Daily Schedule and Sessions of 24th JSPMI Annual Meeting

Friday, September 19

12:30 p.m. – Registration

1:30 – 1:40 p.m. Opening Ceremony

1:40 – 2:55 p.m. Oral Presentation (5 titles)

O1 Comparative Effects of Plant Growth-Promotion, Colonization and Biochemical Activities of Symbiotic Bacteria Isolated From Potato

*Christine Santiago[1], Shogo Yagi[2], Tomoya Nashimoto[2], Motoaki Ijima[2], Yuki Akane[2], Nobutaka Someya[3], Seishi Ikeda[3], Takuji Ohwada[2]

[1]United Graduate School of Agricultural Sciences, Iwate University, [2]Obihiro University of Agriculture and Veterinary Medicine, [3]Hokkaido Agricultural Center, National Agriculture and Food Research Organization

O2 Plant tissue localization of *Sphingomonas* sp. isolated from potato

*Shogo Yagi[1], Nobutaka Someya[2], Seishi Ikeda[2], Takuji Ohwada[1]

[1]Obihiro University of Agriculture and Veterinary Medicine, [2]Hokkaido Agricultural Center,National Agriculture and Food Research Organization

O3 Migration and local adaptation of rhizobia isolated from Japanese alpine legumes

*Kojiro Takanashi[1], Hajime Ikeda[2], Naoto Seo[1], Shusei Sato[3], Kazufumi Yazaki[1]

[1]RISH, Kyoto Univ, [2]IPSR, Okayama Univ., [3]Grad. Sch. Life Sci., Tohoku Univ.

O4 Are methanotrophs non-leguminous rhizobia in paddy rice roots?

*Kiwamu Minamisawa[1], Zhihua Bao[1], Seishi Ikeda[2], Takashi Okubo[3], Haruko Imaizumi-Anraku[4], Takeshi Tokida[3], Kengo Kubota[5], Yasuhiro Kasahara[6], Dongyan Liu[7], Susumu Asakawa[7]

[1]Graduate School of Life Sciences, Tohoku University, [2]National Agricultural Research Center for Hokkaido Region, [3]National Institute for Agro-Environmental Sciences, [4]National Institute of Agrobiological Sciences, [5]Department of Civil and Environmental Engineering, Tohoku University, [6]Institute of Low Temperature Science, Hokkaido University, [7]Nagoya University

O5 Changes in the flavonoid contents in roots and bacterial community of soybean rhizospheres during growth

*Akifumi Sugiyama[1], Yoshikatu Ueda[1], Ui Ono[2], Masami Yoshikawa[2], Hisabumi Takase[3], Kazufumi Yazaki[1]

[1]Kyoto Univ., [2]Kyoto Prefectural Agriculture, Forestry and Fisheries Technology Center, [3]Kyoto Gakuen Univ.

2:55 – 3:10 p.m. Break

3:10 – 3:40 p.m. General Discussion 1 (O1–5)

3:40 – 5:00 p.m. Poster Viewing

5:00 – 6:00 p.m. Special Lecture 1

A wide variety of mutants induced by transposable elements in the Japanese morning glory (*Ipomoea nil*), Dr. Eiji Nitasaka (Kyushu University)

Saturday, September 20

9:00 – 10:00 a.m. Short Presentation (27 poster titles)

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

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

Lunch/Special Session for Students and Early Carrier Researchers/Committee Meeting

1:40 – 2:30 p.m. General Discussion 2 (P1–14)

2:30 – 2:45 p.m. Break

2:45 – 3:25 p.m. General Discussion 3 (P15–27)

3:25 – 3:40 p.m. Break

3:40 – 4:40 p.m. Oral Presentation (4 titles)

O6 Transcription profiles of soybean root genes induced during rhizobial, arbuscular mycorrhizal and dual symbioses
*K. Sakamoto[1], N. Ogiwara[1], T. Kaji[2], M. Seki[3,4], A. Matsui[4], J. Ishida[4], M. Tanaka[4]
[1]Chiba University, [2]JA ZEN-NOH, [3]JST CREST, [4]RIKEN CSRS

O7 Effect of nitrate supply on the metabolism in soybean nodules and roots by transcriptome and metabolome analysis
Shinji Ishikawa[1], Keisuke Ishikawa[1], Hiroki Aida[2], Norikuni Ohtake[1], Kuni Sueyoshi[1], *Takuji Ohyama[1]
[1]Niigata Univ. Grad. School Sci. Technol., [2]Niigata Univ. Facul. Agric.

O8 Genetic independence between PLENTY, an arabinosyltransferase homolog, and the HAR1-mediated long-distance control of nodulation in *Lotus japonicus*
*Emiko Yoro[1,2], Chie Yoshida[1], Takuya Suzaki[1,2], Masayoshi Kawaguchi[1,2]
[1]NIBB, [2]SOKENDAI

O9 Role of a class1 plant hemoglobin of *Lotus Japonicus* in symbiosis with *Mesorhizobium loti*
*Mitsutaka Fukudome, Tomohiro Kado, Ken-ichi Osuki, Ken-ichi Kucho, Mikiko Abe, Shiro Higashi, Toshiki Uchiumi
Graduate School of Science and Engineering, Kagoshima University

5:00 – 6:00 p.m. Special Lecture 2

Adaptive significance and underlying mechanism of gall induction by herbivorous insects, Dr. Makoto Tokuda (Saga University)

6:10 p.m. – Photographing

6:30 p.m. – Social Gathering

Sunday, September 21

9:30 – 10:30 a.m. Oral Presentation (4 titles)

O10 OsCERK1, LysM Receptor Kinase in Rice, Switches Rejection or Acceptance of Infecting Microbes

*Kana Miyata[1], Toshinori Kozaki[2], Yusuke Kouzai[3], Kenjirou Ozawa[3], Kazuo Ishii[2], Yosuke Umehara[3], Ayano Miyamoto[1], Yoshihiro Kobae[4], Kohki Akiyama[5], Hanae Kaku[1], Yoko Nishizawa[3], Naoto Shibuya[1], Tomomi Nakagawa[1]

[1]Meiji Univ., [2]Tokyo Univ. of Agriculture and Tech., [3]NIAS, [4]Tokyo Univ., [5]Osaka Prefecture Univ.

O11 Analysis of infection mechanisms of plant parasitic nematode

*Shinichrio Sawa, Ayane Motomitsu, Hidetaka Nishiyama, Tomomi Sagara, Yumi Kanemaru, Satoru Nakagami, and Takashi Ishida

Kumamoto University, Graduate School of Science and Technology

O12 Involvement of CLAVATA signaling pathway in nematode infection process

*Satoru Nakagami[1], Chika Ejima[1], Bui Thi Ngan[1], Hiroshi Sato[1], Ryo Tabata[2], Takashi Ishida[1], Shinichiro Sawa[1]

[1]Kumamoto Univ., [2]NIBB

O13 Involvement of biofilm formation of *Ralstonia solanacearum* on surfaces of tomato cells adjacent to intercellular spaces in its virulence on tomato plants

Yuka Mori[1], Kenji Kai[2], Hideyuki Ohnishi[2], Kanako Inoue[3], Kennichi Ikeda[3], Hitoshi Nakayashiki[3], Kouhei Ohnishi[1], Akinori Kiba[1], *Yasufumi Hikichi[1]

[1]Kochi Univ., [2]Osaka Pref. Univ., [3]Kobe Univ.

10:30 – 10:45 a.m. Break

10:45 – 11:25 p.m. General Discussion 4 (O6–13)

11:25 – 11:40 a.m. Break

11:40 – 12:40 p.m. JSPMI 24th General Meeting & Closing Ceremony

Scientific Posters of JSPMI 24th Annual Meeting

Friday, September 19

12:30 p.m. –	Poster Set-Up

Saturday, September 20

9:00 – 10:00 a.m.	Short Presentation (P1–27)
10:00 – 11:00 a.m.	Poster Viewing with Authors (*odd numbers*)
11:00 – 12:00 p.m.	Poster Viewing with Authors (*even numbers*)
1:40 – 2:30 p.m.	General Discussion (P1–14)
2:45 – 3:25 p.m.	General Discussion (P15–27)

Sunday, September 21

9:30 – 12:40 p.m.	Poster Take-Down

【Posters, 27 titles】

P1 A study of function of chitinases based on their gene expression and activity in *Physcomitrella patens*

*Saki Inamine[1], Ryusuke Tanaka[2], Kenichi Kucho[1], Mikiko Abe[1], Toshiki Uchiumi[1], Toki Taira[2]

[1]Kagoshima Univ., [2]Univ. Ryukyus

P2 Physiological activity of Cystine-rich peptides specific to the symbiotic organ of aphid

*Nahoko Uchi[1], Shuji Shigenobu[2], Miyuzu Suzuki[2], Ken-ichi Kucho[1], Mikiko Abe[1], Shiro Higashi[1], Toshiki Uchiumi[1]

[1]Graduate School of Science and Engineering, Kagoshima University, [2]National Institute for Basic Biology

P3 Host plants monitors the bacterial nitrogen fixation activity in legume-rhizobia interaction

*Tomomi Nakagawa[1,2], Wakana Nishiyama[2], Kibi Sara[2], Kana Miyata[1], Nanami Sone[1],

Naoto Shibuya[1], Shigeki Yabe[2]

[1]Meiji Univ., [2]YSFH

P4 Analysis of bacterial benefit in legume-rhizobia symbiosis

*Wakana Nishiyama[1], Sara Kibi[1], Kana Miyata[2], Nanami Sone[2], Naoto Shibuya[2], Shigeki Yabe[1], Tomomi Nakagawa[1,2]

[1]Yokohama Science Frontier High School, [2]Meiji Univ.

P5 Analysis of phenotypic variation in accessions of *Lotus japonicus* against infection of *Bradyrhizobium elkanii* USDA61

*Shohei Kusakabe[1], Takakazu Kaneko[2], Michiko Yasuda[3], Hiroki Miwa[3], Shin Okazaki[3], Shusei Sato[1]

[1]Tohoku Univ., [2]Kyoto Sangyo Univ., [3]Tokyo Univ. of Agriculture and Technol.

P6 Identification of rhizobial factors responsible for nodulation incompatibility with Rj4 soybean

*Faruque Muhammad Omar[1], Michiko Yasuda[1], Hiroki Miwa[1], Takakazu Kaneko[2], Shusei Sato[3], Shin Okazaki[1]

[1]Tokyo University of Agriculture and Technology, [2]Kyoto Sangyo University, [3]Tohoku University

P7 Functional analysis of a rhizobial factor that determine nitrogen fixation activity of host legume mutant

*Yoshikazu Shimoda[1], Yuki Nishigaya[1], Hiroko Yamaya[1,4], Yosuke Maruyama[1], Kazuhiko Saeki[2], Shusei Sato[3], Toshimasa Yamazaki[1], Hiroshi Kouchi[1,5], Yosuke Umehara[1], Makoto Hayashi[1]

[1]NIAS, [2]Nara Womens Univ., [3]Tohoku Univ., [4]Tokyo Univ. Agr. & Technol, [5]ICU

P8 Genome-wide identification of Rhizobial effector protein and its regulators

*Yosuke Maruyama[1], Shin Okazaki[2], Kazuhiko Saeki[3], Makoto Hayashi[1], Yoshikazu Shimoda[1]

[1]Division of Plant Sciences, National Institute of Agrobiological Sciences, [2]Tokyo University of Agriculture and Technology, [3]Nara Women's University

P9 Analysis of strigolactone-induced secreted protein in *Rhizophagus irregularis*

*Syusaku Tsuzuki[1], Yoshihiro Handa[2], Naoya Takeda[1,2], Masayoshi Kawaguchi[1,2]

[1]The Graduate Univ. for Advanced Studies, [2]National Inst. for Basic Biology

P10 A T3SS-dependent effector enhances symbiotic nitrogen fixation in *Bradyrhizobium japonicum* USDA122

*Yuta Suzuki[1], Cristina Sánchez[1], Kaori Kakizaki[1], Masayuki Sugawara[1], Shusei Sato[1], Takakazu Kaneko[2], Kiwamu Minamisawa[1]

[1]Graduate School of Life Sciences, Tohoku University, Sendai, Japan, [2]Faculty of Life Sciences, Kyoto Sangyo University, Kyoto, Japan

P11 Phenotypic characterization of novel nitrate-tolerant mutant lines in *Lotus japonicus*

*Hanna Nishida[1,2], Takuya Suzaki[1,2], Yoshihiro Handa[1], Masayoshi Kawaguchi[1,2]

[1]NIBB, [2]SOKENDAI

P12 Effect of nucleotide polymorphism of *SEN1* gene on the legume phenotype

*Hidenori Kawazumi[1], Katsuya Harada[1], Akiyoshi Tominaga[1,2], Norio Suganuma[3], Masatsugu Hashiguchi[4], Ryo Akashi[4], Satoshi Watanabe[1], Toyoaki Anai[1,2], Susumu Arima[1,2], Akihiro Suzuki[1,2]

[1]Faculty of Agriculture, Saga University, [2]The United Graduate School of Agricultural Sciences, Kagoshima University, [3]Aichi University of Education, [4]University of Miyazaki・FSRC

P13 Cytokinin response during type-3-secretion-mediated nodulation

*Hiroki Miwa, Michiko Yasuda, Shin Okazaki

Tokyo University of Agriculture and Technology

P14 Structural analysis of O-antigen polysaccharide in lipopolysaccharide from *Mesorhizobium loti*

*Seiya Ogawa, Masato Mizukami, Ken-ichi Osuki, Mikiko Abe, Ken-ichi Kucho, Toshiki Uchiumi, Masahito Hashimoto

School of Sci. Eng., Kagoshima Univ.

P15 Analysis of flavonoid contents in soybeans grown in the field

*Yumi Yamazaki[1], Akifumi Sugiyama[1], Hisabumi Takase[2], Kazufumi Yazaki[1]

[1]Kyoto Univ. RISH., [2]Kyoto Gakuen Univ.

P16 Effect of temperature and light/dark conditions on nodule growth of soybean

*Yuki Ono[1], Keisuke Ishikawa[2], Shinji Ishikawa[2], Norikuni Ohtake[2], Kuni Sueyoshi[2], Sayuri Tanabata[3], Takanari Tanabata[4], Takuji Ohyama[1]
[1]Niigata Univ. Facul. Agric., [2]Niigata Univ. Grad. School Sci. Tech., [3]Meiji Univ. Kurokawa Farm., [4]RIKEN CSRS

P17 Effect of light irradiation to the root on the rhizobial proliferation and nodulation
*Aya Shimomura[1,2], Nobuyuki Miyazaki[2], Sayaka Moriuchi[2], Maki Nagata[2], Hideki Hirakawa[3], Shusei Sato[4], Satoshi Tabata[3], Susumu Arima[1,2], Akihiro Suzuki[1,2]
[1]United Graduate School of Agricultural Sciences, Kagoshima Univ., [2]Faculty of Agriculture, Saga Univ.

P18 Functional analysis of LjSWEET3, a sugar transporter in the nodule of *Lotus japonicus*
*Mayuko Yoshimizu[1], Akifumi Sugiyama[1], Yuka Saida[1], Kojiro Takanashi[1], Davide Sosso[2], Wolf B Frommer[2], Kazufumi Yazaki[1]
[1]Kyoto Univ. RISH, [2]Carnegie Institution

P19 Characterization of rhizoia isolated from Japanese alpine legumes
*Naoto Seo[1], Kojiro Takanashi[1], Kazufumi Yazaki[1]
[1]Research Institute for Sustainable Humanosphere, Kyoto Univ.

P20 Preliminary characterization of AM fungus-derived chitinous compounds that induce symbiotic responses in rice (*Oryza sativa*)
*Yusuke Tatsumi, Kohki Akiyama
Osaka Prefecture Univ.

P21 Effect of red/far-red ratio on synthesis of phytohormones
*Maki Nagata, Naoya Yamamoto, Yohei Terasawa, Susumu Arima, Toyoaki Anai, Akihiro Suzuki
Faculty of Agriculture, Saga Univ.

P22 Effect of light quality on arbuscular mycorrhizal symbiosis in *Lotus japonicus*
*Naoya Yamamoto, Maki Nagata, Susumu Arima, Akihiro Suzuki
Faculty of Agriculture, Saga Univ.

P23 Evaluation of mycorrhizal effects among Soybean cultivars
*Haruko IMAIZUMI-ANRAKU

NIAS

P24 Transcriptome analaysis of *Bletilla striata* (Orchidaceae) for comprehensive identification of genes specifically induced by mycorrhizal symbiosis

*Yuria Otani[1], Shotaro Nagata[1], Masahide Yamato[2], Katsushi Yamaguchi[3], Tatsuki Yamamoto[1], Hisayo Asao[3], Miwako Matsumoto[3], Takahiro Yagame[4], Shuji Shigenobu[3], Hironori Kaminaka[1]

[1]Faculty of Agriculture, Tottori University, [2]Faculty of Education, Chiba University, [3]National Institute for Basic Biology, [4]Tsukuba Botanical Garden, National Museum of Nature and Science

P25 Genomic analysis of *Rhizobium* sp. strain KAW12, an endophyte isolated from *Lotus japonicus*

*Takakazu Kaneko[1], Sho Sugitani[1], Ryuichi Harada[1], Hideki Hirakawa[2], Yasuyuki Kawaharada[3], Elena Simona Radutoiu[3], Shusei Sato[4]

[1]Kyoto Sangyo Univ., [2]Kazusa DNA Res. Inst., [3]Aarhus Univ., [4]Tohoku Univ.

P26 Inoculation effects of diazotrophic endophyte (*Bradyrhizobium* sp. AT1) on different cultivars of sweet potatoes.

*Junko Terakado-Tonooka[1], Akihiro Suzuki[1], Fukuyo Tanaka[2], Yoshinari Ohwaki[2]

[1]Saga Univ., [2]NARC

P27 Effect of root exudates on hydrogen uptake activity of plant-associated streptomycetes

*M. Kanno[1], P. Constant[2], H. Tamaki[1], S. Kato[1] and Y. Kamagata[1]

[1]Bioproduction Research Institute, National Institute of Advanced Industrial Science and Technology, [2]Centre INRS-Institut Armand-Frappier, Canada