ISBA18_SCIENTIFIC PROGRAM

■ SPECIAL LECTURE

May 23(Tue) 16:00~16:45 **Special Lecture** 5F, Tamna A

Chair: Joo-Won SUH

SL 45'
Microorganisms: Ideal Partners for Biomedical R&D
Satoshi ŌMURA (*Kitasato University, Japan)*

■ PLENARY LECTURES

May 23(Tue) 16:45~17:30 **Plenary Lecture 1** 5F, Tamna A

Chair: Liz WELLINGTON

PL1 45'
Microbial Chemical Ecology and the Discovery of Antibiotics
Roberto KOLTER (*Harvard Medical School, USA)*

May 24(Wed) 09:00~09:45 **Plenary Lecture 2** 5F, Tamna A

Chair: Hiroyuki OSADA

PL2 45'
Avermectin-Intelligently-Made in China, a Case Study for Renaissance of Natural Products Drug Discovery
Lixin ZHANG (*East China University of Science and Technology, China)*

May 24(Wed) 13:30~14:15 **Plenary Lecture 3** 5F, Tamna A

Chair: Yeo Joon YOON

PL3 45'
Genome Structure of Avermectin Producer *Streptomyces avermitilis* and Applications in Synthetic Biology of Secondary Metabolism
Haruo IKEDA (*Kitasato University, Japan)*

May 25(Thu) 09:00~09:45 **Plenary Lecture 4** 5F, Tamna A

Chair: Mervyn BIBB

PL4 45'
Phage-Host Interactions in *Streptomyces*
Maggie SMITH (*University of York, UK)*

May 25(Thu) 12:15~13:00 **Plenary Lecture 5** 5F, Tamna A

Chair: Zixin DENG

PL5 45'
The Modular Polyketide Synthase: New Functional and Structural Insights from an Actinomycetes Molecular Machine
David SHERMAN (*University of Michigan, USA)*

May 26(Fri) 09:00~09:45 **Plenary Lecture 6** 5F, Tamna A

Chair: Kenji UEDA

PL6 45'
Responding to Redox and Antibiotic Stresses in Actinomycete's Way
Jung-Hye ROE (*Seoul National University, Korea)*

May 26(Fri) 13:30~14:15 **Plenary Lecture 7** 5F, Tamna A

Chair: Wolfgang WOHLLEBEN

PL7 45'
Genomics-Driven Discovery of New Natural Products and Biosynthetic Mechanisms in *Streptomyces* Species
Greg CHALLIS (*University of Warwick, UK)*

May 27(Sat) 09:00~09:45 **Plenary Lecture 8** 5F, Tamna A

Chair: ByungGee KIM

PL8 45'
New Insights into the Control of Cell Division and DNA Segregation in *Streptomyces* by High Resolution Imaging
Gilles van WEZEL (*Institute of Biology Leiden, Netherlands)*

■ SYMPOSIUM SESSIONS

MAY 24(Wed)

10:05~12:15	**Session 01: Chemical Biology**	Halla A
Conveners	Justin NODWELL / Jong-Seog AHN	
10:05~10:15	Student Mini-talks	
S01-1(invited) 10:15~10:40	Screening of Inhibitors against Cancer Stem Cells from Natural Products Depository (NPDepo) Hiroyuki OSADA (*RIKEN, Japan)*	
S01-2(invited) 10:40~11:05	Chemical Control of Secondary Metabolism Justin NODWELL (*University of Toronto, Canada)*	
S01-3(invited) 11:05~11:30	Exploring Target Proteins of Natural Small Molecules Ho Jeong KWON (*Yonsei University, Korea)*	
S01-4 11:30~11:45	Novel Mechanism of Vancomycin Activity Potentiated by Zn(II) Hee-Jeon HONG (*Oxford Brookes University, UK)*	
S01-5 11:45~12:00	Regulation of Reveromycin Biosynthetic Gene Cluster by Small Molecule Shunji TAKAHASH *(RIKEN, Japan)*	
S01-6 12:00~12:15	Volatile Organic Compounds (VOCs) Produced by *Streptomyces* with Antibiotic Activity (Diversity and Mode of Action) Mariana AVALOS (*Leiden University, Netherlands)*	

10:05~12:15	**Session 02: Ecology**	Halla B
Conveners	Liz WELLINGTON / Chang-Jun CHA	
10:05~10:15	Student Mini-talks	
S02-1(invited) 10:15~10:40	Hypermutation, Death, and the Division of Labour in *Streptomyces* Colonies Daniel ROZEN *(Leiden University, Netherlands)*	
S02-2(invited) 10:40~11:05	The Sulfonamide Monooxygenase from an Environmental *Microbacterium* sp. : A Novel Two Component Flavin-Dependent Monooxygenase Responsible for Sulfonamide Degradation and Resistance Chang-Jun CHA (*Chung-Ang University, Korea)*	
S02-3(invited) 11:05~11:30	Understanding the Regulation and Use of Antibiotics by Bacteria, Plants and Animals Matt HUTCHINGS (*University of East Anglia, UK)*	
S02-4 11:30~11:45	Metagenomic Applications to Unveil the Main Producers of Novel Natural Products in Rare Soil Hotspots Chiara BORSETTO (*University of Warwick, UK)*	
S02-5 11:45~12:00	Interactions of Actinobacteria Isolated from Two Sponges of California Coast Marketa SAGOVA-MARECKOVA *(Crop Research Institute, Czech Republic)*	
S02-6 12:00~12:15	Plant-Actinomycete Rhizosphere Interaction Influences Secondary Metabolisms of Root-Associated Actinomycetes Yuji ISHIGAKI *(RIKEN, Japan)*	

14:35~16:45	**Session 03: Genome Mining and Synthetic Biology**	Halla A
Conveners	Marnix MEDEMA / Huimin ZHAO	
14:35~14:45	Student Mini-talks	
S03-1(invited) 14:45~15:10	*In silico* and Experimental Tools for Natural Products Genome Mining and Engineering Tilmann WEBER *(Technical University of Denmark, Denmark)*	
S03-2(invited) 15:10~15:35	Exploring and Exploiting Biosynthesis to Access Novel Natural Products A3(2) Rebecca GOSS *(University of St Andrews, UK)*	
S03-3(invited) 15:35~16:00	Breaking the Silence: New Strategies for Discovering Novel Natural Products Huimin ZHAO *(University of Illinois at Urbana-Champaign, USA)*	

S03-4 16:00~16:15	Searching For Specialized Metabolites Gene Clusters by Mining Genomic Islands: A New Comparative Genomics-Based Approach Sylvie LAUTRU (*I2BC, CEA/CNRS/Université Paris Sud, France)*
S03-5 16:15~16:30	Develop Synthetic Biology Approaches to Produce Nitro-Compounds Yousong DING *(University of Florida, USA)*
S03-6 16:30~16:45	Novel Tools and Methods for Genome Mining and Prioritization of Biosynthetic Gene Clusters in Actinomycetes Martina ADAMEK *(University of Tuebingen, Germany)*

14:35~16:45	**Session 04: Carbon, Nitrogen and Phosphate Metabolism**	Halla B
Conveners	ByungGee KIM / Wolfgang WOHLLEBEN	
14:35~14:45	Student Mini-talks	
S04-1(invited) 14:45~15:10	Metabolism of Methylenikeaedioxyphenyl Group-Containing Natural Compounds by Actinomycetes and the Degradative Enzymes Michihiko KOBAYASHI *(University of Tsukuba, Japan)*	
S04-2(invited) 15:10~15:35	Glutamine Synthetase Like Enzymes Involved in Polyamine and Ethanolamine Utilization Pathways in *Streptomyces coelicolor* M145 Agnieszka BERA (University of Tuebingen, Germany)	
S04-3(invited) 15:35~16:00	Participation of Glk and Glucose in Carbon Catabolis Repression in *Streptomyces coelicolor* Alba ROMERO (Universidad Nacional Autonoma de Mexico, Mexico)	
S04-4 16:00~16:15	Metabolic Flux and Gene Expression Changes in *Streptomyces lividans* TK24 Expressing Heterologous Cellulase A Kristel BERNAERTS *(KU Leuven, Belgium)*	
S04-5 16:15~16:30	Advancing Metabolic Modeling of *Streptomyces* for Enhancing Antibiotic Production Minsuk KIM *(Seoul National University, Korea)*	
S04-6 16:30~16:45	A Novel Phosphosugar Isomerase Involved in Aminosugar Metabolism in *Streptomyces coelicolor* A3(2) Mia UREM *(Leiden University, Netherlands)*	

MAY 25(Thu)

10:05~12:15	**Session 05: Genetics and Cell Biology**	Halla A
Conveners	Günther MUTH / Jolanta ZAKRZEWSKA-CZERWINSKA	
10:05~10:15	Student Mini-talks	
S05-1(invited) 10:15~10:40	*Ori*C Labelling Reveals Chromosome Distribution during *Streptomyces* Tip Growth Dagmara JAKIMOWICZ (*University of Wroclaw, Poland)*	
S05-2(invited) 10:40~11:05	Two Dynamin-Like Proteins Stabilize FtsZ Ring Formation during *Streptomyces* Sporulation Susan SCHLIMPERT (*John Innes Centre, UK)*	
S05-3(invited) 11:05~11:30	Bridging *in silico* and *in vivo* for the Discovery of New Natural Products Andriy LUZHETSKYY (*Saarland Universit, Germany)*	
S05-4 11:30~11:45	Complete Cell Cycle Model For *Corynebacterium*: Overlapping Replication Cycles Combined with Diploidy Marc BRAMKAMP (*Ludwig-Maximilians-University Munich, Germany)*	
S05-5 11:45~12:00	Control of Polar Growth by Ser/Thr Protein Phosphorylation in *Streptomyces coelicolor* A3(2) Klas FLÄRDH *Lund University, Sweden)*	
S05-6 12:00~12:15	Conjugative DNA Transfer and Plasmid Spreading in *Streptomyces* Lina THOMA *(University of Tuebingen, Germany)*	

10:05~12:15	**Session 06: *Corynebacterium***	Halla B
Conveners	Paul HOSKISSON / Pil KIM	

10:05~10:25	Student Mini-talks
S06-1(invited) 10:25~10:50	How To Cope With Macrophages: *Corynebacteria* Do It Differently Andreas BURKOVSKI (*Friedrich-Alexander-Universitaet Erlangen-Nuernberg, Germany)*
S06-2(invited) 10:50~11:15	The Role of Pupylation for Iron Homeostasis in *Corynebacterium* glutamicum Michael BOTT *(Forschungszentrum Juelich GmbH, Germany)*
S06-3(invited) 11:15~11:40	*whiB*-like Genes of *Corynebacterium glutamicum* Play Regulatory Roles in Stress Responses and Cell Division Heung-Shick LEE (*Korea University, Korea)*
S06-4 11:40~11:55	A Putative hfq Predicted in *Corynebacterium glutamicum* Alan WARD (*Newcastle University, UK)*
S06-5 11:55~12:10	Role of NCgl1221 Mechanosensitive Channel in Glutamic Acid Secretion by *Corynebacterium glutamicum* Masaaki WACHI (*Tokyo Institute of Technology, Japan)*

MAY 26(Fri)

10:05~12:15	**Session 07: Natural Products: Discovery and Biosynthesis I**	Halla A
Conveners	Dong-Chan OH / Lixin ZHANG	
10:05~10:15	Student Mini-talks	
S07-1(invited) 10:15~10:40	Radical SAM Enzymes Involved in Natural Product Biosynthesis Fumitaka KUDO *(Tokyo Institute of Technology, Japan)*	
S07-2(invited) 10:40~11:05	A Vitamin is Converted to an Antibiotic: Biosynthesis of Roseoflavin Matthias MACK *(Mannheim University of Applied Sciences, Germany)*	
S07-3(invited) 11:05~11:30	Discovery, Antibacterial Activity and Biosynthesis of the Formicamycins Produced by *Streptomyces formicae* KY5 Isolated from African *Tetraponera* Plant-Ants Barrie WILKINSON (*John Innes Centre, UK)*	
S07-4 11:30~11:45	Anti-infective and Anti-tumor Natural Products Discovery and Biosynthesis from Marine Actinomycetes Jianhua JU (*South China Sea Institute of Oceanology, Chinese Academy of Sciences, China)*	
S07-5 11:45~12:00	Mode of Action Analysis and Heterologous Expression of the Natural Product Antibiotic Vancoresmycin Bernhard KEPPLINGER *(Newcastle University, UK)*	
S07-6 12:00~12:15	Discovery and Biosynthesis of a Novel Extensively Modified Lantibiotic-LexA Peptide Min XU (*Shanghai Jiao Tong University, China)*	

10:05~12:15	**Session 08: Regulation**	Halla B
Conveners	Mark PAGET / Marie ELLIOT	
10:05~10:15	Student Mini-talks	
S08-1(invited) 10:15~10:40	Exploration: A New Mode of *Streptomyces* Growth Marie ELLIOT (*McMaster University, Canada)*	
S08-2(invited) 10:40~11:05	Programs for Fitness in *Streptomyces-Bacillus* Competition Paul STRAIGHT (*Texas A&M University, USA)*	
S08-3(invited) 11:05~11:30	Multi-Layered Inhibition of *Streptomyces* Development: BldO is a Dedicated Repressor of *whiB* Matt BUSH (*John Innes Centre, UK)*	
S08-4 11:30~11:45	A Systems Level Analysis Of *Streptomyces* Two Component Systems Rebecca LO (*University of East Anglia, UK)*	
S08-5 11:45~12:00	Large-Scale Mutagenesis Reveals that Approximately One in Ten Chromosomal Genes Influence Antibiotic Production by *Streptomyces coelicolor* Meifeng TAO (*Shanghai Jiao Tong University, China)*	

S08-6 12:00~12:15	High Throughput Identification of sRNA scr5239 Target Genes Michael VOCKENHUBER (*TU Darmstadt, Austria)*

14:35~16:55	**Session 09: Natural Products: Discovery and Biosynthesis II**	Halla A
Conveners	Eung-Soo KIM / Tomohisa KUZUYAMA	
14:35~14:45	Student Mini-talks	
S09-1(invited) 14:45~15:10	Current ClpC1 Targeting Anti-TB Lead Compounds and the Potency of ClpC1 as a Novel Druggable Target Joo Won SUH (*Myongji University, Korea)*	
S09-2(invited) 15:10~15:35	Computing and Natural Product Processing for Antibiotic Discovery Nathan A. MAGARVEY (*McMaster University, Canada)*	
S09-3(invited) 15:35~16:00	An Iterative Module in the Azalomycin F Polyketide Synthase Contains a Toggle-Switchable Enoylreductase Domain Yuhui SUN (*Wuhan University, China)*	
S09-4(invited) 16:00~16:25	"Metabolism Remodeling" to Enhance Polyketide and Nonribosomal Peptide Antibiotic Production Using Triclosan and Ribosome-Targeting Drugs Kozo OCHI (*Hiroshima Institute of Technology, Japan)*	
S09-5 16:25~16:40	Insights into the Biosynthesis of Pseudourydimycin, a New RNA Polymerase Inhibitor Margherita SOSIO *(Naicons Srl, Italy)*	
S09-6 16:40~16:55	Discovery and Biosynthesis of a Potent Natural Herbicide in *Streptomyces* Kai BAO *(DuPont Industrial Biotechnology, USA)*	

14:35~16:55	**Session 10: Systematics and Evolution**	Halla B
Conveners	Paco BARONA-GOMEZ / Wenjun LI	
14:35~14:45	Student Mini-talks	
S10-1(invited) 14:45~15:10	*Nocardiopsis:* why survives as dominant actinobacterial group in hypersaline environments WenJun LI *(Sun Yat-Sen University, China)*	
S10-2(invited) 15:10~15:35	Impact of the Genomic Encyclopaedia of Bacteria and Archaea on Systematics and Evolution of the Actinomycetes Hans-Peter KLENK *(Newcastle University, UK)*	
S10-3(invited) 15:35~16:00	Phylogenomic Insight into Actinomycete Species Designations Paul JENSEN *(University of California San Diego, USA)*	
S10-4 16:00~16:15	Genomic Framework for the Identification of Genotypic and Phenotypic Traits of the Species *Micromonospora saelicesensis* Raul RIESCO *(University of Salamanca, Spain)*	
S10-5 16:15~16:30	Micro-Time Scale Senome Evolution among Natural Populations of Streptomyces Pierre LEBLOND *(University of Lorraine, France)*	
S10-6 16:30~16:45	Metabolic Evolution After Gene Loss of the Family *Actinomycetaceae* Redefines Taxonomic Relationships in Early-Diverging Actinobacteria Paco BARONA-GOMEZ *(Cinvestav-IPN, Mexico)*	
S10-7 16:45~16:55	Bioactive Compounds and Taxonomy of a Novel Member of the Family Nocardiopsaceae Isolated from a Marine Sediment Geok Yuan Annie TAN *(University of Malaya, Malaysia)*	

MAY 27(Sat)

10:05~12:15	**Session 11: Physiology and Development**	Halla A
Conveners	Gilles van WEZEL / Kenji UEDA	
10:05~10:15	Student Mini-talks	
S11-1(invited) 10:15~10:45	Subcompartmentalization by Cross-Membranes during Early Growth of *Streptomyces* Hyphae Angel MANTECA (*University of Oviedom, Spain)*	
S11-2(invited) 10:45~11:15	Reversible Metamorphosis in a Bacterium Dennis CLAESSEN (*Leiden University, Netherlands)*	
S11-3(invited) 11:15~11:45	Involvement of a Thioredoxin in Zoospore Flagellar Assembly in the Rare Actinomycete *Actinoplanes missouriensis* Yasuo OHNISHI (*The University of Tokyo, Japan)*	
S11-4 11:45~12:00	Determining the Division of Labor in *Streptomyces coelicolor* Vineetha ZACHARIA (*UC Berkeley, USA)*	
S11-5 12:00~12:15	Analysis of Mechanisms for Antibiotic Induction of Secondary Metabolism in *Streptomycetes* Takeshi HOSAKA (*Shinshu University, Japan)*	

10:05~12:15	**Session 12: *Mycobacterium***	Halla B
Conveners	Eun-Kyeong JO / Kyu Y. RHEE	
10:05~10:15	Student Mini-talks	
S12-1(invited) 10:15~10:40	Immune Responses against Mycobacteria *via* C-type Lectin Receptors Sho YAMASAKI (*Kyushu University, Japan)*	
S12-2(invited) 10:40~11:05	Variation on a Theme: The Phage Shock Protein System of *Mycobacterium tuberculosis* Maria Laura GENNARO *(Rutgers University, USA)*	
S12-3(invited) 11:05~11:30	Mycobacterial Metabolomics: Chemical Biology at the Intersection of Pathogen Biology and Drug Development Kyu RHEE (*Weill Cornell Medical College, USA)*	
S12-4 11:30~11:45	MMA1, Newly Identified Anti-Mycobacterial Hit from Newly Assembled Drug Library Jichan JANG (*Gyeongsang National University, Korea)*	
S12-5 11:45~12:00	Estrogen-Related Receptor-Alpha is a Key Regulator of Autophagy and Essential for Innate Host Defense during Mycobacterial Infection Eun-Kyeong JO (*Chungnam National University, Korea)*	
S12-6 12:00~12:15	A Virulence Protein that Promotes Intramacrophage Survival in *Mycobacterium tuberculosis* and *Salmonella enterica* Alters Pathogens' Bioenergetics Eun-Jin LEE (*Kyung Hee University, Korea)*	

10:05~12:15	**Session 13: Plant-Actinomycete Interactions**	Samda
Conveners	Rosemary LORIA / Arinthip THAMCHAIPENET	
10:05~10:15	Student Mini-talks	
S13-1(invited) 10:15~10:40	Monitoring the Effects on Microbial Populations Affected by Endophytic Actinobacterial Biocontrol Treatments in Wheat against *Pythium* and *Rhizoctonia* Diseases in Field and Glasshouse Trials by Next Generation Sequencing Christopher FRANCO (*Flinders University, Australia)*	
S13-2(invited) 10:40~11:05	Characterizing the Role of *oxr*, *CYP107AK1* and *sdr* in the Production of Coronafacoyl Phytotoxins in the Potato Common Scab Pathogen *Streptomyces scabies* Dawn BIGNELL (*Memorial University of Newfoundland, Canada)*	
S13-3(invited) 11:05~11:30	Evolutionary Genomics of *Clavibacter* and Related Micrococcaceae from Tomato Suggests Amphibiosis and Seed-Borne Dispersal in Bacterial Canker Disease Paco BARONA-GÓMEZ (*Unidad de Genómica Avanzada, Mexico)*	

S13-4 11:30~11:45	Impact of ACC Deaminase-Producing Endophytic Streptomycetes on Growth and Salt Tolerance of Rice Plants Arinthip THAMCHAIPENET (*Kasetsart University, Thailand)*
S13-5 11:45~12:00	*Streptomyces*-Elicited Defence Response of Oak (*Quercus robur*) to Powdery Mildew Infection Silvia SCHREY (*Forschungzentrum Juelich, Germany)*
S13-6 12:00~12:15	Genomic Backgrounds and Mobilization of Pathogenicity Islands are Determinants of Novel Pathogenic *Streptomyces* Species Yucheng ZHANG (*Unviersity of Florida, USA)*

■ WORKSHOPS

MAY 24(Wed)

10:05~12:15	**Workshop 1-1: A3 Foresight Network on Natural Products**	Samda
Conveners	David SHERMAN / Zixin DENG	
10:05~10:15	Student Mini-talks	
W1-1-1(invited) 10:15~10:35	Chemical & Synthetic Biology of Natural Products through *Streptomyces* Genome Mining, Artificial Chromosome Engineering, and Synthetic Cell Factory Design Eung-Soo KIM (*Inha University, Korea)*	
W1-1-2(invited) 10:35~10:55	Manipulation of Regulatory Pathway Controlled by Signaling Molecules SRBs, Inducer of Antibiotic Production in *Streptomyces rochei*, for Genome Mining Kenji ARAKAWA (*Hiroshima University, Japan)*	
W1-1-3(invited) 10:55~11:15	Dissection of Goadsporin Biosynthesis by *in vitro* Reconstitution Leading to Designer Analogs Expressed *in vivo* Hiroyasu ONAKA (*The University of Tokyo, Japan)*	
W1-1-4(invited) 11:15~11:35	Biosynthetic Studies of Two Bioactive Molecules Produced by a Mangrove Derived *Streptomyces xiamenensis* 318 and Its Potential as a Chassis Cell for Producing of Secondary Metabolites Jun XU (*Shanghai Jiao Tong University, China)*	
W1-1-5(invited) 11:35~11:55	Optimization of the Expression of Secondary Metabolite Pathways in *Streptomyces* Weishan WANG *(Institute Of Microbiology Chinese Academy of Sciences, China)*	
W1-1-6(invited) 11:55~12:15	Uses of Heme from *Corynebacterium glutamicum* for Bacteria, Plants, and Animals Pil KIM (*The Catholic University, Korea)*	

14:35~16:45	**Workshop 1-2: Industrial Applications of Actinomycetes**	Samda
Conveners	Joo-Won SUH / Tiangang LIU	
14:35~14:45	Student Mini-talks	
W1-2-1(invited) 14:45~15:00	Challenges in Translating Heterologous Natural Product Biosynthesis Blaine PFEIFER (*State University of New York at Buffalo, USA)*	
W1-2-2(invited) 15:00~15:15	Developing Natural Product-Derived Lead Compounds by Combinatorial Biosynthesis in Actinomycetes Yeo Joon YOON (*Ewha Womans University, Korea)*	
W1-2-3(invited) 15:15~15:30	Metabolic Engineering for Polyether Compound Overproduction and New Activities Discovery Tiangang LIU (*Wuhan University, China)*	
W1-2-4 15:30~15:45	Comparative Functional Genome Studies Established Efficient Strategies for Antibiotic Titer Improvement Linquan BAI (*Shanghai Jiaotong University, China)*	
W1-2-5 15:45~16:00	The Emerging Organism Engineering Industry Johan KERS (*Ginkgo Bioworks, USA)*	
W1-2-6 16:00~16:15	Application-Value of Proteins Deciphered from Orphan Genes of *Streptomycetes* Hildgund SCHREMPF *(University Osnabrueck, Germany)*	

16:20~16:45	Discussion

MAY 25(Thu)

10:05~12:15	**Workshop 2: Novel Tools and Approaches**	Samda
Conveners	Jongsik CHUN / Chunbo LOU	
10:05~10:15	Student Mini-talks	
W2-1(invited) 10:15~10:40	Single-Cell Characterization and Rational Design of Regulatory Parts and Devices for *Streptomyces* Chunbo LOU (*Chinese Academy of Science, China)*	
W2-2(invited) 10:40~11:05	The Dynamic Transcriptional and Translational Landscape of the Model Antibiotic Producer *streptomyces coelicolor* A3(2) Byung-Kwan CHO (*KAIST, Korea)*	
W2-3(invited) 11:05~11:30	Genome-Based Taxonomic Framework for Bacteria Jongsik CHUN (*Seoul National University, Korea)*	
W2-4(invited) 11:30~11:55	Microbiome and Host Genetics GwangPyo KO (*Seoul National University, Korea)*	
W2-5 11:55~12:15	Novel Tools and Integrated Approaches Covering Magnitudes of Scale to Understand the Effects of Surface Hydrophobicity Geertje van KEULEN (*Swansea University, UK)*	

MAY 26(Fri)

10:05~12:15	**Workshop 3-1: Engineering of Carbon Catabolites Repression in Bacteria**	Samda
Conveners	Yong Keun CHANG / Soon-Kwang HONG	
10:05~10:15	Student Mini-talks	
W3-1-1(invited) 10:15~10:45	Carbon Catabolite Repression by Glucose in Microbial Fermentation Yong Keun CHANG (*KAIST, Korea)*	
W3-1-2(invited) 10:45~11:15	What Can We Learn from Carbon Catabolite Repression Josef DEUTSCHER (*CNRS, France)*	
W3-1-3(invited) 11:15~11:45	Preference between the Two PTS Sugars, Glucose and Mannitol, is Determined by the Phosphorylation State of HPr in *Escherichia coli* Yeong-Jae SEOK (*Seoul National University, Korea)*	
W3-1-4(invited) 11:45~12:15	Substrate-Dependent Conformational Changes of a Glucokinase from *Streptomyces griseus* Masaru TANOKURA (*The University of Tokyo, Japan)*	

14:35~16:45	**Workshop 3-2: Engineering of Carbon Catabolites Repression in Bacteria**	Samda
Conveners	Yong Keun CHANG / Soon-Kwang HONG	
14:35~14:45	Student Mini-talks	
W3-2-1(invited) 14:45~15:15	The Role of the Pentose Phosphate Pathway in Secondary Metabolism Taifo MAHMUD *(Oregon State University, USA)*	
W3-2-2(invited) 15:15~15:45	Engineering of *Corynebacterium glutamicum* for Consolidated Bioprocessing of Hemicellulosic Biomass Ki Jun JEONG *(KAIST, Korea)*	
W3-2-3(invited) 15:45~16:15	Simultaneous Co-Fermentation of Glucose and Xylose by Single and Mixed Cultures of Engineered Yeast Yong-Su JIN (*University of Illinois, USA)*	
W3-2-4(invited) 16:15~16:45	The Choice of D-Glucose Uptake via PTS or non-PTS System Determines Anaerobic Microbial Metabolic Products Sang Jun LEE *(Chung-Ang University, Korea)*	