Timetable

	May 28 (Thu)				
		Seolmundae	Pampas	Ophrys	Azalea
09:00					
10:00					
11:00					
12:00	Registration				
13:00					
14:00					
15:00	Exhibition & Poster Session	Opening Ceremony (14:30-15:00)			
		PL 1 : Prof. Bonnie L. Bassler (15:00-15:45)			
16:00	ASM Tea Hour	ASM Presentation (15:45-16:00)			
		Break (16:00-16:20)			
17:00		S1 New Insights in Microbial Pathogenesis	Korea-Japan Symposum I (16:20-19:00)	S2 Lactic Acid Bacteria	S3 Mushroom Biology from A to Z
18:00		Special 50th Anniversary Lecture (18:00-18:30)			
19:00		Break (18:30-19:00)			
20:00		Welcome Reception (19:00-21:00)			

May 29 (Fri)

	Registration	Exhibition & Poster Session	Seolmundae	Pampas	Ophrys	Azalea
09:00			**Poster Presentation (09:00-10:00)**			
10:00			Coffee Break (10:00-10:15)			
			PL 2: Dr. Bo Barker Jørgensen (10:15-11:00)			
11:00			Break (11:00-11:10)			
12:00			**S4 Comparative Genomics**	**S5 Microbes in Geo-marine Systems: Diversity and Biogeochemistry**	**S6 Current Epidemiology in Infectious Diseases**	**S7 Frontiers in Food Microbiology**
13:00			Workshop (12:50-13:30)	**Korea-Japan Symposium II** (12:50-14:10)		Lunch (12:50-14:10)
14:00					MSK General Meeting	
15:00			**S8 Novel Regulation of Gene Expression**	**S9 Microbes in Extreme Environments**	**S10 Current Understandings in Viral Diseases**	**S11 Sensing and Responding to Environmental Changes I**
16:00			Break (15:50-16:00)			
			PL 3: Prof. Jung-Hye Roe (16:00-16:45)			
17:00			Break (16:45-17:00)			
18:00			**S12 Global Understanding of Gene Function**	**S13 "Omics" for Microbial Ecology**	**S14 Industrial Use of Corynebacterium**	**S15 Sensing and Responding to Environmental Changes II**
19:00			Break (18:40-19:00)			
20:00			**Banquet (19:00-21:00)**			

	May 30 (Sat)				
		Seolmundae	Pampas	Ophrys	Azalea
09:00	Registration / Exhibition & Poster Session	Poster Presentation (09:00-10:00)			
10:00		Coffee Break (10:00-10:15)			
		PL 4: Prof. Jay C. Dunlap (10:15-11:00)			
11:00		Break (11:00-11:20)			
12:00		S16 Systems Microbiology	S17 Microbes in Environmental Biotechnology	S18 New Developments in Emerging Infectious Diseases	S19 Stress-Response and Differentiation
13:00		Closing Ceremony (13:00-13:30)			

Opening Ceremony
14:30-15:00, May 28 (Thu.), 2009
Seolmundae (6th Fl. of Main Bldg.)

Welcome Reception
19:00-21:00, May 28 (Thu.), 2009
Seolmundae (6th Fl. of Main Bldg.)

MSK General Meeting
13:30-14:10, May 29 (Fri.), 2009
Cymbi (2nd Fl. of Main Bldg.)

Banquet
19:00-21:00, May 29 (Fri.), 2009
Barbecue Garden (outdoor)

Closing Ceremony
13:30-14:00, May 30 (Sat.), 2009
Seolmundae (6th Fl. of Main Bldg.)

Scientific Programs

Plenary Lectures

English

PL1

Plenary Lecture 1

May 28 (Thu.), Seolmundae

Sponsored by American Society for Microbiology (ASM)

Chair: Ingyu Hwang, Seoul National University

15:00 - 15:45 **Intra- and Inter-Species Cell-To-Cell Communication in Bacteria**

Bonnie L. Bassler, Princeton University, USA

ASM Representative, ASM President-elect for 2010

English

PL2

Plenary Lecture 2

May 29 (Fri.), Seolmundae

Sponsored by Pioneer Research Center for Controlling of Harmful Algal Bloom, Chosun University

Chair: Oh Hyoung Lee, Mokpo National University

10:15 - 11:00 **The Deep Sub-Seafloor Biosphere**

Bo Barker Jørgensen, Max Planck Institute for Marine Microbiology, Germany

English

PL3

Plenary Lecture 3

May 29 (Fri.), Seolmundae

Chair: Kwang-Yeop Jahng, Chonbuk National University

16:00 - 16:45 **Oxidative Stress Responses in Actinomycetes**

Jung-Hye Roe, Seoul National University

English

PL4

Plenary Lecture 4

May 30 (Sat.), Seolmundae

Sponsored by Market-Leading Molecular & Cellular Diagnostic Cluster, Pai Chai University and BK21 Yonsei Biomolecule Research Initiative, Yonsei University

Chair: Hyoung Tae Choi, Kangwon National University

10:15 - 11:00 **Genetic and Molecular Dissection of a Circadian Biological Clock : Proteomics and Epigenetics**
Jay C. Dunlap, Dartmouth Medical School, USA

Special 50th Anniversary Lecture

Korean

SL

The Research Group for Fungal Genetics & Biology

May 28 (Thu.), Seolmundae

Chair: Kyunghoon Kim, Kangwon National University

18:00 - 18:30 **The Research Group for Fungal Genetics & Biology as a Section of the Microbiological Society of Korea**
Dong-Min Han, Wonkwang University

Symposia

English or Korean

S1 New Insights in Microbial Pathogenesis

May 28 (Thu.), Seolmundae

Chair: Dong-Kwon Rhee, Sungkyunkwan University

S1-1 16:20 - 16:40
Bioreceptor Development for the Detection of *Salmonella* sp.
Ki-Sung Lee, Pai Chai University

S1-2 16:40-17:10
Gene Regulation by Transcriptional Factors in Enterohemorrhagic *Escherichia coli* O157:H7
Kozo Makino, National Defense Academy of Japan

S1-3 17:10-17:40
The Effect of PspA and PspC on Complement Deposition on Pneumococci and Their Immune Adherence to Erythrocytes through the CR1 Receptor
David E. Briles, University of Alabama at Birmingham, USA

S1-4 17:40-18:00
Diversity of *V. cholerae* O1 El Tor Strains Producing Classical Type Toxin
Dong Wook Kim, International Vaccine Institute

English or Korean

S2 Lactic Acid Bacteria

May 28 (Thu.), Ophrys

Sponsored by Cell Biotech. Co., Ltd.

Chair: Yeonhee Lee, Seoul Women's University

S2-1 16:20-17:00
Actobiotics for Healthcare: Precision Intervention in Human Diseases through Genetically Modified *Lactococcus lactis*
Lothar Steidler, ActoGeniX NV, Belgium

S2-2 17:00-17:20
Clinical Effect of *Bifidobacterium bifidum* BGN4-Containing Probiotic Products on the Suppression of Atopy and Irritable Bowel Syndrome
Geun Eog Ji, Seoul National University

S2-3 17:20-17:40
Genomes of the Probiotic Bacteria *Bifidobacterium animalis* subsp. *lactis, Bifidobacterium bifidum,* and *Leuconostoc citreum*
Haeyoung Jeong, Korea Research Institute of Bioscience & Biotechnology

S2-4 17:40-18:00
Regulation of Excessive Inflammation Using Lipoteichoic Acid (LTA) from *Lactobacillus plantarum* via Toll-Like Receptor Signaling
Dae-Kyun Chung, Kyung Hee University

English or Korean

S3

Mushroom Biology from A to Z

MSK-KSMy Joint Symposium — May 28 (Thu.), Azalea

Sponsored by National Institute of Biological Resources

Chair: Hong Gi Kim, Chungnam National University

S3-1 16:20-16:40

Phylogenetic Study of the Korean Aphyllophorales

Young Woon Lim, National Institute of Biological Resources

S3-2 16:40-17:00

Characteristics of Mycelial Growth and Fruit Body in *Lentinus lepideus* Strains

Yun-Hae Lee, Gyeonggi-Do Agricultural Research and Extension Services

S3-3 17:00-17:40

Genetic Transformation and Its Application in Basidiomycete Fungus, *Pleurotus ostreatus*

Yoichi Honda, Kyoto University, Japan

S3-4 17:40-18:00

Antioxidant Polyphenols from the Medicinal Fungi *Inonotus* and *Phellinus*

Bong-Sik Yun, Chonbuk National University

* KSMy: The Korean Society of Mycology

English

S4 Comparative Genomics

May 29 (Fri.), Seolmundae

Sponsored by MEGRC, KORDI

Chair: Sangsoo Kim, Soongsil University

S4-1 11:10-11:30

Comparative Genomics of *Vibrio cholerae*

Jongsik Chun, Seoul National University

S4-2 11:30-11:50

Microbial Genomics Pipeline for Comparative Studies

Jonghwa Bhak, Korea Research Institute of Bioscience and Biotechnology

S4-3 11:50-12:10

Phylogenetic Pattern Recognition of Fungal Protein Families

Sangsoo Kim, Soongsil University

S4-4 12:10-12:50

Genomics, Evolution and Evolution of Genomics

Nikos Kyrpides, DOE Joint Genome Institute, USA

English

S5 Microbes in Geo-marine Systems: Diversity and Biogeochemistry

May 29 (Fri.), Pampas

Sponsored by MEGRC, KORDI

Chair: Chi Nam Seong, Sunchon National University

S5-1 11:10-11:30

High Sulfate Reduction and Its Controls in the Ulleung Basin, off the Southeast Korean Upwelling System in the East Sea

Jung-Ho Hyun, Hanyang University

S5-2 11:30-12:10

Microbial Oceanography: Patterns in Deep Oceans

Toshi Nagata, The University of Tokyo, Japan

S5-3 12:10-12:30

Geomicrobiological Behavior of Arsenic and Heavy Metals in Contaminated Soil and Sediment and Its Application to *in situ* Stabilization

Jong-Un Lee, Chonnam National University

S5-4 12:30-12:50

Metal-Reducing Bacteria: Diviersity and Biomineralization

Yul Roh, Chonnam National University

Korean

S6 Current Epidemiology in Infectious Diseases

May 29 (Fri.), Ophrys

Chair: Hee-Bok Oh, Korea National Institute of Health

S6-1 11:10-11:35

New Disturbing Trend in Antimicrobial Resistance of Outbreaking and Carbapenemase-Producing Pathogens

Sang Hee Lee, Myongji University *2008 JM Paper of Excellence Award Winner*

S6-2 11:35-12:00

Bacteriology, Epidemiology, and Pathogenesis of *Helicobacter pylori*

Myung-Je Cho, Gyeongsang National University

S6-3 12:00-12:25

Evaluation of Immunogenicity to Bivalent, Whole-Cell, Oral Cholera Vaccines

Seung Hyun Han, Seoul National University

S6-4 12:25-12:50

Current Situation on Norovirus Infections and Web-Based Monitoring System 'K-CaliciNet' for Networking with Regional Laboratories

Doo-Sung Cheon, Korea Centers for Disease Control and Prevention

Korean

S7 Frontiers in Food Microbiology

May 29 (Fri.), Azalea

Chair: Choong Hwan Lee, Konkuk University

S7-1 11:10-11:35

Nanobiotechnology: A Novel Tool in Microbiology

Young-Rok Kim, Kyung Hee University

S7-2 11:35-12:00

Understanding and Control of Foodborne Pathogens by Learning from Bacteriophages

Kwang-Pyo Kim, Jeju National University

S7-3 12:00-12:25

^{1}H NMR-Based Metabolomic Approach for Understanding the Fermentation Behaviors of Wine Yeast Strains

Young-Shick Hong, Korea University

S7-4 12:25-12:50

Identification of Retrotransposons in an Edible Mushroom *Pleurotus eryngii*

Hyeon-Su Ro, Gyeongsang National University

English

S8 Novel Regulation of Gene Expression

May 29 (Fri.), Seolmundae

Sponsored by School of Life Sciences & Biotechnology, Korea University

Chair: Kyu-Ho Lee, Hankuk University of Foreign Studies

S8-1 14:10-14:30

TORC1 Controls Degradation of Transcription Factor Stp1, a Key Effector of the SPS Amino Acid-Sensing Pathway in *Saccharomyces cerevisiae*

Won-Ki Huh, Seoul National University

S8-2 14:30-14:50

Hydrogen Peroxide Sensing and Signaling in *Candida albicans* : A Genome-Wide Transcriptome Analysis

Wonja Choi, Ewha Womans University

Chair: Cheol-Won Yun, Korea University

S8-3 14:50-15:10

Transcriptional Regulation Network of Ribosomal Protein Genes in Yeasts

Joon Kim, Korea University

S8-4 15:10-15:50

Phosphorylation of Sec2 by Cdc28-Hgc1 is Required for Transport of Secretory Vesicles to the Spitzenkörper during the Hyphal Growth of *Candida albicans*

Peter E. Sudbery, The University of Sheffield, UK

English

S9 Microbes in Extreme Environments

May 29 (Fri.), Pampas

Sponsored by Korea Polar Research Institute

Chair: Yoon Lee, National Fisheries Research and Development Institute

S9-1 14:10-14:50

Genetics and Evolution of Deep-Sea Chemosynthetic Microbes and Their Invertebrate Hosts

Robert C. Vrijenhoek, Montrey Bay Aquarium Research Institute, USA

S9-2 14:50-15:10

Overviews of Microbe-Mineral Interaction

Jinwook Kim, Yonsei University

S9-3 15:10-15:30

Hydrogenases and Hydrogen Production in *Thermococcus onnurineus* NA1

Jung-Hyun Lee, Korea Ocean Research & Development Institute

S9-4 15:30-15:50

Global Regulation in Hyperthermophilic Archaea

Sung-Jae Lee, Kyung Hee University

Korean

S10 Current Understandings in Viral Diseases

May 29 (Fri.), Ophrys

Chair: Chan Hee Lee, Chungbuk National University

S10-1 14:10-14:35

Molecular Characteristics and Control of Norovirus

GwangPyo Ko, Seoul National University

S10-2 14:35-15:00

Progress and Prospects: Flavivirus RNA Replication

Young-Min Lee, Chungbuk National University

S10-3 15:00-15:25

Expression of HBX, an Oncoprotein of Hepatitis B Virus, Blocks Reoviral Oncolysis of Hepatocellular Carcinoma Cells

Young-Hwa Chung, Pusan National University

S10-4 15:25-15:50

Inhibition of Type I Interferon Response by Human Cytomegalovirus

Jin-Hyun Ahn, Sungkyunkwan University

English or Korean

S11 Sensing and Responding to Environmental Changes I

May 29 (Fri.), Azalea

Sponsored by the NRL of Microbiology and Toxicology, Seoul National University

Chair: Soon-Jung Park, Yonsei University

S11-1 14:10-14:30

Modulation of the Quorum Sensing Regulation in *Pseudomonas aeruginosa*

Joon-Hee Lee, Pusan National University

S11-2 14:30-14:50

Regulation and Function of the Major Catalase (*katA*) Gene in *Pseudomonas aeruginosa* PA14

You-Hee Cho, Sogang University

S11-3 14:50-15:10

Quorum Sensing and Survival of *Burkholderia glumae* in Response to Environmental Stimuli

Ingyu Hwang, Seoul National University

S11-4 15:10-15:50

AHL-Based Quorum Sensing as a Focus for Inter-Species Bacterial Competition

Matthew R. Parsek, University of Washington, USA

Korean

S12 Global Understanding of Gene Function

May 29 (Fri.), Seolmundae

Sponsored by Bio-Medical Science Co., Ltd.

Chair: Chankyu Park, Korea Advanced Institute of Science and Technology

S12-1 17:00-17:25

A Possible Extended Family of Regulators of Sigma Factor Activity in *Streptomyces coelicolor*

Kye Joon Lee, Seoul National University

S12-2 17:25-17:50

Control of RNA Stability for Gene Function

Younghoon Lee, Korea Advanced Institute of Science and Technology

Chair: Seung-Hwan Park, Korea Research Institute of Bioscience and Biotechnology

S12-3 17:50-18:15

Genome-Based Functional Analysis of the Met4p-Mediated Sulfur Regulatory Network in the Methylotrophic Yeast *Hansenula polymorpha*

Hyun Ah Kang, Chung-Ang University

S12-4 18:15-18:40

High Resolution Strain Characterization Using Whole Genome Optical Mapping

Yongjoo Kim, Bio-Medical Science Co., Ltd.

English

S13 "Omics" for Microbial Ecology

May 29 (Fri.), Pampas

Sponsored by Institute of Environmental Science, Hankuk University of Foreign Studies

Chair: O-Seob Kwon, Inje University

S13-1 17:00-17:40

Identifying the Important Units of Microbial Diversity with Metagenomics

Kostas T. Konstantinidis, Georgia Institute of Technology, USA

S13-2 17:40-18:00

Viral Metagenomics and Phage Genomics of Korean Soil and Marine Environment

Jin-Woo Bae, Kyung Hee University

S13-3 18:00-18:20

Functional Selection of Metagenome Genes Derived from Soil Microbial Diversity

Seon-Woo Lee, Dong-A University

S13-4 18:20-18:40

Functional Metagenomics Feeds Green Biotechnology Needs

Joonhong Park, Yonsei University

English

S14 Industrial Use of *Corynebacterium*

May 29 (Fri.), Ophrys

Sponsored by CJ Cheiljedang R&D Center for Bioproducts

Chair: Hyung Hwan Hyun, Hankuk University of Foreign Studies

S14-1 17:00 -17:40

Industrial Use of *Corynebacterium*

Lothar Eggeling, Research Centre Jülich, Germany

S14-2 17:40-18:00

Oxidative Stress Response of *Corynebacterium glutamicum*

Heung-Shick Lee, Korea University

S14-3 18:00-18:20

Consolidated Bioprocessing of Biomass to Chemicals Using Cellulosomes in Fermentative Microorganisms

Sung Ok Han, Korea University

S14-4 18:20-18:40

Functional Characterization of CRP Homologue (GlxR) and Adenylate Cyclase Genes in *C. glutamicum*; Involvement in the Regulation of Carbon Metabolism

Jung-Kee Lee, Pai Chai University

English

S15 Sensing and Responding to Environmental Changes II

May 29 (Fri.), Azalea

Sponsored by Pioneer Research Center for Omics-Integrated Bioenergy, Ewha Womans University and BK21 Yonsei Biomolecule Research Initiative, Yonsei University

Chair: Wonja Choi, Ewha Womans University

S15-1 17:00-17:40

Biofilm Matrix Regulation by *Candida albicans* Zap1

Aaron P. Mitchell, Carnegie Mellon University, USA

S15-2 17:40-18:00

Yeast Yak1 Kinase, a Bridge between PKA and Stress-Responsive Transcription Factors, Hsf1 and Msn2/Msn4

Ji-Sook Hahn, Seoul National University

S15-3 18:00-18:20

Role of LAMMER Kinase: A Fine-Tuner for Stress Responses in Fission Yeast?

Hee-Moon Park, Chungnam National University

S15-4 18:20-18:40

Differential Control of Mitotic Exit in Budding Yeast in Response to the Different Type of Perturbation

Kiwon Song, Yonsei University

English or Korean

S16 Systems Microbiology

May 30 (Sat.), Seolmundae

Chair: Sang Yup Lee, Korea Advanced Institute of Science and Technology

S16-1 11:20-11:50

Metabolic Engineering of *E. coli* for the Production of Bulk Chemicals

Phillippe Soucaille, Metabolic Explorer, France

S16-2 11:50-12:20

Metabolic Engineering of Hyaluronic Acid Production in Streptococci

Lars K. Nielsen, The University of Queensland, Australia

Chair: Jae-Gu Pan, Korea Research Institute of Bioscience & Biotechnology

S16-3 12:20-12:40

Microbial Genomics to Omics-Based Systems and Synthetic Microbiology

Jihyun F. Kim, Korea Research Institute of Bioscience and Biotechnology

S16-4 12:40-13:00

Fundamentals and Applications of Systems Metabolic Engineering

Sang Yup Lee, Korea Advanced Institute of Science and Technology

English

S17 Microbes in Environmental Biotechnology

May 30 (Sat.), Pampas

Chair: GwangPyo Ko, Seoul National University

S17-1 11:20-11:45

Ecological Study of *Escherichia coli* Isolates with Phylogenetic Grouping, Antibiotic Resistance, and Virulence Gene Profiling

Hor-Gil Hur, Gwangju Institute of Science and Technology

S17-2 11:45-12:10

Microfluidic Devices for Studying Chemotaxis and Calcium Signaling in Environmental Policeman *Tetrahymena pyriformis*

Sungsu Park, Ewha Womans University

S17-3 12:10-12:35

Physiological and Genomic Properties of an Endophytic Quorum Quenching Agent, *Variovorax paradoxus* S110

Jong-In Han, Korea Advanced Institute of Science and Technology

S17-4 12:35-13:00

Microbial Fuel Cell: Novel Bioenergy Production Technology

In Seop Chang, Gwangju Institute of Science and Technology

English

S18 New Developments in Emerging Infectious Diseases

May 30 (Sat.), Ophrys

Chair: Gajin Jeong, Seoul National University

S18-1 11:20-11:40

Prion Diseases: from Genetics to Pathogenic Mechanisms

Yong-Sun Kim, Hallym University

S18-2 11:40-12:00

Methods for the Control of Low Pathogenic Avian Influenza (H9N2) in Korea

InPil Mo, Chungbuk National University

S18-3 12:00-12:30

Evolution and Emergence of Invasive Serotype M1T1 Group a Streptococci

Mark J. Walker, University of Wollongong, Australia

Australian Society for Microbiology Representative

S18-4 12:30-13:00

Rapid Identification of Fungal Pathogens in Positive Blood Cultures Using Oligonucleotide Array Hybridization

Po-Ren Hsueh, National Taiwan University, Taiwan

President of Taiwan Society of Microbiology

English or Korean

S19 Stress-Response and Differentiation

May 30 (Sat.), Azalea

Sponsored by Center for Fungal Pathogenesis, Seoul National University

Chair: Pil Jae Maeng, Chungnam National University

S19-1 11:20-12:00

Genome Plasticity in *Cryptococcus neoformans*: How It Contributes to Survival under Drug Stress

K. J. Kwon-Chung, National Institute of Health, USA

S19-2 12:00-12:20

Hypoxic Stress Adaptation in *Aspergillus nidulans*

Suhn-Kee Chae, Pai Chai University

Chair: Yin-Won Lee, Seoul National University

S19-3 12:20-12:40

Functional Genomics of the Rice Blast Fungus

Yong-Hwan Lee, Seoul National University

S19-4 12:40-13:00

Toward Understanding the Sexual Development in the Homothallic Ascomycete *Gibberella zeae*

Sung-Hwan Yun, Soonchunhyang University

The 1st Korea-Japan Symposium on Microbial Ecology

English

KJS1 **Korea-Japan Symposium I**

May 28 (Thu.), Pampas

Chair: Tae Seok Ahn, Kangwon National University

Opening Address 16:20-16:25

KJS1-1 16:25-16:55
From Diversity to Genomics of Marine and Extreme Microorganisms
Sang-Jin Kim, Korea Ocean Research & Development Institute

KJS1-2 16:55-17:25
Present Status and Future of Microbial Ecology
Kazuhiro Kogure, The University of Tokyo, Japan

Break 17:25-17:35

Chair: Hiroyuki Ohta, Ibaraki University

KJS1-3 17:35-17:55
Biogenic Formation of Photoactivity Arsenic-Sulfide Nanotubes by *Shewanella* Strains
Hor-Gil Hur, Gwangju Institute of Science and Technology

KJS1-4 17:55-18:15
Future of Activated Sludge Relies on Deeper Understanding of Its Microbial Community
Futoshi Kurisu, The University of Tokyo, Japan

KJS1-5 18:15-18:35
Microbial Community Analysis Using Pyrosequencing
Jongsik Chun, Seoul National University

KJS1-6 18:35-18:55
Microbial World in the Subsurface of Tokyo
Mio Takeuchi, National Institute of Advanced Industrial Science and Technology (AIST), Japan

Closing Address 18:55-19:00

KJS2

Korea-Japan Symposium II: Young Scientist Meeting

May 29 (Fri.), Pampas

Chair: Susumu Yoshizawa, The University of Tokyo, Japan

13:00 – 13:05 Teruki Amano, Kyoto University, Japan
13:05 – 13:10 Yo Gotoh, Tokyo Metropolitan University, Japan
13:10 – 13:15 Kazuo Isobe, The University of Tokyo, Japan
13:15 – 13:20 Tomohiro Tobino, The University of Tokyo, Japan
13:20 – 13:25 Shinya Sato, Ibaraki University, Japan
13:25 – 13:30 Anjani Weerasekara, Saga University, Japan

Break 13:30-13:35

Chair: Jaejin Lee, Yonsei University

13:35 – 13:40 Song-Ih Han, Mokwon University
13:40 – 13:45 Seung-Jo Yang, Inha University
13:45 – 13:50 Jae-Cheul Yu, Pusan National University
13:50 – 13:55 Hyunsoo Na, Seoul National University
13:55 – 14:00 Tae Kwon Lee, Yonsei University

Workshop

Korean

W1 **Macrogen Inc.**

May 29 (Fri.), Seolmundae

W1-1 12:50 - 13:30

High Throughput Sequencing Technology and Applications

Kap-Seok Yang, Macrogen Inc.

Poster Sessions

Poster Session 1

Set-up: May 28 (Thu.) 14:00 Removal: May 29 (Fri.) 13:30
Poster Presentation (oral): 09:00~10:00, May 29 (Fri.)

	Poster Topic	Poster Presentation	Poster Board
A	Systematics	Azalea (A001~A049)	Camelia & Orchid (6th Fl. of Main Bldg.)
B	Ecology and Environmental Microbiology	Pampas (B001~B070) Ophrys (B071~B134)	New Bldg.
F	Genetics	Seolmundae (F001~F071)	Lobby of 5th Fl. (Main Bldg.)

Poster Session 2

Set-up: May 29 (Fri.) 14:00 Removal: May 30 (Sat.) 13:30
Poster Presentation (oral): 09:00~10:00, May 30 (Sat.)

	Poster Topic	Poster Presentation	Poster Board
C	Applied Microbiology	Azalea (C001~C039)	Lobby of 5th Fl. (Main Bldg.)
D	Immunology and Microbial Pathogenesis	Seolmundae (D001~D080)	New Bldg.
E	Physiology and Biochemistry	Ophrys (E001~E046)	Camelia & Orchid (6th Fl. of Main Bldg.)
G	Biotechnology	Pampas (G001~G056)	New Bldg.
H	Others	Azalea (H001~H028)	Lobby of 5th Fl. (Main Bldg.)

Azalea 2nd Fl. of New Bldg.
Ophrys 1st Fl. of New Bldg.
Pampas 1st Fl. of New Bldg.
Seolmundae 6th Fl. of Main Bldg.

A 미생물분류 / Systematics

A001

***Paenibacillus xylanidevorans* sp. nov., a Xylanolytic Bacterium from Thai Soil**

Saowapar Khianngam[1*], Somboon Tanasupawat[1], Ancharida Akaracharanya[2], Keun Chul Lee[3], and Jung-Sook Lee[3]

[1]Department of Microbiology, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Thailand, [2]Department of Microbiology, Faculty of Science, Chulalongkorn University, Thailand, [3]Korean Collection for Type Culture, Biological Resource Center, Korea Research Institute of Bioscience and Biotechnology

A002

Characterization and Description of Novel Genus Strain PSC7, Isolated from Seawater

Seong Chan Park[1*], Keun Sik Baik[1], Dae Kuk Kim[1], Sun Mi Lee[1], Chae Hong Lim[1], Duwoon Kim[2], Tai-Sun Shin[2], Se Na Kim[1], and Chi Nam Seong[1]

[1]Department of Biological Science, College of Life Science and Natural Resources, Sunchon National University, [2]Division of Food Science and Aqualife Medicine, Chonnam National University

A003

Defining Species for the Genus *Streptacidiphilus* Based on Multigene Analysis

Ji-Hye Han[*], Myoung-Ho Cho, Seri Choi, and Seung Bum Kim

Department of Microbiology, School of Bioscience and Biotechnology, Chungnam National University

A004

***Kocuria atrinae* sp. nov. and *Kocuria koreensis* sp. nov. Isolated from Traditional Fermented Seafood in Korea**

Eun-Jin Park[*], Min-Soo Kim, Seong Woon Roh, Mi-Ja Jung, and Jin-Woo Bae

Department of Biology, Kyung Hee University

A005

***Formosa jejuensis* sp. nov., Isolated from Marine Sponge**

Byoung-Jun Yoon[*], Han-Su You, Hoo-Dhon Byun, Woong You, and Duck-Chul Oh

Department of Biology, College of Natural Science, Jeju National University

A006

***Spongiimonas jejuensis* gen. nov., sp. nov., a Novel Member of the Family *Flavobacteriaceae* Isolated from Marine Sponge**

Byoung-Jun Yoon[*], Han-Su You, Hoo-Dhon Byun, Na Rae Lee, and Duck-Chul Oh

Department of Biology, College of Natural Science, Jeju National University

A007

***Winogradskyella jejuensis* sp. nov., Isolated from Seawater**

Hoo-Dhon Byun[*], Byoung-Jun Yoon, Han-Su You, and Duck-Chul Oh

Department of Biology, College of Natural Science, Jeju National University

A008

Description of a Novel Strain, Spore-Forming Lactic Acid Bacteria, Isolated from Vineyard Soil

Min Young Jung[*], In-Soon Park, and Young-Hyo Chang
Biological Resource Center, Korea Research Institute of Bioscience and Biotechnology

A009

***Sphingobacterium cladoniae* sp. nov., Strain NO.6 Isolated from the Lichen, *Cladonia* sp. in Geogeum Island, Korea**

Young-Hyun Park[1*], Sung-Ran Moon[1], A-Reum Han[1], Dong-Heon Lee[1], Young Sun Lee[2], Jae Sung Jung[2], and Hyung-Yeel Kahng[1,3]
[1]Department of Environmental Education, Sunchon National University, [2]Department of Biology, Sunchon National University, [3]Korean Lichen Research Institute, Sunchon National University

A010

***Gangjinia marincola* gen. nov., sp. nov., Strain GJ16, A Novel Marine Bacterium in the Family *Flavobacteriaceae*, Isolated from the Coastal Seawater in Gangjin Bay, Korea**

Sung-Ran Moon[1*], Young-Hyun Park[1], A-Reum Han[1], Dong-Heon Lee[1], Jae Sung Jung[2], Song-Ih Han[3], Kyung-Sook Whang[3], and Hyung-Yeel Kahng[1]
[1]Department of Environmental Education, Sunchon National University, [2]Department of Biology, Sunchon National University, [3]Institute of Microbial Ecology and Resources, Mokwon University

A011

Cholera Outbreaks Caused by an Altered *Vibrio cholerae* O1 El Tor Biotype Producing Classical Type Cholera Toxin B in Vietnam 2007-2008

Je Hee Lee[1,2*], Seon Young Choi[1,2], Jongsik Chun[1,2], and Dong Wook Kim[2]
[1]School of Biological Sciences, Seoul National University, [2]International Vaccine Institue

A012

***Cohnella yongneupensis* sp. nov. and *Cohnella ginsengisoli* sp. nov., Isolated from Two Different Soils**

Soo-Jin Kim[1*], Hang-Yeon Weon[1], Yi-Seul Kim[1], Rangasamy Anandham[2], Young-Ah Jeon[1], Seung-Beom Hong[1], and Soon-Wo Kwon[1]
[1]Korean Agricultural Culture Collection, National Agrobiodiversity Center, [2]Organic Agriculture Division, National Academy of Agricultural Science, Rural Development Administration

A013

***Salinicoccus carnicancri* sp. nov., a New Halophilic Bacterium Isolated from a Korean Fermented Seafood**

Mi-Ja Jung[*], Min-Soo Kim, Seong Woon Roh, and Jin-Woo Bae
Department of Biology, Kyung Hee University

A014

***Flavisolibacter sediminifilum* sp. nov., a Novel Member of the Family "*Chitinophagaceae*" in the Phylum *Bacteroidetes*, Isolated from Freshwater Sediment**

Ju Hyoung Lim[*], Sang-Hoon Baek, and Sung-Taik Lee
Department of Biological Sciences, Korea Advanced Institute of Science and Technology

A015

Taxonomic Study of Genus *Pilophorus* (Lichenized Ascomycota, Stereocaulaceae) from China

Xin Yu Wang[1*], Li-Song Wang[2], Soon-Ok Oh[2], Young Jin Koh[1], and Jae-Seoun Hur[1]
[1]Korean Lichen Research Institute, Sunchon National University, [2]Kunming Institute of Botany, Chinese Academy of Sciences, China

A016

***Baekduia soli* gen. nov., sp. nov., a Novel Bacteria Isolated from the Soil of Baekdu Mountain**

Liang Wang[1*], Dong-Shan An[2], Sung-Taik Lee[1], and Wan-Taek Im[1]
[1]Department of Biological Sciences, Korea Advanced Institute of Science and Technology, [2]Biological Resource Center, Korea Research Institute of Bioscience and Biotechnology

A017

***Gaetbulibacter jejuensis*, sp. nov., Isolated from Seawater on the Coast of Jeju Island in Korea**

You-Sung Oh[1*], Sang-Bin Lim[1], Byoung-Jun Yoon[2], Duck-Chul Oh[2], Jae-Ho Joa[3], Hyung-Yeel Kahng[4], and Dong-Heon Lee[4]
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A018

***Tenacibaculum jejuensis* sp. nov., Isolated from Seawater on the Coast of Jeju Island in Korea**

You-Sung Oh[1*], Sang-Bin Lim[1], Hyung-Yeel Kahng[2], and Dong-Heon Lee[2]
[1]Jeju National University Biotechnology Regional Innovation Center, [2]Department of Environmental Education, Sunchon National University

A019

***Aquimarina cellulolytica* sp. nov., Isolated from Seawater on the Coast of Jeju Island in Korea**

You-Sung Oh[1*], Sang-Bin Lim[1], Young Sun Lee[2], Jae Sung Jung[2], Hyung-Yeel Kahng[3], and Dong-Heon Lee[3]
[1]Jeju National University Biotechnology Regional Innovation Center, [2]Department of Biology, [3]Department of Environmental Education, Sunchon National University

A020

Characterization and Description of Novel Strain SC35, Isolated from Tidal Flat Sediment in Korea

Chae Hong Lim[1*], Keun Sik Baik[1], Seong Chan Park[1], Ho Jun Kim[1], Han Na Choi[1], Jung Kuk Park[1], Eun Mi Kim[1,2], and Chi Nam Seong[1]
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A021

Isolation and Characterization of Acidophilic Actinomycetes Isolated from Various Soil in Mongolia Using Culture Dependent and Culture Independent Methods

Bilguun Oyuntsetseg[*], Sung Heun Cho, and Seung Bum Kim
Department of Microbiology, School of Bioscience and Biotechnology, Chungnam National University

A022

***Streptomyces zaisanensis* sp. nov., and *Streptomyces nalaikhanensis* sp. nov. Two Novel *Streptomyces* Species from Mongolian Soil**

Bilguun Oyuntsetseg[*], Sung Heun Cho, and Seung Bum Kim
Department of Microbiology, School of Bioscience and Biotechnology, Chungnam National University

A023

Terracolaceae* fam. nov., to Include *Jinjuella oryziterrae* gen. nov., sp. nov., Isolated from the Rhizosphere of Rice (*Oryza sativa* L.) Belonging to the Order *Acidimicrobiales

Zubair Aslam[1*], Muhammad Yasir[1], Tae Soon Park[1], Che Ok Jeon[2], and Young Ryun Chung[1]
[1]Division of Applied Life Science (BK 21), PMBBRC and EB-NCRC, Gyeongsang National University, [2]Division of Life Science, Chung-Ang University

A024

***Nocardioides panacisoli* sp. nov. Isolated from the Soil of a Ginseng Field in South Korea**

Song-Gun Kim[*], Dong Shan An, and Tae Woong Whon
Biological Resource Center, Korea Research Institute of Bioscience and Biotechnology

A025

Microbial Community in Antarctic Lichens

Chae Haeng Park[1,2*], Jongsik Chun[2], Gajin Jeong[2], and Soon Gyu Hong[1]
[1]Polar BioCenter, Korea Polar Research Institute, Korea Ocean Research and Development Institute, [2]School of Biological Sciences, Seoul National University

A026

Shewanella algicola* sp. nov., a Marine Bacterium Isolated from Brown Alga *Sargassum thunbergii

Ji-Young Kim[1,2*], Byung-Jun Yoon[1], Han-Su You[1], Hoo-Dhon Byun[1], Chang-Gu Hyun[2], and Duck-Chul Oh[1]
[1]Department of Biology, Jeju National University, [2]Research Group for Cosmetic Materials, Jeju Biodiversity Research Institute, HiDI

A027

LC-MS/MS Analysis Based Metabolite Profiling of *Aspergillus* sp. for Chemotaxonmy

Mu Hee Mun[*], Jiyoung Kim, Chae Sung Lim, Dae Jung Kang, Ah Jin Kim, and Choong Hwan Lee
Department of Bioscience and Biotechnology, Konkuk University

A028

***Brevundimonas basaltis* sp. nov., Isolated from Black Sand**

Jung-Hye Choi[*], Min-Soo Kim, Seong Woon Roh, and Jin-Woo Bae
Department of Biology, Kyung Hee University

A029

Formosa crassostrea* sp. nov., Isolated from the Pacific Oysters, *Crassostrea gigas

Young Sun Lee[1*], Dong-Heon Lee[2], Hyung-Yeel Kahng[2], Jae Sung Oh[1], San Ho Son[1], and Jae Sung Jung[1]
[1]Department of Biology, Sunchon National University, [2]Department of Environmental Education, Sunchon National University

A030

Molecular Typing of *Vibrio cholerae* O1 El Tor Harboring Classical Type *ctx*B

Seon Young Choi[1,2*], Jongsik Chun[1,2], and Dong Wook Kim[2]
[1]School of Biological Sciences and Institute of Microbiology, Seoul National University, [2]International Vaccine Institute

A031

Isolation and Taxonomy Studies on a Novel Species of *Bifidobacterium* Isolated from Healthy Human Feces

Kyung Min Lee[1*], Ki-Yeon Kim[2], Hee Jin Kim[1], Chang-Jun Cha[2], and Geun-Bae Kim[1]
[1]Department of Animal Science and Technology, Chung-Ang University, [2]Department of Biotechnology, Chung-Ang University

A032

***Pseudomonas polysaccharea* sp. nov., Endophytic Bacteria Isolated from Pueraria Root**

Songih Han[1*], Soonwo Kwon[2], Heeseong Son[3], and Kyungsook Whang[1,3]
[1]Department of Microbiology, Mokwon University, [2]Korean Agricultural Culture Collection, [3]Institute of Microbial Ecology and Resources, Mokwon University

A033

***Actinoplanes subtropicus* sp. nov., Isolated from Rhizosphere Soil**

Seong Hae Seo[*] and Soon Dong Lee
Department of Science Education, Jeju National University

A034

Phylogenetic Relationship between Tubeworm (*Lamellibrachia Satsuma*) Symbiont and Bacterial Community of Surrounding Environment in Kagoshima Bay

Hyun Hee Cho[1*], Kae Kyoung Kwon[1], Chiaki Kato[2], and Sang-Jin Kim[1]
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A035

***Marmoricola korecus* sp. nov. and *Marmoricola scoriae* sp. nov., Isolated from Volcanic Ash**

Dong Wan Lee[*] and Soon Dong Lee
Department of Science Education, Jeju National University

A036

***Rhodanobacter nassensis* sp. nov., *Rhodanobacter yeongjuensis* and *Rhodanobacter umsongensis* sp. nov., Isolated from Korean Ginseng Fields**

Yi-Seul Kim[1*], Soo-Jin Kim[1], Rangasamy Anandham[2], Hang-Yeon Weon[1], Byung-Yong Kim[1], and Soon-Wo Kwon[1]
[1]Korean Agricultural Culture Collection, National Agrobiodiversity Center, [2]Organic Agriculture Division, National Academy of Agricultural Science, Rural Development Administration

A037

Development of a Diagnostic DNA Microarray for the Detection of *Shigella* and Pathogenic *Escherichia coli* spp. Based on the Pattern of Virulence Factors

Ik-Jung Kim[1*], Je Chul Lee[2], Won Hwang[1], Areum Jo[1], and Kun-Soo Kim[1]
[1]Department of Life Science and Interdisciplinary Program of Integrated Biotechnology, Sogang University, [2]Department of Microbiology, Kyungpook National University

A038

***Candida rhododendronensis* sp. nov., a Novel Member of the Metschnikowiaceae**

Kee-Sun Shin[*], Kang Hyun Lee, Sun Beom Kwon, and Mina Kim
Biological Resource Center, Korea Research Institute of Bioscience and Biotechnology

A039

***Pseudoherbaspirillum aerolatum* gen. nov., sp. nov., and *Paraherbaspirillum soli* gen. nov., sp. nov. Isolated from Air and Soil**

Rangasamy Anandham[1*], Yi-Seul Kim[2], Soo-Jin Kim[2], Hang-Yeon Weon[2], and Soon-Wo Kwon[2]
[1]Organic Agriculture Division, [2]Korean Agricultural Culture Collection, National Agrobiodiversity Center, National Academy of Agricultural Science, Rural Development Administration

A040

Recognition of the Ascomycetous Yeast *Candida acaciaensis* sp. nov., as a Distinct Species Based on Polyphasic Taxonomic Study

Kee-Sun Shin[1*], Soon Gyu Hong[2], Kyung Sook Bae[1], Kang Hyun Lee[1], Sun Beom Kwon[1], Mina Kim[1], and Moon-Soo Rhee[1]
[1]Biological Resource Center, Korea Research Institute of Bioscience and Biotechnology, [2]Polar BioCenter, Korea Polar Research Institute

A041

Notes on Some Unrecorded and New Science Species of Genus *Psathyrella* in Korean

Soon Ja Seok[1*], Yang Sup Kim[2], Ki Moon Park[2], and Hyun Jong Kong[1]
[1]Microbial Resources Team, Agrobiodiversity Center National Academy of Agricultural Science, Rural Development Administration, [2]Department of Food Science and Biotechnology, Sungkyunkwan University

A042

***Kribbella ginsengisoli* sp. nov., Isolated from Soil of a Ginseng Field**

Yingshun Cui[*], Wan-Taek Im, and Sung-Taik Lee
Department of Biological Sciences, Korea Advanced Institute of Science and Technology

A043

Litoricola marina* sp. nov., a Marine Bacterium in the Family *Litoricolaceae

Ahyoung Choi[*], Jing Feng, Hyun-Myung Oh, and Jang-Cheon Cho
Divison of Biology and Ocean Sciences, Inha University

A044

***Ponticoccus eburneus* sp. nov., a Bacterium Isolated from the South Sea of Korea**

Kyung-Mi Kim[*] and Jang-Cheon Cho
Division of Biology and Ocean Sciences, Inha University

A045

A Polyphasic Investigation on a Novel *Paenibacillus* Strain Isolated from the Sputum of a Patient with Pulmonary Disease

Kwang Kyu Kim[1*], Keun Chul Lee[1], Heekyung Yu[2], Sungweon Ryoo[2], Youngkil Park[2], and Jung-Sook Lee[1]
[1]Korean Collection for Type Cultures, Biological Resource Center, Korea Research Institute of Bioscience and Biotechnology, [2]Korean Institute of Tuberculosis

A046

Three Novel Species of *Halorhodovirga* gen. nov. in the *Ectothiorhodospiraceae*, Isolated from a Solar Saltern

Jing Feng[*], Hyun-Myung Oh, and Jang-Cheon Cho
Division of Biology and Ocean Sciences, Inha University

A047

The Types of Extended-Spectrum β-Lactamase (ESBL) Produced by Enteric Bacteria, *Klebsiella pneumoniae* and *Escherichia coli* Isolated from Sewage of Wastewater Treatment Plant at Minrag Dong in Busan, Korea

Hun-Ku Lee

Department of Microbiology, College of Natural Sciences, Pukyong National University

A048

***Methylobacterium dankookense* sp. nov., Isolated from Drinking Water in Korea**

Si Won Lee[1*], Gi Don Kim[2], and Tae Young Ahn[1]

[1]Department of Microbiology, Dankook University, [2]Chungcheong Nam Do Agricultural and Extension Services

A049

Four New Species of Chryseobacterium for the Rhizosphere of Coastal Sand Dune Plants

Sung-Heun Cho[*], Kang Seon Lee, Tae Ui Kim, and Seung Bum Kim

[1]Department of Microbiology, School of Bioscience and Biotechnology, Chungnam National University

B 생태·환경미생물학 / Ecology and Environmental Microbiology

B001

Virulence Genes, Antibiotic Resistance, and Integron in *Escherichia coli* Obtained from Domesticated Animals and Humans in Korea

Tatsuya Unno[1], Dukki Han[1], Jeonghwan Jang[1], Sunnim Lee[1], Joon Ha Kim[1], Gwangpyo Go[2], and Hor-Gil Hur[1,3*]

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B002

Microbial Community Dynamics on Cathode Surface in Microbial Fuel Cells with Different Terminal Electron Acceptor

Soojung Choi[*], Jaehwan Cha, Jaehyeong Kwon, Hyosoo Kim, Taeho Lee, and Changwon Kim

Department of Civil and Environmental Engineering, Pusan National University

B003

Application of Virus-Induced Gene Silencing on the Study of Non-Host Resistance against *Ralstonia solanacearum* on *Nicotiana benthamiana*

Hyo-Bee Park[*] and Choong-Min Ryu

Laboratory of Microbial Genomics, Industrial Biotechnology and Bioenergy Research Center, Korea Research Institute of Bioscience and Biotechnology

B004

Microbial Diversity in Reclaimed Soil

Jong-Shik Kim[1*], Nyun-Ho Park[1], Mi-Seon Kim[1], Yeong-Eun Lee[1], Keun-Chul Lee[2], Jung-Sook Lee[2], and Choong-Gon Kim[1]

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B005

Production of Medium-Chain-Length Polyhydroxyalkanoates (MCL-PHAs) by Waste Activated Sludge

Sun Hee Lee[*], Jae Hee Kim, Yu-Yang Ni, Eun Jung Han, Bo Ra Kim, and Young Ha Rhee

Department of Microbiology, Chungnam National University

B006

Biosynthesis of Poly(3-hydroxybutyrate-*co*-3-hydroxyvalerate), Poly(3HB-*co*-3HV), Copolyesters with a High Molar Fraction of 3HV by an Insect-Symbiotic *Burkholderia* sp. IS-01

Soon Bum kwon[1*], Do Young Kim[2], Moon Gyu Chung[1], Doo-Sang Park[3], Kyung Sook Bae[3], Ho-Yong Park[2], and Young Ha Rhee[1]

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B007

The Fate of Tetracycline Resistance at Three Full-Scale Wastewater Treatment Plants

Sungpyo Kim[1*], Hongkeun Park[2], and Kartik Chandran[2]
[1]Department of Environmental Engineering, College of Science and Technology, Korea University Sejong Campus, [2]Department of Earth and Environmental Engineering, Columbia University, USA

B008

Detection Method and Occurrence of *Campylobacter* in Water Supplies

Eun-Sook Lee[*], Sun-Jung Won, Mok-Young Lee, Sun-Hee Han, and Yong-Sang Park
Waterworks Research Institute, Seoul Metropolitan Government

B009

Rapid and Simple Method for the Detection of *Listeria monocytogenes* in Fruit Juices Using Real-Time PCR without Enrichment Culture

Hye-Jin Kim[*] and Jae-Chang Cho
Department of Environmental Sciences, Hankuk University of Foreign Studies

B010

Unexpectedly High Diversity of Bacterial Community in Continental Shelf Sediment

Jin-Kyung Hong[*] and Jae-Chang Cho
Department of Environmental Sciences, Hankuk University of Foreign Studies

B011

High Occurrence of Nobel Bacterial Taxa in Oligotrophic Media

Do-Hyung Kim[*] and Jae-Chang Cho
Department of Environmental Sciences, Hankuk University of Foreign Studies

B012

Microbial Community Analysis in Bioelectrochemical System for Biological Dechlorination

TaeHo Lee[*], JaeCheul Yu, Chang Yeol Lee, and SunAh Kim
Laboratory for Environmental Microbiology & Ecology(LEME), School of Civil &, Environmental Engineering, Pusan National University

B013

Iron Biomineralization by Various *Shewanella* Species

Mi-Jin Jung[1*], Yumi Kim[1], Young-Joo Lee[2], Kae-Kyung Kwon[3], and Yul Roh[1]
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B014

Microbial Diversity and Mineralogy of Acid Mine Drainage at Jeonju Il Mine

Yuri Lee[*], Dongwan Ku, Mijung Kim, Chihyun Kim, Sualki Min, Jonghyun Oh, Muwon Lee, and Yul Roh
Department of Earth Systems and Environment Sciences, Chonnam National University

B015

Comparison of Bacterial Community in Littoral and Profundal of Lake Constance

Tae-Jin Jeong[1*], Tae-Seok Ahn[1], and Hans Güde[2]
[1]Department of Environmental Science, Kangwon National University, [2]Institut für Seenforschung, Germany

B016

Isolation and Characterization of Thermophilic Bacteria from Litter Microorganism

Ahnna Cho[*], Hyun Ju Baek, Young-Gun Zo, and Tae-Seok Ahn
Department of Environmental Science, Kangwon National University

B017

Nutrient Concentrating and Retrieving System for Management of Non-Point pollution

In-Ho Chang[1*], Jong Hyun Nam[1], Seung-Ik Choi[2], and Tae-Seok Ahn[1]
[1]Department of Environmental Science, Kangwon National University, [2]Institute of Environmental Research, Kangwon National University

B018

Isolation and Characterization of Bacterial Decomposers in Lake Khuvsgul, Mongolia

You-Jung Jung[*], Dawoon Jung, Young-Gun Zo, and Tae-Seok Ahn
Department of Environmental Science, Kangwon National University

B019

Prevalence of Antibiotic Resistance in *Enterococcus faecalis* and *faecium* from Livestock in Jeonnam Province

Dukki Han[1*], Tatsuya Unno[1], Jeonghwan Jang[1], Sun Nim Lee[1], Joon Ha Kim[1], Gwangpyo Go[2], and Hor-Gil Hur[1,3]
[1]Department of Environmental Science and Engineering, Gwangju Institute of Science and Technology, [2]Department of Environmental Public Health, Seoul National University, [3]International Environmental Research Center, Gwangju Institute of Science and Technology

B020

Microbial Diversity Associated with Marine Sponges in Jeju Coastal Area

Byoung-Jun Yoon[*], Han-Su You, Hoo-Dhon Byun, and Duck-Chul Oh
Department of Biology, College of Natural Science, Jeju National University

B021

Diversity of Symbiotic Root Nodule Bacteria from Leguminous Plants in Jeju

Han-Su You[*], Byoung-Jun Yoon, and Duck-Chul Oh
Department of Biology, College of Natural Science, Jeju National University

B022

Analysis of Prokaryote Communities in Korean Traditional Fermented Food, Jeotgal, Using Culture-Dependent Method and Isolation of a Novel Strain

Min-Soo Kim[*], Eun-Jin Park, Mi-Ja Jung, Seong Woon Roh, and Jin-Woo Bae
Department of Biology, Kyung Hee University

B023

Isolation and Characterization of Cyanophages Infecting the Toxic Bloom-Forming Cyanobacterium in Freshwater

Eun-Min Cho*, Seung-Eun Song, and Chi-Yong Eom
Seoul Center, Environment and Metabolomics Research Team, Korea Basic Science Institute

B024

Detection of Antibiotic Resistant Gene from Isolated *Enterococcus* spp.

Oh Min Kwon* and Mal Nam Kim
Department of Biology, Sangmyung University

B025

Isolation of Bacterium Degrading Polyethylene from the Oil Contaminated Coast

Moon Gyung Yoon* and Mal Nam Kim
Department of Biology, Sangmyung University

B026

Physicochemical Stability Tests of An Enterobacteria-Specific Bacteriophage

Shukho Kim*, Marzia Rahman, Yoo Chul Lee, and Jungmin Kim
Department of Microbiology, School of Medicine, Kyungpook National University

B027

Isolation and Characterization of Thermophilic Bacteria Producing Hydrolytic Enzymes for Development of Sludge Reduction Process

Hae-Min Jung* and Sung-Taik Lee
Department of Biological Sciences, Korea Advanced Institute of Science and Technology

B028

Metal Reduction and Biomineralization by Metal-Reducing Bacteria from KAERI Underground Research Tunnel (KURT) Groundwater

Hyeyeon Jung[1*], Mihye Kong[1], Bitna Park[1], Yuri Lee[1], Jongmin Oh[2], and Yul Roh[1]
[1]Department of Earth Systems and Environment Sciences, Chonnam National University, [2]Radioactive Waste Technology Development Division, Korea Atomic Energy Research Institute

B029

Comparative Studies of *Shewanella* sp. Strains for Biogenic Formation of As-S Nanotubes

Shenghua Jiang[1*] and Hor-Gil Hur[2]
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B030

Comparison of Biological Assays to Measure the Residual Concentrations of Tetracycline after Gamma Irradiation

Ji-Hye Shin[1*], Kyoung-Hee Oh[2], Seungho Yu[3], Myunjoo Lee[3], and Dong-Hun Lee[1]
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B031

Development of Genotoxicity Assay Kit Using SOS/*umu*-Test

Ji-Hyun Nam[1*], Seo Yeon Yoon[1], Sang-Ill Lee[2], and Dong-Hun Lee[1]
[1]Department of Microbiology, Chungbuk National University, [2]Department of Environmental Engineering, Chungbuk National University

B032

Investigation of Archaeal and Bacterial Diversity in Fermented Seafoods Using Barcoded Pyrosequencing

Seong Woon Roh[*], Kyoung-Ho Kim, Young-Do Nam, Eun-Jin Park, and Jin-Woo Bae
Department of Biology, Kyung Hee University

B033

The Nature of TFOs against Biological Phosphorus Removal

Seon-Yeong Jin[*], Hong-Jae Choi, and Young-Ok Lee
Department Biological Science, College of Natural Science, Daegu University

B034

Analysis of Total Nitrogen and Total Phosphorus in the Sediments of the Saemangeum Tributary

Hyun-Joo Jung[*], Kung-Min Beak, Ah-Won Han, Kyoung-Hee Oh, and Young-Cheol Cho
Department of Environmental Engineering, Chungbuk National University

B035

Cancelled

B036

Standardization of Ecotoxicity Assay Using INT-Dehydrogenase

Ah-Won Han[*], Hyun-Joo Jung, Kung-Min Beak, Kyoung-Hee Oh, and Young-Cheol Cho
Department of Environmental Engineering, Chungbuk National University

B037

Standardization of Ecotoxicity Test Method Using Acetylcholine Esterase

Kung-Min Beak[*], Ah-Won Han, Hyun-Joo Jung, Kyoung-Hee Oh, and Young-Cheol Cho
Department of Environmental Engineering, Chungbuk National University

B038

Analysis of Growth of Toxigenic *Microcystis* and Activity of Toxin Production in Korean Reservoirs

Hee-Seon Lee*, Kyoung-Hee Oh, and Young-Cheol Cho
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B039

Diversity of Microcystin Synthetase Gene Sequences in Korean Reservoirs

Kyoung-Hee Oh*, Hee-Seon Lee, and Young-Cheol Cho
Department of Environmental Engineering, Chungbuk National University

B040

Influence of Organo-Mineral Composts on Microbiological Activity Serozem Soils

Sindor Pardayev[1*], Gavhar Dushanova[1], Feruza Murodova[2], and Nurravshan Sharifov[2]
[1]Samarkand State University, [2]Farm is named "Rayhon"

B041

Characterization of Various Analytical Methods for Detecting Airborne Microorganisms

SungYeon Kim*, SungHee Lee, Zhi Yeol Kim, and GwangPyo Ko
Department of Environmental Health, School of Public Health, Seoul National University

B042

Identification and Characterization of Novel Murine Norovirus in South Korea

Misoon Kim*, Heetae Lee, and GwangPyo Ko
Department of Environmental Health, School of Public Health, Seoul National University

B043

Hydrogen Production in Various Organic Acids by Isolated *Citrobacter freundii* K1-11 from Activated Sludge

Bo Hye Kim[1*], Young Ok Lee[2], and Hye Joo Lee[1]
[1]Division of Natural Science, College of Natural Science, DongA University,
[2]Department of Life Science, Daegu University

B044

Analysis of Bacterial Community in Association with *Cochlodinium polykrikoides*

Ji-Young Lee*, Min-Ju Kim, and Jeong-Il Oh
Department of microbiology, Pusan National University

B045

Diversity of Bacterial Community in Seawater of Gwangyang Bay

Ho Jun Kim*, Seong Chan Park, Keun Sik Baik, Chae Hong Lim, Young Jae Ju, and Chi Nam Seong
Department of Biological Science, College of Life Science and Natural Resources, Sunchon National University

B046

Evaluation of Different Culturing Methods Using Seafood Media to Cultivate the Previously Uncultured Bacteria

Hyunsoo Na*, Ok-Sun Kim, Yunmin Kim, and Jongsik Chun
School of Biological Sciences, Seoul National University

B047

Microbial Degradation of Phthalic Acid Esters

Jee-Yeon Bae*, Hana Kim, and Chang-Jun Cha
Department of Biotechnology, Chung-Ang University

B048

Characteristics of Cytotoxic Necrotizing Factor Type 1 and Other Virulence Genes in *Escherichia coli* from Healthy Pigs and Human Faecal Samples

Hyunjin Hong[1,2*], Hakmi Lee[1,2], and Yeonhee Lee[1,2]
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B049

Remediation of Cr(VI)-Contaminated Groundwater by Metal-Reducing Bacteria, Nano-Minerals, and Bio-Nano-Minerals

Hyunhee Seo*, Eunyoung Sun, Yuri Lee, and Yul Roh
Department of Earth Systems and Environmental Sciences, Chonnam National University

B050

Microbial Mixture for the Bioremediation of Crude Oil Contaminated Tideland

Dae-Hyun Cho*, Kyung-Hwa Baek, Byung-Hyuk Kim, Hee-Mock Oh, Chi-Yong Ahn, and Hee-Sik Kim
Environmental Biotechnology Research Center, Korea Research Institute of Bioscience and Biotechnology

B051

Anaerobic VC to Ethene Dechlorinating Enrichment Culture

Byung-Hyuk Kim[1,2*], Kyung-Hwa Baek[1], Dae-Hyun Cho[1], Youlboong Sung[3], Chi-Yong Ahn[1], Hee-Mock Oh[1], Sung-Cheol Koh[2], and Hee-Sik Kim[1]
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B052

Conjugative Transfer of the *ermB* Gene from Erythromycin-Resistant *Enterococcus faecalis* Isolated From Healthy Persons

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B053

Assessment of the Host Specificity and Stability of Intestinal Microorganisms from Healthy Individuals Using Molecular Methods

Young-Do Nam*, Seong Woon Roh, Kyoung-Ho Kim, and Jin-Woo Bae
Department of Biology, Kyung Hee University

B054

Microbial Activities and Community Structure in Arctic Soils

Inyoung Jang[1*], Nam Yi Chae[2], Taejin Choi[2], Seung Hoon Lee[1], and Hojeong Kang[1]
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B055

Metagenomic Monitoring of Microbial Community Shifts in a Tidal Mudflat after Crude Oil Spill

Jaejin Lee[1*], Tae Kwon Lee[1], Jihoon Yang[1], Keunje Yoo[1], Sanggoo Kim[2], Han Seung Kim[3], and Joonhong Park[1]
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B056

Characterization of Gentisate 1,2-Dioxygenases and Their Effects on Naphthalene Degradation in *Polaromonas naphthalenivorans* CJ2

Hyo Jung Lee*, Jeong Myeong Kim, and Che Ok Jeon
Department of Life Science, Chung-Ang University

B057

Study of Radical Effects by Electrolysis on the Viability of *Microcystis aeruginosa* Blue-Green Alga

Nuri Oh[1*], Sojung Jung[1], Seungjin Lee[1], Eunjoo Choi[2], Kitae Rhie[1,2]
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B058

Characteristics of Microbial Communities in Two Up-Flow Reactors Induced Autotrophic Nitrogen Removal

Sunja Cho[1*], Jaecheul Yu[1], Yoshitaka Takahashi[2], Naoki Fujii[2], Satoshi Okabe[2], and Taeho Lee[1]
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B059

Molecular Characterization and Phylogenetic Analysis of Japanese Encephalitis Viruses Isolated in South Korea from the 1980s to the 2000s

Seok-Min Yun*, Young Eui Jeong, Jung Eun Cho, Min Ju Jeon, Myung Guk Han, and Young Ran Ju
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B060

Monitoring Avian Influenza Virus in Korean Wild Birds

Jeonghwa Shin[1*], Junghyun Kim[1], Changwon Im[1], Jeongyeon Yi[1], Byungho Yoo[1], Seonghwan Byun[2], Eunok Jeon[2], Inpil Mo[2], and Hyenmi Chung[1]
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B061

Isolation and Characterization of a Soil Metagenomic Clone Encoding Wax Ester Synthase and Lipolytic Enzyme

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B062

Bacterial Genetic Diversity of a Solar Saltern in Jengdo

Yochan Joung[*], Haneul Kim, and Kiseong Joh
Department of Bioscience and Biotechnology, Hankuk University of Foreign Studies

B063

Isolation, Identification and Characterization of Algicidal Bacterium HYD0802-MK36 against *Microcystis aeruginosa* for the Biological Control of Freshwater Harmful Algal Blooms

Chong Sung Park[*], Yoon-Ho Kang, and Myung-Soo Han
Department of Life Science, Hanyang University

B064

Biodegradation of Monocyclic Aromatic Hydrocarbons by Bacteria Isolated from Tidal Flat Sediment

Ju-Hyoung Kim[*], Jee-Yeon Bae, Hana Kim, and Chang-Jun Cha
Department of Biotechnology, Chung-Ang University

B065

Characterization of a Novel Esterase from Soil Metagenomic Library

Myung Hwan Lee[1*], Kyung Sik Hong[2], Young Sup Kim[2], Ji Hye Park[1], Byung Ju Moon[1], and Seon-Woo Lee[1]
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B066

Suppression of Botrytis Fruit Rot of Strawberry by a *Streptomyces* sp. JAII-45 Strain from Bamboo Litters

Eunkyung Lee[1*], Haeran Lee[2], and Kyungsook Whang[1,2]
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B067

Viral Metagenomic Study of Seawater by Using Different DNA Amplification

Kyoung-Ho Kim[*], Seong Woon Roh, Young-Do Nam, and Jin-Woo Bae
Department of Biology, Kyung Hee University

B068

Analysis of Microbial Population Structure in Membrane Bioreactor (MBR) for Advanced Wastewater Treatment using Pyrosequencing

Soo Yeon Lim[1*], Kyung-Min Yeon[1], Chung-Hak Lee[1], Jongsik Chun[2], and Seil Kim[3]
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B069

16S rDNA Sequence Analysis and Carbon Source Utilization Patterns of Heterotrophic Bacteris Isolated from Seawater Near Ulleung Island

Yong-Hwan Shin[*], Suhk-Hwan Park, Sung-Jun Cho, and Geon-Hyoung Lee
Department of Biology, College of Natural Sciences, Kunsan National University

B070

Characterization of Methanogen-Containing Enrichment Cultures from Riverine Sediments Based on 16S rRNA Gene

Kihyun Lee[*], Ok-Sun Kim, and Jongsik Chun
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B071

Culturable Bacterial Diversity in 29 Islands in Korea

Hang-Yeon Weon[1*], Soon-Wo Kwon[1], Soo-Jin Kim[1], Yi-Seul Kim[1], Soon-Ja Seok[1], and Wan-Gyu Kim[2]
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B072

Screening and Characteristic Analysis of Promoters from Plant Rhizobacteria

Se Hee Lee[*], Ji Young Jung, and Che Ok Jeon
Department of Life Science, Chung-Ang University

B073

Investigation about Identify of Ultramicrobacteria at East-Sea, Korea

Mi-ree Kim[*], Kae Kyoung Kwon, and Sang-Jin Kim
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B074

A Preliminary Study on the Red-Tide Algicidal Effect of Viral Concentration Samples from Sea Water

Jang Min Park[1*], Hee Gon Kim[1], Byoung Ok Cho[2], and Si Wouk Kim[1]
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B075

Distribution of Denitrifying Bacteria in a Hyporheic Zone of a Temperate Stream

YoungJoo Kim[*] and Hojeong Kang
School of Civil and Environmental Engineering, Yonsei University

B076

Spatial Patterns of Community Structure and Quantity of Denitrifiers in Created Wetlands

Christopher D. Cooley[1*], Keunyea Song[2], William J. Mitsch[3], and Hojeong Kang[1]
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B077

Effects of Corrosion Control on Biofilm Microbial Communities on Copper and Carbon Steel Pipes in Pilot Distribution System

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In-Seop Park[1], and Jong-Ok Ka[2]
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B078

Effect of Keratinolytic Amino Acids on Root-Knot Nematodes (*Meloidogyne incognita*)

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B079

Changing the Cell Length and *Citrobacter freundii* K1-11 in Various Carbon Sources

Joo Young Yang[*], Bo Hye Kim, and Hye Joo Lee
Division of Biological Sciences, College of Natural Sciences, DongA University

B080

Structural and Functional Analysis of a Methylcatechol 2,3-Dioxygenase from *Rhodococcus* sp. Strain DK17

Seo Yeon Sohn[1*], Hyo Je Cho[2], Tae Yoon Park[1], Beom Sik Kang[2], and Eungbin Kim[1]
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B081

Bacterial Numbers and Biomass of *in situ* Installed Small Scale Concentrating Pilots in Lake Soyang

Eun Young Seo[1*], Seung Ik Choi[2], Ahnna Cho[1], You Jung Jung[1],
In Ho Chang[1], and Tae Seok Ahn[1]
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B082

Monitoring of Infectious Enteric Viruses in Namhangjin Beach Water by Using Integrated Cell Culture-PCR

Sung Won Song[1*], Hee-Jung Lee[2], Cheonghoon Lee[1], Weon Cheon Choi[1], Eun-Gyoung Oh[2], Hong-Sik Yu[2], Soon-Bum Shin[2], and Sang-Jong Kim[1]
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B083

Purification and Characterization of Biotransformation Products of Flavone and Isoflavone by Naphthalene Dioxygenase of *Pseudomonas* sp. Strain NCIB 9816-4 Expressed in *E. coli*

Jiyoung Seo[1], Su-Il Kang[2], Ji-Young Ryu[1], Young-Ju Lee[3], Joong-Hoon Ahn[4], Youhoon Chong[4], Jaehong Han[5], and Hor-Gil Hur[1*]
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B084

Phosphate Utilization and Its Accumulation in *Acinetobacter* sp. SK1402

Sang-Buem Cho[*], Xiaotian Quan, and Soo-Ki Kim
Department of Animal Sciences and Environment, Konkuk University

B085

Characterization of Exopolysaccharide (EPS) Produced by *Rhizobium* sp. SAP-110 Isolated from *Atractylodes japonica* Rhizoplane

Kikwang Kim[1*], Haeran Lee[1], Songih Han[1], and Kyungsook Whang[1,2]
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B086

Occurrence of Enteric Viruses in the Water Environments near Gangneung City

Weon Cheon Choi[1*], Hee-Jung Lee[2], Cheonghoon Lee[1], Sung Won Song[1], Eun-Gyoung Oh[2], Hong-Sik Yu[2], Soon-Bum Shin[2], and Sang-Jong Kim[1]
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B087

Biofilm Formation Is Essential for Optimal Hexadecane Degradation by *Acinetobacter* sp. Strain DR1

Jaejoon Jung[*] and Woojun Park
Division of Environmental Science and Ecological Engineering, Korea University

B088

Removal Efficiency of Enteric Viruses and Indicator Bacteria in a Wastewater Treatment Plant

Weon Cheon Choi[*], Cheonghoon Lee, Sung Won Song, and Sang-Jong Kim
School of Biological Sciences, College of Natural Sciences, Seoul National University

B089

Microbial Community Structure in Asian Dust Event

Kyung-Hwa Baek[1*], Byung Hyuk Kim[1], Yoonjo Choung[2],
Dongho Choung[1], and Hee-Sik Kim[1]
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B090

Functional Metagenomic Discovery of Novel Biphenyl Oxidizing Bacteria from a Korea Tidal Mudflat

Tae Kwon Lee[*], Jaejin Lee, Jangho Lee, Doan van Tuan, and Joonhong Park
School of Civil and Environmental Engineering, Yonsei University, Seoul, Republic of Korea

B091

Metagenomic Profiling of Denitrifying Microbial Community from a Wastewater-Treating Air Cathode-Single Chamber Microbial Fuel Cell Using Titanium Pyrosequencing

Doan van Tuan[1*], Tae Kwon Lee[1], Kyuseon Yoo[2], and Joonhong Park[1]
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B092

Flow Cytometric Assessment of Cell Viability of *Scenedesmus quadricauda* under Various Environmental Stresses

Kyo Nam Park[*], Yun Hyang Yang, and Jongseol Kim
Department of Biological Science, University of Ulsan

B093

Characterization of Polychlorinated Biphenyl-Dechlorinating Enrichment Culture: Phylogenetic Identification of Culturable Anaerobic Bacteria

Min Ju Cha[*], Ji Yoon Koh, and Jongseol Kim
Department of Biological Science, University of Ulsan

B094

Isolation of New Naphthalene Degrading Bacteria from Oil-Contaminated Marine Sediment and Their Naphthalene Degradation Ability

Hyun Mi Jin[*], Jeong Myeong Kim, and Che Ok Jeon
Department of Life Science, Chung-Ang University

B095

Isoeugenol Monooxygenase Gene of *Pseudomonas nitroreducens* Jin1 Transcribed in the Presence of Its Transcriptional Regulator and Inducer

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B096

Effect of Root Colonizing of Oligotrophic PGPR *Brevibacillus* sp. TO129 in a Tomato Rhizosphere Soil

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B097

Glutathione S Transferase Expression in Antibiotic Resistance Microorganisms Isolated from Poultry Farm

Shankar Congeevaram[1,2*], Joonhong Park[1,2], T. Sridevi Dhanarani[2], Michael Dexlin[2], R. Rajesh Kumar[2], and Kaliannan Thamaraiselvi[2]
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B098

Bacterial Community on Different Biofilms in Lake So-yang

Ju-Young Kim[1*], Seung-ik Choi[2], Ahnna Cho[1], In Ho Chang[1], You Jung Jung[1], and Tae-Seok Ahn[1]
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B099

Distribution and Identification of Microorganisms associated with Airborne Particles during Asian Dust Events in Ulsan, Korea

Ji Yoon Koh[*], Chan Gook Jang, and Jongseol Kim
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B100

Bacterial Diversity of Marine Sediments in Ulleung-Basin, Using 16S rDNA Analysis

In Soon Jeong[1,2*], Jang-Cheon Cho[2], Jang-Jun Park[3], Sang Min Hyun[1], and Jung-Hyun Lee[1]
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Seasonal Succession of Microbial Flora from Respiratory Organ and Intestine in Mice and Rats

Mee Kyung Jang[*], Jong Kun Seo, Jin Ho Kang, Chang Jun Bae, Jong Min Woo, Su Hae Lee, Seung Wan Jee, Byoung Guk Kim, Ho il Kang, Ji Soon Sin, Sun Bo Shim, and Chuel kyu Kim
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Bacterial Diversity of an Arctic Freshwater Lake Revealed by Pyrosequencing and Cloning of 16S rDNA, Heterotrophic Plating, and Dilution-to Extinction Culturing

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B103

Spatial and Temporal Dynamics of Total, Denitrifying, Sulfate-reducing, and Iron-Reducing Bacterial Population in Estuarine Wetland Soil

Seung-Hoon Lee[1*], Hojeong Kang[1], and Soohyun Jung[2]

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B104

The First Cultured Representatives of the SAR11 Group 3 from the Arctic Ocean

Seung-Il Lim[1*], Hyun-Myung Oh[1], Soon-Gyu Hong[2], and Jang-Cheon Cho[1]

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Isolation and Managemental Method of Fungi Genera in Raw Water

Hong-Gi Park[*], Eun-Young Jung, Jong-Moon Jung, and Jae-Soon Roh

Water Quality Institute, Busan Water Authority

B106

Effective Bioremediation of Oil-Polluted Marine Sediments by Enriched Microbial Communities

Sung-Cheol Koh[1*], Hwan-Jin Bae[2], Sung-Hyun Kwon[2], Byung-Hyuk Kim[3], Kelvin Kalu[1], and Jong-Hyang Kim[4]

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Distribution and Removal Efficiency of Noroviruses in Raw Water

Eun-Young Jung[*], Hong-Gi Park, Dong-Jin Cha, Mi-Eun Jung, and Pyung-Jong You

Water Quality Institute, Busan Water Authority

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Shiga-Like Toxin Producing *Escherichia coli* Obtained from Beef Cattle in Rep. of Korea

Jeonghwan Jang[1*], Tatsuya Unno[1], Sunnim Lee[1], Joon Ha Kim[1], Gwangpyo Go[2], and Hor-Gil Hur[1,3]

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B109

Degradation of Microcystins by Typical Proteases and Proteolytic Microbes

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Contribution of Fungi to Nitrous Oxide Emissions from Upland Soils (Japan)

Masafumi Umezu[1], Kazuto Tsuruta[1], Yoshinori Sato[1, 2], Tomoyasu Nishizawa[1], Hiroshi Niimi[3], Tomoyoshi Hashimoto[3], Kazuhiko Narisawa[1, 2], Masakazu Komatsuzaki[1, 2], and Hiroyuki Ohta[1, 2*]

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B111

The Motility of *Pseudomonas aeruginosa* Strains on Clinorotation

Shinya Sato[1], Shinya Shinji[1], Ikumi Kozato[1], Tomoyasu Nishizawa[1], Tetsuyoshi Inoue[2], and Hiroyuki Ohta[1,*]

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B112

Specificity and Sensitivity of New Isotope Array Method Using Random Genomic Fragment Probes Derived from a Microbial Community

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B113

A Novel Method for Rapid and Simultaneous Quantification of Gaseous Substrates and Metabolites for Microorganisms

Kazuo Isobe[1], Keisuke Koba[2], Keishi Senoo[1], Tatsuo Sumino[3], Shigeaki Harayama[4], and Yuichi Suwa[4]

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B114

Inactivation of Murine Norovirus in Water by Ozone Disinfection

MiYoung Lim, Ju-Mi Kim, JungEun Lee, and GwangPyo Ko[*]
Department of Environmental Health, School of Public Health, Seoul National University

B115

Endophytic Bacterial Diversity Associated with Native Plants

Kangseon Lee[1*], Song Hee Chae[2], and Seung Bum Kim[2]
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Characteristics of Nitrate Reduction of a Bacterium Producing Nitrous Oxide Isolated by Using a Medium with Low Concentration of Nitrate and organic Carbons

Hirohiko Nagano[1*], Maki Shinohara[2], Masayuki Seto[2], and Mitsunori Tarao[2]
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The *Burkholderia*-Related Bacteria Presented in the Mycelia of Nitrous Oxide-Producing Fungus, *Mortierella elongata*

Yoshinori Sato[1], Kazuhiko Narisawa[2], Kazuto Tsuruta[2], Masafumi Umezu[2], Tomoyasu Nishizawa[2], Masakazu Komatsuzaki[2], and Hiroyuki Ohta[2]
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B118

Species Composition of Anammox Bacteria in Diverse Aquatic Sediments Assessed by 16S rRNA Gene Analysis

Teruki Amano[1*], Ikuo Yoshinaga[1], Takao Yamagishi[2], Yuichi Suwa[3], and Yoshihiko Sako[1]
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Rapid and Automated Enumeration of Viable *Escherichia coli* and *Salmonella* in Soil and Manure Using a Micro-Colony Automatic Counting System (MACS)

Takashi Someya[1*], Ayumi Inubushi, Shengjin Wu[1], Tomoya Higuchi[2], Masao Nasu[3], Daisuke Ueno[1], and Koichi Inoue[1]
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B120

Development of New Permeabilization Protocol for Rapid and Simple Identification of *B. anthracis* Spores by Florescence *in situ* Hybridization with a Pair of Novel Oligonucleotide Probes

Anjani Wathsala Weerasekara[1*], Noriko Ryuda[1], Daisuke Ueno[1], Koichi Inoue[1], Hiroshi Miyamoto[2], Tetsu Okumura[2, 3], and Takashi Someya[1]

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Effect of Surface Properties of Acetate-Utilizing Methanogens on Anaerobic Granulation

Toshiyuki Nomura[*], Akinori Yoshihara, and Yasuhiro Konishi

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Diversification of Bacterial Species Composition of Microbial Mats along a Temperature Gradient at a Thermal Spring

Craig Everroad, Hiroyo Otaki, Katsumi Matsuura, and Shin Haruta[*]

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B123

Cyanobacteria Enable Eukaryotic Microalgal Growth under Nitrogen-Limiting Conditions

Yo Gotoh[*], Katsumi Matsuura, and Shin Haruta

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B124

Community Structure of Sulfate-Reducing Bacteria in Two Brackish Lagoons Facing Sendai Bay, Japan Using *dsrB* Gene-Based DGGE

Ayumi Muraoka[1*], Gen Kanaya[2], Jotaro Urabe[1], and Shuichi Shikano[2]

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Fungal and Bacterial Community Developments on Decomposing Leaves in Forest Streams

Masato Miyaoka[1] and Shuichi Shikano[2*]

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Massively Parallel Sequencing of 16S rRNA V6 Regions Revealed the Diversity of Active-but-Rare Microbial Populations in Oceanic Pelagic Ecosystems

Koji Hamasaki[*] and Akito Taniguchi

Microbiology Division, Ocean Research Institute, The University of Tokyo, Japan

B127
Diversity of Light Emission Spectra of Marine Luminous Bacteria
Susumu Yoshizawa*, Wada Minoru, and Kazuhiro Kogure
Ocean Research Institute, The University of Tokyo, Japan

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Ecological Implication of the Prokaryotic Buoyant Density and Sedimentation in the Ocean
Katsuyuki Inoue*, Hideaki Nomura, Hiroshi X. Chiura,
Masahiko Nishimura, and Kazuhiro Kogure
Ocean Research Institute, the University of Tokyo, Japan

B129
"Bactsphere" a New Concept of the Zone Surrounding a Bacterial Cell
Y. Seo* and K. Kogure
Ocean Research Institute, the University of Tokyo, Japan

B130
Spatial Structure and Dynamics of Marine Archaeal Community
Kentaro Inoue* and Kazuhiro Kogure
Ocean Research Institute, The University of Tokyo, Japan

B131
Effects of Rising Soil Temperature and Vegetation on CH_4 and CO_2 Productions and Methanogenic Communities in a Cool-Temperate Marsh Soil
Chol Gyu Lee[1], Shizuo Suzuki[2], and Kazuyuki Inubushi[3*]
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B132
Advantage of New Media to Culture and Isolate for Thermophilic Ammonia-Oxidizing Bacteria in Compost
Chikako Shimaya* and Tomoyoshi Hashimoto
National Agricultural Research Center for Kyusyu Okinawa Region, Japan

B133
Cattle Manure Compost Pellets Applied to the Soil Emit Nitrous Oxide Due to Associated Bacterial Populations
Tsuyoshi Yamane* and Ichiro Yamada
National Agricultural Research Center for Kyushu Okinawa region

B134
Glycerol Based Novel Hydrogen and Methane Fermentation Processes
Hayato Tokumoto*, Masahiro Tanaka, and Hiroyuki Yoshida
Department of Chemical Engineering, Osaka Prefecture University, Japan

C 응용미생물학 / Applied Microbiology

C001

Biosynthesis of Heme from a Recombinant *Escherichia coli*

Oh-Hee Kwon[1*], Susie Kim[1], Dae-Hyun Hahm[2], Hyejung Lee[2], and Pil Kim[1]
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C002

Identification of Bacterial Isolates Producing Lipase from Mangrove Areas in the Philippines

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C003

Biosynthesis of Medium-Chain-Length Polyhydroxyalkanoates (MCL-PHAs) from Volatile Aromatic Hydrocarbons by *Pseudomonas fulva* TY16

Yu-Yang Ni[*], Hyung Woo Kim, Moon Gyu Chung, Sun Hee Lee, and Young Ha Rhee
Department of Microbiology, Chungnam National University

C004

Red Pigments Producing Novel Marine Bacterial Species *Zooshikella rubidus* S1-1^T

Jong Suk Lee[1,2*], Yong-Sook Kim[2], Sooyeon Park[1], Ji-Hoon Kim[1,4], So-Jung Kang[1], Mi-Hwa Lee[1,4], Sangryeol Ryu[2], Jong Myoung Choi[3], Tae Kwang Oh[1], and Jung-Hoon Yoon[1,4]
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C005

Forward Genetic Investigation of Rhizobacterial Determinat Genes Related to Elicitation of Induced Resistance on Pepper

JungWook Yang[1,2*], Hui Young Jeong[2], Seung Hun Yu[2], and Choong-Min Ryu[1]
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C006

Characterization of a Gene Encoding Cellulase of *Streptomyces avidinii* GS11 Isolated from Soil

Duwoon Kim[1*], Se-Na Kim[2], Sook-Hyun Ji[1], Keun Sik Baik[2], Seong-Chan Park[2], Tai-Sun Shin[1], Myung-Joo Oh[1], Heung-Yun Kim[1], and Chi Nam Seong[2]
[1]Chonnam National University, [2]Sunchon National University

C007

Lactic Acid Bacteria Affect Serum Cholesterol Levels, Harmful Fecal Enzyme Activity, and Fecal Water Content

Do Kyung Lee*, Seok Jang, Eun Hye Baek, Mi Jin Kim, Hyang Mi An, Jung Rae Kim, and Nam Joo Ha
Department of Pharmacy, Sahmyook University

C008

Antioxidant and Antimicribial Activities of Lactic Acid Bacteria Fermented in *Acanthopanax koreanum* Extracts

Man Chul Kim*, Ju Sang Kim, Yong Jae Han, and Moon Soo Heo
Department of Aquatic Life Medicine, Jeju National University

C009

Isolation and Characterization of Red Pigment Produce Marine Actinomycetes *Streptomyces* sp. ACT-1 and Research for Bio-Active by ESR

Man Chul Kim*, Ju Sang Kim, Yong Jae Han, and Moon Soo Heo
Department of Aquatic Life Medicine, Jeju National University

C010

Antioxidant and Antimicrobial Activity of *Streptomyces microflavus* ACT-18 Secondary Metabolites by ESR (Electron Spin Resonance Spectrometry)

Man Chul Kim*, Ju Sang Kim, Yong Jae Han, and Moon Soo Heo
Department of Aquatic Life Medicine, Jeju National University

C011

Cloning, Expression and Preliminary Crystallization of a Plant Expansin-Like Protein from *Xanthomonas oryzae* pv. *oryzae* KACC10331

Saeyoung Lee[1*], Hee Jin Lee[2], Sohyun Kim[1], Hyeok-Jin Ko[1], Won-Gi Bang[1], Kyoung-Heon Kim[2], and In-Geol Choi[1]
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C012

Lipase Production in Solid State Fermentation by Fungi Using Statistical Experimental Designs

Waraporn Malilas[1,2*], Seong Woo Kang[1], Warawut Chulalaksananukul[2], and Seung Wook Kim[1]
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C013

Screening for Bioactive Substances from Prodigiosin-Like Pigment Produce Marine Bacteria *Zooshikella* sp. JE-34

Ju Sang Kim*, Man Chul Kim, Yong Jae Han, and Moon Soo Heo
Department of Aquatic Life Medicine Jeju National University

C014

Cultural Characteristics of Prodigiosin Production Marine Bacteria *Zooshikella* sp. JE-34

Ju Sang Kim*, Man Chul Kim, Yong Jae Han, and Moon Soo Heo
Department of Aquatic Life Medicine Jeju National University

C015

Microbial Conversion of Major Ginsenoside Rb_1 to 20(S)-Ginsenoside Rg_3 by *Mucilaginibacter* sp. 2H-1 Isolated from Giseng Field Soil

Xiao-Ye Jiang*, Qing-Mei Liu, Sung-Taik Lee, and Wan-Taek Im
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C016

Bioconversion of Major Ginsenoside Rb1 to Pharmaceutically Active Minor Ginsenoside Rh_2

Xiang-Mei Jin*, Qing-Mei Liu, Sung-Taik Lee, and Wan-Taek Im
Department of Biological Sciences, Korea Advanced Institute of Science and Technology

C017

Phylogenetic Analysis of Yeast in a Korean Traditional Soybean Fermented Foods (*Doenjang* and *Kanjang*) Based on 26S rRNA Gene Sequences

Kye Man Cho[1*], Weon Taek Seo[1], Han Dae Yun[2,3], Sang Hae Nam[1], Nam Dae Kim[4], Sang Do Choi[1], Ok Soo Joo[1], and Goon Jung Kahng[1]
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C018

Changes of Phytochemical Constituents (Isoflavones, Flavanols, and Phenolic Acids) during *Cheonggukjang* Fermentation Using Potential Probiotics *Bacillus subtilis* CS90

Kye Man Cho[1*], Weon Taek Seo[1], Han Dae Yun[2,3], Sang Hae Nam[1], Nam Dae Kim[4], Jine Shang Choi[1], and Hyun Young Kim[1]
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C019

A Baculovirus Vector for Transient Protein Expression in Mammalian Cells

Yubin Choi*, Na Young Kim, Jai Myung Yang, and Sungho Shin
Department of Life Sciences, Sogang University

C020

Specific Detection of the Pathogenic *Vibrio* spp. Using Multiplex-PCR and Microarray

Han-Shin Kim[1*], Seungwon Cha[2], Jeong-A Kim[1], Hyun-Jung Lee[1],
Jae-Chang Cho[1], and Kyu-Ho Lee[1]
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C021

Expression of a Dimeric Recombinant hIL-10 Protein in *E. coli*

Im Jeong Lee[*], Na Eun Kwon, and Hyun Joo Youn
School of Biological Sciences and Biohealth Product Research Center, Inje University

C022

The Disulfide Bond Isomerase DsbA Protein Deregulates Biofilm Formation in *Pseudomonas putida*

Yunho Lee[*] and Woojun Park
Division of Environmental Science and Ecological Engineering, Korea University

C023

Translation Inhibition Activities of Fluorophenyl Oxazole Derivertives

Jae Hyeun Oh[*], Sol Kang, So-Young Park, and Sang Ki Choi
Department of Biological Sciences, Sunchon National University

C024

Antifungal Activities of Korean Propolis

Ah-Ra Goh[*], Jeong-Mi Moon, Yi-Na Kim, and Sang Ki Choi
Department of Biological Sciences, Sunchon National University

C025

Construction of *Salmonella* Expressing CCL17 miRNA for Oral Gene Therapy in Atopic Dermatitis

Seung Seok Lee[*], Won Suck Yoon, Jeong Seon Eom, and Yong Keun Park
School of Life Science and Biotechnology, Korea University

C026

Change of the Organic Acid and Querocetin of the Kyoho Grape Which Uses the Kimchi Lactic Acid Bacteria *Weissella koreensis*

Hyo Bin Yim[*], Yoon Su Baek, Ji Heong Woo, Young Ji, and Jong Wha Lee
The Industrial R&D Center of Liisna Inc.

C027

Identification of Bacteria to Evaluate Production of Amines & Other Products an *in vitro* Model of CHO Overload in Pigs

MD. Jahangir Alam[*], Sun-Ho Kim, Yeon-Jae Choi, and Sang-Suk Lee
Department of Animal Science & Technology, Sunchon National University

C028

Microbial *in vitro* Fermentation by Using Feed Additives to Determine Different Fermental Products in Pigs

MD J. Alam*, Chang-Dae Chung, Chang-Sung Park, Ho-Il Lee,
Dong-H. Kim, Bu-Y Cha, Ji-Na Bae, and Sang-Suk Lee
Department of Animal Science & Technology, Sunchon National University

C029

Fucoidan-Degrading Bacterial Isolates and Characterization of Enzymes Produced from the Bacteria

Nyun-Ho Park*, Tae-Hyung Kwon, and Jong-Shik Kim
Gyeongbuk Institute for Marine Bioindustry

C030

Biotransformation of Protopanaxatriol-Type Ginsenosides by *Leifsonia* sp. GAL45 Isolated from Ginseng Field

Mi-Jin Choi*, Hyun-Gyu Kim, and Chang-Jun Cha
Department of Biotechnology, Chung-Ang University

C031

Biosurfactant Production and Characterization of Bacteria Isolated from Commercial Gasoline

Yeong-Eun Lee*, Nyun-Ho Park, and Jong-Shik Kim
Gyeongbuk Institute for Marine Bioindustry

C032

Microbial Transformation of Major Ginsenoside Rb1 to Rd by *Nocardioides* sp. LnR5-15

Chang Hao Cui[1*], Dong-Shan An[2], Liang Wang[1], Hyung Gwan Lee[1],
Sung Gun Kim[2], and Sung-Taik Lee[1]
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C033

Purification and Characterization of Ginsenoside Rb1-Hydrolyzing *β*-D-Glucosidase from *Rhodanobacter* sp. Gsoil 3054

Hyung Gwan Lee[1*], Dong-Shan An[2], Wan-Taek Im[1], and Sung-Taik Lee[1]
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C034

Screening Method of PAH-Degrading Bacteria

Tae-Hyung Kwon*, Nyun-Ho Park, and Jong-Shik Kim
Gyeongbuk Institute for Marine Bioindustry

C035

Molecular Characterization of a Plant Expansin-Like Protein from *Xanthomonas oryzae pv. oryzae* KACC 10331

Hee Jin Lee[*], Saeyoung Lee, Hyeok-Jin Ko, Sohyun Kim, Won-Gi Bang, Kyoung Heon Kim, and In-Geol Choi
Korea University

C036

Outbreak of Powdery Mildew on Amur Maple Caused by *Sawadaea nankinensis*

Chang Jeon Kim[1*], Hye Yeon Mun[1], Jin Pyo Hong[1], Dean Glawe[2], and Hyang Burm Lee[1]
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C037

Antibacterial Activity of Two Phloroglucinols, Flavaspidic Acids AB and PB, from *Dryopteris crassirhizoma*

Hyang Burm Lee[1*], Hye Yeon Mun[1], and Sang Myung Lee[2]
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C038

Occurrence of Hopanoid Lipids in Solventogenic *Clostridium beijerinckii*

Pan Li[1], Won-Gi Bang[2], Byungwoo Kim[1], Jieun Lee[1*]
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C039

Metagenomic Mining of Common MFC Anode Bacterial Populations in Response to Various Substrate Exposure and Respiration Conditions

Tae Kwon Lee[1*], Tuan Doan Van[1], Kyusun Yoo[2], Soojung Choi[3], Changwon Kim[3], and Joonhong Park[1]
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D 면역·병원미생물학 / Immunology and Microbial Pathogenesis

D001

Characterization of *Salmonella* Isolated from Slaughter Pigs in Hokkaido, Japan and Potential Transfer of Antimicrobial Resistance Genes

Thibichthuy Nguyen[1*], Koichi Takeshi[2], Atsuka Minami[1], Khuanwalai Maklon[1], Osamu Kawase[1], Sou-ichi Makino[1], and Keiko Kawamoto[1]
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D002

Protective Immunity of the N-Terminal-Truncated Fragment of Recombinant *Pasteurella multocida* Toxin in Mice

Jeongmin Lee[1,2*], Inbeen Yim[2], Eunhee Kim[2], Arum Kim[2], Moosik Kwon[3], and Hee-Jong Woo[2]
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D003

Colonization Ability of a *fimH*⁻ Mutant of Avian Pathogenic *Escherichia coli*

Hassan Hussein Musa[1,2*], Su Fen He[1], Wei Juan Zhang[1], Xiao Fang Zhu[3], and Guo Qiang Zhu[1]
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D004

Isolation and Characterization of *Listeria monocytogenes* from Asazuke (Japanese Light Pickles)

Khuanwalai Maklon[1*], Atsuka Minami[1], Thi Bich Thuy Nguyen[1], Masumi Kagawa[1], Osamu Kawase[1], Koichi Takeshi[2], Sou-ichi Makino[1], and Keiko Kawamoto[1]
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D005

Construction of *S. enteritidis* SefA and SefD Mutants and Their Role in Invasion and Survival to Host Cell

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D006

The Comparison of Hepatitis B Virus DNA Titers in Urine and Serum from Pregnant Women with Chronic Hepatitis B

Hong Kim[1*], Son Moon Shin[2], Yeon Kyung Lee[2], Sanggu Yeo[1], Young A Kang[2], Jin-Hee Ahn[1], Haesun Yun[1], Doosung Cheon[1], and Jong-Hyun Kim[1,3]
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D007

Expression of a Recombinant Glycoprotein in Insect Cells and Its Application for Serological Diagnosis of Vesicular Stomatitis Virus Serotype New Jersey

Eun-Jeong Heo[*], Hyang-Sim Lee, Hye-Young Jeoung, Young-Joon Ko, Hyo-Rim Ko, Chang-Hee Kweon, and In-Soo Cho
National Veterinary Research and Quarantine Service

D008

Different Inhibition of HMG CoA Reductase Inhibitors against HCV RNA Replication between HCV Genotypes 1b and 2a

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D009

The Protective Effects of Combined Vaccine of Antigen 85A and Heat-Shock Protein X Antigen against Mycobacterium Tuberculosis Infection in Mice

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D010

Correlation of Serological Immune Response with Efficacy of Recombinant PA Anthrax Vaccine with Aluminum-Containing Adjuvant

Hyun-Jung Kim[1,2*], Jeong-Hoon Chun[1], You-Hwa Oh[1], Gi-Eun Rhie[1], Yong-Keun Park[2], Cheon-Kwon Yoo[1], and Hee-Bok Oh[1]
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D011

Efficacy of a Recombinant Protective Antigen (rPA) Anthrax Vaccine in Guinea Pigs Against Challenge by *Bacillus anthracis* Isolates of Korea

Hyun-Jung Kim[*], Jeong-Hoon Chun, You-Hwa Oh, Gi-Eun Rhie, Cheon-Kwon Yoo, and Hee-Bok Oh
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D012

Analysis of a Bacteria Distribution Map Related Catheter-Associated Urinary Tract Infection (CA-UTI) in a Patient's Catheter by Fluorescence *in situ* Hybridization (FISH)

Su-Wan Son[1*], Jae-Su Kim[1], Yong-Hyun Cho[2], Ji-Youl Lee[2], Seung-Ju Lee[2], Kyong-Ran Peck[3], and Sang-Seob Lee[1]

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D013

Molecular Epidemiology of Hepatitis A Virus Isolated from Patients with Acute Viral Hepatitis A in Korea, 2007-2008

Hyeokjin Lee[1*], Haesun YUN[1], Jinseon Kim[1], Jinhee Ahn[1], Hong Kim[1], Doosung Cheon[1], Youngmee Jee[2], and Jonghyun Kim[1,3]

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D014

Inhibitory Effect of Botulinum Neurotoxin Type A on LPS-Induced Inflammatory Response in RAW264.7 via Toll-like Receptor-2

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D015

Serological Diagnosis of Foot-and-Mouth Disease Type A by a Blocking ELISA Using a Recombinant Protein

Young-Joon Ko[1*], Hyang-Sim Lee[1], Hye-Young Jeoung[1], Eun-Jeong Heo[1], Hyo-Rim Ko[1], Byung-Sik Chang[2], Hoo-Don Joo[2], Jong-Hyeon Park[1], Kwang-Nyeong Lee[1], Su-Mi Kim[1], and In-Soo Cho[1]

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D016

Identification and Characterization of a Novel Proteace of *Vibrio vulnificus*

Moon Sub Lim[*] and Sang Ho Choi

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D017

Identification of a Small Molecule that Inhibits the Quorum Sensing of *Vibrio vulnificus*

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D018

Histone Deacetylase Rpd31 Interacts with Ssn6 and Activates Filamentous Growth in *Candida albicans*

Jang-Hyun Oh[1,2,3*], Ji-Eun Lee[1,2,3], Hyung-Soon Yim[1,2,3], and Sa-Ouk Kang[1,2,3]
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D019

Gene Expression Profiles in the *Vibrio vulnificus* Biofilm

Jin Hwan Park[*] and Sang Ho Choi
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D020

Genome-Scale Analysis of the Regulon of *Vibrio vulnificus* AphA, a Novel Transcriptional Regulator for Iron Homeostasis

Jonggyu Lim[*] and Sang Ho Choi
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D021

Poly-γ-D-Glutamic Acid of *Bacillus anthracis* Activates Caspase-1/ICE and Induces Extracellular Release of Interleukin-1b in Differentiated THP-1 Cells

Min-Hee Cho[1*], Hae-Jeong Ahn[1], Hyun-Joon Ha[2,3], Jungchan Park[2,3], Bong-Su Kim[1], Hee-Bok Oh[1], and Gi-eun Rhie[1]
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D022

Assessment of Bacterial Contaminations of the Surrounding Environment Which Influences to Health

Mi Jin Kim[*], Do Kyung Lee, Seok Jang, Jung Rae Kim, Hyang Mi An,
Eun Hye Baek, and Nam Joo Ha
Department of Phamacy, Sahmyook University

D023

Identification of the *Vibrio vulnificus ahpC* Gene and Its Influence on Survival under Oxidative Stress and Virulence

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D024

Regulation of the *Vibrio vulnificus* VuuA-Mediated Iron-Uptake System by CRP and Fur

Jina Park[1*], Choon-Mee Kim[1], and Sung-Heui Shin[1,2]
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D025

Regulation of the *Vibrio vulnificus* IutA-Mediated Iron-Uptake System by CRP and Fur

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D026

Regulation of the *Vibrio vulnificus* HupA-Mediated Iron-Uptake System by CRP and Fur

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D027

Regulation of the *Vibrio vulnificus* Metalloprotease VvpE Production by Iron

Mi-Hwa Choi[1*], Choon-Mee Kim[1], and Sung-Heui Shin[1,2]
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D028

NLSOMICS of Bacteria and Its Application to *Helicobacter pylori*: Systemic Approach for the Identification of Nuclear Targeting Proteins

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D029

Surveillance of West Nile Viruses from 2006 to 2008, Korea: No Evidence of Infection

Myung-Guk Han[1*], Hee Il Lee[2], Cho Soon Lee[1], Wook-Gyo Lee[2], Young Eui Jeong[1], Jung Eun Cho[1], and Young Ran Ju[1]
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D030

A Duplex Vibriocidal Assay Simultaneously Measuring Bactericidal Antibody Titers Against *Vibrio cholerae* O1 Inaba and Ogawa Serotypes

Jae Seung Yang[1*], Seulggie Choi[1], David D. Kim[1], Cheol-Heui Yun[2], Jin Young Kim[2], and Seung Hyun Han[1,3]
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D031

Mouse Lung Pneumonia Model for the Characterization of Protective Immunity by Cholera Vaccines

Seok-Seong Kang[1,2*], Jae Seung Yang[1], Kyoung Whun Kim[2,3], Cheol-Heui Yun[3], and Seung Hyun Han[1,2]

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D032

Clinical Relevance of Complements from Different Species on the Vibriocidal Assay against *Vibrio cholerae*

Kyoungwhun Kim[1,2*], Jae Seung Yang[1], Seok Seong Kang[1,3], Cheol-Heui Yun[2], and Seung Hyun Han[1,3]

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D033

Regulatory Characteristics of the *Vibrio vulnificus rtxCA* Operon, a Gene Cluster Inducible by DksA and Exposure to Host Cells

Jinseo Park[*], Hee Gon Jeong, and Sang Ho Choi

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D034

Genetic Organization and Regulatory Characteristics of the *Vibrio vulnificus nan* System Required for Neu5Ac Transport and Catabolism

Byoung Sik Kim[*], Ye Ji Bang, and Sang Ho Choi

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D035

Effects of Dietary Lactic Acid Bacteria-Cultured Herb Extracts on Growth and Nonspecific Immune Responses of Olive Flounder (*Paralichthys olivaceus*)

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D036

Inhibitory Effect of Oleanolic Acid on *Streptococcus mutans* Biofilm Formation

Kyoung-hee Choi[*] and Kang-Ju Kim

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D037

Multidrug-Resistant *Providencia* Isolates Carrying bla_{PER-1} and bla_{VIM-2}: High Biofilm-Forming Capacity and Their Minimum Biofilm Inhibitory Concentrations (MBIC) of Carbapenem Antibiotics

Shukho Kim*, Hee-Woo Lee, Sung-Min Kim, Sung-Yong Seol,
Dong-Taek Cho, and Jungmin Kim
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D038

Anti-Inflammatory Effects of *Scutellaria baicalensis* Extract via Suppression of Immune Modulators and MAP Kinase Signaling Molecules

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D039

The Anti-Obesity Effects in Obesity-Induced ICR Mouse by Oral Administration of Lactic Acid Bacteria

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D040

Nationwide Spread of ST5, ST72, and ST239 MRSA Strains in Hospitalized Patients in Korea

Jihye Park[1*], Yunhee Jung[2], and Yeonhee Lee[1]
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D041

Evaluation of Detection Method for Pathogenic *Escherichia coli* in Foods

In Sun Hwang*, CY Cheung, Jong Mi Lim, Kyu Heon Kim, Joon Il Cho,
Ji Hye Jeong, SY Cho, and DH Kim
Gyongin Regional Food & Drug Administration

D042

Transcriptional Repression of Flagella Motility in *Escherichia coli* O157:H7 by Mucin

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Bok Kwon Lee[1], and Seung-Hak Cho[1]
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D043

Genome Characterization of Broad Host Range Bacteriophage SLPE226 Infecting *Ralstonia solanacearum*

Murugaiyan Senthilkumar[1*], Ju Young Bae[2], Hae Young Um[2],
Hye Kyung Choi[2], and Seon-Woo Lee[1,2]
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D044

Monoclonal Antibody-Based ELISA Using a Recombinant Protein for Detection of Antibodies to Foot-and-Mouth Disease Virus Type Asia 1

Hyang-Sim Lee[1*], Hye-Young Jeoung[1], Young-Joon Ko[1], Eun-Jeong Heo[1],
Hyo-Rim Ko[1], Byung-Sik Chang[2], Hoo-Don Joo[2], Kwang-Nyeong Lee[1],
Jong-Hyeon Park[1], Su-Mi Kim[1], and In-Soo Cho[1]
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D045

Genetic Evidence for a Functional Copy of the Transcriptional Regulator PchA in *Escherichia coli* O157:H7 EDL933

Kyung-Hwan Oh[1*], Jang Won Yoon[2], Jong-Chul Kim[1], Mi-Sun Park[1],
Bok Kwon Lee[1], and Seung-Hak Cho[1]
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D046

Repression of Type I Fimbriae in Asymptomatic Shiga Toxin-producing *Escherichia coli* O91:H21 Isolates from South Korea

Seung-Hak Cho[1*], Jang Won Yoon[2], Jong-Chul Kim[1], Mi-Sun Park[1], and
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D047

Comparative Analysis of T Cell Mediated-Immune Response in Mice Infected with Cardiovirulent CVB2 Strains

Yeun-Jung Kim[*], Ji-Young Hong, Sang-Gu Yeo, Byung-Hak Kang, and
Doo-Sung Cheon
Division of Enteric and Hepatitis Viruses, National Institute of Health, Korea Centers for Disease Control & Prevention

D048

Functional Analysis of Polymyxin Synthetase Gene Cluster of *Paenibacillus polymyxa* and Its Expression in *Bacillus subtilis*

Soo-Young Park[1*], Soo-Keun Choi[1], Rumi Kim[2], Seong-Bin Kim[1], Choong-Hwan Lee[3], Jihyun F. Kim[1], and Seung-Hwan Park[1]

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D049

The Prevalence Analysis Associated with Hepatitis B Virus and Hepatitis C Virus Infection to Intravenous Drug Users in Korea, 2006-2008

Jinhee Ahn[1*], Hyeokjin Lee[1], Haesun Yoon[1], Daejin Kim[2], Doo-Sung Cheon[1], Youngmee Jee[1], and Jonghyun Kim[1]

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D050

Development of Liposome-Based Pneumococcal Conjugate Vaccine

Sin-Jeong Park[*], Sun-Oh Shin, Hong-Il Ju, Yang-Jin Kim, and Sang-In Han

Jeonnam Biopharmaceutical Research Center

D051

Newly Identified Substrates of *Vibrio vulnificus* Insulin-Degrading Enzyme in Host

You-Jin Kim[*], Yangkyun Ryu, and Yeong-Jae Seok

Department of Biological Sciences, Seoul National University

D052

The Role of TRIM32 and TRIM5α in the Antiviral Effect

Younglang Lee[1*], Chae Young Hwang[1,2], Yeung Sook Ryu[1], Jae hwa Kim[1], Devi Rajan[2], Jens Holl[2], Byeongwoon Song[2], and Ki-Sun Kwon[1]

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D053

The Effect of Recombinant *Bartonella* Adhesion A on Inflammatory Response and Angiogensis in Human Umbilical Vein Endothelial Cells

Dong Ha Bhang[1*], Tae Ho Kim[1], Kyoung Won Seo[1], Jae Young Oh[1], Hee Jeong Youn[1], Joon Seok Chae[2], Hee Woo Lee[1], and Hwa Young Youn[2]

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D054

The Effect of Recombinant Staphylococcus Enterotoxin E on Inflammatory Response in Human HaCaT Keratinocytes and Human Umbilical Vein Endothelial Cells

Jae Young Oh[1*], Dong Ha Bhang[1], Cheol Yong Hwang[2], Joon Seok Chae[2], Yeon Jung Kim[3], Sung Min Kim[4], Jungmin Kim[4], Hwa Young Youn[2], and Hee Woo Lee[1]

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D055

Postentry Inhibition of Porcine Endogenous Retrovirus by Human Trim5 alpha Protein

Jungeun Lee[*], Hee-Jung Lee, Sin-Hyung Kang, Van Nguyen Dinh, and Young Bong Kim

Department of Animal Biotechnology, Konkuk University

D056

Activation of the Innate Immune System by *Orientia tsutsugamushi*

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D057

SYBR Green I-Based Real Time RT-PCR for the Quantitative Detection of Lily Viruses from Leaves or Lily Bulbs

Yong-Tae Jung[1*], Ji Hyun Lim[1], Eun Hye Bae[1], and Bong Nam Chung[2]

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D058

The *rpoS* Gene of *Ralstonia solanacearum* Involved in Long-Term Survival

Hye Kyung Choi[1*], Eun Jin Park[2], Hae Young Um[1], Senthilkumar Murugaiyan[2], Byung Ju Moon[2], and Seon-Woo Lee[1,2]

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D059

Induction of Viable but Nonculturable State of *Ralstonia solanacearum* by Copper Treatment and Extracellular Material Production

Hae Young Um[1*], Bong Choon Lee[2], Hye Kyung Choi[1], Senthilkumar Murugaiyan[3], Byung Ju Moon[3], and Seon-Woo Lee[1,3]

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D060

Identification of *in vivo* - Secreted Insulin - Degrading Enzyme (*isi*) in *Vibrio vulnificus*

Ik-Jung Kim*, In-Hwang Kim, Ji-Sun Bang, Kyung-Shin Lee, and Kun-Soo Kim
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D061

Cytokine Transcriptional Response of Macrophages to Challenge with Anthrax Lethal Toxin

Seohyun Park*, Jaimyung Yang, and Sungho Shin
The Department of Life Science, Sogang University

D062

Dose-Dependent Inhibition of West Nile Virus and Japanase Encephalitis Virus Replication and Apoptosis in Cycloheximide-treated Vero cells by Time Course

Jung-Yong Yeh*, Jee-Yong Park, Jin-A Yoon, Ji-Hye Lee, Hyun-Ji Seo,
In-Soo Cho, and Jin-San Moon
National Veterinary Research and Quarantine Service

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Five-Year Surveillance of West Nile Virus in Wild Birds in South Korea

Jee-Yong Park[1*], Jung-Yong Yeh[1], Jin-Ju Nah[1], Hyun-Ju Kim[1], Hang Lee[2],
Young-Jun Kim[2], Kyoung-Ki Lee[1], Choi-Kyu Park[1], Yi-Seok Joo[1],
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Development of Single-Tube Multiplex PCR for Detection of Eastern Equine Encephalitis, Western Equine Encephalitis, and Venezuelan Equine Encephalitis Viruses

Ji-Hye Lee*, Jung-Yong Yeh, Jee-Yong Park, Jin-A Yoon, Hyun-Ji Seo,
In-Soo Cho, and Jin-San Moon
National Veterinary Research and Quarantine Service

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Autolysis Changes of Vancomycin Resistant Induced Methicillin Resistant *Staphylococcus haemolyticus*

Jung Wook Kim*, Jae Il Yoo, Gyung Tae Chung, Jeong Sik Yoo,
Kyeong Min Lee, and Yeong Seon Lee
Division of Antimicrobial Resistance, Center for Infectious Disease, National Institutes of Health

D066

Nucleocapsid Protein of Hantaan Virus Interacts with HIPK2 and Inhibits HIPK2-Induced p53 Transactivation

Jungsang Ryou*, Yoon Tae Noh, Youn Jeong Yoo, Myung Guk Han, and Young Ran Ju
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D067

Characterization of the Role of EpsC, a Component of Type II Secretion System in *Vibrio vulnificus*

Won Hwang[1,2*], Sung Young Goo[2], Soon-Jung Park[2], and Kun-Soo Kim[1]
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D068

Hepatitis C Virus Genotypes Distribution and Molecular Epidemiology in Intravenous Drug Users and Community Cohort Group during 2007 - 2008

Jinseon Kim[1*], Haesun Yun[1], Hyeokjin Lee[1], Jinhee Ahn[1], Daijin Kim[2], Doosung Cheon[1], Youngmee Jee[3], and Jong-Hyun Kim[1,4]
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D069

A Small RNA-Mediated Positive Regulation of the Siderophore Expression in *Vibrio Vulnificus*

Hyun Jung Hwang*, Lan Huh, In Hwang Kim, and Kun Soo Kim
Department of Life Science and Interdisciplinary Program of Integrated Biotechnology, Sogang University

D070

Development of RT-Duplex PCR Assay for Detection of Sapovirus and Astrovirus in Diarrheal Fecal Specimens in Korea

Ah-Yong Jeong*, Hyesook Jeong, Mi-Young Jo, Sunyoung Jung, Jonghyun Kim, and Doosung Cheon
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D071

Development of a PCR-Enzyme-Linked Immunosorbent Assay for Identification of Human Group A Rotavirus G and P Genotypes

Mi Young Jo*, Hyesook Jeong, Ahyong Jeong, Sunyung Jung, Misun Lee, Jinhee Ahn, Youngmee Jee, Jonghyun Kim, and Doo-Sung Cheon
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D072

Inhibition of Enterovirus 71 Replication by Small Interfering RNAs (siRNAs)

A Youn Kim*, Ji Young Hong, Seo Yun Hwang, Byung Hak Kang, and Doo Sung Cheon
Division of Enteric and Hepatitis Viruses, National Institute of Health, Korea Centers for Disease Control & Prevention.

D073

Molecular Epidemiology of Norovirus in Outbreaks of Gastroenteritis in Korea, 2008

Sunyoung Jung*, Hyesook Jeong, Ahyong Jeong, Mi-Young Jo, Misun Lee, Youngmee Jee, Jonghyun Kim, and Doosung Cheon
Division of Enteric and Hepatitis Viruses, Center for Infectious Diseases, National Institute of Health, Korea Center for Disease Control and prevention

D074

Molecular Characterization of Enteric Adenovirus 40, 41 Infections in Korea, 2007-2008

Misun Lee*, Ah-Yong Jeong, Hyesook Jeong, Mi-Young Jo, Sunyoung Jeong, Jinhee Ahn, Jonghyun Kim, and Doosung Cheon
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D075

Dual-Plex Real-Time TaqMan RT-PCR for the Simultaneous Detection of Pan-Enterovirus and EV71

Seoyun Hwang*, Jiyoung Hong, Ayoun Kim, Byunghak Kang, Youngmee Jee, Jonghyun Kim, and Doosung Cheon
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D076

Role of the Lipid A Structural Modification in Whole Genomic Expression of *Escherichia coli* O157:H7

Moon-Kyoo Park[1*], Jeongmin Kim[2], Seung-Hak Cho[3], Young-Gyu Chai[1], and Jang Won Yoon[4]
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D077

Omics-Based Identification of the (p)ppGpp Regulon in Enteropathogenic *Escherichia coli*

Moon-Kyoo Park[1*], Seung-Hak Cho[2], Jong-Chul Kim[2], Kyung-Hwan Oh[2], Young-Gyu Chai[1], and Jang Won Yoon[3]
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Development of The Highly Efficient Packaging Viral Vector System Using PERV *psi* Sequence

Hoon-mi Kim[*], Jong Kwang Yoon, Jungeun Lee, Jae Yoo Choi,
Yong Woon Cho, and Young Bong Kim
Department of Animal Biotechnology, Konkuk University

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Molecular Approaches for Subtyping *Bacillus anthracis* Isolates

Kyoung Hwa Jung[1*], Sang Hoon Kim[1], Sudipto Shahid[1], Hee-Bok Oh[2],
Seong-Joo Kim[1], Ji-Cheon Kim[1], and Young Gyu Chai[1]
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Analysis of Microbial Community Structures Related Catheter Associated Urinary Tract Infection (CA-UTI) by Terminal-Restriction Fragment Length Polymorphism (T-RFLP)

Sang-Seob Lee[1*], Hyun-Ah Choi [1], Jae -Su Kim[1], Ji-Youl Lee [2],
Seung-Ju Lee[2], and Kyong-Ran Peck[3]
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Changhan Lee*, Jongchul Shin, and Chankyu Park
Korea Advanced Institute of Science and Technology

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Myoung-Jun Jang*, Yun-Hae Lee, Han-Bum Lee, and Young-Cheol Ju
Mushroom Research Station, Gyeonggi-Do Agricultural Research

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Seok-Myung Lee*, Joon-Sung Park, Joo-Young Lee, and Heung-Shick Lee
Department of Biotechnology and Bioinformatics, Korea University

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Ydr026c Regulates Silencing at the Ribosomal DNA in *Saccharomyces cerevisiae*
Cheol Woong Ha*, Min-Kyung Sung, and Won-Ki Huh
School of Biological Sciences, and Research Center for Functional Cellulomics, Institute of Microbiology, Seoul National University

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Dae-Gwan Yi*, Eun Bin Yang, and Won-Ki Huh
School of Biological Sciences, and Research Center for Functional Cellulomics, Institute of Microbiology, Seoul National University

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Global Analysis of *in vivo* Protein Sumoylation in *Saccharomyces cerevisiae* Using Bimolecular Fluorescence Complementation Assay
Min-Kyung Sung*, Gyu-Beom Lim, and Won-Ki Huh
School of Biological Sciences, and Research Center for Functional Cellulomics, Institute of Microbiology, Seoul National University

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RsbT Kinase is Important to Activate the General Stress Response under Energy and Environmental Stress Conditions in *Listeria monocytogenes*
Ji-Hyun Shin[1*], Margaret S. Brody[2], Jungmin Kim[1], and Chester W. Price[2]
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[2]*Department of Food Science and Technology, University of California, USA*

E008

Structural Basis for the Specialization of Nur, a Nickel-Specific Fur Homologue, in Metal Sensing and DNA Recognition

Sun-Shin Cha[1*], Young Jun An[1], Jung-Ho Shin[2], Hae-Mi Kim[2], and Jung-Hye Roe[2]
[1]Korea Ocean Research & Development Institute, [2]Seoul National University

E009

Analysis of Cell Cycle Regulation during Vegetative Cell Growth in *Dictyostelium discoideum*

Seong-Jun Park[*], Hyung-Soon Yim, and Sa-Ouk Kang
Laboratory of Biophysics, School of Biological Sciences, and Institute of Microbiology, Seoul National University

E010

The Role of Glutathione Synthetase (GSS) in *Dictyostelium discoideum*

Hyang-Mi Lee[*], Ji-Sun Kim, and Sa-Ouk Kang
Laboratory of Biophysics, School of Biological Sciences, and Institute of Microbiology, Seoul National University

E011

Ca^{2+}-Binding Protein Calfumirin-1 and the Phase Transition in *Dictyostelium discoideum* Cells from Growth to Differentiation

Bairagi Mallick[*], Ji-Sun Kim, and Sa-Ouk Kang
Laboratory of Biophysics, School of Biological Sciences, and Institute of Microbiology, Seoul National University

E012

NAD^+-Linked Methylglyoxal Dehydrogenase in *Streptomyces coelicolor* A3(2)

Ha-Hyeon Kim[*], Jeong-Mok Kim, and Sa-Ouk Kang
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E013

Role of Mitochondrial Monothiol Glutaredoxin for Fe-S Assembly and DNA Integrity in Fission Yeast

Hyo-Jin Kim[*], Kyoung-Dong Kim, Kyung-Chang Lee, and Jung-Hye Roe
Laboratory of Molecular Microbiology, School of Biological Sciences, and Institute of Microbiology, Seoul National University

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Tianshi Wang[*], Jong-Tae Park, Kwan-Hwa Park, and Jung-Wan Kim
Department of Biology, University of Incheon

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Inhibitory Effect of Lichen Secondary Substances on Acetylcholinesterase Activity from PC12 Cells

Heng Luo[*], Chang Tian Li, Young Jin Koh, and Jae-Seoun Hur
Korean Lichen Research Institute, Sunchon National University

E016

Property of *Pyrocyctis* Rhodopsin: Light-Driven Proton Pump in Marine Dinoflagellate

Ah Reum Choi* and Kwang-Hwan Jung
Department of Life Science and Interdisciplinary Program of Integrated Biotechnology, Sogang University

E017

Expression of a Mushroom-Specific Promoter of an Inky Cap in *Pleurotus ostreatus*

Kwang Ryeol Ryu* and Hyoung Tae Choi
Department of Biochemistry, Division of Life Science, Kangwon National University

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Analysis of Acidic Laccase Promoter Expression by External pH in *Coprinellus congregatus*

Hyang Soon Lim* and Hyoung Tae Choi
Department of Biochemistry, Kangwon National University

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Cloning of a Hyphal Tip Chitinase from *Coprinellus congregatus*

Hye Won Kim* and Hyoung Tae Choi
Department of Biochemistry, Division of Life Science, Kangwon National University

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Determination of Hyphal Tip Laccase Expression Implicated in Photomorphogenesis of *Coprinellus congregatus*

Seong Kyoon Park* and Hyoung Tae Choi
Department of Biochemistry, Division of life science, Kangwon National University

E021

Characterization of Adenylate Cyclase Gene (*cyaB*) Mutant of *Corynebacterium glutamicum* ATCC 13032; Implications of CyaB in Acetate Metabolism

Bindu Subhadra[1*], Pu Hyeon Cha[2], Sun-Yung Park[2], Min-Woo Moon[2], Tae-Kwang Oh[2], Eungbin Kim[3], Jihyun F. Kim[2], and Jung-Kee Lee[1]
[1]Department of Life Science and Genetic Engineering, PaiChai University, [2]Korea Research Institute of Bioscience and Biotechnology, [3]Department of Biology, Yonsei University

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The Potential Role of Proteoglycan in Binding of Anthrax Toxin to Its Receptor

Hyun-Chan An*, Jai-Myung Yang, and Sung-Ho Shin
Department Life Sciences, Sogang-University

E023

An Eukaryotic Membrane Protein, *Acetabularia* RhodopsinIExpressed in *E. coli* Pumped Protons Outward

Keon Ah Lee* and Kwang-Hwan Jung
Department of Life Science and InterDisciplinary Program of Integrated Biotechnology, Sogang University

E024

Antibacterial Activity of Microbial Fermented Extracts from Garlic (*Allium sativum* L.)

Yoon Su Baek*, Ji Hyeong Woo, Ki Hyeon Seong, Han Na Jeong, and Jong Wha Lee
The Industrial R&D Center of Liisna Inc.

E025

Crucial Residues of Ferredoxin-NADP$^+$ Reductase Interacting with Flavodoxin in *Pseudomonas putida*: Isothermal Calorimetric Analysis and Site-Directed Mutagenesis

Jinki Yeom* and Woojun Park
Division of Environmental Science and Ecological Engineering, Korea University

E026

Characterization of PR & ?Carotene Dioxygenase Homolog from *Donghaeana dokdonia*

Song-I Han[1*], Soon-Kyeong Kwon[2,3], Jihyun F. Kim[2,3], and Kwang-Hwan Jung[1]
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The Structure and Function of *Anabaena* Sensory Rhodopsin Transducer

So Young Kim* and Kwang-Hwan Jung
Department of Life Science and Interdisciplinary Program of Integrated Biotechnology, Sogang University

E028

Functional Analysis of a Putative C_2H_2 Zinc Finger Transcription Factor Involved in Asexual Development of *Aspergillus nidulans*

Sang Eun An*, Sun-Ho Kim, Yeong Man Yu, and Pil Jae Maeng
Department of Microbiology, College of Bioscience & Biotechnology, Chungnam National University

E029

Roles of the GAF Domain of Enzyme I^{Ntr} in *Escherichia coli*

Mi Ri Kim*, Seung-Hyon Cho, Hyun-Jin Kim, Chang-Ro Lee, and Yeong-Jae Seok
School of Biological Sciences, Seoul National University

E030

Over-Expression of a Chitinase Involved in Mushroom Autolysis from *Coprinellus congregatus*

Seong Kyoon Park*, Moon Kui Jeong, and Hyoung Tae Choi
Department of Biochemistry, Division of Life Science, Kangwon National University

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Identification of Regulatory Proteins Which are Involved in the Induction of Adenylyl Cyclase Genes under Hypoxic Condition in *Mycobacterium smegmatis*

Ki-Hoon Yang*, HaeSeon Kim, Han-Seung Jeon, and Jeong-Il Oh
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E032

The Role of Seven Amino Acids of the GAF-A Domain of DosS and DosT Histidine Kinases Involved in Hypoxic Response of Mycobacteria

Min-Ju Kim* and Jeong-Il Oh
Department of Microbiology, Pusan National University

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Functional Characterizations of the Fermentation/Respiration Switch Protein in *Vibrio vulnificus*

Kyung-Jo Lee* and Kyu-Ho Lee
Department of Environmental Science, Hankuk University of Foreign Studies

E034

Compare the Microbial Rhopdopsins between Arctic and Antarctic Ocean

Byung Hoon Jung*, Jae Yong Jung, and Kwang-Hwan Jung
Department of Life Science and Interdisciplinary Program of Integrated Biotechnology, Sogang University

E035

Screening of a Protein Interacting with Msmeg 0750, a Putative Regulator for CO-DH Gene Expression, in *Mycobacterium smegmatis*

Jae Ho Lee[1*], Sae Woong Park[1], Beom Sik Kang[2], Jeong Il Oh[3], and Young Min Kim[1]
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E036

Synthesis of Thymidylate by Expression of ThyA/DHFR and ThyX in *Mycobacterium bovis* BCG

Eunkyung Shin*, Sukhyeong Cho, Sunkyung Lee, and Hogun Rhie
Department of Biology, Kyunghee University

E037

Rnr3 Regulates Intracellular dNTP Concentration Against to Cadmium Stress in *Saccharomyces cerevisiae*

In-Joon Baek* and Cheol-Won Yun
School of Life Sciences and Biotechnology, Korea University

E038

The Role of YdeA, a *Bacillus subtilis* Homologue of Human DJ-1 Protein, in Oxidative Stress Response

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E039

Biochemical Characterization of Novel Fur-family Proteins from *Bacillus licheniformis*

Chang-Jun Ji[*], Ju-Hyeong Lee, Jung-Hoon Kim, Young-Bin Won, Shin-Yeong Ju, and Jin-Won Lee
Department of Life Science, Hanyang University

E040

Role of Enzyme IIA^{Glc}, the Glucose-Specific Phosphotransferase Protein, in the Regulation of Adenylate Cyclase Activity in *Escherichia coli*

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E041

The Regulatory Factors on Vibrio Insulin Degrading Enzyme in *Vibrio vulnificus*

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E042

The Intracellular Function of Vibrio Insulin Degrading Enzyme in *Vibrio vulnificus*

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The GanA Gα Protein Plays a Role in Cell Wall Structure in *Aspergillus nidulans*

Tae-Ho Yang[1*], Mi-Hee Chang[1], Keon-Sang Chae[1], Dong-Min Han[2], and Kwang-Yeop Jahng[1]
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E044

An Uncharacterized Protein Is Involved in AtxA Transcriptional Regulation

Sudipto Shahid[*], Sang Hoon Kim, Kyoung Hwa Jung, and Young Gyu Chai
Division of Molecular and Life Science, Hanyang University

E045

The MpkB MAP Kinase May Play a Role in Hulle Cell Production and Degradation During the Sexual Development of *Aspergillus nidulans*

Ji-Young Kang[1*], Dong-Min Han[2], Keon-Sang Chae[1], and Kwang-Yeop Jahng[1]
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E046

Proteomic and Bioinformatic Identification of Hyperthermostable Proteins in Hyperthermophilic Archaeon *Thermococcus onnurineus* NA1

Sang-Oh Kwon[1,2*], Sung Ho Yun[1], Yeol Gyun Lee[1], Sung Gyun Kang[3], Jung-Hyun Lee[3], Jong Soon Choi[1], Young Ho Chung[1], and Seung Il Kim[1]

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Cellulosomic Profiling within *Clostridium cellulovorans* Explored by Cohesin Biomarker
Woojae Cho*, Sang Duck Jeon, Hyun Jung Shim, and Sung Ok Han
Department of Life Sciences and Biotechnology, Korea University

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Yusuke Yoshida[1*], Shinichiro Sugiyama[1], Katsushi Yokoyama[2], and Kozo Makino[1]
[1]*Department of Applied Chemistry, National Defense Academy of Japan, Japan,*
[2]*National Institute of Advanced Industrial Science and Technology*

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Molecular Analysis of PhoP Dependent Promoters in Enterohemorrhagic *E. coli* O157:H7
Shinichiro Sugiyama[1*], Yusuke Yoshida[1], Katsushi Yokoyama[2], and Kozo Makino[1]
[1]*Department of Applied Chemistry, National Defense Academy of Japan, Japan,*
[2]*National Institute of Advanced Industrial Science and Technology*

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Jihee Han* and Haeyoung Jeong
Industrial Biotechnology & Bioenergy Research Center, Korea Research Institute of Bioscience and Biotechnology

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Sung-gyu Lee*, Hyo Jin Bang, and Sung Ok Han
School of Life Science and Biotechnology, Korea University

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Soohyun Lee* and Choong-Min Ryu
Industrial Biochemistry and Bioenergy Research Center, Korea Research Institute of Bioscience and Biotechnology

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Genome Sequence Analysis of *Sphingobium chungbukense* DJ77
Young-Chang Kim* and Sun-Mi Yeon
Department of Microbiology, Chungbuk National University

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Positive and Negative Feedback Regulatory Loops of Thiol-Oxidative Stress Response Mediated by an Unstable Isoform of σ^R in Actinomycetes

Gi-Baeg Nam[1*], Min-Sik Kim[1], Mi-Young Hahn[2], Yoobok Cho[1], Sang-Nae Cho[2], and Jung-Hye Roe[1]

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Effect of the *Saccharomyces cerevisiae ret1-1* Mutation on the Glycosylation and Localization of the Secretome

Yun-Hee Park*, Ki-Hyun Kim, Eun-Kyung Kim, Su-Jin Kim, and Hee-Moon Park

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F010

RstA Activation at Acidic pH Promotes *feoB* Expression in *Salmonella enterica*

Eunna Choi* and Dongwoo Shin

Department of Molecular Cell Biology, Samsung Biomedical Research Institute, Sungkyunkwan University School of Medicine

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Excavating Redox-Sensitive Anti-Sigma Factors in Actinomycetes

Yong-Gyun Jung*, Seok-Hyeon Hong, Yoo-Bok Cho, Min-Sik Kim, and Jung-Hye Roe

School of Biological Sciences and Institute of Microbiology, Seoul National University

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A Third Cysteine (C296) Residue of the Global Transactivator OxyR is Required for Oxidative Stress Response in *Pseudomonas aeruginosa* PA14

In-Young Chung*, Wan-Je Cho, Bo-Young Lee, Kyoung-Hee Choi, and You-Hee Cho

Department of Life Science, Sogang University

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Role of a Novel Fur-Binding Site in Transcriptional Activation

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Characterization of Regulatory Domain of ATP Hydrolyzing Protein MalK in Hyperthermophilic Archaea

Hyun Bum Jeon* and Sung-Jae Lee

Department of Biology, Kyung Hee University

F015

Network Regulation of Sugar Sensing Transcriptional Regulator TrmB Members in Hyperthermophilic Archaea

Soyoung Park*, Seoyoun Kim, and Sung-Jae Lee
Department of Biology, Kyung Hee University

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Regulation of Serine Protease Gene Expression by LysR-Type Transcription Factor in *Vibrio vulnificus*

Jeong-A Kim[1*], Mi-Ae Lee[1], Won Hwang[2,3], Kun-Soo Kim[2],
Soon-Jung Park[3], and Kyu-Ho Lee[1]
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Ji-Hyun Kim* and Cheol-won Yun
School of Life Sciences and Biotechnology, Korea University

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Cadmium Toxicity in *Saccharomyces cerevisiae*: An Unexpected Effect for Cadmium in Copper and Iron Homeostasis

Dong-hyuk Heo* and Cheol-Won Yun
School of Life Sciences and Biotechnology, Korea University

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Interaction among Components of a Reducing System for the Superoxide Sensor SoxR in the Cytoplasmic Membrane of *Escherichia coli*

Kyung-Chang Lee[1*], Kang-Lok Lee[1], Joon-Hee Lee[2], and Jung-Hye Roe[1]
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Cloning and Sequence Characterization of a Non-Reducing Polyketide Synthase Gene from Lichen-Forming Fungus *Usnea longissima*

Yi Wang*, Jung A Kim, Young Jin Koh, and Jae-Seoun Hur
Korean Lichen Research Institute, Sunchon National University

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Comparative Genome Sequence Analysis of *Bifidobacterium bifidum* BGN4

Dong Su Yu[1*], Haeyoung Jeong[1], Myeong-Soo Park[2], Geun Eog Ji[3],
Tae Kwang Oh[1,4], and Jihyun F. Kim[1]
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Proteome Comparative of Fruiting Body and Mycelia in *Pleurotus ostreatus*

Hye-Ran Park[1*], Se-Ra Kim[1], Eun-Suk Son[2], Yeun-Song Kim[1],
Min-Jin Song[3], and Chang-Soo Lee[1]
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Comparative Analysis of Expressed Sequence Tags from *Flammulina velutipes* at Different Developmental Stages

Yeun-Song Kim[1*], Kyung-Yun Kim[2], Nam-Kuk Kim[3], Se-Ra Kim[1], Eun-Suk Son[4],
Hye-Ran Park[1], Jong-Hyun Lim[5], Won-Sik Kong[3], and Chang-Soo Lee[1]
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The Role of the Water Channel Protein, Aquaporin in a Human Fungal Pathogen *Cryptococcus neoformans*

Min Su Kim[*], Min Sung Kim, and Yong-Sun Bahn
Department of Biotechnology, Center for Fungal Pathogenesis, Yonsei University

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The Functional Characterization of Down-Stream Regulators of Cyclic AMP Dependant Pathway in *Candida albicans*

Gyu-Bum Kim[1*], MinHee Song[2], and Yong-Sun Bahn[2]
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KnsA Has Pleiotropic Effects on *Aspergillus nidulans* Development

Eun-Hye Kang[*] and Hee-Moon Park
Department of Bioscience and Biotechnology, Graduate School of Chungnam National University

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Nup211 of Fission Yeast *S. pombe* is Involved in mRNA Export

DongGeRaMi* Moon[*], Yun-Seon Park, and Jin Ho Yoon
School of Biological Sciences and Chemistry, Sungshin Women's University

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Study the Function of Neurofibromin1 during Mitosis Using Budding Yeast

Guangming Luo[*], Selma Sun Jang, Junwon Kim, and Ki Won Song
Department of Biochemistry, College of Life Science and Biotechnology, Yonsei University

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Study on the Mechanism of Genomic Instability by Electron Beams Using Yeast as a Model for Eukaryotic Cells

Soo Jeong Lee* and Ki-Won Song
Department of Biochemistry, College of Life Science and Biotechnology, Yonsei University

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The Regulatory Subunit of Protein Kinase A in *Aspergillus nidulans* is Involved in Hyphal Growth and Development

Mi-Hye Park*, Dong-Soon Oh, and Kap-Hoon Han
Department of Pharmaceutical Engineering, Woosuk University

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Transcriptional Regulations of *ARO9* and *ARO10* Genes Involved in Amino Acid Catabolism in *Saccharomyces cerevisiae*

Kyu Sung Lee* and Ji-Sook Hahn
School of Chemical and Biological Engineering, Seoul National University

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Regulation Mechanism of Yak1 Protein Kinase in *Saccharomyces cerevisiae*

Peter Lee*, Sujin Kim, and Ji-Sook Hahn
School of Chemical and Biological Engineering, Seoul National University

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Study of the Mechanism of NST1 in the G1/S Progression of *Saccharomyces cerevisiae* Cell Cycle

Gang Leng*, Yoon Jeong Choi, and Ki Won Song
Department of Biochemistry, College of Life Science and Biotechnology, Yonsei University

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Genome Analysis of the Secondary Metabolism in *Streptomyces clavuligerus* ATCC 27064

Ju Yeon Song[1*], Sang-Haeng Choi[1], Hong-Seog Park[1], Jae Jong Kim[2],
Tae Kwang Oh[1], Kye Joon Lee[3], and Jihyun F. Kim[1]
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***In-vitro* Cloning, Expression, and Characterization of Carbon Monoxide Dehydrogenase (CODH) Catalytic Subunit from the Hyperthermophilic Archaeon *Thermococcus onnurineus* NA1**

Jae Kyu Lim[1,2*], Seung Seob Bae[1], Jeong Ho Jeon[1], Hyun Sook Lee[1,2],
Jung-Hyun Lee[1,2], and Sung Gyun Kang[1,2]
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Production of (*S*)-Epichlorohydrin from Racemic Epichlorohydin by Marine Microsomal Epoxide Hydrolase

Young-Ok Hwang[*], Jung-Hee Woo, Sung Gyun Kang, Ji-Hyun Kang, and Sang-Jin Kim
Marine Biotechnology Research Centre, Korea Ocean Research & Development Institute

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Characterization of Novel Lipolytic Enzymes from Metagenomic Libraries of Various Marine Sediments

Jeong Ho Jeon[1,2*], Jun-Tae Kim [1], Yun Jae Kim[1], Hyun Sook Lee[1], Sung Gyun Kang[1], Sang-Jin Kim[1], Sang Ho Choi[2], and Jung-Hyun Lee[1]
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Functional Characterization of Ste50 in Sexual Differentiation and Stress Response of *Cryptococcus neoformans*

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Structural Basis for the Specialization of Nur, a Nickel-Specific Fur Homolog, in Metal Sensing and DNA Recognition

Hae-Mi Kim[1*], Young Jun An[2,3], Bo-Eun Ahn[1], A-Reum Han[1], Kyung Min Chung[4], Jung-Ho Shin[1], Yoo-Bok Cho[1], Sun-Shin Cha[2], and Jung-Hye Roe[1]
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Ppt1, a Ser/Thr Phosphatase, Regulates Hsf1 in *Saccharomyces cerevisiae*

Bo-Ram Cho[*] and Ji-Sook Hahn
School of Chemical and Biological Engineering, Seoul National University

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Expression of Glucose-Specific Transporter is Negatively Regulated by cAMP-Receptor Protein (Crp) and Ferric Uptake Regulator (Fur) in *Vibrio vulnificus*

Se-Jin Chun[*], Sung-Min Kim, and Kyu-Ho Lee
Department Environ. Sci., Hankuk University Foreign Studies

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The Global Transcriptional Repressors, Tup11 and Tup12, were Regulated by LAMMER kinase, Lkh1, in *Schizosaccharomyces pombe*

Won-Hwa Kang[1*], Ju-Hee Lee[2], and Hee-Moon Park[2]
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The Mlp1 Confers Zymolyase Resistance *via* Hog1 Pathway in *Saccharomyces cerevisiae*

Miwha Chang* and Cheol-Won Yun
School of Life Sciences and Biotechnology, Korea University

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Gaf1p, a GATA Transcription Factor, Undergoes Nuclear-Cytoplasmic Shuttling

Ji Hyun Yeon*, Lila Kim, and Pil Jae Maeng
Department of Microbiology, College of Bioscience & Biotechnology, Chungnam National University

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Regulation of SipB Secretion through SPI-1 TTSS by Its C-terminus in *Salmonella typhimurium* UK1

Doo Won Seo*, Jin Seok Kim, Jeong Seon Eom, and Yong Keun Park
School of Life Sciences and Biotechnology, Korea University

F046

Coexpression of *m*-Hydroxybenzoate Hydroxylase Gene (*mobA*) with Different Chaperone Plasmids

Seong Hun Im*, Seong Eun Bang, and Si Wouk Kim
Department of Environmental Engineering, BK21 Team for Biohydrogen Production, Chosun University

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Functional Study of the Residue C899 in the 900 Tetraloop of *E. coli* SSU rRNA

Hye-Jung Ha*, Woo-Seok Song, Hong-Man Kim, and Kangseok Lee
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Biochemical Properties of Murine Norovirus-1 RNA-Dependent RNA Polymerase

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Modulation of *bdm* mRNA Cleavage by RNase III Contributes an Additional Regulatory Circuit in the Rcs Signaling System

Se-Hoon Sim[1*], Ji-Hyun Yeom[1], Eunkyoung Shin[1], Chang-Jun Cha[2], Seung Hyun Han[3], Jae-Hong Kim[4], Jeehyeon Bae[4], and Kangseok Lee[1]
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Screening of Human Anti-Apoptotic Genes Using Apoptotic Phenotype in Yeast

Hyeon Jeong Ka*, Jeong Su Han, and Pil Jae Maeng
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Overproduction of Alpha-Ketoglutarate by Disruption of Glutamate Dehydrogenase Gene in *Corynebacterium glutamicum*

Jae-Hyung Jo[1*], Sun-Young Park[1], Hyuk-Jin Kwon[1], Yoon-Bum Lee[1], Min-Hong Kim[2], Hyung-Hwan Hyun[1], and Hyune-Hwan Lee[1]
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Cloning and Characterization of a Novel Extracellular Protease from the Algicidal Marine Bacterium, *Kordia algicida* OT-1

Ji-Hyun Kang*, Sung Gyun Kang, Chang-Ro Lee, Hyun Sook Lee, Kae-Kyung Kwon, and Sang-Jin Kim
Marine Biotechnology Research Centre, Korea Ocean Research & Development Institute

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Analysis of Promoter and Transcription Start Sites of the Flavin-Containing Monooxygenase Gene

Gui Hwan Han*, Yuri Park, Seong Jo Hong, and Si Wouk Kim
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Human Norovirus RdRp Mediates Nucleotidylylation Reaction on VPg

ByungSup Min[1*], Kang Rok Han[1], Young Mee Jee[2], Doo Sung Cheon[2], Hae Sook Jeong[2], and Jai Myung Yang[1]
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Overproduction of S-Adenosyl-L-Methionine by Knocking-Out the *Cystathionine-β-Synthase* Gene from *Pichia pastoris* Integrated by *SAM syntetase2* Gene and *cMTHFR* Gene

Seung-Hwan Kim*, Sang-Woo Jin, Jae-Hyung Jo, and Hyune-Hwan Lee
Department of Bioscience and Biotechnology, Hankuk University of Foreign Studies

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FinR, a Novel Redox-Sensing Transcriptional Regulator: a Missing Piece of Superoxide Defense System in *Pseudomonas putida*

Sujin Yeom* and Woojun Park
Division of Environmental Science and Ecological Engineering, Korea University

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Detection of Polyketide Synthase Genes from Lichen-Forming Fungi of *Cladonia metacorallifera* and *Cladonia scabriuscula* with Use of ClaAT and ClaKS Probe

Jung A Kim*, Nan Hee Yu, Young Jin Koh, and Jae-Seoun Hur
Korean Lichen Research Institute, Sunchon National University

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Cloning of Phosphate Regulon Genes in *Escherichia coli* O157:H7

Ji-Hye An[1*], Seung-Youn Chai[2], Sang-Buem Cho[1], and Soo-Ki Kim[1]
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Type III Secretion of SipB Mediated by the Carboxy-Terminal Coiled-Coil Domain of InvE

Jin Seok Kim*, Jung Im Jang, Jeong Seon Eom, Doo Won Seo, and Yong Keun Park
School of Life Sciences and Biotechnology, Korea University

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TOR1 Kinase Regulates Filamentous Growth and Ribosome Biogenesis in *Candida albicans*

Yoo Jin Joo*, Yu Jin Chun, and Joon Kim
Laboratory of Biochemistry, School of Life Sciences & Biotechnology, Korea University

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The Functional Study of *ASC1* in Adhesion and Virulence of *C. albicans*

Se Woong Kim*, Yoo Jin Joo, and Joon Kim
Laboratory of Biochemistry, School of Life Sciences & Biotechnology, Korea University

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Characterization of Plasmids pHEN2 and pHEN3 from *Sphingobium chungbukense* DJ77

Young-Chang Kim*, Sun-Mi Yeon, and Md. Abdur Rahim
Department of Microbiology, Chungbuk National University

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Modulation of the Actin Rearrangement by an Invasion-Associated *Salmonella* Acyl Carrier Protein IacP

Jeong Seon Eom*, Jin Seok Kim, Jung Im Jang, Doo Won Seo,
Seung Seok Lee, and Yong Keun Park
School of Life Science and Biotechnology, Korea University

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Differential Regulation of the Two Lanosterol 14-Alpha-Demethylase Genes by a Sterol-Regulatory Element Binding Protein, HitA in *Aspergillus nidulans*

Sun-Ki Koh*, Chinbayar Bat-Ochir, Mee-Hyang Jeon, and Suhn-Kee Chae
Department of Biochemistry and Fungal Pathogenesis Center, Paichai University

F065

Characterization of the *insA* Gene Encoding INSIG a Component of the Putative Ergosterol Dependent Oxygen-Sensing Pathway in *Aspergillus nidulans*

Chinbayar Bat-Ochir*, Sun-Ki Koh, Mee-Hyang Jeon, and Suhn-Kee Chae
Department of Biochemistry and Fungal Pathogenesis Center, Paichai University

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Identification and Characterization of Acetyl-CoA Carboxylase Gene Cluster in *Streptomyces toxytricini*

Atanas V. Demirev*, Ji Seon Lee, and Doo Hyun Nam
College of Pharmacy, Yeungnam University

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A Homeoprotein, NrsA Controls Sexual Development Negatively as a Potent Antagonist of NsdD in *Aspergillus nidulans*

Jae-Sin Park* and Dong-Min Han
Division of Life Science, Wonkwang University

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The *nsdC* Gene Encoding a Novel C2H2-type Zinc Finger Protein Is a Key Regulator of Development in *Aspergillus nidulans*

Hye-Ryun Kim* and Dong-Min Han
Division of Biological Sciences, Wonkwang University

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Characterization of Two New Genes Conferring Resistance to Streptogramin A, *vgaC* and *vatG*, in *Enterococcus faecium*

Young-Hee Jung*, Eun Shim Shin, Jung Sik Yoo, Kyeong Min Lee, Jae Il Yoo, Gyung Tae Chung, and Yeong Seon Lee
Division of Antimicrobial Resistance, Center for Infectious Disease, National Institute of Health

F070

Sterol-Regulatory Element Binding Protein, HitA is required for hypoxic adaptation and ergosterol synthesis in *Aspergillus nidulans*

Chinbayar Bat-Ochir*, Sun-Ki Koh, Jun-Yong Kwak, Mee-Hyang Jeon, and Suhn-Kee Chae
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Sequencing and Analysis of Full Genome of Human Cytomegalovirus Isolated from Korean Patient

Mi-Suk Kim[1*], So-Young Jang[1], Jeong-Sun Jeong[1], Gyu-Seung Jeong[1], Seong-Eun Rho[1], Hyung-Woo Yoon[2], Gyu-Cheol Lee[3], Keon-Myung Lee[4,5], and Chan-Hee Lee[1,5]
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Ethanol Fermentation by Recombinant *Saccharomyces cerevisiae* Expressing *Saccharomycopsis fibuligera* β-Glucosidase and Cellulosomal Endoglucanase of Thermophilic Anaerobic Bacteria, *Clostridium thermocellum*
Eugene Jeon*, Jeong-Eun Hyeon, and Sung-Ok Han
School of Life Science and Biotechnology, Korea University

G002
Enhancement of the Thermostability of *Clostridium cellulovorans* EngD by *in vitro* DNA Recombination with *Clostridium thermocellum* EgE
Chae Yoeng Lee*, Jee Hee Min, Kyung Ok Yu, and Sung Ok Han
Department of Life Science and Biotechnology, Korea University

G003
Characterization of Wastewater Treatability and Algae Biomass Production in Algal and Bacterial Communities
Jangho Lee* and Joonhong Park
School of Civil and Environmental Engineering, Yonsei University

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Indigo Production by Using Flavin-contatining Monooxygenase Gene in the Various Host and Vector System
Gui Hwan Han and Si Wouk Kim
Department of Environmental Engineering, BK21 Team for Biohydrogen Production, Chosun University

G005
***Salmonella typhimurium* Harboring Interleukin-12 Secreting Plasmid Induced Protective Immune Responses against Salmonella Infection in mice**
Won Suck Yoon* and Yong Keun Park
Korea University

G006
Proteome Analysis of Sulfur-Reducing Hyperthermophilic Archaea *Thermococcus onnurineus* NA1
Sang-Oh Kwon*, Sung-Ho Yun, Chi-Won Choi, Seung-Il Kim, and Jong-Soon Choi
Proteome Research Team, Korea Basic Science Institute

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Biotransformation of *Platycodon grandiflorum A. DC* by Crude Enzymes and Microbes
Dong Min Kang*, Young Rang Jin, Sun Nyoung Yu, Kwang Youn Kim, and Soon Cheol Ahn
Department of Microbiology and Immunology, Pusan National University School of Medicine

G008

Purification and Charactrization of Dehairing Protease from Marine Sediment *Bacillus pumilus* TMS55

Jeyaraj Muniyandi[1,2*], Soon-Cheol Ahn[2], and S Karutha Pandian[1]
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G009

Capsule Gene Analysis of Haemophilus Influenzae Strains Isolated from Children in Iran

Naheed mojgani[1*], Mehdi Perveen Ashtiani[1], and Mohammad Rahbar[2]
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G010

Multiplex Real-Time PCR for Rapid and Quantitative Detection of Minute Virus of Mice, Bovine Herpesvirus, and Bovine Parvovirus

Jung Eun Bae[*], Seon Hwan Oh, Dong Hyuck Lee, and In Seop Kim
Department of Biological Sciences, Hannam University

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Simultaneous Detection of Reovirus Type 3, Bovine Viral Diarrhoea Virus, and Bovine Parainfluenza Virus Type 3 by Multiplex RT-PCR

Eun Kyo Jeong[*], Seon Hwan Oh, and In Seop Kim
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G012

Improvement in Acetone-Butanol-Ethanol (ABE) Productivity of *Clostridium acetobutylicum* by Changing the Media Component

Ryeojin Lee[1,2*], Yu-Sin Jang[1,2], Jin Young Lee[1,2], and Sang Yup Lee[1,2,3]
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G013

***In silico* Based Strain Development with Multi-Objective Investigation**

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G014

Chemically Defined Medium for High Succinic Acid Production by *Mannheimia succiniciproducens* and Its Improvement

Min Sun Han[1,2,3*], Hyohak Song[1,2,3], Tae Yong Kim[1,2,3], Bo-Kyeong Choi[1,2], Seong Jun Choi[1,2,3], Lars K. Nielsen[4], Ho Nam Chang[1,2], and Sang Yup Lee[2,3,5]
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G015

Mining Low Abundance Proteins by Inhibiting Proteolysis with Small Heat Shock Proteins during Proteome Profiling

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G016

Proteomic Analysis of *Mannheimia* and Its Application for Succinic Acid Production

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G017

Can VP7 Gene Be an Effective Vaccine for Rotavirus?

Manal Baddour
King Saud University, Saudi Arabia, Alexandria University, Egypt, Faculty of Medicine

G018

A Novel Ligation Independent Cloning and Expression Vector for a Red-White Selection Using a Reporter Gene

Hyeok-Jin Ko[*], So-Hyun Kim, Won-Gi Bang, and In-Geol Choi
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G019

RmbB Is an Essential TDP-Glucose 4,6-Dehydratase in the Biosynthesis of Daunosamine, a Constituent of Doxorubicin in *S. peucetius* ATCC 27952

BiJay Singh*, Chang-Beom Lee, and Jae Kyung Sohng
SunMoon, Institute of Biomolecule Reconstruction

G020

Disruption of orf26 Gene and Its Effect on 5S Clavam Production in *Streptomyces clavuligerus* NRRL3585

Hum Nath Jnawali* and Jae Kyung Sohng
SunMoon University, Institute of Biomolecule Reconstruction

G021

Metabolic Engineering of *Streptomyces venezuelae* YJ028 for Enhanced Production of Polyketides

Shshila Maharjan*, Hei Chan Lee, and Jae Kyung Sohng
SunMoon University, Institute of Biomolecule Reconstruction

G022

Cytochrome P450 (CYP105F2) as a Potent Hydroxylase from *Streptomyces peucetius*

Narayan Prasad Niraula*, Tae Jin Oh, and Jae Kyung Sohng
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G023

Characterization of CalS9 in the Biosynthesis of UDP-Xylose and the Production of Xylosyl-Attached Hybrid Compound

Dinesh Simkhada*, Tae-Jin Oh, Binod Babu Pangeni, Hei Chan Lee, Kwangkyoung Liou, and Jae Kyung Sohng
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G024

Enzymatic Synthesis of UDP-Kanosamine

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G025

Microbial Formation of Magnetite Nanoparticles by *Clostridium* sp. Enriched from Inter-Tidal Flat Sediments

Yumi Kim* and Yul Roh
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G026

Functional Expression and Characterization of the Genetically Engineered Variants of *Candida antarctica* Lipase B in *Pichia pastoris*

Min-A Kwon[1*], Chang-Gil Park[2], Joon Young Oh[1], Eun Young Yu[1], Bong Keun Song[1], Dong-Myung Kim[2], and Jae Kwang Song[1]

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G027

Isolation of Agar-Degrading Bacterial Strains and Preliminary Analysis of Their Agarose-Degrading Enzymes

Min-A Kwon[*], Eun Young Yu, Hyun Suk Kim, Joon Young Oh, Miae Lee, Bong Keun Song, and Jae Kwang Song

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G028

High-Level Extracellular Production of the *Candida antarctica* Lipase B Variant by Fed-Batch Fermentation of Recombinant *Pichia pastoris*

Joon Young Oh[*], Min-A Kwon, Hyun Suk Kim, Gyeong Tae Eom, Eun Young Yu, Bong Keun Song, and Jae Kwang Song

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G029

Effect of the Addition of C-Terminal Tag on the Production of *Fusarium solani* Cutinase in *Pichia pastoris*

Min-A Kwon[1*], Taek Ho Yang[2], Hyun Suk Kim[1], Joon Young Oh[1], Eun Young Yu[1], Bong Keun Song[1], and Jae Kwang Song[1]

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G030

Gene Cloning of Recombinant Antigen for Development of Edible Vaccine against Malaria

Choong Hee Lee[*], Soo Chun Kim, Sung Jae Lee, and Ho Sa Lee

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G031

Isolation and Application of the *groESL* Gene for the Species-Specific Detection of *Vibrio anguillarum* from Infected Flounder and Oyster

Dong-Gyun Kim[*], Yu-Ri Kim, Eun-Young Kim, Hyun Min Cho, Sun-Hee Ahn, and In-Soo Kong

Department of Biotechnology, Pukyong National University

G032
Gold Nanoparticles-Mediated Direct Colorimetric Detection of a Pathogen-*Chlamydia trachomatis*
Ye Lim Jung*, CheulHee Jung, Taihua Li, Harshala Parab, and Hyun Gyu Park
Department of Chemical & Biomolecular Engineering, Korea Advanced Institute of Science and Technology

G033
Expression of α 2,3 Sialyltransferase Gene (PM0188) in Yeast
Joon Sik Yoon*, Jae Kyung Sohng, Jin Suk Woo, Dae Hee Kim,
Sun Youp Kang, and Wun Min Seo
Institute of Biomolecule Reconstruction (iBR), Department of Biological-Engineering, Sunmoon University

G034
Functional Analysis of the Type II Secretion Systems in *Escherichia coli* BL21(DE3)
Ji Hoon Shim*, Seong Keun Kim, Sung Ho Yoon, Choong Hoon Lee,
Min Jung Kwak, and Jihyun F. Kim
Industrial Biotechnology & Bioenergy Research Center, Korea Research Institute of Bioscience and Biotechnology

G035
The Role of a Gene Encoding the Ankyrin Repeat Protein A Residing Next to the Acetate Operon in *E. coli*
Sung Ho Yoon*, Ji Hoon Shim, Seong Keun Kim, Choong Hoon Lee,
Min Jung Kwak, and Jihyun F. Kim
Industrial Biotechnology & Bioenergy Research Center, Korea Research Institute of Bioscience and Biotechnology

G036
High-Level Auto-Inducible Expression System Using Modified *Bacillus thuringiensis cry3Aa* Promoter in *Bacillus subtilis*
Su-Jin Lee*, Jae-Gu Pan, Seung-Hwan Park, and Soo-Keun Choi
Industrial Biotechnology & Bioenergy Research Center, Korea Research Institute of Bioscience and Biotechnology

G037
Tunable Promoter System with the Randomized Spacer Region between -35 and -10 Elements in *Bacillus subtilis*
Da-Eun Jeong*, Su-Jin Lee, and Soo-Keun Choi
Industrial Biotechnology & Bioenergy Research Center, Korea Research Institute of Bioscience and Biotechnology

G038
D4 of Protective Antigen as a Candidate Antigen for Immunization against Anthrax
Dongsuk Jang*, Na Young Kim, Jai Myung Yang, and Sungho Shin
Department of Life Sciences, Sogang University

G039

Functional Analysis of Bacterial Community in Vermicompost and Isolation of Novel Cellulase Genes from Metagenomic Libraries

Muhammad Yasir[1*], Geun Cheol Song[1], Zubair Aslam[1], Che Ok Jeon[2], and Young Ryun Chung[1]

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G040

Antiviral Activities of Korlic against Influenza A/NWS/33 (H1N1) Virus in MDCK Cells

Seon Hwan Oh[*] and Jong Hwa Lee

The Industrial R&D Center of Liisna Inc.

G041

Genomic Basis of the Two *E. coli* Workhorse Strains for Their Improved Capacity to Synthesize Membrane Proteins at High Levels

Soon-Kyeong Kwon[1,2*], John E. Walker[3], and Jihyun F. Kim[1,2]

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G042

Antimicrobial Effect of AMP and AMP-clay Against Pathogenic Microorganisms

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G043

Inhibition of β-*N*-Acetylglucosaminidase in *Trichoplusia ni* Cells by shRNA Expression System

Na Young Kim[*], Sungho Shin, and Jai Myung Yang

Department of Life Science, Sogang University

G044

Antibacterial Activity of Dicerandrols Isolated from *Phomopsis longicolla* Hobbs 1985 against *Xanthomonas oryzae*

Chae Sung Lim[1*], Jiyoung Kim[1], Jung Nam Choi[1], Jeong Gu Kim[2], and Choong Hwan Lee[1]

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G045

Antiviral Activities of Korlic against Bovine Parainfluenza Virus Type 3 in MDBK Cells

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G046

Construction of *Escherichia coli-Clostridium beijerinckii* Shuttle Vectors and Transformation to *Clostridium beijerinckii* by Electroporation

Mi Jeong Kim*, Sung Hee Kang, Kyoung Hee Kang, Bong Keun Song, and Seung Hwan Lee

Chemical Biotechnology Research Center, Korea Research Institute of Chemical Technology

G047

Biocatalytic Resolution of Glycidyl Phenyl Ether by an Epoxide Hydrolase from a Marine Bacterium, *Rhodobacterales bacterium* HTCC2654

Jung-Hee Woo*, Sung Gyun Kang, Ji-Hyun Kang, Young-Ok Hwang, and Sang-Jin Kim

From the Marine Biotechnology Research Centre, Korea Ocean Research & Development Institute

G048

Development of New Cell Surface Display System and Its Application to Enantioselective Reaction

Kyoung Hee Kang*, Mi Jeong Kim, Sung Hee Kang, Bong Keun Song, and Seung Hwan Lee

Chemical Biotechnology Research Center, Korea Research Institute of Chemical Technology

G049

Enrichment of Cold-Active Protease-Producing Bacteria from Arctic Terrestrial and Marine Samples

Eun Hye Kim[1*], Kyeung Hee Cho[1], Joung Han Yim[1], Hong Kum Lee[1], Jang-Cheon Cho[2], and Soon Gyu Hong[1]

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G050

Improvement of Butanol Production in *Clostridium beijerinckii* by Random Mutagenesis Using EMS

Sung Hee Kang*, Mi Jeong Kim, Kyoung Hee Kang, Bong Keun Song, and Seung Hwan Lee

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G051

Evaluation of a Commercially Available Immunochromatographic Test for Detection of Antibodies to Japanese Encephalitis Virus

Young Eui Jeong*, Min Ju Jeon, Jung Eun Cho, Myung Guk Han, and Young Ran Ju

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G052

Microbial Hydroxylation by *Pseudomonas* sp. NRRL B-2994 Depending on Phenotypic Variation in Motility

Soonhyang Kwon* and Augustine Yonghwi Kim
Department of Food Science and Technology, Sejong University

G053

Hydrogen Production by the Hyperthermophilic Archaeon, *Thermococcus onnurineus* NA1

Seung Seob Bae*, Yun Jae Kim, Jeong Ho Jeon, Jae Kyu Lim, Hyun Sook Lee, Kae Kyun Kwon, Sung Gyun Kang, and Jung-Hyun Lee
Marine Biotechnology Center, Korea Ocean Research & Development Institute

G054

Microbial Production of Coenzyme Q10

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G055

Fed-batch Fermentation for Production of Alpha-ketoglutarate by *Corynebacterium glutamicum* JH107

Yun-Bom Lee[1*], Hyun-Ah Shin[1], So-Yeon Rhim[1], Jae-Hyung Jo[1], Min-Hong Kim[2], Hyune-Hwan Lee[1], and Hyung-Hwan Hyun[1]
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G056

Characterization of β-Glucosidase with High Activity Produced by Ascomycota Isolated from Citrus Peel

Jung Youn Choi[1*], Hyun Jin Ryu[1], Myung Kyo Shin[1], Yong Jin Kim[1], Sang Hyoun Kim[1], Gyung Soo Kim[1], Chang-Jun Cha[2], and Jeong-Jun Yoon[1]
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H 기타 / Others

H001

Immunostimulatory Activity of *Pinus palustris in vitro*

Jae-Myung KIm*, Byung-Jae So, Hannae Chang, Sang-Ho Cha, Hyun-Ok Ku, and Cheong-Up Choi
National Veterinary Research & Quarantine Service MIFAFF

H002

Lasalocid Induces Caspase-3 Dependent Apoptosis in Human Prostate Cancer PC-3 Cell Line

Kwang Youn Kim*, Sun Nyoung Yu, Dong Min Kang, Young Rang Jin, and Soon Cheol Ahn
Department of Microbiology and Immunology, Pusan National University School of Medicine

H003

Biological Control of Gray Mold Rot by *Streptomyces* sp. BS062

Young-Sook Kim[1*], In-Kyoung Lee[1], Woon Hyung Yeo[2], and Bong-Sik Yun[1]
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H004

Complete Genome Sequence of *Escherichia coli* BL21(DE3)

Haeyoung Jeong[1*], Ji-Hoon Shim[1], F. William Studier[2], Tae Kwang Oh[3], and Jihyun F. Kim[1]
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H005

Screening of the Inhibitors of Carbon Monoxide Dehydrogenase from Chemical Library and Medical Herbs

Seung Jung Han[1*], Hanjo Kim[2], Sae Woong Park[1], Kyoung Tai No[2], and Young Min Kim[1]
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H006

New Polypropionates and Benzoxepins from the Fruiting Body of *Xylaria polymorpha*

In-Kyoung Lee[1*], Yun-Woo Jang[1], Young-Sook Kim[1], Seung Hun Yu[2], and Bong-Sik Yun[1]
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H007

Structural Diversity and Biological Activities of Styrylpyrones from *Phellinus* sp. and *Inonotus* sp.

In-Kyoung Lee[1*], Young-Sook Kim[1], Man-Hee Rhee[2], Myung-Sook Han[1], and Bong-Sik Yun[1]

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H008

Current Import Survey of a Living Modified Organisms Used Research in Korea

Kyung-Wha Choi[1*], Soon Gee Chung[1], Mi Kyung Kim[1], Ji Eum Park[1], Mi Young Jung[1], Kee Woong Park[1], Chang Ki Kim[1], and Hwanmook Kim[1]

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H009

Chemical Constituents and Antimicrobial Activity of *Actinidia arguta* Pollen

Myung-Sook Han[1*], In-Kyoung Lee[2], Young-Sook Kim[2], Kwang-Ryul Choe[1], and Bong-Sik Yun[2]

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H010

Protective Activity of Purple Sweet Potato-Added Soymilk Fermented by *Bacillus subtilis 2829 PNU-015* from Oxidative Stress

Ji Myung Choi[1*], Eun Jeong Jeong[1], Eun Ju Cho[1], and Keun Ho Bae[2]

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H011

Benchmark Testing on *de novo* and Reference-Based Assembly Softwares in Microbial Genome Sequencing Using Short Read Sequencing

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H012

Isodeoxyhelicobasidin, a Novel Human Neutrophil Elastase Inhibitor from the Culture Broth of *Volvariella bombycina*

Guang-Hua Xu[1*], Young-Hee Kim[1], Soo-Jin Choo[1], In-Ja Ryoo[1], Chang-Ji Zheng[1,2], Soon-Ja Seok[3], Won-Gon Kim[1], and Ick-Dong Yoo[1]

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H013

HypoPats: The Database of Useful Genes from Hypothetical Genes Related to Biological Patent Sequences

Young-Joo Seol[1,2*], Mang-Jung Kang[3], Chang-Kug Kim[1], Jang-Ho Hanhn[1], Beom-Seok Park[1], Jongsik Chun[4], and Dong Suk Park[3]
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H014

Gene Screening of Fruiting Body Formation on *Lentinula edodes* by Microarray Analysis

Sun-Hwa Ryu[*], Boyeong Kim, Myungkil Kim, Sung-Suk Lee, and Won-Chull Bak
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H015

Evaluation of Solexa Re-Sequencing Method for Whole Genome Sequencing of Bacteria

Yoon Seong Jeon[1,2*] and Jongsik Chun[1,2]
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H016

Biodegradation of Wood Chips by Transformants of *Polyporus brumalis*

Boyeong Kim[1,2*], Jin-Hee Kim[1], Sun-Hwa Ryu[1], Myungkil Kim[1], Cheol-Won Yun[2], and Sung-Suk Lee[1]
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H017

A Comprehensive Survey of Gut Microbiota Diversity of Pig Fed with Antibiotics Using Pyrosequencing

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H018

Biotransformation of Citrus Peels by Probiotic Microbes and Commercial Glucosidases

Sun Yi Lee[1*], Hyun Joo An[1], Ji Hyun Lee[1], Young Hun Choi[1], and Soon Cheol Ahn[2]
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H019

***Torreya nucifera* Essential Oil Inhibits Skin Pathogen Growth and Lipopolyssarcharide-Induced Inflammatory Effects**

Weon-Jong Yoon[1*], Sang-Suk Kim[2], Tae-Heon Oh[2], Nam Ho Lee[2], and Chang-Gu Hyun[1]

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H020

Genome Encyclopedia of Microbes: A Web Portal for Microbial Genome Analysis

Jihyun F. Kim[*], Cheol-Goo Hur, Dong-Su Yu, Seoung-Won Lee, Sung Ho Yoon, Ho-Young Kang, Ki Jin Yu, Jae Pil Choi, Ji-Man Hong, Soon-Kyeong Kwon, Ju Yeon Song, Byung Kwon Kim, Choong Hoon Lee, Seong Keun Kim, Sang Soo Han, Min Jung Kwak, and Tae Kwang Oh

Korea Research Institute of Bioscience and Biotechnology

H021

***Cryptomeria japonica* Essential Oil Inhibits the Growth of Drug-Resistant Skin Pathogens and LPS-Induced Nitric Oxide and Pro-Inflammatory Cytokine Production**

Weon-Jong Yoon[1*], Sang-Suk Kim[2], Tae-Heon Oh[2], Nam Ho Lee[2], and Chang-Gu Hyun[1]

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H022

Comparative Analysis of Bacterial Community Structure in Kimchi Based on 16S rRNA Gene by Pyrosequencing

Ok-Sun Kim[*], Myeongjin Kim, and Jongsik Chun

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H023

Critical Evaluation of Accuracy of Pyrosequencing for Microbial Community Analysis

Suk-Hwan Yoon[1*], Kihyun Lee[1], Seon Joo Ahn[1], Ok-Sun Kim[1], You-Seak Go[2], and Jongsik Chun[1]

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H024

Bioinformatics for Microbial Community Analysis Using Pyrosequencing

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H025

Structural Conformation of Methanol Dehydrogenase from *Methylophaga aminisulfidivorans* MP^T

Hee Gon Kim[1*], Byoung Ok Cho[2], Jang Min Park[1], and Si Wouk Kim[1]
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H026

Complete Genome Sequences of Two Isolates of *Chilli veinal mottle virus* and Phylogenetic Relationship of Four Pepper-Infecting Potyviruses

Ju-Hee Ha[1,2*], Hye-In Yoon[2], Ju-Yeon Yoon[2], Hyen-Mi Chung[1], Taesung Kim[1], and Ki-Hyun Ryu[2]
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H027

Cloning and Characterization of a Bile Salt Hydrolase from *Enterococcus faecalis* Strain Isolated from Healthy Elderly Volunteers

Seok Jin Eom[*], Kyung Min Lee, Jung Hyun Im, Jae Kyoung Choi, and Geun Bae Kim
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H028

Compositional Contrast of Uncoated Fungal Spores and Stained Section-Face by Low-Loss Backscattered Electron Imaging

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