

Poster Sessions / 포스터세션

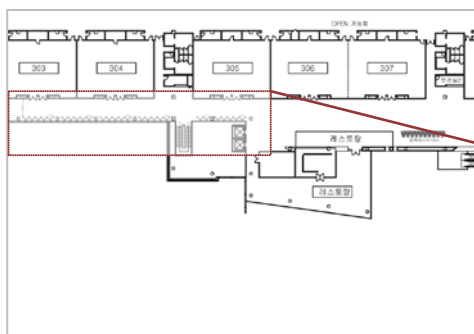
KINTEX Exhibition Center 1, 3rd Floor

Session	Date	Topics	Display Time	Presentation Time
Poster Session 1	Oct. 30	A, B, F, I	08:00-17:00	11:45-13:00
Poster Session 2	Oct. 31	C, D, E, G, H, J	08:00-17:00	11:00-13:00

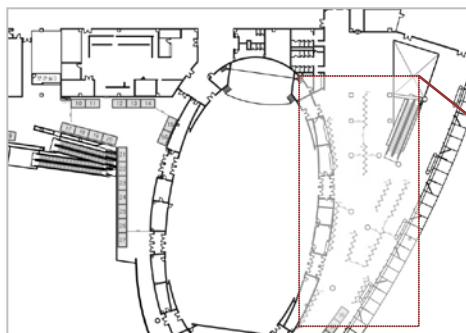
❖ Poster Topics

- | | |
|---------------------------------|---------------------------------------|
| A. Systematics and Evolution | F. Infection and Pathogenesis |
| B. Environment and Ecology | G. Immunology and Signal Transduction |
| C. Physiology and Biochemistry | H. Biotechnology |
| D. Fermentation and Metabolites | I. Food Microbiology |
| E. Genetics and Genome | J. Others |

❖ Poster Zone



Oct 30(Thu)	A001-A054
Oct 31(Fri)	C001-C033 D001-D021



Oct 30(Thu)	A055-A063, B001-B086, F001-F066, I001-I031
Oct 31(Fri)	D022-D044, E001-E035 G001-G019, H001-H057 J001-J065

A Systematics and Evolution

A001

***Aneurinibacillus soli* sp. nov., Isolated from Mountain Soil**

Keun Chul Lee¹, Kwang Kyu Kim¹, Mi Kyung Eom¹, Jong-Shik Kim², Dae-Shin Kim³, Suk-Hyung Ko³, and Jung-Sook Lee^{1*}

¹Korean Collection for Type Cultures, Korea Research Institute of Bioscience and Biotechnology, ²Gyeongbuk Institute for Marine Bioindustry, ³Research Institute for Hallasan

A002

***Sphingobium subterraneum* sp. nov., Isolated from Ground Water**

Jae-Chan Lee¹, Jihye Bae², Song-Gun Kim³, and Kyung-Sook Whang^{1,2*}

¹Institute of Microbial Ecology and Resources, Mokwon University, ²Department of Microbial & Nano Materials, College of Science & Technology, Mokwon University, ³Microbial Resource Center/KCTC, Korea Research Institute of Bioscience and Biotechnology

A003

Mycological Characteristics of Nine Unrecorded Yeasts from Flowers in the Orchard of Yesan-gun, Chungcheongnam-do and Hanbat Arboretum in Daejeon City, Korea

Sang-Min Han, Se-Hee Hyun, Ja-Won Shin, Ha-Kun Kim, and Jong-Soo Lee*

Department of Biomedical Science and Biotechnology, Paichai University

A004

Peanibacillus hemerocallicola* sp. nov., Isolated from the Root of *Hemerocallis fulva

Tae-Su Kim, Ji-Hye Han, Yochan Joung, and Seung Bum Kim*

Department of Microbiology and Molecular Biology, College of Bioscience and Biotechnology, Chungnam National University

A005

Kiloniella spongiae* sp. nov., isolated from a Marine Sponge and Emended Description of the Genus *Kiloniella* Wiese et al. 2009 and *Kiloniella laminariae

Sung-Hyun Yang, Hyun-Seok Seo, Jung-Hyun Lee, Sang-Jin Kim, and Kae Kyoungh Kwon

Marine Biotechnology Research Center, Korea Institute of Ocean Science & Technology

A006

New records of three agarics: *Clitocybe subditopoda*, *C. vibecina*, and *Galerina stylifera* from Odaesan National Park in South Korea

Seokyeon Jang, Yeongseon Jang and Jae-Jin Kim*

Division of Environmental Science & Ecological Engineering, College of Life Science & Biotechnology, Korea University

A007

***Taibaiella soli* sp. nov., isolated from *Pinus* soil**

Min-Kyeong Kim, Ji-Hye Han, Tae-Su Kim, Yochan Joung, YuRi Kim, Joong-Hyeon Ahn, and Seung Bum Kim*

Department of Microbiology and Molecular Biology, Chungnam National University

A008

Characteristics of the Bacterial Strains Isolated from Human Hands I.

Hoyoung Lee

Division of Biomedical and Health Science, Mokwon University

A009

Characteristics of the Bacterial Strains Isolated from Human Feet I.

Yunkyung Lee

Division of biomedical and health science, Mokwon University

A010

Genetic Diversity and Phylogenetic Analysis of Muju virus Harbored by *Myodes regulus* in Republic of Korea

Jin Goo Lee¹, Se Hun Gu², Sook-Young Lee¹, Jeong Ah Kim¹, Seung-Ho Lee¹,
Won-keun Kim¹, Luck Ju Baek¹, Richard Yanagihara², and Jin-Won Song^{1*}

¹Department of Microbiology, College of Medicine, Korea University, ²Department of Pediatrics and Tropical Medicine, Medical Microbiology and Pharmacology, John A. Burns School of Medicine, University of Hawaii at Manoa, USA

A011

Endophytic Diversity of *Pinus densiflora* and *Juniperus rigida* in Mt. Baekryeon, Korea

Ju-Kyeong Eo^{1,2}, Chang-Kyun Kim² and Ahn-Heum Eom^{2*}

¹Division of Ecosystem Function, Bureau of Basic Ecological Research, National Institute of Ecology, ²Department of Biology Education, Korea National University of Education

A012

Taxonomical Characteristics of Halophilic Bacterium *Roseivivax* sp. HJS6 from Solar Salt Pond

Geon-Yeong Cho¹, In-Hwa Jeon¹, Ju-Ok Kim¹, Ye-Rim Lee¹, Su-jin Kim¹, Song-Ih Han¹,
and Kyung-Sook Whang^{1,2*}

¹Department of Microbial & Nano Materials, Mokwon University, ²Institute of Microbial Ecology & Resources, Mokwon University

A013

***Halobacillus ovalis* sp. nov., a Moderately Halophilic Bacterium Isolated from Sediment of Solar Salt Pond**

Su-Jin Kim¹, Jun-Su Song¹, Song-Ih Han¹, and Kyung-Sook Whang^{1,2*}

¹Department of Microbial & Nano Materials, Mokwon University, ²Institute of Microbial Ecology & Resources, Mokwon University

A014

***Marinobacter salinaria* sp. nov., a Halophilic Bacterium Isolated from the Crystallizing Pond of Solar Saltern**

Ju-Ok Kim¹, Seung-Yeol Shin¹, Song-Ih Han¹, and Kyung-Sook Whang^{1,2*}

¹Department of Microbial & Nano Materials, Mokwon University, ²Institute of Microbial Ecology & Resources, Mokwon University

A015

***Collimonas violacea* sp. nov., a Pigment Producing Bacterium Isolated from the Green-tea Upland Soil**

Ye-Rim Lee¹, Ji-Won Jang¹, Song-Ih Han¹, and Kyung-Sook Whang^{1,2*}

¹Department of Microbial & Nano Materials, Mokwon University, ²Institute of Microbial Ecology & Resources, Mokwon University

A016

New Species and New Records of *Buellia* from Jeju Island

Xin Yu Wang¹ and Jae-Seoun Hur^{2*}

¹Key Laboratory for Plant Diversity and Biogeography of East Asia, Kunming Institute of Botany, China, ²Korean Lichen Research Institute, Suncheon National University

A017

Some More Pyrenocarpous Lichen Records of South Korea

Josef P. Haldá¹, Soon-Ok Oh² and Jae-Seoun Hur^{2*}

¹Muzeum a galerie Orlických hor, Czech Republic, ²Korean Lichen Research Institute, Suncheon National University

A018

Five New Species in the Family Sphaerophoraceae, with a Key to All Species Reported in China

Dong Liu¹, Yanyun Zhang¹, Xin Yu Wang¹, Jae-Seoun Hur², and Lisong Wang^{1*}

¹Key Laboratory for Plant Diversity and Biogeography of East Asia, Kunming Institute of Botany, China, ²Korean Lichen Research Institute, Suncheon National University

A019

Isolation of Strictly Anaerobic Iron-Reducing Bacterium, *Anaerosolibacter carbophilum* gen. nov., sp. nov., from a Coal-Contaminated Soil

Heeji Hong¹, Seon-Bin Choi², Ui-Gi Min², Man-Young Jung², Jong-Geol Kim², and Sung-Keun Rhee^{2*}

¹Department of Microbiology, Chungbuk National University, ²Department of Microbiology, Chungbuk National University

A020

Marmoricola solisilvae* sp. nov. and *Marmoricola terrae* sp. nov., isolated from soil and Emended Description of the Genus *Marmoricola

Ji-Young Moon¹, Soo-Jin Kim¹, Jae-Hyung Ahn², Hang-Yeon Weon²,

Seung-Beom Hong¹, Soon-Ja Seok¹, and Soon-Wo Kwon^{1*}

¹Korean Agricultural Culture Collection (KACC), National Academy of Agricultural Science, Rural Development Administration, ²Agricultural Microbiology Division, National Academy of Agricultural Science, Rural Development Administration

A021

Parasegetibacter terrae* sp. nov., isolated from paddy soil and emended Description of the Genus *Parasegetibacter

Jun-Muk Lim¹, Soo-Jin Kim¹, Jae-Hyung Ahn²,

Hang-Yeon Weon², Seung-Beom Hong¹, Soon-Ja Seok¹, and Soon-Wo Kwon^{1*}

¹Korean Agricultural Culture Collection (KACC), National Academy of Agricultural Science, Rural Development Administration, ²Agricultural Microbiology Division, National Academy of Agricultural Science, Rural Development Administration

A022

Phylogeographic Analysis of Imjin Virus, a Distinct Hantavirus isolated from the Ussuri white-toothed shrew (*Crocidura lasiura*), in the Republic of Korea during 2004-2014

Seung-Ho Lee¹, Won-keun Kim¹, Se Hun Gu², Ji Hye Kim¹, Luck Ju Baek¹, Seong Tae Jeong³, Dae Sang Lee³, Dong Hyun Song³, and Jin-Won Song^{1*}

¹Department of Microbiology, College of Medicine, Korea University, ²Department of Pediatrics and Tropical Medicine, Medical Microbiology and Pharmacology, John A. Burns School of Medicine, University of Hawaii at Manoa, USA, ³The 5th R&D Institute

A023

A new Virulence Genes-Deleted Live *Salmonella* Enteritidis Vaccine Candidate to Reduce Internal Egg Contamination

John Hwa Lee*

Chonbuk National University, College of Veterinary Medicine

A024

A biosafety and Immunogenicity-Enhanced *Salmonella* Enteritidis Inactivated Vaccine

John Hwa Lee*

Chonbuk National University, College of Veterinary Medicine

A025

The isolation of *Kiloniella Antarctica* from a Polynya of Amunsen Sea in Western Antarctic Sea

Ok-Ja Si, Man-Young Jung, Seon-Bin Choi, Jong-Geol Kim, Ui-Gi Min, and Sung-Keun Rhee*

Department of Microbiology, chungbuk National University

A026

Isolation of Strictly Anaerobic Iron-reducing Bacterium, *Geosporobacter ferrireducens* sp. nov., from a Hydrocarbon Contaminated Soil

Heeji Hong, Seon-Bin Choi, Ui-Gi Min, Man-Young Jung, Jong-Geol Kim, and Sung-Keun Rhee*

Department of Microbiology, Chungbuk National University

A027

Taxonomic Study of the Genus *Roseomonas*

Jihe Lee, Misun Kim, Hyunseok Kang, and Chinam Seong*

Department of Biology, College of Life Science and Natural Resources, Suncheon National University

A028

Korean Indigenous Bacterial Species

Joo Won Kang, Mi Sun Kim, Ji Hee Lee, A Reum Kim, and Chi Nam Seong*

Department of Biology, College of Life Science and Natural Resources, Suncheon National University

A029

***Burkholderia jirisanensis* sp. nov. isolated from forest soil sp. nov. Isolated From Forest Soil**

Seil Kim^{1*}, Gyeongtaek Gong², Han Min Woo², Yunje Kim², and Youngsoo Um²

¹Center for Bioanalysis, Korea Research Institute of Standards and Science, ²Clean Energy Research Center, Korea Institute of Science and Technology

A030

***Caulobacter juamensis* sp. nov., Isolated from Lake Water**

Euncho Go¹, Keunsi Baik², Daein Kim¹, Miri Lim¹, and Chinam Seong^{1*}

¹Department of Biology, College of Life Science and Natural Resources, Suncheon National University, ²Department of Biology Sciences, Korea Basic Science Institute

A031

***Calculibacillus koreensis* gen. nov., sp. nov., A Mesophilic Anaerobic, Fe(III)-reducing Bacterium from Sediment of Abandoned Coal Mine**

Ui-Gi Min, Man-Young Jung, Jong-Geol Kim, Seon-Bin Choi, Sung-Keun Rhee

Department of Microbiology, Chungbuk National University

A032

Draft Genome Sequence of *Lactococcus chungangensis* CAU28^T

Maytiya Konkit and Wonyong Kim*

Department of Microbiology, Chung-Ang University College of Medicine

A033

New Found Adenovirus from Chinstrap penguins (*Pygoscelis antarctica*) in Antarctica

Sook-Young Lee¹, Jeong-Hoon Kim², Yon Mi Park¹, Ok Sarah Shin³, Hankyeom Kim⁴, Han-Gu Choi², Sung Ho Kang⁵, and Jin-Won Song^{1*}

¹Department of Microbiology, Korea University, ²Division of Life Sciences, Korea Polar Research Institute, ³Department of Biomedical Science, College of Medicine, Korea University, ⁴Department of Pathology, College of Medicine, Korea University, Guro Hospital, ⁵Division of Polar Ocean Environment, Korea Polar Research Institute

A034

***Streptomyces kyonggiensis* sp. nov., an Antibiotic and Fungicide Producer, Isolated from Forest Soil**

Manh Tuan Nguyen and Jaisoo Kim*

Department of Life Science, Kyonggi University

A035

Re-evaluating the *Lactarius* and *Lactifluus* Inventory in Korea using DNA Barcode Markers

Hyun Lee¹, Myung Soo Park¹, Seung-Yoon Oh¹, Paul Eunil Jung¹, Soon-Ja Seok², Chang Mu Kim³, and Young Woon Lim^{1*}

¹School of Biological Sciences, Seoul National University, ²National Institute of Agricultural Science and Technology, Rural Development Administration, ³Microorganism Resources Division, National Institute of Biological Resources

A036***Lactarius cucurbitinus* (Russulales, Basidiomycota), a New Species from South Korea Supported by Molecular and Morphological Data**

Hyun Lee¹, Myung Soo Park¹, Paul Eunil Jung¹, Jonathan J. Fong¹, Seung-Yoon Oh¹, Annemieke Verbeken², and Young Woon Lim^{1*}

¹*School of Biological Sciences, Seoul National University,* ²*Ghent University, Belgium*

A037**A Contribution to Lichen Genus *Graphis* (*Graphidaceae*, *Ostropales*, *Ascomycota*) of East Asian Countries**

Santosh Joshi¹, Udeni Jayalal², Ze-Feng Jia³, and Jae-Seoun Hur^{4*}

¹*Lichenology laboratory, CSIR-National Botanical Research Institute, India,* ²*Department of Natural Resources, Sabaragamuwa University, Sri Lanka,* ³*College of Life Sciences, Liaocheng University, China,* ⁴*Korean Lichen Research Institute, Suncheon National University*

A038**Recent Taxonomic Investigations on Epiphytic Lichens of Vietnam**

Santosh Joshi¹, Dalip K. Upreti¹, Soon-Ok Oh², and Jae-Seoun Hur^{2*}

¹*Lichenology laboratory, CSIR-National Botanical Research Institute, India,* ²*Korean Lichen Research Institute, Suncheon National University*

A039**Molecular Phylogeny and Current Taxonomy of the Teloschistaceae (*Lecanoromycetes*, *Ascomycota*)**

Sergii Kondratyuk^{1*}, Jung A Kim², Anna Kondratyuk³, and Jae-Seoun Hur²

¹*M. H. Kholodny Institute of Botany, Ukraine,* ²*Korean Lichen Research Institute, Suncheon National University,* ³*Institute of Biology, Taras Shevchenko National University of Kiev, Ukraine*

A040**New and Noteworthy Lichen-Forming and Lichenicolous Fungi from South Korea and Eastern Asia**

Sergii Kondratyuk^{1*}, Laszlo Lokos², Soon-Ok Oh³, and Jae-Seoun Hur³

¹*M. H. Kholodny Institute of Botany, Ukraine,* ²*Department of Botany, Hungarian Natural History Museum, Hungary,* ³*Korean Lichen Research Institute, Suncheon National University*

A041***Penicillium jejuense* sp. nov., Isolated from the Marine Environments Of Jeju Island, Korea**

Myung Soo Park¹, Jonathan J. Fong², Seung-Yoon Oh², Jos Houbraken³,

Jae Hak Sohn⁴, Seung-Beom Hong⁵, and Young Woon Lim^{2*}

¹*School of Biological Sciences, Seoul National University,* ²*School of Biological Sciences, Seoul National University,* ³*CBS-KNAW Fungal Biodiversity Centre, The Netherlands,* ⁴*Department of Biofood Materials, Silla University,* ⁵*Korean Agricultural Culture Collection, Agricultural Microbiology Div. National Academy of Agricultural Science, RDA*

A042

***Pedobacter rivuli* sp. nov., Isolated from a Freshwater Stream**

Heeyoung Kang¹, Haneul Kim¹, Yochan Joung^{1,2}, Tae Yong Jang¹ and Kiseong Joh^{1*}

¹Department of Bioscience and Biotechnology, Hankuk University of Foreign Studies,

²Department of Microbiology and Molecular Biology, College of Bioscience and Biotechnology, Chungnam National University

A043

Oil degrading strain *Psychrobacillus mongoliensis* sp. nov., Isolated from Oil-Contaminated Soil In Mongol

Van Hong Thi Pham and Jaisoo Kim*

Department of Life Science, Kyonggi University

A044

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

Suji Kim¹, Heeyoung Kang¹, Haneul Kim¹, Yochan Joung^{1,2}, and Kiseong Joh^{1*}

¹Department of Bioscience and Biotechnology, Hankuk University of Foreign Studies,

²Department of Microbiology and Molecular Biology, College of Bioscience and Biotechnology, Chungnam National University

A045

***Mucilaginibacter aquatilis* sp. nov., Isolated from a Mesotrophic Artificial Lake**

Yoonsun Bang¹, Haneul Kim¹, Heeyoung Kang¹,

Yochan Joung^{1,2}, and Kiseong Joh^{1*}

¹Department of Bioscience and Biotechnology, Hankuk University of Foreign Studies,

²Department of Microbiology and Molecular Biology, College of Bioscience and Biotechnology, Chungnam National University

A046

***Paenibacillus acervicinus* KUDC4121 sp. nov., Isolated from Ulleungdo Island**

Ye-Ji Hwang and Sa-Youl Ghim*

School of Life Sciences, KNU Creative BioResearch Group (BK21 plus project) and Institute for Microorganisms, Kyungpook National University

A047

A New Species and Record of *Xylaria* Species from Korea

Chang Sun Kim¹, Jong Won Jo¹, Young-Nam Kwag¹, Gi-Ho Sung², and Sang-Kuk Han¹

¹Forest Biodiversity Division, Korea National Arboretum, ²Institute for Bio-Medical Convergence, Catholic Kwandong University

A048

***Emticicia Cheonanensis* sp. nov.**

Si-Eun Park¹, Dohak Kim¹, Siwon Lee², and Tae-Young Ahn^{1*}

¹Department of Microbiology, College of Natural Sciences, Dankook University,

²Environmental Infrastructure Research Department, National Institute of Environmental Research

A049

Actinomycetes: as an Important Source of Secondary Metabolite

Jee-min lim, Yoonjung Ju, Yunjung Oh, Dong-Jin Park, Chang-Jin Kim

Microbial Resource Center, Korea Research Institute of Bioscience and Biotechnology

A050**Phylogenetic Relationship within *Flammulina velutipes* Strains Based on Genome-Wide SNPs**

Sung I Woo¹, Jae-Gu Han¹, Pyung-Gyun Shin¹, Youn-Lee Oh¹, Song He Lee¹, Kyung-Soo Kim², Sung- Hwan Jo³, and Won-Sik Kong^{1*}

¹Mushroom Research Division, National Institute of Horticultural & Herbal Science, Rural Development Administration Chungbuk Eumsung, Korea, ²Department of Applied Biology Graduate School, Kangwon National University, ³SEEDERS, Daeduk Industry Academic Cooperation Building

A051**Types of CagA 3'-Region of *Helicobacter pylori* Korean Isolates Recovered from Patients with Chronic Gastritis, Peptic ulcer, and Gastric Cancer**

Donghae Lee

Department of Microbiology, Gyeongsang National University School of Medicine

A052**Characterization of Human Pathogens Unidentified Using Automated Systems**

Hyun Bae Kang, Kyeong-Min Lee, Min Hee Cho, and Kwang-Jun Lee*

Pathogen Resource TF, Center for Infectious Diseases, National Institute of Health, Korea Centers for Disease Control & Prevention

A053**Novel Lactic Acid Bacteria Isolated from the Gut of the Asian Honey Bee *Apis cerana***

Jae-Hyung Ahn¹, Sang-Hoon Han², Min-Young Choi³, Eun-Hye Jo³, Jaekyeong Song³, Soo-Jin Kim³, Soon-Wo Kwon³, and Hang-Yeon Weon^{3*}

¹Agricultural Microbiology Division, National Academy of Agricultural Science, Rural Development Administration, ²Department of Plant Quarantine, Animal and Plant Quarantine Agency, ³Agricultural Microbiology Division, National Academy of Agricultural Science, Rural Development Administration

A054***Halomonas garumicola* sp. nov., Isolated from Myeolchi-Jeot**

Woo Yong Jung, Ji Young Jung, Se Hee Lee, and Che Ok Jeon*

Department of Life Science, Chung-Ang University

A055**Re-study on the *Amanita virgineoides* Recorded in Korea**

Yongju Jin, Kibum Yoo, Yangsup Kim and Soonja Seok*

Agricultural Microbiology Division, National Academy of Agricultural Science, Rural Development Administration

A056***Absidia pseudocylindrospora*, a Newly Recorded Species from Dokdo Island, Korea**

Thi Thuong Thuong Nguyen · Hyang Burm Lee*

Division of Applied Bioscience & Biotechnology, College of Agriculture & Life Sciences, Chonnam National University

A057

A New Fungal Species of *Annulohyphoxylon* From Rice Seed in Korea

Sun Jeong Jeon and Hyang Burm Lee*

Division of Applied Bioscience & Biotechnology, College of Agriculture & Life Sciences, Chonnam National University

A058

New Record of Endophytic *Paraconiothyrium brasiliense* from Chinese Maple Leaf in Korea

Narayan Chandra Paul and Hyang Burm Lee*

Division of Applied Bioscience & Biotechnology, College of Agriculture & Life Sciences, Chonnam National University

A059

New Record of *Talaromyces amestolkiae* as Endophyte from *Ficus* sp. Tree in Korea

Narayan Chandra Paul and Hyang Burm Lee*

Division of Applied Bioscience & Biotechnology, College of Agriculture & Life Sciences, Chonnam National University

A060

***Penicillium malusis* sp. nov. from fruit of *Malus pumila* in Korea**

Hye Yeon Mun, Seung Hun Yu, and Hyang Burm Lee

Division of Applied Bioscience & Biotechnology, College of Agriculture & Life Sciences, Chonnam National University

A061

First Report of Post-harvest Fruit Rot of *Aronia melanocarpa* caused by *Geotrichum candidum* in Korea

Hye Won Lee and Hyang Burm Lee*

Division of Applied Bioscience & Biotechnology, College of Agriculture & Life Sciences, Chonnam National University

A062

A New Fungal Species of *Paraconiothyrium* From Rice Seed in Korea

Jeong Jeon and Hyang Burm Lee*

Division of Applied Bioscience & Biotechnology, College of Agriculture & Life Sciences, Chonnam National University

A063

Recent Applications of Phylogeny to the Systematics of Genus *Cordyceps* Fr.

Bhushan Shrestha^{1*}, Jae-Gu Han², Junsang Oh³, Jiyoung Kim¹, Jae-Gwang Park⁴, Kang-Hyo Lee², Gi-Ho Sung⁵

¹*Institute of Life Science and Biotechnology, Sungkyunkwan University,* ²*Mushroom Research Division, National Institute of Horticultural and Herbal Science, Rural Development Administration,* ³*College of Pharmacy, Chung-Ang University,* ⁴*Department of Genetic Engineering, Sungkyunkwan University,* ⁵*Institute for Bio-Medical Convergence, College of Medicine, Catholic Kwandong University*

B Environment and Ecology

B001

Pyrosequencing Analysis of Animal Carcass Leachate from Lysimeter to Detect Bacteria Responsible for Pathogenicity

Jiyoung Seo¹, Bomi Shim¹, TaeHun Kim¹, Hyun Young Kim¹, Seok Mun Cha¹, Jungdo Park¹, Young Il Lim², Geong Hoon Cha², and Seungho Yu^{1*}

¹Radiation Research Division for Industry & Environ, KAERI, ²Dongseo Construction Co. LTD

B002

A New Paradigm in *Bdellovibrio bacteriovorus* Life and Ecology: Attack Phase Cells Secrete Proteases that Disperse Gram-Positive Biofilms

Mohammed Dwidar and Robert J. Mitchell*

School of Life Sciences, UNIST

B003

Population Changes and Physiological Characteristics of Halophilic Bacteria during each Evaporation Steps in Solar Salterns of Jeungdo

Suhkhwan Park and Geonhyoung Lee*

Department of Biology, Kunsan National University

B004

Isolation and Characterization of *Sphingobium* sp. EP60845, a Ethoprophos-degrading Bacterium

Sanghong Yoon* and Suyeon Kim

Dept. of Agricultural Biotechnology, National Academy of Agricultural Science, RDA

B005

Biosorption of Anionic Dye and Gold by the Novel Biosorbent *Bacillus* sp. JB-007 Strain

Su Young Kim, Mi Ra Jin, Ju Kim, and Kang Yeol Yu*

Jeonju Biomaterials Institute

B006

Removal of Cationic Dye and Heavy Metal by *Bacillus* sp. JB-017 Biomass

Mi Ra Jin, Su Young Kim, Ju Kim, and Kang Yeol Yu*

Jeonju Biomaterials Institute

B007

Macrofungi in the Coastal Sand Dune of Taean peninsula in Korea

Kang-Hyeon Ka^{1*}, Sung-Min Jeon¹, Rhim Ryoo¹, Min-Soo Kim¹, Jung-A Kang¹, Ki-Sung Hong², Suck-Young Choe³, and Tae-Heon Kim⁴

¹Division of Wood Chemistry and Microbiology, Korea Forest Research Institute, ²Forest Mushroom Research Center, National Forestry Cooperative Federation, ³Department of Food & Nutrition, University of Ulsan, ⁴Ecosystem Research Division, National Park Research Institute

B008**The Effect of Bacterial Membrane Vesicles against BALO Predation**

Boyeon Lee, Hansol Im and Robert James Mitchell*

*School of Life science, Ulsan national institute of Science and Technology***B009****Assessment of Airborne Bacterial and Fungal Concentrations in Public Facilities**

Minseon Cha, Geonhyoung Lee

*Department of Biology, Kunsan National University***B010****Isolation of PHA(Polycyclic Aromatic Hydrocarbons) degrading Bacteria from Chinese Desert Lichens**Xiaoning Ma and Jae-Seoun Korean Lichen Research Institute,
Suncheon National University**Korean Lichen Research Institute, Suncheon National University***B011****Combined Application of Cyanobacteria with Sand Fixing Chemicals for Artificial Induction of Biological Soil Crust under Laboratory Conditions**

Chan-Ho Park and Jae-Seoun Hur*

*Korean Lichen Research Institute, Suncheon National University***B012****Effects of UV Exposure Time on Biodegradation of Poly(L-lactide)(PLA) by a Mesophilic Bacterium**

Hyun Jeong Jeon and Mal Nam Kim*

*Department of Life Science, Sangmyung University***B013****Concentration-dependent Effect of Red Clay on Change of Soil Microbial Community and Enzyme Activity**

Kyo-young Kim, Jaejoon Jung and Woojun Park*

*Laboratory of Molecular Environmental Microbiology, Department of Environmental Science and Ecological Engineering, Korea University***B014****Incidence and Molecular Characterization of Hepatitis A Viruses in Korean Surface Water**

Sung-Ae Oh, Min-jeong Kim, Yu-Jin Lee, and Gyu-Cheol Lee*

*Department of Microbiology, Water Quality Research Center, K-water***B015****Biodegradation of Endocrine Disruptor by Laccase from *Pycnoporus coccineus***Ju Wan Park¹ and Hyeon-Su Ro^{1,2*}¹*Division of Applied Life Science, Gyeongsang National University,* ²*Research Institute for Life Science, Gyeongsang National University*

B016**Monitoring of Fecal Pollution in the Partly Restored Urban Stream, Cheonggyecheon**

Eun-Young Seo¹, Dawoon Jung¹, Seung-Cheon Yong², Rho Young Park¹,
Young-Ok Lee^{2*}, and Tae-Seok Ahn^{1*}

¹*Department of Environmental Science, Kangwon National University*, ²*Department of Biological Science, Daegu University*

B017**Analysis of Rhizosphere Soil Bacterial Communities on Seonginbong, Ulleungdo Island**

Yoonjong Nam, Hyeokjun Yoon, Kim Hyun, Woo Ju Ri, Irina Khalmuratova,
Song Jin Ha, Jin Young Ju, Oh Yoosun, Jeong Minji, and Kim Jong Guk*

Department of Life Sciences and Biotechnology, Kyungpook National University

B018**Fungal Diversity From the Root of Plants Inhabiting Goraebul Sand Dune and the Analysis of Biochemical Test**

Hyun Kim, Hyeokjun Yoon, Yoon Jong Nam, Irina Khalmuratova, Ju Ri Woo,
Jin Ha Song, Young Ju Jin, Yoosun Oh, Minji Jeong, and Jong Guk Kim*

Department of Life Sciences and Biotechnology, Kyungpook National University

B019**Proteomic Analysis of Diesel-degrading *Acinetobacter oleivorans* DR1 Revealed Important Proteins Involved in Mature and Dispersal Biofilms**

In-ae Jang and Woojun Park*

Laboratory of Molecular Environmental Microbiology, Department of Environmental Science and Ecological Engineering, Korea University

B020**Analysis of Archaeal Diversity in Dalseong Wetlands Using 454 Pyrosequencing**

Jin Ha Song, Hyeokjun Yoon, Yoon Jong Nam, Ju Ri Woo, Irina Khalmuratova,
Hyun Kim, Young Ju Jin, Yoosun Oh, Minji Jeong, and Jong Guk Kim*

Department of Life Sciences and Biotechnology, Kyungpook National University

B021**Genetic Diversity of Endophytic Fungi Associated with Halophytic Plants from the West Coast of Korea**

Irina Khalmuratova, Hyeokjun Yoon, Yoonjong Nam, Ju Ri Woo, Hyun Kim, JinHa Song,
Young Ju Jin, Yoosun Oh, Minji Jeong, and Jong Guk Kim

Department of Life Sciences and Biotechnology, Kyungpook National University

B022**Isolation of Endophytic Fungi to Promote Plant-growth from Dalseong Wetland Plants**

Young Ju Jin, Hyeokjun Yoon, Yoon Jong Nam, Ju Ri Woo, Irina Khalmuratova,
Hyun Kim, Jin Ha Song, Yoosun Oh, Minji Jeong, and Jong Guk Kim*

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B023

Quantitative-PCR Analysis on the Soil Colonization Ability of *Bacillus amyloliquefaciens* GR4-5

Dayeon Kim¹, Byung-Yong Kim², Jae-Hyung Ahn¹, Hang-Yeon Weon¹, Sung-II Kim³, Wan-Gyu Kim¹, and Jaekyeong Song^{1*}

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B024

Investigation of Norovirus Occurrence in Groundwater

Youngjo Song* and Changyong Bang

Department of Infectious Diseases, Armed Forces Medical Research Institute

B025

Effect of The Diffusible Signaling Factor (DSF) On *Bdellovibrio bacteriovorus* Predation

SooIn Choi, Mohammed Dwidar and Robert J. Mitchell*

School of Life Sciences, UNIST

B026

Isolation and Characterization of Some Actinomycetes Inhibiting Several Plant-pathogenic Fungi

Hae-Ryoung Kim and Hong-Gyu Song*

Department of Biological Sciences, Kangwon National University

B027

Improvement of Tomato Growth under Copper Stress by Copper-resistant Rhizobacteria and Expression of Stress-related Genes in Tomato

Min-Ju Kim and Hong-Gyu Song*

Department of Biological Sciences, Kangwon National University

B028

Distinct Bacterial Communities within the Rhizosphere and Endosphere of Ginseng Roots

Dayeon Kim¹, Jae-Hyung Ahn¹, Hang-Yeon Weon¹, Sungil Kim², and Jaekyeong Song^{1*}

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B029

Control of Harmful Algal Blooms by Algicidal Marine Bacteria

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B030

Isolation and Expression of Microbial Rhodopsin Homologue from Yellow Sea of Korea

Hyebin Jang, Hyogon Sohn, Gwan-jib Kim, Sehwan Kim, Ahreum Choi, and Kwang-Hwan Jung*

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B031**Endophytic Fungi of Orchid Roots in Korea**

Bong-Hyung Lee and Ahn-Heum Eom*

*Department of Biology Education, Korea National University of Education***B032****Characterization and Expression of o, m, p-Xylene Degradation Pathway Genes in *Rhodococcus* spp. J7**

Jihee Her and Sang-Seob Lee*

*Department of Life Science, Kyonggi University***B033****Screening and Isolation Of Bacteria to Control Organic Compound in Marine Environment for Preventing Red-Tide**Saet-Byeol Moon¹ and Sang-Seob Lee^{2*}*¹Department of Biological engineering, Kyonggi University, ²Department of Life Science, College of Natural Science, Kyonggi University***B034****Study of Changes in the Microbial Community Associated with Climate Change in the Laboratory Scale**Hyun-sook Kim¹ and Sang-Seob Lee^{2*}*¹Department of Bioengineering, Kyonggi University, ²Department of Life Science, College of Natural Science, Kyonggi University***B035****Characterization of Ammonia Removal Bacteria for Preventing Red-Tide in Ocean**

Kalam Lee and Sang-Seob Lee*

*Department of Life Science, Kyonggi University***B036****Characterization of Anaerobic Denitrifying Microorganism for Preventing Red-Tide in Marine Sediments of the Tongyeong Ocean**Sang Rim Kang¹ and Sang-Seob Lee^{2*}*¹Department of Bioengineering, Kyonggi University, ²Department of Life Science, Kyonggi University***B037****Screening and Characterization of Total Phosphate Removal Bacteria for Preventing Red-tide in Cage Fish Farms in Ocean**

Kunho Kim* and Sang-Seob Lee*

*Department of Bioengineering, Kyonggi University***B038****Assessment of Biofilm Formed in Drinking Water Distribution System by Using Fluorogenic Substrate Mixture**Yoon-Kyung Cho¹, Young-Kwan Kim² and Sung-Chan Choi^{1*}*¹Department of Environmental Science & Biotechnology, Hallym University, ²Department of Environmental Engineering, Kangwon National University*

B039

Intraspecific Functional Variation of Arbuscular Mycorrhizal Fungi Originated from Same Population on Plant Growth

Eun-Hwa Lee¹, Kang-Hyeon Ka² and Ahn-Heum Eom^{1*}

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B040

Community Change of Ectomycorrhizal Fungi According to Season in the Thinning Forest

Jaewook Choi¹, Changduck Koo² and Ahnheum Eom^{1*}

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B041

Isolation and Characterization of Fungal Diversity from Crop Field Soils of Nigeria

Sang Woo Kim, Dil Raj Yadav, Mahesh Adhikari, Anam Giridhar Babu, Yong Hyun Um, Eun Bi Gim, Jae Seok Yang, Hyug Goo Lee, and Youn Su Lee*

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B042

Effect of Organic Cultivation of Lettuce and Hot Pepper on Chemical and Microbial Properties of Soil

TaeKwang Kim, SeChul Chun*, SeWon Park, SangHye Ji, and KwonJeong Lee

Department of Bioresource and Food Engineering, Konkuk University

B043

Marine-derived *Penicillium* in Korea: Diversity, Enzyme Activity, and Antifungal Properties

Myung Soo Park¹, Jonathan J. Fong¹, Seung-Yoon Oh¹, Kae Kyoung Kwon²,

Jae Hak Sohn³, and Young Woon Lim^{1*}

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B044

Characterization of the Premature Lysis by Predatory Bacteria

Wonsic Mun, Hansol Im and Robert J. Mitchell*

Ulsan national institute of Science and Technology

B045

In vitro amplification of PrP^{Sc} from Chronic Wasting Disease(CWD) agents Contaminated Soil

Kyung-Je Park, Hyun-Joo Sohn*, In-Soon Roh, Hyun-Jeong Kim, and In-Soo Cho

Foreign Animal Disease Division, Animal and Plant Quarantine Agency

B046

Characterization of Phosphate-solubilizing Bacterium *Pantoea* sp. strain 36-H-3 with Antifungal Activity

Gwan Hyeong Lee, Hang-Yeon Weon, In-Cheol Park, Jae-hong Yoo, and Jeong-Seon Kim*

Agricultural Microbiology Division, National Academy of Agricultural Science, RDA

B047

**Comparative Transcriptome Analysis of an Alkylphenol Polyethoxylate Degradere
Pseudomonas nitroreducens TX1 Grown on Succinate and Triton X-100**

Nu Ri Kwon¹, Da Yeon Kim¹, Hyo Sung Jung¹, Jung Min Oh¹, Ki Tae Park¹,
Shir-Ly Huang², and Kyoung Lee^{1*}

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B048

A Rolling Circle Replication Plasmid Found in *Pseudomonas nitroreducens* TX1, an Alkylphenol Polyethoxylate Degradere

Kyoung Lee^{1*}, Ju Beom Kang¹, Gwang Su Ha¹, Nguyen Ngoc Tuan², and
Shir-Ly Huang²

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B049

Detection of Wood Inhabiting Basidiomycetes from Soils in Odaesan National Park, South Korea

Yeongseon Jang¹, Seokyeon Jang¹, Jaejung Lee², Hanbyul Lee¹, Young Woon Lim³, and
Jae-Jin Kim^{1*}

¹Division of Environmental Science & Ecological Engineering, Korea University,
²Division of Wood Chemistry & Microbiology, Korea Forest Research Institute, ³School of Biological Sciences, Seoul National University

B050

Concentration and Diversity of Bacteria Isolated from Indoor Air of Green Houses for Shiitake Cultivation

Jun Young Kim¹, Hyuk Woo Kwon¹, Siun Jang¹, Min Ah Choi¹, Han Kyu Ko², and
Seong Hwan Kim^{1*}

¹Department of Microbiology, Dankook University, ²Forest Mushroom Research Center, National Forest Cooperative Federation

B051

Molecular Analysis of Bacterial Community Structures in Soils for Environmental Risk Assessment with Genetically Modified Soybean, Kwangan Atsiz-6

Ji-Hyeong Lee, Hyo-Sun Lee, Dong-Uk Kim, Hyun Kim, and Jong-Ok Ka*

Department of Agricultural Biotechnology, Seoul National University

B052

Characterization of *Draconibacterium filum* sp. nov., isolated from sediment of East Sea

Joo-Han Gwak, Man-Young Jung, Jong-Geol Kim, Ui-Gi Min, Seon-Bin Choi and
Sung-Keun Rhee*

Department of Microbiology, Chungbuk National University

B053

Effect of *Arthrobacter woluwensis* ED on Growth of *Aster koraiensis* in Barren Lakeside Land

Min-Ju Kim, Hae-Ryoung Kim, Ha-Young Sung, Sung-Min Hong, and Hong-Gyu Song*

Department of Biological Sciences, Kangwon National University

B054**Identification of *Pseudomonas aeruginosa* in Natural Environment by Physiobiochemical Characterization**

Siwon Lee, Ji Hye Kim, Bo-Ram Lee, Hyen-Mi Chung, Weon Hwa Jheong*,

Su Jeong Park, Youn-Lee Joo, and Byeol Choe

Water Supply & Sewerage Research Division, National Institute of Environmental Research

B055**Effects of *Paenebacillus Polymyxa* E681 on the Durability of Cement Paste**

Sungjin Park, Kiho Park and Sayoul Ghim*

School of Life Sciences, KNU Creative BioResearch Group (BK21 plus project), and Institute for Microorganisms, Kyungpook National University

B056**Occurrence of Aflatoxigenic Species in Korean Cereals**

Lee-Han Kim, Dong Wook Kim, Jin Seung Kim, Soohyung Lee, Jae-Gee Ryu, and

Theresa Lee*

Microbial Safety Division National Academy of Agricultural Science, Rural Development Administration

B057**Metagenomic Analysis of Methane Derived Carbonates Subsurface Sediment in Ulleung Basin, East Sea**

Jin-Woo Lee^{1,2}, Kae Kyoung Kwon¹, Dong-Hun Lee², and Jung-Hyun Lee^{1*}

¹Marine Biotechnology Research division, Korea Institute of Ocean Science & Technology, ²Department of Microbiology, Chungbuk National University

B058**Relevance of Abundance of Methanogen as an Indicator for Methane Emission in Wetlands**

Jinhyun Kim¹, Seung-Hoon Lee¹, Inyoung Jang², Tae Sup Yun¹, and Hojeong Kang^{1*}

¹Department of Civil and Environmental Engineering, Yonsei University, ²National Institute of Ecology

B059**Genetically Distinct Lineages of *Vibrio vulnificus* Revealed by Multilocus Sequence Analysis**

Hye-Jin Kim and Jae-Chang Cho*

Department of Environmental Sciences, Hankuk University of Foreign Studies

B060**Novel PCR Primers for the Archaeal Phylum *Thaumarchaeota* Designed Based on the Comparative Analysis of 16S rRNA Gene Sequences**

Jin-Kyung Hong and Jae-Chang Cho*

Institute of Environmental Sciences, Department of Environmental Sciences, Hankuk University of Foreign Studies

B061**A comparison of the Soil Components**

Hyunho Kim and Gieun Kim*

Department of bioprocess Engineering lab, Seokyeong University

B062**Effects of AMF Pelletes on Seed Germination and Growth Rates of *Sorghum bicolor***

Jinseong Kim¹, Sanghyeok Nam¹, Han-Na Jang¹, Jinseong Jeong¹, Junghyeong Choi¹,
Minseok Choi¹, and Ahn-Heum Eom²

¹Chungbuk Science Highschool, ²Korea National University of Education

B063**The Effect of High Salinity on the Biological Reduction of Perchlorate**

Yongjae Lee, Jungwon Hwang, MoonHwee Jun, and Duri Park

Department of environmental engineering, Sungkyunkwan University

B064**The Study on Comparison of Treatment Efficiency Using PFR and CSTR**

Yongjae Lee, Jungwon Hwang, MoonHwee Jun, and Duri Park

The study on comparison of treatment efficiency using PFR and CSTR

B065**Effects on Tomato Growth and Lavender, Rosemary, Chrysanthemum using Soil Moisturizer (Geohumus) by Effective Microorganisms (EM) on Immobilized Treatment Effects**

Suji Baek and Gieun Kim*

Department of Bioprocess Engineering, Seokyeong University

B066**Linoleic Acid and Phenylacetic Acid-induced Expression of Defense Genes and Enzymes in Tobacco**

Marilyn Sumayo and Sa-Youl Ghim*

School of Life Sciences, KNU Creative BioResearch Group (BK21 plus project) and Institute for Microorganisms, Kyungpook National University

B067**Analysis of Bacterial Community Structure of Soybean**

Youngmi Lee¹, Jae-Hyung Ahn¹, Hang-Yeon Weon¹, Jung-Hoon Yoon², and Jaekyeong Song^{1*}

¹Agricultural Microbiology Division, National Academy of Agricultural Science, RDA,

²Department of Food Science and Biotechnology, Sungkyunkwan University

B068**Screening of Antagonistic Microorganism for Control the Ginger Root Rot**

Dan-Bi Lee¹, Jung-Bok Lee¹, Youn-Moon Park², Kyeong-Muk Kang¹, and Gi-Seok Kwon^{1*}

¹Dept. of Bioresource Sciences, Andong National University,

²Dept. of Food Sciences, Andong National University

B069**Investigation of Optimal Medium Conditions Antagonistic Microorganisms to Control for Ginger Pathogens**

Kyeong-Muk Kang¹, Jung-Bok Lee¹, Beam-Su Kim², Dan-Bi Lee¹, Gwang-Il Heo¹, Ki-Hyeon Kim¹, and Gi-Seok Kwon^{1*}

¹Dept. of Bioresource Sciences, Andong National University, ²M-tech Co. ltd Andong National University Business Incubator

B070**Investigation of Adjuvants for Formulation toward Entomopathogenic Fungus *Beauveria bassiana* M130**

Kyeong-Muk Kang¹, Jung-Bok Lee¹, Beam-Su Kim², Jin-Won Kim³, Chang-Su Kim³, Eun-Jin Lim¹, Ha-Neul Jeon¹, and Gi-Seok Kwon^{1*}

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B071**The Effect of Quorum Quenching on the Characteristics of Sludge Supernatant**

Sun-eui Kim¹, Christelle Guigui², ChengCheng Li², and Chung-hak Lee^{1*}

¹A School of chemical and biological engineering, Seoul National University, ²University of Toulouse, INSA, UPS, INP, LISBP, France

B072**Microbial Responses to Functional Mortar Containing Copper-ion Beads**

Hyunjin Lee¹, Hojeong Kang^{2*}, Jang-ho Jay Kim², and Sunyoung Park¹

¹Department of Civil and Environment Engineering, Yonsei University, ²School of Civil and Environment Engineering, Yonsei University

B073**Investigation of Optimum Carbon Source on Heterotrophic Cultivation for High Lipid Productivity of *Chlorella protothecoides* B25**

Geun Ho Gim¹, Jae Gyung Lee², Hae Gwang Jung², Jong Min Kim², and Si Wouk Kim^{1*}

¹Department of Environmental Engineering, Chosun University, ²Department of Energy Convergence, Chosun University

B074**Bacterial Diversity and Community Structure in Upland Soil in Korea**

Min-Young Choi¹, An-Sung Roh², Seung-Chul Choi³, Won-Il Choi⁴, Moon-Tae Choi⁵, Byung-Koo Ahn⁶, Hee-Kwon Kim⁷, Young-Han Lee⁸, Jae-Hyung Ahn¹, Jaekyeong Song¹, and Hang-Yeon Weon^{1*}

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B075**Isolation of Ampicillin- and Kanamycin-Resistant Bacteria from Playgrounds and Sewages**

Da-Eun Lee¹, Eun-Hye Jang¹, Yeon Hee Jang¹, Joonil Hwang², Sang-Eon Kim¹, Ki-Beom Park¹, Kim Jin Hwa¹, Won Gyeom Joung¹, Hyeon Jeong Lee¹, and Kyoung-Ho Kim^{1*}

¹Department of Microbiology, Pukyong National University, ²Busanil Science High School

B076**Seasonal Comparison of Bacterial Communities Associated with the Marine Sponge, *Halichondria panicea***

Jongbin Jeong and Jinsook Park*

Department of Biological Science and Biotechnology, Hannam University

B077

Regional Difference of Bacterial Diversity in the Marine Sponge, *Hymeniacidon sinapium*

Gaeun Lee, Jina Park and Jinsook Park*

Department of Biological Science and Biotechnology, Hannam University

B078

Isolation of Aerobic Thermophiles from Wastewater of Petrochemical Industry

Sulbeen Ahn, Nayoung Kim and Jongseol Kim*

Department of Biological Sciences, University of Ulsan

B079

Isolation of Aerobic Thermophiles from High Salt Wastewater

Jiyoung Lee, Yuri Nam and Jongseol Kim*

Department of Biological Sciences, University of Ulsan

B080

Detection of Rare Species in Soil by CaO Treatment

Jin-Nam Kim and Young-Gun Zo

Department of Biology, Kyungsoong University

B081

Isolation of *Rhodovulum* sp. NS6, a New Naphthalene Degrading Bacterium, Isolated from Tidal Flat Sediment

Ji Min Lee, Hyun Mi Jin and Che Ok Jeon*

Department of Life Science, Chung-Ang University

B082

Multivariate Analysis of *Staphylococcus* Community on Smartphones toward Determination of Risk Factors of *Staphylococcal* Infection

Hyein Jin, Sunghun Han and Young-Gun Zo*

Department of Biology, Kyungsoong University

B083

Structural Analysis of Bacterial Communities in Local and Imported Sea Salts

Jae-Seong Jeon, Yerim Ko, Min-Ha Kwon, and

Young-Gun Zo*

Department of Biology, Kyungsoong University

B084

Improvement in Richness Estimation of Insect Microbiome by Use of a Germicidal Chemical

Kristin Widayarsi, Minji Kim, Jin-Nam Kim, and Young-Gun Zo

Department of Biology, Kyungsoong University

B085

Isolation and Characterization of Iron-reducing Lactic Acid Bacteria from Soil Mesocosms with Decomposing Meat

Ju-Hun Kim and Young-Gun Zo*

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B086

Effects on Plant Growth from Nitrogen Fixing Rhizobacteria

Upeksha Muhanidram* and Sa-Youl Ghim

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Institute for Microorganisms, Kyungpook National University*

C Physiology and Biochemistry

C001

Purification and Characterization of the Oligosaccharyltransferases in Bacteria and Protist

Seonghun Kim*

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C002

Molecular and Biochemical Characterization of a Novel Class D Carbapenemase from Clinical Isolates

Jung Hun Lee, Jeong Ho Jeon, Jae Jin Lee, Asad Mustafa Karim, and Sang Hee Lee*

National Leading Research Laboratory of Drug Resistance Proteomics, Department of Biological Sciences, Myongji University

C003

A New Method for the Cytoplasm Extraction from Oak Pollen by Basidiomycotina

InPyo Hong^{1*}, SoonOk Woo², SangMi Han¹, and JooHong Yeo¹

¹National Academy of Agricultural Science and Technology, R.D.A., ²National Academy of Agricultural Science and Technology, R.D.A

C004

Mycelial Growth and Enzyme Activity of *Mycena* spp. Collected from Korean Forests

Sungmin Jeon, Minsoo Kim and Kanghyeon Ka*

Division of Wood Chemistry and Microbiology, Korea Forest Research Institute

C005

Disruption of CodY Expression Induces Global Changes in Transcriptome and Secretome Profiles of *Bacillus anthracis* Sterne

Se Kye Kim¹, Kyoung Hwa Jung¹ and Young Gyu Chai^{1,2}

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C006

Mycelial Growth and Cellulase activity of *Polyporus umbellatus* on Solid Media

Sungmin Jeon¹, Jung A Kang¹, Hasaem Jeon¹, Kanghyeon Ka^{1*}, Minwoong Lee², and Taesoo Lee³

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C007

The Regulation Mechanism of the Iron-Responsive Transcription Repressor Fep1 in *Schizosaccharomyces pombe*

Hyo-Jin Kim¹, Kyoung-Dong Kim² and Jung-Hye Roe^{2*}

Laboratory of Molecular Microbiology, School of Biological Sciences, Seoul National University

C008

Mycelial Growth And Enzyme Activity of Basidiomycetes Preserved in Low-Temperature

Yeun Sug Jeong, Sung-Min Jeon and Kang-Hyeon Ka*

Division of Wood Chemistry and Microbiology, Korea Forest Research Institute

C009

Biochemical Characterization of a Secreted Chitinase from *Coprinellus congregatus*

Taeyoung Woo, Yeeun Yoo and Hyoung T Choi*

Department of Biochemistry, Kangwon National University

C010

Isolation of Heterotrophic Bacteria from Polynya of Amunsen Sea of Antarctic Ocean

Seon-Bin Choi, Ui-Gi Min, Man-Young Jung, Jong-Geol Kim, and Sung-Keun Rhee*

Department of Microbiology, Chungbuk National University

C011

Attempts to Estimate Anti-Prion Activity of Mycosporine-Like Amino Acid (MAA)
Jihyun Lee¹, Dae-Hwan Kim², Jeeyoung Kim¹, Muhammad Waqas¹, Sang-Hyun Moh³,
and Chongsuk Ryou^{1,2*}

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C012

The Effect of Rsd, the Anti-sigma Factor of σ^{70} , on Biofilm Formation in *Escherichia coli*

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C013

Genome-wide Analysis of the Extremophilic Bacterium *Fervidobacterium Islandicum* AW-1 Revealed the Degradation Mechanism of Feather Keratin

Hyeon-Su Jin¹, Ji-Yeon Kim¹, Yong-Jik Lee¹, Sun-Mi Shin¹, Sang-Jae Lee²,
Han-Seung Lee², and Dong-Woo Lee^{1*}

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C014

Dephosphorylated NPr is Involved In an Envelope Stress Response of *Escherichia coli*

Si-Hyoung Park¹, Jaeseop Lee¹, Yeong-Jae Seok^{2,3*}, and Chang-Ro Lee^{1*}

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C015

Anthraniolate has a Biofilm-Crumbling Activity and Antagonizes the Indole Singling in *Pseudomonas aeruginosa*

Xi-Hui Li, Soo-Kyoung Kim and Joon-Hee Lee*

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C016

The role of *Pseudomonas aeruginosa* Quorum Sensing-Deficient Mutant in Biofilm Formation

Chae-Won Kim, Xi-Hui Li, Soo-Kyoung Kim, and Joon-Hee Lee*

Department of Pharmacy, College of Pharmacy, Pusan National University

C017

Metabolome Analysis of Rice Leaf Tissue to Staurosporine Treatment under and Free of Bacterial Blight by *Xanthomonas oryzae* pathovar *oryzae*

Jeong-Gu Kim^{1*}, Hyang Yeon Kim², Mee Youn Lee², Sait Byul Park^{1,2}, Joo-Won Suh³, In Ae Lee³, Jinhua Cheng³, and Choong Hwan Lee²

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C018

Ornithine Lipid Influences the Biofilm Formation And Virulence of *Pseudomonas aeruginosa*

Soo-Kyoung Kim, Xi-Hui Li and Joon-Hee Lee*

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C019

Structural Analysis of *Bacillus subtilis* YtqB and Its Implication in SAM-dependent Methylation

Sun Cheol Park, Wan Seok Song and Sung-il Yoon*

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C020

Transcriptome Analysis of Rice Leaf Tissue to Staurosporine Treatment under and Free of Bacterial Blight by *Xanthomonas oryzae* pathovar *oryzae*

Jeong-Gu Kim^{1*}, Hyang Yeon Kim², Mee Youn Lee², Sait Byul Park^{1,2}, Joo-Won Suh³, In Ae Lee³, Jinhua Cheng³, and Choong Hwan Lee²

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C021

Expression, Purification, Crystallization and Preliminary X-ray Analysis of an HD-Domain Containing Protein, YpgQ, from *Bacillus subtilis*

Ye Ji Jeon, Wan Seok Song and Sung-il Yoon*

Department of Systems Immunology, College of Biomedical Science, Kangwon National University

C022

YraA, DJ-1 Superfamily Protein, Plays a Major Role in thiol-independent Glyoxalase III system in *B. subtilis*

Yu Mi Kwon¹, Jung-Hoon Kim¹, Yoon-Mo Yang¹, Sun-Shin Cha², and Jin-Won Lee^{1*}

¹Department of Life Science and Institute for Natural Sciences, Hanyang University,

²Marine Biotechnology Research Division, Korea Institute of Ocean Science and Technology

C023

Study of Antifungal Activity of *Bacillus* sp. *in vitro* and Partial Characterization of its Antifungal Compound

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C024

Multifunctional Control of UGPase by Stress-Responsive Transcription Factors, Msn2/4, in *Saccharomyces cerevisiae*

Dae-Gwan Yi and Won-Ki Huh*

Department of Biological Sciences, Seoul National University

C025

The Crystal Structure of a Novel Phosphopantothenate Synthetase from the Hyperthermophilic Archaea, *Thermococcus onnurineus* NA1

Min-Kyu Kim¹, Young Jun An¹ and Sun-Shin Cha^{1,2*}

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C026

ATP-Binding Mode Including a Carbamoylated Lysine and Two Mg(2+) ions, and Substrate-Binding Mode In *Acinetobacter baumannii* MurF

Young Jun An¹, Chang-Sook Jeong¹, Jeong Hee Yu², Kyung Min Chung^{2,3}, and Sun-Shin Cha¹

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C028

α -Factor Binding Assay to the G Protein Coupled Receptor of *Saccharomices cerevisiae* by using Spectrophotometric Method

Hyeongjin Kim, Jinwoo Hong, Seungyeol Lim, Soojin Rho, Jeongho Park, and Heejun Ahn*

School of Biotechnology, Yeungnam University

C029

The Enzyme IIA^{Ntr} (EIIA^{Ntr}) Regulates Amino Sugar Metabolism by Direct Interaction with Glucosamine-6-phosphate Synthase (GlmS) in *Salmonella enterica* serovar Typhimurium

Woongjae Yoo¹, Yeonkyung Kim¹, Minsik Kim¹, Hyunjin Yoon², and Sangryeol Ryu^{1*}
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C030

Characterization of two *Pseudomonas aeruginosa* Mutant Strains, which are Defective in Rhamnolipid Biosynthesis

A Ra Jo¹, Dong Ju Lee², Won Young Choi¹, and Youn-Tae Chi^{1*}
¹School of Biological Sciences and Technology, Chonnam National University, ²Institute of Environmentally-friendly agriculture, Chonnam National University

C031

Effect of Maltodextrin Glucosidase (MalZ) with Transglycosylation Activity on glycogen/mltodextrin mtabolism in *Vibrio vulnificus*

Hyeyoung Kim¹ and Jungwan Kim^{1,2}
¹Department of Life Sciences, Graduate School of Incheon National University, ²Division of Bioengineering, Incheon National University

C032

Cloning and Characterization of Oligo-1,6-Glucosidase from *Vibrio vulnificus* MO6-24/0

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C033

Purification and Characterization of Anti-MRSA Substance from *Streptomyces* sp.
Sewook Park¹, Thuy Thu Vu^{2,3}, Yochan Joung¹, Ji-Hye Han¹, Tae-Su Kim¹, Yu Ri Kim¹, Min-Kyeong Kim¹, Joong-Hyeon Ahn¹, Song-Hee Chae⁴, Jin-Cheol Kim⁵, Taeok Bae⁶, and Seung Bum Kim^{1*}

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D Fermentation and Metabolites

D001

Identification and Characterization of New Antibiotic Peptide from *Bacillus* Strains Derived from Korean Traditional Fermented Food

Yoon Seok Choi and Jin Cheol Yoo*

Department of Pharmacy, Chosun University

D002

An Effective Microbial Means for The Isolation and Characterization of Novel Antimicrobial Peptide from Fermented Food

Sudip Regmi, Yoon Seok Choi and Jin Cheol Yoo*

Department of Pharmacy, Chosun University

D003

Characteristics of Unrecorded Yeasts from Wild Flowers in Seonyudo of Gogunsanyeoldo, Korea and its Physiological Functionality

Se-Hee Hyun, Sang-Min Han and Jong-Soo Lee*

Department of Biomedical Science and Biochemistry Paichai University

D004

Isolation and Physiological Functionality of Yeasts From Wild Flowers in Seonyudo of Gogunsanyeoldo, Jeollabuk-do, Korea

Se-Hee Hyun, Sang-Min Han and Jong-Soo Lee*

Department of Biomedical Science and Biochemistry Paichai University

D005

Cellulolytic Enzymes Produced by a Newly Isolated Soil Fungus *Penicillium* sp. TG2 with Potential for Use in Cellulosic Ethanol Production

You Ree Jung, Jang Min Park, Sun-Yeon heo, Won-Kyung hong, Sung-Mok Lee, Baek-Rock Oh, Jeong-Woo Seo, and Chul Ho Kim*

Industrial Microbiology & Bioprocess Research Center, Korea Research Institute of Bioscience and Biotechnology

D006

Screening of Antagonistic Bacteria with the Potential as Biological Control Agents Against Ginseng Damping-off

E-Eum Woo, Yoon-Ju Lee, Ja-Gyeong Song, Byung Soon Hwang, Dae-Won Kim, Ji-Yul Kim, In-Kyoung Lee, and Bong-Sik Yun*

Division of Biotechnology, Chonbuk National University

D007

Effect of a Novel Histidine Sensor Kinase Cloned from *Streptomyces acidiscabies* on Secondary Metabolite Production

Mi-Ji An, Hee-Sook Kim, Ji-Min Park, Yong-Il Hwang, and Sun-Uk Choi*

Department of Food Science and Biotechnology, Kyungnam University

D008**Isolation and Characterization of *Leuconostoc mesenteroides* CS-5 Isolated from Kimchi that Produced Dextran**

Oh-Sik Kwon*

*Department of Microbiology, Keimyung University***D009****Polyphenols from the Fruiting Bodies of *Inonotus obliquus* and Their Antioxidant Activities**

Byung Soon Hwang, Ja-Gyeong Song, Dae-Won Kim, In-Kyoung Lee, and Bong-Sik Yun*

*Division of Biotechnology, Chonbuk National University***D010****Active Constituents of Korean Oak Pollen on Neuraminidase Inhibition**

Byung Soon Hwang, Yoon-Ju Lee, Bong-Sik Yun, and In-Kyoung Lee*

*Division of Biotechnology, Chonbuk National University***D011****Comparison Analysis of ergothioneine in *Hericium erinaceum* using by LC/MS**Eunsuk Lee¹, Geumsoog Kim¹, Seungeun Lee¹, Heewan Kang², Pyunggyun Shin¹, Seunghoon Ji¹, Jehun Choi¹, Daeyoung Lee¹, Seungyu Kim¹, and Hyungjun Noh^{1*}¹*Development of Herbal Crop Research, National Institute of Horticultural & Herbal Science, RDA,* ²*Hankyong National University***D012****Dural Function of Fungal Secondary Metabolites Isolated from Highland and Desert Lichens on UV Absorption Activity and Melanoma Cell Cytotoxicity**

Lu Zhao and Jae-Seoun Hur*

*Korean Lichen Research Institute, Suncheon National University***D013****Mycoflora Analysis of Korean Traditional Wheat Nuruk**Jyotiranjana Bal¹, Suk-Hyun Yun¹, Kum-Kang So¹, Yo-Han Ko¹, Jung-Mi Kim², Soo-Hwan Yeo³, Jae-Hyun Kim³, and Dae-Hyuk Kim^{1*}¹*Research Center of Bioactive Materials, Center for Fungal Pathogenesis, Chonbuk National University,* ²*Department of Bio-Environmental Chemistry, Wonkwang University,*³*Fermented Food Science Division, Department of Agrofood Resource, NAAS, RDA***D014****Effects of Oral Intake of Kimchi-derived *Lactobacillus plantarum* K8 Lysates on Skin Moisturizing**Yoon-Doo Lee¹, Jae-Yeon Park¹, Bo-Ram Jeon¹, Hangeun Kim², Hyeok-Jun Chang², Jong Suk Lee³, and Dae Kyun Chung^{1,2*}¹*Graduate School of Biotechnology and Institute of Life Science and Resources, Kyung Hee University,* ²*RNA Inc., #308 College of Life science, Kyung Hee University,*³*Gyeonggi Institute of Science & Technology Promotion*

D015**Oral Administration of *Lactobacillus plantarum* Lysates Attenuates the Development of Atopic Dermatitis Lesions in Mouse Models**

Jae-Yeon Park¹, Yoon-Doo Lee¹, Bo-Ram Jeon¹, Hangeun Kim², Yi-Fan Hong², Ju-Hwang Lee², and Dae-Kyun Chung^{1,2*}

¹Graduate School of Biotechnology and Institute of Life Science and Resources, Kyung Hee University, ²RNA Inc., #308 College of Life science, Kyung Hee University

D016**Stabilization of Symbiotic Bacteria of Nematodes for the Production of Antifungal Antibiotic against Plant Pathogenic Fungi**

Dong-Hee Kang, Ji-Hyun Choi, Jong-eum Choi, and Hyun-Soo Kim*

Department of Microbiology, College of Natural Science, Keimyung University

D017**Efficient Bioconversion Reaction for Mass Production of D-Psicose from D-Fructose Using Engineered *Corynebacterium glutamicum***

Min-Jin Choi, Seong-Hee Jeong, Dae-Yun Lee, Sang-Hwal Yoon, Hyeon-Seo Lee, and Seon-Won Kim*

Division of Applied Life Science (BK21 Plus), PMBBRC, Gyeongsang National University

D018**Diversity, Saccharification Capacity, and Toxigenicity Analyses of Fungal Isolates in Nuruk**

Min Seek Kim¹, Sinil Kim¹, Byeong Suk Ha¹, Hye-Young Park², Seong-Yeol Baek², and Hyeon-Su Ro^{1,3*}

¹Division of Applied Life Science, Gyeongsang National University, ²Fermented Food Science Division, Department of Agro-Food Resource, NAAS, ³Research Institute for Life Science, Gyeongsang National University

D019**Condition of Solid-State Fermentation for Conidia Production of Fungal Pathogens to Control *Spodoptera exigua***

Jihee Han, Jeong Jun Kim and Sang Yeob Lee

Agricultural Microbiology Division, National Academy of Agricultural Science, RDA

D020**Isolation and Identification of Transglutaminase Gene from *Bacillus spp.* isolated from *Chungkukjangs***

Seon Jeong Maeng¹, Jae Keun Kim², Tae Wook Kim², Byung Wook Yang², and Young Tae Hahm^{*}

¹Department of Systems Biotechnology, Chung-Ang university, ²Department of Systems Biotechnology, Chung-Ang University

D021**Isolation of Lactic Acid Bacteria as Biotransformer of Ginsenosides of Red Ginseng Extract**

Sae Kyul Kim, Byung Wook Yang and Young Tae Hahm*

Department of Systems Biotechnology, Chung-Ang University

D022

Strain Development for the Production of Gamma-aminobutyric acid by Multiple Integration of Glutamate Decarboxylase Gene in *Corynebacterium glutamicum*

Heeyeong Kim, Hyukjin Kwon and Hyunehwan Lee*

Department of Bioscience and Biotechnology, Hankuk University of Foreign Studies

D023

Identification of a Phenalamide Biosynthetic Gene Cluster in *Myxococcus stipitatus* DSM 14675

Suhyun Park, Hyesook Hyun, Hwijin Cha, Seonghyun Park, Chansu Bok, and Kyungyun Cho*

Department of Biotechnology, Hoseo University

D024

Development of Novel Multiple Gene Integrative Cassette Sets Based on rDNA-NTS for construction of Vaccine-Grade Recombinant Yeasts

Hye Yun Moon¹, Hyoung Jin Kim², Hong-Jin Kim², and Hyun Ah Kang^{1*}

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D025

Transcript Levels of Two Subtilisin-Like Proteases of *Bacillus licheniformis* SCD B34 at Different Growth Phases

HyeonHwa Oh¹, MyeongSeon Ryu¹, SaeBom Jeon¹, Jun Heo¹, DoYoun Jeong², and Tai-Boong Uhm^{1*}

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D026

Secondary Metabolites from Lichen-Forming Fungi of *Brigantiaea leucoxantha* Inhibited on the Stemness Expression in Human Stem Colon Cancer Cells CSC221

Thanh Thi Nguyen¹, Soon-Ok Oh¹, Cheol Moon², Hangun Kim², and Jae-Seoun Hur^{1*}

¹*Korean Lichen Research Institute, Suncheon National University,* ²*College of Pharmacy, Suncheon National University*

D027

Inhibitory Activity of Lichen Substance, Physciosporin Isolated from *Pseudocyphellaria coriacea* against Human Lung Cancer Cell

Yi Yang¹, Nguyen Thi Thanh¹, Min-Hye Jeong¹, Hangun Kim², and Jae-Seoun Hur^{1*}

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D028

Optimization of Protein Extraction from Lichen Thalli

Anna S Kondratiuk¹, Oleksiy M. Savchuk¹ and Jae-Seoun Hur^{2*}

¹*Institute of Biology, Taras Shevchenko National University of Kyiv, Ukraine,* ²*Korean Lichen Research Institute, Suncheon National University*

D029**Development of Fermentation Technique for Production of Teicoplanin by Actinoplanes Teichomyceticus in Lab-Scale Fermenter**Ying-Yu Jin^{1,2}, Hong-Rip Kim³ and Joo-Won Suh^{2,4*}*¹Department of Biomodulation, Myongji University, ²Center for Nutraceutical and Pharmaceutical Materials, Rural Development Administration, ³Research Institute of Pharmswellbio.Co.,Ltd., ⁴Division of Bioscience and Bioinformatics, Collage of natural science, Myongji University***D030****Engineered Biosynthesis of Glycosylated Derivatives: 12-Membered Macrolide Antibiotic YC-17**

JIN Shiying, Yeon Hee Ban, Hea Luyng Shin, Jae-yeon Hwang, Eun Young Ahn, Hang Soo Cho, and Yeo Joon Yoon*

*Department of Chemistry and Nano Science and Institute of Nano-Biotechnology, Ewha Womans University***D031****Structural characterization of Cyclosporin A, C and cyclosporin A analog AM6 by employing HPLC-ESI-ion Trap-Mass Spectrometry**

Heqing Cui, Young Ji Yoo, Enji Kim, Myoun-su Kim, Xu Zhao, and Yeo Joon Yoon*

*Department of Chemistry and Nano Science, Ewha Womans University***D032****The Bioactive Properties of Marine Fungi Isolated from Korea Seaside**Mihee Min¹, Jaejung Lee², Joo-Hyun Hong¹, Young Woon Lim³, and Jae-Jin Kim^{1*}*¹Division of Environmental Science & Ecological Engineering, College of Life Sciences & Biotechnology, Korea University, ²Division of Wood Chemistry and Microbiology, Korea Forest Research Institute, ³School of Biological Sciences, Seoul National University***D033****Analysis of 6-Pentyl-Alpha-Pyrone (6PAP) Production from *Trichoderma gamsii* KUC1747 with Statistical Approaches**Joo-Hyun Hong¹, Mihee Min¹, Jaejung Lee², Hwanhwi Lee¹, Yong-Seok Choi³, Gyu-Hyeok Kim¹, and Jae-Jin Kim^{1*}*¹Division of Environmental Science & Ecological Engineering, College of Life Sciences & Biotechnology, Korea University, ²Division of Wood Chemistry & Microbiology, Korea Forest Research Institute, ³Division of Wood Engineering, Department of Forest Products, Korea Forest Research Institute***D034****Isolation, Purification, and Characterization of Three Compounds from *Trichoderma gamsii* KUC1747**Joo-Hyun Hong¹, Mihee Min¹, Seung-mok Ryu², Dongho Lee², Gyu-Hyeok Kim¹, and Jae-Jin Kim^{1*}*¹Division of Environmental Science & Ecological Engineering, ²Division of Biotechnology, Korea University*

D035

Synthesis and Characterization of Microgravity Grown Penicillium Chrysogenum Culture Filtrate loaded Electrospun Polyurethane-Dextran Nanofiber Mats

Yesupatham Sathish Kumar¹, Afeesh Rajan Unnithan², Cheol Sang Kim², and Yang Soo Lee^{1*}

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D036

Isolate of Pseudomonas sp. which have Antimicrobial Activity against E.coli

Kyu Ho Cheon¹, Go Woo Choi² and Youn-Tae Chi¹

¹School of Biological Sciences and Technology, Chonnam National University, ²Industry Planning Team, Traditional Korea Medicine

D037

Characteristics of Lactic Acid Bacteria Isolated from Fermented Foods to Pseudomonas aeruginosa Antimicrobial Activity

Hyun Jun Choi¹, Go Woo Choi² and Youn-Tae Chi¹

¹School of Biological Sciences and Technology, Chonnam National University, ²Industry Planning Team, Traditional Korea Medicine

D038

Medium Optimization of a Potential Herbicide from Streptomyces scopuliridis KR-001

Yoonjung Ju, Dong-Jin Park, Chang-Jin Kim

Microbial Resource Center, Korea Research Institute of Bioscience and Biotechnology

D039

Quality Properties of Soybean Products Fermented with Meju Fungi

Seon-Hwa Kim, Dae-Ho Kim, Soon-Wo Kwon, Soon-Ja Seok, Su-Jin Kim, and Seung-Beom Hong*

National Academy of Agricultural Science

D040

An Indole Alkaloid from the Fruiting Body of Boletus Umbriniporus

Yoon-Ju Lee, Byung-Soon Hwang, Ja-Gyeong Song, Dae-Won Kim, E-Eum Woo, In-Kyoung Lee, and Bong-Sik Yun*

Division of Biotechnology, Chonbuk National University

D041

Antioxidant and Tyrosinase Activity of Fermented The Root of Chinese Liquorice (Glycyrrhiza uralensis)

Eun-Ho Lee¹, Jung-Bok Lee¹, DAn-Bi Lee¹, Ki-Hyeon Kim¹, Hyeon-Je Cho², Yun-Hoi Kim^{1,3}, and Gi-Seok Kwon^{1*}

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D042**Antioxidant Activities of Extracts from Fermented burdock**

Ha-Neul Jeon¹, Jung-Bok Lee¹, Kyeong-Muk Kang¹, Eun-Ho Lee¹, Dan-Bi Lee¹,
Ki-Hyeon Kim¹, Gwang-Il Heo¹, Chun-Pyo Jeon², and Gi-Seok Kwon^{3*}

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D043**Antioxidant Activity and Reducing Power of Fermented Garlic**

Gwang-Il Heo¹, Jung-Bok Lee², Eun-Ho Lee¹, Chun-Pyo Jeon³, Woo-Hong Joo⁴, and
Gi-Seok Kwon^{5*}

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D044**Antimelanogenic and Antioxidant Activities of Yeast Strains Isolated from Fruit**

Sung Min Ha, Hye Jung Choi and Woo Hong Joo*

Department of Biology, Changwon National University

E Genetics and Genome

E001

HBT-FEPD: Homology-Based Transfer based on Functionally Equivalent Proteins- and Domains-Detecting Algorithm

Dong Su Yu¹ and Sang Ho Oh²

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E002

Characteristics of a New Mid-High Temperature Adaptable Oyster Mushroom Variety 「Heuktari」 For Bottle Culture

Jong In Choi¹, Tai Moon Ha¹, Yun Hae Lee¹, Dae Hoon Jeon¹, Jeong Hyun Chi¹, and Pyung Gyun Shin²

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E003

A *Salmonella* Leader Mrna Downregulates the Ferric Uptake Regulator Protein

Kyoung Kwon and Eun-Jin Lee*

Department of Genetic Engineering, Colleges of Life Sciences, Kyung Hee University

E004

Rad52 is Required for Accurate Chromosome Segregation in *Saccharomyces cerevisiae*

Gyubum Lim and Won-Ki Huh*

Department of Biological Sciences, Seoul National University

E005

Functional Analysis of the VeA-Dependent Genes Identified by Differential Proteome in *Aspergillus nidulans*

Joo Yeon Lim, Bo-Ri Jeong, YuKyung Choi, Jun-Ho Kook, Eun-Hye Kang, Hee-Moon Park*

Department of Microbiology & Molecular Biology, College of Bioscience & Biotechnology, Chungnam National University

E006

LAMMER Kinase Modulates the Co-operative Action of Cyclin-Dependent Kinase and MBF-Complex in Fission Yeast

Jaemin Lee, Jae Ho Song, Jieun Lee, Kibum Park, Won-Hwa Kang, and Hee-Moon Park*

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E007

An Easy, Rapid, and Cost-effective Method for DNA Extraction from Various Lichen Taxa and Specimens Suitable for Analysis of Fungal and Algal Strains

Sook-Young Park, Seol-Hwa Jang, Soon-Ok Oh, Jung-A Kim, and Jae-Seoun Hur*
Korean Lichen Research Institute, Sunchon National University

E008

The APSES Transcription Factor StuA Plays a Role in β -1,3-Glucan Biosynthesis during Development of *Aspergillus nidulans*

Eun-Hye Kang, Bum-Chan Park, Soohyun Yi, Yu-Kyung Choi, and Hee-Moon Park*

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E009

Genome Mining Reveals Distribution of 2-Pyridone Tenellin Biosynthetic Gene Cluster in Hypocrealean Fungi (Ascomycota)

Jae-Gu Han¹, Bhushan Shrestha², Junsang Oh³, Jae-Gwang Park⁴, Jiyoung Kim², Gi-Ho Sung⁵, Gi-Ho Sung^{5*}, and Kang-Hyo Lee^{1*}

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E010

Production of Cristazarin in the Lichen-Forming Fungus *Cladonia metacorallifera* Using Fructose as Carbon Source

Jung A Kim, Soon-Ok Oh, Min-Hye Jeong, Nan-Hee Yu, Sook-Young Park, and Jae-Seoun Hur*

Korean Lichen Research Institute, Suncheon National University

E011

Phenotypic Characterization of *Agrobacterium tumefaciens*-Mediated Transformation of Lichen-Forming Fungus, *Umbricaria muehlenbergii*

Min-Hye Jeong¹, Jung A Kim², Nan-Hee Yu³, Sook Young Park², Jae-Seoun Hur⁴, and Yong Hwa Cheong^{5*}

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E012

Molecular Sequence Analysis of Hydrolytic Gene Clusters from the Gut Microflora of *Hermetia illucens* using Metagenomic Library

Beom-Soon Choi¹, Sang-Hong Yoon², Kyunghye Kim¹, Bum-Soo Hahn², Joon-Soo Sim², Bon-Sung Koo², and Chang-Muk Lee^{2*}

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E013

Interference of Bacterial Energy Generation and Quorum-sensing Regulator Folding by Indole

Jisun Kim and Woojun Park*

Laboratory of Molecular Environmental Microbiology, Department of Environmental Science and Ecological Engineering, Korea University

E014***Pantoea agglomerans* R190, a Producer of Antibiotics against Phytopathogens and Foodborne Pathogens**

Jeong-A Lim, Dong Hwan Lee, Jonguk Kim, Yoonjeong Kim, Eunjung Roh, Kyusuk Jung, and Sunggi Heu*

Microbial Safety Division, National Academy of Agricultural Science, Rural Development Administration

E015**Genome-wide Analysis of Genes Induced by Metal Chelator TPEN and Zinc-Responsive Regulator Zur in *Streptomyces coelicolor*'**

Seung-hwan Choi, Yoo-bok Cho, Jung-Ho Shin, and Jung-Hye Roe*

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

E016**Transcriptome Analysis of *Lentinula edodes* depending on Cultures, Sawdust and Timber Log, by Next Generation Sequencing**

Su-Yeon Lee, Sun-Hwa Ryu, Won-Chull Bak, and MyungKil Kim*

Division of wood chemistry and microbiology, Department of Forest Resource Utilization, Korea Forest Research Institute

E017**Genome Features of *Streptomyces rubrolavendulae* Strain MJM4426 and *Streptomyces* sp. MJM8645 That Have Rice Bacterial Blight Suppressing Activities**

Jeong-Gu Kim*, Byoung-Moo Lee, Heejung Cho, Eun-Sung Song, and Seung Hwan Kim

Genomics Division, National Academy of Agricultural Science, RDA

E018**Sulfur Assimilation Related Genes of *Puccinia horiana*, the Causal Agent of Chrysanthemum White Rust and the Comparison to those of *Puccinia graminis* f. sp. *tritici* the Wheat Leaf Rust Pathogen**

Jeong-Gu Kim¹*, Shin-Chul Bae², Seung Hwan Kim¹, Byoung Moo Lee¹, Dong-Jun Lee¹, Changhoon Kim³, and Jeong Hun Baek³

¹Genomics Division, National Academy of Agricultural Science, RDA, ²Molecular Breeding Division, National Academy of Agricultural Science, RDA, ³Macrogen Inc.

E019**Global Regulator, Clp (Crp-like Protein) Gene Expression in *Xanthomonas oryzae* pathovar *oryzae* was not Changed by Rice Leaf Extract**

Seunghwan Kim¹, Lin-Woo Kang² and Jeong-Gu Kim¹*

¹Genomics Division, National Academy of Agricultural Science, RDA, ²Department of Biological Sciences, Konkuk University

E020**Electrophoretic Karyotyping of *Hypsizygus marmoreus* and Evaluation of Variation Among Its Basidiospores**

Song Hee Lee^{1,2}, Su Been Lee¹ and Hyun-Sook Lee¹*

¹Department of Microbiology and Research Institute of Life Sciences, Gyeongsang National University, ²Mushroom Research Division, National Institute of Horticultural & Herbal Science, Rural Development Administration

E021**Complete Genome Sequence Analysis of an H5N1 Avian Influenza Virus from a Domestic Quail Flock in Vietnam in 2014**

TinhHuu Nguyen and Wonyong Kim*

*Department of Microbiology, Chung-Ang University College of Medicine***E022****Analysis of Mating System in *Lentinula edodes* and Development of Mating Type-Specific Markers**Byung Suk Ha¹, Sinil Kim¹ and Hyeon-Su Ro^{1,2*}¹*Division of Applied Life Science, Gyeongsang National University,* ²*Research Institute for Life Science, Gyeongsang National University***E023****Development of Strain-specific SCAR Marker for *Pleurotus eryngii* Strains Adaptable to High-temperature by Bulked Segregant Analysis**Soo Jeong Cho¹, Su Cheol Kim¹, So Yeon Park¹, Hye Soo Kim¹, and Jae-San Ryu²¹*Dept. of Pharmaceutical Engineering, Gyeongnam National University of Science and Technology,* ²*Eco-friendliness Research Department, Gyeongnam-do Agricultural Research and Extension Services***E024****Development of Strain-specific SCAR Marker for High β -Glucan Producing Strains of *Pleurotus eryngii***Soo Jeong Cho¹, Su Cheol Kim¹, Hye Soo Kim¹, and Jae-San Ryu²¹*Dept. of Pharmaceutical Engineering, Gyeongnam National University of Science and Technology,* ²*Eco-friendliness Research Department, Gyeongnam-do Agricultural Research and Extension Services***E025****Recovery of Parental Monokaryons from 'Haemi' variety in *Hypsizigus marmoreus* by Protoplast Regeneration**

Youn-Lee Oh, Kab-Yeul Jang, Song-Hee Lee, Sung-I Woo, Youn-Keol Nam, Young-Bok Yoo, Pyung-Gyun Shin, and Won-Sik Kong

*Mushroom Research Division, National Institute of Horticultural & Herbal Science, RDA***E026****Molecular Analysis of Varicella-Zoster Viruses Isolated from Korean Patients: Subcluster Within Clade 2**Min Young Kim, In Kyo Kim, Jeong Hwa Yoon, Ho Sun Park², Chan Hee Lee^{1*}¹*Department of Microbiology, Chungbuk National University,* ²*Department of Microbiology, College of Medicine, Yeungnam University***E027****Characterization of the Repeat Sequences of Varicella-Zoster Virus**

Youn Hee Won, Jong Ik Kim, Yu Young Kim, Min Ho Kim, and Chan Hee Lee*

Department of Microbiology, Chungbuk National University, Cheongju, Korea

E028

Construction of a Genetic Linkage Map Based on Simple Sequence Repeats of *Pleurotus eryngii*

Im Chak Han, Kyung-Hee Kim, Asjad Ali, Min-Keun Kim, Wan-Kyu Joung,

Young Jo Choi, and Jae-San Ryu*

Environment-friendly research division, Gyeongsangnam-do Agricultural Research and Extension Services

E029

Multiple-locus Variable-number Tandem Repeat Analysis (MLVA) for Phylogenetic Analysis of *Campylobacter jejuni*

Jin Seok Kim¹, Ji-Yeon Hyeon², Soo-Jin Kim¹, Se-Eun Jeon¹, Gyung Tae Chung¹,

Cheon-Kwon Yoo¹, and Junyoung Kim^{1*}

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E030

Complete Genome Sequencing of Gallid Herpesvirus 1 Using Next Generation Sequencing Technology

Sang-Won Lee* and Eun-jung Choi

Laboratory of Veterinary Microbiology, College of Veterinary Medicine, Konkuk University

E031

The *ndrA* Transcription Factor is Necessary for the Conidiation and Controlling Sclerotial Formation in *Aspergillus flavus*

Mohammed Abdo Elgabbar¹, Dong-Min Han² and Kap-Hoon Han^{1*}

¹*Department of Pharmaceutical Engineering, Woosuk University,* ²*Division of Life Science, Wonkwang University*

E032

***Aspergillus fumigatus ndrA* is Expressed at the Early Stage of the Asexual Development and Necessary for the Conidiation**

Mohammed Abdo Elgabbar¹, Dong-Soon Oh¹, Sang-Cheol Jun^{1,2}, Jong-Hwa Kim¹,

Hee-Seo Kim¹, Dong-Min Han³, and Kap-Hoon Han^{1*}

¹*Department of Pharmaceutical Engineering, Woosuk University,* ²*Department of Life Sciences, Chonbuk National University,* ³*Division of Life Science, Wonkwang University*

E033

NGS Analysis Revealed that the *nsdA4* Mutation in NSD204 Strain is an Allele of *nsdC* in *Aspergillus nidulans*

Chae-Ho Lim¹, Mohammed Abdo Elgabbar¹, Dong-Soon Oh¹, Dong-Min Han²,

Masayuki Machida³, and Kap-Hoon Han¹

¹*Department of Pharmaceutical Engineering, Woosuk University,* ²*Division of Life Science, Wonkwang University,* ³*Bioproduction Research Institute, Hokkaido Center, National Institute of Advanced Industrial Science and Technology (AIST), Japan.*

E034**Genome Sequence Analysis of *Chondromyces crocatus* KYC2823**Ju Yeon Song¹, Chayul Lee², Kyungyun Cho², and Jihyun F. Kim^{2*}¹*Department of Systems Biology, Yonsei University,* ²*Department of Biotechnology, Hoseo University***E035****Genome Sequence Analysis of the Flavobacteria Isolated from Tomato Rhizosphere**Ju Yeon Song¹, Min-Jung Kwak², Seon-Woo Lee³, and Jihyun F. Kim^{1*}¹*Department of Systems Biology, Yonsei University,* ²*Biosystems and Bioengineering Program, University of Science and Technology,* ³*Department of Applied Biology, Dong-A University*

F Infection and Pathogenesis

F001

Synergistic Effect Between Baicalein and Antibiotics against Clinic Methicillin and Vancomycin-Resistant *Staphylococcus aureus*

Jeong-Dan Cha^{1*}, Seung-Mi Hwang¹, Jea-Ran Kang¹, Su-Beam Han¹, Kyung-Min Choi², and Kwang-Tae Choi²

¹Department of Research Development, Institute of Jinan Red Ginseng, ²Institute of Jinan Red Ginseng

F002

Draft Genome Sequence of *Listeria monocytogenes* NCCP15743 Isolated from Ovarian Cancer patient

Sahyun Hong¹, Injun Cha¹, Nan-Ok Kim¹, Jae-Seok Kim², Hunho Song², Yeon-Ho Kang¹, Cheon-Kwon Yoo¹, and Gyung Tae Chung^{1*}

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F003

Enteric Bacteria Isolated from Diarrheal Disease in Korea 2013

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F004

***Bacteroides fragilis* Enterotoxin Upregulates Heme Oxygenase-1 Expression in Dendritic Cells via Mitogen-Activated Protein Kinase and Nrf2-Dependent Pathway**

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F005

Active Immunization with Recombinant Japanese Encephalitis Virus Envelope Protein Fused with a Flagellin Elicits Mucosal Immune Responses against Japanese Encephalitis Virus Infection

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F006

Preventive Activity of intranasal Catalytic RNA-Hydrolyzing Antibody in Mice with an Influenza H1N1 Virus

Seungchan Cho¹, Mai Phuong Hoang¹, Dongjun Kim¹, Yongjun Lee¹, Sungrae Cho¹, Eui-Joon Kil¹, Minji Lee¹, Hee-Seong Byun¹, Sunhoo Kim¹, Haneul Seo¹, Gunsup Lee^{1,2}, Sung-June Byun³, and Sukchan Lee^{1*}

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F007***In Vitro* and *In Vivo* Preventive Effects against Murine Norovirus Infection of the Nucleic Acid-Hydrolyzing 3D8 scFv Protein Expressed by *Lactobacillus casei***

Mai Phuong Hoang¹, Seungchan Cho¹, Dongjun Kim¹, Yongjun Lee¹, Sungrae Cho¹, Eui-Joon Kil¹, Minji Lee¹, Hee-Seong Byun¹, Sunhoo Kim¹, Haneul Seo¹, Gunsup Lee^{1,2}, Sung-June Byun³, and Sukchan Lee^{1*}

¹Department of Genetic Engineering, Sungkyunkwan University, ²Fruit Research Division, National Institute of Horticultural and Herbal Science, RDA, ³Animal Biotechnology Division, National Institute of Animal Science, RDA

F008**A nucleic-Acid Hydrolyzing Single Chain Antibody Confers Resistance to DNA Virus Infection in HeLa Cells and C57BL/6 Mice**

Gunsup Lee^{1,2}, Seungchan Cho¹, Mai Phuong Hoang¹, Dongjun Kim¹, Yongjun Lee¹, Sungrae Cho¹, Eui-Joon Kil¹, Minji Lee¹, Hee-Seong Byun¹, Sunhoo Kim¹, Haneul Seo¹, Sung-June Byun³, and Sukchan Lee^{1*}

¹Department of Genetic Engineering, Sungkyunkwan University, ²Fruit Research Division, National Institute of Horticultural and Herbal Science, RDA, ³Animal Biotechnology Division, National Institute of Animal Science, RDA

F009**Therapeutic Strategy for Preventing Pseudorabies Virus (PRV) Infection in C57BL/6 mice by 3D8 scFv with intrinsic Nuclease Activity**

Gunsup Lee^{1,2}, Seungchan Cho¹, Mai Phuong Hoang¹, Dongjun Kim¹, Yongjun Lee¹, Sungrae Cho¹, Eui-Joon Kil¹, Minji Lee¹, Hee-Seong Byun¹, Sunhoo Kim¹, Haneul Seo¹, Sung-June Byun³, and Sukchan Lee^{1*}

¹Department of Genetic Engineering, Sungkyunkwan University, ²Fruit Research Division, National Institute of Horticultural and Herbal Science, RDA, ³Animal Biotechnology Division, National Institute of Animal Science, RDA

F010**Staphylococcus Aureus Produce Membrane Vesicles Which Inhibit Other Bacteria Biofilm Formation**

Hansol Im and Robert James Mitchell*

School of life science, Ulsan National Institute of Science and Technology,

F011**Mitochondrial Uncoupling Protein-2 Expression is Decreased in Macrophages Infected with *Mycobacterium abscessus***

Tae Sung Kim^{1,2}, Yi Sak Kim^{1,2}, Chang-Hwa Song^{1,2}, Hwa-Jung Kim¹, Jeong-Kyu Park¹, and Eun-Kyeong Jo^{1,2*}

¹Department of Microbiology, College of Medicine, Chungnam National University, ²Infection Signaling Network Research Center

F012**Modified siRNA Containing 5'-Triphosphate Targeting 3C Region of Enterovirus 71 Has A Potent Antiviral Effect in Vivo**

Yoo Kyum Kim^{1,2*} and Jihae Yoon¹

¹Departments of Microbiology, University of Ulsan College of Medicine, Seoul, Korea, ²Biomedical Institute of Technology, University of Ulsan College of Medicine

F013**Extended Longevity and Robust Early-stage Development of *Caenorhabditis elegans* by a Soil Microbe, *Lysinibacillus sphaericus***Junhyeok Go¹, Kang-Mu Lee¹ and Sang Sun Yoon^{1,2*}¹*Department of Microbiology and Immunology, ²Korea 21 PLUS Project for Medical Science, Institute for Immunology and Immunological Diseases, Yonsei University College of Medicine***F014****Genipin is a New Chemical Activator of Gammaherpesvirus Lytic Cycle**

Myoungki Son, Eunhyun Ryu and Hyojeung Kang*

*College of Pharmacy and Institute of microorganisms, Kyungpook National University***F015****Broadly Protective *Shigella* Outer Membrane Protein PSSP-1 against *Shigella* Infection**Semi Rho¹, Su Hee Kim¹, Hee Joo Kim¹, Hyo Jin Song¹, Eun Jin Kim¹, Ryang Yeo Kim¹, Eun Hye Kim¹, Ayan Dey¹, Jae Seung Yang¹, Anuradha Sinha², Ranjan Nandy¹, Cecil Czerkinsky¹, Dong Wook Kim^{1,3}, and Jae Ouk Kim^{1*}¹*Laboratory Science Division, International Vaccine Institute, ²National Institute of Cholera and Enteric Diseases, Kolkata, India, ³College of Pharmacy, Hanyang University***F016****Induction of Hummingbird Phenotype in Human Gastric Epithelial AGS Cells through Nuclear Targeting of *Helicobacter pylori* Urease Subunit A**Jung Hwa Lee¹, So Hyun Jun¹, Hye Jin Jun¹, Jung-Min Kim², Seung Chul Baik², and Je Chul Lee^{1*}¹*Department of Microbiology, Kyungpook National University School of Medicine, ²Department of Microbiology, Gyeongsang National University School of Medicine***F017****Cytopathology of Human Epithelial HEp-2 Cells Induced by *Acinetobacter nosocomialis* Outer Membrane Vesicles**So Hyun Jun¹, Hee Young Kang¹, Suk Hyun Na¹, Hyo Il Kwon¹, Nicholas Asimwe¹, Noble Selasi Gati¹, Chi Won Choi², Seung Il Kim², and Je Chul Lee^{1*}¹*Department of Microbiology, Kyungpook National University School of Medicine, ²Division of Life Science, Korea Basic Science Institute***F018****Cordycepin is a New Chemical Suppressor of EBV Replication**

Eunhyun Ryu, Myoungki Son, Minjung Lee, Hyojeung Kang*, and Eunhyun Ryu

*College of Pharmacy and Institute of microorganisms, Kyungpook National University***F019****Deaminase-independent Inhibition of PERV Reverse Transcription by APOBEC3G**

Han-Sol Kim, Sung Han Park, Dong Kyung Kim, Dong Wan Kim, and Yong-Tae Jung*

Department of Microbiology, Dankook University

F020**Combination of PFGE and MLST for Molecular Epidemiological Investigation in *Salmonella* Typhi**

Young-Sun Yun, Su-Jin Chae, Hye-Yeong Na, Junyoung Kim, Jin Seok Kim, Soo Jin Kim, Se Eun Jeon, Gyung Tae Chung, Cheon-Kwon Yoo, and Deog-Yong Lee*
Division of Enteric Diseases, Center for Infection Diseases, Korea National Institute of Health

F021**Bacteria Bacteria Interaction: Effects of *Bdellovibrio Bacteriovorus* on Gram Other Bacteria**

Sangmo Son, Ajay Kalanjana Monnappa and Robert J. Mitchell*
School of Life Sciences, UNIST

F022**A live *Salmonella* Enteritidis Vaccine Secreting LTB and its Protective Effects against Internal Egg Contamination**

John Hwa Lee^{1*} and Gayeon Won²
¹*Chonbuk National University, College of Veterinary Medicine,* ²*Chonbuk National University*

F023**Characteristics of *Salmonella* spp. isolated in Republic of Korea, 2013**

Su-Jin Chae, Young-Sun Yun, Hye-Yeong Na, Cheon Kwon Yoo, Gyung-Tae Chung, and Deog-Yong Lee*
Division of Enteric Diseases, Center for Infectious Diseases, Korea National Institute of Health

F024**Activation of Complement System in Acute Phase of KSHV-infected Endothelial Cells and its Role in Viral Persistence**

Hyungtaek Jeon, Ji-Su Lee, Seung-Min Yoo, and Myung-Shin Lee*
Department of Microbiology and Immunology, Eulji University School of Medicine

F025**Host pathogen Inerataction: Delivery of Virulence Factor by Invasive Pathogen *Yersinia pseudotuberculosis***

Ajay Kalanjana Monnappa and Robert J. Mitchell*
School of Life Sciences, UNIST

F026**Surveillance of Pathogens Causing Acute Viral Gastroenteritis in Korea, during 2013**

Bo-Mi Hwang, Sunyoung Jung, Hyun Ju Jeong, Gyung Tae Chung, Cheon-Kwon Yoo, and Deog-Yong Lee*
Division of Enteric Disease, Center for Infectious Diseases, Korea National Institute of Health

F027**A New Licorice-derived Stimulator of Gammaherpesvirus Production**

Minjung Lee, Myoungki Son, Eunhyun Ryu, and Hyejeung Kang*
College of Pharmacy, Kyungpook National University

F028

Functional Analysis of *Pseudomonas aeruginosa* PA4834 Essential for Growth of *Pseudomonas aeruginosa* in Airway Mucus

Kang-Mu Lee¹, Mia Gi², Jae Young Choi², and Sang Sun Yoon^{1,3}

¹Department of Microbiology, ²Department of Otorhinolaryngology, ³Brain Korea 21 PLUS Project for Medical Sciences, Institute for Immunology and Immunological Diseases, Yonsei University College of Medicine

F029

Enhanced Proliferation of Invasive Bladder Cancer Cell Lines by Infection of KSHV

Ji-Su Lee, Hyungtaek Jeon, Seung-Min Yoo, and Myung-Shin Lee*

Department of Microbiology and Immunology, Eulji University School of Medicine

F030

Seasonality and Relation with Environmental Factors of Norovirus Infection

Hyun Ju Jeong, Sunyoung Jung, Bo-Mi Hwang, Gyung Tae Chung, Chen-Kwon Yoo, and Deog-Yong Lee *

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F031

Analysis of *Vibrio vulnificus* Septicemia Occurrence with Temperature and Pathogen Isolation rate in Marine Environment

Hye-Yeong Na, Su-Jin Chae, Young-Sun Yun, Gyung Tae Chung, Cheon-Kwon Yoo, and Deog-Yong Lee*

Division of Enteric Diseases, Centers for Infection Diseases, Korea National Institute of Health

F032

Determining Ferrichrome-Related Virulence Factors of *Pseudomonas aeruginosa* Biofilms

Keehoon Lee¹ and Sang Sun Yoon^{1,2}

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F033

Incidence of Serovars and Virulence Factors of *Vibrio parahaemolyticus* Isolated from Clinical Specimens and Marine Environment in Korea between 2010 and 2012

Deog-Yong Lee, Hye-Yeong Na, Su-Jin Chae, Young-Sun Yun, Gyung Tae Chung, and Cheon-Kwon Yoo*

Division of Enteric Diseases, Centers for Infection Diseases, Korea National Institute of Health

F034

RpoB₁₂₇₋₁₃₅ Peptide Derived from *Mycobacterium tuberculosis* is Processed and Presented to HLA-A*0201 Restricted CD8+ T Cells Via an Alternate HLA-I Processing Pathway

Jang-Eun Cho¹, Sang-Nae Cho² and Sungae Cho^{3*}

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F035

Clinical Features and Prevalence of Human Bocavirus Infections in the Patients with Respiratory Infections

Sujeong Hwang, Namho Kim and Pyeongtae Ku

Division of Virology, Busan Metropolitan City Institute of Public Health and Environment

F036

Functional Characterization of *Cryptococcus neoformans* KRE2/MNT1 and OCiH1 Gene Family encoding Novel Mannosyltransferases involved in O-linked Glycans Biosynthesis

Dong-Jik Lee¹, Yong-Sun Bahn², Hong-Jin Kim³, and Hyun Ah Kang¹

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F037

Regulation of NF- κ B Signaling by HCMV-encoded Tegument Proteins UL48 (DUB) and UL45 (inactive RR1)

Ki Mun Kwon, Se Eun Oh and Jin-Hyun Ahn*

Department of Molecular Cell Biology, Sungkyunkwan University School of Medicine

F038

Interaction of UL50 and UL53, the Components of the Nuclear Egress Complex of Human Cytomegalovirus, with ISG15

Myoungkyu Lee, Ye Ji Kim and Jin-Hyun Ahn*

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F039

Identification of Human Cytomegalovirus UL26 as a Target and a Regulator of ISG15 Modification

Ye Ji Kim, Young-Eui Kim and Jin-Hyun Ahn*

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F040

Detection and Characterization of Human Enterovirus Isolated in Busan, 2013

Dongju Park, Sujeong Hwang, Namho Kim, Pyeongtae Ku, and Miok Lee*

Division of Virology, Busan Metropolitan City Institute of Public Health and Environment

F041

Arbovirus Surveillance in Mosquitoes Collected from Airports, and Sea Ports during 2013 in the Republic of Korea

Hyun-Ji Seo¹, Myung-Soon Kim¹, Ji-Hye Lee¹, Hye-Young Jeong¹, Yun Sang Cho¹, Yong Joo Cho¹, In-Soo Cho¹, Yong Joo Kim¹, Heung-Chul Kim², and Jee-Yong Park^{1*}

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F042

Mouse Susceptibility to *Vibrio cholerae* Infection is Influenced by Altered Composition of Gut Microbiota

Kyung Bae Min¹, Mi Young Yoon¹ and Mi Young Yoon^{1,2*}

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F043**Characterization of Enterohemorrhagic *Escherichia coli* (EHEC) O157 and Non-O157 from Diarrheal Patients in Korea, 2003-2011**

Kyung-Hwan Oh, Su-Mi Jung, Gyung-Tae Chung, Chen-Kwon Yoo, and Seung-Hak Cho
Division of Enteric Diseases, Center for Infectious Diseases, Korea National Institute of Health

F044**Serological Analysis of Motile- and Non-Motile Enteroinvasive *Escherichia coli* (EIEC) Strains Isolated in Korea, 2010-2013**

Su-Mi Jung, Kyung-Hwan Oh, Gyung-Tae Chung, Chen-Kwon Yoo, and Seung-Hak Cho*

Division of Enteric Diseases, Center for Infectious Diseases, Korea National Institute of Health

F045**Loop-Mediated Isothermal Amplification for Rapid and naked-eye detection of Carbapenem-Resistant *Pseudomonas Aeruginosa* and *Acinetobacter Baumannii***

Hye Jin Kim¹ and Sang Sun Yoon^{1,2*}

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F046**Virus-like Particle Vaccine Confers Protection against a Lethal NDV Challenge in Chickens**

Jae-Keun Park

Avian Disease Laboratory, College of Veterinary Medicine, Konkuk University

F047**A Study on Immunity of Hepatitis A in Gwangju Area**

Semi Lee and Jae Keun Jeong

Health & Environment Institute of Gwangju

F048**Greenhouse Evaluation of the Rhizobacteria for the Biological Control of Plant Pathogenic Fungi**

Mahesh Adhikari, Sang Woo Kim, Dil Raj Yadav, Anam Giridhar Babu,

Young Hyum Um, Eun BI Gim, Jae Seok Yang, Hyun Goo Lee, and Youn Su Lee*

Department of Applied Plant Sciences, Kangwon National University

F049**Etiological and Epidemiological Surveillance of Enteric Virus of Sporadic Acute Gastroenteritis Patients in Gwangju**

Min Ji Kim, Seon Kyeong Kim, Hye-young Kee, Hyeong Hui Kim, Eunhye Jo,

Hyejung Park, Dong Ryong Ha, Eun-Sun Kim, and Kye Won Seo

Health & Environment Research Institute of Gwangju

F050**Oral Microbial Profiles in Healthy and Periodontitis Patients**EunGyung Choi^{1,2}, Jiro Kim³, JinJoo Kang⁴, and Bo-Young Jeon^{3*}¹Biomedical and Environmental Graduate School, Yonsei University, ²Whitee-Dental hospital, ³Department of Biomedical Laboratory Science, Yonsei University, ⁴Department of Health Science, College of Health Science, Yonsei University**F051****Antibacterial Activity of Extracts from Spent Mushroom Substrate on Phytopathogenic Bacteria**A-Min Kwak¹, Kyong-Jin Min¹, Sang-Yeop Lee², Dae-Sun Kang^{1,2}, and Hee-Wan Kang^{1*}¹Graduate School of Future Convergence Technology, Hankyong National University, ²Agricultural Microbiology Division, National Academy of Agricultural Science (NAAS)**F052****Suppression of Phytophthora Blight Disease on Pepper by Rye Green Manure Crop**A-Min Kwak¹, Kyong-Jin Min¹, Sun-Hwa Lim¹, Kwon Kyu Kang², and Hee Wan Kang^{1*}¹Graduate School of Future Convergence Technology, Hankyong National University, ²Department of Horticulture, Hankyong National University**F053****In Vitro and In Vivo Antifungal Activity of Streptomyces Species against Dark Mold**Young Min Lee¹, Hanbyul Lee¹, Jeong Do Kim², Byeong Jun Jeon², Beom Seok Kim², Gyu-Hyeok Kim¹, and Jae-Jin Kim^{1*}¹Division of Environmental Science and Ecological Engineering, College of Life Sciences and Biotechnology, Korea University, ²Department of Biosystems and Biotechnology, College of Life Sciences and Biotechnology, Korea University**F054****A Critical Role of Defective Viral Genomes Arising In Vivo for the Triggering of Innate Antiviral Immunity**Karla Tapia^{1,3}, Won-keun Kim^{2,3}, Yan Sun¹, Xiomara Mercado-López¹, Emily Dunay¹, Megan Wise¹, Michael Adu¹, and Carolina B. López¹¹Department of Pathobiology, School of Veterinary Medicine, University of Pennsylvania, USA, ²Current address: Department of Microbiology, College of Medicine, Korea University, ³KT and WK contributed equally to this work.**F055****Clinical Evaluation of mixture antigens for Diagnosis of Scrub Typhus**Min-Woo Kim¹, Ye-Ju Woo², Young-Jin Kim^{2,3}, Sungman Park^{2,3}, Seung-Han Kim², and Yoon-Won Kim^{1,3*}¹Department of Microbiology, College of Medicine, Hallym University, ²ImmuneMed, ³Medical Science Institute, Hallym University**F056****Development of Susceptible Mouse Model for Helicobacter pylori Infection**

Jonghun Ha

Department of Microbiology, Gyeongsang National University

F057

Outbreak of SHV-12-producing Enterotoxigenic *Escherichia coli* O64 Associated with Imported Kimchi in Republic of Korea, 2013

Soo-Jin Kim, Jin Seok Kim, Se-Eun Jeon, Gyung Tae Chung, Cheon-Kwon Yoo, and Junyoung Kim*

Division of Enteric Diseases, Center for Infectious Diseases, Korea National Institute of Health

F058

Occurrence of Extended-Spectrum β -Lactamases-producing *Salmonella enterica* serovar Typhimurium in the Republic of Korea, 2009 to 2012

Se-Eun Jeon, Jin Seok Kim, Soo-Jin Kim, Gyung Tae Chung, Cheon-Kwon Yoo, and Junyoung Kim*

Division of Enteric Diseases, Center for Infectious Diseases, Korea National Institute of Health

F059

RNA Helicase A/DHX9 is Critical for DNA Virus-Induced Innate Immune Responses

Yee Ching Ng, Kang Hye-ri, Hye-Jeong Cho, and Moon Jung Song*

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F060

Construction of a FLAG-tagged Recombinant Virus to Identify Cellular Proteins Interacting with a Viral Immune Modulator

Hye-Ri Kang, Hyun Jun Jang, Seungbo Ryu, and Moon Jung Song*

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F061

Influenza A Virus NS1 Proteins Suppress the NLRP3 Inflammasome

Woo-Chang Cheong¹, Hye-Ri kang², Hyunyee Yoon^{2,3}, Suk-Jo Kang⁴, and Moon Jung Song^{2*}

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F062

Virulence Characteristics of Clubroot Pathogen, *Plasmodiophora Brassicae* on Commercial Varieties of Kimchi Cabbage in Korea

Ju Young Park, Kwang Hoon Kang, Mun Won Seo, Jeong Young Song, and Hong Gi Kim*

Chungnam National University

F063**Structure-based Mutational Analysis of ORF49, a Virion Protein that Facilitates Gammaherpesvirus Lytic Replication**

Woo-Chang Cheong¹, Byung Chul Kim¹, Junsoo Kim², Kwang-Yeon Hwang^{2*}, and Moon Jung Song^{1*}

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²*Structural Proteomics Laboratory, Department of Biosystems and Biotechnology, Division of Biotechnology, College of Life Sciences and Biotechnology, Korea University*

F064**Antimicrobial Immune Response in the Absence of HVEM**

Thu-Ha T Nguyen¹, Seo-Hyun Lee¹, Seong-A Ju², Yea-Sol Lee¹, and Byung-Sam Kim^{1*}

¹*Department of Biological Sciences, University of Ulsan,* ²*Biomedical Research Center, Ulsan University Hospital, University of Ulsan*

F065**Antiviral Mechanism of DBM2198 and AZPSONs against HIV-1 and its Variants**

Jinjoon Lee¹, Min-Sook Cha², Myeong-Ho Kang², Yu-Jin Park², Ezra Lee², and Yong-Soo Bae^{1*}

¹*Department of Biological Science, Sungkyunkwan University,* ²*Department of Biological Science, Sungkyunkwan University*

F066**Development of *Leptospira* Rapid Kit**

Jin-Woo Lee¹, Young-Jin Kim^{1,2} and Yoon-Won Kim^{1,3*}

¹*ImmuneMed, Chuncheon,* ²*Institute of Medical Science, Hallym University,* ³*Department of Microbiology, College of Medicine, Hallym University*

G Immunology and Signal Transduction

G001

Protection against *Vibrio Vulnificus* Infection by Active and Passive Immunization with the C-terminal Region of the RtxA1/MARTX_{VV} Protein

Tae Hee Lee¹, Joon Haeng Rhee² and Kyung Min Chung^{1*}

¹Department of Microbiology and Immunology, Chonbuk National University Medical School, ²Department of Microbiology and Clinical Vaccine R&D Center, Chonnam National University Medical School

G002

Prostate Apoptosis Response-4 Is Associated with Macrophage Apoptosis during Mycobacterial Infection

Ji-Ye Han¹, Yun-Ji Lim^{1,2}, Ji-Ae Choi¹, Jeong-Hwan Lee¹, Sung-Hee Jo¹, and Chang-Hwa Song^{1,2*}

¹Department of Microbiology, College of Medicine, Chungnam National University, ²Infection Signaling Network Research Center

G003

Intranasal Administration of *Lactobacillus* Species Isolated from Kimchi and bean-paste Facilitates Protection against Influenza Virus Infection in Mice

Jung-Hoon Kwon, Ha-Na Youn, Dong-Hun Lee, Jae-Keun Park, Seong-Su Yuk, Tseren-Ochir Erdene-ochir, Jin-Yong Noh, Sang-won Lee, Joong-Bok Lee, Seung-Yong Park, In-Soo Choi, and Chang-Seon Song*

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G004

Synergistic Effect of Oleanolic Acids on Aminoglycoside Antibiotics against *Acinetobacter baumannii* ATCC 17978

Bora Shin and Woojun Park

Laboratory of Molecular Environmental Microbiology, Department of Environmental Science and Ecological Engineering, Korea University,

G005

***Mycobacterium Abscessus* MAB2560 Induces Maturation of Dendritic Cells Via Toll-like Receptor 4 and Drives Th1 Immune Response**

Kyung Tae Noh

Department of Infectious Diseases, Armed Forces Medical Research Institute

G006

New Tuberculosis Vaccine Candidate Rv20xxc Strong BCG Boosting and Effective Protection against *Mycobacterium tuberculosis*

Yong Woo Back, Han-gyu Choi, Seng A Choi, Kang-in Lee, Haet Sal Jeon, Hye-soo Park, Jake Whang, Kwang Wook Kim, Seong-woo Kim, Chul Hee Choi, Jeong-kyu Park, and Hwa-jung Kim*

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G007

IgA Antibody Response Against Mycobacterial Antigens for Diagnosing and Screening *Mycobacterium Bovis* Infection in Cattle

Haet Sal Jeon, Kang-In Lee, Yeo-Jin Son, Seunga Choi, Yong Woo Back, Hye-Soo Park, Han-Gyu Choi, Kwangwook Kim, Jake Whang, Seong-Woo Kim, Dong Ho Kim, Ho Sung Park, Chul Hee Choi, and Hwa-Jung Kim*

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G008

***Mycobacterium Avium* Complex MAV20XX Induces the Apoptosis in Murine Macrophage RAW 264.7 Cells**

Kang-In Lee, Haet Sal Jeon, Jake Whang, Kwangwook Kim, Han-Gyu Choi, Yeo-Jin Son, Yong Woo Back, Hye-Soo Park, Ho Sung Park, Dong Ho Kim, Seong-Woo Kim, Seunga Choi, Jeong-Kyu Park, Chul Hee Choi, and Hwa-Jung Kim*

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G009

Dendritic Cell Vaccine to Foot-and-Mouth Disease is Likely Applied to National Contingency Plan Early In Infection

Kunkyu Lee, JongChul Choi, Yeotaek Cheong, Hangin Oh, Seungyong Park, Changseon Song, Insoo Choi, Sangwon Lee, and Joongbok Lee*

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G010

Anti-inflammatory Potential of Ursolic Acid in *Mycobacterium tuberculosis* Sensitized and Concanavalin A Stimulated Cells

Min Jung Lee¹, Zerín Tamanna², Sukyung Kim¹, Woong Sik Jang¹, Woo Nam Kung¹, and Ho Yeon Song^{1*}

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G011

Anti-mycobacterial activity of tamoxifen against drug-resistant *M.tuberculosis*

Sukyung Kim¹, Woong-Sik Jang², Kung-woo Nam³, Anirban Jyoti⁴, Biswajit Podder⁴, Tamanna Zerín⁴, Minjung Lee³, Juhye Han³, and Ho-yeon Song^{3*}

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G012

***Mycobacterium Fortuitum*-Induced Proinflammatory Cytokine Generation is dependent on Nuclear Factor-kappaB Activation and Intracellular Calcium Signaling In Macrophages**

Gi Ppeum Lee^{1,2}, Hye-Mi Lee^{1,2}, Tae Sung Kim^{1,2}, Jin-Kyung Kim^{1,2}, Jeong-Kyu Park³, Chang-Hwa Song^{1,2}, and Eun-Kyeong Jo^{1,2*}

¹*Department of Microbiology,* ²*Infection Signaling Network Research Center, College of Medicine, Chungnam National University,* ³*Department of Microbiology, College of Medicine, Chungnam National University*

G013**Generation of *Burkholderia pseudomallei* Expressing Luminescence and Fluorescence with Dual Reporter Plasmid DNA**

Yong-Woo Shin^{1,2}, Young-Wha Kim¹, Young-Ran Lee¹, Ri-Rang Hwang¹, Gi-eun Rhie¹, Baik-Lin Seong², and Kee-Jong Hong^{1*}

¹*Division of High-risk Pathogen Research, Center for Infectious Diseases, Korea National Institute of Health,* ²*Department of Biotechnology, College of Life Science and Biotechnology, Yonsei University*

G014**Enhanced Antibody Neutralization against Botulism by Apoptotic Peptide Conjugates**

Eun-Sun Choi, Yeon-Hee Kim, Yu-Ri Kim, Gi-Eun Rhie, and Kiweon Cha*

Center for Infectious Diseases and Prevention, Korea National Institute of Health

G015**Three Dimensional Structural Design and Applications of Theragnostic antibody Alternatives against Botulism**

Eun-Sun Choi, Yeon-hee Kim, Yu-Ri Kim, Myung-Min Choi, Gi-Eun Rhie, and Kiweon Cha*

Center for Infectious Diseases and Prevention, Korea National Institute of Health

G017**The Poly- γ -D-glutamic Acid Capsule of *Bacillus Anthracis* Induces Nitric Oxide Production via the Platelet Activating Factor Receptor Signaling Pathway**

Hae-Ri Lee, Jun Ho Jeon, Ok-Kyu Park, Jeong-Hoon Chun, Gi-eun Rhie

Division of Division of High-Risk Pathogen Research, Center for Infectious Disease, Korea National Institute of Health

G018**Peptide H Suppresses IL6 Expression**

Dae Il Sung^{1,2,3}, Jam Eon Park⁴ and Han Bok Kim^{4*}

¹*Department of Biotechnology,* ²*The Research Institute for Basic Sciences,* ³*Hoseo University,* ⁴*Department of Biotechnology, The Research Institute for Basic Sciences, Hoseo University*

G019**Development of Bivalent Vaccine against Anthrax and Smallpox using Attenuated Vaccinia Virus**

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H Biotechnology

H001

Molecular Characterization of a Novel Iron-Dependent GH16 β -agarase, AgaH92, from *Pseudoalteromonas* sp. H9

Soon-kwang Hong, Youngsang Youn, Saruul Dugerjonjuu, and Jae-seon Park
Department of Biological Science and Bioinformatics, Myongji University

H002

Molecular Characterization of a GH16 β -Agarase AgaH71 from *Pseudoalteromonas hodoensis* H7

Soon-kwang Hong, Youngsang Youn, Won-jae Chi, and Jae-seon Park
Division of Bioscience and Bioinformatics, Myongji University

H003

Production of Short Chain Alkanes by Metabolically Engineered *Escherichia coli*

Hye Mi Kim, Yong Jun Choi and Sang Yup Lee*
Department of Chemical and Biomolecular Engineering, KAIST

H004

Phenol Production by an Engineered *E.coli* Strain

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H005

The Microbial Production of 1-propanol via Threonine Metabolism

Hye Mi Kim, Yong Jun Choi, Jin Hwan Park, and Sang Yup Lee*
Department of Chemical and Biomolecular Engineering, KAIST

H006

Proteome Analysis of Recombinant *Escherichia coli* Central Metabolism for Enhanced Biosynthesis of Poly(3-hydroxybutyrate)

Chaerim Oh¹, Seung Hwan Lee², Kyoung-Hee Kang², Eun Young Kim², Tong Un Chae¹, Young Hoon Oh², Soon Ho Hong³, Bong Keun Song², Jonggeon Jegal², Si Jae Park⁴, and Sang Yup Lee^{1*}

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H007

Rapid One-step Inactivation Using Integration Helper Plasmid in *Escherichia coli*

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H008

Implementation of Synthetic Small Regulatory RNAs in *Escherichia coli* for the Production of Tyrosine and Cadaverine Using Metabolic Engineering

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H009

Development of Strategies to Sequential (Multiple) Gene Knockout in *Clostridium acetobutylicum*

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H010

Development of a Hyper-ABE Producing *Clostridium acetobutylicum* and Its Genome Analysis

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H012

L-arginine Production using Metabolically Engineered *Corynebacterium glutamicum*

Junho Bang¹, Seok Hyun Park^{1,2,3}, Hyun Uk Kim^{1,2,4}, Tae Yong Kim^{1,2}, Jun Seok Park³, Seok-Su Kim³, and Sang Yup Lee^{1,2,4*}

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H013

Computational Analysis of Functional Roles of Human Genes Having Different Numbers of Splice Isoforms

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H014

Prediction of Novel Metabolic Pathways for the Production of Industrially Valuable Chemicals

Dong In Kim¹, Ayoun Cho¹, Hongseok Yun^{1,2,3}, Jin Hwan Park^{1,3}, Sang Yup Lee^{1,2,3*}, and Sunwon Park¹

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H015

Use of Metabolic Model Reconstruction on Genome-scale and Gene Manipulation Target Prediction for Avermectin Biosynthesis in *Streptomyces avermitilis* MA-4680

Dong In Kim¹, Kyu-Sang Hwang¹, Hyun Uk Kim¹, and Sang Yup Lee^{1,2*}

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H016

Verification of screening methods using white rot fungi for biodegradation of PAHs

Hwanhwi Lee, Gyu-Hyeok Kim and Jae-Jin Kim*

Division of Environmental Science & Ecological Engineering, Korea University

H017

Processing and Biological Effects of Gelatin Hydrolysate from *Branchiostegus japonicus* Scales

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H018

Identification of a Novel Endo- β -1,4-Glucanase From Gut Metagenome of Black Soldier fly, *Hermetia illucens*

Chang-Muk Lee^{1*}, Sang-Hong Yoon¹, Soo-Jin Kim², Bum-Soo Hahn¹, Joon-Soo Sim¹, and Bon-Sung Koo¹

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H019

Fermentative Production of Deoxyviolacein and Construction of Its Producing Strain from Improved L-Tryptophan synthesis pathway *Escherichia coli*

SeongYeol Choi and Robert J. Mitchell*

School of Life Sciences, UNIST

H020

Cloning and Overexpression of Carbonic Anhydrase in *Actinobacillus succinogenes* for Enhanced Succinic Acid Production

Eunjung Lee, Boonyoung Park, Wooshik Shin, Sangyong Kim, and Dohoon Lee*
Korea Institute of Industrial Technology

H021**Heterologous Expression of Mushroom Peroxidases in *Escherichia coli***Minsa Park¹ and Hyeon-Su Ro^{1,2*}¹*Division of Applied Life Science, Gyeongsang National University,* ²*Research Institute for Life Science, Gyeongsang National University***H022****Novel Method for Extraction of Violacein from Agar Plate and Characterization of Purified Violacein**

Sungsoo Yook, SeongYeol Choi and Robert J. Mitchell*

*School of Life Sciences, UNIST***H023****Development of Diagnostic Kit using the Antigenic Protein of the *Helicobacter Pylori***

Su Jung Kim*, Min-seok Choi, Sang-jin Lee, Seung-hyun Lee, and Su-hyeon Ha

*Department of Biomedical Laboratory Science, Daegu Health College***H024****Immobilisation Study on the Clostridial Biofuel: Optimisation of Polystyrene Sponge Packed-Bed Reactor for Increasing the Biobutanol Yield for *Clostridium beijerinckii* NCIMB 8052**

Hyunsoo Kang, Siseon Lee, Sandrine Soh, and Robert Mitchell*

*School of Life Science, UNIST***H025****Biotransformation of Geraniol by *Polyporus brumalis* and Transcriptome Analysis**Su-Yeon Lee¹, Sun-Hwa Ryu¹, MyungKil Kim¹, and In-Gyu Choi^{2*}¹*Division of wood chemistry and microbiology, Department of Forest Resource Utilization, Korea Forest Research Institute,* ²*Department of Forest Sciences, College of Agriculture and Life Sciences, Seoul National University***H026*****In Vivo* Reconstitution of Membrane Protein by Caveolin1 Co-expression : Towards Implantation of Eukaryotic Membrane Trafficking Pathways in a Prokaryote**

Jonghyeok Shin, Paul Heo, Myungseo Park, Younghun Jung, Da-Hyeong Cho,

Byoung-jae Kong, Junghoon In, and Dae-Hyuk Kweon*

*Department of Genetic Engineering, College of Biotechnology and Bioengineering, Sungkyunkwan University***H027****Antioxidant Effects of Peptide Isolated from Aquacultural Flounder Fish in Zebrafish**

Yoon Taek Kim, Won-Woo Lee, Jae-Young Oh, and You-Jin Jeon*

*Department of Marine Life Science, Jeju National University***H028****Comparison of Cellulase Activities of *Tyromyces palustris* from *Phanerochaete chrysosporium***

Kyung-Nam Ki, Hae In Kwon, Il-Bae Song, and Sun-Hwa Ryu*

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H029

Identification of Gene Encoding Precursor of Novel Antimicrobial Peptide BSAP-254 Isolated from *Bacillus subtilis* SC-8

Chandra Datta Sumi^{1,2}, Byung Wook Yang^{1,2}, In-Cheol Yeo^{3,4}, and Young Tae Hahm^{1,2*}
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H030

Study of Extracellular Enzyme Activity of *Phanerochaete chrysosporium* and *Tyromyces palustris* in Different Carbon Sources

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H031

Identification of Gene Encoding Precursor of Novel Antimicrobial Peptide BSAP-254 Isolated from *Bacillus subtilis* SC-8

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H032

Production of 2,3-Butanediol from Cellobiose by Engineered *Escherichia coli*

Doo-Geun Lee, Seo-Hee Kang, Jung-Hun Kim,
Dae Yoon Lee, Min-Jin Choi, Seong-Hee Jeong, and Seon-Won Kim*
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H033

The Inhibitory Effect of ROS Production of Fucoidan Isolated from Brown Algae in Zebrafish Model

Jae-Young Oh
Department of ocean science, Jeju National University

H034

Production of Rotavirus Virus like Particles in *Pichia pastoris* System

Yena Kim, Seong Keun Kim and Wonyong Kim*
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H035

Optimization of Protoplast Preparation and Transformation Efficiency in *Lentinula edodes*

Yohan Ko¹, Sukhyun Yun², Kumkang So¹, Heeyoung Jung¹, Jungmi Kim³, and Daehyuk Kim^{2*}
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H036

***In Vivo* Reconstitution of Membrane Protein by Caveolin1 co-expression : Towards Implantation of Eukaryotic Membrane Trafficking Pathways in Prokaryote**

Jonghyeok Shin, Paul Heo, Byoung-jae Kong, Myungseo Park, Younghun Jung,

Da-Hyeong Cho, Junghoon In, and Dae-Hyuk Kweon*
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H037

Reconstruction of Fructose Metabolic Pathway for D-psicose Production in *Corynebacterium Glutamicum*

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H038

***Trichoderma* sp. Enhances Soil Mineral Solubilization and Plant Growth Promotion On Acidic Soils of Nigeria**

A. Giridhar Babu, Dil Raj Yadav, Sang Woo Kim, Mahesh Adhikari, and Youn Su Lee*

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H039

Efficient Production of a Large-sized Type I Antifreeze Proteins in Recombinant *Escherichia coli*

Mee-Jung Han* and Sanwoo Han

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H040

A Bacterial Surface Display System using the *Escherichia coli* Protein YiaT

Mee-Jung Han*

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H041

The Putative Endoglucanase PcEg5A from *Phanerochaete chrysosporium* is a Novel Manganese Dependent Endoglucanase

Nguyen Duc Huy¹, Thiagarajan Saravanakumar¹, Myoung-Suk Choi², Dae-Hyuk Kim², and Seung-Moon Park^{1*}

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H042

Comparative Analyses of Two *Bacillus* Mannanases Produced from Recombinant *Escherichia coli*

H043

Production and Properties of Mannanases from Two *Bacillus* Strains Isolated in Acidic Medium

Ho Jin Jeon and Ki-Hong Yoon*

Department of Food Science & Biotechnology, Woosong University

H044

Investigation of Physicochemical Fermentation Conditions for Enhanced Hyaluronic Acid (HA) Production by High-Yielding Mutant Strains of *Streptococcus zooepidemicus*

Gietaek Chun* and Suyeon Kim
Department of molecular Bioscience, Kangwon National University

H045

Addition of Cyanobacterial Carbonic Anhydrase as a Production-Medium Component for Overproduction Of Succinic acid by High-Yielding Mutant Strains of *Actinobacillus succinogens*

Gietaek Chun* and Sangmin Park
Department of Molecular Bioscience, Kangwon National University

H046

Rapid and Large Screening of Succinic Acid High-Yielding Mutants of *Actinobacillus succinogenes* through High Throughput System(HTS)

Gietaek Chun* and Sangmin Park
Department of Molecular Bioscience, Kangwon National University

H047

Development of Succinic Acid Production Medium through Extensive Application of Statistical Optimization Process

Gietaek Chun* and Sangmin Park
Department of Molecular Bioscience, Kangwon National University

H048

Continuous Production Of Succinic Acid by *Actinobacillus succinogens* using Cell-Recycled Fermentors of Various Decantor types

Gietaek Chun* and Sangmin Park
Department of Molecular Bioscience, Kangwon National University

H049

Properties of β -Galactosidase from Three *Bacillus licheniformis* Isolates

Hyun Kyung Jin and Ki-Hong Yoon*
Department of Food Science & Biotechnology, Woosong University

H050

Production and properties of β -Galactosidase from Two *Bacillus licheniformis* Isolates from Doenjang

Hyun Kyung Jin and Ki-Hong Yoon*
Department of Food Science & Biotechnology, Woosong University

H051

Molecular Cloning and Characterization of a β -Mannosidase from *Paenibacillus woosongensis*

Hyun Kyung Jin and Ki-Hong Yoon*
Department of Food Science & Biotechnology, Woosong University

H052

Cellulolytic Enzyme Production by Marine-derived Fungi and Their Halo-stability

Hanbyul Lee¹, Young Min Lee¹, Myung Soo Park², Young Woon Lim², and Jae-Jin Kim^{1*}

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H053

Enhanced Thermostability and Cellulolytic Efficiency by Increasing Hydrophobicity via Introduction of Arginine and Proline on Catalytic Domain of Mesophilic Family 9 Endoglucanase

Sujung Kim, Jieun Joo, Sanduck Jeon, Sunghyun Park, and Sungok Han*
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H054

Domestic Silkworm Strain Screening using Bombyx mori Nuclear Polyhedrosis Virus (BmNPV)

Sun Mee Hong^{1*}, Sun-Jung Jo¹, Ji-Hyun Choi¹, Ju-Il Kang², and Jae-Hwan Lim³
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H055

One-Step Synthesis of Cellulose/Silver Nano-Biocomposites using Solution Plasma Process and Characterization of Their Antimicrobial Activity

Davoodbashai Mubarakali¹, Sungcheol Kim², Sangyul Lee², and Jungwan Kim^{1*}
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H056

Characterization of a Highly Thermostable Endo-1, 4- β -Xylanase from *Thielavia terrestris*

Younho Song, Jakyun Jung and Hyuen-Jong Bae*
Department of Bioenergy Science and Technology, Chonnam National University

H057

Increase of Paromomycin Production by *Streptomyces* sp. AG-P1441 Mutants

Chunzhi Jin, Dongjin Park and Changjin Kim*
Korea Research Institute of Bioscience and Biotechnology

I Food Microbiology

I001

GNB (galacto-N-biose) Reduces Adherence of Enteropathogenic *Escherichia coli* to the Intestinal Epithelial Cell

Young Su Lee and Soo Bok Lee*

Department of Food and Nutrition, Yonsei University, Republic of Korea

I002

Hepatoprotective Effect Of Probiotics in a Rat Model of Acute Liver Injury

Dokyung Lee¹, Jaeun Park¹, Minji Kim¹, Jaegoo Seo², and Namjoo Ha^{1*}

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I003

Broad Spectrum Antiviral Activities of Probiotics against Human Enteric Viruses

Jaeun Park¹, Dokyung Lee¹, Minji Kim¹, Ilho Park¹, Jooyeon Kang^{2*}, Heason Shin², and Namjoo Ha^{1*}

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I004

Monitoring of Hygiene Indicator and Food Poisoning Microorganisms in Salted Fermented Food

Ho-Won Chang, Young Ihl Kim, Hae Ji Kim, Minjung Lee, Jin-Hee Kim, Eunjung Kim, Tae-Hyeon Koo, Jinwook Jang, Ji Yong Kim, Hoyong Lee, Yeongmin Shin, Kisung Kwon, and Ju-Young Park*

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I005

Increase of the Platycodin D Concentrations of the Balloonflower Extract, Caused by Fermentation and the Antibacterial Activity Against *Klebsiella Pneumoniase*.

DuSeong Kim, DongMin Yoo, JiWhi Choi, Min SeoK Kim, HeuiJong Yu, and KiHo Kim

Bioland

I006

Detection of Antifungal Activities from Pomegranate

Seung Youn Oh¹, Ka Eul Kim¹, Bo Ram Park¹, Hyun Sung Jung¹, Jeong-Ro Park², and Sang Ki Choi^{1*}

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I007

Anti-Inflammatory Activity of Probiotics Isolated from Fermented Foods

Seung Hoon Lee¹, Byng Chul Choi², Hyung Taek Kang¹, Chung-Wook Chung¹, and Jong-Sik Kim^{1*}

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I008**Anti-proliferative and Anti-inflammatory Activities of Solvent Fractions of Lees Extracts**

Hyung-Taek Kang¹, Seung-Hoon Lee², Ho-Yong Sohn³, Woo-Chang Shin⁴, and Jong-Sik Kim^{5*}

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I009**Investigation of Microbial Contamination Levels in noodles, Job's Tears Teas and Salad Dressings**

Donghyuk Seo, Soyoung Chung, Jieun Park, Yujin Kwon, Eunjoon Koo, Yuyoung Jung, Yoa Lee, Hee Eun Min, Miran Kim, Eungui Kang, Hye Shin Hwang, Chul Joo Lim, and Sun Ok Choi*

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I010**Microbial Contamination Level in Livestock Manure Compost and Liquid Pig Manure**

Kyu Seok Jung*, Sunggi Heu, Eunjung Roh, Dong Hwan Lee, Jeong-A Lim Lim, Jong Wook Kim Kim, and Jae-Gee Ryu

Microbial Safety Division, National Academy of Agricultural Science, RDA

I011**Role of *flgA* for Biofilm Formation and Motility in *Campylobacter jejuni***

Joo-Sung Kim* and Yun-Ji Kim

Division of Platform Technology Research, Korea Food Research Institute

I012**Trehalose Synthase from *Pyrococcus* and Expression in *Bacillus subtilis***

Ji-eun Park and Soo-bok Lee*

Department of Food & Nutrition, Yonsei University

I013**Survey on Norovirus and Indicator Microorganisms contamination in Agricultural Produce, and Their Environmental Factors**

Byeong-joon Kim¹, Jung-Soo Lee², In-sun Joo², and Weonsang Choi^{1*}

¹Department of biotechnology, Dongguk University, ²Food Microbiology Division, National Institute of Food and Drug Safety Evaluation

I014**Hypocholesterolemic Effects of *Weissella Confusa* JB PML-111**

Bora Kwon, Insun Park, Ju Kim, Mihee Kim, and Kangyeol Yu*

Jeonju Biomaterials Institute

I015**A study on Breeding of New *Lentinula edodes* Strains by Mono-Mono Hybridization using Sawdust Cultivation Techniques**

Won Chull Bak, Park Ji Heon, Park Young Ae, Ka Kang Hyeon, and Rhim Ryoo
Korea Forest Research Institute

I016**Mycelial Growth Characteristics of Shiitake(*Lentinula edodes*) Strains on Solid and Liquid Media with Different Carbon Sources**

Won Chull Bak, Ji Heon Park*, Young Ae Park, and Rhim Ryoo
Korea Forest Research Institute

I017**Developing Single Nucleotide Polymorphism Typing Method for Epidemiological Investigation of Multistate Peanut Better Outbreak of *Salmonella* Tennessee in United States**

Hee-Jin Dong¹, A Mahdi Saeed² and Seongbeom Cho^{1*}
¹*Department of Veterinary Public Health, College of Veterinary Medicine and Research Institute for Veterinary Science, Seoul National University,* ²*Departments of Large Animal Sciences and Epidemiology, and National Food Safety and Toxicology Center, Michigan State University, USA*

I018**Functionality an Safety of Lactobacillus Strains Isolated from Korean Fermented Food**

Hye Jung Choi, Bo Ram Lim and Woo Hong Joo*
Department of Biology, Changwon National University

I019**Characterization of a Newly Bred Shiitake(*Lentinula edodes*) Strain "Baekhwahyang"**

Won Chull Bak, Youngae Park*, Kanghyeon Ka, and Jiheon Park
Korea Forest Research Institute

I020**Preliminary Screening Method for Biogenic Amines-Degrading Bacteria**

Bo Ram Lim, Yeo Jin Park, Bo Ra Lim, and Woo Hong Joo*
Department of Biology, Changwon National University

I021**Use of Lactic Acid Bacteria in Degradation of Biogenic Amines**

Bo Ram Lim, Bo Ra Lim, Yeo Jin Park, Hye Jung Choi, Woo Hong Joo*
¹*Department of Biology, Changwon National University,* ²*Department of Biology, Changwon National University*

I022**Degradation of Histamine by Lactic Acid Bacteria from Kimchi**

Bo Ram Lim, Bo Ra Lim, Yeo Jin Park, Hye Jung Choi, Woo Hong Joo*
Department of Biology, Changwon National University

I023**Use of Probiotic Bacteria for Biogenic Amine Reduction in Soy Sauce**

Bo Ram Lim, Bo Ra Lim, Yeo Jin Park, Hye Jung Choi, Woo Hong Joo*
Department of Biology, Changwon National University

I024***Bacillus subtilis* Strains from Doenjang and their Use in Reduction of Histamine**

Bo Ram Lim, Bo Ra Lim, Yeo Jin Park, Hye Jung Choi, Woo Hong Joo*
Department of Biology, Changwon National University

I025**Novel *Bacillus* sp. Mk22 for Use as a Probiotic against *Vibrio* and White Spot Syndrome Virus Infecting Black Tiger Shrimp (*Penaeus monodon*)**

Ashokkumar Sekar and Keun Kim*
Department of Bioscience and Biotechnology, The University of Suwon

I026**Enzyme IIA^{Ntr} is Associated with Regulation of *prpBCDE* Involved in Propionate Metabolism in *Salmonella enterica* Serovar Typhimurium**

Dajeong Kim¹, Eunsu Ha¹, Woongjae Yoo¹, Hyunjin Yoon², and Sangryeol Ryu^{1*}
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I027**Functional Activity of Fermentation *Hukma* by Lactic Acid Bacteria**

Jung-Bok Lee^{1*}, Hyeon-Je Cho², Byung-Tae Cho³, Chun-Pyo Jeon⁴, Woo-Hong Joo⁵, and Gi-Seok Kwon⁶
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I028**Study on the Various Beer Yeasts for Microbrewery**

Jisoo Kim and Gieun Kim*
Seokyeong University, Department of Chemical and Biological Engineering, Bio-process Engineering Lab

I029**Genetic Diversity of the Edible Mushroom *Pleurotus ostreatus* Isolated from Korea Using ITS Sequence Analysis and RAPD Fingerprinting**

Song-Hee Lee, Young-Bok Yoo, Youn-Lee Oh, Won-Sik Kong, and Pyung-Gyun Shin*
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I030

Improvement of Intestinal Microflora by Probiotic Kefir Administration in Mice Model

Dong-Hyeon Kim, Jung-Whan Chon, Hong-Seok Kim, Dasom Choi, Dae-Geun Hwang, Jin-Hyeok Yim, Hyunsook Kim, and Kun-Ho Seo*
College of Veterinary Medicine, Konkuk University

I031

Survival of *Vibrio parahaemolyticus* in Ganjang-Gejang and Yangnyeom-Gejang at Cold Storage Condition

Dae-Geun Hwang, Jung-Whan Chon, Dong-Hyeon Kim, Hong-Seok Kim, Jong-Soo Lim, Jin-Hyeok Yim, Dasom Choi, and Kun-Ho Seo*
College of Veterinary Medicine, Konkuk University

J Others

J001

Sensitivity of *Sclerotinia homoeocarpa* Isolates to iprodione, propiconazole, and hexaconazole from Golf Course in the Southern Province of Korea

Taeyeon Jung¹ and Taehyun Chang^{2*}

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J002

Surveillance of mosquito-borne flaviviruses in South Korean

Hye-Young Jeoung, Ji-Hye Lee, Sung-Hee Kim, Yong-Joo Kim, In-Soo Cho, and Jee-Yong Park*

Animal and Plant Quarantine Agency

J003

Establishment of real time RT-PCR method for Middle East respiratory syndrome coronavirus in Korea

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J004

Serosurveillance of Rift Valley Fever Virus from Goats And Cattle in Korea

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J005

Postantibiotic Effects and Postantibiotic Sub-MIC Effects of Chlorhexidine on Oral Microorganisms

Min Suck You and Si Young Lee*

Department of Microbiology and Immunology, College of Dentistry, Research Institute of Oral Science, Gangneung-Wonju National University

J006

Synergistic Antibacterial Efficacies of the Combination of Chlorhexidine Digluconate or Protamine Sulfate with the Extracts of *Laminaria japonica* or *Rosmarinus officinalis* against *Streptococcus mutans*

Min Suck You¹, Jeong Hwan Kim², Hyung-Joo Jin², and Si Young Lee^{1*}

¹Department of Microbiology and Immunology, College of Dentistry, Research Institute of Oral Science, Gangneung-Wonju National University, ²Department of Marine Molecular Biotechnology, College of Life Sciences, Gangneung-Wonju National University

J007

Effects of Sub Minimal Inhibitory Concentration of Metronidazole and Penicillin on Morphology of *Aggregatibacter actinomycetemcomitans*

Ye Won Kwon and Si Young Lee*

Department of Microbiology and Immunology, College of Dentistry, Research Institute of Oral Science, Gangneung-Wonju National University

J008**Effect of Sub Minimal Inhibitory Concentration Antibiotics on Morphology of *Streptococcus mutans* and *Lactobacillus acidophilus***

Ye Won Kwon and Si Young Lee*

*Department of Microbiology and Immunology, College of Dentistry, Research Institute of Oral Science, Gangneung-Wonju National University***J009****Novel Diagnostic Method for the Improvement of Detection Limit; Convergence of Oligonucleotide-Linked Gold Nanoparticle and Immunosorbent Assay**Yi-Rang Hwang¹, Sang-Hwan Seo¹, Young-Hwa Kim¹, Young-Ran Lee¹, Gi-eun Rhie¹, Dae-Ro Ahn², Kee-Jong Hong¹, and Jun Ho Jeon^{1*}¹*Division of high-risk pathogen research, Center for Infectious Diseases and Prevention, Korea National Institute of Health, Osong Health Technology Administration Complex,*²*Center for Theragnosis, Biomedical Research Institute, Korea Institute of Science and Technology***J010****Establishment of Stable Methods for Long-Term Preservation of Viral Pathogen Resource**

Seung Tae Kim, Jeong-Gu Nam, Sung Soon Kim, and Hyang-Min Cheong*

*Division of Respiratory Viruses, Center for Infectious Diseases, National Institute of Health***J011****Effect of Microorganism on Growth in Crop****J012****Isolation and characterization of Cell Bound Agar-Degrading Enzyme Producing Bacteria from Southern Coast of South Korea**

Dong-Gyun Kim*, Byeong-Geun Gwon, Young-Ok Kim, Bo-Hye Nam, and Cheul Min An

*Biotechnology Research Division, National Fisheries Research and Development Institute***J013****Molecular Epidemiology of Norovirus-associated Outbreaks of Gastroenteritis in South Korea, 2012-13**

Sunyoung Jung, Bo-Mi Hwang, Hyun Ju Jeong, Cheon-Kwon Yoo, Gyung Tae Chung, and Deog-Yong Lee*

*Division of Enteric Diseases, Center for Infectious Diseases, Korea National Institute of Health, Korea Center for Disease Control and prevention***J014****Observation of Phage-Antibiotic Synergy in a Wide Variety of Combinations in Bacterial Host, Bacteriophages, and Antibiotics**Sung Sik Hong¹, Gwangseo Park² and Heejoon Myung^{2*}¹*Department of Bioscience and biotechnology, Hankuk university of Foreign Studies,*²*Department of Bioscience and Biotechnology, Hankuk university of Foreign Studies*

J015**Removal of *Staphylococcus aureus* on Various Surfaces Using Bacteriophage SA11**Young Deuk Kim¹ and Heejoon Myung^{2*}¹*Department of Bioscience and Biotechnology, Hankuk University of Foreign Studies,*²*Department of Bioscience and Biotechnology, Hankuk University of Foreign Studies***J016****Isolation of *Bacillus atrophaeus* strains with Antifungal Activities from Tidal flat Against *Colletotrichum* sp.**

Joonhee Han, Jonghwan Shin, Heeyeon Kim, and Kyoungsu Kim*

*Division of Bioresource Sciences, Kangwon National University***J017****Rapid Detection Methods of High-risk Pathogen using Real-time PCR and PNA Mediated RT-PCR Clamp**

Chunghyun Lee and Jeyoun Jang*

*Department Infectious Diseases, Research center for infectious & Environmental Disease, Armed Forces Medical Research Institute***J018****Improved method for the isolation of total RNA from *Panax ginseng* C.A. Meyer**Byung Wook Yang^{1,2}, Sae Kyul Kim¹, Seon Jeong Maeng¹, Wang-Soo Shin²,Sung Kwon Ko³, Soon Hyun Cho⁴, Byung Ok Im⁵, and Young Tae Hahn^{1*}¹*Department of Systems Biotechnology, Chung-Ang University,* ²*Central Research Institute, Korean Ginseng Research Co., LTD.,* ³*Department of Oriental Medical Food & nutrition, Semyung University,* ⁴*Department of Pharmaceutical Quality, Deawon University College,* ⁵*Department of Natural Medicine Resources, Semyung University***J019****Suppressions of the TC-1 Tumor Cell Growth by Baculoviral Delivering HPV E6/E7 DNA Vaccine**

Yoonki Heo, Yeondong Cho, Yongdae Gwon, Hansam Cho, Kihoon Park, JaeHyeok Heo, Yuyeon Jang Jang, Heejung Lee, and Young Bong Kim*

*Department of Animal Biotechnology, Konkuk University***J020****FrdABCD Participate in Persister Cell Formation in *Escherichia coli***Da-Hyeong Cho¹, Jun-Seob Kim², Jonghyeok Shin¹, Myungseo Park¹, Younghun Jung¹,Byoung-Jae Kong¹, Junghoon In¹, and Dae-Hyuk Kweon^{1*}¹*Department of Biotechnology and Bioengineering, Sungkyunkwan University,*²*Department of Food Science and Human Nutrition, Illinois University***J021****Fumarate-mediated Persistence of *Escherichia coli* to Antibiotics**Da-Hyeong Cho¹, Jun-Seob Kim², Jonghyeok Shin¹, Myungseo Park¹, Younghun Jung¹,Byoung-Jae Kong¹, Junghoon In¹, and Dae-Hyuk Kweon^{1*}¹*Department of Biotechnology and Bioengineering, Sungkyunkwan University,*²*Department of Food Science and Human Nutrition, Illinois University*

J022

Cas9/CRISPR-mediated Resistant Gene Knockout: New Therapeutic Approach for Treatment of Antibiotic-resistant *Escherichia coli*

Da-Hyeong Cho, Jonghyeok Shin, Myungseo Park, Younghun Jung, Byoung-Jae Kong, Junghoon In, and Dae-Hyuk Kweon*

Department of Biotechnology and Bioengineering, Sungkyunkwan University

J023

Mutations in the SmoA Gene Bypass the Requirement of SIN for Septation in *Aspergillus nidulans*

Jung-Mi Kim¹, Ha-Yeon Song¹, Hyo-Jin Choi¹, and Bo Liu²

¹*Department of Bio-Environmental Chemistry,* ²*Section of Plant Biology, University of California, USA*

J024

Involvement of Antioxidant Defense System in Solvent Tolerance of *Pseudomonas* sp. strain

Hye Jung Choi, Sung Min Ha and Woo Hong Joo*

Department of Biology, Changwon National University

J025

Granulocyte Macrophage Colony Stimulating Factor-Flagellin Fusion Adjuvants for Foot-and-Mouth Disease Virus Commercial Vaccine

YuYeon Jang¹, Hansam Cho¹, Heejung Lee¹, Yoonki Heo¹, Yeondong Cho¹, Yongdae Gwon¹, Janghyuk Han², Joongbok Lee³, and Youngbong Kim^{4*}

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J026

Epidemiology of Human Enterovirus71 infection in Republic of Korea, 2006-2012

HyeJin Kim, Seoyeon Hwang, Youngsil Yoon, ShinHye Bang, Jung-Ah Lee, SangWon Lee, Yongpyo Lee, Jeongbae Ahn, Ji-Yeon Hyeon

Division of Vaccine research, Center for Infectious Diseases, National Institute of Health, Korea Center for Disease Control and Prevention

J027

Development of Competative ELISA for Serodiagnosis of African Swine Fever Virus

Su-Jung Hwang, Hey Rhyoung Lyoo, Jeong Soo Choi, Hyun-Ju Kim, Jee-Yong Jee-yong, Yong-Ju Kim, In-Soo Cho, Hye-Young Jeoung, and Ji Youn Lee*

Animal and Plant Quarantine Agency

J028

Development of Rapid Assay Method using PCR-Based Marker for the Detection of Plant Quarantine Pathogen, *Phyllosticta capitalensis*

Hyun Ju Kim^{1*}, Eun-Ha Kang¹, Ik Hwa Hyun¹, Noh Youl Heo¹, and Hong Gi Kim²

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J029**Antimicrobial Activity of Benzyl Alcohol against Bacteria and Yeast of Clinical Importance**

Yu-Hong Min*

*Department of Herbal Skin Care, Daegu Haany University***J030****Antimicrobial Activity of Mandelonitrile against Bacteria and Yeasts of Clinical Importance**

Yu-Hong Min*

*Department of Herbal Skin Care, Daegu Haany University***J031****Curing of the Mycovirus (LeV) Resulted in Improved Vegetative Growth of an Edible Mushroom *Lentinula edodes***Ha-Yeon Song¹, Suk-Hyun Yun², Hyo-Jin Choi¹, Yo-Han Ko², Kum-Kang So², Jung-Mi Kim¹, and Dae-Hyuk Kim²¹*Department of Bio-Environmental Chemistry, Wonkwang University,* ²*Department of Molecular Biology, Department of Bioactive Material Sciences, Chonbuk National University***J032****Biological function of the mycovirus PoV in the edible mushroom *Pleurotus ostreatus***Hyo-Jin Choi¹, Ha-Yeon Song¹, Dae-Hyuk Kim², and Jung-Mi Kim¹¹*Department of Bio-Environmental Chemistry, Wonkwang University,* ²*Department of Molecular Biology, Department of Bioactive Material Sciences, Chonbuk National University***J033****Determination of the Dose Response Curve for the UV Sensitivity of HPC in Drinking Water**Sulhee Park, Il Chu, Hyangkyun Oh, DooWon Han, and Sun Young Lee
*Coway Co.,Ltd.***J034****Antifungal Activities of Actinobacteria against the *Malassezia* species**

Ram Hari Dahal and Kim Jaisoo*

*Department of Life Science, Kyonggi University***J035****Non-Sapoonin Contents of Fresh, White and Red Ginseng of Various Varietals from Different Region in Korea**Ahn Seung Il¹, Ji Hwan Yook¹, Sae Kyul Kim¹, Byung Wook Yang¹, Eun Seob Lee^{2,3,4}, Chang Sung Kang^{2,3,4}, and Young Tae Hahm^{1*}¹*Department of Systems biotechnology, Chung-Ang University,* ²*Income Resource Research Institute,* ³*Gyeonggi-Do Agricultural Research & Extension Services,* ⁴*Yeoncheon***J036****Functional Soil Metagenome Mining for Novel Gentamicin Resistance Genes**Hyunjoo Im^{1,2}, Soohyun Lee¹ and Choong-Min Ryu^{1,2*}¹*Molecular Phytobacteriology Laboratory, Superbacteria Research Center, KRIBB,* ²*Biosystems & Bioengineering Program, University of Science and Technology (UST)*

J037

Antimicrobial Activity of Korean and Chinese *Crataegus fructus*

Soo Jeong Cho*, Hye Soo Kim and Su Cheol Kim

Dept. of Pharmaceutical Engineering, Gyeongnam National University of Science and Technology

J038

Functional Soil Metagenome Mining for Triggering Induced Systemic Resistance in Tobacco

Hyeri Kim¹, Hyo Bee Park¹ and Choong Min Ryu^{1,2*}

¹*Laboratory of Molecular Phytobacteriology, Superbacteria Research Center, Korea Research of Institute Bioscience and Biotechnology,* ²*Biosystems and Bioengineering Program, University of Science and Technology (UST)*

J039

Isolation and Characteristics of Photosynthetic Bacteria from Soils

In-Cheol Park^{1*}, Jeong-Seon Kim¹ and Jae-hong Yoo²

¹*Agricultural Microbiology Division, National Academy of Agricultural Science, RDA,* ²*Agricultural Microbiology Division, National Academy of Agricultural Science*

J040

Anti-bacterial Derived Extract of Spent Mushroom(*Herichium erinaceus*) Compost

Jin Hong Min¹, Sang Mi Yu¹, Jeong Jun Kim², Ji Hee Han², and Sang Yeob Lee^{1*}

¹*Agricultural Microbiology Division, National Academy of Agricultural Science (NAAS),* ²*Agricultural Microbiology Division, National Academy of Agricultural Science (NAAS),*

J041

Metagenomic Comparison of Oral Microbiome between Dogs and Owners by Next Generation Sequencing

Changin Oh, KunKyu Lee, Yeotaek Cheong, and Joong-Bok Lee*

Department of Infectious Diseases, College of Veterinary Medicine, Konkuk University

J042

The Occurrences of Cyanobacteria, Actinomycetes and geosmin in Drinking Water Resource, Korea

Jung Eun Lee^{1,2*}, Yong Jin Kim¹, Eung-Roh Park¹, Seok-Jae Youn¹, and Jae-Kwan Lee¹

¹*Han River Environment Research Center, National Institute of Environmental Research,* ²*Korea Research Institutes of Biosciences and Biotechnology*

J043

Baculovirus based GP5 and M DNA Nanocarrier for Porcine Reproductive and Respiratory Syndrome Virus Vaccine

Yeondong Cho¹, Yoonki Heo¹, Hee-Jung Lee¹, Kang Chang Kim¹, Sehyun Kim¹,

Jaeyoung Song², Hyuck-Se Kwon³, Mi Kyoung Won³, Joong-Bok Lee⁴, and

Young Bong Kim^{1*}

¹*Department of Animal Biotechnology, Konkuk University,* ²*Animal and plant Quarantine Agency,* ³*ADBIOTECH Co.,Ltd.,* ⁴*College of Veterinary Medicine, Konkuk University*

J044**First record of genus *Buchwaldoboletus* (Boletaceae, Basidiomycota) in Korea: *B. cf. lignicola***

Jong Won Jo¹, Chang Sun Kim¹, Young-Nam Kwag¹, Gi-Ho Sung², and Sang-Kuk Han¹
¹Forest Biodiversity Division, Korea National Arboretum, ²Institute For Bio-Medical Convergence, Catholic Kwandong University

J045**The Surveillance of Imported Infectious Diseases in the South West Coastal Area of Korea by Yeosu National Quarantine Station**

Sungdo Park*, Ha-seon Jeong, Jang-nyeo Lee, Ok-kyung Kang, and Myeong-sub Kim
Yeosu national quarantine station, Ministry of health and welfare

J046**A Comparison of the Phyllophere Microbial Community and Disease Incidence Changes between Drought Resistant Transgenic Rice and Non-transgenic Rice**

Seung-Yeol Lee, Chang-Gi Back, Kyung-Min Kim, Sang-Jae Suh, and Hee-Young Jung*
¹College of Agriculture and Life Sciences, Kyungpook National University

J047**Antimicrobial Activity of Weakly Acidic Electrolyzed Water against Strict Anaerobic Pathogens**

Moon-Soo Rhee and Byoung-Chan Kim*
Korean Collection for Type Cultures (KCTC), Biological Resource Center (BRC), Korea Research Institute of Bioscience and Biotechnology (KRIBB)

J048**Effect of Protectants on Survivability of Freeze-dried Human Pathogens during Long-term Storage**

Hyun Bae Kang, Kyeong-Min Lee, Min Hee Cho, and Kwang-Jun Lee*
Pathogen Resource TF, Center for Infectious Diseases, National Institute of Health, Korea Centers for Disease Control & Prevention

J049**Selection of Entomopathogenic Fungi for Dual Control of both Aphid and Plant Fungal Disease**

Ling Xie, Jeong Jun Kim*, Ho Jeong Choi, Ji Hee Han, and Sang Yeob Lee
Agricultural Microbiology Division, National Academy of Agricultural Science, RDA

J050**Aphid Control with Culture Filtrate of Entomopathogenic Fungi *Beauveria bassiana***

Ga Young Jeong, Jin Ju Yoon, Ling Xie, Jeong Jun Kim*, Ji Hee Han, and Sang Yeob Lee
Agricultural Microbiology Division, National Academy of Agricultural Science, RDA

J051**Inhibition of Gmmaherpesviruses by Natural Phytochemicals from *Robinia pseudoacacia* L.**

Na-rae Choi¹, Seungbo Ryu¹, Hye-Ri Kang¹, Eun Sil Kim², Kyounghee Oh², Kwang-Hyun Baek³, and Moon Jung Song^{1*}

¹*Virus-Host Interactions Laboratory, Department of Biosystems and Biotechnology, Division of Biotechnology, College of Life Sciences and Biotechnology, Korea University,*

²*Wildlife Genetic Resources Center, National Institute of Biological Resources (NIBR),*

³*School of Biotechnology, Yeungnam University*

J052**Antiviral Activity of Crude Extracts and Organic Solvent Fractions of *Ligustrum lucidum* and *Robinia pseudoacacia* against Gammaherpesviruses**

Na-rae Choi¹, Seon-Gyeong Jeong¹, Seungbo Ryu¹, Eun Sil Kim², Kyounghee Oh², Kwang-Hyun Baek³, and Moon Jung Song^{1*}

¹*Virus-Host Interactions Laboratory, Department of Biosystems and Biotechnology, Division of Biotechnology, College of Life Sciences and Biotechnology, Korea University,*

²*Wildlife Genetic Resources Center, National Institute of Biological Resources (NIBR),*

³*School of Biotechnology, Yeungnam University*

J053**Characteristic of a New Variety *Lentinula edodes*, ‘Nongjin-go’**

Jiwon Moon*, Chan-Jung Lee, Jong-Chun Cheong, Jang-Sun Suh, and Won-Sik Kong
Mushroom Research Division, NIHHS, RDA

J054**Center for Fungal Genetic Resources (CFGR): Housing Plant Pathogenic Fungi for Educational and Research Purposes**

Yeo Kyoung Yoon* and Yong-Hwan Lee

Center for Fungal Genetic Resources, Seoul National University

J055**Korean Metagenome Bank for Exploiting Microbial Diversity**

Jung-Hoon Yoon

Department of Food Science and Biotechnology, Sungkyunkwan University

J056**Bacteriophagebank**

KyoungEun Cha*, Heejoon Myung

Dept. of Bioscience and Biotechnology, Hankuk University of Foreign Studies

J057**Korea Bank for Pathogenic Viruses**

Ki-Joon Song¹

¹ *Korea Bank for Pathogenic viruses*

J058**Plant Virus GenBank**

Ryu Ki Hyun

Dept. of Horticulture, Biotechnology and Landscape Architecture, Seoul Women's University

J059**Lichen as a Novel Bioresources in Korea**

Jae-Seoun Hur & Young Jin Koh

*Korean Lichen Research Institute, Suncheon National University***J060****Korean Collection for Oral Microbiology**

Joong-Ki Kook*, Soon-Nang Park, Yun Kong Lim, and Eojin Jo

*Department of Oral Biochemistry, School of Dentistry, Chosun University***J061****Korea Marine Microalgae Culture Center**

Sung Bum Hur

*Department of Marine Bio-materials and Aquaculture, Pukyong National University***J062****Culture Collection of Antimicrobial Resistant Microbes**

Eunju Shin*, Hyunjin Hong, Hakmi Lee, Minyoung Lee, and Yeonhee Lee

*Culture Collection of Antimicrobial Resistant Microbes, Department of Biology, Seoul Women's University***J063****Helicobacter pylori Korean Type Culture Collection (HpKTCC) Collects and Distributes Clinical Isolates of *H. pylori***Hyung-Lyun Kang¹, Myung-Je Cho¹, Jae-Young Song¹, Woo-Kon Lee¹,
Seung-Chul Baik¹, Kon-Ho Lee¹, Kwang-Ho Rhee¹¹*Department of Microbiology, Gyeongsang National University School of Medicine,*²*Helicobacter pylori Korean Type Culture Collection, Gyeongsang National University School of Medicine***J064****Korea Environmental Microorganisms Bank**

Yong jin Kim* and Sang Seob Lee

*#103 Research Center Kyonggi University***J065****Korea National Microorganisms Research Resource Center**

Se joung Yeom* and Sang Seob Lee

Kyonggi University, Research Center