keiko Kuwata[3], Sachihiro Matsunaga[1] ([1]Dept. Applied Bio. Sci., Fac. Sci. Tech., Tokyo Univ. Sci., [2]RIST, Tokyo Univ. Sci., [3]ITbM, Nagoya Univ.)

PF-071 Visualization of chloroplast-targeted autophagy in *Chlamydomonas reinhardtii*

Nan Li[1], Yoshiki Nishimura[2], Silvia Ramundo[3], Jun Hidema[4], Masanori Izumi[1,4,5] ([1]FRIS, Tohoku Univ, [2]Dep Bot, Kyoto Univ, [3]Univ. California SF, [4]Grad Sch Life Sci, Tohoku Univ, [5]PREST, JST)

PF-072 Interaction of F-actin with plant villin associated with phospholipid vesicles.

Etsuo Yokota[1], Teruo Shimmen[1], Shingo Takagi[2] ([1]Grad. Sch. Sci., Univ. Hyogo, [2]Grad. Sch. Sci., Osaka Univ.)

PF-073 Study of chloroplast division of the *PpCRL1, 2* double knock out line of *Physcomitrella patens* using time-lapse live-cell imaging

Rina Yanase[1], Chieko Sugita[2], Mamoru Sugita[2], Yasushi Yoshioka[1] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Center Gene Res., Nagoya Univ.)

PF-074 Changes in localization of plant intermediate filament motif protein in cell cycle-synchronized tobacco BY-2 cells

Hikaru Utsunomiya, Masayuki Fujita, Tsuyoshi Kaneta (Grad. Sch. of Sci. & Eng., Ehime Univ.)

PF-075 An attempt to identify of the ribosome rescue system in the chloroplasts of Arabidopsis thaliana

Fumina Tsuchiya[1], Anung Wahyudi[2], Tatsuhiko Abo[3], Reiko Motohashi[1] ([1]Faculity of Agriculture, Shizuoka University, [2]Graduate School of Science and Technology, Shizuoka University, [3]Faculty of science, Okayama University)

PF-076 Analysis of phosphorylation of CAS, a calcium-binding protein in the thylakoid membrane of *Arabidopsis thaliana*

Yuna Uemura, Koji Shimotani, Kanako Yamasaki, Takashi Shiina (Fac. Life and Env. Sci., Kyoto Pref. Univ.)

PF-077 VIPP1 protein involved in chloroplast membrane integrity has GTPase activity *in vitro*

Norikazu Ohnishi[1], Lingang Zhang[2], Wataru Sakamoto[1] ([1]Inst. Plant Sci. Res., Okayama Univ., [2]Sch. Life Sci. Tech., Inner Mongolia Univ. Sci. Tech.)

PF-078 Comparative analysis of tissue- and cell-specific expression in different myosin XI members

Nanako Hagino[1], Zhongrui Duan[2,3], Takeshi Haraguchi[4], Hirokazu Tsukaya[5], Akihiko Nakano[5,6], Kohji Ito[4], Motoki Tominaga[1,2,3] ([1]Grad. Sch. Adv. Sci. Eng., Waseda Univ., [2]Fac. Educ. Integrated Arts. Sci., Waseda Univ., [3]JST-ALCA, [4]Grad. Sch. Sci., Chiba Univ., [5]Grad. Sch. Sci., Univ. Tokyo, [6]RAP, RIKEN)

PF-079 Ariabidopsis thaliana myosin XI-F specifically expresses in sink tissues and is required for organelle streaming in phloem cells

Yuno Shibuya[1], Zhongrui Duan[2,5], Takeshi Haraguchi[3], Akihiko Nakano[4,6], Kohji Ito[3], Motoki Tominaga[1,2,5] ([1]Grad. Sch. Adv. Sci. Eng., Waseda Univ, [2]Fac. Educ. Integrated Arts. Sci., Waseda Univ, [3]Grad. Sch. Sci., Chiba Univ, [4]RAP, RIKEN, [5]JST-ALCA, [6]Grad. Sch. Sci., Univ. Tokyo)

■ Cell wall

PF-080 The appearance of callosic matrix in spermatogenesis of *Marchantia polymorpha*

Masaki Shimamura, Kaori Nomura (Department of Biological Science, Graduate School of Science, Hiroshima University)

PF-081 Positive feedback loop in secondary cell wall formation in poplar

Naoki Takata[1], Toru Taniguchi[1,2] ([1]Forest Bio Res. Cent., For. Forest Prod. Res. Inst., [2]Forest Tree Breeding Cent., For. Forest Prod. Res. Inst.)

PF-082 Manipulating cell walls of stem fiber cells based on *Arabidopsis nst1 nst3* double mutant

Miyuki Nakata, Shingo Sakamoto, Nobutaka Mitsuda (Bioproduction Research Institute, National Institute of Advanced Industrial Science and Technology (AIST))

PF-083 Functional Analysis of Cell Wall Protein OsTHRGP in Rice

Tomomi Watanabe, Aya Miyashita, Minako Sumiyoshi, Atsuko Nakamura, Shinobu Satoh, Hiroaki Iwai (University of Tsukuba, Faculty of Life and Environmental Sciences)

PF-084 Generation of Transgenic Poplar Trees with an Introduced Pectin Methylesterase Gene.

Koichi Kakegawa[1], Mitsuru Nishiguchi[2] ([1]Dept. Forest Resources Chemistry, Forestry and Forest Products Res. Inst., [2]Dept. Forest Molecular Genetics and Biotechnology, Forestry and Forest Products Res. Inst.)

PF-085 Creation of novel woody materials by transcription factors

Shiori Isaka[1,2], Shingo Sakamoto[2], Masatoshi Yamaguchi[1], Nobutaka Mitsuda[1,2] ([1]Graduate School of Science and Technology, Saitama University, [2]Bioproduction Research Institute, National Institute of Advanced Industrial Science and Technology (AIST))

PF-086 Characterization of Arabidopsis mutant of putative D-arabinose-5-phosphate synthesizing enzyme

Toshiro Shimizu[1], Mizuki Noguchi[2], Masaru Kobayashi[2], Toru Matoh[2] ([1]Fac. Agr., Kyoto Univ, [2]Grad. Sch. Agr., Kyoto Univ)

PF-087 Low Temperature Induction Of The HlyD-like Gene, A Key Accessory Of Cellulose Synthase In A Thermophilic Cyanobacterium, And Re-classification Of Prokaryotic Cellulose Synthases.

Kaisei Maeda[1], Yukiko Okuda[1], Rei Narikawa[2], Takahumi Midorikawa[1], Gen Enomoto[1], Masahiko Ikeuchi[1] ([1]Department of Life Sciences (Biology), Grad. Sch. of Arts and Sci., Univ. of Tokyo, [2]Fac. of Sci., Grad. Sch. of Sci., Shizuoka Univ.)

■ Membrane trafficking / Protein modification and degradation

PF-088 Study on plant adaptation to nutrition availability via modification of membrane traffic by ubiquitination in Arabidopsis

Yoko Hasegawa[1], Tomohiro Uemura[2], Akihiko Nakano[2,3], Takeo Sato[1], Junji Yamaguchi[1] ([1]Fac. Sci. and Grad. Sch. Life Sci., Hokkaido Univ., [2]Grad. Sch. Sci., Univ. Tokyo, [3]Live Cell Super-Resolution Imaging Research Team, RIKEN Center for Advanced Photonics)

PF-089 Analysis on topology and sub-cellular localization of proteins by using fluorescence reporters

Shohei Yoshida[1], Shuhei Kohata[1], Takashi Iwase[2], Hiroshi Shimada[3], Takahiro Ishikawa[2], Hidehisa Shimizu[2], Mitsuo Jisaka[2], Kazushige Yokota[2], Tsuyoshi Nakagawa[1], Kohji Nishimura[1] ([1]Inter. Cent. Sci. Res., Shimane Univ., [2]Fac. Life Env. Sci., Shimane Univ., [3]Grad. Sc. Sci., Hiroshima Univ.)

PF-090 Dissection of vacuolar trafficking pathway of the borate transporter BOR1 in Arabidopsis thaliana

Akira Yoshinari[1,2], Korbei Barbara[3], Satoshi Naito[2,4], Junpei Takano[1] ([1]Appl. Life Grad. Sch. Life Environ. Sci., Osaka Pref. Univ., [2]Grad. Sch. Agr., Hokkaido Univ., [3]Dept. Appl. Gen. Cell Biol., BOKU, [4]Grad. Sch. Life Sci., Hokkaido Univ.)

PF-091 SPOT/KNS3 is an important factor for ER exit of boric acid channels

Shunsuke Nakamura[1], Shunsuke Takemura[4], Sumie Ishiguro[4], Satoshi Naito[1,3], Junpei Takano[2] ([1]Grad. Sch. Agr., Univ. Hokkaido, [2]Grad. Sch. Life. Env., Univ. Osakafuritsu, [3]Grad. Sch. Life. Sci., Univ. Hokkaido, [4]Grad. Sch. Life. Agr., Univ. Nagoya)

PF-092 Sucrose-starvation dependent decrease of trans -Golgi network-localized proteins and changes of the function of Golgi apparatus in tobacco cells

Yamato Oda[1], Satoru Asazuma[2], Hiroaki Nakasone[1], Abiodun Moses O[2], Kiminori Toyooka[3], Ken Matsuoka[1,2,4,5] ([1]Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu Universiry, [2]Faculty of Agriculture, Kyushu Universiry, [3]RIKEN CSRS, [4]Biotron Application Center, Kyushu University, [5]Research Center for Organelle Homeostasis)

PF-093 Identification of PH-domain-containing RAB5 effectors PEAR2 and PEAR3 in Arabidopsis

Seung-won Choi[1,2], Kazuo Ebine[3,6], Naoya Kato[2], Takafumi Ishihara[2], Chie Suzuki[2], Yuki Sugiyama[2], Yumiko Tanaka[2], Takashi Ueda[3,5,6], Akihiko Nakano[2,4], Emi Ito[1,2] ([1]Dept. Natural Sciences, ICU, [2]Grad. Sch. Science, Univ. Tokyo, [3]Div. Cellular Dynamics, NIBB, [4]RIKEN, RAP, [5]JST, PRESTO, [6]Sch. Life Sci., SOKENDAI)

■ Biomembrane/Ion and solute transport

PF-094 Physiological characterization of ER-localized aquaporins SIPs in *Arabidopsis thaliana*

Ryosuke Sato, Rie Sakakibara, Kyosuke Miyamoto, Masayoshi Maeshima (Laboratory of Cell Dynamics Graduate School of Bioagricultural Sciences Nagoya University)

PF-095 Nitrate transporter activity of novel transmembrane proteins in cyanobacteria

Risa Aoba[1], Shin-ichi Maeda[1,3], Sumie Keta[2,3], Makiko Aichi[2,3], Tatsuo Omata[1,3] ([1]Grad. Sch. Bioagr. Sci., Nagoya Univ, [2]Col. of Biotech., Chubu Univ., [3]JST CREST)

PF-096 Interaction and water transport activity of barley tonoplast intrinsic proteins, HvTIPs, in seeds.

Shigeko Utsugi, Mineo Shibasaka, Maki Katsuhara (IPSR, OKAYAMA UNIVERSITY)

PF-097 Cell layer specific expression of boron transporter in Arabidopsis roots

Makiha Fukuda[1], Akie Shimotono[1], Naoyuki Sotta[1], Junpei Takano[2], Takehiro Kamiya[1], Toru Fujiwara[1] ([1]Grad. Sch. Agri. Sci., Univ. Tokyo, [2]Grad. Sch. Life & Environ. Sci., Osaka Pref. Univ.)

PF-098 An attempt to accumulate high concentrations of sugars in guttation fluid using SWEET effluxers

Madoka Yonekura[1], Naohiro Aoki[2], Tatsuro Hirose[3], Ryu Ohsugi[2], Satoshi Kondo[1], Chikara Ohto[4] ([1]Biotech. & Afforestation Lab., Toyota Motor Corp., [2]Grad. Sch. Agricultural and Life Sci., Univ. Tokyo, [3]CARC, NARO, [4]Future Proj. Div., Toyota Motor Corp)

PF-099 Identification of an Arabidopsis mutant with altered root hair formation

Kanari Shimada[1], Satoshi Iuchi[2], Atsuko Iuchi[2], Hideki Sakamoto[1], Kohji Yamada[1], Keishi Osakabe[1], Yuriko Osakabe[1] ([1]Fac. Biosci. Bioindust., Tokushima Univ., [2]BRC, RIKEN.)

PF-100 Analysis of Seasonal Foliar Boron Retranslocation in Peach Trees

Momoko Hattori[1], Asako Sato[2], Stefan Reuscher[2,3], Hitoshi Mori[2], Katsuhiro Shiratake[2], Masayoshi Maeshima[2], Miki Kawachi[2,4] ([1]Sch. Agr Sci., Nagoya Univ., [2]Grad. Sch. Bioagri. Sci., Nagoya Univ., [3]Biosci. Biotech. Center, Nagoya Univ., [4]Inst. Adv. Res., Nagoya Univ.)

■ Photosynthesis/Environmental response of photosynthesis and respiration

PF-101 Creations and some characteristics of mutants expressing alternative nitrogenase in heterocystous cyanobacteria for the improved photobiological hydrogen production

Takeshi Sato[1], Nobuto Tomizawa[2], Shion Nagashima[2], Hajime Masukawa[3], Masaharu Kitashima[2], Hidehiro Sakurai[4], Kazuhito Inoue[2] ([1]Grad. Sch. Sci., Univ. Kanagawa, [2]Sci., Univ. Kanagawa, [3]OCARINA, Osaka City Univ., [4]Res. Inst. Photobiol. H2 Prod., Univ. Kanagawa)

PF-102 Increased photosynthetic gene expression and improved photosynthesis in *Arabidopsis* roots by gain of function of GATA transcription factors GNC and GNL

Ai Onishi, Koichi Kobayashi, Hajime Wada (Grad. Sch. Arts Sci., Univ. Tokyo)

PF-103 Improvement of photosystem II activity in nanopores inside porous glass plate

Tomoyasu Noji[1], Yusuke Ikeda[1], Keisuke Kawakami[1], Tetsuro Jin[2], Nobuo Kamiya[1] ([1]The OCU Advanced Research Institute for Natural Science & Technology (OCARINA), Osaka City University, [2]National Institute of Advanced Industrial Science and Technology)

PF-104 Crystallization and X-ray crystallographic analysis of the LH-RC core complex from photosynthetic bacterium Roseiflexus castenholzii

Yueyong Xin, Long-Jiang Yu, Michihiro Suga, Jian-Ren Shen (Okayama University)

PF-105 Reconstitution experiment of the PshB protein with the photosynthetic reaction center core protein of *Heliobacteriaum modesticaldum*

Risa Kojima[1], Chihiro Azai[2], Shigeru Itoh[3], Hirozo Oh-oka[1] ([1]Grad. Sch. Sci., Osaka Univ., [2]Coll. Life Sci., Ritsumeikan Univ., [3]Cent. Gene Res., Nagoya Univ.)

PF-106 Changes in PSI/PSII ratio of *Arabidopsis thaliana* induced by long term acclimation to red, green and blue LEDs

Shun Tanimura[1], Hatsumi Nozue[2], Kana Shirai[2], Shigeichi Kumazaki[3], Masayuki Nozue[1] ([1]Grad. Sch. Textile Sci & Tech., Shinshu Univ., [2]Reaserch Center for Advanced Plant Factory, Shinshu Univ., [3]Dept. Chem., Grad. Sch. Sci., Kyoto Univ.)

PF-107 Interaction of methanol and the inhibitory effect in the photosynthetic water oxidation center

Haruna Yata, Tatsuki Shimizu, Takumi Noguchi (Division of Material Science, Graduate School of Science, Nagoya University)

PF-108 Estimation of photosynthetic activities of thylakoid membranes using infrared spectroscopy

Ryo Nagao, Sho Kitazaki, Takumi Noguchi (Grad. Sch. Sci., Nagoya Univ.)

PF-109 FTIR analysis of the S-state transitions of the water oxidation center in photosystem II crystals

Yuki Kato[1], Fusamichi Akita[2,3], Yoshiki Nakajima[2], Michihiro Suga[2], Yasufumi Umena[2], Jian-Ren Shen[2], Takumi Noguchi[1] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Res. Inst. Interdiscip. Sci., Okayama Univ., [3]JST-PRESTO)

PF-110 Purification and characterization of photosystem II complexes from *Anabaena* sp. PCC 7120 using a His-tagged CP47 mutant

Rikako Kuramochi[1], Mitsunori Katayama[2], Kaichiro Endo[3], Asako Ishii[1], Hisako Kawai-Kubota[4], Koichi Kobayashi[3], Jun Minagawa[4], Hajime Wada[3,5], Naoki Mizusawa[1,6] ([1]Faculty of Bioscience and Applied Chemistry, Hosei University, [2]College of Industrial Technology, Nihon University, [3]Graduate School of Arts and Sciences, The University of Tokyo, [4]National Institute for Basic Biology, [5]JST. CREST, [6]Research Center for Micro-nano Technology, Hosei University)

PF-111 Functional analysis of new chloroplast proteins using delayed fluorescence in Arabidopsis II

Miho Suzuki[1], Chikako Fukazawa[1], Akiko Sakai[1], Fumiyoshi Myouga[2], Kazuo Shinozaki[2], Ayano Takeuchi[3], Msakazu Katsumata[3], Reiko Motohashi[1] ([1]Graduate School of Agriculture, Shizuoka University, [2]Center for Sustainable Resource Science, RIKEN, [3]Central Research Laboratory, Hamamatsu Co Ltd.)

PF-112 The effects of atmospheric CO_2 concentration and levels of nitrogen fertilization for photosystem I tolerance to repetitive short pulses in *Oryza sativa*

Hiroshi Ozaki[1], Daisuke Sugiura[2], Hirofumi Nakamura[3], Takeshi Tokida[4], Hidemitsu Sakai[4], Toshihiro Hasegawa[5], Ko Noguchi[1] ([1]Sch. Life Sci., Tokyo Univ. Pharm. Life Sci., [2]Grad. Sch. Sci., Univ. Tokyo, [3]Taiyo-Keiki Co., Ltd., [4]NIAES, [5]NARO Tohoku Agric. Res. Ctr.)

PF-113 Effect of site-directed mutations at D1-R140 interacting with a phosphatidylglycerol molecule on the function of photosystem II

Mayu Matsubara[1], Kaichiro Endo[2], Jian-Ren Shen[3], Asako Ishii[1], Koichi Kobayashi[2], Hajime Wada[2,4], Naoki Mizusawa[1,5] ([1]Faculty of Bioscience and Applied Chemistry, Hosei University, [2]Graduate School of Arts and Sciences, The University of Tokyo, [3]Graduate School of Natural Science and Technology, Okayama University, [4]JST.CREST, [5]Research Center for Micro-Nano Technology, Hosei University)

PF-114 Functional analysis of the mutated PsbP in photosystem II using *Chlamydomonas* mutant complemented with exogenous PsbP protein

Taishi Nishimura, Fumihiko Sato, Kentaro Ifuku (Graduate School of Biostudies, Kyoto University)

PF-115 Crystal structure and spectroscopic analysis of photosystem II complex from an SQDG-deficient mutant of *Thermosynechococcus elongatus*

Yoshiki Nakajima[1,2], Yasufumi Umena[2], Ryo Nagao[3], Kaichiro Endo[4], Koichi Kobayashi[4], Hajime Wada[4], Takumi Noguchi[3], Jian-Ren Shen[1,2] ([1]Graduate School of Natural science and Technology, Okayama University, [2]Research institute for interdisciplinary Science and Graduate School of Natural Science and Technology, Okayama University, [3]Division of Material Science, Graduate School of Science, Nagoya University, [4]Department of Life Sciences, Graduate School of Arts and Sciences, The University of Tokyo)

PF-116 Characterization of PSI-LHCI supercomplex in coral symbiotic algae *Symbiodinium minutum*.

Hiroki Kato[1,2], Ryutaro Tokutsu[1,2], Hisako Kubota-Kawai[2], Ray Burton-Smith[2], Jun Minagawa[1,2] ([1]SOKENDAI (The Graduate University for Advanced Studies), [2]National Institute for Basic Biology)

PF-117 Energy dissipative LHCSR1 protein localizes in PSII-LHCII supercomplex in Chlamydomonas reinhardtii

Kotaro Kosuge[1,2], Ryutaro Tokutsu[1,2], Krishna Niyogi[3], Jun Minagawa[1,2] ([1]Natl Inst for Basic Biology, [2]Univ. SOKENDAI, [3]UC Berkeley)

PF-118 The function of SGR in the formation and degradation of photosystem II in Chlamydomonas reinhardtii

Ying Chen, Yousuke Shimoda, Hisashi Ito, Ayumi Tanaka (Institute of Low Temperature Science, Hokkaido University)

PF-119 Light-harvesting and energy-transfer processes in the cyanobacterium, *Synechocystis* sp. PCC 6803, grown under different CO_2 concentrations

Shiho Ikeda[1], Shimpei Aikawa[2], Ginga Shimakawa[3], Chikahiro Miyake[3], Akihiko Kondo[3], Seiji Akimoto[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]Grad. Sch. Sci. Tech., Kobe Univ., [3]Grad. Sch. Agri., Kobe Univ.)

PF-120 Biochemical characterization of RIQ1 and RIQ2, novel thylakoid proteins that optimize grana stacking and light harvesting in Arabidopsis.

Ryo Yokoyama[1], Yoichiro Fukao[2], Toshiharu Shikanai[1] ([1]Dept. of Botany, Sch. of Science, Kyoto Univ., [2]Sch. of Life Science, Ritsumeikan Univ.)

PF-121 LHCSR3 dissipates the excitation energy of light-harvesting complexes in photosystem II supercomplexes

Eunchul Kim[1], Ryutaro Tokutsu[1], Makio Yokono[3], Seiji Akimoto[2], Jun Minagawa[1] ([1]National Institute for Basic Biology, [2]Kobe University, [3]Hokkaido University)

PF-122 An Innovative Way to Isolate Stable PSll Supercomplexes

Akimasa Watanabe[1,2], Ryutaro Tokutsu[1,2], Eunchul Kim[2], Burton-Smith Ray[2], Jun Minagawa[1,2] ([1]SOKENDAI, [2]National Institute for Basic Biology)

PF-123 Excitation energy quench characteristics of isolated siphonaxanthin type light harvesting complex of photosystem II from Bryopsis corticulans

Wenda Wang[1,2], Xiaochun Qin[1,2], Tingyun Kuang[2], Jian-Ren Shen[1,2] ([1]Okayama University, [2]Institute of Botany, the Chinese Academy of Sciences)

PF-124 Structural basis for the unique properties of LH1-RC complex from Thermochromatium tepidum

Long-Jiang Yu[1], Michihiro Suga[1], Tomoaki Kawakami[2], Zheng-Yu Wang-Otomo[2], Jian-Ren Shen[1] ([1]Research Institute for Interdisciplinary Science, Okayama Univ., [2]Faculty of Science, Ibaraki Univ.)

PF-125 Elucidation of the suppression mechanism of photoinhibition by thermal dissipation (qE) in *Chlamydomonas reinhardtii*

Keisuke Okajima[1,2], Shun-ichi Takahashi[1,2], Jun Minagawa[1,2] ([1]Department of Basic Biology, School of Life Science, Graduate University for Advanced Science, [2]Division of Environmental Photobiology, National Institute for Basic Biology)

PF-126 Light-harvesting strategy during CO_2-dependent photosynthesis in green alga *Chlamydomonas reinhardtii*

Yoshifumi Ueno[1], Ginga Shimakawa[2], Chikahiro Miyake[2], Seiji Akimoto[1,3] ([1]Grad. Sch. Sci., Kobe Univ., [2]Grad. Sch. Agri. Sci., Kobe Univ., [3]Molecular Photoscience Research Center, Kobe Univ.)

PF-127 Changes of photosynthesis primary processes in cyanobacteria during the transition from CO_2-rich to CO_2-limited conditions

Kaori Fujimoto[1], Ginga Shimakawa[2], Chikahiro Miyake[2], Seigi Akimoto[1,3] ([1]Grad. Sch. Sci., Kobe Univ., [2]Grad. Sch. Agri. Sci., Kobe Univ., [3]Molecular Photoscience Research Center, Kobe Univ.)

PF-128 Chlorophyll b degradation pathway is necessary to prevent cell death

Ryo Furukawa, Atsushi Takabayashi, Ayumi Tanaka (ILTS, Hokkaido Univ.)

PF-129 Regulation of *Arabidopsis* β-carotene hydroxylase gene expression

Takuya Fukuda, Satomi Takeda (Osaka Prefecture University Graduate School of Science)

PF-130 Investigation for the function of C8-vinyl-bacteriochlorophyll *e* synthesized in the brown-colored green sulfur bacteria cells under red-light illumination

Jiro Harada[1], Tadashi Mizoguchi[2], Yusuke Kinoshita[2], Chisa Okada[2], Ken Yamamoto[1], Hitoshi Tamiaki[2] ([1]Dept. Med. Biochem., Kurume Univ. Sch. Med., [2]Grad. Sch. Life Sci., Ritsumeikan Univ.)

PF-131 Structural study of PSI-LHCI in *Chlamydomonas reinhardtii*

Shin-Ichiro Ozawa[1,2], Takahito Onishi[1], Hiroko Takahashi[1], Takunori Matsumura[1], Ryota Kubo[1], Yuichiro Takahashi[1,2] ([1]Research Institute for Interdisciplinary Science, Okayama University, [2]JST., CREST)

PF-132 Study on Shuttling of Light-Harvesting Complexes upon State Transition

Yuki Fujita, Wakana Ito, Kento Washiyama, Yutaka Shibata (Tohoku University)

PF-133 Analysis of overexpressor of chloroplastic thioredoxins in *Arabidopsis thaliana*

Yuki Okegawa, Ken Motohashi (Fac. Life Sci., Kyoto Sangyo Univ.)

PF-134 Possible involvement of fibrillin 5 in environmental adaptation

Mayuko Otsubo, Yuumi Ishii, Miharu Nakamura, Mirii Toshimitsu, Noriaki Tamura (Dept. Environ. Sci., Fukuoka women's university)

PF-135 Isolation of mutants deficient in nitrogen fixation by transposon mutagenesis in nonheterocystous cyanobacterium *Leptolyngbya boryana*

Chie Tomatsu[1], Kazuma Uesaka[1], Kunio Ihara[2], Yuichi Fujita[1] ([1]Grad. Sch. Bioagricultural Sci., Nagoya University, [2]Center for Gene Research, Nagoya University)

■ Primary metabolism

PF-136 Absolute quantification of intracellular metabolites in ethanol-producing cyanobacteria

Hiroki Nishiguchi, Hikaru Nagai, Fumio Matsuda, Hiroshi Shimizu (Graduate school of Information Science and Technology, Osaka University)

PF-137 Functional Analysis of *NSR1/MYR2* in Arabidopsis.

Yoshimi Nakano[1], Yuki Naito[1], Toshitsugu Nakano[1], Namie Ohtsuki[1,2], Kaoru Suzuki[1] ([1]Plant Gene Regulation Research Group, Bioproduction Research Institute, Advanced Industrial Science and Technology (AIST), [2]National Agriculture and Food Research Organization (NARO))

PF-138 Analyses of the mechanisms of the ammonium tolerance involving PII protein in cyanobacteria

Takayuki Sakamoto[1], Yajun Chang[1,2], Nobuyuki Takatani[1,2], Kazuma Uesaka[1,2], Kunio Ihara[3], Tatsuo Omata[1,2] ([1]Grad. Sch. Bioagr. Sci., Nagoya Univ., [2]CREST, Japan Sci. Tech. Agcy., [3]Ctr. Gene Res., Nagoya Univ.)

PF-139 Metabolic Engineering of Cyanobacteria for Photosynthetic Production of Sorbitol

Taejun Chin, Yukiko Okuda, Masahiko Ikeuchi (Dept. Life Sci., Grad. Sch. Arts Sci., Univ. Tokyo)

PF-140 Removal of the product from the growth medium enhances growth under diurnal conditions of a mutant of *Synechococcus elongatus* PCC 7942 engineered to produce free fatty acids.

Kazuhiro Yoshida[1], Miyuki Matsuura[1], Kazuhide Use[1], Akihiro Kato[1], Nobuyuki Takatani[1,4], Masataka Wakayama[2], Kazutaka Ikeda[3], Shin-ichi Maeda[1,4], Tatsuo Omata[1,4] ([1]Grad. Sch. Bioagr., Univ. Nagoya, [2]IAB, Univ. Keio, [3]IMS, Riken, [4]JST CREST)

PF-141 Metabolic engineering for improved production of drop-in fuels in the cyanobacterium *Synechococcus elongatus* PCC 7942

Hiroki Kaneko, Hirofumi Fukuda, Munehiko Asayama, Yoichi Nakahira (Coll. Agr., Ibaraki Univ.)

PF-142 Utilization of a theophylline-dependent engineered riboswitch for enhanced alkane production in the cyanobacterium *Synechocystis* sp. PCC 6803

Hirofumi Fukuda, Hiroki Kaneko, Munehiko Asayama, Yoichi Nakahira (Coll. Agr., Ibaraki Univ.)

PF-143 Expression of the amino-terminal portion of *Arabidopsis thaliana* Oleosin 2 (OLE2N) enhances TAG accumulation in *Chlamydomonas reinhardtii* under phosphorus-limited condition

Tomokazu Kurita[1,2], Takahiro Ishizuka[1], Yota Mitobe[1], Ikuo Nishida[1,2] ([1]Grad. Schl. Sci. Engin. Saitama Univ., [2]JST, CREST)

PF-144 Expression of phosphatidylcholine (PC) biosynthesis genes in *Chlamydomonas reinhardtii* induces triacylglycerol (TAG) production.

Tatsuya Yamada[1], Tomokazu Kurita[1,2], Ikuo Nishida[1,2] ([1]Grad. Schl. Sci. Engin., Saitama Univ., [2]JST, CREST)

PF-145 Mechanism of paramylon decomposition in response to anaerobic conditions in Euglena gracilis

Kyo Goto[1,2], Yuji Tanaka[1,2], Takanori Maruta[1,2], Takahisa Ogawa[1,2], Yoshihiro Sawa[1], Takahiro Ishikawa[1,2] ([1]Fac. Life Env. Sci. Shimane Univ, [2]JST/CREST)

PF-146 Accumulation of triacylglycerol in the cyanobacterium *Synechocystis* sp. PCC 6803

So Tamura, Akechi Tanifuji, Yujiro Saito, Yukako Hihara (Grad. Sch. Sci. Eng., Saitama Univ.)

PF-147 Evolution of phosphatidylcholine biosynthetic pathway in green algae

Takashi Hirashima[1,2], Masakazu Toyoshima[1,2], Takashi Moriyama[1,2], Naoki Sato[1,2] ([1]Department of Life Sciences, Graduate School of Arts and Sciences, The Universtiy of Tokyo, [2]JST, CREST)

PF-148 Activity of GDP-L-galactose phosphorylase, a key enzyme for ascorbic acid biosynthesis, is regulated by dehydroascorbate

Keisuke Sakiyama, Takahisa Ogawa, Takanori Maruta, Yoshihiro Sawa, Takahiro Ishikawa (Fac. Life and Environ. Sci., Shimane Univ.)

■ Secondary metabolism

PF-149 Identification and characterization of novel acylated polyamines in plants

Hiroyuki Yamano[1], Ikuo Takahashi[1], Junya Iwakawa[1], Masashi Hikosaka[1], Hidemitsu Nakamura[1], Masaki Mori[2], Tadao Asami[1] ([1]Dept. Appl. Biol. Chem., Univ. of Tokyo, [2]Institute of Agrobiological Sciences, NARO)

PF-150 Analysis of Shikonin Secretion from Epidermal Cells using Hairy Roots of Lithospermum erythrorhizon

Kanade Tatsumi[1], Kenta Kaminade[1], Kojiro Takanashi[2], Mayuko Sato[3], Kiminori Toyooka[3], Takashi Aoyama[4], Kazufumi Yazaki[1] ([1]Kyoto University, RISH, [2]Shinshu University, IMS, [3]RIKEN CSRS, [4]Kyoto University, ICR)

PF-151 An AP2/ERF transcription factor *OpERF2* involved in the regulation of specialized metabolism in *Ophiorrhiza pumila*

Nirin Udomsom[1], Amit Rai[1], Hideyuki Suzuki[2], Jun Okuyama[1], Ryosuke Imai[1], Tetsuya Mori[3], Ryo Nakabayashi[3], Kazuki Saito[1,3], Mami Yamazaki[1] ([1]Grad. Pharm. Sci. Chiba Univ., [2]Kazusa DNA Research Institute, [3]RIKEN CSRS)

PF-152 Identification of Triterpenoids in the Model Legume *Lotus japonicus*

Hayato Suzuki[1], Ery Odette Fukushima[1,2], Hikaru Seki[1], Toshiya Muranaka[1] ([1]Grad. Sch. Eng., Osaka Univ., [2]COiRE, Grad. Sch. Eng., Osaka Univ.)

PF-153 Investigation of the Production Mechanism of Alkaloid by Expression of an Alkaloid Biosynthetic Gene in *Arabidopsis*

Yohei Shimizu[1], Yuko Okawa[1], Kota Kera[1], Daisuke Nakajima[2], Hideyuki Suzuki[2], Kazuki Saito[1], Mami Yamazaki[1] ([1]Grad. Sch. Pharm. Sch., Chiba Univ., [2]Kazusa DNA Res. Inst.)

PF-154 Contribution of soluble and H^+ translocating pyrophosphatases to pyrophosphate homeostasis

Takaaki Tomoyama, Shoji Segami, Masayoshi Maeshima (Grad. Sch. Bio., Nagoya Univ.)

PF-155 Phytoene desaturase in the green filamentous bacteria, *Chloroflexus aurantiacus*, is CrtI-type

Shinichi Takaichi[1], Jiro Harada[2] ([1]Dept. Biology, Nippon Med. Sch., [2]Dept. Med. Biochem., Kurume Univ. Sch. Med.)

■ Environmental responses/Abiotic stresses

PF-156 Functional analysis of MsbA homologue protein (Slr2019 and Sll1276) in *Synechocystis* sp. PCC 6803

Ayumi Matsuhashi[1], Yutaro Ito[2], Hidetaka Kohga[1], Kengo Matsushima[3], Mina Agatsuma[1], Junji Uchiyama[3], Hisataka Ohta[3] ([1]Grad. Sch. of Math. & Sci. Edu., Tokyo Univ. of Sci., [2]Dept. of Bio. Sci. and Tech., Tokyo Univ. of Sci., [3]Fac. of Sci., Tokyo Univ. of Sci.)

PF-157 ATPase Synthesis Activity Increases Under Acidic Conditions In Acid-adapted *Synechocystis* sp. PCC6803

Mina Agatsuma[1], Haruna Ishikawa[1], Kento Funamizu[1], Ayumi Matsuhashi[1], Hidetaka Kohga[1], Junji Uchiyama[2], Hisataka Ohta[1,2] ([1]Grad. Sch. of Math. & Sci. Edu., Tokyo Univ. of Sci., [2]Fac. of Sci., Tokyo Univ. of Sci.)

PF-158 Isolation of Arabidopsis mutants having abnormalities in ABA-independent signal transduction in guard cells

Ryoma Tohmori[1], Keina Monda[1], Sho Takahashi[1], Juntaro Negi[1], Atsushi Mabuchi[1], Misato Aikawa[1], Mikiko Kojima[2], Yumiko Takebayashi[2], Hitoshi Sakakibara[2], Koh Iba[1] ([1]Dept. Biol., Fac. Sci., Univ. Kyushu, [2]RIKEN CSRS)

PF-159 Detection of DNA damage from radiation by Arabidopsis callus harboring an alternative β-glucuronidase (*GUS*) reporter gene in field of Fukushima

Shinya Takahashi[1], Masanori Tamaoki[2] ([1]Univ. Tsukuba, [2]Natl. Inst. Env. Stud.)

PF-160 Role Of Indole-3-Butyric Acid (IBA) Transport In Plant DNA Damage Response

Saki Yoshikuni[1], Nobuya Ohno[1], Shunsuke Watanabe[2], Hiroyuki Kasahara[3], Naoki Takahashi[1], Mitsunori Seo[2], Masaaki Umeda[1,4] ([1]Grad. Sch. Biol. Sci., NAIST, [2]CSRS., Riken, [3]Inst. Global Innov. Res., Tokyo Univ. Agric. & Tech., [4]JST, CREST)

PF-161 Functional Analysis Of Novel NAC Transcription Factors Involved In DNA Damage Response

Nobuo Ogita[1], Shogo Sawabe[1], Nobuya Ohno[1], Naoki Takahashi[1], Masaaki Umeda[1,2] ([1]Grad. Sch. Biol. Sci., NAIST, [2]JST, CREST)

PF-162 PIF4 is antagonistic to nitrogen dioxide-mediated suppression of hypocotyl elongation in *Arabidopsis thaliana*

Misa Takahashi, Atsushi Sakamoto, Hiromichi Morikawa (Graduate School of Science, Hiroshima University)

PF-163 Effect of benzoxazinoids on auxin-induced elongation in maize shoot

Nudtanicha Chaithongsri[1], Hideyuki Shigemori[2], Koji Hasegawa[2], Kosumi Yamada[2] ([1]Grad. Sch. Life & Environ. Sci., Univ. Tsukuba, [2]Fac. Life & Environ. Sci., Univ. Tsukuba)

PF-164 Expression analysis of CsSEF1, a tandem CCCH zinc finger gene, in cucumber fruit

Akio Tazuke, Munehiko Asayama (College of Agriculture, Ibaraki University)

PF-165 Comprehensive prediction of the nutrient responsive lincRNAs-RNAs interaction in *Arabidopsis thaliana*

Sho Nishida[1], Makiha Fukuda[2], Yusuke Kakei[3], Yukihisa Shimada[3], Toru Fujiwara[2], Naoki Furuta[1] ([1]Fac. of Sci. and Eng., Chuo Univ., [2]Grad. Sch. of Agr. and Life Sci., Univ. of Tokyo, [3]Kihara Ins. of Biol. Res., Yokohama City Univ.)

PF-166 Phosphate resupplementation to *Arabidopsis* induces degradation of storage lipid and changes of membrane lipid composition

Ryota Fujiwara[1], Yuka Madoka[2], Hiroyuki Ohta[3,4,5], Mie Shimojima[3] ([1]Grad. Sch. Biosci. Biotech., Tokyo Tech, [2]IIR, Tokyo Tech, [3]Dept. Life Sci. Technol., Tokyo Tech, [4]CREST, JST, [5]ELSI, Tokyo Tech)

PF-167 Obstacle Avoidance During Root Growth.

Shun-ichi Yoshida, Miwa Ohnishi, Kimitsune Ishizaki, Hidehiro Fukaki, Tetsuro Mimura (Graduate School of Science at Kobe Univ.)

PF-168 The impact and possibility of patented hydrogen reduction ceramic sphere on plants.

Tooru Shimizu[1], Masako Kanno[1], Yuto Ueda[2] ([1]TAANE,Co.Ltd., [2]BIOTH,CO.Ltd.)

PF-169 Organ specific proteomics of soybean seedling under flooding and drought stresses

Xin Wang[1,2], Ehsaneh Khodadadi[2,3], Baratali Fakheri[3], Setsuko Komatsu[1,2] ([1]Tsukuba Univ., [2]Natl. Inst. Crop Sci., [3]Univ. Zabol)

PF-170 Identification and Characterization of Transcription Factors Involved in Utilization of Phytate in Arabidopsis

Chuan-Ming Yeh[1], Nobutaka Mitsuda[2], Masaru Ohme-Takagi[1,2] ([1]Grad. Sch. Sci. & Eng., Saitama Univ., [2]Bioprod. Res. Inst., Natl. Inst. Adv. Ind. Sci. & Technol. (AIST))

PF-171 Omics Analyses to Reveal the Tolerant Mechanism at Initial-Flooding Stress in Early-Stage Soybean

Setsuko Komatsu[1], Xiaojian Yin[1], Xin Wang[1], Susumu Hiraga[1], Minoru Nishimura[2] ([1]Institute of Crop Science, NARO, [2]Niigata Univresity)

PF-172 A protein kinase BHP mediates blue light-dependent stomatal opening

Maki Hayashi[1], Shin-ichiro Inoue[1], Yoshihisa Ueno[1,2], Toshinori Kinoshita[1,3] ([1]Division of Biological Science, Graduate School of Science, Nagoya University, [2]Department of Agriculture, Ryukoku University, [3]Institute of Transformative Bio-Molecules (WPI-ITbM), Nagoya University)

PF-173 MYC-type transcription factors interact with ICE1 and negatively regulate cold tolerance in Arabidopsis

Kenji Miura[1], Masaru Ohta[1], Aiko Sato[1], Nodoka Oka[2], Yasuomi Tada[2] ([1]Graduate School of Life and Environmental Sciences, University of Tsukuba, [2]Graduate School of Sciences, Nagoya University)

PF-174 PIF4, a phytochrome-interacting transcription factor, negatively regulates cold tolerance in Arabidopsis.

Hiroki Okuda[1], Rieko Nozawa[1], Tsuyoshi Furumoto[2], Kenji Miura[1] ([1]Faculty of Life and Environmental Sciences, University of Tsukuba, [2]Faculty of Agriculture, Ryukoku University)

PF-175 Allantoin stimulates heat-responsive gene expression and improves heat shock tolerance in Arabidopsis

Shoma Tanaka[1], Yiping Han[1], Shunsuke Watanabe[2], Hiroshi Takagi[1], Hiroshi Shimada[1], Atsushi Sakamoto[1] ([1]Grad. Sch. Sci., Hiroshima Univ., [2]CSRS, RIKEN)

PF-176 Characterization of Phosphorylation on the Stress-Responsive Transcription Factor DREB2A

Natsumi Kanazawa[1], Junya Mizoi[1], Fuminori Takahashi[2], Kazuo Shinozaki[2], Kazuko Yamaguchi-Shinozaki[1] ([1]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [2]Center for Sustainable Resource Science, RIKEN)

PF-177 Different genetic factors are involved in thermoinhibition of Arabidopsis seeds in the light and in the dark.

Yuki Nakazawa[1], Asuka Watanabe[1], Shigeo Toh[1,2], Naoto Kawakami[1] ([1]Graduate School of Agliculture, Meiji University, [2]Graduate School of Science, Nagoya University)

PF-178 Detection of genes responding long-term past temperatures by a seasonal transcriptome analysis

Hiroshi Kudoh[1], Atsushi Nagano[1,2], Jiro Sugisaka[1], Tetsuhiro Kawagoe[1], Mie N. Honjo[1] ([1]Center for Ecological Research, Kyoto University, [2]Faculty of Agriculture, Ryukoku University)

PF-179 [Cancelled]

PF-180 Analysis of activation mechanisms of A1-subclass heat shock transcription factors

Naohiko Ohama[1], Kazuya Kusakabe[1], Junya Mizoi[1], Huimei Zhao[1], Satoshi Kidokoro[1], Shinya Koizumi[1], Fuminori Takahashi[2], Kazuo Shinozaki[2], Kazuko Yamaguchi-Shinozaki[1] ([1]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [2]Center for Sustainable Resource Science, RIKEN)

PF-181 Plant Cold Acclimation Triggered By Temperature Fluctuation And Photoperiod: A Study Focused On The Phytochrome Pathway

Maki Kanaya[1], Yoko Tominaga[2], Matsuo Uemura[1,2,3], Yukio Kawamura[1,2,3] ([1]Grad. Sch. Agr., Iwate Univ., [2]Cryobiofrontier Research Center, Iwate Univ., [3]Dept. Plant bio-sci., Agr., Iwate Univ.)

PF-182 Molecular mechanisms of heat stress-responsive growth in Arabidopsis

Shinya Koizumi[1], Satoshi Kidokoro[1], Masatoshi Nakajima[1], Naohiko Ohama[1], Tadao Asami[1], Kazuo Shinozaki[2], Kazuko Yamaguchi-Shinozaki[1] ([1]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [2]Center for Sustainable Resource Science, RIKEN)

PF-183 Increased Production of Soluble Sugars in Rice Grains Ripened under High Temperature

Masaru Nakata, Tomomi Miyashita, Makoto Hakata, Masaharu Kuroda, Takeshi Yamaguchi, Hiromoto Yamakawa (CARC/NARO)

PF-184 Identification of genes associated with reduced eating quality of rice grain cultivated under high temperature

Takeshi Shiraya[1], Sayuri Ota[2], Toshiaki Mitsui[3,4], Toru Sato[1], Satoshi Azuma[1] ([1]Niigata Crop Res. Center, [2]Niigata Agr. Res. Inst., [3]Grad.Sch.Sci.& Tech., Niigata Univ, [4]Dept. Applied Biol.Chem., Niigata Univ)

PF-185 LHCSR1 Is Involved in the Photoprotection under Cold Environments in *Chlamydomonas reinhardtii*

Hiroaki Yamasaki, Jun Minagawa (NIBB)

PF-186 Proteomic analysis to understand the DRP1E role in the plasma membrane changes during cold acclimation in *Arabidopsis*

Etsuko Watanabe[1], Kotomi Yago[1], Hiroyuki Imai[1,2], Matsuo Uemura[1,2,3], Yukio Kawamura[1,2,3] ([1]Cryobiofrontier Res. Ctr., Fac. Agr., Univ. Iwate, [2]United Grad. Sch. Agr. Sci., Univ. Iwate, [3]Plant-Bioscience, Fac. Agr., Univ. Iwate)

PF-187 Screening of chemical compounds that regulate SnRK2 kinase activity

Shoko Matsuoka[1], Karin Sato[1], Riyo Imamura[2], Yoshiteru Noutoshi[3], Takayoshi Okabe[2], Taishi Umezawa[1,4] ([1]BASE, Tokyo Univ. Agric. Tech., [2]Drug Discovery Initiative, Tokyo Univ., [3]Dep.Agric, Okayama Univ., [4]PRESTO, JST)

PF-188 Identification of QTL to plant drought tolerance using genome re-sequencing of Arabidopsis ecotypes

June-Sik Kim[1,2], Ryosuke Mega[2], Keisuke Tanaka[3], Teruaki Taji[4], Kazuo Shinozaki[1], Masanori Okamoto[2,5] ([1]RIKEN Center for Sustainable Resource Science, [2]Arid Land Research Center, Tottori University, [3]NODAI Genome Research Center, Tokyo University of Agriculture, [4]Deparpment of Bio-Science, Tokyo University of Agriculture, [5]PRESTO, JST)

PF-189 Regulatory Mechanisms Of SnRK2 Kinase Activation Under Osmotic Stress In Arabidopsis

Karin Sato[1], Junro Mogami[1], Fumiyuki Soma[1], Fuminori Takahashi[2], Kazuo Shinozaki[2], Kazuko Yamaguchi-Shinozaki[1] ([1]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [2]Center for Sustainable Resource Science, RIKEN)

PF-190 Analysis of drought-stress response in Arabidopsis knock-out mutant of phosphatidic acid phosphohydrolase 1/2

Kosuke Shimazaki[1], Yuko Sasaki[2,4], Hideki Ishida[1], Hiroyuki Ota[2,3], Mie Shimojima[2] ([1]Grad.Sch.BioSci.Tokyo Tech, [2]Sch.LifSci, [3]ELSI, [4]CREST.JST)

PF-191 Possible involvement of ER dynamics in stress-induced ABA production in Arabidopsis leaves

Yiping Han[1], Daichi Kinoshita[1], Shunsuke Watanabe[2], Hiroshi Takagi[1], Hiroshi Shimada[1], Atsushi Sakamoto[1] ([1]Grad. Sch. Sci., Hiroshima Univ., [2]CSRS, RIKEN)

PF-192 In Planta Functional Analysis of the Drought-responsive GmCKX13 Gene from Soybean

Yasuko Watanabe[1], Chien Van Ha[1], Dung Tien Le[2], Rie Nishiyama[1], Uyen Tran[1], Hitoshi Sakakibara[1], Eri Adams[1], Ryoung Shin[1], Lam-Son Phan Tran[1] ([1]CSRS, RIKEN, [2]Monsanto, Vietnam)

PF-193 Analysis of transcriptional regulation of Arabidopsis *PIF4* in response to drought stress

Yuta Yamamura[1], Satoshi Kidokoro[1], Jin-Seok Moon[1], Hikaru Sato[2], Yohei Ariga[1], Daisuke Todaka[1], Junya Mizoi[1], Kazuo Shinozaki[2], Kazuko Yamaguchi-Shinozaki[1] ([1]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [2]Center for Sustainable Resource Science, RIKEN)

PF-194 Analysis of plant hormone profiles in response to moderate dehydration stress in ABA biosynthetic mutant plants

Kaoru Urano[1,4], Kyonoshin Maruyama[2], Yusuke Jikumaru[3], Yuji Kamiya[1], Kazuko Yamaguchi-Shinozaki[4], Kazuo Shinozaki[1] ([1]RIKEN/CSRS, [2]JIRCAS, [3]RIKEN/PSC, [4]The Univ. Tokyo, Agri)

PF-195 RIPPS: an Automated System for Evaluating Plant Environmental Stress Response

Takanari Tanabata[1,2], Miki Fujita[2], Kaoru Urano[2], Saya Kikuchi[2], Kazuo Shinozaki[2] ([1]Kazusa DNA Inst., [2]RIKEN CSRS)

PF-196 *Arabidopsis AtPrx47*, a class III peroxidase gene, boosts the biomass-increasing effect of oxidized glutathione at high population densities

Soichiro Noda, Ken'ichi Ogawa (Research Institute for Biological Sciences (RIBS Okayama), Okayama Prefectural Technology Center for Agriculture, Forestry and Fisheries)

PF-197 NADPH oxidase RBOHC is responsible for root growth inhibition caused by excess B stress in Arabidopsis thaliana

Naoyuki Sotta[1,3], Y. Masami Hirai[2], Toru Fujiwara[1] ([1]Grad. Sch. Agr. Life Sci. Univ. Tokyo, [2]RIKEN CSRS, [3]JSPS Fellow)

PF-198 A novel physiological role of Arabidopsis molybdenum cofactor sulfurase ABA3 in environmental adaptation

Shunsuke Watanabe[1,2], Yuji Sawada[1], Masami Yokota Hirai[1], Atsushi Sakamoto[3], Mitsunori Seo[1] ([1]RIKEN CSRS, [2]JSPS Research Fellow, [3]Grad. Sch. Sci., Hiroshima Univ.)

PF-199 Comprehensive survey of the thioredoxin-targeted proteins in leaves under the anaerobic conditions

Yuichi Yokochi[1], Jiro Nomata[1,2], Toru Hisabori[1,2] ([1]Laboratory for Chemistry and Life Science, Tokyo Tech., [2]CREST JST)

PF-200 Glutathione-dependent accumulation of amino acids in plants

Ken'ichi Ogawa[1], Aya Hatano-Iwasaki[1], Shin-ichi Nakamura[2] ([1]Res. Inst. Biol. Sci., Okayama (RIBS Okayama), [2]Dep. Biol. Prod., Fac. Bioresour. Sci, Akita Pref. Univ.)

PF-201 Identification of a regulatory factor for the expression of VTC2 gene encoding a rate-limiting enzyme for ascorbate biosynthesis in plants

Kazuya Yoshimura[1], Ryunosuke Matsubara[1], Kanako Takeo[1], Keisuke Sakiyama[2], Takahiro Ishikawa[2] ([1]Dept. Food Nutr. Sci., Coll. Biosci. Biotech., Chubu Univ., [2]Dept. Appl. Biosci. and Biotech., Fac. Life and Environ. Sci., Shimane Univ.)

PF-202 Crosstalk of cellular compartment-dependent pathways for H2O2 signaling in plant high light stress response

Gen Mitomi, Yusuke Terai, Takahisa Ogawa, Yoshihiro Sawa, Takahiro Ishikawa, Takanori Maruta (Dept. Life Sci. and Biotech., Fac. Life and Environ. Sci., Shimane Univ.)

PF-203 Difference in CPD photolyase localization of rice and *Arabidopsis* cells

Yuki Takahashi[1], Mamoru Hara[1], Kana Miura[1], Mika Teranishi[1], Sakuya Nakamura[1], Ikuya Takahashi[1], Masanori Izumi[1,2,3], Jun Hidema[1] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]FRIS, Tohoku Univ., [3]JST, PRESTO)

PF-204 The characterization of UVB sensitivity in photolyase and autophagy *Arabidopsis* mutants

Gonul Dundar[1], Sakuya Nakamura[1], Masanori Izumi[1,2,3], Jun Hidema[1] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]FRIS, Tohoku Univ., [3]JST, PRESTO)

PF-205 Possible function of DNA damage as a trigger in the cell differentiation in Arabidopsis thaliana

Masachika Nojima, Takuya Sakamoto, Sachihiro Matsunaga (Department of Applied Biological Science, Faculty of Science and Technology, Tokyo University of Science)

PF-206 Functional Analysis of NAC-type Transcriptional Factors during Tissue Reunion in *Arabidopsis* flowering stem

Keita Matsuoka[1], Yuki Matsukura[1], Yoshiki Kawaziri[1], Shinobu Satoh[2], Masashi Asahina[1] ([1]Dept. Biosci., Teikyo Univ., [2]Life & Env. Sci., Univ. Tsukuba)

PF-207 Effect of basil plant on the controlling wounding response in tomato plant

Shoma Taguchi, Chihiro Wakita, Riichiro Yoshida (Fac. Agri., Kagoshima Univ.)

PF-208 Changes in growth pattern and jasmonate levels in Elodea nuttallii in response to snail herbivory.

Yuta Kadokura[1], Masahiro Inouhe[2], Yoh Sakuma[2], Kensuke Miyamoto[3] ([1]Dept. Biol., Faclty Sci., Ehime Univ., [2]Biology Sci., Graduate School of Science and Engineer., Ehime Univ., [3]Biology, Graduate School of Sci., Osaka Pref.Univ.)

■ Plant-microbe interaction

PF-209 Effect of Lactobacillus yogurt on growth of tomato plants and microflora in culture soils.

Masahiro Inouhe[1], Yuki Watanabe[2], Mami Kanehira[2], Mamiko Tada[2], Yoh Sakuma[1], Hironori Niki[3] ([1]Biology, Graduate School of Science and Engineering, Ehime Univ., [2]Department of Biology, Faculty of Science, Ehime Univ., [3]Genetic Strains Research Center, National Institute of Genetics)

PF-210 Analysis of host-dependent spore formation in arbuscular mycorrhizal fungi

Hiromu Kameoka[1,2], Taro Maeda[1,2], Sachiko Tanaka[1], Naoya Takeda[1,2,3], Katsushi Yamaguchi[4], Shuji Shigenobu[3,4], Kawaguchi Masayoshi[1,2,3] ([1]Department of Symbiosis System, NIBB, [2]JST ACCEL, [3]SOKENDAI, [4]Functional Genomics Facility, NIBB)

PF-211 An improved whole genome reference for the arbuscular mycorrhizal fungi, *Rhizophagus irregularis* strain DAOM-181602

Taro Maeda[1,2], Yuuki Kobayashi[1,2], Hiromu Kameoka[1,2], Naoya Takeda[1,2,3], Katsushi Yamaguchi[4], Takahiro Bino[4], Shuji Shigenobu[3,4], Masayoshi Kawaguchi[1,2,3] ([1]NIBB Division of Symbiotic Systems, [2]JST ACCEL, [3]SOKENDAI, [4]NIBB Functional Genomics Facility)

PF-212 Natural variations of phosphate-dependent interactions with a root-colonizing endophytic fungus in *Arabidopsis thaliana*

Nozomi Kitagawa[1], Yukari Oida[1], Kei Hiruma[1,2], Yusuke Saijo[1,2] ([1]NAIST, [2]JST PRESTO)

PF-213 Gibberellin-mediated Defense Responses On The Mycorrhizal Symbiosis In *Bletilla striata* (Orchidaceae)

Chihiro Miura[1], Tatsuki Yamamoto[2], Katsushi Yamaguchi[3], Yuri Kanno[4], Takahiro Yagame[5], Masahide Yamato[6], Mitsunori Seo[4], Shuji Shigenobu[3], Hironori Kaminaka[1] ([1]Fac. Agr., Tottori Univ., [2]Grad. Sch. Agr., Tottori Univ., [3]NIBB, [4]RIKEN CSRS, [5]Mizuho Kyo-do Mus., [6]Fac. Edu., Chiba Univ.)

PF-214 Isolation Of Lichenized Cyanobacteria From *Peltigera polydactylon* And Study On Its Photosynthetic Activity

Tomoki Sato[1], Masayuki Komura[2], Koujirou Hara[1], Shigeru Itoh[3], Ikuko Iwasaki[1] ([1]Akita Pref Univ, Fac Biores Sci, [2]Nagoya City Univ, Med Sci, [3]Nagoya Univ, Center Gene Res)

PF-215 Functional analysis of rhizobial factor that determines nitrogen fixation activity of host legume mutant

Yoshikazu Shimoda[1], Yuki Nishigaya[2], Hiroko Yamaya[3], Shusei Sato[4], Toshimasa Yamazaki[2], Yosuke Umehara[1], Makoto Hayashi[5] ([1]NARO NIAS, [2]NARO NAAC, [3]Nihon Univ., [4]Tohoku Univ., [5]RIKEN CSRS)

PF-216 Signal peptidase genes expressed in root nodules of *Lotus japonicus*

Yuta Shinya, Toshiki Uchiumi (Graduate School of Science and Engineering, Kagoshima University.)

PF-217 Toward Live-Measurement of Intra- and Extra-Cellular pH of Rhizobial Cells during Symbiotic Interaction with Host Legume

Maho Ishikura, Youko Kiuchi, Kazuhiko Saeki (Department of Biological Sciences, Nara Women's University)

PF-218 Comprehensive analysis of virulence-related genes of Pseudomonas amygdali pv. tabaci through visualization of its infection process

Nozomu Maruyama[1], Tatsunori Kiyokawa[1], Takako Ishiga[2], Yasuhiro Ishiga[2], Shigeyuki Betsuyaku[2], Nozomu Obana[2], Yuki Ichinose[3], Nobuhiko Nomura[2] ([1]Graduate School of Life and Environmental Sciences,the University of Tsukuba, [2]Faculty of Life and Environmental Sciences University of Tsukuba, [3]Graduate School of Environmental and Life science Okayama University)

PF-219 Frameshift mutation confers function as virulence factor to leucine-rich repeat protein from *Acidovorax avenae*

Takemasa Kawaguchi[2], Machiko Kondo[1,2], Kyosuke Naka[2], Hiroyuki Hirai[1,2], Takehito Furukawa[1,2], Yuki Yoshida[2], Aika Suzuki[2], Fang-Sik Che[1,2] ([1]Nagahama Inst. of Bio-Sci. and Tech., [2]Grad. Sch. of Bio-Sci. Nagahama Inst. of Bio-Sci. and Tech.)

PF-220 *Sclerospora graminicola*, a downy mildew in foxtail millet, has expanded jacalin-like lectin genes

Michie Kobayashi[1], Yukie Hiraka[1], Akira Abe[1], Hiroki Yaegashi[1], Satoshi Natsume[1], Hideko Kikuchi[1], Hiromasa Saitoh[1], Ryohei Terauchi[1,2] ([1]Iwate Biotechnology Research Center, [2]Graduate School of Agriculture, Kyoto University)

PF-221 Generation and Characterization of Knockout Rice of *DPF*, a Rice Transcription Factor Gene that Regulates Biosynthesis of Diterpenoid Phytoalexins

Kazuki Ishikawa[1,2], Chihiro Yamamura[1,2], Yumu Tabuchi[3], Satoru Maeda[1], Kazunori Okada[3], Takashi Kamakura[2], Masaki Mori[1] ([1]NIAS, [2]Fac. Science and Tech., Tokyo Univ. of Science, [3]Biotechnology Research Center, The Univ. of Tokyo)

PF-222 A jasmonate-responsive volatile, β-cyclcocitral, functions as a suppressor of abscisic acid signaling in jasmonate-induced resistance to rice bacterial blight

Shiduku Taniguchi[1], Kayo Yoshitomi[2], Keiichiro Tanaka[2], Kazuya Akimitsu[1,2], Kenji Gomi[1,2] ([1]United Grad. Sch. Agric. Sci., Ehime Univ., [2]Fac. of Agr., Kagawa Univ.)

PF-223 Role of a transcription factor JMTF1 in jasmonate-induced resistance to rice bacterial blight in rice

Yuya Uji[1], Yumi Fujii[2], Masaki Kiryu[2], Shoko Yamada[2], Kazuya Akimitsu[1,2], Kenji Gomi[1,2] ([1]United Grad. Sch. Agric. Sci., Ehime Univ., [2]Fac. of Agr., Kagawa Univ.)

PF-224 Role of OsNINJA1 in jasmonate-induced resistance to rice bacterial blight in rice

Yuki Okamoto[1], Keita Kashihara[1], Yuya Uji[2], Shiduku Taniguchi[2], Kazuya Akimitsu[1,2], Kenji Gomi[1,2] ([1]Fac. of Agr., Kagawa Univ., [2]United Grad. Sch. Agric. Sci., Ehime Univ.)

PF-225 Wound-induced peptide OsPep3 enhances herbivore elicitor mediated defense responses in rice

Tomonori Shinya[1], Yuko Hojo[1], Kiwamu Hyodo[1], Kei Hiruma[2,3], Yusuke Saijo[2,3], Ivan Galis[1] ([1]IPSR, Okayama Univ., [2]Grad. Sch. Biol. Sci., NAIST, [3]JST PRESTO)

PF-226 Assessing the sorghum variability in resistance to insect pests

Ivan Galis[1], Cyprian Osinde[1,2], Nobuhiro Tsutsumi[3], Hiroyoshi Iwata[3], Hiromi Kanegae[3], Masaru Fujimoto[3], Hideki Takanashi[3], Motoyuki Ishimori[3], Hunja Murage[4], Wataru Sakamoto[1] ([1]Inst. Plant Sci. Res., Okayama Univ., [2]Makerere Univ., [3]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [4]Jomo Kenyatta Univ. Agr. Technol.)

■ Epigenetic regulation

PF-227 Characterization Of Gene Expression Of SRPP, A Cell Wall Protein, In Arabidopsis Roots

Hiroshi Uno, Natsuki Tanaka, Ryosuke Sato, Masayoshi Maeshima (Laboratory of Cell Dynamics, Graduate School of Bioagricultural Sciences, Nagoya University)

PF-228 The organ specificity of siRNA-producing activities of DCL3 and DCL4

Midori Tabara[1], Misato Ohtani[2,3], Hiromitsu Moriyama[1], Toshiyuki Fukuhara[1] ([1]Tokyo University of Agriculture and Technology, [2]NAIST, Bio, [3]RIKEN,CSRS)

PF-229 Regulation of plant growth by SET DOMAIN GROUP in light environmental response
Yuka Kadoya, Takeru Saiki, Nobutoshi Yamaguchi, Toshiro Ito (Nara Institute of Science and Technology)

PF-230 KUMONOSU protein harboring a transposon-related domain act in gene silencing in Arabidopsis
Yoko Ikeda[1], Thierry Pelissier[2], Pierre Bourguet[2], Claude Becker[3], Marie-Noelle Pouch-Pelissier[2], Pogorelcnik Romain[2], Detlef Weigel[3], Jean-Marc Deragon[4], Olivier Mathieu[2] ([1]Institute of Plant Science and Resources, Okayama University, [2]CNRS, UMR 6293, INSERM, UMR 1103, France, [3]Max Planck Institute for Developmental Biology, Germany, [4]CNRS, UMR5096, Universite de Perpignan Via Domitia, France)

PF-231 Molecular mechanism of Plant Methyl-CpG Binding Domain Proteins
Izuru Ohki, Masahiro Shirakawa (Graduate School of Engineering, Kyoto University)

■ Transcriptional and post-transcriptional regulation

PF-232 Compatibility between the chloroplast *psbA* 5'-UTR and its coding region is important for translational initiation
Masayuki Nakamura, Masahiro Sugiura (Ctr. Gene. Res., Nagoya Univ.)

PF-233 A possible involvement of AUGUAA in the 5'-UTR of NIP5;1 in transcriptional regulation
Mayuki Tanaka[1], Naoyuki Sotta[1], Yukako Chiba[2,3], Hitoshi Onouchi[4], Satoshi Naito[2,4], Toru Fujiwara[1] ([1]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [2]Grad. Sch. Life Sci., Hokkaido Univ., [3]Fac. Sci., Hokkaido Univ., [4]Grad. Sch. Agri., Hokkaido Univ.)

PF-234 SyR47, Non-Coding Small RNA, Up-Regulated Translation Of rfbD Via 5'-Untranslated Region In Synechocystis sp.PCC6803.
Junji Uchiyama[1], Hisataka Ohta[1,2] ([1]Fac. of Sci., Tokyo univ. of Sci., [2]Grad. Sch. of Math. and Sci. Edu.Sci., Tokyo univ. of Sci)

PF-235 Identification of a Trans-acting Protein Involved in the Regulation of Alternative Splicing of Chloroplastic APX
Shina Ohara[1], Noriaki Tanabe[1], Kazuya Yoshimura[2], Masahiro Tamoi[1], Shigeru Shigeoka[1] ([1]Dept. Adv. Biosci., Fac. Agr., Kindai Univ., [2]Dept. Food Nutr. Sci., Coll. Biosci. Biotech., Chubu Univ.)

PF-236 Transfer RNA wobble U34 modification in plants: Its possible relation to leaf development.
Yumi Nakai[1], Gorou Horiguchi[2], Akiko Harada[3], Masato Nakai[4], Takato Yano[1] ([1]Osaka Medical College, Dept. of Biochemistry, [2]Rikkyo Univ., College of Science, Dept. of Life Science, [3]Osaka Medical College, Dept. of Biology, [4]Osaka Univ., Protein Research Ins.)

PF-237 Analysis of evolutionarily conserved Marchantia miRNAs
Masayuki Tsuzuki[1,2], Kazutaka Futagami[1], Takahiro Hamada[1], Masaki Shimamura[3], Takayuki Kohchi[4], Yuichiro Watanabe[1] ([1]Dept. of Life Sciences, Univ. of Tokyo, [2]Dept. of Mol.Cell.Dev.Biol., Univ. of Michigan, [3]Grad.Sch. Science, Hiroshima Univ., [4]Grad. Sch. Biostudies, Kyoto Univ.)

PF-238 Functional analysis of P-type pentatricopeptide repeat (PPR) proteins in the *Physcomitrella patens* chloroplasts
Tetsuo Ebihara, Chieko Sugita, Mamoru Sugita (Center for Gene Res. Nagoya Univ)

PF-239 Model for the RNA recognition by PPR editing factors in the moss *Physcomitrella patens*
Takuya Matsuda[1], Mizuho Ichinose[1,2], Mamoru Sugita[1] ([1]Center for Gene Res., Nagoya Univ., [2]Institute of Transformative Bio-Molecules (ITbM), Nagoya Univ.)

■ Systems biology

PF-240 Genome analysis to identify genes responsible for low light tolerance for fruiting in tomato
Nobuaki Chiba[1], Kenta Shirasawa[2], Koh Aoki[1] ([1]Grad. Sch. of Life and Environ. Sci., Osaka Pref. Univ., [2]Kazusa DNA Res. Inst.)

PF-241 Search for nontranslational functions of histidyl-tRNA synthetases in *Arabidopsis thaliana*
Moeka Kawashima[1,2], Yusuke Saga[1], Shiho Sakai[1], Takeshi Nakano[2], Naoto Kawakami[1], Tetsuo Kushiro[1] ([1]Grad. Sch. Agri., Univ. Meiji, [2]RIKEN CSRS)

PF-242 TOMATOMICS: A Web Database for Integrated Omics Information in Tomato
Toru Kudo[1], Masaaki Kobayashi[1], Shin Terashima[1], Minami Katayama[1], Soishi Ozaki[1], Misa Saito[1], Maasa Kanno[1], Koji Yokoyama[1], Hajime Ohyanagi[2], Koh Aoki[3], Kentaro Yano[1] ([1]Sch. Agri., Meiji Univ., [2]King Abdullah Univ. of Sci. and Tech. (KAUST), Comp. Biosci. Res. Cent. (CBRC), [3]Grad. Sch. of Life and Env. Sci., Osaka Pref. Univ.)

PF-243 Construction of Rubber (Hevea brasiliensis) transcriptome database
Mika Kawashima[1], Yuko Makita[1], Nyok-Sean Lau[2], Minami Matsui[1] ([1]Center for Sustainable Resource Science, RIKEN, [2]Center for Chemical Biology, Universiti Sains Malaysia)

PF-244 In silico simulation using stoichiometric models of photosynthetic organisms and the applications

Yoshihiro Toya, Katsunori Yoshikawa, Fumio Matsuda, Hiroshi Shimizu (Graduate School of Information Science and Technology, Osaka University)

PF-245 Identification of a Mutant Gene for Altered Gelatinization Characteristic of Rice Grain Starch by a Modified MutMapPlus Analysis

Hiromoto Yamakawa[1], Hiroki Takagi[2], Masaru Nakata[1], Tomomi Miyashita[1], Masaharu Kuroda[1], Takeshi Yamaguchi[1], Takayuki Umemoto[3] ([1]Central Region Agricultural Research Center, National Agriculture and Food Research Organization (CARC/NARO), [2]Ishikawa Prefectural University, [3]Institute of Crop Science, NARO)

■ New technology/Others

PF-246 Attempts to enhance the artificially established syntrophic interaction between a cyanobacterium and a fungus

Ryoma Tsujimoto, Kyohei Hayamizu, Tatsuo Omata (Grad. Sch. of Bioagricultural Sci., Nagoya Univ.)

PF-247 Induction of cell death in Arabidopsis with loss of metacaspases

Kyounosuke Yamamoto, Yuuto Fujita, Hiroshi Hayashi (FUKUI pref. univ., Fac. Biosc. Biotech.)

PF-248 Toward the synthesis of retinal via β-carotene in *Rhodobacter capsulatus*

Kaori Shimizu, Kazuhiko Saeki (Department of Biological Sciences, Nara Women's University)

PF-249 Relationship between nitrogen status and leaf temperature of rice cultivars grown in a paddy field

Keiichi Kanno[1], Yonghyun Kim[1], Shuichi Yanagisawa[2], Mitsue Miyao[1] ([1]Grad. Sch. Agric. Sci., Tohoku Univ., [2]Biotechnology Research Center, Univ. Tokyo)

PF-250 A model study for detection of unintended short DNA-insert derived from a foreign gene by Southern blot analysis

Reona Takabatake, Machiko Kaneko, Kazumi Kitta (Food Research Institute, National Agriculture and Food Research Organization)

PF-251 A quick method to measure root resistance to water transport in paddy rice

Shunsuke Adachi[1,2], Taiichiro Ookawa[1], Tadashi Hirasawa[1] ([1]Graduate School of Agriculture, Tokyo University of Agriculture and Technology, [2]JST, PRESTO)

PF-252 Visualization of 12-oxo-phytodienoic acid in immature seeds of *Phaseolus vulgaris* L. by matrix-assisted laser desorption/ionization imaging mass spectrometry

Hirofumi Enomoto[1,2], Takuya Sensu[1], Kei Sato[2], Emi Yumoto[1], Koji Miyamoto[1], Kenichi Uchida[1,2], Masashi Asahina[1,2], Takao Yokota[1], Hisakazu Yamane[1,2] ([1]Dept. Biosci., Fac. Sci. Eng., Teikyo Univ., [2]Div. Integr. Sci. Eng., Teikyo Univ.)

PF-253 Effects of H_2-Enriched Electrolyzed Water in Hydroponic on Kmatsuna (*Brassica rapa* var. *perviridis*) Plants

Yasuomi Hamauzu[1], Katsumi Ishikawa[2], Yuki Ikeshita[3] ([1]NIHON TRIM CO., LTD. Dev. Div., [2]Faculty of Agric. & Marine Sci., Univ. Kochi, [3]Grad. Integr. Arts & Sci., Univ. Kochi)

PF-254 Genetic map construction with low depth segregant sequencing in *Chara braunii*

Tomoaki Nishiyama[1], Hiroaki Kamada[2], Daisuke Miyata[3], Katsushi Yamaguchi[4], Shuji Shigenobu[4], Hidetoshi Sakayama[3], Masahiro Kasahara[2] ([1]Kanazawa Univ., [2]Univ. Tokyo, [3]Kobe Univ., [4]NIBB)

PF-255 Development of Gateway Binary Vector Series, R4pMpGWB and R4L1pMpGWB, Enabling Promoter Swapping and Promoter Analysis, Respectively, for The Liverwort *Marchantia polymorpha*

Shoji Mano[1,2], Ryuichi Nishihama[3], Sakiko Ishida[3], Kazumi Hikino[1], Maki Kondo[4], Mikio Nishimura[5], Katsuyuki Yamato[6], Takayuki Kohchi[3], Tsuyoshi Nakagawa[7] ([1]Dept. Evol. Biol. Biodivers., Natl. Inst. Basic Biol., [2]Dept. Basic Biol., SOKENDAI (Grad. Univ. Advanced Studies), [3]Grad. Sch. Biostudies., Kyoto Univ., [4]NIBB Core Res. Facil., Natl. Inst. Basic Biol., [5]Dept. Cell Biol., Natl. Inst. Basic Biol., [6]Fucl. Biol. Sci. Tech., Kindai Univ., [7]Dept. Mol. Func. Genomics, Int. Center Sci. Res. Organi. Res., Shimane Univ.)

PF-256 A split-SaCas9 system is available for targeted mutagenesis in plant cells.

Hidetaka Kaya[1], Kazuhiro Ishibashi[2], Seiichi Toki[1,3,4] ([1]Plant Genome Engineering Research Unit, NARO, [2]Plant and Microbe Research Unit, NARO, [3]Grad. Sch. Nanobil., Yokohama City Univ., [4]Kihara Inst. Biol. Res., Yokohama City Univ.)

PF-257 Establishment of the Genome Editing System using RNA Virus Vectors in Plant

Hirotaka Ariga[1], Hidetaka Kaya[2], Seiichi Toki[2,3,4], Kazuhiro Ishibashi[1] ([1]Plant and Microbe Research Unit, Inst. of Agrobiol. Sci., NARO, [2]Plant Genome Engineering Research Unit, Inst. of Agrobiol. Sci., NARO, [3]Grad. Sch. Nanobio., Yokohama City Univ., [4]Kihara Inst. Biol. Res., Yokohama City Univ.)

PF-258 Science Communication of Genome Editing by Comparing with Radiation Mutagenesis

Masahito Shikata, Yutaka Tabei, Sachiko Shimura, Natuo Komoto, Tatsuo Ishikawa, Ryuji Shimura, Muneo Yamazaki (Institute of Agrobiological Sciences, NARO)

PF-259 Collection and Maintenance of Plant Cell Lines at RIKEN BRC in 2017

Toshihiro Kobayashi, Masatomo Kobayashi (RIKEN BRC)

PF-260 New database for TF clone and TAC clone of Arabidopsis thaliana in RIKEN BRC.

Satoshi Iuchi, Masatomo Kobayashi (RIKEN BRC Experimental Plant Division)

PF-261 Preventing scientific misconduct through a novel educational program

Emiko Harada, Misako Urabe, Takayoshi Nishida, Masahiro Maruo (The Univ. Shiga. Pref., School of Environ. Sci.)

Poster [Last half] 2017.3.18

■ Plant hormones/Signaling molecules

PL-001 Effect of the *OsCKX2* (*Gn1a*) mutation on plant growth in CRISPR/Cas9 mutated rice

Maki Nagata[1], Miki Ohtake[1], Masaki Endo[1], Seiichi Toki[1], Hitoshi Sakakibara[2], Akira Komatsu[1] ([1]NARO, Institute of Agrobiological Sciences (NIAS), [2]RIKEN, CSRS)

PL-002 JAH3 is a novel regulator of senescence that mediates crosstalk between jasmonic acid and ethylene in Arabidopsis.

KwiMi Chung[1], Gregory Harrison[2], Shuo Zhang[2], Agnes Demianski[2], Barbara Kunkel[2] ([1]Bioproduction Research Institute, AIST, [2]Washington University in St.Louis, Department of Biology)

PL-003 Function of an abscisic acid inducible Arabidopsis MAPKKK, MAPKKK17

Daisuke Matsuoka[1], Takashi Nanmori[2] ([1]Org. Adv. Sci. Tech. Kobe Univ., [2]Faculty of Health and Nutrition, Otemae Univ.)

PL-004 Functional analysis of ABA-responsive and SnRK2-dependent phosphoproteins in Arabidopsis

Yuki Tamura[1], Keisuke Tanaka[2], Akihisa Shinozawa[2], Takayuki Nose[3], Toshinori Kozaki[4], Kazuo Ishii[4], Kousuke Hanada[3], Tomonao Matsushita[5], Yoichi Sakata[2], Takashi Hirayama[6], Taishi Umezawa[1,4,7] ([1]BASE, Tokyo Univ. Agric. Tech., [2]Dep. Biosci., Tokyo Univ. Agric., [3]Dep. Biosci. Bioinfo., Kyushu Inst. Tech., [4]Dep. Agric., Tokyo Univ. Agric. Tech., [5]Dep. Agric., Kyushu Univ., [6]IPSR, Okayama Univ., [7]PRESTO, JST)

PL-005 A novel peptide involved in the iron homeostasis under a mitochondrial defect in Arabidopsis

Takashi Hirayama, Gui Jie Lei, Jian Feng Ma (Okayama University, IPSR)

PL-006 Brassinosteroid-induced hypocotyl elongation in *Arabidopsis thaliana*

Koji Takahashi[1], Anzu Minami[2], Toshinori Kinoshita[1,3] ([1]Grad Sch Sci., Nagoya Univ, [2]Biosci Biotech Center, Nagoya Univ, [3]WPI-ITbM, Nagoya Univ)

PL-007 Identification of the novel transcription factors relating to brassinosteroid signaling.

Reika Taguchi[1], Miho Ikeda[2], Ayumi Yamagami[3], Nobutaka Mituda[4], Takeshi Nakano[3], Masaru Ohme-Takagi[2] ([1]Fac. Sci., Saitama univ., [2]Grad. Sch. Sci. & Eng., Saitama Univ, [3]RIKEN.CSRS, [4]AIST)

PL-008 Functional analysis of BIL6 in brassinosteroid signaling

Nagisa Shimabukuro[1,2], Ayumi Yamagami[1,4], Masaaki Sakuta[2], Kazuo Shinozaki[1], Tadao Asami[3,4], Takeshi Nakano[1,4] ([1]RIKEN, CSRS, [2]Ochanomizu Univ., [3]Univ. of Tokyo, [4]JST-CREST)

PL-009 Analysis of ABA signal transduction in *Cyanidioschyzon merolae*

Yuki Kobayashi[1], Kan Tanaka[1,2] ([1]Laboratory for Chemistry and Life Science, Tokyo Institute of Technology, [2]JST CREST)

PL-010 Analyzing of brassinosteroid signaling mutant *bil8-1D*

Ayumi Yamagami[1,4], Genki Nakata[1,2], Takanari Ichikawa[1], Minami Matsui[1], Shozo Fujioka[1], Kazuo Shinozaki[1], Tetsuo Kushiro[2], Tadao Asami[1,3,4], Takeshi Nakano[1,4] ([1]RIKEN CSRS, [2]Dept. Agric. Chem., Meiji Univ., [3]Dept. Appl. Biol. Chem., Univ. of Tokyo, [4]JST-CREST)

PL-011 Role of the stringent response factor ppGpp in *Chlamydomonas reinharditii*

Doshun Ito[1], Hiroyuki Miyazaki[1], Aya Matsui[1], Shinji Masuda[2] ([1]Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology, [2]Center for Biological Resources and Informatics, Tokyo Institute of Technology)

PL-012 A Novel Root-knot Nematode Attractant is Released from Seeds through Seed Coat Mucilage Extrusion

Allen Yi-Lun Tsai, Tetsuya Arita, Ryo Kuroda, Shinichiro Sawa (Graduate School of Science and Technology, Kumamoto University)

PL-013 Functional analysis of CLE16 and CLE17 in Arabidopsis

Chie Shimaoka, Yasuka Yamaguchi, Shinichiro Sawa, Takashi Ishida (Grad.Sci.,Univ.Kumamoto)

PL-014 Identification of a small peptide mediating drought stress responses

Fuminori Takahashi[1], Takehiro Suzuki[1], Yuriko Osakabe[2], Shigeyuki Betsuyaku[3], Naoshi Dohmae[1], Hiroo Fukuda[3], Kazuko Yamaguchi-Shinozaki[3], Kazuo Shinozaki[1] ([1]RIKEN CSRS, [2]Tokushima University, [3]University of Tokyo)

PL-015 Auxin response pattern in leaf margin is regulated by PIN1 auxin efflux carrier and EPFL2 peptide

Toshiaki Tameshige[1], Keiko Torii[1,2,3], Naoyuki Uchida[1] ([1]Nagoya Univ., WPI-lTbM, [2]Univ. Washington, [3]HHMI)

■ Vegetative growth

PL-016 Characterization of SUB receptor family proteins of Leucine-rich repeat receptor-like kinases in the moss *Physcomitrella patens*

Hiroki Mukai[1], Kiyotaka Soeishi[1], Susumu Takio[2,3], Katsuaki Takechi[2], Hiroyoshi Takano[2,4] ([1]Grad. Sch. Sci. Tech., Kumamoto Univ, [2]Fac. Advan. Sci. Tech., Kumamoto Univ, [3]Center Marine Environ. Stud., Kumamoto Univ, [4]Inst. Pulsed Power Sci., Kumamoto Univ)

PL-017 Genetic analysis of the KRP5 during Arabidopsis leaf development thorough AS1-AS2-ETT pathway.

Tamami Nishimoto[1], Nanako Ishibashi[2], Ayami Nakagawa[1], Hiro Takahashi[3], Yasunori Machida[2], Chiyoko Machida[1], Shoko Kojima[1] ([1]Grad. Sch. of Biosci. and Biotech., Chubu Univ., [2]Grad. Sch. of Sci., Nagoya Univ., [3]Grad. Sch. of Hort. , Chiba Univ.)

PL-018 The repression of IPT3 bia AS1-AS2-ETT pathway is involved in the establishment of leaf adaxial-abaxial polarity in Arabidopsis thaliana.

Shoko Kojima[1], Nanako Ishibashi[2], Tamami Nishimoto[1], Kana Koda[1], Ayami Nakagawa[1], Mikiko Kojima[3], Hiro Takahashi[4], Hitoshi Sakakibara[3,5], Yasunori Machida[2], Chiyoko Machida[1] ([1]Grad. Sch. Biosci. and Biotech., Chubu Univ., [2]Grad. Sch. of Sci., Nagoya Univ., [3]RIKEN CSRS, [4]Grad. Sch. of Hort., Chiba Univ., [5]Grad. Sch. of Bioagr., Nagoya Univ.)

PL-019 Patterning of the Cylindrical Unifacial Leaf Plant *Juncus torreyi* (Juncaceae)

Xiaofeng Yin[1], Takahiro Yamaguchi[2], Hirokazu Tsukaya[1,3] ([1]The University of Tokyo, [2]ACEL, [3]Okazaki Institute for Integrative Bioscience, National Institute of Natural Sciences)

PL-020 New Insights into Mechanisms of Phyllotactic Pattern Generation from the Analysis of Orixate Phyllotaxis

Takaaki Yonekura[1], Akitoshi Iwamoto[2], Hironori Fujita[3], Munetaka Sugiyama[1] ([1]Botanical Gardens, Grad. Sch. Sci., Univ. Tokyo, [2]Department of Biology, Tokyo Gakugei Univ., [3]Division of Symbiotic Systems, NIBB)

PL-021 Auxin transport network underlies haustorium development in parasitic plants

Takanori Wakatake[1,2], Juliane K. Ishida[2], Satoko Yoshida[3], Ken Shirasu[1,2] ([1]Grad. Sch. of Sci., The University of Tokyo, [2]RIKEN CSRS, [3]Grad. Sch. of Bio. Sci., NAIST)

PL-022 Subcellular localization of *BLADE-ON-PETIOLE* protein in rice genes

Shunichi Tayama, Taiyo Toriba, Satoshi Naramoto, Junko Kyozuka (Grad. Sch., Life Sci., Tohoku Univ.)

PL-023 Analysis of Maintaining the Juvenile Phase of Rhizomes in *Oriza Longistaminata*, a Wild Rice Species

Taiyo Toriba[1], Akiko Yoshida[2], Hiroki Tokunaga[2], Junko Kyozuka[1] ([1]Grad. Sch. Life Sci. Tohoku univ., [2]RIKEN CSRS)

PL-024 Molecular Basis Of Developmental Phase Dependent Leaf Morphogenesis Mediated By *BLADE-ON-PETIOLE*

Toshihide Shiga[1], Hiroki Tokunaga[2], Taiyo Toriba[1], Satoshi Naramoto[1], Junko Kyozuka[1] ([1]Grad. Sch., Life Sci., Tohoku Univ., [2]RIKEN., CSRS.)

PL-025 A Preliminary Critical Re-Examination of the Auxin Canalization Hypothesis

Reira Shibahara[1], Ayaka Kinoshita[1], Takaaki Yonekura[1], Masahiko Furutani[2], Munetaka Sugiyama[1] ([1]Bot. Gardens, Grad. Sch. Sci., Univ. Tokyo, [2]Dept. Biol. Mech. Func., Grad. Sch. Bioagri. Sci., Nagoya Univ.)

PL-026 Several INDETERMINATE DOMAIN family transcription factors regulate seed dormancy and germination

Satoshi Miura[1], Takuya Aoyanagi[2], Akiko Kozaki[2] ([1]Graduate School of Integrated Science and Technology, Shizuoka University, [2]Faculty of Science, Shizuoka University)

PL-027 Analysis of rice pre-harvest sprouting resistance mechanism involving Sdr1, Sdr4, Sdr7

Kazuhiko Sugimoto[1], Yoshinobu Takeuchi[2], Tomoki Hoshino[3], Utako Yamanouchi[1], Salem Marzougui[4], Masahiro Yano[1] ([1]NARO National Institute of Crop Science, [2]NARO Kyushu Okinawa Agricultural Research Center, [3]Yamagata University, Agricultural department, [4]The Agricultural Research and Higher Education Institution, Tunisia)

PL-028 Folded Structures of Cell Surfaces in Cotyledons of Dry Seeds of *Lotus miyakojimae*

Daisuke Yamauchi[1], Yasuko Kaneko[2], Tomonori Nakai[1], Mayuko Sato[3], Kiminori Toyooka[3], Kentaro Uesugi[4], Makoto Hoshino[4], Daisuke Tamaoki[5], Ichirou Karahara[5], Yoshinobu Mineyuki[1] ([1]Grad. Sch. Life Science, Univ. of Hyogo, [2]Faculty of Education, Saitama Univ., [3]CSRS, RIKEN, [4]JASRI, [5]Grad. Sch. Science and Engineering, Univ. of Toyama)

PL-029 Characterization and functional analysis on germination of a putative deadenylase, AtCCR4c

Masaki Miyajima[1], Yuya Suzuki[1], Yukako Chiba[1,2,3] ([1]Grad. Schl. Life Sci., Hokkaido Univ., [2]Fac. Sci., Hokkaido Univ., [3]JST PRESTO)

PL-030 Genetic interaction of seed dormancy regulatory genes that identified from different plant species in Arabidopsis

LiPeng Zheng[1], Ryo Tojo[2], Masahiko Ohtani[2], Suzuha Ohmori[2], Kazuhiko Sugimoto[3], Naoto Kawakami[1,2] ([1]Department of Life Sciences, Graduate School of Agriculture, Meiji University, [2]Department of Life Sciences, School of Agriculture, Meiji University, [3]NARO National Institute of Crop Science)

PL-031 Identification of seedling development-related genes by GWAS

Naoto Sano, Mitsunori Seo (RIKEN CSRS)

PL-032 The influence of light irradiation to somatic embryogenesis in angiosperms.

Mai Sato[1], Yuji Furuse[2], Kotaro Abe[2], Katsumi Higashi[1,2] ([1]Teikyo University of Science, Graduate School, Graduate School of Science & Engineering, Division of Biosciences, [2]Teikyo University of Science, Faculty of Life & Environmental Sciences, Department of Life & Health Sciences)

PL-033 [Cancelled]

■ Flowering/Clock

PL-034 A mechanism of early flowering in *Arabidopsis thaliana pect1-4* mutants

Natsumi Hoshino[1], Saki Ikegai[2], Mayu Nakagawa[3], Yuki Fujiki[1], Ikuo Nishida[1] ([1]Grad. Schl. Sci. Engin., Saitama Univ., [2]Fac. Sci., Saitama Univ., [3]Fac. Sci. Engin., Ishinomaki senshu Univ.)

PL-035 Functional analysis of Tomato florigen paralog SP6A.

Chie Moriya[1], Mizuki Yamada[1,2], Koji Goto[1] ([1]Research Inst. Bio. Sic. Okayama Pref., [2]National Agriculture and Food Research Organization)

PL-036 Conversion of two conformational states of the cyanobacterial clock protein KaiC depending on the ATPase activity of CI domain

Katsuaki Oyama, Chihiro Azai, Shun Tanaka, Kaori Nakamura, Kazuki Terauchi (Life Sciences, Ritsumeikan university)

PL-037 PAS-containing Histidine Kinases and the Circadian Clock in the Moss *Physcomitrella patens*.

Masashi Ryo[1], Yuji Nomoto[2], Takafumi Yamashino[2], Takuya Matsuo[3], Yuki Goto[1], Kensuke Sato[4], Mizuho Ichinose[3,5], Mamoru Sugita[3], Setsuyuki Aoki[1,4] ([1]Grad. Sch. Info. Sci., Nagoya Univ., [2]Grad. Sch. Bioagr., Nagoya Univ., [3]Ctr. Gene Res., Nagoya Univ., [4]Sch. Info. Sci., Nagoya Univ., [5]ITbM, Nagoya Univ.)

PL-038 Incorporating photosynthetic inhibition by leaf starch accumulation into the mathematical model on daily carbon management

Motohide Seki (Faculty of Science, Kyushu University)

■ Photoreceptors/Photoresponses

PL-039 Functional analysis of UV-B receptor, MpUVR8, in *Marchantia polimorpha*

Wataru Miyauchi[1], Shota Takei[1], Takeshi Morito[1], Yuta Miyagi[1], Kosei Iwabuchi[4], Ryuichi Nishihama[2], Kimitsune Ishizaki[3], Ikuko Hara-Nishimura[4], Takayuki Kohchi[2], Youichi Kondo[1] ([1]Kanto-Gakuin Univ., [2]Grad. Sch. Biostudies, Kyoto Univ., [3]Grad. Sch. Sch. ,Kobe Univ., [4]Fac. Sci. Eng., Konan Univ.)

PL-040 Investigation of Signal Transduction for UV-B Sensing in *Marchantia polymorpha*

Asami Moriyama[1], Kenta Fujihira[1], Takeshi Morito[1], Tianhong Li[2], Ryuichi Nishihama[2], Shohei Yamaoka[2], Kimitsune Ishizaki[3], Hiroyoshi Kubo[4], Takayuki Kohchi[2], Youichi Kondo[1] ([1]kanto-gakuin univ., [2]Grad. Sch, Biostudies, Kyoto Univ., [3]Grad. Sch, Sci, Kobe Univ., [4]Faculty of science, Shinsyu Univ.)

PL-041 Screening of Chemical Library to Identify New Molecules,Which Affect on Stomatal Movements

Kohei Yamagishi[1], Shigeo Toh[1], Yosuke Toda[1], Ayato Sato[2], Toshinori Kinoshita[1,2] ([1]Grad.Sch.Sci., Nagoya.Univ., [2]WPI-ITbM, Nagoya.Univ.)

PL-042 Regulation of leaf senescence by phytochrome and blue-light photoreceptors

Toshiaki Kozuka, Yukimasa Shimono, Ayako Watanabe, Ryohei Inoue, Makoto Kusaba (Department of Biological Science, Graduate School of Science, Hiroshima University)

PL-043 Immunohistochemical screening for blue light-induced phosphorylation of the plasma membrane H^+-ATPase in guard cells.

Eigo Ando[1], Toshinori Kinoshita[1,2] ([1]Div. Biol. Sci., Grad. Sch. Sci., Nagoya Univ., [2]WPI-ITbM, Nagoya Univ.)

PL-044 Chemical screening to identify novel inhibitor(s) for chloroplast photorelocation movement

Takeshi Higa[1], Shinho Goto[2], Eiji Gotoh[3], Masamitsu Wada[1] ([1]Tokyo Metropolitan University Graduate School of Science and Engineering, [2]Kyushu University School of Agriculture, [3]Kyushu University Faculty of Agriculture)

PL-045 Effect of Day-length on Light-Induced Stomatal Opening in Arabidopsis thaliana

Saya Aoki[1], Norihito Nakamichi[1,2], Hiroyuki Tsuji[3], Toshinori Kinoshita[1,2] ([1]Division of Biological Science, Graduate School of Science, Nagoya University, [2]WPI-ITbM, Nagoya Univ, [3]KIBR Plant Genetic Resources, Yokohama City University)

■ Organelles/Cytoskeletons

PL-046 A novel plasma membrane- and microtubule-interacting protein regulates cell wall patterning through defining Rho-domain on the plasma membrane

Yuki Sugiyama[1,2], Mayumi Wakazaki[3], Mayuko Sato[3], Kiminori Toyooka[3], Hiroo Fukuda[1], Yoshihisa Oda[2] ([1]Grad. Sch. Sci., Univ. Tokyo, [2]Ctr. Fro. Res., NIG, [3]RIKEN CSRS)

PL-047 Characterization of moss homologs for bacterial peptidoglycan degradation genes in chloroplasts with peptidoglycan in *Physcomitrella patens*

Nozomi Saiki[1], Susumu Takio[2,3], Katsuaki Takechi[2], Hiroyoshi Takano[2,4] ([1]Grad. Sch. Sci. Tech., Kumamoto Univ, [2]Fac. Advan. Sci. Tech., Kumamoto Univ, [3]Center Marine Environ. Stud., Kumamoto Univ, [4]Inst. Pulsed Power Sci., Kumamoto Univ)

PL-048 Role of the Circadian Clock-dependent Sigma Factor SIG5 on Light Stress Responses in Chloroplasts

Kentaro Hayashi, Naoko Kebukawa, Kenyu Ishii, Haruka Murayama, Mitsumasa Hanaoka (Grad. Sch. Horticul., Chiba Univ.)

PL-049 The functional analysis of APEM6, the new factor involved in peroxisome biogenesis

Akane Kamigaki[1], Shoji Mano[1,2], Mikio Nishimura[3] ([1]Dept. Evol. Biol. Biodivers., Natl. Inst. Basic Biol, [2]Dept. Basic Biol., Grad. Univ. Advanced Studies, [3]Dept. Cell Biol., Natl. Inst. Basic Biol)

PL-050 Functional analysis of microtubule-related genes in *Marchantia polymorpha*

Hiroyasu Motose[1], Kento Otani[1], Kimitsune Ishizaki[2], Ryuichi Nishihama[3], Takayuki Kohchi[3], Taku Takahashi[1] ([1]Grad. Sch. Nat. Sci. & Tech., Okayama Univ., [2]Grad. Sch. Sci., Kobe Univ., [3]Grad. Sch. Biostudies, Kyoto Univ.)

PL-051 *In-vitro* Functional Analysis of Arabidopsis Tubulin Kinase PHS1

Duncan Coleman, Takashi Hotta, Takashi Hashimoto (Grad. Sch. Biol. Sci., Nara Inst. Sci. and Tech. (NAIST))

PL-052 Nuclear lamina protein CRWNs control gene expression under stress condition

Yuki Sakamoto[1], Mayuko Sato[2], Kiminori Toyooka[2], Shingo Takagi[3], Sachihiro Matsunaga[4] ([1]RIST, Tokyo Univ. Sci., [2]CSRS, RIKEN, [3]Grad. Sch. Sci., Osaka Univ., [4]Dep. App. Biol. Sci., Fac. Sci. Tech., Tokyo Univ. Sci.)

PL-053 QTL analysis of stay-green trait using a Recombinant Inbred Line population in sorghum

Fiona Wacera[1], Norikazu Ohnishi[1], Rie Hijiya[1], Hiromi Kanegae[2], Hideki Takanashi[2], Masaru Fujimoto[2], Motoyuki Ishimori[2], Hiroyoshi Iwata[2], Makoto Kusaba[3], Nobuhiro Tsutsumi[2], Wataru Sakamoto[1] ([1]IPSR, Okayama Univ., [2]Grad. Sch. Agr. Life Sci., Tokyo Univ., [3]Grad. Sch. Hiroshima Univ.)

■ Membrane trafficking / Protein modification and degradation

PL-054 Plant-unique RAB5 effector 3 shuttles from endosomes to nucleus

Emi Ito[1,2], Seung-won Choi[1,2], Kazuo Ebine[3,4], Takashi Ueda[3,4,5], Akihiko Nakano[2,6] ([1]Dept. Natural Sciences, ICU, [2]Grad. Sch. Science, Univ. Tokyo, [3]Div. Cellular Dynamics, NIBB, [4]Sch. Life Sci., SOKENDAI, [5]JST, PRESTO, [6]RIKEN, RAP)

PL-055 Analysis of subcellular localization of PH15, pleckstrin-homology domain-containing protein

Saki Arimoto[1], Seung-won Choi[1,2], Kazuo Ebine[3,4], Tsuyoshi Mizoguchi[1], Takashi Ueda[3,4,5], Akihiko Nakano[2,6], Emi Ito[1,2] ([1]Dept. Natural Sciences, ICU, [2]Grad. Sch. Science, Univ. Tokyo, [3]Div. Cellular Dynamics, NIBB, [4]Sch. Life Sci., SOKENDAI, [5]JST, PRESTO, [6]RIKEN, RAP)

PL-056 Search for new factors involved in localization of PEL1/ABCG11

Satomi Tai, Tatsuo Kakimoto, Hirokazu Tanaka (Grad.Sch.Sci.,Osaka)

PL-057 Analysis of Protein Localization and Secretory Pathway Function of TMN1 in Plant Cell

Keisuke Kawata[1], Kazusato Oikawa[1], Aya Koga[1], Marouane Baslam[1], Takeshi Takamatsu[2], Takuya Inomata[2], Kentaro Kaneko[2], Kimiko Itoh[1], Toshiaki Mitsui[1,2] ([1]Applied Biol. Chem., Niigata Univ., [2]Grad. Sch. Sci & Tec., Univ. Niigata)

PL-058 Role of GPI-anchoring on the transport and maturation of arabinogalactan protein precursor.

Yuto Sugita[1], Yuhei Tsuno[1], Ken Matsuoka[1,2,3,4] ([1]Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu university, [2]Faculty of Agriculture, Kyushu university, [3]Biotron Application Center, Kyushu university, [4]Research Center for Organelle Homeostasis,Kyushu university)

■ Biomembrane/Ion and solute transport

PL-059 Analysis of physiological function of the plasma membrane H^+-ATPase in *Marchantia polymorpha*

Kotaro Nakane[1], Masaki Okumura[1], Tameo You[1], Shin-ichiro Inoue[1], Kimitsune Ishizaki[2], Takayuki Kohchi[3], Toshinori Kinoshita[1,4] ([1]Div. of Biol. Sci., Grad. Sch. of Sci., Nagoya Univ., [2]Dept. of Bio., Grad. Sch. of Sci., Kobe Univ., [3]Grad. Sch. of Biostudies, Kyoto Univ., [4]WPI-ITbM, Nagoya Univ.)

PL-060 *Arabidopsis thaliana* Zinc Transporter ZIP13 Contributes to the Normal Pollen Tube Growth Under Heat Stress

Miki Kawachi[1,2], Saki Fujita[2], Nahoko Nagasaki-Takeuchi[3], Yoichiro Fukao[3,4], Masayoshi Maeshima[2] ([1]Inst. Adv. Res., Nagoya Univ., [2]Grad. Sch. Bioagri. Sci., Nagoya Univ., [3]Grad. Sch. Biol. Sci., NAIST, [4]Life Sci., Ritsumeikan Univ.)

PL-061 Accumulation of pyrophosphate causes morphological damage in Arabidopsis leaves grown on ammonia-free culture medium

Mayu Fukuda[1], Shoji Segami[1], Ali Ferjani[2], Masayoshi Maeshima[1] ([1]Grad. Sch. Bioagr. Sci., Nagoya Univ., [2]Depart. Biol., Tokyo Gakugei Univ.)

PL-062 Functional characterization of Nramp family genes in buckwheat

Kengo Yokosho[1], Ji Feng Shao[1,2], Naoki Yamaji[1], Ren Fang Shen[2], Jian Feng Ma[1] ([1]Institute of Plant Science and Resources, Okayama University, [2]State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences)

PL-063 Inhibition of Arabidopsis K^+ channel by flavonoids

Kosuke Endo, Tomoki Shimada, Shin Hamamoto, Nobuyuki Uozumi (Grad. Sch. Eng., Tohoku Univ.)

■ Photosynthesis/Environmental response of photosynthesis and respiration

PL-064 Localization of RETICULATA-RELATED 3 in C_4 *Flaveria bidentis*

Hiroaki Hanata[1], Yukimi Y. Taniguchi[1], Kenji Nishimura[2], Wataru Sakamoto[2], Tsuyoshi Furumoto[3], Yuri N. Munekage[1] ([1]Grad. Sch. Sci. &Tec., Univ. Kwansei Gakuin, [2]IPSR, Univ. Okayama, [3]of Agr., Univ. Ryukoku)

PL-065 Increased stomatal conductance shortens photosynthetic induction time in the high light phase in fluctuating light

Haruki Kimura[1], Mimi Hashimoto-Sugimoto[2], Koh Iba[3], Ichiro Terashima[1], Wataru Yamori[1] ([1]Department of Biological Sciences, Graduate School of Science, The University of Tokyo, [2]Graduate School of Bioagricultural Sciences, Nagoya University, [3]Department of Biology, Faculty of Sciences, Kyushu University)

PL-066 Changes in the redox state of PSI in transgenic rice plants with a decrease or increase in Rubisco content under low [CO_2] condition

Shinya Wada[1,3,4], Yuji Suzuki[1,3,4], Chikahiro Miyake[2,3], Amane Makino[1,3] ([1]Grad. Sch. Agr. Sci., Tohoku Univ., [2]Grad. Sch. Agr. Sci., Kobe Univ., [3]CRSET, JST, [4]Fac. Agr., Iwate Univ.)

PL-067 Identification of the chemical compounds that inhibit photosynthetic electron transport system in Arabidopsis.

Fumiyoshi Myouga, Kazuo Shinozaki (RIKEN CSRS Gene Discovery Research Group)

PL-068 Contribution of cyclic electron transport around photosystem I to the trans-thylakoid proton motive force *in vitro*

Caijuan Wang[1], Hiroko Takahashi[2], Hiroshi Yamamoto[1,3], Toshiharu Shikanai[1,3] ([1]Department of Botany, Graduate School of Science, Kyoto University, [2]Department of Biochemistry and Molecular Biology, Graduate School of Science and Engineering, Saitama University, [3]CREST, Japan Science and Technology Agency)

PL-069 A Chl-fluorescence method for estimating capacity of pseudo-cyclic electron flow

Michito Tsuyama[1], Shouta Nakamura[1], Mari Noridomi[1], Radka Vladkova[2] ([1]Department of Agriculture, Kyushu University, [2]Bulgarian Academy of Sciences)

PL-070 Nitrogen response of reassimilation of photorespiratory CO_2 in C_3 plants

Ai Nakanishi[1], Shunsuke Adachi[1,2], Hikaru Kubota[1], Kasumi Suzuki[1], Taiichiro Ookawa[1], Tadashi Hirasawa[1], Rowan F. Sage[3] ([1]Grad. Sch. Agr., Tokyo Univ. Agr. Tech., [2]JST, PRESTO, [3]Dept. of Eco. & Evo. Biology, Univ. Tronto)

PL-071 Properties and structure of the Tll0287 protein that expresses when the D1 subunit of photosystem II is encoded by the *psbA2* gene

Taiki Motomura[1,2], Michihiro Suga[2], Akiko Nakagawa[3], Rainer Hienerwadel[5], Miwa Sugiura[3], Thanh-Lan Lai[4], Alain Boussac[4], Jian-Ren Shen[1,2] ([1]Grad. Sch. Sci., Univ. Hyogo, [2]Grad. Sch. Sci., Okayama Univ., [3]Pro.-Sci. Cent., Ehime Univ., [4]iBiTec-S, CNRS, [5]CNRS - CEA - Aix-Marseille Univ.)

PL-072 Involvement of electron transport systems in the constitutive phosphorylation of LHCII in Fe-deficient barley

Katsuyuki Shiono, Naotaka Sato, Akihiro Saito, Kyoko Higuchi (Tokyo University of Agriculture, Dept. Applied Biology and Chemistry)

PL-073 Overexpression of protein disulfide isomerase results in functional stay-green leaf phenotype

Daisuke Horikawa[1], Jun Tominaga[1], Yasutoshi Nakahara[1], Maki Kondo[2], Yasuhiro Kamei[2], Ayumi Tanaka[3], Atsushi Sakamoto[1], Hiroshi Shimada[1] ([1]Department of Mathematical and Life Sciences, Graduate School of Science, Hiroshima University, [2]Spectrography and Bioimaging Facility, National Institute for Basic Biology, [3]Institute of Low Temprature Science, Hokkaido University)

PL-074 A Role Of Respiration In Photodamage And Repair Process Of Photosystem II After High Light Exposure

Shoya Yamada, Hiroshi Ozaki, Ko Noguchi (Grad. Sch. Life Sci., Tokyo Univ. Pharm. and Life Sci.)

PL-075 Search of novel pyrenoidal components from the marine diatom, *Thalassiosira pseudonana*

Ryosuke Okubo, Natsumi Morishima, Sae Kikutani, Yoshinori Tuji, Yusuke Matsuda (School of Science and Technology, Kwansei Gakuin University)

PL-076 Role of DnaK3 in The Repair of Photosystem II in *Synechococcus elongatus* PCC 7942

Daisuke Kawamura[1], Satoru Watanabe[3], Hirofumi Yoshikawa[3], Yoshitaka Nishiyama[1,2] ([1]Graduate school of Science and Engineering, Saitama University, [2]Department of Biochemistry and Molecular Biology, Saitama University, [3]Department of Bioscience, Tokyo University of Agriculture)

PL-077 Exploring inorganic carbon transporters in *Thalassiosira pseudonana*.

Yuta Nakai, Nakajima Kensuke, Yoshinori Tsuji, Yusuke Matsuda (School of Science and Technology, Kwansei Gakuin University)

PL-078 DNA binding of transcriptional activator CnfR essential for expression of nitrogen fixation genes in the cyanobacterium *Leptolyngbya boryana*

Kazuki Hashimoto[1], Hisanori Yamakawa[1], Ryoma Tsujimoto[1], Kei Wada[2], Yuichi Fujita[1] ([1]Grad. Sch. Bioagricultural Sci., Nagoya University, [2]Org. for Promotion of Tenure Track, University of Miyazaki)

PL-079 The Leafless Mycoheterotrophic Orchid *Cymbidium macrorhizon* Performs Photosynthesis during Fruiting Season

Koichi Kobayashi[1], Kenji Suetsugu[2], Hajime Wada[1] ([1]Grad. Sch. Arts Sci., Univ. Tokyo, [2]Grad. Sch. Sci., Kobe Univ.)

PL-080 Fluorescence lifetime imaging microscopy applied to wild-type *Arabidopsis thaliana* and autophagy-deficient mutants

Kazuya Kodama[1], Masanori Izumi[2], Sakuya Nakamura[3], Masahide Terazima[1], Shigeichi Kumazaki[1] ([1]Grad. Sch. Sci., Univ. Kyoto, [2]FRIS, Tohoku Univ., [3]Grad. Sch. Life Sci., Univ. Tohoku)

PL-081 Analysis of gene function by chlorophyll fluorescence measurement through interaction among cellular metabolisms in the cyanobacterium *Synechocystis* sp. PCC 6803

Takako Ogawa, Kenta Suzuki, Kintake Sonoike (Fac. Educ., Univ. Waseda)

PL-082 Non-photochemical quenching in the *Arabidopsis psbo1* mutant with low quantum efficiency of photosystem II

Saki Yasuhara[1], Shinji Fukuda[2], Saki Yamaguchi[1], Fumihiko Sato[1], Shigeichi Kumazaki[2], Kentaro Ifuku[1] ([1]Grad. Sch. Biostudies, Kyoto Univ., [2]Grad. Sch. Sci., Kyoto Univ.)

PL-083 Possible regulation mechanisms of chloroplastic metalloprotease FtsH by protein phosphorylation

Yusuke Kato, Wataru Sakamoto (Okayama University IPSR)

PL-084 Role of the C-terminal extension region in ferredoxin-$NADP^+$ reductase from *Chlorobaculum tepidum*

Daisuke Seo (Grad.Sch.Nat. Sci.Tec., Kanazawa Univ.)

PL-085 Oxidative Damage to Chloroplast Translation Factor EF-Tu in *Arabidopsis thaliana*

Yuka Kumaki[1], Tatsunori Kobayashi[2], Yoshitaka Nishiyama[1] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]Dept. Biochem. Mol. Biol., Faculty Sci., Saitama Univ.)

PL-086 *In vivo* analysis for elucidating contribution of the photosynthetic Cyclic Electron Flow for the formation of the proton gradient across the thylakoid membranes

Rinya Kawashima[1], Ryoichi Sato[2], Masahiro Nakano[3], Takeharu Nagai[3], Shinji Masuda[2] ([1]Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology, [2]Center Biological Resources and Informatics, Tokyo Institute of Technology, [3]Institute of Scientific & Industrial Research, Osaka Univ.)

PL-087 The molecular functions of LHCII phosphorylation during state transitions

Ryutaro Tokutsu[1], Eunchul Kim[1], Seiji Akimoto[2], Konomi Kamada[1], Norikazu Ohnishi[3], Jun Minagawa[1] ([1]Division of Enviromental Photobiology, National Institute for Basic Biology, [2]Graduate School of Science, Kobe University, [3]Institute of Plant Science and Resources, Okayama University)

PL-088 A trial of transplantation of nitrogen fixation ability to the non-diazotrophic cyanobauterium *Synechocystis* sp. PCC 6803

Hisanori Yamakawa[1], Hiroya Kotani[1], Ryoma Tsujimoto[1], Kazuma Uesaka[1], Kunio Ihara[2], Yuichi Fujita[1] ([1]Grad. Sch. Bioagricultural Sci., Nagoya University, [2]Center for Gene Research)

PL-089 Mutant selections of self-incompatibility plant, Radish (Raphanus sativus L. var. sativus), by two step TILLINGs

Kaori Kohzuma[1,3], Motoko Chiba[1,3], Toyoaki Anai[4], Miki Ueda[1], Riichi Oguchi[1], Kousuke Hanada[2,3], Kouki Hikosaka[1,3], Nobuharu Fujii[1,3] ([1]Grad. Sch. Life Sciences, Tohoku Univ., [2]Frontier Research Academy for Young Researchers, Kyusyu Ins. Tech., [3]CREST. JST, [4]Faculty of Agriculture, Saga Univ.)

PL-090 Comparison of barley cultivars in the ability to maintain the Fe-susceptible protein complex photosystem I in chloroplasts under iron-deficient condition

Akihiro Saito, Yuka Arai, Rika Uehara, Tsubasa Maeda, Kyoko Higuchi (Tokyo. Univ. Agric., Appl. Biol. Chem.)

PL-091 Expression of Thermostable D1/D2 Heterodimer of Photosystem II in a Mesophilic Cyanobacterium by Optimization of D1 C-Terminal Processing

Kaisei Tsuruda, Makoto Tanaka, Yasumune Nakayama, Kazuhiro Nagahama, Masayoshi Matsuoka (Dept. Appl. Microb. Technol., Fac. Biotech. & Life Sci., Sojo Univ.)

■ Primary metabolism

PL-092 Application of Metabolome and Multivariate Analyses to Plant Extract Mixture

Hajime Tomatsu, Hajime Sato (Human Metabolome Technologies Inc.)

PL-093 Interactions Between Nitrogen And Copper Homeostasis In *Arabidopsis Thaliana*

Melanie Mermod[1], Teruyuki Kurata[2], Takehiro Kamiya[3], Toru Fujiwara[3], Toshiharu Shikanai[1] ([1]Graduate School of Science, Kyoto University, Kyoto 606-8502, Japan, [2]Graduate School of Agriculture, Kyushu University, Fukuoka 812-8581, Japan, [3]Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo 113-8657, Japan)

PL-094 A role of OsNLP4 in nitrate dependent growth

Mengyao Wang[1], Takahiro Hasegawa[1], Makoto Hayashi[2], Yoshihiro Ohmori[1], Koji Yano[1], Takehiro Kamiya[1], Toru Fujiwara[1] ([1]Graduate School of Agricultural and Life Sciences, The University of Tokyo, [2]RIKEN Center for Sustainable Resource Science)

PL-095 The role of NIGT1 transcription factors in nitrate-inducible gene expression

Yoshie Maeda[1], Mineko Konishi[1], Takatoshi Kiba[2], Yasuhito Sakuraba[1], Hitoshi Sakakibara[2], Shuichi Yanagisawa[1] ([1]Biotechnology Research Center, The University of Tokyo, [2]Riken, CSRS)

PL-096 Functional analysis of the NLP family for transcription factors responsible for nitrate response in Arabidopsis

Takayuki Okitsu, Mineko Konishi, Shuichi Yanagisawa (Biotechnology Research Center, The University of Tokyo)

PL-097 Analysis of *Oryza longistaminata* ramet-ramet interaction in response to nitrogen

Satoru Okamoto[1,2], Reuscher Stefan[1,2], Takamasa Suzuki[3], Mikiko Kojima[4], Yumiko Takebayashi[4], Motoyuki Ashikari[1,2], Hitoshi Sakakibara[1,2,4] ([1]Grad. Sch. Bioagr. Sci., Nagoya Univ., [2]JST-CREST, [3]Coll. Biosci. Biotech., Chubu Univ., [4]RIKEN CSRS)

PL-098 Physiological Importance of Gene Suppression of H^+-pyrophosphatase in Columella Cells of *Arabidopsis thaliana*

Satoru Kinoshita, Shoji Segami, Masayoshi Maeshima (Grad. Sch. Bioagr. Sci., Nagoya Univ.)

PL-099 Analysis of two pathways for diacylglycerol supply from ER to the cholorplast under phosphate-deficient conditions

Hironari Kurihara[1], Ryosuke Ootani[1], Hiroyuki Ohta[2,3,4], Mie Shimojima[2] ([1]Grad. Sch. Basci. Biotech. Tokyo Tech. Yokohama., [2]Sch. Life Sci. Tech. Tokyo Tech. Yokohama, [3]ELSI. Tokyo Tech. Tokyo, [4]CREST. JST. Tokyo)

PL-100 Nutrient-starvation response of Arabidopsis mutants of starch and triacylglycerol synthesis in leaves

Keigo Okazaki[1], Yushi Yoshitake[2], Yuka Madoka[3], Hiroyuki Ohta[2,4,5], Mie Shimojima[2] ([1]Department of Life Science and Technology, Tokyo Institute of Technology, [2]School of Life Science and Technology, Tokyo Institute of Technology, [3]Laboratory for Chemistry and Life Science, Institute of Innovative Research, Tokyo Institute of Technology, [4]ELSI, Tokyo Institute of Technology, [5]CREST, JST)

PL-101 Phosphorylation dependent stability regulation of sucrose phosphate synthase (SPS) in response to C/N stress in Arabidopsis

Yu Lu, Takeo Sato, Junji Yamaguchi (Grad. Sch. of Life Sci. Hokkaido Univ.)

■ Secondary metabolism

PL-102 Imaging mass spectrometry of plant saponins

Ryo Nakabayashi[1], Kei Hashimoto[1], Masaharu Mizutani[2], Toshiya Muranaka[3], Kiminori Toyooka[1], Kazuki Saito[1,4] ([1]RIKEN CSRS, [2]Kobe Univeristy, [3]Osaka University, [4]Chiba University)

PL-103 Transcriptome Mining of Genes Associated with Secondary Sulfur Metabolism in Garlic

Naoko Yoshimoto[1], Naoko Mori[1], Ayaka Sano[1], Risako Ishii[1], Masayo Asano[1], Hideyuki Suzuki[2], Yukihiro Kodera[3], Tadamitsu Tsuneyoshi[3], Kazuki Saito[1] ([1]Grad. Sch. Pharm. Sci., Chiba Univ., [2]Dept. R&D, Kazusa DNA Res. Inst., [3]Wakunaga Pharmaceutical Co., Ltd.)

PL-104 The biosynthesis of pollen-specific flavonols in petunia: Functional identification of a glycosyltransferase responsible for terminal modification

Satoko Sugawara[1], Eva Knoch[1], Tetsuya Mori[1], Ryo Nakabayashi[1], Kazuki Saito[1,2], Keiko Yonekura-Sakakibara[1] ([1]RIKEN Center for Sustainable Resource Science, [2]Graduate School of Pharmaceutical Sciences, Chiba University)

PL-105 Comparative analysis of physiological functions of glucosinolates based on their side-chain structures to elucidate their roles in Arabidopsis

Ryosuke Sugiyama, Ayuko Kuwahara, Masami Hirai (RIKEN CSRS)

PL-106 Modified expression of OsTGAP1 affects the allelopathy of rice through the control of diterpenoid phytoalexins production in roots

Yuri Yoshida[1], Koji Miyamoto[2], Hisakazu Yamane[2], Hideaki Nojiri[1], Kazunori Okada[1] ([1]Biotechnology Research Center, The University of Tokyo, [2]Dept. of Bioscience, Teikyo University)

■ Environmental responses/Abiotic stresses

PL-107 Characterization of two-component system conferring biofilm formation in *Synechocystis* sp. PCC 6803

Yuichiro Yoshizawa[1], Kota Kera[1], Tatsuya Nagayama[1], Kei Nanatani[1], Iwane Suzuki[2], Nobuyuki Uozumi[1] ([1]Grad. Sch. Eng., Tohoku Univ., [2]Fac. Life and Env. Sci., Tsukuba Univ.)

PL-108 Insertion of *HvYS1* into tomato genome by CRISPR/Cas9 system

Satsuki Kimoto[1], Takehiro Furukawa[2], Takeshi Nagata[2] ([1]Setsunan University Graduate School of Science and Engineering Division of Life Science, [2]Setsunan University Faculty of Science and Engineering Deprtment of Life Science)

PL-109 S-adenosyl methionine synthetase (SAMS) gene confers aluminum stress tolerance and facilitates epigenetic gene-regulation in Arabidopsis

Bunichi Ezaki[1], Aiko Higashi[1], Norie Nanba[1], Takumi Nishiuchi[2] ([1]Institute of Plant Science and Resources, Okayama University, [2]Institute for Gene Research, Kanazawa University)

PL-110 Comparative Analysis of Transcriptome in Response to Rhizosphere pH among Rice, Barley and Rye

Naoki Yamaji, Miho Kashino-Fujii, Kengo Yokosho, Jian Feng Ma (Institute of Plant Science and Resources, Okayama University)

PL-111 Two distinct clades of CIPK protein kinases mediate plant growth under seawater conditions in Arabidopsis.

Junro Mogami[1], Kazuo Shinozaki[2], Kazuko Yamaguchi-Shinozaki[1] ([1]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [2]Center for Sustainable Resource Science, RIKEN)

PL-112 A thermospermine-deficient mutant of Arabidopsis, *acl5*, is sensitive to salt stress

Shiori Shinohara, Hiroyasu Motose, Taku Takahashi (Grad. Sch. Nat. Sci. & Tech., Okayama Univ.)

PL-113 Effect of bismuth on root tip of *Solanum lycopersicum*

Makoto Nishimura[1], Satsuki Kimoto[2], Ryouhei Kurisaki[1], Takeshi Nagata[1] ([1]Faculty of Science and engineering Department of Life Science, [2]Graduate School of Science and engineering, Setsunan University Division of Life Science)

PL-114 Effect of non-radio active strontium on growth of *Solanum lycopersicum*

Takeshi Nagata (Setsunan University)

PL-115 Analysis of molecular mechanisms of morphological changes induced by salt stress

Mika Fujii[1], Miho Ikeda[2], Masaru Ohme-Takagi[2] ([1]Dept. of Sci.,Univ.Saitama, [2]Grad. Sch. Sci. & Eng., Univ. Saitama)

PL-116 Effect of Salt Water on Water Absorption, Germination of Seed and Initial Growth of Black Pine (*Pinus thunbergii*)

Hyuga Ito[1], Shinji Yoshizaki[2] ([1]Graduate School of Environmental and Information of Tokyo City University, [2]Faculty of Environmental Studies of Tokyo City University)

PL-117 Effect of Symbiosis of Arbuscular Mycorrhizal Fungi on Cadmium Tolerance of Loutus japonicus

Toshio Sano, Yuki Yamada (Bioscience Hosei U.)

PL-118 Draft genome sequence of an inbred line of Chenopodium quinoa, an allotetraploid crop with high tolerance to abiotic stresses.

Tetsuo Oikawa[1], Yasuo Yasui[2], Hideki Hirakawa[3], Masami Toyoshima[1], Chiaki Matsuzaki[4], Mariko Ueno[2], Nobuyuki Mizuno[2], Yukari Nagatoshi[1], Tomohiro Imamura[4], Manami Miyago[5], Kojiro Tanaka[5], Kazuyuki Mise[2], Tsutomu Tanaka[5], Hiroharu Mizukoshi[5], Masashi Mori[4], Yasunari Fujita[1] ([1]Biological Resources and Post-harvest Division, JIRCAS, [2]Graduate School of Agriculture, Kyoto University, [3]Kazusa DNA Research Institute, [4]Research Institute for Bioresources and Biotechnology, Ishikawa Prefectural University, [5]Technology Development Group, Actree Co.)

PL-119 Causes of varietal differences in grain fertility of barley under long-term salt stress

Asuka Kodama[1], Ryohei Narita[1], Tammy L. Sage[2], Shahenn Bagha[2], Shunsuke Adachi[1], Taiichiro Ookawa[1], Kazuhiro Sato[3], Tadashi Hirasawa[1] ([1]Grad. Sch., Tokyo Univ. Agr. Tech., [2]Univ. Tronto, [3]IPSR, Okayama Univ.)

PL-120 Long-distance signaling in response to Fe-starvation

Kumiko Ikuta[1], Takushi Hachiya[1,2], Hitoshi Sakakibara[1,3], Ryo Tabata[1,4] ([1]Grad. Sch. Bioagr. Sci., Nagoya univ., [2]IAR, Nagoya univ., [3]RIKEN CSRS, [4]Program for Leading Grad. Sch., Nagoya univ.)

PL-121 Effects of external factors on lead accumulation into the shoot in common buckwheat (*Fagopyum esculentum* Moench)

Takahisa Kosaka, Hiroyuki Kamachi (Graduate School of Science and Engineering, Toyama University)

PL-122 Glutathione, applied to leaves, activates zinc accumulation in shoots of oilseed rape plants

Shin-ichi Nakamura, Koji Noge, Hiroki Rai, Hiroyuki Hattori (Akita Pref. Univ.)

PL-123 Interspecific variability in growth and phytoaccumulation of Cu by three Azolla macrophytes

Muhammad Shahbaz Akhtar[1,2], Yoko Oki[1], Yoshitaka Nakashima[1] ([1]Graduate School of Environmental and Life Science, Okayama University, Japan, [2]Department of Soil & Environmental Sciences, UCA, University of Sargodha, Pakistan)

PL-124 Common reed accumulates more K as compared with rice under salt stress conditions

Kumiko Hara, Kyoko Higuchi (Tokyo University of Agriculture)

PL-125 A novel *Arabidopsis* protein affects Magnesium transporter oligomerization and is required for plant root Mg homeostasis under both low and high Mg conditions

Zhihang Feng, Takehiro Kamiya, Toru Fujiwara (Graduate School of Agricultural and Life Sciences, the University of Tokyo)

PL-126 Autonomous rotary motion of stipules in Codariocalyx motorium and de novo transcriptome analysis

Minami Takao[1], Yoko Ishizaki[1], Sakito Kitajima[2], Takashi Shiina[1] ([1]Fac. Life and Env. Sci., Kyoto Pref. Univ, [2]Grad. Sch. Appl. Biol., Kyoto Inst. Tech.)

PL-127 Effects of high CO_2 treatment on guard cell distribution and pavement cell morphogenesis

Kae Akita, Takumi Higaki, Seiichiro Hasezawa (GSFS, The Univ. Tokyo)

PL-128 Screening of Arabidopsis mutants capable of surviving on hard medium that rejects root penetration

Hiroshi Tojo[1], Aki Nakamura[1], Ali Ferjani[1], Yusuke Kazama[2], Tomoko Abe[2], Hidetoshi Iida[1] ([1]Department of Biology, Tokyou Gakugei University, [2]RIKEN Nishina Center)

PL-129 Functional Analysis of 70 kDa Heat Shock Proteins in *Arabidopsis*.

Huimei Zhao[1], Naohiko Ohama[1], Shinya Koizumi[1], Kazuya Kusakabe[1], Junya Mizoi[1], Satoshi Kidokoro[1], Kazuo Shinozaki[2], Kazuko Yamaguchi-Shinozaki[1] ([1]Grad. Sch. Agr. Life Sci., [2]Center for Sustainable Resource Science, RIKEN)

PL-130 Effect of the Temperature Condition on the Growth and Development of Tomato Seedlings

Akiko Yoshida[1], Kosuke Fukui[2], Mikiko Kojima[1], Takebayashi Takebayashi[1], Kanako Yano[3], Shunsuke Imanishi[3], Hitoshi Sakakibara[1] ([1]Plant Productivity Systems Research Group, RIKEN Center for Sustainable Resource Science, [2]Okayama University of Science, Department of Biochemistry, [3]Institute of Vegetable and Floriculture Science, NARO, Division of Vegetable Pest Management and Functional Analysis, Fruit-vegetables Physiology Unit)

PL-131 Analysis of surface lipids on cell walls extracted from Klebsormidium flaccidum and land plants

Yuko Sasaki-Sekimoto[1,2], Satoshi Kondo[2], Koichi Hori[1,2], Atsuko Kobayashi[3], Takashi Nobusawa[1,2], Mie Shimojima[2], Hiroyuki Ohta[1,2,3] ([1]JST CREST, [2]School of Life Science and Technology, Tokyo Institute of Technology, [3]Earth-Life Science Institute, Tokyo Institute of Technology)

PL-132 Comparative transcriptome analysis of *Klebsormidium flaccidum* between solid and liquid culture.

Koichi Hori[1], Hiroyuki Ohta[1,2] ([1]Tokyo Institute of Technology, School of Life Science and Technology, [2]Tokyo Institute of Technology, The Earth-Life Science Institute)

PL-133 Induction by high osmolarity of the activity of a wound-inducible promoter Ri-P*ags*

Takayuki Yasuyoshi, Byougwoo Kang, Junichi Odo, Masahiko Inoguchi (Department of Biochemistry, Okayama University of Science)

PL-134 Identification of oil synthesis genes and fatty acid desaturase induced by low temperature of Sesame

Koyo Nakajima, Takashi Yuasa (University of Miyazaki/ Faculty of agriculture/ Department of Agricultural and environmental science/ crop science laboratory)

PL-135 The Arabidopsis histidine phosphotransfer protein 4 is a negative regulator of drought responses

Chien Van Ha[1], Yasuko Watanabe[1], Mohammad Golam Mostofa[1], Weiqiang Li[1], Maho Tanaka[2], Motoaki Seki[2], Lam Son Phan Tran[1] ([1]Signaling Pathway Research Unit, RIKEN Center for Sustainable Resource Science, [2]Plant Genomic Network Research Team, RIKEN Center for Sustainable Resource Science)

PL-136 PHS1 tubulin kinase is transiently activated by salt and hyperosmotic stresses in *Arabidospis thaliana* and *Chlamydomonas reinhardtii*

Lee Mei Ng[1], Hideyuki Takahashi[1], Takashi Yamano[2], Hideya Fukuzawa[2], Takashi Hashimoto[1] ([1]Grad. Sch. Bio. Sci., NAIST, [2]Grad. Sch. Biostudies, Kyoto Univ.)

PL-137 The role of JUMONJI on ABA signaling in Arabidopsis thaliana

Jinfeng Wu, Nobutoshi Yamaguchi, Toshiro Ito (Nara Institute of Science and Technology)

PL-138 Functional analysis of a drought-responsive transcription factor OsbHLHa

Yu Zhao, Daisuke Todaka, Madoka Kudo, Satoshi Kidokoro, Kazuko Yamaguchi-Shinozaki (Grad. Sch. Agr. Life Sci., Univ. Tokyo)

PL-139 Identification of a Novel Candidate Transcription Factor That Activates the *NCED3* Gene Expression under Drought Stress Conditions

Hikaru Sato[1], Hironori Takasaki[1], Fuminori Takahashi[1], Satoshi Iuchi[2], Nobutaka Mitsuda[3], Masaru Ohme-Takagi[3], Kazuko Yamaguchi-Shinozaki[4], Kazuo Shinozaki[1] ([1]Gene Discovery Group, RIKEN Center for Sustainable Resource Science Tsukuba, [2]Experimental Plant Division, RIKEN Bio Resource Center, Tsukuba, [3]Bioproduction Research Institute, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, [4]Graduate School of Agricultural and Life Sciences, University of Tokyo, Tokyo)

PL-140 DGE1/LAZY1 family plays key role in gravity signaling within statocytes in gravitropism and in branch angle control of roots and shoots.

Masatoshi Taniguchi[1,4], Takeshi Nishimura[1,4], Masahiko Furutani[1,4], Moritaka Nakamura[3], Kenichiro Baba[2], Masao Tasaka[2], Miyo T. Morita[1,4] ([1]Graduate School of Bioagricultural Sciences, Nagoya University, [2]Graduate School of Biological Sciences, NAIST, [3]University of Potsdam, [4]CREST, JST)

PL-141 A Possible Involvement Of Calcium Dynamics In Gravimorphogenesis Regulated By Auxin Polar Transport In Epicotyls Of Etiolated Pea Seedlings

Mariko Oka[1], Naoya Hayashi[2], Kensuke Miyamoto[3] ([1]Fac. Agric., Tottori Univ., [2]Grad. Sch. Agric., Tottori Univ., [3]Fac. Liberal Arts and Sciences, Osaka Pref. Univ.)

PL-142 Growth and plant hormone contents of rice shoots grown under microgravity conditions in space

Kazuyuki Wakabayashi[1], Kouichi Soga[1], Takayuki Hoson[1], Toshihisa Kotake[2], Mikiko Kojima[3], Hitoshi Sakakibara[3], Takashi Yamazaki[4], Akira Higashibata[5], Noriaki Ishioka[5], Toru Shimazu[5], Motoshi Kamada[6] ([1]Osaka City Univ., [2]Saitama Univ., [3]RIKEN, [4]Teikyo Univ., [5]JAXA, [6]AES)

PL-143 Identification and molecular analyses of DLLs interactor, RLD protein family

Takeshi Nishimura[1,2], Masahiko Furutani[1,2], Kanako Suzuki[1,2], Masatoshi Taniguchi[1,2], Miyo Terao Morita[1,2] ([1]Grad. School of Bioagr. Sci., Nagoya Univ., [2]CREST, JST)

PL-144 Analyzing function of DGE1 and TAC1 in the branch angel control

Kenta Kubota[1], Masatoshi Taniguchi[1], Takeshi Nishimura[1], Masahiko Furutani[1], Miyo T. Morita[1,2] ([1]nagoya-u bioagriclutual, [2]CREST, JST)

PL-145 Genetic analyses of gravitropism with *eal1* enhancer mutants

Akiko Mori[1], Masatsugu Toyota[2,3,4], Masayoshi Shimada[5], Mika Mekata[5], Tetsuya Kurata[6], Masao Tasaka[5], Miyo T. Morita[1,7] ([1]Grad. Sch. Bioagri. Sci., Univ. Nagoya, [2]Grad. Sch. Sci. Eng., Univ. Saitama, [3]Dept. Botany, Univ. Wisconsin-Madison, [4]JST, PRESTO, [5]NAIST, [6]Grad. Sch. Life Sci., Univ. Tohoku, [7]JST, CREST)

PL-146 Morphological analysis of the peduncle of arabidopsis grown under microgravity by conventional anatomy of cross sections as well as X-ray microCT

Ichirou Karahara[1], Masaki Muramoto[1], Shunya Sujishi[2], Daisuke Tamaoki[1], Sachiko Yano[3], Humiaki Tanigaki[3], Toru Shimazu[3,4], Haruo Kasahara[5], Hirokazu Kasahara[6], Daisuke Yamauchi[7], Kentaro Uesugi[8], Makoto Hoshino[8], Akihisa Takeuchi[8], Yoshio Suzuki[8], Yoshinobu Mineyuki[7], Seiichiro Kamisaka[1] ([1]Graduate School of Science and Engineering, University of Toyama, [2]Faculty of Science, University of Toyama, [3]Japan Aerospace Exploration Agency, [4]Japan Space Forum, [5]Japan Manned Space Systems Corporation, [6]School of Biological Sciences, Tokai University, [7]Graduate School of Life Science, University of Hyogo, [8]Japan Synchrotron Radiation Research Institute)

■ Plant-microbe interaction

PL-147 Physiological activity of an extract from gall-forming insect *Schlechtendalia chinensis* on plant tissue development.
Naoe Ando, Maki Minami-Ohtsubo, Norimune Shigenari, Chihiro Tai, Akihisa Hamatani, Issei Ohshima, Norihiro Ohtsubo (Grad. Sch. Life Environ. Sci., Kyoto Pref. Univ.)

PL-148 The "Mushi-Kobu" project: Toward developing new technology to control plant morphology and metabolism.
Norihiro Ohtsubo[1], Seiji Takeda[1], Seisuke Kimura[2], Masahiko Sato[1], Issei Ohshima[1] ([1]Grad. Sch. Life Environ. Sci., Kyoto Pref. Univ., [2]Dept. Biores. Environ. Sci., Kyoto Sangyo Univ.)

PL-149 Tradeoff regulation of growth and defense gene expression by mitochondria and/or chloroplasts in *Arabidpsis* thaliana.
Takaki Murata, Takanori Iwaki, Koji Shimotani, Miho Kotani, Kanako Yamasaki, Youko Ishizaki, Satoshi Sano, Takashi Shiina (Grad. Sch. Life and Env. Sci., Kyoto Pref. Univ.)

PL-150 Loliolide, a carotenoid derivative, plays an important role in plant resistance to herbivores
Yusuke Nakai[1], Mika Murata[2], Soichi Kugimiya[3], Atsushi Mochizuki[3], Ichiro Mitsuhara[1], Shigemi Seo[1] ([1]NIAS, NARO, [2]NIVFS, NARO, [3]NIAES, NARO)

PL-151 Sucrose non-Fermenting Related Kinase 1 implicates in phosphatidic acid-mediated plant immune signaling.
Yu Imanaka[1], Ivan Galis[2], Yuko Hojo[2], Tomonori Shinya[2], Kouhei Ohnishi[3], Yasufumi Hikichi[1], Akinori Kiba[1] ([1]Faculty of Agriculture & Marine Science, Kochi University, [2]Institute of Plant Science & Resources, Okayama University, [3]Science Research Center, Kochi University)

PL-152 Arabidopsis xanthine dehydrogenase1 is involved in resistance to a broad range of microbial pathogens
Hiroshi Takagi[1], Yasuhiro Ishiga[2], Mayumi Egusa[3], Hiroshi Shimada[1], Hironori Kaminaka[3], Atsushi Sakamoto[1] ([1]Grad. Sch. Sci., Hiroshima Univ., [2]Fac. Life Environ. Sci., Univ. Tsukuba, [3]Fac. Agr., Tottori Univ.)

PL-153 Interrelationship of the two layers of defense responses accompanying hypersensitive cell death in tobacco BY-2 cells.
Shigeru Hanamata[1,2], Kie Takeuchi[2], Tomoki Oshima[2], Ayumi Yoshida[2], Shigemi Seo[3], Ichiro Mitsuhara[3], Masaaki Okada[2], Takamitsu Kurusu[1,4], Kazuyuki Kuchitsu[1,2] ([1]Imaging Frontier Center, Tokyo University of Science, [2]Department of Applied Biological Science, Tokyo University of Science, [3]Institute of Agrobiological Sciences, NARO, [4]School of Bioscience and Biotechnology, Tokyo University of Technology)

PL-154 Transcriptomic analyses of the effects of novel chemical compounds that activate plant defense responses
Masataka Nakano[1], Nobutaka Kitahata[2,3], Ayumi Yoshida[2], Mayu Suetsugu[2], Yuho Saito[2], Shizuka Sato[2], Takamitsu Kurusu[3,4], Tadao Asami[5], Kazuyuki Kuchitsu[1,2,3] ([1]Res. Inst. Sci. & Tech. Tokyo Univ. of Sci., [2]Dept. Appl. Biol. Sci., Tokyo Univ. of Sci., [3]Imagimg Frontier Center, Tokyo Univ. of Sci., [4]Dept. Biosci. & Biotech., Tokyo Univ. of Tech., [5]Grad. Sch. Agri. & Life Sci., Univ. of Tokyo)

PL-155 Crosstalk between C/N-nutrient availability and pathogen resistance in Arabidopsis
Xingwen Li[1], Yongming Luo[1], Shigetaka Yasuda[1], Yu Lu[1], Yuko Nomura[2], Hirofumi Nakagami[2], Takeo Sato[1], Junji Yamaguchi[1] ([1]Fac. Sci. and Grad. Sch. Life Sci., Hokkaido Univ., [2]RIKEN CSRS)

PL-156 Screening of sheath blight disease resistant accessions in *Brachypodium distachyon*
Yusuke Kouzai[1,2,3], Keiichi Mochida[1,3,4], Yoshihiko Onda[1,3], Yoshiteru Noutoshi[2] ([1]RIKEN, CSRS, [2]Okayama Univ., Grad. Sch. of Env. Life Sci., [3]Yokohama City Univ., Kihara Inst. for Biol. Res., [4]Okayama Univ., ISPR)

PL-157 Tyr-428, a CERK1 autophosphorylation site, regulates chitin responses through the regulation of its kinase activity
Maruya Suzuki, Takumi Watanabe, Yoshitake Desaki, Naoto Shibuya, Hanae Kaku (Dept. Life Sci., Meiji Univ.)

PL-158 BSR1 is involved in chitin elicitor-induced oxidative burst.
Yasukazu Kanda[1,2], Naoki Yokotani[1], Satoru Maeda[1], Yoko Nishizawa[1], Takashi Kamakura[2], Masaki Mori[1] ([1]NIAS, [2]Grad. Sch. of Science and Technology, Tokyo Univ. of Science)

PL-159 PUB4, an ubiquitin ligase, regulates chitin signaling through its phosphorylation by CERK1
Haruki Koizumi[1], Takaki Miura[1], Masaki Kohari[1], Maruya Suzuki[1], Shinichiro Sawa[2], Yuko Ishibashi[1], Keiji Kito[1], Yoshitake Desaki[1], Naoto Shibuya[1], Hanae Kaku[1] ([1]Dept. Life Sci., Meiji Univ., [2]Grad. Sch. Sci. Technol., Kumamoto Univ.)

PL-160 Conservation of chitin-induced MAPK activation mechanisms between rice and Arabidopsis
Kenta Yamada, Akira Terauchi, Satomi Yoshimura, Koji Yamaguchi, Tsutomu Kawasaki (Dept. Adv. Biosci. Kindai Univ)

PL-161 Antagonistic regulation of pattern-recognition receptor-mediated signaling in plant immunity
Yuka Kobayashi, Tomomi Shirakawa, Kenta Yamada, Saori Suizu, Hitomi Tagawa, Koji Yamaguchi, Tsutomu Kawasaki (Dept. Adv. Biosci. Kindai Univ)

■ Transcriptional and post-transcriptional regulation

PL-162 Characterization of an inducible-MYB transcription factor under phosphorus-starved condition in Chlamydomonas reinhardtii

Nur Akmalia Hidayati[1], Yui Yamada-Oshima[1], Masako Iwai[1,2], Koichi Hori[1,2], Takeshi Obayashi[3], Hideya Fukuzawa[4], Mie Shimojima[1,2], Hiroyuki Ohta[1,2] ([1]Tokyo Institute of Techology, [2]CREST, JST, [3]Tohoku University, [4]Kyoto University)

PL-163 RERJ1 - a JA Dependent Early Inducible bHLH Transcription Factor Function in the Rice JA Signaling System together with OsMYC2 and OsJAZ

Ioana Valea[1], Koji Miyamoto[2], Hisakazu Yamane[2], Hideaki Nojiri[1], Kazunori Okada[1] ([1]The University of Tokyo - Biotechnology Research Center - Laboratory of Environmental Biotechnology, [2]Teikyo University - Department of Biosciences)

PL-164 SDI1 inhibits aliphatic GSL biosynthesis through the interaction with MYB28.

Akiko Maruyama-Nakashita[1], Miyuki Kusajima[2], Tamara Gigolashvili[3], Tomokazu Konishi[4], Hideo Nakashita[2] ([1]Kyushu Univ., [2]Fukui Pref. Univ., [3]Univ. Cologne, [4]Akita Pref. Univ.)

PL-165 Isolation and analyses of novel factors involved in the transcriptional regulation system in *Arabidopsis*

Sumire Fujiwara[1], Yusuke Nakai[1], Shingo Sakamoto[1], Yuko Nomura[2], Hirofumi Nakagami[2,3], Masaru Ohme-Takagi[4] ([1]BPRI, AIST, [2]CSRS, RIKEN, [3]MPIPZ, Germany, [4]Grad. Sch. Sci. & Eng., Saitama Univ.)

PL-166 Extension of promoter prediction based on transcriptome data

Yoshiharu Yamamoto[1,2,3], Hiroyuki Ichida[4], Ayaka Hieno[2], Daichi Obata[1], Mutsutomo Tokizawa[2], Mika Nomoto[5], Yasuomi Tada[5], Natsuki Hayami[2] ([1]Faculty of Applied Biological Sciences, Gifu University, [2]United Graduate School of Agricultural Science, Gifu University, [3]RIKEN CSRS, [4]RIKEN Nishina Center, [5]Center for Gene Research, Nagoya University)

PL-167 Phenotypic analysis of response regulator *rpaA* overexpression in *Synechocystis* sp. PCC 6803

Ayumi Kizawa, Satomi Arisaka, Haruna Sukigara, Takashi Osanai (Sch. Agri., Univ. Meiji)

■ Systems biology

PL-168 Regulation of Synechocystis sp. PCC 6803 proteome by a sigma factor SigE

Yuma Tokumaru[1], Kiyoka Uebayashi[1], Takashi Osanai[2], Fumio Matsuda[1], Hiroshi Shimizu[1] ([1]Graduate school of Information Science and Technology, Osaka University, [2]School of Agriculture, Meiji University)

PL-169 ^{13}C-metabolic flux analysis and proteomic analysis for rate-limiting step estimation in *n*-butanol producing *Synechococcus elongatus*

Keisuke Wada[1], Kiyoka Uebayashi[1], Yoshihiro Toya[1], Yudai Dempo[2], Sastia Putri[2], Fumio Matsuda[1], Eiichiro Fukusaki[2], James Liao[3], Hiroshi Shimizu[1] ([1]Graduate School of Information Science and Technology, Osaka University, [2]Graduate School of Engineering, Osaka University, [3]Department of Chemical Engineering, University of California Los Angelas)

PL-170 *De novo* genome analysis of domestic arbuscular mycorrhizal fungus *Rhizophagus clarus* HR1

Yuuki Kobayashi[1,2], Taro Maeda[1,2], Katsushi Yamaguchi[3], Hiromu Kameoka[1,2], Sachiko Tanaka[1,2], Tatsuhiro Ezawa[4], Shuji Shigenobu[3,5], Masayoshi Kawaguchi[1,2,5] ([1]Division of Symbiotic Systems, NIBB, [2]JST ACCEL, [3]Functional Genomics Facility, NIBB, [4]Research Faculty of Agriculture, Hokkaido University, [5]SOKENDAI)

PL-171 Draft genome assembly and annotation of *Rorippa aquatica*

Tomoaki Sakamoto, Seisuke Kimura (Life Sci., Kyoto Sangyo Univ.)

PL-172 An improved workflow to complete bacterial genomes.

Kazuma Uesaka[1,4], Shin-ichi Maeda[1,4], Makiko Aichi[2,4], Kunio Ihara[3,4], Tatsuo Omata[1,4] ([1]Graduate School of Bioagricultural Sciences, Nagoya University, [2]Department of Biological Chemistry, Chubu University, [3]Center of Gene Research, Nagoya University, [4]Japan Science and Technology Agency, CREST)

■ New technology/Others

PL-173 An enhanced method of Agrobacterium-mediated transformation in Jatropha curcas L. to make larger seeds to increase biofuel production

Wiluk Chacuttayapong[1], Yusei Nabetani[1], Harumi Enoki[1], Minami Matsui[2], Reiko Motohashi[1] ([1]Faculty of Agriculture, Department of Biological and Environmental Science, Shizuoka University, [2]Synthetic Genomic Research Group, Center for Sustainable Resource Science)

PL-174 Multiplex genome editing for plants via endogenous RNA processing system

Ryosuke Hashimoto, Risa Ueta, Chihiro Abe, Kohji Yamada, Yuriko Osakabe, Keishi Osakabe (Fac. Biosci. Bioindust., Tokushima Univ.)

PL-175 New plant breeding of tomato cv. Ailsa Craig by using CRISPR/Cas9 system

Chihiro Abe[1], Risa Ueta[1], Ryosuke Hashimoto[1], Takahito Watanabe[2], Shigeo S Sugano[2,3], Yuriko Osakabe[1], Keishi Osakabe[1] ([1]Fac. Biosci. Bioindust., Tokushima Univ., [2]CCAIC, Tokushima Univ., [3]PREST, Kyoto Univ.)

PL-176 Functional analysis of the C-terminal regulatory domain of rice GAD1 by a CRISPR/Cas system

Kazuhito Akama[1], Masako Kanesaki[1], Masafumi Mikami[2,3], Masaki Endo[2], Seiichi Toki[2,3,4] ([1]Dept. Biol. Sci., Shimane Univ., [2]Grad. Sch. Nanobiol., Yokohama City Univ., [3]NARO, [4]Kihara Inst. Biol. Res., Yokohama City Univ.)

PL-177 Evaluation of the efficiency and utility of recombinant enzyme-free seamless DNA cloning methods.

Ken Motohashi (Fac. of Life Sci., Kyoto Sangyo Univ.)

PL-178 Development of genome editing in mushroom-forming fungi for elucidating the mechanism of fruiting-body formation

Hirofumi Chiba[1], Hiroko Suzuki[1], Shigeo S Sugano[2], Eisuke Shimokita[3], Yuriko Osakabe[1], Keishi Osakabe[1] ([1]Fac. Biosci. Bioindust., Tokushima Univ., [2]PREST, Kyoto Univ., [3]Tokushima Pref. AFFTSC.)

PL-179 Reversible transgenesis of the CRISPR/Cas9 expression cassette via *piggyBac* transposition in plants

Ayako Nishizawa-Yokoi[1], Seiichi Toki[1,2] ([1]Plant Genome Engineering Research Unit, Institute of Agrobiological Sciences, NARO, [2]Kihara Institute for Biological Research, Yokohama City University)

PL-180 Protoplast transfection assay for genome editing in barley and wheat.

Masaru Ohta[1], Masafumi Mikami[2,3], Masaki Endo[2], Seiichi Toki[2,3], Takao Komatsuda[1] ([1]Plant Genome Research Unit, Institute of Crop Science, National Agriculture and Food Research Organization, [2]Plant Genome Engineering Research Unit, Institute of Agrobiological Sciences, National Agriculture and Food Research Organization, [3]Graduate school of Nanobioscience, Yokohama City University)

PL-181 Direct protein introduction into plant cells by treatment with non-thermal atmospheric-pressure plasmas

Yuki Yanagawa[1], Hiroaki Kawano[2], Tomohiro Kobayashi[2], Hidekazu Miyahara[2], Akitoshi Okino[2], Ichiro Mitsuhara[1] ([1]Institute of Agrobiological Sciences, NARO, [2]FIRST, Institute of Innovative Research, Tokyo Institute of Technology)

PL-182 Effects of Glutathione on the Yield Depending on Developmental Stages of Soybean

Kenji Henmi, Ken'ichi Ogawa (RIBS Okayama)

PL-183 Development of a URA marker recycling sytem for genome editing in a unicellular red alga *Cyanidioschyzon merolae*

Tokiaki Takemura[1], Yuki Kobayashi[1], Kan Tanaka[1,2] ([1]Laboratory for chemistry and life science, Tokyo tech, [2]CREST, JST)

PL-184 Increasing Heat Stress Tolerance of Plants Caused by Neurodegenerative Disease Therapeutic Agent, 4-PBA, and its Analogs

Shota Hirose, Hikari Sagara, Yusuke Akatsu, Kazushi Mizukami, Hirokazu Iida, Youichi Kondo (Kanto-Gakuin University)

PL-185 Ab-GALFA:Development of a novel bioassay for dissecting of gall formation mechanism using *Arabidopsis thaliana*

Ayaka Okamoto[1], Tomoko Hirano[2], Akihisa Hamatani[2], Issei Ohshima[2], Seisuke Kimura[3], Masahiko Sato[2] ([1]Dept.Life and Environ.Sci.,Kyoto Pref.Univ., [2]Grad. Sch. Life and Envir. Sci., Kyoto Pref. Univ., [3]Dept. Bioresource and Envir. Sci., Kyoto Sangyo Univ.)

■ Reproductive growth

PL-186 Characterization of a *CpRLK2* Gene, Specifically Expressed in Mating-Type Minus Cells of *Closterium peracerosum-strigosum-littorale* complex, Using a CRISPR/Cas9 System

Shiori Kon[1], Naho Kanda[2], Anri Fujiwara[2], Machiko Ichikawa[2], Hiroyuki Sekimoto[1,2] ([1]Fac. Sci., Japan Women's Univ., [2]Grad. Sci., Japan Women's Univ.)

PL-187 Reverse genetics of *CpMinus1*, presented only in mating-type minus genome of heterothallic *Closterium peracerosum-strigosum-littorale* complex

Natsumi Tsuyuki[1], Naho Kanda[2], Ayumi Komiya[2], Junko Kawai[1], Yuki Tsuchikane[1], Tomoaki Nishiyama[3], Hiroyuki Sekimoto[1,2] ([1]Fac. Sci., Japan Women's Univ., [2]Grad. Sci., Japan Women's Univ., [3]Adv. Sci. Res. Cent., Kanazawa Univ.)