Symposium

S1  
Marine Microbial Genomics and Ecology  
Chair: Song-gun Kim (KRIBB)  
November 5 (Thu.)  
09:00-11:00 Grand Ballroom A

S1-1  
09:00-09:30  
Chung Yeon Hwang (Korea Polar Research Institute)  
Metagenomic Analysis of Marine RNA Virioplankton in the Vicinity of the Antarctic Peninsula

S1-2  
09:30-10:00  
KaeKyoung Kwon (Korea Institute of Ocean Science and Technology)  
Metabolic Collaboration of Thermophilic Microorganisms, Evidence by Metabolic and Genomic Analysis

S1-3  
10:00-10:30  
Sung-Keun Rhee (Chungbuk National University)  
Meta-Omics Analysis of Bacterioplankton Community Involved in Carbon Remineralization in a Polynya of Amundsen Sea, Western Antarctica

S1-4  
10:30-11:00  
Che Ok Jeon (Chung-Ang University)  
Genome-Wide Transcriptional Responses of Alteromonas sp. SN2 to Contaminated Seawater and Marine Tidal Flat Sediment

S2  
Ecology of Soil Microorganisms  
Chair: Jong-Chan Chae (Chunbuk National University)  
Jung-Sook Lee (KRIBB)  
November 5 (Thu.)  
09:00-11:00 Rm 306, 307

S2-1  
09:00-09:30  
Seon-Woo Lee (Dong-A University)  
Microbiome Analysis of Tomato Rhizosphere to Enhance Plant Growth and Health

S2-2  
09:30-10:00  
Woo Jun Sul (Chung-Ang University)  
Volcanic Jeju Island: The Hidden Jewel of Soil Microbial Ecology

S2-3  
10:00-10:30  
Jong-Shik Kim (Gyeongbuk Institute for Marine Bio-industry)  
Microbial Community Function and Structure of Gotjawal Forest Soil, Jeju

S2-4  
10:30-11:00  
Ok-Sun Kim (Korea Polar Research Institute)  
Comprehensive Study on Soil Bacterial Community Composition on Barton Peninsular and Around Terra Nova Bay, Antarctica
Symposium

S3  Host-pathogen Interaction
Chair: Yoon-Won Kim (Hallym University)

09:00-09:30
Eui-Cheol Shin (KAIST)
Roles of Unphosphorylated ISGF3 in HCV Infection

09:30-10:00
Deog-Yong Lee (Korea National Institute of Health)
Evasion of Host Immune System Through the Mutation of Enteric Virus

10:00-10:30
Min-Kyoung Shin (Gyeongsang National University)
Transcriptional Profiling of Host Responses to Mycobacterium avium subsp. paratuberculosis Infection and Identifying Biomarker Candidates

10:30-11:00
Beom Seok Park (Eulji University)
The Structural Basis of Lipopolysaccharide Recognition by the TLR4-MD-2 Complex

S4  Fungal Diversity and Ecology
Chair: Young Woon Lim (Seoul National University)

09:00-09:30
Jeong Ah Seo (Soongsil University)
Microbial Diversity in Korean Traditional Fermenting Starter, Nuruk, Collected in 2013 and 2014

09:30-10:00
Ki Woo Kim (Kyungpook National University)
Ultrastructure of the Epiphytic Sooty Mold Capnodium on Walnut Leaves

10:00-10:30
Kang-Hyeon Ka (Korea Forest Research Institute)
Cultural Characteristics of Ectomycorrhizal Mushrooms

10:30-11:00
Sang Woo Kim (Kangwon National University)
Pathogenesis of Oak Wilt Disease Caused by Raffaelea Species
Symposium

S5  Infection, Inflammation, and Immunity
Chair: Yeonseok Chung (Seoul National University)
Hyoung-Pyo Kim (Yonsei University)

November 5 (Thu.)
13:45-15:45 Grand Ballroom A

S5-1  13:45-14:15
Hyoung-Pyo Kim (Yonsei University)
CCCTC-Binding Factor Controls the Homeostatic Maintenance and Migration of Langerhans Cells in the Skin

S5-2  14:15-14:45
Eun Jung Park (National Cancer Center)
The HIF-1/Glial TIM-3 Axis Controls Inflammation-Associated Brain Damage Under Hypoxia

S5-3  14:45-15:15
Su-Hyung Park (KAIST)
New Insights into Antiviral Immunity by Repeated Low-Dose Viral Exposures

S5-4  15:15-15:45
Yeonseok Chung (Seoul National University)
Antagonism Among IL-12 Family Cytokines in Host Defense Against Listeria monocytogenes and Cancer

S6  Physiologies and Applications of Industrial Microorganisms
Chair: Pil Kim (The Catholic University of Korea)
Sang Jun Lee (KRIIBB)

November 5 (Thu.)
13:45-15:45 Rm 306, 307

S6-1  13:45-14:15
Ki Jun Jeong (KAIST)
Engineering of Corynebacterium glutamicum for the Production of Value-added Biochemicals from Biomass

S6-2  14:15-14:45
Soo-Keun Choi (KRIIBB)
Marker-free Genome Engineering in Bacillus subtilis

S6-3  14:45-15:15
Hyeon-Su Ro (Gyeongsang National University)
Higher Fungi and Their Enzyme Systems in Bioremediation

S6-4  15:15-15:45
Jung-Hoon Sohn (KRIIBB)
Industrial Application of Recombinant Yeast with Improved Substrate Spectrum and Stress Resistance
Symposium

S7  Retirement Session: My Life as a Microbiologist
Chair: In-Hong Choi (Yonsei University)

S7-1  13:45-14:20
Kwang-Ho Rhee (Gyeongsang National University)
My Life and Medical Microbiology in Korea

S7-2  14:20-14:55
Luck Ju Baek (Korea University)
Be the First, Try Something New

S7-3  14:55-15:30
Dong Taek Cho (Kyungpook National University)
20/20 in Medical Microbiology; Hindsight / Foresight

S8  Fungal Morphogenesis and Pathogenesis
Chair: Seong Hwan Kim (Dankook University)

S8-1  13:45-14:15
Sun-Tae Kim (Pusan National University)
A Rice Blast Fungus Alpha-N-Arabinofuranosidase B Elicits Host Defense in Rice

S8-2  14:15-14:45
Sang-Keun Oh (Chungnam National University)
Rpi-blb2 Gene-Mediated Late Blight Resistance in Plants

S8-3  14:45-15:15
Kap-Hoon Han (Woosuk University)
Comparative Analysis of a Putative HLH Transcription Factor Responsible for Conidiation in Aspergillus Species

S8-4  15:15-15:45
Dil Raj Yadav (Kangwon National University)
Diversity of Fungi Isolated from Soil of Jeollabuk-do and Chungcheongbuk-do, Korea
Symposium

S9  Antibiotic Resistome: from the Environment to the Clinic
Chair: Hor-Gil Hur (Gwangju Institute of Science and Technology)
Chang-Jun Cha (Chung-Ang University)

November 5 (Thu.)
15:45-17:40 Grand Ballroom A

S9-1  15:45-16:10
Chang-Jun Cha (Chung-Ang University)
Phylogenetic, Metagenomic, and Quantitative PCR-Based Analysis of Antibiotic Resistome in Han River

S9-2  16:10-16:30
Jong-Chan Chae (Chung-Ang University)
Prevalence of Antibiotic Resistant Bacteria in Stream

S9-3  16:30-16:50
Hor-Gil Hur (Gwangju Institute of Science and Technology)
E. coli in the Yeongsan River Basin: Antibiotic Resistance and Virulence Factors

S9-4  16:50-17:15
Suk-Kyung Lim (Animal and Plant Quarantine Agency)
Current Status of Antimicrobial Resistance in Veterinary Medicine

S9-5  17:15-17:40
Kwan Soo Ko (Sungkyunkwan University)
International and Local Antimicrobial Resistant Clones in Korea

S10  Host Responses against Infectious Agents
Chair: Taegun Seo (Dongguk University)

November 5 (Thu.)
15:45-17:45 Rm 306, 307

S10-1  15:45-16:15
You-Hee Cho (CHA University)
Drosophila Infection Models to Study Bacterial Pathogens

S10-2  16:15-16:45
Seung Hyun Han (Seoul National University)
Role of Toll-Like Receptor 2 Ligands Existing in the Cell Wall of Staphylococcus aureus in the Infection and Immunity

S10-3  16:45-17:15
Chul-Su Yang (Hanyang University)
Toxoplasma Gondii GRA7-Induced TRAF6 Activation Contributes to Host Protective Immunity in Macrophages

S10-4  17:15-17:45
Li Sun (Chinese Academy of Sciences, China)
Innate Immune Response of Teleost to Pathogens: The Role of Toll-like Receptors and Antimicrobial Effectors

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### Symposium

#### S11  Pathogenesis of Bacterial Infection

Chair: Sang In Chung (Chung-Ang University)

**November 5 (Thu.)**

15:45-17:45 Rm 305

**S11-1** 15:45-16:15

**Joon Haeng Rhee** (Chonnam National University)

Unexpected Correlation Between Iron-Assimilating TonB Systems and Invasiveness in *Vibrio vulnificus* Pathogenesis

**S11-2** 16:15-16:45

**Hwa Jung Kim** (Chungnam National University)

Role of Macrophage Apoptosis in Mycobacterial Pathogenesis

**S11-3** 16:45-17:15

**So-Youn Woo** (Ewha Womans University)

PD-L1 Mediated Immune Modulation in Mesenchymal Stromal Cells

**S11-4** 17:15-17:45

**Sang Sun Yoon** (Yonsei University)

A Single Microbiome Gene Determinant that Affects Host Susceptibility to Enteric Infection

### S12  Industrial Application of Fungi

Chair: Jong Soo Lee (Pai Chai University)

**November 5 (Thu.)**

15:45-17:45 Rm 304

**S12-1** 15:45-16:15

**Jae San Ryu** (Gyeongsangnam-do Agricultural Research & Extension Services)

Identification and Functional Analysis of Mating Type Loci in the *Pleurotus eryngii*

**S12-2** 16:15-16:45

**Jung-Mi Kim** (Wonkwang University)

Study of Viral Effects of the Mycovirus (LeV) and Virus-Free Commercial Line in the Edible Mushroom *Lentinula Edodes*

**S12-3** 16:45-17:15

**Jang Eun Lee** (Korea Food Research Institute)

Recreation of Korean Traditional *Nuruk* and the Analysis of Metabolomic Characteristics

**S12-4** 17:15-17:45

**Young-Joon Choi** (Kunsan National University)

Usability of DNA Sequence Data: from Taxonomy over Barcoding to Field Detection. A Case Study of Oomycete Pathogens
S13  Current Topics in Pathogens
Chair: You-Hee Cho (CHA University)
       Moo-seung Lee (KRRIBB)

November 6 (Fri.)
09:00-11:05 Grand Ballroom A

S13-1  09:00-09:25
Moo-Seung Lee (KRRIBB)
Enterohemorrhagic Escherichia coli Shiga Toxins as Multi-functional Proteins are not just Cytotoxins

S13-2  09:25-09:50
Gee W. Lau (University of Illinois at Urbana-Champaign, USA)
Induction of Airway Mucus Hypersecretion and Glycosylation by Pseudomonas aeruginosa Virulence

S13-3  09:50-10:15
Eric Déziel (Institut Armand-Frappier INRS, Canada)
Exportation of the Pseudomonas Quinolone Signal (PQS) Synthase PqsH: a New Puzzle Piece Supporting That Extracellular 4-Hydroxy-2-Heptylquinoline (HHQ) is a Sentinel Signal Precursor

S13-4  10:15-10:40
Sang-Wook Han (Chung-Ang University)
Functional, Biochemical, and Proteomic Analyses of a Prokaryotic Tyrosine Sulfotransferase

S13-5  10:40-11:05
Jihwan Hwang (Pusan National University)
Investigation of the Role of Mycobacterium tuberculosis Rv2019-Rv2018 Toxin-antitoxin System in E. coli

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S14  Norovirus Detection and Field Applications
Chair: Jong-Soon Choi (Korea Basic Science Institute)

November 6 (Fri.)
09:00–11:00 Rm 306, 307

S14-1  09:00-09:30
Geun Woo Park (Centers for Disease Control and Prevention, USA)
Application of Macrofoam Swab Based Sampling Method for the Investigation and Control of Human Norovirus Infections

S14-2  09:30-10:00
Chi-Yong Eom (Korea Basic Science Institute)
Super Resolution Microscopy for Studying Virus Infection

S14-3  10:00-10:30
Duwoon Kim (Chonnam National University)
Development of Foodborne Virus Concentration and Detection Methods

S14-4  10:30-11:00
Jae-Hyung You (SolGent Co., Ltd.)
Speeding up Norovirus Diagnostics, SolGent Norovirus Detection System
Symposium

S15  Emerging Viruses
Chair: Nam-Hyuk Cho (Seoul National University)

**S15-1** 09:00-09:30
**In-Kyu Yoon** (International Vaccine Institute, USA)
The Status of Dengue Vaccine Development

**S15-2** 09:30-10:00
**Man-Seong Park** (Korea University)
H3N2 Viruses Circulating during 2008-2015 Seasons

**S15-3** 10:00-10:30
**Daesub Song** (Korea University)
World-wide Threat of Coronaviruses (PEDV and MERS-CoV)

**S15-4** 10:30-11:00
**Jeong Rae Yoo** (Jeju National University)
Therapeutic Effects of Plasmapheresis on Severe Fever with Thrombocytopenia Syndrome

S16  Microbiome and Diseases
Chair: Sung-Joon Lee (Korea University)

**S16-1** 13:00-13:30
**Jae Bum Kim** (Seoul National University)
Regulation of Insulin Sensitivity by Gut Microbiota Alteration via GLP-1

**S16-2** 13:30-14:00
**Ju-Hoon Lee** (Kyung Hee University)
Genome Study of Bifidobacteria and Metagenome Study of Initial Intestinal Microbiota in Newborn Infants Show Their Correlation for Human Intestinal Health

**S16-3** 14:00-14:30
**Dae Sung Seo** (Amorepacific Corp.)
Post-fermented Green Tea Extract Reduces Body Weight, Alleviates Glucose Intolerance and Fatty Liver, and Alters Gut Microbiota Composition in Diet-induced Obese Mice

**S16-4** 14:30-15:00
**Heenam Kim** (Korea University)
Strain-Level Dysbiosis in the Human Microbiome and Modern Diseases
Symposium

S17  Cell Signaling in Host-Microbe Interactions
Chair: Seung Hyun Han (Seoul National University)

November 6 (Fri.)
13:00-15:00 Rm 306, 307

S17-1  13:00-13:30
Sun-Yang Park (Yale School of Medicine, USA)
Signal-specific Temporal Response by the Salmonella PhoP/PhoQ System: Regulatory Mechanism and a Distinct Type of Behavior

S17-2  13:30-14:00
Young Ran Kim (Chonnam National University)
Characterization of Prohibitin 1 as a Host Partner of Vibrio Vulnificus RtxA1 Toxin

S17-3  14:00-14:30
Jong-Soo Lee (Chungnam National University)
Roles of Innate Immune Regulators against Viral Infection

S17-4  14:30-15:00
Myung Hee Kim (KIBB)
Defensive Function of Aminoacyl-tRNA Synthetases Against Viral Infection

S18  Host Defense against Viral Infection
Chair: Jun Chang (Ewha Womans University)

November 6 (Fri.)
13:00-15:00 Rm 305

S18-1  13:00-13:30
Sang-Jun Ha (Yonsei University)
IL-4-Induced Innate CD8\(^+\) T Cells Control Persistent Viral Infection

S18-2  13:30-14:00
Hyun Mu Shin (Seoul National University)
ZBTB32 and Blimp-1 Cooperate in the Epigenetic Programming of Both CD8\(^+\) Effector and Memory T Cells During LCMV Infection.

S18-3  14:00-14:30
Yeu-Chun Kim (KAIST)
Microneedle Patches for Improved Influenza Vaccination

S18-4  14:30-15:00
Young Bong Kim (Konkuk University)
Baculovirus-based VLP Forming DNA Vaccine for Influenza pdmH1N1
Symposium

S19  Yeast System for Comparative Functional Genomics
Chair: Keun Pil Kim (Chung-Ang University)

S19-1 15:45-16:15
Young Jun Im (Chonnam National University)
Structural Mechanism of Ergosterol Regulation and Antifungal Resistance by Fungal Sterol Transcription Factor Upc2

S19-2 16:15-16:45
Kiwon Song (Yonsei University)
Direct Interaction of Ste11 and Mkk1/2 through Nst1 Integrates High Osmolarity Glycerol to the Cell Wall Integrity MAPK Pathway in Budding Yeast S. cerevisiae

S19-3 16:45-17:15
Sung-Keun Lee (Inha University)
Lifespan Regulation by Actin Dynamics Regulation and Amino Acids Metabolism

S19-4 17:15-17:45
Jung-Shin Lee (Kangwon National University)
The Regulation for Histone Modifications During Transcription Elongation

S20  Trials & Research LMO Safety Management
Chair: Jong-Won Oh (Yonsei University)

S20-1 15:45-16:35
In-Ja Song (KRIBB)
The Laws of Living Modified Organism(LMO)

S20-2 16:45-17:35
Kyung Hwa Choi (KRIBB)
Safety Management of LMO Facilities

S21  Viral Pathogenesis
Chair: Jae Myun Lee (Yonsei University)

S21-1 15:45-16:15
Wang-Shick Ryu (Yonsei University)
New Insights into the Biology of Hepatitis B Virus: Viral Entry and Viral Oncogenesis
International Meeting of the Federation of Korean Microbiological Societies

I Symposium

S21-2 16:15-16:45  
**Suk Kyeong Lee** (The Catholic University of Korea)  
MiR-BART 20-5p Targets Both Viral and Cellular Genes in Epstein-Barr Virus-associated Tumors

S21-3 16:45-17:15  
**Kyung Lib Jang** (Pusan National University)  
Hepatitis B Virus, DNA Methylation, and Hepatocellular Carcinoma

S21-4 17:15-17:45  
**Moon Jung Song** (Korea University)  
Viral Modulation of Poly (ADP-ribose) Polymerase 1 to Facilitate Lytic Replication of Gammaherpesviruses

S22  
**KNMRRRC Session I**

Chair: Sang Seob Lee (Kyonggi University)

S22-1 09:00-09:30  
**Young Woon Lim** (Seoul National University)  
Korea Mushroom Resource Bank for Wider Application

S22-2 09:30-10:00  
**Seunho Jung** (Konkuk University)  
Microbial Carbohydrate-directed Molecular Complexation for Biotechnological Applications

S22-3 10:00-10:30  
**Joong-Ki Kook** (Chosun University)  
Antimicrobial Mechanisms of Oleanolic Acid and Ursolic Acid against *Streptococcus mutans* UA159

S22-4 10:30-11:00  
**Jae-Seoun Hur** (Sunchon National University)  
Anti-Desertification Using Artificial Induction of Biological Soil Crust

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S23  
**KNMRRRC Session II**

Chair: Heejoon Myung (Hankuk University of Foreign Studies)

S23-1 13:00-13:30  
**John J. Bang** (North Carolina Central University, USA)  
Impacts of Climate Change on Microbial Pathogenic Characteristics and Behavior: Inevitable Paradigm Shift

S23-2 13:30-14:00  
**Hana Yi** (Korea University)  
Microbiological Assessment of Indoor Air Quality
Symposium

S23-3 14:00-14:30
Subhash Yadav (University of Hyderabad, India)
Improved Cultivation of Bacteria from Coastal Saline Habitats and Their Mining for Novel Carotenoids

S24  Research and Business Development of Biomedicinal Material, Poly-γ-Glutamic Acid
Chair: Kyung-Soo Hahm (BioLeaders Corp.)
November 6 (Fri.)
15:45-17:45 Rm 303

S24-1 15:45-16:15
Moon-Hee Sung (Kookmin University)
Medical and Pharmaceutical Applications of Poly-γ-glutamic Acid

S24-2 16:15-16:45
Haryoung Poo (KRIBB)
Immunology of Poly-γ-Glutamic Acid

S24-3 16:45-17:15
Chul-Joong Kim (Chungnam National University)
The Natural Substance, Poly-γ-glutamic Acid, Induces Antiviral Effects

S24-4 17:15-17:45
Kyung-Jin Min (Korea University)
Clinical Application of A Natural Polypeptide, Poly-γ-glutamic Acid Which Has Immunotherapeutic Efficacy

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November 6 (Fri.)
13:45-14:15 Rm 303

13:45-14:15
Joon Kim (Korea University)
The Role of NRF for the Development of Microbiology and Biotechnology of Korea in 2016

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