

PROCEEDINGS

The 23rd Annual Meeting of the Thai Society for Biotechnology

“Systems Biotechnology: Quality & Success”

February 1-2, 2012

**The Imperial Queen’s Park Hotel, Bangkok
THAILAND**

Joint Symposium 1

JSPS Asian CORE Symposium 2011

Next-generation Bioproduction Platform Leveraging Subtropical Microbial Bioresources

For advancement of industrial biotechnology which is required urgently to solve effectively the issues of 21st century, finding of useful microorganisms and development of their ability into usable level is indispensable. Different from medical biotechnology in which more personalized or tailor-made direction for individuals is explored, industrial biotechnology is important for providing necessary commodities for society-wide level. Especially, with respect to biotechnology aiming for bioproduction, namely, i) production of low-molecular weight bioactive compounds, such as antibiotics, ii) production of highly functional enzymes required for soft biomass degradation and/or recovery of phosphate resources, and iii) development of whole-cell biocatalyst to convert petroleum-dependent processes into green-chemistry-dependent processes, whole process of the production will depend heavily on the nature of the microorganisms applied. Thus, demand for novel and useful microorganisms is large and will increase steadily.

Southeast Asian countries having subtropical climate are rich in invisible bioresources, namely unexplored microorganisms. However, since the Convention on Biological Diversity came into effect, access to or transfer of microbial bioresources has been under severe control, resulting in good protection of microbial bioresources in each country. On the contrary, this tight protection hindered the development of potential of such microbial bioresources and effective usage of microorganisms has been retarded. Because the microbial bioresources in subtropical countries are, in a sense, global assets, exploring and developing these microbial bioresources before their extinction is not only scientifically very important issue but also indispensable for the advancement of industrial biotechnology. To tackle important three issues in bioproduction, JSPS-NRCT-NSTDA project was initiated and Thai-Japanese collaborating teams have been actively pursuing these issues since 2009.

In this special occasion of joint symposium on 1st February, 2012 under the frame of TSB2011, selected researchers from both Thailand and Japan collaborating tightly in the JSPS-NRCT-NSTDA project will present their advanced approaches and results in the field of industrial biotechnology and will discuss deeply on the future direction of industrial biotechnology. We would like to express our gratitude to the kind support from National Research Council of Thailand (NRCT), National Science and Technology Development Agency (NSTDA) and The Japanese Society for the Promotion of Sciences (JSPS). Last but not least, we also would like to thank all staff and researchers from all institutes and universities in both countries for their kind contribution in this project. With their hard effort, many fruitful results are obtained which contribute significantly to the research field in biotechnology.

Yours sincerely,

Professor Takuya Nihira

Director, PI JSPS Asian CORE project
International Center for Biotechnology,
Osaka University

Professor Watanalai Panbangred

Department of Biotechnology,
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Program

The 23rd Annual Meeting of the Thai Society for Biotechnology
“Systems Biotechnology: Quality & Success”

Wednesday, February 1 st , 2012		
08.00-09.00	Registration	Mezzanine
09.00-09.30	Opening Ceremony	Queen's Park 2-3
09.30-10.00	Keynote session : <i>Chairperson: Prof. Timothy W. Flegel</i> K-I: Prof. Satoshi Harashima (Osaka University, Japan) “Development and applications of “Word processing technology” for editing the yeast genome”	Queen's Park 2-3
10.00- 10.30	K-II: Prof. Takuya Nihira (Osaka University, Japan) “Manipulation of secondary metabolism for obtaining novel bioactive compounds”	
10.30- 11.00	K-III: Dr. Manabu Ishitani (Agrodiversity Research Area International Center for Tropical Agriculture (CIAT), Colombia) “Cassava Wealth-Plus, Opportunities and Challenges”	
11.00-11.30	Coffee Break / Poster Display / Exhibition Display	Foyer & Queen's Park 1
11.30- 12.30	Taguchi Award Announcement and Presentation Ajinomoto Award Announcement and Presentation	Queen's Park 2-3
12.30- 13.00	Lunch	Rainbow
13.00- 14.00	Lunch Talk by Ajinomoto Mr. Eugene Imm “The 5 th Basic Taste” Poster Display / Exhibition Display	Rainbow Foyer & Queen's Park 1
14.00-14.08	Joint Symposium I: JSPS Asian CORE Symposium 2011 on Bioproduction Platform Leveraging Subtropical Microbial Bioresources Welcome address by Prof. Takuya Nihira (Osaka University) / Prof. Watanalai Panbangred (Mahidol University) Address by NRCT or NSTDA (Tentative) Address by JSPS Bangkok (Tentative) <i>Chairperson: Prof. Hisao Ohtake</i>	Queen's Park 3
14.08-14.29	SI-1: Dr. Wonnop Visessanguan (BIOTEC), Dr. Amonlaya Tosukhowong (BIOTEC), Prof. Kenji Sonomoto (Kyushu University) “Detection and characterization of putative novel lactococcal bacteriocins”	
14.29-14.50	SI-2: Prof. Takuya Nihira (Osaka University), Prof. Watanalai Panbangred (Mahidol University), Prof. Yasuhiro Igarashi (Toyama Pref University) “Drug lead discovery from microorganisms in Thailand”	
14.50-15.11	SI-3: Prof. Khanok Ratanakhanokchai (KMUTT), Prof. Kazuo Sakka (Mie University) “Xylanolytic enzymes of <i>Paenibacillus curdlanolyticus</i> B-6 applicable to biomass degradation and xylooligosaccharides production”	
15.11-15.32	SI-4: Prof. Vithaya Meevootisom (Mahidol University), Prof. Kozo Asano, Assoc. Prof. Teruo Sone (Hokkaido University) “Phytases and polysaccharide hydrolases from microbes and metagenomes”	

	<p>Joint Symposium II: International Cassava Research Symposium 2011 <i>Chairperson: Assoc.Prof. Jarunya Narangajavana</i></p>	Queen’s Park 6
14.00-14.10	Opening session: Program Officer	
14.10-14.30	SII-1: Mr. Adul Vinaiphath (Thai Tapioca Development Institute (TTDI)) “TTDI : Conventional breeding and Biotechnology are good complementary.”	
14.30-14.50	SII-2: Dr. Motoaki Seki (RIKEN Plant Science Center, Yokohama, Japan) “Establishment of cassava functional genomics platform and its application to molecular breeding”	
14.50-15.10	SII-3: Dr. Le Huy Ham (Institute of Agricultural Genetics, Vietnam) Cassava production in Vietnam: the needs for improvements	
15.10-15.30	SII-4: Dr. Tetsuya Sakurai (RIKEN Plant Science, Yokohama, Japan) “Promotion of cassava functional genomics and database development”	
	<p>Oral presentation I(A): Agricultural Biotechnology and Agroindustry <i>Chairperson: Assoc.Prof. Sirirat Rengpipat</i></p>	Queen’s Park 4
14.00-14.15	O-I-1 Ms. Sawarot Maibunkaew (BIOTEC, NSTDA) “ Analysis of the intestinal bacterial community in wild-caught versus domesticated black tiger shrimp (<i>Penaeus monodon</i>) broodstocks”	
14.15-14.30	O-I-2 Mr. Phayungsak Mongkol (Chulalongkorn University) “Bacterial community in intestine of the giant tiger shrimp <i>Penaeus monodon</i> in rearing pond: Effects of shrimp size”	
14.30-14.45	O-I-3 Ms. Sripapan Treejatet (Chulalongkorn University) “Molecular cloning and expression analysis of the <i>ATP/GTP binding</i> protein gene in the giant tiger shrimp <i>Penaeus monodon</i> ”	
14.45-15.00	O-I-4 Ms. Patchari Yocawibun (Chulalongkorn University) “Full-length cDNA cloning and expression analysis of the <i>selenoprotein M</i> gene during ovarian development of the giant tiger shrimp <i>Penaeus monodon</i> ”	
	<p>Oral presentation II(A): Microbial and Molecular Biotechnology <i>Chairperson: Asst.Prof. Chulee Yompakdee</i></p>	Queen’s Park 5
14.00-14.15	O-II-1 Dr. Somchai Pongpattanakitshote (BIOTEC) “Molecular cloning of pectinase and amylase genes from <i>Aspergillus aculeatus</i> BCC17849 for textile industry application”	
14.15-14.30	O-II-2 Ms. Thanaporn Laothanachareon (BIOTEC) “Proteomic analysis and gene cloning of multi-polysaccharide degrading enzymes from <i>Aspergillus aculeatus</i> BCC17849”	
14.30-14.45	O-II-3 Mr. Pattanop Kanokratana (BIOTEC) “Comparative bacterial diversity analysis in industrial bagasse collecting site by pyrosequencing of tagged-16S rRNA gene amplicons”	
14.45-15.00	O-II-4 Ms. Nuttida Teerawattanakijpakorn (Mahidol University) “Screening and characterization of antimicrobial peptides from bacteria”	
15.00 -15.15	O-II-5 Dr. Pennapa Manitchotpisit (Rangsit University) “Antimicrobial peptides against contaminating bacteria in fuel ethanol production”	

	<p>Oral presentation III: Food Biotechnology and Food Safety <i>Chairperson: Assoc.Prof. Sittiwat Lertsiri</i></p>	Queen’s Park 2
14.00-14.15	O-III-1 Ms. Supawan Walaisri (Mahidol University) “Volatile compounds production by halotolerant yeast isolated from Thai soy sauce fermentation”	
14.15-14.30	O-III-2 Ms. Thin Thin Wah (Mahidol University) “The role of salt-tolerant yeasts during moromi fermentation in Thai soy sauce production”	
14.30-14.45	O-III-3 Assoc. Prof. Wilai Noonpakdee (Mahidol University) “Use of starter cultures <i>Lactobacillus plantarum</i> J10 and a nisin-producing <i>Lactococcus lactis</i> WNC20 towards some food-borne pathogens in <i>nham</i> , a traditional Thai fermented sausage”	
14.45-15.00	O-III-4 Mrs. Sani Jirasatid (King Mongkut’s University of Technology Thonburi) “Effects of osmotic stress on growth and production of pigments, monacolin K and citrinin by <i>Monascus purpureus</i> TISTR 3541 in solid cultures”	
15.00-15.15	O-III-5 Ms. Phichayaphorn Aryuman (Mahidol University) “Isolation of salt-tolerant yeasts from Thai soy sauce fermentation and characterization of their glutaminase enzymes”	
15.15-15.30	O-III-6 Mr. Jetsada Wichaphon (Mahidol University) “Implication of glyoxal and methylglyoxal in the formation of odor-active compounds in Thai fish sauce and soy sauce”	
15.30-16.30	Coffee Break / Exhibition Display Poster Presentation I : Odd number posters	Foyer & Queen’s Park 1
	<p>Joint Symposium I: JSPS Asian CORE Symposium 2011 on Bioproduction Platform Leveraging Subtropical Microbial Bioresources <i>Chairperson: Assoc.Prof. Takeshi Bamba</i></p>	Queen’s Park 3
16.30-16.52	SI-5: Prof. Savitree Limtong (Kasetsart U), Prof. Kazuhito Fujiyama (Osaka U), Assist. Prof. Takao Ohashi (Osaka U), Prof. Eiichiro Fukusaki (Osaka U) “Development of host vector system in a oleaginous yeast <i>Rhodospiridium toruloides</i> DMKU3-TK16 and screening of other oleaginous yeasts showing high glycerol assimilation”	
16.52-17.14	SI-6: Assoc. Prof. Chuenchit Boonchird (Mahidol U), Prof. Satoshi Harashima (Osaka U) “Breeding of superior yeast bioethanol producer with Thai origin displaying multiple stress tolerance”	
17.14-17.36	SI-7: Dr. Thunyarat Pongtharangkul (Mahidol U), Dr. Alisa Vangnai (Chulalongkorn U), Prof. Hisao Ohtake , Dr. Kosuke Honda (Osaka U) “Development of a whole-cell biocatalyst expressing the P450 monooxygenase for synthesis of epoxyhexane”	
17.36-17.58	SI-8: Dr. Verawat Champreda (BIOTEC), Prof. Yasuo Igarashi (U Tokyo) “Application of biomass-specific thermophilic microbial consortia for saccharification and production of biorefinery products from local agricultural biomass”	
17.58-18.00	Closing remark/Asian CORE project in the future by Prof. Takuya Nihira (Osaka University) / Prof. Watanalai Panbangred (Mahidol University)	

	<p>Joint Symposium II: International Cassava Research Symposium 2011 <i>Chairperson: Dr. Motoaki Seki</i></p>	Queen’s Park 6
16.30-16.45	SII-5: Dr. Kanokporn Triwitayakorn (Mahidol University, Thailand) “Genome mapping for molecular breeding in cassava”	
16.45-17.00	SII-6: Dr. Malinee Suksangpanomrung (National Center for Genetic Engineering and Biotechnology (BIOTEC), Thailand) “Molecular studies on sucrolytic enzymes and their contribution to starch productivity in cassava storage roots”	
17.00-17.15	SII-7: Dr. Treenut Saithong (King Mongkut University of Technology at Thonburi (KMUTT), Thailand) “High-quality pathway of cassava starch biosynthesis in nonphotosynthetic tissues inferred by multiple plant templates”	
17.15-17.30	SII-8: Dr. Utsumi Yoshinori (RIKEN Plant Science, Yokohama, Japan) “Establishment of cassava microarray analysis platform and transformation system of KU50 cultivar”	
17.30-17.45	SII-9: Dr. Supatcharee Netrphan (National Center for Genetic Engineering and Biotechnology (BIOTEC), Thailand) “Genetic and biochemical evidence toward a better understanding of amylopectin synthesis and starch granule formation in cassava”	
17.45-18.00	SII-O-1: Ms. Samorn Saerue (King Mongkut’s University of Technology, Thailand) “Analysis of gene expression during root development implies the distinct gene regulation root tissues”	
18.00-18.15	SII-O-2: Ms. Onsaya Patanun (Mahidol University, Thailand) “Detection and identification of microRNAs and their target genes in cassava (<i>Manihot esculenta</i> Crantz.)”	
18.15-18.30	Open discussion and Closing session	
	<p>Oral presentation I(B): Agricultural Biotechnology and Agroindustry <i>Chairperson: Dr. Siripong Thitamadee</i></p>	Queen’s Park 4
16.30-16.45	O-I-5 Dr. Wanarit Wimuttisuk (National Center for Genetic Engineering and Biotechnology) “Two halves make a whole: Characterization of <i>arachidonate 8-lipoxygenase allene oxide synthase</i> gene in the black tiger shrimp <i>Penaeus monodon</i> ”	
16.45-17.00	O-I-6 Ms. Parichat Chumtong (Chulalongkorn University) “Identification and expression analysis of the <i>transforming growth factor beta regulator 1</i> gene in domesticated giant tiger shrimp <i>Penaeus monodon</i> ”	
17.00-17.15	O-I-7 Ms. Napaporn Jantee (Chulalongkorn University) “Identification of single nucleotide polymorphism in <i>Farnesoic acid O-methyltransferase (PmFAMeT)</i> of the giant tiger shrimp <i>Penaeus monodon</i> ”	
17.15-17.30	O-I-8 Ms. Jintana Innuphat (Chulalongkorn University) “Molecular cloning and expression analysis of the <i>asparaginylyl tRNA synthetase</i> gene in the black tiger shrimp <i>Penaeus monodon</i> ”	

	<p>Oral presentation II(B): Microbial and Molecular Biotechnology <i>Chairperson: Prof. Tatsuji Seki</i></p>	Queen’s Park 5
16.30-16.45	O-II-6 Mrs. Ousana Ongcharoenwut (Mahidol University) “Isolation and screening of anti-dengue virus compounds from <i>Actinomycetes</i> ”	
16.45-17.00	O-II-7 Ms. Wipavadee Sangadkit (King Mongkut's University Technology Thonburi) “Effect of substrate dilution and nutrient limitation on <i>E. coli</i> growth on Chromocult® Coliform Agar”	
17.00-17.15	O-II-8 Ms. Orana Rattanabumrung (King Mongkut's University Technology Thonburi) “Visual Improvement of colony detectability for High-throughput total plate count protocol”	
17.15-17.30	O-II-9 Ms. May Waine Wityi Htun (Mandalay Technological University, Myanmar) “Biological activity of <i>Trichoderma</i> species”	
17.30-17.45	O-II-10 Ms. Benjarat Bunterngsook (Kasetsart University) “Identification and characterization of bacterial expansin from <i>Bacillus licheniformis</i> for enhanced enzymatic hydrolysis of cellulose”	
	<p>Panel Discussion: Biotechnology Research, Trends and Opportunity <i>Chairperson: Asst.Prof. Sansanalak Rachdawong</i></p>	Queen’s Park 2
16:00-16:30	Registration	
16.30-17.00	The Trend of Biotechnology in Asia from AFOB viewpoint (Prof. Toshiomi Yoshida , Professor emeritus Osaka University Director General, Research Institute of Environment, Agriculture and Fisheries, Osaka Prefecture Government, Japan)	
17.00-18.00	Panel Discussion on Biotechnology Research, Trends and Opportunity Moderator: Dr. Pichet Itkor Speakers from: Monsanto Thailand Co.,Ltd. Higriem Environmental and Research Co.,Ltd. Siam BioScience Co., Ltd.	
18.00-19.00	<p>TSB Annual meeting</p> Poster Display / Exhibition Display	Queen’s Park 2 Foyer & Queen’s Park 1
19.00-21.00	Reception Dinner	Rainbow

Thursday, February 2nd, 2012		
	<p><u>Keynote session :</u> <i>Chairperson: Prof. Rainer Jonas</i></p>	Queen’s Park 2-3
09.00-09.30	<p>K-IV : Prof. Timothy W. Flegel (National Center for Genetic Engineering and Biotechnology (BIOTEC), Thailand) “A systems approach for health management in shrimp aquaculture”</p>	
09.30-10.00	<p>K-V : Dr. Jean Petre (BioNet-Asia, Co. Ltd, Thailand) “Vaccines in the biotechnology era”</p>	
10.00-10.30	<p>K-VI : Dr. Pichet Durongkaveroj (National Science Technology and Innovation Policy Office, Thailand) “National Science, Technology and Innovation Policy (2012-2021) and Biotechnology Strategies”</p>	
10.30- 11.00	Coffee Break / Poster Display / Exhibition Display	Foyer & Queen’s Park 1
	<p><u>Plenary Session A :</u> <i>Chairperson: Prof. Takuya Nihira</i></p>	Queen’s Park 2
11.00- 11.20	<p>P-I: Assoc. Prof. Penjit Srinophakun (Kasetsart University, Thailand) “Integrated research approaches to biodiesel development from Jatropa oil”</p>	
11.20-11.40	<p>P-II: Assoc. Prof. Sittiwat Lertsiri (Mahidol University, Thailand) “Volatile compounds and aroma profile of Thai fish sauce: Product categorization”</p>	
11.40-12.00	<p>P-III: Asst. Prof. Supat Chareonpornwattana (Chulalongkorn University, Thailand) “Production of nisin-loaded solid lipid nanoparticles for sustained antimicrobial activity”</p>	
	<p><u>Plenary Session B:</u> <i>Chairperson: Prof. Timothy Flegel</i></p>	Queen’s Park 3
11.00- 11.20	<p>P-IV: Prof. Rainer Jonas (Helmholtz Centre for Infection Research, Germany) “Aspect of the future of Agrotechnologies”</p>	
11.20-11.40	<p>P-V: Prof. Watanalai Panbangred (Mahidol University, Thailand) “Genetically engineered <i>Bordetella pertussis</i> for development of an efficient acellular whooping cough vaccine”</p>	
11.40-12.00	<p>P-VI: Dr. Siriporn Sripinyowanich (BGI-Thailand) “Genomic revolution: Leaping into the era of massive sequencing”</p>	
12.00- 13.00	Lunch Lunch talk by The Thai Association for Biotech Industries	Rainbow
13.00- 14.00	Exhibition Display Poster Presentation II : Even number posters	Foyer & Queen’s Park 1

	<p>Joint Symposium III: The Tokyo Institute of Technology and Mahidol University joint meeting <i>Chairperson: Assoc.Prof. Chuenchit Boonchird</i></p>	Queen’s Park 3
14.00-14.15	Opening session by Prof. Susumu Kajiwara (Tokyo Institute of Technology) /Assoc.Prof. Chuenchit Boonchird (Mahidol University)	
14.15-14.30	SIII-1: Prof. Yasunori Tanji (Tokyo Institute of Technology) “Application of Bacteriophage for Controlling and Detection of Pathogen”	
14.30-14.45	SIII-2: Dr. Nuttawee Niamsiri (Mahidol University) “Applications of biodegradable polymers from bacteria in nanotechnology and biomedicine”	
14.45-15.00	SIII-3: Prof. Eiry Kobatake (Tokyo Institute of Technology) “Design of Multifunctional “Protein Materials for Tissue Engineering”	
15.00-15.15	SIII-4: Asst. Prof. Jirarut Wongkongkatep (Mahidol University) “Fixation of bacteria at the oil droplet surface”	
15.15-15.30	SIII-5: Asst. Prof. Pranee Inprakhon (Mahidol University) “How to control the lipases activity on the oil/water interface”	
	<p>Oral presentation IV(A): Bioprocess and Industrial Biotechnology <i>Chairperson: Assoc. Prof. Manop Suphantharika</i></p>	Queen’s Park 6
14.00-14.15	O-IV-1 Mr. Aten Vannabun (Agro-Industry Mae Fah Luang University) “Effect of crude extract to <i>t</i> -butanol ratio on partitioning of proteases from farmed giant catfish viscera”	
14.15-14.30	O-IV-2 Dr. Surisa Suwannarangsee (BIOTEC) “Optimization of lignocellulolytic enzyme systems for efficient rice straw hydrolysis by using experimental mixture design”	
14.30-14.45	O-IV-3 Dr. Thidarat Nimchua (BIOTEC) “Optimization of multienzyme production from <i>Aspergillus aculeatus</i> by solid-state fermentation for simultaneous biodesizing and bioscouring of cotton fabric”	
14.45-15.00	O-IV-4 Ms. Sukanya Eiemsupackul (King Mongkut’s University of Technology North Bangkok) “Effects of fiber length on mechanical properties of oil palm empty fruit bunched fiber-reinforced biocomposites”	
15.00-15.15	O-IV-5 Ms. Dararat Mongkolkarn (Kasetsart University) “Optimization of the fructo-oligosaccharides production using two-step fed-batch fermentation of <i>Aspergillus niger</i> TISTR 3570”	
	<p>Oral presentation I(C): Agricultural Biotechnology and Agroindustry <i>Chairperson: Dr. Sithichoke Tangphatsornruang</i></p>	Queen’s Park 4
14.00-14.15	O-I-9 Ms. Pichahpuk Uthapaisanwong (Kasetsart University) “A draft of oil palm chloroplast genome”	
14.15-14.30	O-I-10 Mrs. Kanlaya Nirapathpongporn (Mahidol University) “Development of EST-SSR markers for rubber tree (<i>Hevea brasiliensis</i> Muell. Arg)”	

14.30-14.45	O-I-11 Ms. Manassawe Lertpanyasampantha (Mahidol University) "Expression profiling of miRNAs in rubber tree is exploited using high throughput sequencing"	
14.45-15.00	O-I-12 Ms. Porawee Pramoolkit (Mahidol University) "Investigation of phytohormone-responsive miRNAs and their target genes in rubber tree"	
Oral presentation II(C): Microbial and Molecular Biotechnology <i>Chairperson: Prof. Kazuhito Fujiyama</i>		Queen's Park 5
14.00-14.15	O-II-11 Dr. Piyanun Harnpicharnchai (National Center for Genetic Engineering and Biotechnology) "Identification of a promoter element from thermotolerant <i>Pichia</i> sp."	
14.15-14.30	O-II-12 Ms. Chalinee Tangsombatvichit (King Mongkut's University of Technology Thonburi) "New transcriptional regulators associated with adaptive stress responses in the yeast <i>Saccharomyces cerevisiae</i> "	
14.30-14.45	O-II-13 Dr. Choowong Auesukaree (Mahidol University) "Role of vacuolar H ⁺ -ATPase in ethanol tolerance in <i>Saccharomyces cerevisiae</i> "	
14.45-15.00	O-II-14 Mrs. Nwe New Soe Hlaing (Mandalay Technological University(MTU), Myanmar) "Screening and isolation of yeasts producing IAA (Indole acetic acid)"	
15.00-15.15	O-II-15 Ms. Jaruta Panyakampol (King Mongkut's University of Technology Thonburi) "Global gene expression of <i>Spirulina platensis</i> C1 in response to heat stress"	
Oral presentation VI(A): Pharmaceutical and Medical Biotechnology <i>Chairperson: Prof. Rainer Jonas</i>		Queen's Park 2
14.00-14.15	O-VI-1 Ms. Wimlin Khaosanit (Mahidol University) "Diversity of apical membrane antigen 1 (AMA-1) in patient infected with <i>Plasmodium vivax</i> in Malaria endemic areas of Thailand"	
14.15-14.30	O-VI-2 Ms. Siriporn Rachakhom (Mahidol University) "Detection of <i>Plasmodium falciparum</i> MDR1 gene by real-time PRC and loop-mediated isothermal amplification methods"	
14.30-14.45	O-VI-3 Ms. Varunee Musikawat (Rangsit University) "LAMP on human SRY DNA sequence emerging a simple technique for sexual investigation from minimal blood and other less tissue specimens"	
14.45-15.00	O-VI-4 Ms. Sirilak Baramee (King Mongkut's University of Technology Thonburi) "Exploring the regulatory role for Rds2 homologue in the pathogenic yeast <i>Candida albicans</i> "	
15.00-15.15	O-VI-5 Mr. Natthapon Laochan (Mahidol University) "Time to <i>Plasmodium falciparum</i> recrudescence after antimalarial treatment in pregnancy"	
15.30-16.00	Coffee Break / Poster Display / Exhibition Display	Foyer & Queen's Park 1

<p>16.00-16.15</p> <p>16.15-16.30</p> <p>16.30-16.45</p> <p>16.45-17.00</p>	<p>Joint Symposium III: The Tokyo Institute of Technology and Mahidol University joint meeting <i>Chairperson: Assoc.Prof. Chuenchit Boonchird</i></p> <p>SIII-6: Prof. Shinae Kizaka-Kondoh (Tokyo Institute of Technology) “In vivo Imaging and Targeting of HIF-Active Cancers by an Oxygen-Dependent Degradative Fusion Proteins”</p> <p>SIII-7: Assoc. Prof. Manop Suphantharika (Mahidol University) “A potential application of spent brewer's yeast beta-glucans in food and feed industries”</p> <p>SIII-8: Prof. Susumu Kajiwara (Tokyo Institute of Technology) “Virulent Factors of Pathogenic Fungi Causing Mycoses”</p> <p>SIII-9: Dr. Siripong Thitamadee (Mahidol University) “Vascular Patterning in Arabidopsis roots”</p>	<p>Queen's Park 3</p>
<p>16.00-16.15</p> <p>16.15-16.30</p> <p>16.30-16.45</p> <p>16.45-17.00</p>	<p>Oral presentation IV(B): Bioprocess and Industrial Biotechnology <i>Chairperson: Dr. Attawut Impoonsup</i></p> <p>O-IV-6 Mr. Peerapat Potinoun (Mahidol University) “Antifungal activity of lactic acid bacteria against aflatoxin-producing fungi”</p> <p>O-IV-7 Ms. Yothaka Puchcha (Kasetsart University) “The heterotrophic cultivation of <i>Chlorella</i> sp. TISTR 8990 in a 5-L fed-batch bioreactor”</p> <p>O-IV-8 Ms. Siwaporn Wannawilai (Kasetsart University) “The high yield production of xylitol by repeated fed-batch fermentation”</p> <p>O-IV-9 Ms. Molnapat Songpim (Kasetsart University) “Mathematical modeling of thermal-pH stability and activity of inulinases from <i>Aspergillus niger</i> TISTR 3570”</p>	<p>Queen's Park 6</p>
<p>16.00-16.15</p> <p>16.15-16.30</p> <p>16.30-16.45</p> <p>16.45-17.00</p> <p>17.00-17.15</p>	<p>Oral presentation V: Nano- and Analytical Biotechnology <i>Chairperson: Asst.Prof. Supat Chareonpornwattana</i></p> <p>O-V-1 Prof. Alain Durand (Nancy University, France) “Enzyme-assisted elaboration of biodegradable polymeric nanoparticles with potential applications as drug delivery systems”</p> <p>O-V-2 Ms. Moegiratul Amaro (KMITT) “Immunoassay Based on Carbon Nanotubes/Gold Nanoparticle Nanocomposite for <i>Salmonella typhimurium</i> Detection”</p> <p>O-V-3 Ms. Ai Imas Faidoh Fatimah (KMITT) “Highly Sensitive DNA Hybridization Detection Based on Au-Capsule Electrochemical Label”</p> <p>O-V-4 Ms. Sasivimon Pramual (Mahidol University) “Production of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) by <i>Cupriavidus necator</i> H16 and its application in drug delivery”</p> <p>O-V-5 Ms. Kulthida Kaewprapan (Mahidol University) “Synthesis of amphiphilic dextran by lipase from <i>Candida rugosa</i>: Strategies to enhance enzyme activity in organic solvents”</p>	<p>Queen's Park 4</p>

	<p>Oral presentation II (D): Microbial and Molecular Biotechnology <i>Chairperson: Asst.Prof. Sansanalak Rachdawong</i></p>	Queen’s Park 5
16.00-16.15	<p>O-II-16 Assoc. Prof. Yasuaki Kawarasaki (University of Shizuoka, Japan) “High cell-density expression system: A novel method for extracellular production of "difficult-to-express" proteins”</p>	
16.15-16.30	<p>O-II-17 Ms. Suphatra Hongvijit (Mahidol University) “Screening of quorum quenching <i>Streptomyces</i> spp. for quorum-sensing control of phytopathogenic bacteria”</p>	
16.30-16.45	<p>O-II-18 Mr. Pattarapong Inchana (Mahidol University) “Expression, purification and functional characterization of mosquito-larvicidal binary toxin from <i>Bacillus sphaericus</i>”</p>	
16.45-17.00	<p>O-II-19 Ms. Tanyarin Ophawatanasin (Mahidol Wittayanusorn School) “Application of endophytic fungi from Para rubber tree as inhibitors against <i>Phytophthora botryosa</i>, the of leaf-fall disease pathogen of rubber tree in Para Rubber”</p>	
17.00-17.15	<p>O-II-20 Ms. Honey Thet Paing Htway (Mandalay Technological University, Myanmar) “Generation of Cellulolytic Nitrogen Fixing Bacteria by Transposon Mutagenesis”</p>	
17.15-17.30	<p>O-II-21 Dr. Duriya Chantasingh (BIOTEC) “Overexpression of a catalase (CatE7) in <i>Beauveria bassiana</i> increases pathogenicity against <i>Spodoptera exigua</i> larvae”</p>	
	<p>Oral presentation VI (B): Pharmaceutical and Medical Biotechnology <i>Chairperson: Prof. Yashuhiro Igarashi</i></p>	Queen’s Park 2
16.00-16.15	<p>O-VI-6 Ms. Saowalak Kalapanulak (KMITT) “DTscreen v1: A novel drug targets identification tool for pathogenic diseases through protein signature-based approach”</p>	
16.15-16.30	<p>O-VI-7 Dr. Surapong Pinitglang (University of the Thai Chamber of Commerce) “An insight into structural and functional characteristics of <i>Plasmodium falciparum</i> falcipain3 as key drug targets against malaria”</p>	
16.30-16.45	<p>O-VI-8 Ms. Ruamporn Liamkaew (KMITT) “Effect of Oxford selective agents on colony growth of <i>Listeria</i> and non-<i>Listeria</i> strains”</p>	
16.45-17.00	<p>O-VI-9 Ms. Pattarin Supanivatin (KMITT) “Effect of Selective enrichment substrates on colony growth kinetics of <i>Listeria innocua</i> during selective agar cultivation”</p>	
17.00-17.15	<p>O-VI-10 Ms. Siripa Daengphuang (KMITT) “Effect of incubation temperature and nutrient components of non-selective enrichment for optimizing growth of <i>Listeria innocua</i> in liquid cultivation”</p>	
17.30-18.00	Poster Awards Announcement	Queen’s Park 2
18.00-18.15	Closing Remarks	Queen’s Park 2