Daily Schedule and Sessions of 25th JSPMI Annual Meeting

Monday, September 14

12:00 p.m. – Registration

1:00 – 1:10 p.m. Opening Ceremony

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

1 Cloning and characterization of field resistance gene

*Haruhiko Inoue, Hiroshi Takatsuji, Nagao Hayashi

NIAS

2 Replication of tomato spotted wilt virus S RNA in *Saccharomyces cerevisiae*

*Kazuhiro Ishibashi, Masayuki Ishikawa

NIAS

3 Biofilm formation by *Ralstonia solanacearum* strain OE1-1 after invasion into intercellular spaces is dependent on the quorum sensing using methyl 3-hydroxymyristate as a quorum sensing signal and is required for its virulence

*Yasufumi Hikichi[1], Yuka Mori[1], Shiho Ishikawa[1], Chikaki Higashimoto[1], Hideyuki Ohnishi[2], Mika Shimatani[2], Kanako Inoue[3], Kenichi Ishikawa[4], Hitoshi Nakayashiki[4], Akinori Kiba[1], Kouhei Ohnishi[1], Kenji Kai[2]

[1]Kochi Univ., [2]Osaka Pref. Univ., [3]Osaka Univ., [4]Kobe Univ.

4 Analysis of molecular mechanisms underlying root-knot formation induced by phytoparasitic nematode *Meloidogyne incognita*.

Tomomi Sagara[1], Reira Suzuki[2], Yasuka L. Yamaguchi[1], Satoru Nakagami[1], Hiroshi Sato[1], Chika Ejima[1], Ngan Bui Thi[1], *Takashi Ishida[1], Shinichiro Sawa[1,2]

[1]Grad. Sch. Sci. Tech. Kumamoto Univ., [2]Faculty Sci. Kumamoto Univ.

5 Involvement of CLE peptide signaling in nematode infection process.

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

[1] Graduate School of Science and Technology, Kumamoto University, Kumamoto, [2] National Institute for Basic Biology, Okazaki

2:25 – 2:40 p.m. Break

2:40 – 3:40 p.m. Oral Presentation (4 titles)

6 Identification of transcription factors that induce nodule primordia downstream of NIN

*Takashi Soyano, Hayashi Makoto
RIKEN CSRS

7 Analysis of host factors responsible for interaction with *Bradyrhizobium elkanii* USDA61 by using *Lotus japonicus*.

*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.

8 Identification of a new pathway involved in nitrate-mediated inhibitory mechanism of root nodule symbiosis

*Hanna Nishida[1,2], Takuya Suzaki[3], Masayoshi Kawaguchi[1,2]
[1]SOKENDAI, [2]NIBB, [3]Tsukuba Univ.

9 Transcriptome analysis of mycoheterotrophy in *Epipactis helleborine* var. sayekiana (Orchidaceae).

*Chihiro Miura[1,2], Kenji Suetsugu[3], Masahide Yamato[4], Katsushi Yamaguchi[5], Kazuya Takahashi[4], Yoshiko Ida[1], Shuji Shigenobu[5], Hironori Kaminaka[1]
[1]Fac. Agr., Tottori Univ., [2]Org. Reg. Ind. Acad. Coop., Tottori Univ., [3]The Hakubi Ctr., Kyoto Univ., [4]Faculty of Educ., Chiba Univ., [5] NIBB

3:40 – 3:55 p.m. Break

3:55 – 5:00 p.m. General Discussion 1 (oral: 1–9)

5:00 p.m.– Poster Viewing

Tuesday, September 15

9:00 – 10:00 a.m. Short Presentation (35 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

2:00 – 3:00 p.m. General Discussion 2 (poster: P1–18)

3:00 – 3:15 p.m. Break

3:15 – 4:15 p.m. General Discussion 3 (poster: P19–35)

4:15 – 4:30 p.m. Break

4:30 – 5:30 p.m. Special Lecture 1

Vascular hijack by parasitic plants

Dr. Ken Shirasu (RIKEN CSRS)

5:30 – 6:30 p.m. Special Lecture 2

Evolution of Insect-Microbe Symbiotic Associations

Dr. Takema Fukatsu (National Institute of Advanced Industrial Science and Technology, Bioproduction Research Institute)

6:30 p.m. – Photographing

7:00 p.m. – Social Gathering

Wednesday, September 16

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

10 Analysis of varietal difference of arbuscular mycorrhizal responsiveness among soybean cultivars

*Haruko Imaizumi-Anraku[1], Yuichiro Ohouchi[2], Kyoko Takagi[3], Yoshikazu Shimoda[1], Jun Abe[2], Masao Ishimoto[1]

[1]NIAS, [2]Hokkaido Univ., [3]NARO

11 Field experiments on varietal differences in growth responses of rice (*Oryza sativa*) to an arbuscular mycorrhizal fungus, *Funneliformis mosseae*

Thongkhoun Sisaphaithong[1], Shinichi Hanai[1], Rie Tomioka[1], Yoshihiro Kobae[1], Aiko Tanaka[1], Katsuya Yano[1], Chisato Takenaka[1], *Shingo Hata[1,2]

[1]Grad. Sch. of Bioagricult. Sci. Nagoya Univ., [2]Fac. of Agr. Ryukoku Univ.

12 Involvement of a mycorrhiza-inducible purple acid phosphatase in phosphorus transfer via the mycorrhizal pathway

Yuko Yoshimura[1], Ysuyuki Osada[1], Kaori Akamatsu[1], Yoshiyuki Kobae[2], Masanori Saito[3], Tatsuhiro Ezawa[4], *Katsuharu Saito[1]

[1]Shinshu Univ., [2]NARO HARC, [3]Tohoku Univ., [4]Hokkaido Univ.

13 Evaluation of soil microbial growth and activity in fruits orchards under sod culture system

*Andre Freire Cruz[1], Marcio de Carvalho Pires[2], Maria Lucrecia Gerosa Ramos[2], Luiz Eduardo Bassay Blum[2], Osvaldo Kiyoshi Yamanishi[2]

[1]Kyoto Prefectural University, [2]Universidade de Brasilia

14 Interkingdom chemical signaling of plant root and their microbes

*Ravindra Pal Singh

Department of Bioscience and Biotechnology, Faculty of Agriculture, Kyushu University

15 Bacterial community assessments of soybean grown in fields

*Akifumi Sugiyama[1], Yusuke Unno[2], Ui Ono[3], Masami Yoshikawa[3], Hideyuki Suzuki[4], Kiwamu Minamisawa[5], Kazufumi Yazaki[1]

[1]RISH, Kyoto Univ., [2]Institute for Environmental Sciences, [3]Kyoto Prefectural Agriculture, Forestry and Fisheries Technology Center, [4]Kazusa DNA Res Inst., [5]Life Sci. Tohoku Univ.

16 Metagenome-mapping method discriminates native and inoculant populations of soybean bradyrhizobia in agricultural soil

*Kiwamu Minamisawa[1], Kazuma Kanehara[1], Manabu Itakura[1], Hirohito Tsurumaru[1], Yuko Takada-Hoshino[2], Yong Wang[2], Hiroko Akiyama[2], Masahito Hayatsu[2]

[1]Tohoku University, [2]National Institute for Agro-Environmental Sciences

10:45 – 11:00 a.m.	Break
11:00 – 11:45 p.m.	General Discussion 4 (oral: 10–16)
11:45 – 12:00 a.m.	Break
12:00 – 12:30 p.m.	JSPMI 25th General Meeting & Closing Ceremony

Scientific Posters of JSPMI 25th Annual Meeting

Monday, September 14

12:00 p.m. – Poster Set-Up

Tuesday, September 15

9:00 – 10:00 a.m. Short Presentation (P1–35)

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

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

2:00 – 3:00 p.m. General Discussion (P1–18)

3:15 – 4:15 p.m. General Discussion (P19–35)

Sunday, September 21

9:00 – 12:30 p.m. Poster Take-Down

【Posters, 35 titles】

P1 Investigation into using new fertilizer including nitrification inhibitor by deep placement to cultivate soybean

* Soshi Hatano[1], Yuki Ono[1], Norikuni Ohtake[1], Kuni Sueyoshi[1], Yoshifumi Nagumo[2], Yoichi Fujita[2], Takuji Oyama[1]

[1]Niigata Univ., [2] Niigata Agricultural Research Institute

P2 Effect of inorganic nitrogen supply on the metabolites in roots and nodules of soybean

*Yuki Ono, Daiki Goto, Norikuni Ohtake, Kuni Sueyoshi, Takuji Ohyama

Niigata Univ. Grad. School Sci. Tech.

P3 Analysis of the flavonoid secretion and dynamics about soybeans during growth in the field

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

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

P4 Distribution of *Rj2* genotype in Japanese soybean resource

*Masayuki Sugawara[1], Yosuke Umehara[2], Kaori Chiba-Kakizaki[1], Shusei Sato[1], Akito Kaga[2], Masao Ishimoto[2], Kiwamu Minamisawa[1]

[1]Tohoku Univ., [2]NIAS

P5 Search of the causative gene for trichome using QTL analysis in *Lotus japonicus*.

*Satomi Kawano[1], Yoshiaki Tominaga[1], Aiko Ide[1], Syusei Sato[2], Susumu Arima[1], Akihiro Suzuki[1]

[1]Saga Univ., [2]Tohoku Univ.

P6 LjHb1, a class 1 plant hemoglobin in *Lotus japonicus*, is involved in nodule senescence by regulating nitric oxide

*Mitsutaka Fukudome[1], Tomohiro Kado[1], Ken-ichi Osuki[1], Ken-ichi Kucho[1], Mikiko Abe[1], Shiro Higashi[1], Ryujiro Imaizumi[2], Toshio Aoki[2], Toshiki Uchiumi[1]

[1]Graduate School of Science and Engineering, Kagoshima University, [2]Department of Applied Biological Science, Nihon University

P7 NO mediated ferritin accumulation in *Lotus japonicus* nodule

*Mika Nomura, Sirinapa Chungopast, Shigeyuki Tajima

Fac. of Agri, Kagawa Univ.

P8 Physiological activity of cysteine rich peptides specific to symbiotic organ of plants and aphids

*Nahoko Uchi[1], Shuji Shigenobu[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

P9 Isolation of hyphal branching inducers from AHL-producing bacteria, living on spores of AM fungi

*Tomo Miyake, Kenji Kai, Kohki Akiyama

Osaka Prefecture Univ

P10 Phosphate represses genes involved in cutin-like substance biosynthesis in arbuscular mycorrhizal roots of *Lotus japonicus*

*Yusaku Sugimura[1], Yusuke Honma[2], Katsuharu Saito[2]

[1]Interdisciplinary Graduate School of Science and Technology, Shinshu University, [2]Faculty of Agriculture, Shinshu University

P11 Induction of symbiotic gene expression by AM fungal cell wall-derived chitinous oligosaccharides in rice (*Oryza sativa*)

*Yusuke Tatsumi, Kohki Akiyama
Osaka Prefecture Univ.

P12 PCR-SSCP Analysis of Asparagus Decline and Disease Control and Antioxidative Changes by AMF

*Liu Jia[1], Yoh-ichi Matsubara[2]
[1]The United Graduate School of Agricultural Science, Gifu Univ., [2]Faculty of Applied Biological Sciences, Gifu Univ.

P13 Function of mycorrhizal symbiosis for early growth after germination in *Bletilla striata* (Orchidaceae)

*Tatsuki Yamamoto[1], Chihiro Miura[1,2], Shotaro Nagata[1], Yuria Otani[1], Takahiro Yagame[3], Masahide Yamato[4], Hironori Kaminaka[1]
[1]Fac. Agr., Tottori Univ., [2]Org. Reg. Ind. Acad. Coop., Tottori Univ., [3]Tsukuba Bot. Gar., Nat. Mus. Nat. Sci., [4]Fac. Edu., Chiba Univ.

P14 Salinity tolerance and SEM-EDX analysis of Na^+ diversity in plant tissue with nano-suit in mycorrhizal vegetable crops

*Etsuya Fujihara[1], Yoh-ichi Matsubara[2]
[1]Gifu Univ. Appl. Biol. Sci., [2]Gifu Univ. Appl. Biol. Sci.

P15 Analysis of ACRE76, an interactor of the nod factor receptor NFR1

*Akihiro Yamazaki, Makoto Hayashi
RIKEN CSRS

P16 Difference in nitrogen fixing activity by host plant genotypes

*Tsuneo Hakoyama, Makoto Hayashi
RIKEN CSRS

P17 Gibberellin signaling interacts with symbiosis signaling pathways

*Naoya Takeda[1], Miwa Nagae[1], Mikiko Kojima[2], Hitoshi Sakakibara[2], Masayoshi Kawaguchi[1]

[1]NIBB/SOKENDAI, [2]RIKEN CSRS

P18 Rhizobial gibberellin biosynthesis regulates the host nodulation

*Yohei Tatsukami[1,2], Mitsuyoshi Ueda[1]

[1]Grad. Sch., Agric., Kyoto Univ., [2]JSPS Research Fellow (DC1)

P19 Possibility that far-red light reached to roots from the above ground parts influences the activity of symbionts

*Taro Miyamoto[1], Naoya Yamamoto[1], Aya Shimomura[1,2], Kie Saitoh[1], Susumu Arima[1,2], Akihiro Suzuki[1,2]

[1]Faculty of Agriculture, Saga Univ., [2]United Graduate School of Agricultural Sciences, Kagoshima Univ.

P20 Plant tissue localization of *Methylibium* sp. isolated from potato

*Motoaki Iijima[1], Nobutaka Someya[2], Seishi Ikeda[3], Kazuyuki Okazaki[3], Takuji Ohwada[1]

[1]Obihiro University of Agriculture and Veterinary Medicine, [2]National Agriculture and Food Research Organization, [3]NARO Hokkaido Agricultural Research Center

P21 Comparative genome analysis of *Pseudomonas protegens* and closely related strains identifies biocontrol factors of a newly isolated strain

*Kasumi Takeuchi[1], Naomi Noda[1], Yuichi Katayose[1], Yoshiyuki Mukai[1], Hisataka Numa[1], Kosumi Yamada[2], Nobutaka Someya[3]

[1]NIAS, [2]Univ. Tsukuba, [3]NARO

P22 Changes in root-associated bacterial communities on Arabidopsis in response to nitrate supply

*Noriyuki Konishi[1], Toshihiko Hayakawa[1], Tomoyuki Yamaya[1], Kiwamu Minamisawa[1]

[1]Tohoku Univ.

P23 Genome sequences of rhizobia isolated from Japanese alpine legumes

*Kojiro Takanashi[1], Hajime Ikeda[2], Naoto[3] Seo, Shusei Sato[4], Kazufumi Yazaki[3]

[1]IMS, Shinshu Univ., [2]IPSR, Okayama Univ., [3]RISH, Kyoto Univ, [4]Grad. Sch. Life Sci., Tohoku Univ.

P24 An exploration for genes involved in salt-tolerance in *Lotus* rhizobia

*Kazuna Kubota[1], Mifu Ozawa[1], Hiroko Maita[2,3], Hideki Hirakawa[3], Shusei Sato[2], Kazuhiko Saeki[1]

[1]Nara Women's Univ., [2]Tohoku Univ., [3]Kazusa DNA Res. Inst.

P25 Role in the symbiosis of *Bradyrhizobium japonicum* USDA110 TetR family

*Koumei Taneda, Mizuki Nakamura, Takuji Ohwada
Obihiro University of Agriculture and Veterinary Medicine

P26 Cancelled

P27 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 Women's Univ., [3]Tohoku Univ., [4]Tokyo Univ. Agr. & Technol, [5]ICU

P28 Rhizobial type 3 effector protein regulate soybean nodulation

*Hiroki Miwa[1], Faruque Omar[1], Sachiko Masuda[1], Michiko Yasuda[1], Takakazu Kaneko[2], Shusei Sato[3], Shin Okazaki[1]
[1]Tokyo University of Agriculture and Technology, [2]Kyoto Sangyo University, [3]Tohoku University

P29 Isolation and characterization of *Bradyrhizobium elkanii* mutants with altered nodulation compatibility with *Vigna radiata*

*Hien Nguyen Phuoc, Faruque Omar, Hiroki Miwa, Shin Okazaki
Tokyo University of Agriculture and Technology

P30 Characterization of transposon mutants of *Bradyrhizobium elkanii* USDA61 that formed effective nodule on *Rj4* soybean

*Faruque Muhammad Omar[1], Hiroki Miwa[1], Michiko Yasuda[1], Sachiko Masuda[1], Yoshiharu Fujii[1], Takakazu Kaneko[2], Shusei Sato[3], Shin Okazaki[1]
[1]Tokyo University of Agriculture and Technology, [2]Kyoto Sangyo University, [3]Tohoku University

P31 Effector-triggered immunity determines symbiotic incompatibility of soybean carrying *Rj4* allele

*Michiko Yasuda, Hiroki Miwa, Sachiko Masuda, Shin Okazaki
Tokyo University of Agriculture and Technology

P32 Screening of novel plant activators based on production of reactive oxygen species and their mode of action.

*Ayumi Yoshida[1], Nobutaka Kitahata[1], Takehumi Yoshikawa[1], Masaki Nakano[1], Kazuyuki Hiratsuka[2], Takamitsu Kurusu[3], Tadao Asami[4], Kazuyuki Kuchitsu[1]

[1]Tokyo Univ. of Science, [2]Yokohama National Univ., [3]Tokyo Univ. of Technology, [4]Tokyo Univ.

P33 Antifungal effects of *Lamiaceae* herb extracts on horticultural plant diseases and metabolome analysis

*Wataru Morita[1], Youichi Matsubara[2]

[1]Gifu Univ. Appl. Biol. Sci., [2]Gifu Univ. Appl. Biol. Sci.

P34 Quorum sensing mechanism of *Ralstonia solanacearum* strain OE1-1 -Involvement of a novel quorum sensing signal methyl 3-hydroxymyristate in its virulence-

*Shiho Ishikawa[1], Yuka Mori[1], Chikaki Higashimoto[1], Mika Shimatani[2], Hideyuki Ohnishi[2], Akinori Kiba[1], Kouhei Ohnishi[3], Kenji Kai[2], Mitsuaki Tabuchi[4], Yasufumi Hikichi[1]

[1]Kochi Univ., [2]Osaka Pref. Univ., [3]Kochi Univ., [4]Kagawa Univ.

P35 The *lecM* encoading the lectin, RS-IIL, is involved in biofilm formation which is essential to virulence of *Ralstonia solanacearum*

*Yuka Mori[1], Hideyuki Ohnishi[2], Kanako Inoue[3], Kenichi Ikeda[4], Hitoshi Nakayashiki[4], Akinori Kiba[1], Kouhei Ohnishi[5], Kenji Kai[2], Yasufumi Hikichi[1]

[1]Fac. of Agri., Kochi Univ., [2]Osaka Pref. Univ., [3]Osaka Univ., [4]Kobe Univ., [5]RIMG, Kochi Univ.