Japanese Society of Plant Microbe Interactions
The 34th annual meeting

Tsukuba International Congress Center

September 16-18, 2025

Schedule

Tuesday, September 16	
12:00～	Registration
12:50～13:00	Opening Ceremony
13:00～14:15	Oral Presentation（O1～O5）
14:15～14:30	Break
14:30～15:45	Oral Presentation（O6～O9）
15:45～16:00	Break
16:00～17:00	Oral Presentation（O11～O14）
17:00～17:15	Break
17:15～18:30	General Discussion 1 (O1~O14)
Wednesday, September 17	
8:30～9:50	Short Presentation (all posters)
10:00～11:00	Poster Viewing with Authors (odd numbers)
11:00～12:00	Poster Viewing with Authors (even numbers)
12:05～13:10	Lunch/Special Session for Students and Early Carrier Researchers/Committee Meeting
13:20～14:30	General Discussion 2 (P1 – P24)
14:30～14:45	Break
14:45～15:55	General Discussion 3（P25～P49）
15:55～16:10	Break
16:10～16:40	NBRP Lecture (Dr. Tomomi Wakabayashi)
16:40～17:25	Special Lecture 1 (Dr. Shuji Shigenobu)
17:25～17:40	Break
17:40～18:25	Special Lecture 2（Dr. Nobuhiko Nomura）
18:45～20:45	Social Gathering
Thursday, September 18	
9:00～10:15	Oral Presentation（O15～O19）
10:15～10:30	Break
10:30～11:00	General Discussion 4（O15～O19）
11:00～11:10	Break
11:10～11:40	JSPMI 34th General Meeting & Closing Ceremony

Daily Schedule and Sessions of 34th JSPMI Annual Meeting

Tuesday, September 16
0:00 p.m. – Registration

0:50 – 1:00 p.m. Opening Ceremony

1:00 – 2:15 p.m. Oral Presentation (5 titles: O1~O5)
***** Boxed numbers indicate presentations by student.

O1 Differences in Nod factor reception and symbiotic signaling pathways among *Lotus japonicus* ecotypes
*Yuki Murakami[1], Hayato Fukuda[1], Misaki Hayata[1], Mayu Higashi[1], Akira Akamatsu[1], Masayoshi Kawaguchi[2], Naoya Takeda[1]
[1]Grad. Sch. of Sci. and Eng. Kwansei Gakuin Univ., [2]NIBB

O2 Novel rhizobial Type III effector inducing soybean nodule formation
*Shogo Fukunaga[1], Shusei Sato[2], Shin Okazaki[1]
[1]Untd. Grad. Sch. of Agric. Sci. Tokyo Univ. of Agric. and Tech., [2]Grad. Sch. of Life Sci. Tohoku Univ.

O3 Growth-promoting effect of root/stem nodule symbiosis in *Sesbania rostarata* infected with *Azorhizobium caulinodans* ORS571
*Ayato Inada[1], Takahiko Koizumi[1], Kosuke Yamamoto[1], Yasuyuki Kawaharada[2], Hiromasa Saitoh[1]
[1]Grad. Sch. of Life Sci. Tokyo University of Agriculture, [2]Fac. of Agr. Iwate University

O4 Elucidation of the nitrogen acquisition mechanism mediated by bacterial volatile compounds in *Lotus japonicus*
*Masato Yosai[1], Ryo Kanbayashi[2], Sayaka Yasuda[2], Masato Umedu[2], Takato Yokoi[2], Yasuyuki Kawaharada[1,2]
[1]Grad. of Arts and Sci., Univ. Iwate, [2]Agri., Univ. Iwate

O5 Effects of genetic variation within *Lotus japonicus* on arbuscular mycorrhizal fungal communities
*Yuta Nakano[1], Masaru Bamba[1,2], Yusuke Azuma[1], Shusei Sato[1]
[1]Grad. Sch. of Life Sci.Tohoku Univ., [2]Fujieda field, Fac. of Agr., Shizuoka Univ.

2:15 – 2:30 p.m. Break

2:30 – 3:45 p.m. Oral Presentation (5 titles: O6~O10)

O6 Functional elucidation of strigolactone in the regulation of arbuscular mycorrhizal symbiosis in tomato
*Yuka Higashi[1], Hikaru Saito[1], Chihiro Miura[2], Hironori Kaminaka[2]
[1]Grad. Sch. Agr., Tottr Univ., [2]Fac. Agr., Tottori Univ.

O7 A novel transcriptional regulator, AoiR, functions at the downstream of quorum sensing to regulate virulence of *Ralstonia pseudosolanacearum* strain OE1-1
*Aoi Ikeuchi, Sora Tateda, Tatsuya Ueyama, Shoka Fujisaka, Akinori Kiba, Kouhei Ohnishi, Yasufumi Hikichi, Masayuki Tsuzuki
Fac. of Agric. and Mar. Sci., Kochi Univ.

O8 Why does *Ralstonia solanacearum* species complex possess two paralogous Fur proteins? - synergistic contribution of Fur to the regulation of iron acquisition -
*Sora Tateda, Tatsuya Ueyama, Aoi Ikeuchi, Shoka Fujisaka, Akinori Kiba, Kouhei Ohnishi, Yasufumi Hikichi, Masayuki Tsuzuki
Fac. of Agric. and Mar. Sci., Kochi Univ.

O9 Addition of alternative amino acids to the C-terminus of LysR-type transcriptional regulator PhcA leads to a loss in virulence of *Ralstonia pseudosolanacearum* strain OE1-1
*Tatsuya Ueyama, Yuri Abe, Sora Tateda, Aoi Ikeuchi, Shoka Fujisaka, Akinori Kiba, Kouhei Ohnishi, Yasufumi Hikichi, Masayuki Tsuzuki
Fac. of Agric. and Mar. Sci., Kochi Univ.

O10 Cooperative interaction between *Fusarium* and nitrogen-fixing bacterium in rhizosphere SynCom
*Yuina Nomura[1], Momoka Yorinaga[1], Mahiro Toda[1], Arisa Nishihara[2], Tomoki Nishioka[3], Takuya Suzaki[1], Hideyuki Tamaki[3], Norio Takeshita[1]
[1]Univ. Tsukuba, [2]JCM, Riken, [3]AIST

3:45 – 4:00 p.m. Break
4:00 – 5:00 p.m. Oral Presentation (4 titles: O11~O14)

O11 Mutualistic bacterial interactions enhancing rice growth across diverse iron conditions
*Mari Okuda, Kanako Inoue, Yuki Fukumoto, John Jewish A. Dominguez, Yusuke Saijo
NAIST

O12 Degradation properties and regulatory mechanisms of isoflavone-degrading bacteria in the soybean rhizosphere
*Tomoaki Sato[1], Tomohisa Shimasaki[2], Kyoko Takamatsu[1], Noritaka Aoki[1], Shigenobu Kishino[3], Akinori Ando[3], Jun Ogawa[3], Sachiko Masuda[4], Arisa Shibata[4], Ken Shirasu[4], Kazufumi Yazaki[1], Akifumi Sugiyama[1]
[1]RISH, Kyoto Univ., [2]Fac. Sci. Hokkaido Univ., [3]Grad. Sch. Agric., Kyoto Univ., [4]RIKEN CSRS

O13 Elucidation of the effects of soybean flavonoid hydroxylase function on the rhizosphere bacterial community
*Koshiro Matsumura[1], Hinako Matsuda[1], Kyoko Takamatsu[1], Shinichi Yamazaki[2,4], Hisabumi Takase[5], Yoshiharu Fujii[6], Yuichi Aoki[2,3], Nozomu Sakurai[8], Kazufumi Yazaki[1], Akifumi Sugiyama[1]
[1]RISH, Kyoto Univ., [2]ToMMo,Tohoku Univ., [3]GSIS, Tohoku Univ. [4]RIKEN CSRS, [5]Fac. of Bioenviron. Sci., KUAS, [6]Fac. of Agric. Tokyo Univ. of Agric. and Tech., [7]NIG, [8]KAZUSA DNA Res. Inst.

O14 Functional characterization of a *Ralstonia pseudosolanacearum* effector targeting host NAD^+ metabolism
Yukinao Wake, Shion Kaji, Mana Toshio, Sho Suwa, Naotaka Tanaka, *Mitsuaki Tabuchi
Fac. Agric. Univ. of Kagawa

5:00 – 5:15 p.m. Break

5:15 – 6:30 p.m. General Discussion 1 (O1~O14)

Wednesday, September 17

8:30 – 9:50 a.m. Short Presentation (49 poster titles)

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

11:00 – 0:00 p.m. Poster Viewing with Authors (*even numbers*)

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

1:20 – 2:30 p.m. General Discussion 2 (P1 – P24)

2:30 – 2:45 p.m. Break

2:45 – 3:55 p.m. General Discussion 3 (P25 – P49)

3:55 – 4:10 p.m. Break

4:10 – 4:40 p.m. NBRP Lecture
"Population dynamics and environmental adaptation mechanisms of *Lotus japonicus* in Japan"
Dr. Tomomi Wakabayashi（NAIST）

4:40 – 5:25 p.m. Special Lecture 1
"Symbiogenomics: Lessons from Insect–Bacterial Endosymbiosis"
Dr. Shuji Shigenobu（NIBB, Univ Tsukuba）

5:25 – 5:40 p.m. Break

5:40 – 6:25 p.m. Special Lecture 2
"Bacterial biofilms and Heterogeneity ~Biofilm and Cell-cell communication~"
Dr. Nobuhiko Nomura（Univ Tsukuba）

6:45 – 8:45 p.m. Social Gathering

Thursday, September 18

9:00 – 10:15 a.m. Oral Presentation (5 titles: O15~O19)

O15 A bean bug symbiont metabolizes urea-related compounds originating from nodule symbiosis
*Tomohisa Shimasaki[1], Minhyung Jung[2], Tomoaki Sato[3], Maiko Furubayashi[2], Nakano Thomas Ryohei[1], Akifumi Sugiyama[3], Tsubasa Ohbayashi[4], Yositomo Kikuchi[2,5]
[1]Faculty of Science, Hokkaido Univ., [2]BPRC, AIST, [3]RISH, Kyoto Univ., [4]NIAES, NARO, [5]Grad. Sch. of Agri., Hokkaido Univ.

O16 Diversification of *cis/trans* isomerase Cyclophilin A and functional differentiation across symbiotic modes
*Takashi Goto[1,2], Yasuyuki Kawaharada[3], Kasper Røjkjær Andersen[1], Masaru Bamba[4], Shusei Sato[5], Masayuki Sugawara[6], Kiwamu Minamisawa[5], Masayoshi Kawaguchi[2,7], Jens Stougaard[1]
[1]Aarhus Univ., [2]NIBB, [3]Iwate Univ., [4]Shizuoka Univ., [5]Tohoku Univ., [6]Obihiro Univ. of Agric. and Vet. Med., [7]SOKENDAI

O17 Uncovering host genotype–soil microbiota compatibility driving growth promotion in *Lotus japonicus*
*Yusdar Mustamin[1], Satomi Nozawa[1], Masaru Bamba[1,3], Turgut Yigit Akyol[2], Johan B. Quilbe[2], Stig U. Andersen[2], Shusei Sato[1]
[1]Grad. Sch. of Life Sciences, Tohoku Univ., [2]Dept. of Molecular Biology and Genetics, Aarhus Univ., [3]Fac. of Agriculture, Shizuoka Univ.

O18 Are mannose-binding lectins diversified in Orchidaceae involved in orchid-fungi relationships?
*Chihiro Miura[1], Wakana Inoue[1], Katsushi Yamaguchi[2], Takahiro Yagame[3], Masahide Yamato[4], Shuji Shigenobu[2,5], Hironori Kaminaka[1]
[1]Fac. Agr., Tottori Univ., [2]TSB, NIBB, [3]Showa Univ., [4]Fac. Edu., Chiba Univ., [5]TARA, Univ. Tsukuba

O19 Bioherbicidal activity and selectivity of *Teratoramularia rumicicola* strain TR4 isolated from *Rumex crispus* L.
*Masataka Izumi[1], Toyozo Sato[2]
[1]Grad. Sch. of Agri. Kyoto Univ., [2]Niigata Agro-Food Univ.

10:15 – 10:30 a.m. Break

10:30 – 11:00 a.m. General Discussion 4 (O15~O19)

11:00 – 11:10 a.m. Break

11:10 – 11:40 a.m. JSPMI 34th General Meeting & Closing Ceremony

Scientific Posters of JSPMI 34th Annual Meeting

Tuesday, September 16
0:00 p.m. – Poster Set-Up

Wednesday, September 17
8:30 – 9:50 a.m. Short Presentation (all posters)

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

11:00 – 0:00 p.m. Poster Viewing with Authors (*even numbers*)

1:20 – 2:30 p.m. General Discussion 2 (P1~P24)

2:45 – 3:55 p.m. General Discussion 3 (P25~P49)

Wednesday, September 17
0:00 – 9:00 p.m. Poster Take-Down

【Posters, 49 titles】
***** Boxed poster numbers indicate presentations by student.

P1 Functional analysis of the Type III effector NopM from *Bradyrhizobium elkanii* USDA61 using transgenic hairy roots of *Lotus japonicus*
*Satomi Nozawa[1], Shun Hashimoto[1], Cui Ying[1], Masaru Bamba[2], Shigeru Hanano[1], Hisayuki Mitsui[1], Shusei Sato[1]
[1]Grad. Sch. of Life Sci. Tohoku Univ., [2]Fujieda field, Fac. of Agric., Shizuoka Univ.

P2 Regulation of compatible and incompatible nodulation in *Vigna* spp. mediated by the Type III secretion system of *Bradyrhizobium ottawaense*
*Jannat Mahbubah[1], Yasuyuki Kawaharada[1,2]
[1]Grad. Sch. of Agric. Sci. Iwate Univ, [2]Iwate Univ.

P3 Adenosylhomocysteine hydrolase gene of *Mesorhizobium loti* affects root nodule symbiosis
*Yuhei Chiba[1], Masato Yosai[2], Momoko Hayashi[1], Ryohei Thomas Nakano [3], Yasuyuki Kawaharada[1,2]
[1]Fac. of Agric. Iwate Univ., [2]Grad. Sch. of Arts and Sci. Iwate Univ., [3] Fac. of Sci. Hokkaido Univ.

P4 Discovery of a root nodule symbiont also acting as an insect's obligate intracellular symbiont
*Kazutaka Takeshita[1], Kai Mashiko[1], Reona Yashima[1], Yoshitomo Kikuchi[2]
[1]Fac. of Bioresour. Sci. Akita Pref. Univ., [2]AIST

P5 Regulation of arbuscular mycorrhizal symbiosis by chitosan oligomers in *Lotus japonicus* and *Oryza sativa*
*Naoki Taguchi, Kohki Akiyama
Grad. Sch. of Agric. OMU.

P6 Localization of SYMRK mycorrhizal symbiosis in rice and functional analysis of the LRR domain of SYMRK
*Mirei Furuta[1], *Yuna Saitou[1], Hanae Kaku[1], Kana Miyata[2]
[1]Meiji Univ. agri. [2]Toyo Univ. Life science

P7 Involvement of lipid metabolism and transfer in phosphate-induced suppression of arbuscular mycorrhizal symbiosis
*Karin Yamamoto[1], Yusaku Sugimura[1], Yozo Okazaki[2,3], Kazuki Saito[2,4], Katsuharu Saito[5]
[1]Grad. of Agric. Shinshu Univ., [2]RIKEN, [3]Fac. of Bioresour. Mie Univ., [4]Grad. of Med. Chiba Univ., [5]Fac. of Agric. Shinshu Univ.

P8 Analysis of the regulatory mechanism in arbuscular mycorrhizal fungal infection using CCaMK; a central regulator of the common symbiosis signaling pathway
*Erika Miyakawa, Naoya Takeda
Grad. Sch. of Sci. and Eng. Kwansei Gakuin Univ

P9 Analysis of gene expression involved in root nodule senescence.
*Seitaro Okuhira, Toshiki Uchiumi, Mitsutaka Fukudome
Graduate School of Science and Engineering, Kagoshima Univ.

P10 A novel flavonoid from *Lotus japonicus* and its effect on nodule formation
*Atsushi Kaneko[1], Shun Hashimoto[1], Tomoyoshi Akashi[2], Shusei Sato[1]
[1]Grad. Sch. of Life Sci., Tohoku Univ., [2]Coll. Bioresour. Sci., Nihon Univ.

P11 Investigation of the metabolic pathway of daidzein by microorganisms in anaerobic soil environments
*Kazuya Okaichi[1], Tomoaki Sato[1], Akinori Ando[2], Shigenobu Kishino[2], Jun Ogawa[2], Akifumi Sugiyama[1]
[1]RISH. Kyoto Univ., [2]Grad. Agri. Kyoto Univ.

P12 Suppression mechanism of nodule formation triggered by a rhizobial type III effector in *Lotus japonicus*
*Shun Hashimoto[1], Masaru Bamba[2], Shohei Kusakabe[1], Yusdar Mustamin[1], Takakazu Kaneko[3], Shin Okazaki[4], Hisayuki Mitsui[1], Shusei Sato[1]
[1]Grad. Sch. of Life Sci. Tohoku Univ., [2]Fujieda field, Fac. of Agr. Shizuoka Univ., [3]Fac. of life Sci. Kyoto Sangyo Univ., [4]Fac. of Agric. Tokyo Univ. of Agric. and Tech.

P13 Functional analysis of transcription factor controlling symbiotic nitrogen fixation in *Lotus japonicus*
*Kouya Miyata[1], Akira Nozawa [3], Tatsuya Sawazaki[3], Naoki Yamaji[4], Jian Feng Ma[4], Mika Nomura[2]
[1]Grad. Sch. Agr., Kagawa Univ.,[2] Fac. Agr., Kagawa Univ., [3]PROS., Ehime Univ., [4]IPSR., Okayama Univ.

P14 Is nodulation ability correlated with the presence of NIN?
*Momona Noda[1], Momoyo Ito[1], Takuya Suzaki[1,2]
[1]Fac. of Life and Env. Sci., Univ. Tsukuba, [2]T-PIRC, Univ. Tsukuba

P15 Impact of α-tomatine metabolism by *Sphingobium* sp. on tomato growth
*Koharu Nagai[1], Kyoko Takamatsu[1], Masaru Nakayasu[1], Shinichi Yamazaki[2,3], Yuichi Aoki[2,4], Akifumi Sugiyama[1]
[1]RISH Kyoto Univ., [2]ToMMo Tohoku Univ., [3]RIKEN CSRS, [4]GSIS Tohoku Univ.

P16 Isolation and characterization of endophytic nitrogen-fixing bacteria from rice and sugarcane roots
*Yasunobu Yamada[1], Mika Nomura [1,2]
[1]Grad. Sch. Agr., Kagawa Univ., [2]Fac. Age., Kagawa Univ

P17 Analysis of symbiotic responses of *Fragaria vesca* to nitrogen-fixing bacteria
*Miyabi Sakata[1], Marika Umetsuki[1], Yoshikazu Shimoda[2], Sachiko Isobe[3], Hideki Hirakawa[4], Kenta Shirasawa[5], Takashi Soyano[6], Masayoshi Kawaguchi[6], Takuya Suzaki[7], Akiyoshi Tominaga[8], Shigeru Hanano[9], Shusei Sato[9], Toshiki Uchiumi[1], Mitsutaka Fukudome[1]
[1]Grad. Sch. of Sci. and Eng. Kagoshima Univ., [2]Inst. of Agrobiol. Sci., NARO, [3]Grad. Sch. of Agri. Life Sci. Univ. of Tokyo, [4]Grad. Sch. of Biores. and Bioenviron. Kyushu Univ., [5]Kazusa DNA Res. Inst., [6]NIBB, [7]Life Environ Sci. Tsukuba Univ., [8]Fac. of Agric. Shizuoka Univ., [9]Grad. Sch. of Life Sci. Tohoku Univ.

P18 Mutualistic growth-promoting bacteria enhance paddy rice adaptation and resilience under nutrient stress
*Kanako Inoue[1], Yuki Fukumoto[1], Mari Okuda[1], Okuda[1], John Jewish A. Dominguez[1], Takumi Murakami[2], Masanao Sato[3], Yusuke Saijo[1]
[1]Grad. Sch. Sci and Tech., NAIST, [2]Sch. Life Sci. and Tech., Tokyo Institute of Technology, [3]Grad. Sch. Agric., Hokkaido Univ.

P19 Is the decline in soybean crop yield in Saga Prefecture due to root nodule activity?
*Akari Yoshioka, Aya Shimomura, Akihiro Suzuki
Fac. of Agric. Saga Univ.

P20 Functional prediction of environmental responsive genes using field-multi-omics data and machine learning
*Nao Okuma[1], Kie Kumaishi[2], Astushi Fukushima[1,3], Natsuko I. Kobayashi[4], Shoichiro Hamamoto[5], Miyako Kusano[6,7], Megumi Narukawa[8], Yasuhiro Date[9], Keitaro Tanoi[4], Naoto Nihei[10], Yasunori Ichihashi[1]
[1]RIKEN CSRS, [2]RIKEN BRC, [3]Grad. Sch. Life and Environ. Sci., Kyoto Pref. Univ., [4]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [5]Research Fac. of Agri., Hokkaido Univ., [6]Sch. Life Environ. Sci., Univ. Tsukuba, [7]T-PIRC, Univ. Tsukuba, [8]Toyo Univ. Fac. of Food and Nutr. Sci, [9]NARO, [10]Fac. Food Agri. Sci., Fukushima Univ.

P21 Simulation-based insights into legume-rhizobia symbiosis dynamics
*Masaru Bamba[1], Shusei Sato[2]
[1]Fujieda field. Fac. of Agric. Shizuoka Univ, [2]Grad. Sch. of Life Sci.Tohoku Univ.

P22 Spatiotemporal regulatory mechanisms of vascular bundle formation in root nodules
*Ayano Umehara[1], Momona Noda[1], Momoyo Ito[1], Takuya Suzaki[1,2]
[1]Life Sci., Tsukuba Univ., [2]T-PIRC, Tsukuba Univ.

P23 Analysis of root nodule structure and isolation of rhizobia in Japanese Wisteria (*Wisteria* spp.)
*Satoshi Fukao[1], Masaru Bamba[2], Kimiaki Sugiyama[3], Akiyoshi Tominaga[1]
[1]United Grad. Sch. of Agric. Gifu Univ., [2]Fac. of Agric. Shizuoka Univ., Fujieda field., [3]Tōiku-Kai., Fujieda City

P24 Comparative study of functional genes related to N_2O reduction and symbiosis in clover rhizobia
*Ryota Suzuki[1], Tomohiko Harada[1], Masaru Bamba[2], Chisato Hayama[1], Yuzuho Kawamura[3], Reiko Sameshima[4], Shusei Sato[1]
[1]Grad. Sch. of Life Sci.Tohoku Univ., [2]Fujieda field, Fac. of Agr., Shizuoka Univ., [3]Grad. Sch. IST, Dept. Agr., Shizuoka Univ., [4]Coll. Agr., Acad. Inst., Shizuoka Univ.

P25 Whole-genome sequencing of *Gerbera hybrida* and analysis of AM symbiosis mechanism
*Riki Shimada[1], Yuta Nakano[2], Shusei Sato[2], Atsuo Utida[3], Sinichi Hukuoka[3], Masaru Bamba[4], Akiyoshi Tominaga[1]
[1]The United Grad. Sch. of Agric. Sci. Gifu Univ., [2]Grad. Sch. of Life Sci.Tohoku Univ., [3]GREEN TECH INC., [4]Fujieda Fac. of Agric. Shizuoka Univ.

P26 Effects of symbiotic rhizobial communities in soil on the growth of *Lotus japonicus*: Insights from inoculation experiments and whole genome analyses
*Chiharu Ota[1], Masaru Bamba[2], Shusei Sato[3], Takashi Tsuchimatsu[1]
[1]Grad. Sch. of Sci. The Univ. of Tokyo, [2]Fac. of Agric. Shizuoka Univ. [3]Grad. Sch. of Life Sci. Tohoku Univ.

P27 Symbiotic plasmids and the nodulation activity of rhizobia isolated from *Oxytropis japonica* in different mountains.
*Ibuki Nishikawa[1], Kojiro Takanashi[2]
[1]Grad. Sch. Sci. Eng. Shinshu Univ., [2]Fac. Sci., Shinshu Univ.

P28 Isolation of *nosZ*-containing clover rhizobia and evaluation of their N_2O mitigation potential
*Tomohiko Harada[1], Ryota Suzuki[1], Shun Hashimoto[1], Masaru Bamba[2], Chisato Hayama[1], Yuzuho Kawamura[3], Reiko Sameshima[4], Shusei Sato[1]
[1]Grad. Sch. of Life Sci.Tohoku Univ., [2]Fujieda field, Fac. of Agr., Shizuoka Univ., [3]Grad. Sch. IST, Dept. Agr., Shizuoka Univ., [4]Coll. Agr., Acad. Inst., Shizuoka Univ.

P29 Improving the nodule occupancy rate of N_2O-reducing rhizobia effectively reduces N_2O emissions from soybean rhizosphere
*Hanna Nishida[1], Manabu Itakura[2], Khin Thuzar Win[1], Feng Li[3], Kaori Kakizaki[2], Atsuo Suzuki[2], Satoshi Ohkubo[2], Luong Van Duc[2], Masayuki Sugawara[4], Koji Takahashi[3], Matthew Shenton[3], Sachiko Masuda[5], Arisa Shibata[5], Ken Shirasu[5], Yukiko Fujisawa[1], Misa Tsubokura[6], Hiroko Akiyama[6], Yoshikazu Shimoda[1], Kiwamu Minamisawa[2], Haruko Imaizumi-Anraku[1]
[1]NARO NIAS, [2]Grad. Sch. of Life Sci. Tohoku Univ., [3]NARO NICS, [4]Life and Food Sci. Obihiro Univ., [5]RIKEN CSRS, [6]NARO NIAES

P30 Development of a self-eliminating *Agrobacterium* using novel antimicrobial genes
*Haruka Suwazono[1,2], Mika Ikegaya[2], Shigeo S. Sugano[1,2]
[1]Dept. Appl. Biol. Sci., Tokyo Univ. of Sci., [2]Biomanufacturing Process Research Center, AIST

P31 Isolation of soybean-associated bacteria that mitigate flooding stress during soybean germination
Yoshiyuki Sagehashi[1], *Riku Watanabe[1], Yusuke Kouzai[1], Ken Naito[2], Chiharu Akimoto-Tomiyama[1]
[1]NIAS, NARO, [2]NGRC, NARO

P32 Effect of apigenin treatment on bacterial community of maize rhizosphere
*Haruki Yamamoto[1], Koshiro Matsumura[1], Hisabumi Takase[2], Akifumi Sugiyama[1]
[1]RISH, Kyoto Univ., [2]Fac. Bioenviron. Sci., Kyoto Univ. Adv. Sci.

P33 Growth and seed yield of *Lotus japonicus* under different LED illumination
Ng Hwan May[1], Hidenori Tanaka[2], Takahiro Gondo[3], Ryo Akashi[4], *Masatsugu Hashiguchi[1]
[1]Fac. of Reg. Innov. Univ. of Miyazaki, [2]Fac. of Agric. Univ. of Miyazaki, [3]FSRC Univ. of Miyazaki, [4]Univ. of Miyazaki

P34 Construction of a knowledge base on plant−microbe interactions using large language models
*Yuichi Aoki[1,2]
[1]ToMMo, Tohoku Univ., [2]GSIS, Tohoku Univ.

P35 Biochemical functional analysis of the rhizobial effector Bel2-5
*Kai Kojima[1], Eiri Nakayama[1], Atushi Hirata[1], Safirah Tasa Ratu[2], Okazaki Shin[2], Tanaka Naotaka[3], Tabuchi Mitsuaki[3]
[1]Grad. Sch. of Agric. Kagawa Univ., [2]Fac. of Agric. Tokyo Univ. of Agric. and Tech. [3]Fac. of Agric. Kagawa Univ.

P36 Purification of RsbQ ligands produced by *Bacillus subtilis*
*Motoharu Kusaka, Reiji Ushiro, Kohki Akiyama
Grad. Sch. of Agric. OMU.

P37 Arbuscular mycorrhiza-induced growth promotion and disease resistance are fine-tuned by growth-defense tradeoffs in *Lotus japonicus* and tomato
*Hinako Ambiru[1], Yuka Higashi[1], Hikaru Saitoi[1], Mayumi Egusa[2], Chihiro Miura[2], Takaya Tominaga[3,4], Hironori Kaminaka[2]
[1]Grad. Sch. of Agric., Tottori Univ., [2]Fac. of Agric., Tottori Univ., [3]United Grad. Sch. of Agric., Tottori Univ., [4]NAIST

P38 Method for observing arbuscular mycorrhizal symbiosis at non-professional institution
*Nao Shiota, Ayumu Takamatsu, Himawari Shimoya, Jing Zheng, Kana Miyata
Toyo Univ. Life science

P39 Analysis of nodulation-promoting microbes in rhizosphere SynCom
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P40 Analysis of the rhizosphere microbiota of *Psoralea corylifolia*
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P41 Genomic and transcriptome analysis of *Clavibacter michiganensis* subsp. *michiganensis*
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P42 Fungal−*bacterial* consortia for biocontrol of tomato *Bacterial Wilt* under pre- and post-inoculation Treatments
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P43 Arabidopsis responses in pattern-triggered immunity induced by chitin oligosaccharides with varying degrees of polymerization
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P44 Are ferrisiderophore receptors involved in the regulation of iron acquisition in *Ralstonia pseudosolanacearum* strain OE1-1?
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P45 Comprehensive functional analysis of effectors of olive bacterial wilt -Search for target factors based on stress responses-
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P46 Regulation of prehaustorium formation in the parasitic plant *Phtheirospermum japonicum* by nitrogen in the rhizosphere
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P47 Characterization of WRKY transcription factors in root-microbiota interactions
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P48 Identification of rhizosphere bacterial secreted proteins that interfere with plant immune responses
*Yusuke Inagaki[1], Tomohisa Shimasaki[1], Ulla Neumann[2], Yumiko Makino[3], Tomoko Mori[3], Takuya Yoshida[3,4], Ryohei Thomas Nakano[1,5]
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P49 Mechanisms of soil microbial community modification via secondary metabolites exudated by exotic plants
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