Daily Schedule and Sessions of 30th JSPMI Annual Meeting

Wednesday, September 8

1:00 – 1:10 p.m. Opening Ceremony

1:10 – 2:25 p.m. Oral Presentation (5 titles)

***** Boxed numbers indicate presentations by student.

1 Utilization of myristate as carbon sources in arbuscular mycorrhizal fungi
Yuta Sugiura[1], Rei Akiyama[1], Sachiko Tanaka[2], Koji Yano[2], Hiromu Kameoka[3], Shiori Marui[4], Masanori Saito[5], Masayoshi Kawaguchi[2], Kouki Akiyama[4], *Katsuharu Saito[1]
[1]Fac. of Agric. Shinshu Univ., [2]NIBB, [3]Grad. Sch. of Life Sci. Tohoku Univ., [4]Grad. Sch. of Life and Environ. Sci. Osaka Pref. Univ. [5]Grad. Sch. of Agr. Sci. Tohoku Univ.

2 Conservation and diversity in transcriptional responses among host plants forming distinct arbuscular mycorrhizal morphotypes
*Takaya Tominaga[1], Chihiro Miura[2], Yuuka Sumigawa[2], Yukine Hirose[2], Katsushi Yamaguchi[3], Shuji Shigenobu[3], Akira Mine[4, 5], Hironori Kaminaka[2]
[1]United Grad. Sch. Agr., Tottori Univ., [2]Fac. Agr., Tottori Univ., [3]NIBB, [4]Grad. Sch. Agr., Kyoto Univ., [5]JST PRESTO

3 Microscopic analysis on infection manners of *Ralstonia pseudosolanacearum* in early stage of tomato root infection.
*Kanako Inoue[1], Chika Takemura[2], Hidefumi Maeda[3], Yasufumi Hikichi[2]
[1]UHVEM. Osaka Univ.,[2]Fac. Agri & Marine Sci. Kochi Univ., [3]Fac. of Adv. Sci. and Tech. Ryukoku Univ.

4 Signaling pathways of quorum sensing in *Ralstonia pseudosolanacearum* strain OE1-1
*Yasufumi Hikichi[1], Chika Takemura[1], Yuki Terazawa[1], Akinori Kiba[1], Kouhei Ohnishi[1] and Kenji Kai[2]
[1]Fac. Agri. Marine Sci., Kochi Univ., [2]Grad. Sch. of Life Environ. Sci., Osaka Pref. Univ.

5 Isolation and characterization of *Methylobacterium indicum* causing leaf bleaching disease in rice plants
*Lai Trinh Anh Khoa, Nguyen Thai Ngoc, Yasuda Michiko, Shin Okazaki
Tokyo University of Agriculture and Technolog

2:25 – 2:40 p.m. Break
2:40 – 3:55 p.m. Oral Presentation (5 titles)

***** Boxed numbers indicate presentations by student.

6 Exploring virulence factors of *Pseudomonas syringae* pv. *actinidiae*
*Giyu Usuki[1], Takako Ishiga[2], Nanami Sakata[1], Yasuhiro Ishiga[2]
[1]Grad. Sch. of Tsukuba Univ., [2] Univ. of Tsukuba

7 Study on *Pseudomonas cannabina* pv. *alisalensis* virulence
*Nanami Sakata, Takako Ishiga, Yasuhiro Ishiga
Univ. of Tsukuba

8 Study on the Mode of Action of Metominostrobin as a Plant Activator 8. Effects on ROS burst, MAPK activation and expression of defense-related genes in Arabidopsis.

*Chiaki Itoh[1], Nanami Ohara[2], Hotaka Sato[1], Mitsuhiro Ichinari[3], Subaru Yamada[3], Kazuo Sakuramoto[3], Makoto Shiraishi[3], Takashi Yamamoto[3], Hidenori Matsui[1,2], Yoshiteru Noutoshi[1,2], Mikihiro Yamamoto[1,2], Yuki Ichinose[1,2], Tomonori Shiraishi[4], and Kazuhiro Toyoda[1,2]
[1]Grad. Environ. Life Sci. Okayama Univ., [2]Fac. Agri. Okayama Univ., [3]Summt Agro Int. Ltd., [4]RIBS Okayama

9 Molecular mechanism on MAMP-triggered ROS burst in Arabidopsis
*Nanako Kimoto[1], Mizuki Takasu[1], Aprilia, Nur Fitrianti[1], Hidenori Matsui[1], Yoshiteru Noutoshi[1], Mikihiro Yamamoto[1], Yuki Ichinose[1], Tomonori Shiraishi[2], and Kazuhiro Toyoda[1].
[1]Grad Environ. Life Sci. Okayama Univ.,[2]RIBS Okayama

10 CEP5 peptide negatively modulates defense responses in *Arabidopsis thaliana*
*Aprilia Nur Fitrianti[1], Chiaki Itoh[1], Haruka Hasegawa[1], Hidenori Matsui[1], Yoshiteru Noutoshi[1], Mikihiro Yamamoto[1], Yuki Ichinose[1], Tomonori Shiraishi[2], Kazuhiro Toyoda[1]
[1]Grad. Sch. Environ. Life Sci., Okayama Univ., [2]RIBS Okayama

3:55 – 4:10 p.m. Break

4:10 – 5:30 p.m. General Discussion 1 (oral: 1 – 10)

5:30 – 7:00 p.m. Free Discussion (using Breakout rooms)

5:30 – 6:00 p.m. Committee Meeting

Thursday, September 9
9:00 – 10:00 a.m. Short Presentation (31 poster titles)

10:00 – 11:00 a.m. Poster Viewing with Authors (*odd numbers*)

11:00 – 12:00 p.m. Poster Viewing with Authors (*even numbers*)

noon – 1:00 p.m.
Special Session for Students and Early Carrier Researchers

1:45 – 2:35 p.m. General Discussion 2 (P1 – P17)

2:35 – 2:50 p.m. Break

2:50 – 3:40 p.m. General Discussion 3 (P18 – P31)

3:40 – 4:00 p.m. Break

4:00 – 4:45 p.m. Special Lecture
"Fusarium Genome and Pathogenicity"
Dr. Tsutomu Arie (Tokyo University of Agriculture and Technology)

4:45 – 5:30 p.m. Special Event
"In memory of Prof. Shiro Higashi"

Friday, September 10

9:00 – 10:45 a.m. Oral Presentation (7 titles)

***** Boxed numbers indicate presentations by student.

11 Effect of a plant genotype on root microbiome and its relation with encountered microbiome and growth conditions.
*Masaru Bamba[1], Turgut Yigit Akyol[2], Yusuke Azuma[1], Stig Uggerhøj Andersen[2], Shusei Sato[1]
[1]Grad. Sch. of Life Sci. Tohoku Univ., [2]Dept. Mol. Biol. and Genet. Aarhus Univ.

12 Effects to modify the bacterial composition of soyasaponin secreted by soybean roots in the rhizosphere
*Teruhisa Fujimatsu[1], Keiji Endo[1], Kazufumi Yazaki[2], Akifumi Sugiyama[2]
[1]BSR, Kao Corp., [2]RISH, Kyoto Univ.

13 Analysis of the tobacco-*Arthrobacter* interaction mediated by plant specialized metabolites
*Tomohisa Shimasaki[1,2], Sachiko Masuda[3], Ruben Garrido-Oter[4,5], Takashi Kawasaki[1], Yuichi Aoki[6], Arisa Shibata[3], Wataru Suda[7], Ken Shirasu[3], Kazufumi Yazaki[1], Ryohei Thomas Nakano[4], Akifumi Sugiyama[1]
[1]RISH, Kyoto Univ., [2]RIKEN・BRC, [3]RIKEN・CSRS, [4]MPIPZ (Germany), [5]MPIPZ・CEPLAS (Germany), [6]Tohoku Medical Megabank Organization., Tohoku Univ., [7]RIKEN・IMS

14 Characterization of Mineral Phosphate Solubilizing Activity of Isolates and their Effect on Rice Growth Promotion
*Jean Louise Cocson Damo [1], Shin-ichiro Agake [1], Maria Daniela Artigas Ramirez [2], Tadashi Yokoyama [3], Shin Okazaki [4], Naoko Ohkama-Ohtsu [4,5]
[1]United Grad. Sch. Of Agric. Tokyo Univ. Of Agric. And Tech., [2]Tropical Biosphere Research Center Univ. of the Ryukyus, [3]Fac. Of Food And Agric. Sci. Fukushima Univ., [4]Inst. Of Agric. Tokyo Univ. Of Agric. And Tech., [5]Inst. Of Global Innovation Research Tokyo Univ. Of Agric. And Tech.

15 Functional analysis of PINK4 gene of *Lotus japonicus* in symbiont (or partner) selection after the establishment of endosymbiosis.
*Haruka Arashida[1], Tomomi Nakagawa[2], Hiroko Maita[3], Shohei Kusakabe[1], Shusei Sato[1].
[1]Grad. Sch. of Life Sci.Tohoku Univ., [2]Yokohama Science Frontier High School., [3]Kazusa DNA Research Institute.

16 Periodic amplitude of gene expression in response to rhizobial infection in *Lotus japonicus*
Takashi Soyano, Mika Tsugane, Masayoshi Kawaguchi
NIBB

17 Ca^{2+} spiking analysis in Parasponia; non-legume nodulating tropical tree.
*Kana Miyata[1,3], Luuk Rutten[2], Rene Geurts[2], Hanae Kaku[1]
[1]Meiji Univ. Grad. Sch. of Agri., [2]Wageningen Univ. Dep. of Plant Sci., [3]JSPS Research Fellow, (RPD)

10:45 – 11:00 a.m. Break

11:00 – 11:40 a.m. General Discussion 4 (oral: 11 – 17)

11:40 – 11:50 a.m. Break

11:50 – 12:20 p.m. JSPMI 30th General Meeting & Closing Ceremony

Scientific Posters of JSPMI 30th Annual Meeting

Thursday, September 9

9:00 – 10:00 a.m.	Short Presentation (all posters)
10:00 – 11:00 a.m.	Poster Viewing with Authors (*odd numbers*)
11:00 – 12:00 p.m.	Poster Viewing with Authors (*even numbers*)
1:45 – 2:35 p.m.	General Discussion 2 (P1 – P17)
2:50 – 3:40 p.m.	General Discussion 3 (P18 – P31)

【Posters, 31 titles】
＊Boxed poster numbers indicate presentations by student.

P1 *Vanda falcata* (Orchidaceae) associates with a certain *Ceratobasidium* lineage for germination amid potentially impeding fungal communities
*Galih Chersy Pujasatria[1], Ikuo Nishiguchi[2], Chihiro Miura[3], and Hironori Kaminaka[3]
[1]Dept. of Agric. Sci., Grad. Sch. of Sust. Sci., Tottori Univ.,[2] Suzuka City,[3]Fac. of Agric., Tottori Univ.

P2 Diversity and characterization of the endophytic fungi associated with hairy vetch in Japan
*Parisa Taheri [1], Khondoker MG Dastogeer[2], Michiko Yasuda[3], and Shin Okazaki [1,3]
[1]United Graduate School of Agricultural Science, Tokyo University of Agriculture and Technology, Japan., [2]Department of Plant Pathology, Bangladesh Agricultural University.,[3] Graduate School of Agriculture, Tokyo University of Agriculture and Technology Japan

P3 Alternation of bacterial communities in the rhizosphere by tomatine secreted from tomato roots.
*Kyoko Takamatsu[1], Masaru Nakayasu[1], Shinichi Yamazaki[2], Yuichi Aoki[2], Hisabumi Takase[3], Tsubasa Shoji[4,5], Kazufumi Yazaki[1], Akifumi Sugiyama[1]
[1]RISH Kyoto Univ., [2]ToMMo Tohoku Univ., [3]Fac. of Bioe. Sci. KUAS, [4]BS. NAIST, [5]RIKEN CSRS

P4 Effects of komatsuna rhizobacteria on plant growth and function
*Takuro Tamura[1], Yukichika Matsuo[1], Ai Yukita[2], Takuji Ohwada[1]
[1]Depart. Life Food Sci. Obihiro Univ., [2]Mori Sangyo Inc.

P5 Exploration for Plant Growth Promoting Mechanisms of *Bacillus* Spores
*Shin-ichiro Agake[1], Jean Louise Cocson Damo[1], Michiko Yasuda[2], Fernanda Plucani do Amaral[3,4], Hiroki Rai[5], Gary Stacey[3], Tadashi Yokoyama[6], Naoko Ohkama-Ohtsu[7]
[1]Unit. Grad. Sch. of Agric. Sci. TUAT, [2] Fac. of Agric. TUAT, [3]Mizzou, [4] Joyn Bio, [5] Fac. of Bio. Sci. Akita Pref. Univ., [6] Fac. of Food and Agric. Sci. Fukushima Univ., [7]GIR TUAT

P6 Effects of co-inoculation of plant growth promoters *Azospirillum* and *Phytobacter* strains on the growth of *Allium cepa* L. and their characteristic localization
*Cui Ying, Takuji Ohwada
Department of Life and Food Science, Obihiro University of Agriculture & Veterinary Medicine, Obihiro, Hokkaido, Japan

P7 Symbiotic Performance of Rhizobia for Soybean Cultivation under the Cold Condition in Poland
*Riku Watanabe[1], Maria Daniela Artigas Ramirez[1,2], Sylwia Lewandowska[3], Sonoko Dorothea Bellingrath-Kimura[4], Naoko Ohkama-Ohtsu[1]

[1]Fac. of Agric., Tokyo Univ. of Agric. and Tech., [2]Tropical Biosphere Research Center, Univ. of the Ryukyus, [3]Wroclaw Univ. of Environmental and Life Sciences, [4]Leibniz Centre for Agricultural Landscape Research (ZALF)

P8 Impacts of the soil environment and growing period on the root microbiome of *Lotus* plants
*Yusuke Azuma[1], Masaru Bamba[1], Turgut Yigit Akyol[2], Stig Uggerhøj Andersen[2], Shusei Sato[1]
[1]Grad. Sch. of Life Sci. Tohoku Univ., [2]Dept. Mol. Biol. and Genet. Aarhus

P9 Screening for isoflavone degradation genes in soybean rhizosphere
*Noritaka Aoki[1], Tomohisa Shimasaki[2], Wataru Yazaki[1], Masaru Nakayasu[1], Jun Ogawa[3], Akinori Ando[3], Sachiko Masuda[4], Arisa Shibata[4], Wataru suda[5], Ken Shirasu[4], Kazufumi Yazaki[1], Akifumi Sugiyama[1]
[1]RISH, Kyoto Univ., [2]RIKEN BRC, [3]Grad. Sch. of Agri. Kyoto Univ., [4]RIKEN CSRS, [5]RIKEN IMS

P10 Functional analysis of *Agrobacterium*-derived *IbACS1* gene in sweet potato
*Aiko Tanaka[1], Maarten H. Ryder[2], Takamasa Suzuki[3], Nobuo Yamaguchi[4], Motoyasu Otani[5], Osamu Nakayachi[5], Kenji Arakawa[4], Nobukazu Tanaka[4], Daigo Takemoto[1]
[1]Nagoya Univ., [2]Univ. of Adelaide, [3]Chubu Univ., [4]Hiroshima Univ., [5]Ishikawa Pref. Univ.

P11 Colonization and bioactive effect of an endophyte belonging to the genus *Azospirillum* utilized for a microbial agricultural material “Inefaita”
*Tomomi Tanabe, Tetsuya Chujo, Shinji Kouno
Mayekawa MFG. CO., LTD.

P12 Improvement of a bacterial endophyte utilized for a microbial agricultural material “Inefaita”
*Tetsuya Chujo[1], Tomomi Tanabe[1], Akihiro Ueda[2], Shinji Kouno[1]
[1]Mayekawa MFG. CO., LTD., [2]Grad. Sch. of Integrated Sci. for Life Hiroshima Univ.

P13 Promotion mechanism of mycorrhizal fungal colonization in parasitic plant *Pedicularis* (Orobanchaceae) by host plants
*Tomohiro Kawai[1,2], Kee Yee Jia[1], Motomi Ito[2], Satoko Yoshida[1]
[1]Grad. Sch. Sci. and Tech. NAIST, [2]Grad. Sch. Art. and Sci. Univ. Tokyo

P14 Analysis of mycorrhizal symbiosis mechanisms in *Rhododendron kaempferi* Planch. *var. macrogemma* Nakai endemic to the Izu Islands and *Juniperus taxifolia var. lutchuensis* Sataka
*Kaho Shibao[1], Yuna Uchiyama[2], Masaki Yahata[1,2], Yuuki Kobayashi[3], Masayoshi Kawaguchi[3], Akiyoshi Tominaga[1,2]
"[1]Fac. of Agric. Shizuoka Univ., [2]Grad. Sch. of Int. Sci. and Tech, Shizuoka Univ., [3]NIBB

P15 The cytosolic glycerol-3-phosphate dehydrogenase GPDH3 is required for the mycorrhizal symbiosis in *Lotus japonicus*
*Tzujui Yeh[1], Yusaku Sugimura[1], Taigi Igarashi[2], Shinpei Katou[2], Katsuharu Saito[2]
[1]Interdiscip. Grad. Sch. of Sci. and Tech. Shinshu Univ., [2]Fac. of Agric. Shinshu Univ.

P16 Development of non-canonical SL analogs capable of modulating AM fungal community composition
*Kota Kitamura, Kohki Akiyama
Grad. Sch. Life & Environ. Sci., Osaka Pref. Univ.

P17 Ionome analysis of soybean plants in mycorrhizal symbiosis
*Haruko Imaizumi-Anraku[1], Kyoko Takagi[2], Masao Ishimoto[3]
[1]NARO/NIAS, [2]NARO/TARC, [3]NARO/NICS

P18 N_2O reduction ability and genomic characteristics of *Bradyrhizobium ottawaense* isolated from sorghum roots
*Sawa Hara[1, 2], Masayuki Sugawara[2], Hisayuki Mitsui[2], Shintaro Hara[2], Cristina Sánchez Gomes[2], Shusei Sato[2], Kiwamu Minamisawa[2]

[1] NARO/NIAS, [2]Tohoku Univ.

P19 Comparative genomics of *Bradyrhizbium elkanii* HK4-10
*Yuya Hamasaki[1], Yudai Gamo[1], Kiwamu Minamisawa[2], Takakazu Kaneko[1]
[1]Kyoto Sangyo Univ., [2]Tohoku Univ.

P20 The rhizobial type III effector Bel2-5 plays a dual role in symbiosis with soybean
*Safirah Tasa Nerves Ratu[1], Christian Oliver Kalaw[2], Michiko Yasuda[2], and Shin Okazaki[1,2]
[1]United Graduate School of Agricultural Science・Tokyo University of Agriculture and Technology, [2]Graduate School of Agriculture・Tokyo University of Agriculture and Technology

P21 Disruption of *bclA* gene in *Bradyrhizobium* sp. SUTN9-2 enhances symbiotic nitrogen fixation ability with *Aeschynomene americana*
*Shun Hashimoto[1], Teerana Greetatorn[3], Pongpan Songwattana[3], Pongdet Piromyou[3], Masahiro Fukuda[2], Panlada Tittabutr[3], Nantakorn Boonkerd[3], Neung Teaumroong[3], Shusei Sato[1], Toshiki Uchiumi[2]
[1]Grad. Sch. of Life Sci.Tohoku Univ., [2]Grad. Sch. of Sci. and Eng. Kagoshima Univ., [3]Suranaree Univ. of Technol.

P22 Involvement of LjSYP132a and LjSYP132b in nodule formation and seed formation
*Issei Takahashi, Aoi Sogawa, Haruna Ueno, Mika Nomura
Grad. Sch. of Agric. Kagawa Univ.

P23 Functional analysis of *Ralstonia solanecearum* effector by using yeast expression system
*Eri Nakayama, Atsushi Hirata, Takato Kitasono, Saki Shirai, Naotaka Tanaka and Mitsuaki Tabuchi
Agric. Kagawa Univ.

P24 The *Acidovorax citrulli* effector Aave_4606 exhibits glutathione degrading activity in a host thioredoxin-dependent manner
*Mana Toshio, Shoko Fujiwara, Naotaka Tanaka, Mitsuaki Tabuchi
Agric. Kagawa Univ.

P25 Relationships between siderophore-mediated iron acquisition of *Ralstonia solanacearum* species complex and its virulence
*Yuki Terazawa[1], Chika Takemura[1], Akinori Kiba[1], Kouhei Ohnishi[1], Kenji Kai[2], Yasufumi Hikichi[1]
[1]Fac. Agri. & Marine Sci. Kochi Univ., [2]Sch. Life & Environmental Sci. Osaka Pre Univ.

P26 Quorum sensing inhibition attenuates the virulence of *Ralstonia solanacearum*
*Mariko Fukui, Megumi Sakata, Ayaka Yoshihara, Kenji Kai
Grad. Sch. of Life and Environ. Sci. Osaka Pref. Univ.

P27 Ralfuranone J produced in the active state of quorum sensing is required for fused biofilms of *Ralstonia pseudosolanacearum* storain OE1-1, leading to development of virulence-related mushuroom-type biofilm in a well-ordered structure of cell populations
*Takemura Chika[1], Inoue Kanako[2], Kiba Akinori[1], Ohnishi Kohei[1], Kai Kenji[3], Hikichi Yasufumi[1]
[1]Fac. Agri & Marine Sci., Kochi Univ., [2]UHVEM, Osaka Univ., [3]Osaka Pref. Univ.

P28 Systemic induction of disease resistance and growth inhibition by chitin in Arabidopsis
*Hisako Yamagata[1], Keigo Naito[1], Momoko Takagi[2], Mai Yoshioka[2], Sumire Matsukawa[1], Mayumi Egusa[2], Yuri Kanno[3], Mitsunori Seo[3], Keisuke Kariya[4], Atsushi Ishihara[2], Shinsuke Ifuku[5], Akira Mine[6,7], Hironori Kaminaka[2]
[1]Grad. Sch. Agr., Tottori Univ., [2]Fac. Agr., Tottori Univ., [3]RIKEN CSRS, [4]United Grad. Sch. Agr., Tottori Univ., [5]Grad. Sch. Eng., Tottori Univ., [6]Grad. Sch. Agr., Kyoto Univ., [7]JST PRESTO

P29 ROS sensor proteins positively regulate defense responses against plant pathogens.
*Yuta Hino, Keita Okamoto, Taichi Inada, Miki Yoshioka, Hitoshi Mori, Hirofumi Yoshioka

Nagoya univ. Grad. Sch. of Bioagricultural Sci.

P30 Growth characteristics of *Lotus* experimental lines under fluorescent and LED illumination.
*Masatsugu Hashiguchi, Takuyu Hashiguchi, Hidenori Tanaka, Ryo Akashi
Fac. of Agric. Univ. of Miyazaki

P31 Standard addition method to quantify plant hormones in *Lotus japonicus*
*Koki Fukushima, Takuyu Hashiguchi, Masatsugu Hashiguchi, Ryo Akashi
Fac. of Agric. Univ. of Miyazaki