

5th Asian Conference on Plant-Microbe Symbiosis & Nitrogen Fixation

Program

Wednesday		15 May, 2019	
11:00 - 12:30		Registration	
12:30 - 13:00		Opning remarks	
Plenary Lecture			
13:00 - 13:45	PL-1	<i>Bradyrhizobium</i> sp. strain DOA9, hero or thief? Neung Teaumroong Suranaree University of Technology	
13:45 - 14:30	PL-2	Chemical signaling in the arbuscular mycorrhizal symbiosis Kohki Akiyama Osaka Prefecture University	
14:30 - 15:15	PL-3	A global coexpression network of soybean genes gives insight into the evolution of nodulation in non-legumes and legumes Xuelu Wang Huazhong Agricultural University	
15:15 - 15:30		Coffee Break	
Session 1		Bio-resource and Genomics	
15:30 - 16:00	S1-1	Application of updated resources of the experimental model legume, <i>Lotus japonicus</i> Shusei Sato Tohoku University	
16:00 - 16:30	S1-2	Genomic approach to explore wild soybean resources Hon-Ming Lam The Chinese University of Hong Kong	
16:30 - 16:50	S1-3	Symbiotic incompatibility via effector-triggered immunity between soybean <i>Rj2</i>-genotype and bradyrhizobial NopP: <i>Rj2</i> allele distribution in soybean resources Masayuki Sugawara Tohoku University	
16:50 - 17:10	S1-4	Experimental genome reduction of bradyrhizobia by plant immunity Kiwamu Minamisawa Tohoku University	

17:10 - 17:30 S1-5 **Bacterial communities in soil and root of sugarcane, *Saccharum sinense*, using 16S rRNA gene sequencing**
Supriadi
Kagawa University

17:30 - 17:45 Coffee Break

17:45 - 19:00 **Poster presentation
(odd number)**

19:00 - 20:00 Mixer (at Sakura Hall lounge)

Thursday 16 May, 2019

Session 2 Plant-Microbe interaction

8:30 - 8:45 S2-1 ***SYG1* encodes a phosphate exporter in the fungal symbiont: the last piece of phosphate delivery pathway in arbuscular mycorrhizal symbiosis**
Tatsuhiko Ezawa
Hokkaido University

8:45 - 9:10 S2-2 **Effect of light quality on the establishment of root nodule and arbuscular mycorrhizal symbioses**
Akihiro Suzuki
Saga University

9:10 - 9:25 S2-3 **The function of symbiotic plasmid in *nod*-independent photosynthetic *Bradyrhizobium* strains**
Pongpan Songwattana
Suranaree University of Technology

9:25 - 9:50 S2-4 **Rice and endophytic biofertilizer interactions**
Panlada Tittabutr
Suranaree University of Technology

9:50 - 10:05 S2-5 **Specialized metabolites in the rhizosphere of soybean: dynamics and functions in biological communications**
Akifumi Sugiyama
Kyoto University

10:05 - 10:20 S2-6 **Impact of protist grazing on bacterial community structure and rice plant growth in a biochar-treated paddy field soil**
Rasit Asiloglu
Niigata University

10:20 - 10:35 S2-7 **Construction of an artificial symbiosis between duckweed and free-living nitrogen fixing bacteria**
Kamal Shuvro Sajjad
Hokkaido University

10:35 - 10:50 Coffee Break

Session 3 Nitrogen Fixation and Nitrogen Cycles

10:50 - 11:20 S3-1 **Synthetic biology: construction of a minimal "*nif-ome*" for engineering nitrogen-fixing plants**
Yi-Ping Wang
Peking University

11:20 - 11:50 S3-2 **Enhancement of nitrogenase activity in transformants of the non-diazotrophic cyanobacterium *Synechocystis* sp. PCC 6803 carrying the *nif* genes**
Yuichi Fujita
Nagoya University

11:50 - 12:05 S3-3 **The regulatory ncRNA NfiS coordinates nitrogen fixation and oxidative stress response via base pairing with the individual target mRNAs in *Pseudomonas stutzeri* A1501**
Yongliang Yan
Chinese Academy of Agricultural Sciences

12:05 - 12:20 S3-4 **Mutant of *Frankia casuariane* defective in free-living and symbiotic nitrogen fixation**
Ken-ichi Kucho
Kagoshima University

12:20 - 12:35 S3-5 **Metagenome and proteome analyses revealed nitrogen fixation by *Bradyrhizobium* in roots of field-grown sorghum**
Shintaro Hara
Tohoku University

12:35 - 12:50 S3-6 **The effects of calcium cyanamide application on soil bacterial community and N₂O emission**
Kazuki Suzuki
Niigata University

12:50 - 14:20 Lunch Break

Session 4		Legume and Rhizobia Symbiosis
14:20 - 14:50	S4-1	<p>Nodule symbiosis: Nod factor levels, chimeric receptors and effector functions</p> <p>Christian Staehelin Sun Yat-sen University</p>
14:50 - 15:20	S4-2	<p>Rhizobium utilizes a pathogenic effector to hijack leguminous nodulation signaling</p> <p>Shin Okazaki Tokyo University of Agriculture and Technology</p>
15:20 - 15:35	S4-3	<p>Mutualistic co-evolution of T3SSs during the establishment of symbiotic relationships between <i>Vigna radiata</i> and Bradyrhizobia</p> <p>Pongdet Piromyou Suranaree University of Technology</p>
15:35 - 15:50	S4-4	<p>A leucine-rich repeat receptor kinase regulates root nodule development responsible for rhizobia in <i>Lotus japonicus</i></p> <p>Yasuyuki Kawaharada Iwate University</p>
15:50 - 16:05	S4-5	<p>Characterization of rhizobia for the improvement of soybean cultivation across agro-ecological conditions in central Europe</p> <p>Kun Yuan Tokyo University of Agriculture and Technology</p>
16:05 - 16:20	S4-6	<p><i>Burkholderia</i> and <i>Paraburkholderia</i> are predominant soybean rhizobial genera in Venezuelan soils in different climatic and topographical regions</p> <p>María Daniela Artigas Ramírez Tokyo University of Agriculture and Technology</p>
16:20 - 16:35	Coffee Break	
16:35 - 17:50	Poster presentation (even number)	
18:00 - 20:00	<p>Banquet (at lecture hall in Life Sciences Project research building)</p>	

Friday

17 May, 2019

Session 5

Sustainable Agriculture and Environments

- 8:30 - 8:50 S5-1 **Investigation of function of spores in *Bacillus* biofertilizers in terms of plant growth promoting effects**
Tadashi Yokoyama
Tokyo University of Agriculture and Technology
- 8:50 - 9:10 S5-2 **Enhancing productivity and sustainability of agricultural crops through application of microbes as biofertilizer**
Julieta A. Anarna
University of the Philippines Los Baños
- 9:10 - 9:30 S5-3 **Application of bacterial endophytes to agriculture as microbial inoculants**
Tetsuya Chujo
MAYEKAWA MFG. CO., LTD.
- 9:30 - 9:45 S5-4 **New functions of Azolla application in rice paddies for sustainable production and adaptation to climate change**
Weiguo Cheng
Yamagata University
- 9:45 - 10:00 S5-5 **Arsenic transformation in contaminated soils and accumulation in root and shoot of carrot**
Yupa Chromkaew
Chiang Mai University
- 10:00 - 10:15 S5-6 **Evaluation of soil organic matter, microbial population and 2-acetyl-1-pyrroline content in Thai fragrant rice grown under organic and conventional farming**
Kawiporn Chinachanta
Chiang Mai University
- 10:15 - 10:30 S5-7 **Nitrogen fixation of iron reducing bacteria in paddy soils – previously overlooked diazotroph essential for sustainable soil nitrogen fertility–**
Yoko Masuda
The University of Tokyo

10:30 - 11:00

Closing

11:00 -

Excursion