



# JSPS-NRCT Young Scientist Seminar 2013 Osaka

## August 4-5th, 2013 at Suntory Memorial Hall, Osaka University

### August 4 (Sun)

9:30 **Opening remark**

Prof. Dr. Takuya Nihira and Prof. Dr. Watanalai Panbangred

Oral presentation

Time	Present	Presenter	Affiliation	Title
<b>Group 1-A Chairpersons: Mr. Hirofumi Akiyama and Dr. Piseth Khiev</b>				
9:45	O-1	Mr. Takao Fukuda	Toyama Pref. U	Genomics-driven screening of new secondary metabolites from a human pathogenic actinomycete <i>Gordonia</i>
10:00	O-2	Mr. Hirofumi Akiyama	Toyama Pref. U	Natural product screening from thermophilic Gram-positive bacteria
10:15	O-3	Dr. Piseth Khiev	Royal U Phnom Phen, Cambodia	Constituents from Cambodia traditional medicinal plants and their immune modulating activities
10:30	O-4	Mr. Tatsuya Ueguchi	Osaka U	Isolation of new compounds from marine-derived Thai actinomycetes
<b>Group 1-B Chairpersons: Dr. Thao Kim Nu Nguyen and Ms. Megumi Ishibashi</b>				
10:45	O-5	Ms. Mitsuki Yoshida	Osaka U	Isolation of an anti-dengue virus compound from Thai actinomycetes
11:00	O-6	Ms. Ivy Grace Umadhay Pait	Osaka U	Identification and heterologous expression of an indigoidine biosynthetic gene from <i>Streptomyces lavendulae</i> FRI-5
11:15	O-7	Mr. Weerapong Woraprayote	Kyushu U (BIOTEC)	Detection and characterization of novel antimicrobial peptides from <i>Weissella hellenica</i> BCC 7293
11:30	O-8	Ms. Megumi Ishibashi	Osaka U	Development of analytical system for pesticides by supercritical fluid chromatography/mass spectrometry
11:45	O-9	Dr. Thao Kim Nu Nguyen	VNU Hanoi, Vietnam	Screening for novel bioactive compounds from actinomycetes isolated in Vietnam
<b>12:00 Introduction of Poster presentation</b>				
	P-1	Dr. Kosonh Xaphakatsa	Biotechnol. & Ecology Inst., Laos	The contribution of wild orchid family as the medicinal plant for the potential of social economic development, genetic resource protection and their sustainable usage in Laos
	P-2	Ms. Vilaysoth Nokeomany	Biotechnol. & Ecology Inst., Laos	Antimicrobial activity of actinomycetes isolated from different habitats in Laos
	P-3	Mr. Sophon Hap	Royal U Phnom Phen, Cambodia	Isolation of indigenous actinobacteria and screening for their natural bioactive secondary metabolites
	P-4	Ms. Sayaka Hana	Toyama Pref. U	Biosynthesis of <i>anteiso</i> -methyl group in actinomycetes polyketides
<b>12:30 Lunch &amp; Poster Presentation</b>				

**Keynote lecture**

**14:00 K-1** Prof. Dr. Eiichiro Fukusaki Osaka U Application of metabolomics to high resolution phenotype analysis

**Group 2** Chairpersons: Mr. Taku Orita and Dr. Arjaree Nilavongse

**14:30 O-10** Ms. Thanaporn Laothanachareon BIOTEC, Thailand Construction of polysaccharide-degrading enzyme library from *Aspergillus aculeatus* for biotechnological applications

**14:45 O-11** Mr. Kevin Sherman Hokkaido U An inositol liberating phytase from *Klebsiella pneumoniae* 9-3B

**15:00 O-12** Dr. Arjaree Nilavongse Mahidol U, Thailand Fecal derived metagenomic library for screening of lipolytic enzyme

**15:15 O-13** Ms. Puangpen Limsakul Mie U Identification of a copper-dependent lytic polysaccharide monoxygenase active on xylan from *Paenibacillus curdolanolyticus* B-6

**15:30 O-14** Mr. Taku Orita Mie U Characterization of cellulases in glycoside hydrolase family 9 encoded in the lage cellulase gene cluster of *Clostridium josui*

**15:45 O-15** Ms. Yuka Hasegawa Osaka U Development of nucleotide sugar production system using fission yeast

**16:00** Coffee Break

**Group 3** Chairpersons: Mr. Rodney Honrada Perez and Mr. Yohanes Novi Kurniawan

**16:30 O-16** Mr. Hiroyuki Ohashi Osaka U Production and characterization of  $\alpha$ 1,3-galactosyltransferases from fission yeast

**16:45 O-17** Mr. Daryong Kim Osaka U Cloning and characterization of *PEP4* gene in a Thai-isolated thermotolerant yeast *Pichia thermomethanolica* for efficient recombinant protein secretion

**17:00 O-18** Mr. Rodney Honrada Perez Kyushu U Functional analysis of the genes involved in the biosynthesis of the circular bacteriocin, enterocin NKR-5-3B (Ent53B)

**17:15 O-19** Ms. Naho Matsumoto Kyushu U Elucidation of regulatory mechanisms in multiple bacteriocin production by *Enterococcus faecium* NKR-5-3

**17:30 O-20** Mr. Yohanes Novi Kurniawan Osaka U Characterization of regulatory genes involved in secondary metabolism of *Streptomyces lavendulae* FRI-5

**17:45 O-21** Mr. Suandi Pratama Sultan Osaka U Characterization of regulatory genes involved in the production of avermectin, an anthelmintic agent

**August 5 (Mon)****Group 4-A** Chairpersons: Ms. Borimas Krutsakorn and Ms. Ying Wang

**9:30 O-22** Ms. Nanami Takano Hokkaido U Origosaccharide (DFA III) production from dahlia tuber with actinomycete *Nonomuraea* sp.

**9:45 O-23** Ms. Nabilah Sari Mustafa Osaka U Heterologous production and characterization of *Arabidopsis* polygalacturonase produced in the fission yeast

**10:00 O-24** Ms. Ying Wang Kyushu U Development of bioprocess with designed biomass: High L-lactic acid production efficacy from cellobiose and xylose mixture by *Enterococcus mundtii* OU 25

10:15	O-25	Mr. Takenori Kanazawa	Osaka U	Development of an integrating vector in an oleaginous yeast <i>Rhodospiridium toruloides</i> DMKU3-TK16 for lipid engineering
10:30	O-26	Ms. Borimas Krutsakorn	Osaka U	<i>In Vitro</i> production of <i>n</i> -butanol with thermophilic enzymes
<b>Group 4-B Chairpersons: Mr. Pham Huynh Ninh and Mr. Takuya Noguchi</b>				
10:45	O-27	Mr. Takuya Noguchi	Kyushu U	Development of bioprocess with designed biomass: Butanol production without catabolite repression from mixed sugars and elucidation of the mechanism of xylose metabolism
11:00	O-28	Ms. Ming Gao	Kyushu U	Development of bioprocess with designed biomass: Novel butanol fermentation with acetate as substrate by <i>Clostridium saccharnerbutylactonicum</i> N1-4
11:15	O-29	Mr. Pham Huynh Ninh	Osaka U	Direct use of recombinant <i>Escherichia coli</i> having thermophilic enzyme as whole cell biocatalyst in continuous bioconversion system
11:30	O-30	Mr. Nguyen Huu Tri	U Tokyo	Carbon utilization in a chemolithoautotroph <i>Hydrogenophilus thermoluteolus</i> TH-1
11:45	O-31	Mr. Akkaraphol Srichaisupakit	Osaka U	Identification of protein glycosylation operon from <i>Campylobacter jejuni</i> JCM 2013
12:00	Lunch			
<b>Keynote lecture</b>				
12:50	K-2	Prof. Dr. Satoshi Harashima	Osaka U	Recent advances in breeding technologies for microorganisms -More than just a trend-
<b>Group 5 Chairpersons: Mr. Saeed Kaboli and Ms. Shiho Ogata</b>				
13:20	O-32	Mr. Mario Rovani Hendriyanto	Osaka U	Characterization of genes involed in the biosynthesis of virginiamycin M, a streptogramin type A antibiotic
13:35	O-33	Ms. Fitria Ningsih	Osaka U	Characterization of genes involed in the biosynthesis of virginiamycin S, a streptogramin type B antibiotic
13:50	O-34	Ms. Shiho Ogata	Kyushu U	Elucidation of the biosynthetic mechanism of leaderless bacteriocin, lacticin Q
14:05	O-35	Mr. Toshihiro Suzuki	Osaka U	Lactic-acid stress causes vacuolar fragmentation and impairs intracellular amino-acid homeostasis in <i>Saccharomyces cerevisiae</i>
14:20	O-36	Ms. Waranya Natesuntorn	Osaka U	Genom-wide construction of a series of segmental aneuploids for genome analysis and breeding in <i>Saccharomyces cerevisiae</i>
14:35	O-37	Mr. Saeed Kaboli	Osaka U	Genome-wide mapping for unexplored essential regions harboring synthetic lethal interactions in <i>Saccharomyces cerevisiae</i>
14:50	O-38	Ms. Juthaporn Sangwallek	Osaka U	Unsaturated fatty acids transcriptionally repress of $\Delta$ 15- but not $\Delta$ 12-fatty acid desaturase genes in <i>Hansenula polymorpha</i>
15:05	Coffee Break			
15:30	<b>Vietnam-Japan Joint Symposium</b>			
<b>JSPS Bilateral Joint Research Project between Vietnam and Japan</b>				
		Dr. Hoang Le Tuan Anh	Vice head, Department of Structural Research, Institute of Marine Biochemistry	
		Mr. Yoshinori Sumimura	Assoc. Prof., Global Collaboration Center, Osaka University	
		Dr. Masayoshi Arai	Assoc. Prof., Graduate School of Pharmaceutical Sciences, Osaka University	