

## 포스터 발표 목록

- P01 Antimicrobial resistant pattern of *E. coli* from cattle in a large breeding farm**  
Sang-Ik Oh<sup>P1</sup>, Ui Hyung Kim<sup>2</sup>, Jeoug Il Won<sup>2</sup>, Eunju Kim<sup>1</sup>, Seung Won Yi<sup>1</sup>, Changyong Choe<sup>1</sup>, Ara Cho<sup>1</sup>, Jae-Hee Roh<sup>1</sup>, Chan-Lan Kim<sup>3</sup>, Seungmin Ha<sup>4</sup>, Yoon Jung Do<sup>1</sup> and Jae Gyu Yoo<sup>C1</sup>  
<sup>1</sup>Division of Animal Diseases & Health, National Institute of Animal Science, Rural Development Administration  
<sup>2</sup>Hanwoo Research Institute, National Institute of Animal Science, Rural Development Administration  
<sup>3</sup>Animal Genetic Resources Research Center, National Institute of Animal Science, Rural Development Administration  
<sup>4</sup>Department of Animal Resource Development, Dairy Science Division, National Institute of Animal Science, Rural Development Administration
- P02 Molecular survey of avian pathogens in poultry red mites (*Dermanyssus gallinae*) collected from layer poultry farms in Korea**  
Sang-Ik Oh<sup>P</sup>, Yoon Jung Do, Eunju Kim, Seung Won Yi and Jae Gyu Yoo<sup>C</sup>  
Division of Animal Diseases & Health, National Institute of Animal Science, Rural Development Administration
- P03 The role of miR-34c-5p in hypoxia *in vitro* and *in vivo***  
Jaeseok Han<sup>12</sup>, Young-Ho Ahn<sup>3</sup>, Jae-Yoon Shim<sup>4</sup>, Chang Hoon Ha<sup>1</sup>, Nayoung Kim<sup>d12</sup> and Jae-Joong Kim<sup>C5</sup>  
<sup>1</sup>Department of Convergence Medicine & Asan Institute for Life Sciences, Asan Medical Center, University of Ulsan College of Medicine  
<sup>2</sup>Asan Medical Institute for Convergence Science and Technology  
<sup>3</sup>Department of Molecular Medicine, College of Medicine, Ewha Womans University  
<sup>4</sup>Department of Obstetrics and Gynecology, Asan Medical Center, University of Ulsan College of Medicine  
<sup>5</sup>Division of Cardiology, Department of Internal Medicine, Asan Medical Center, University of Ulsan College of Medicine
- P04 MicroRNA-196a-5p regulates murine B cell development**  
Hyun Ju Hwang<sup>1</sup>, Eun-Hye Hur<sup>2</sup>, Eun-Ji Choi<sup>2</sup>, Young-Uk Cho<sup>3</sup>, Seongsoo Jang<sup>3</sup>, Ho Joon Im<sup>4</sup>, Je-Hwan Lee<sup>C2</sup> and Nayoung Kim<sup>d2</sup>  
<sup>1</sup>Asan Institute for Life Sciences and Department of Convergence Medicine, Asan Medical Center, University of Ulsan College of Medicine  
<sup>2</sup>Department of Hematology, Asan Medical Center, University of Ulsan College of Medicine  
<sup>3</sup>Department of Laboratory Medicine, Asan Medical Center, University of Ulsan College of Medicine  
<sup>4</sup>Department of Pediatrics, Asan Medical Center, University of Ulsan College of Medicine
- P05 Bamboo salt increased survival rate through the activation of caspase-3 in melanoma animal model**  
Jimin Lee<sup>P1</sup>, Miyeon Jeon<sup>1</sup>, Hee-Yun Kim<sup>1</sup>, Hyung-Min Kim<sup>2</sup> and Hyun-Ja Jeong<sup>C1</sup>  
<sup>1</sup>Department of Food Technology, Biochip Research Center, Hoseo University  
<sup>2</sup>Department of Pharmacology, College of Korean Medicine, Kyung Hee University

- P06 Molecular study of inhibitory effect of antidepressant metergoline on Kv1.4 channel**  
Jun-Ho Lee  
Department of Biotechnology, Chonnam National University
- P07 DDX3 expression by Serotonin receptor 7 through p53 via the AC-PKA-ERK signaling pathway**  
Jun-Ho Lee  
Department of Biotechnology, Chonnam National University
- P08 Inhibitory effects of Metergoline on Nav1.2 voltage-dependent sodium channel**  
Jun-Ho Lee  
Department of Biotechnology, Chonnam National University,
- P09 Study for the inhibition of transient receptor potential vanilloid type 1 by gomisin A**  
Jun-Ho Lee  
Department of Biotechnology, Chonnam National University,
- P10 Molecular study of olfactory receptor**  
Jun-Ho Lee  
Department of Biotechnology, Chonnam National University,
- P11 Effects of triterpenoid on 5-hydroxytryptamine and nicotinic acetylcholine receptor channel**  
Jun-Ho Lee  
Department of Biotechnology, Chonnam National University,
- P12 Molecular study of nicotinic acetylcholine receptors inhibition by triterpenoids**  
Jun-Ho Lee  
Department of Biotechnology, Chonnam National University,
- P13 The regulatory effect of triterpenoids on  $\alpha 3\beta 4$  nicotinic acetylcholine receptor activity**  
Jun-Ho Lee  
Department of Biotechnology, Chonnam National University
- P14 Identification of pheromone components and their insect receptor**  
Jun-Ho Lee  
Department of Biotechnology, Chonnam National University,
- P15 Cloning and functional characterization of insect odorant receptors**  
Jun-Ho Lee  
Department of Biotechnology, Chonnam National University
- P16 Co-receptors are dispensable for tethering receptor mediated phagocytosis of apoptotic cells**  
Boyeon Park<sup>12</sup>, Juyeon Lee<sup>p12</sup>, Hyeonji Moon<sup>12</sup>, Gwangrog Lee<sup>12</sup>, Dae-Hee Lee<sup>3</sup>, Jeoung Hoon Cho<sup>4</sup> and Daeho Park<sup>c12</sup>

<sup>1</sup>School of Life Sciences, Gwangju Institute of Science and Technology

<sup>2</sup>Research Center for Cellular Homeostasis, Ewha Womans University

<sup>3</sup>Department of Surgery and Pharmacology and Cell Biology, School of Medicine, University of Pittsburgh

<sup>4</sup>Department of Biology Education, College of Education, Chosun University

**P17 Intermolecular steric inhibition of Ephexin4 is relieved by Elmo1**

Kwanhyeong Kim<sup>p12</sup>, Juyeon Lee<sup>12</sup>, Sang-Ah Lee<sup>1</sup>, Hyunji Moon<sup>12</sup>, Boyeon Park<sup>1</sup>, Deokhwan Kim<sup>1</sup>, Young-Eun Joo<sup>3</sup> and Daeho Park<sup>c124</sup>

<sup>1</sup>School of Life Sciences and Aging Research Institute, Gwangju Institute of Science and Technology

<sup>2</sup>Research Center for Cellular Homeostasis, Ewha Womans University,

<sup>3</sup>Department of Internal Medicine, Chonnam National University Medical School

<sup>4</sup>Department of Biomedical Science and Engineering, Gwangju Institute of Science and Technology

**P18 Crbn could modulate the efficiency of removal of apoptotic cells**

Hyeonji Moon<sup>p12</sup>, Gayoung Kim<sup>1</sup>, Chanhyuk Min<sup>1</sup>, Deokhwan Kim<sup>12</sup>, Susumin Yang<sup>1</sup> and Daeho Park<sup>c2</sup>

<sup>1</sup>School of Life Sciences and Aging Research Institute, Gwangju Institute of Science and Technology

<sup>2</sup>Research Center for Cellular Homeostasis, Ewha Womans University

**P19 A scaffold for signaling of Tim-4-mediated efferocytosis is formed by fibronectin**

Juyeon Lee<sup>p12</sup>, Boyeon Park<sup>p13</sup>, Byeongjin Moon<sup>1</sup>, Jeongjun Park<sup>1</sup>, Hyunji Moon<sup>12</sup>, Kwanhyeong Kim<sup>12</sup>, Sang-Ah Lee<sup>1</sup>, Deokhwan Kim<sup>12</sup>, Chanhyuk Min<sup>1</sup>, Dae-Hee Lee<sup>4</sup>, Gwangrog Lee<sup>1</sup> and Daeho Park<sup>c12</sup>

<sup>1</sup>School of Life Sciences and Aging Research Institute, Gwangju Institute of Science and Technology

<sup>2</sup>Research Center for Cellular Homeostasis, Ewha Womans University

<sup>3</sup>Microbiology and Functionality Research Group, World Institute of Kimchi

<sup>4</sup>Department of Oncology, College of Medicine, Korea University

**P20 Store-operated Ca<sup>2+</sup> entry (SOCE) regulates Ca<sup>2+</sup> influx into phagocytes during clearance of apoptotic cells**

Deokhwan Kim<sup>p</sup>, Hyeonji Moon, Chanhyuk Min, Kwanhyeong Kim and Daeho Park<sup>c</sup>  
School of Life Sciences, Gwangju Institute of Science and Technology

**P21 Efferocytosis triggers MCP-0 expression upregulation in phagocytes**

Sang-Ah Lee<sup>p</sup> and Daeho Park<sup>c</sup>

School of Life Sciences, Gwangju Institute of Science and Technology

**P22 Association of plasma  $\alpha$ -synuclein with REM sleep behavior disorder and cardiac sympathetic denervation in early Parkinson's disease**

Kwan Yong Park<sup>p1</sup>, Dong Gyu Park<sup>2</sup>, Juhee Kang<sup>1</sup>, Jung Han Yoon<sup>2</sup> and Jaerak Chang<sup>c13</sup>

<sup>1</sup>Department of Biomedical Sciences, Ajou University School of Medicine

<sup>2</sup>Department of Neurology, Ajou University School of Medicine Korea

<sup>3</sup>Department of Brain Science, Ajou University School of Medicine

- P23 The balance between MDM2 p60 and p90 is important for the effect of the CP2c targeting anticancer peptide**  
Yeon Ju Lee<sup>p12</sup>, Min Young Kim<sup>1</sup>, Seung Han Son<sup>1</sup>, Seol Eui Lee<sup>1</sup>, Ho Chul Kang<sup>3</sup> and Chul Geun Kim<sup>c1</sup>  
<sup>1</sup>Department of Life Science, College of Natural Sciences, Hanyang University  
<sup>2</sup>Research Institute of Hurimbiocell Inc  
<sup>3</sup>Department of Physiology, Ajou University School of Medicine
- P24 Polysaccharide isolated from Korean-style soy sauce activates macrophages *via* the MAPK and NK- $\kappa$ B pathways**  
Suyeon Seong<sup>p1</sup>, Jaemee Jeong<sup>1</sup> and Dahyun Hwang<sup>p12</sup>  
<sup>1</sup>Department of Biomedical Laboratory Science, College of Life and Health Sciences  
<sup>2</sup>The Research Institute for Basic Sciences, Hoseo University
- P25 Anti-atherogenic effect of resveratrol attributed to decreased expression of ICAM-1: Mechanistic link from focal adhesion to monocyte adhesion**  
Youngsik Seo<sup>p1</sup>, Jinsun Park<sup>1</sup>, Woosung Choi<sup>1</sup>, Dong Ju Son<sup>2</sup>, Yerim Oh<sup>1</sup>, Daeun Kim<sup>1</sup>, Yoo Sung Kim<sup>1</sup>, Min-Kyun Kim<sup>1</sup>, Bo-Eun Yoon<sup>1</sup>, Jaeho Pyee<sup>1</sup>, Jin Tae Hong<sup>2</sup>, Young-Mi Go<sup>3</sup> and Heonyong Park<sup>c1</sup>  
<sup>1</sup>Department of Molecular Biology & Institute of Nanosensor and Biotechnology, Dankook University  
<sup>2</sup>College of Pharmacy & Medical Research Center, Chungbuk National University  
<sup>3</sup>Pulmonary Medicine, Department of Medicine, Emory University
- P26 Effect of *Trametes cubensis* extract on vascular activities of bovine aortic endothelial cells**  
Sujeong Jang<sup>p1</sup>, Dong Hyeung Lee<sup>2</sup>, Seongsoo Lee<sup>1</sup>, Seong Hwan Kim<sup>2</sup> and Heonyong Park<sup>c1</sup>  
<sup>1</sup>Department of Molecular Biology & institute of Nanosensor and Biotechnology, Dankook University  
<sup>2</sup>Department of Microbiology, Dankook University
- P27 Oral treatment with aloe polysaccharide ameliorates ovalbumin-induced atopic dermatitis by restoring tight junctions in skin**  
Kwangmin Na and Myung-Shin Jeon<sup>d</sup>  
Translational Research Center, Department of Molecular Biomedicine, IRIMS, Convergent Research Center for Metabolism and Immunoregulation, College of Medicine, Inha University
- P28 Live imaging of worms using microfluidic devices**  
Kyung Suk Lee  
Department of Physics Education, Kongju National University,
- P29 Behavioral changes in CMT gene knockout mutants in *C. elegans***  
Kyung Suk Lee  
Department of Physics Education, Kongju National University

- P30 Bi-phasic modulation of food uptake in *C. elegans***  
 Kyung Suk Lee<sup>p1</sup> and Erel Levine<sup>c2</sup>  
<sup>1</sup>Department of Physics Education, Kongju National University  
<sup>2</sup>Department of Physics, Harvard University
- P31 SAP7 suppresses stress-induced cellular senescence by cooperating with SIRT1**  
 Ji Hye Yang<sup>p</sup>, In seon Back, Jin hong Yang, Ho won Eom and Eun Joo Kim<sup>c</sup>  
 Department of Molecular Biology, Dankook University
- P32 Increased innate immune activity by corn byproduct polysaccharide-1-supernatant derived from corn starch**  
 신수용<sup>p1</sup>, 김서현<sup>1</sup>, 이호성<sup>2</sup>, 권동주<sup>3</sup>, 전성호<sup>c1</sup>  
<sup>1</sup>한림대학교 생명과학과 융복합유전체연구소  
<sup>2</sup>(주)산돌식품  
<sup>3</sup>(재)흥천메디칼허브연구소
- P33 Anti-Inflammatory immune responses mediated by graphene oxide**  
 Sung Won Lee<sup>p</sup> and Seokmann Hong<sup>c</sup>  
 Department of Bioscience and Biotechnology, Institute of Anticancer Medicine Development, Sejong University
- P34 Effects of dietary supplementation with propiconazole in finishing pigs**  
 Jin Young Jeong<sup>d</sup>, Ki Hyun Kim, Hyun-Jeong Lee, Sang Yun Ji, Ju Lan Chun, Han Tae Bang, Min Ji Kim and Byeonghyeon Kim  
 Animal Nutrition & Physiology Team, National Institute of Animal Science
- P35 Effect of roughage sources on methane production considering digestibility**  
 Hu Seong Lee<sup>p</sup>, Yeol Chang Baek, Seul Lee, Hye Ran Kim, Yu Gyeong Lee and Seong Dae Lee<sup>c</sup>  
 Animal Nutrition and Physiology Team, National Institute of Animal Science
- P36 Toxicokinetics and tissue distribution of hazardous materials in the marine mussel *Mytilus galloprovincialis***  
 Yunwi Heo<sup>p</sup>, Jae-Woong Jung and June-Woo Park<sup>c</sup>  
 Korea Institute of Toxicology
- P37 Berberine chloride attenuates cisplatin-induced ototoxicity in the mouse cochlear explants**  
 Jong-Heun Kim<sup>p12</sup>, Ye-Ri Kim<sup>12</sup>, Jeong-In Baek<sup>3</sup>, Han-Sol Lee<sup>12</sup>, Aun-Bin Woo<sup>12</sup>,  
 Kyu-Yup Lee<sup>c4</sup> and Un-Kyung Kim<sup>c12</sup>  
<sup>1</sup>Department of Biology, College of Natural Sciences, Kyungpook National University  
<sup>2</sup>School of Life Sciences, KNU Creative BioResearch Group (BK21 Plus Project),  
 Kyungpook National University  
<sup>3</sup>Department of Aroma-Applied Industry, College of Herbal Bio-industry, Daegu Haany University  
<sup>4</sup>Department of Otorhinolaryngology-Head and Neck Surgery, School of Medicine, Kyungpook National University

- P38 Novel splicing mutation in the *REEP1* gene cause autosomal dominant hereditary spastic paraplegia in Korean family**  
 Seong-Yong Park<sup>p1</sup>, Byeonhyeon Lee<sup>14</sup>, Jong-Heun Kim<sup>14</sup>, U-Sol Hwang<sup>14</sup>, Jin-Mo Park<sup>2</sup>, Jin-Sung Park<sup>c3</sup> and Un-Kyung Kim<sup>c14</sup>  
<sup>1</sup>Department of Biology, College of Natural Sciences, Kyungpook National University  
<sup>2</sup>Department of Neurology, Dongguk University College of Medicine  
<sup>3</sup>Department of Neurology, School of Medicine, Kyungpook National University  
<sup>4</sup>School of Life sciences, BK21 PlusKNU Creative Bioresearch Group, Kyungpook National University
- P39 The protective role of KL1333 against cisplatin-induced ototoxicity in organ of corti explant cultures**  
 Han-Sol Lee<sup>p12</sup>, Ye-Ri Kim<sup>12</sup>, Min-A Kim<sup>12</sup>, Jeong-In Baek<sup>c3</sup>, Kyu-Yup Lee<sup>c4</sup> and Un-Kyung Kim<sup>c12</sup>  
<sup>1</sup>Department of Biology, College of Natural Sciences, Kyungpook National University  
<sup>2</sup>School of Life Sciences, BK21 PlusKNU Creative BioResearch Group, Kyungpook National University  
<sup>3</sup>Department of Aroma Applied Industry, College of Herbal Bio-industry, Daegu Haany University  
<sup>4</sup>Department of Otorhinolaryngology-Head and Neck Surgery, Kyungpook National University Hospital, Kyungpook National University School of Medicine
- P40 A family with a mild form of congenital nystagmus and optic disc coloboma caused by a novel *PAX6* mutation**  
 Byeonghyeon Lee<sup>p12</sup>, Seong-Yong Park<sup>12</sup>, Hye-Min Kim<sup>12</sup>, Sung-Min Lim<sup>12</sup>, Jin-Sung Park<sup>c3</sup> and Un-Kyung Kim<sup>c12</sup>  
<sup>1</sup>Department of Biology, College of Natural Sciences, Kyungpook National University  
<sup>2</sup>School of Life Sciences, BK21 Plus KNU Creative BioResearch Group, Kyungpook National University  
<sup>3</sup>Department of Neurology, School of Medicine, Kyungpook National University, Kyungpook National University Chilgok Hospital
- P41 Increasing ERK phosphorylation by inhibition of p38 activity protects against cadmium-induced apoptotic cell death through ERK/Drp1/p38 signaling axis in spermatocyte-derived GC-2spd cells**  
 Dong-Seok Lee<sup>p12</sup> and Jung Bae Seong<sup>c12</sup>  
<sup>1</sup>School of Life Sciences, BK21 Plus KNU Creative BioResearch Group, Kyungpook National University  
<sup>2</sup>School of Life Sciences & Biotechnology, College of Natural Sciences, Kyungpook National University
- P42 주요 원목 재배 버섯 4종에 대한 노랑테가는버섯벌레(*Dacne picta*)의 가해 특성 및 기주 선호성**  
 Jae Jung Park<sup>p</sup>, Jung Sung Kim<sup>c</sup> and Won Seop Shin  
 Department of Forestry, Chungbuk National University
- P43 버섯의 기능성 연구 논문에 관한 연구 분석 (국내 연구를 중심으로)**  
 Hyun Sun Yoo<sup>p</sup> and Pyeong Sik Yeon<sup>c</sup>  
 Department of Forestry, Chungbuk National University

- P44 **EM(Effective Microorganism)처리가 구절초(*Chrysanthemum zawadskii*) 발아 특성에 미치는 영향**  
Je Woong Lee<sup>p</sup> and Jung Sun Kim<sup>c</sup>  
Department of Forestry, Chungbuk National University,
- P45 **미국흰불나방의 활엽수 수종별 섭식에 따른 발육 특성과 기주 선호성**  
Hoi Sung Jung<sup>p</sup> and Pyeong Sik Yeon<sup>c</sup>  
Department of Forestry, Chungbuk National University
- P46 **Difference of the bone mineral density and skeletal shape in *Hyla japonica* by alien invasive predator**  
Jun-Kyu Park<sup>p</sup>, Tea-Gun Choi and Yuno Do<sup>c</sup>  
Department of Biological Sciences, Kongju National University
- P47 **Unwinding mechanism of SARS coronavirus helicase nsP13 characterized by single-molecule methods**  
Jeongmin Yu<sup>p</sup>, Hyereon Im and Gwangrog Lee<sup>c</sup>  
School of Life Science, Gwangju Institute of Science and Technology
- P48 **Binding mode and degradation activity of ribonuclease H on the RNA/DNA hybrid substrate by single molecule FRET**  
Hyun Jee Lee<sup>p</sup> and Gwangrog Lee<sup>c</sup>  
School of Life Science, Gwangju Institute of Science and Technology
- P49 **The critical role of an aromatic ring for exolytic degradation by exonuclease III**  
Donghun Lee<sup>p</sup> and Gwangrog Lee<sup>c</sup>  
School of Life Science, Gwangju Institute of Science and Technology
- P50 **Electrostatic ratchet model in processive DNA degradation by lambda-exonuclease**  
Jungmin Yoo<sup>1</sup>, Hyeokjin Cho<sup>p1</sup>, Jejoong Yoo<sup>2</sup> and Gwangrog Lee<sup>c1</sup>  
<sup>1</sup>School of Life Science, Gwangju Institute of Science and Technology  
<sup>2</sup>IBS Center for Self-assembly & Complexity,
- P51 **Mechanism of RNA unwinding by XRN1 exonuclease**  
Junhyuk Rhee<sup>p</sup> and Gwangrog Lee<sup>c</sup>  
School of Life Science, Gwangju Institute of Science and Technology
- P52 **Single molecule FRET reveals the proofreading mechanism of replicative DNA Polymerase based on the single-mismatched DNA stability.**  
Vo Thi Minh Hoa<sup>p</sup>, Hyeokjin Cho and Gwangrog Lee<sup>c</sup>  
School of Life Science, Gwangju Institute of Science and Technology,
- P53 **Development of canine sperm capacitation media using conditioned media of canine amniotic membrane derived mesenchymal stem cells**  
Ming Jung Kim<sup>p</sup>, Ferial Yasmine Mahiddine and Byeong Chun Lee<sup>c</sup>  
Department of Theriogenology and Biotechnology, College of Veterinary Medicine, Seoul National University

- P54 Behavioral analysis of transgenic dogs that overexpress peroxisome proliferator-activated receptor-alpha in a muscle specific manner**  
Ming Jung Kim<sup>p</sup>, Erif Maha Nugraha Setyawan and Byeong Chun Lee<sup>c</sup>  
Department of Theriogenology and Biotechnology, College of Veterinary Medicine, Seoul National University
- P55 Fractional analysis of broccoli leaves Based on antioxidant activity**  
Iseul An<sup>p</sup>, Sook Jahr Park and Jong Rok Lee<sup>c</sup>  
Department of Pharmaceutical Engineering, Daegu Haany University
- P56 Functional analysis of dXNP in *Drosophila melanogaster***  
Jang Ho Lee<sup>p</sup> and Kyoung Sang Cho<sup>c</sup>  
Department of Biological Sciences, Konkuk University
- P57 Study on the function of linear ubiquitination in the muscles of *Drosophila***  
Banseok Lee<sup>p</sup>, Changmin Shin, Myeongcheol Shin and Kyoung Sang Cho<sup>c</sup>  
Department of Biological Sciences, Konkuk University
- P58 Study on the Alzheimer's disease based on the risk factors identified from GENOME-WIDE association study in Korean population using *Drosophila* Alzheimer's disease models**  
Changmin Shin<sup>p1</sup>, Chunyu Yuan<sup>1</sup>, Kang Yeon Kim<sup>1</sup>, Chae Jin Lim<sup>1</sup>, Mee Dong Roh<sup>1</sup>, Sangmyung Rhee<sup>2</sup>, Jung-Woong Kim<sup>2</sup>, Jungsoo Gim<sup>3</sup>, Kun Ho Lee<sup>3</sup> and Kyoung Sang Cho<sup>c1</sup>  
<sup>1</sup>Department of Biological Sciences, Konkuk University  
<sup>2</sup>Department of Life Science, Chung-Ang University  
<sup>3</sup>National Research Center for Dementia, Chosun University
- P59 *Cudrania tricuspidata* fruits and its phytochemicals reduce the enzymatic activity of obesity-related enzymes**  
Jun-Hui Choi, Se-Eun Park, Ki-Man Kim, Hyo-Jeong Lee and Seung Kim<sup>d</sup>  
Department of Food Science and Biotechnology, Gwangju University
- P60 Expression analysis of miR-95-5p, miR-625-5p and miR-1269a derived from Transposable Element in *Sebastes schlegelii***  
Woo Ryung Kim<sup>p12†</sup>, Jennifer Im<sup>12</sup>, Hee-Eun Lee<sup>12</sup>, Ahran Kim<sup>3</sup> and Heui-Soo Kim<sup>c24</sup>  
<sup>1</sup>Department of Integrated Biological Science, Pusan National University  
<sup>2</sup>Institute of Systems Biology, Pusan National University  
<sup>3</sup>Department of Aquatic Life Medicine, Pukyong National University  
<sup>4</sup>Department of Biological Sciences, College of Natural Sciences, Pusan National University
- P61 Expression and bioinformatic analysis of miR-422a derived from SINE in crab-eating monkey**  
Woo Ryung Kim<sup>p12</sup>, Hee-Eun Lee<sup>12</sup>, Jae-Won Huh<sup>34</sup>, Sang-Je Park<sup>3</sup> and Heui-Soo Kim<sup>c25</sup>  
<sup>1</sup>Department of Integrated Biological Science, Pusan National University  
<sup>2</sup>Institute of Systems Biology, Pusan National University  
<sup>3</sup>National Primate Research Center, Korea Research Institute of Bioscience and Biotechnology



<sup>4</sup>Department of Functional Genomics, KRIBB school of Bioscience, Korea University of Science and Technology (UST)

<sup>5</sup>Department of Biological Sciences, College of Natural Sciences, Pusan National University

- P62 Expression and bioinformatic analysis of miR-21-5p, miR-221-3p in *Pan troglodytes***  
Woo Ryung Kim<sup>p12</sup>, Hee-Eun Lee<sup>12</sup>, Hiroo Imai<sup>3</sup> and Heui-Soo Kim<sup>c24</sup>  
<sup>1</sup>Department of Integrated Biological Science, Pusan National University  
<sup>2</sup>Institute of Systems Biology, Pusan National University  
<sup>3</sup>Department of Cellular and Molecular Biology, Primate Research Institute, Kyoto University  
<sup>4</sup>Department of Biological Sciences, College of Natural Sciences, Pusan National University
- P63 Penetration assay of small molecules against cell membrane of Gram-negative bacteria**  
Yeong-Jin Yun<sup>p</sup>, Hyun-Jae Park and Lin-Woo Kang<sup>c</sup>  
Department of Biological sciences, Konkuk University,
- P64 Expression, purification, crystallization of cystathionine  $\beta$ -lyase from multidrug-resistant *Acinetobacter baumannii***  
SangJun Han<sup>p</sup>, Hyunjae Park and Lin-Woo Kang<sup>c</sup>  
Department of Biological Sciences, Konkuk University,
- P65 Comparative insect biodiversity between organic and conventional agricultural fields**  
Yan Sun<sup>p1</sup>, Ji-Hyoung Mun<sup>1</sup>, Ji-Woo Park<sup>1</sup>, Sung-Hwan Park<sup>1</sup>, Inn-Jae Choi<sup>1</sup>, Jin-Woo Park<sup>1</sup>, Bon-Jin Ku<sup>1</sup>, Seung-Min Lee<sup>1</sup>, Hoon Kim<sup>1</sup>, Tae-Yeon Kim<sup>2</sup> and Myung-Jin Moon<sup>c1</sup>  
<sup>1</sup>Department of Biological Sciences, Dankook University  
<sup>2</sup>Department of Environmental and Resource Economics, Dankook University
- P66 Bioindicator survey for the insect species based on the alternative farming systems of agriculture**  
Yan Sun<sup>p1</sup>, Seung-Min Lee<sup>1</sup>, Hoon Kim<sup>1</sup>, Tae-Yeon Kim<sup>2</sup> and Myung-Jin Moon<sup>c1</sup>  
<sup>1</sup>Department of Biological Sciences, Dankook University  
<sup>2</sup>Department of Environmental and Resource Economics, Dankook University
- P67 Fine structure of the silk scaffolds in the larva of caddisfly, *Hydatophylax nigrovittatus* (Trichoptera: Limnephilidae)**  
Yan Sun<sup>p</sup>, Hyo-Jung Kim and Myung-Jin Moon<sup>c</sup>  
Department of Biological Sciences, Dankook University
- P68 Biodiversity in eggcase fabrication of selected spiders, *Nephila clavata* and *Pardosa laura***  
Yan Sun<sup>p</sup> and Myung-Jin Moon<sup>c</sup>  
Department of Biological Sciences, Dankook University

- P69** Fine structure of the silk spigots for capture scaffolds production in the cribellar spider, *Nurisia albofasciata*  
Bon-Jin Ku<sup>p</sup>, Yan Sun, Hoon Kim and Myung-Jin Moon<sup>c</sup>  
Department of Biological Sciences, Dankook University
- P70** Fine structure of the eggcase silk scaffolds in the comb-footed spider *Achaearanea tepidariorum*  
Seung-Min Lee<sup>p</sup>, Jeong-Su Aa and Myung-Jin Moon<sup>c</sup>  
Department of Biological Sciences, Dankook University
- P71** Fine structure of the antennal sensory receptors in the bark beetle *Ips subelongatus*  
Seung-Min Lee<sup>p1</sup>, Yan Sun<sup>1</sup>, Jong-Gu Park<sup>2</sup> and Myung-Jin Moon<sup>c1</sup>  
<sup>1</sup>Department of Biological Sciences, Dankook University  
<sup>2</sup>S-Worm Co. Ltd.
- P72** Acetyl-CoA synthetase 2 increases the expression of IFN- $\gamma$  in TH1 cells by enhancing histone acetylation  
Mi Hye Song<sup>p</sup>, Dong-Hyoek Youn and Kwon Ik Oh<sup>c</sup>  
Department of Pathology, Hallym University College of Medicine
- P73** Inhibition of ERK increases RANKL-induced osteoclast differentiation through activation of Nrf2 in RAW 264.7 cells  
Taiwo Samuel Agidigbi, In Soon Kang and Chaekyun Kim<sup>d</sup>  
Laboratory for Leukocyte Signaling Research, Department of Pharmacology, Inha University School of Medicine
- P74** EBP50 functions in peripheral nerve system  
Deepak Prasad Gupta<sup>1</sup>, Ki Wha Chung<sup>2</sup>, Byung-Ok Choi<sup>3</sup>, Kyoung Ho Suk<sup>4</sup> and Gyun Jee Song<sup>d1</sup>  
<sup>1</sup>Department of Medical Science, Institute for Bio-Medical Convergence, Catholic Kwandong University, International St. Mary's Hospital  
<sup>2</sup>Department of Biological Sciences, Kongju National University  
<sup>3</sup>Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine  
<sup>4</sup>Department of Pharmacology, Brain Science and Engineering Institute, School of Medicine, Kyungpook National University
- P75** Gender specificity and mild phenotypic tendency in Charcot-Marie-Tooth type 1A patients with *de novo* 17p12 rearrangements  
Ah Jin Lee<sup>p1</sup>, Yu Jin Choi<sup>1</sup>, Soo Hyun Nam<sup>2</sup>, Byung-Ok Choi<sup>2</sup> and Ki Wha Chung<sup>c1</sup>  
<sup>1</sup>Department of Biological Sciences, Kongju National University  
<sup>2</sup>Department of Neurology & Department of Health Sciences and Technology, SAIHST, Sungkyunkwan University School of Medicine
- P76** Genetic causes analysis in the limb girdle muscular dystrophy patient  
Hye Ri Park<sup>p1</sup>, Si On Lim<sup>1</sup>, Byung-Ok Choi<sup>2</sup> and Ki Wha Chung<sup>c1</sup>  
<sup>1</sup>Department of Biological Sciences, Kongju National University  
<sup>2</sup>Department of Neurology & Department of Health Sciences and Technology, SAIHST, Sungkyunkwan University School of Medicine

- P77 Genetic authentication of cultivars with flower-variant types using SSR markers in *Cymbidium goeringii***  
Da Eun Nam<sup>p</sup>, Hyun Jung Lee, Yuno Do, Seung Woo Noh and Ki Wha Chung<sup>c</sup>  
Department of Biological Sciences, Kongju National University
- P78 Comparison of clinical phenotypes between *MPZ* and *NEFL* in Korean Charcot-Marie-Tooth disease type 1 and type 2**  
Yu Jin Choi<sup>p1</sup>, Ah Jin Lee<sup>1</sup>, Byung-Ok Choi<sup>2</sup> and Ki Wha Chung<sup>c1</sup>  
<sup>1</sup>Department of Biological Sciences, Kongju National University  
<sup>2</sup>Department of Neurology & Department of Health Sciences and Technology, SAIHST, Sungkyunkwan University School of Medicine
- P79 Discrimination of 20 cultivars by the analysis of SSR genotypes in *Cymbidium goeringii***  
Seung Woo Noh<sup>p</sup>, Nam Da Eun and Ki Wha Chung<sup>c</sup>  
Department of Biological Sciences, Kongju National University
- P80 Identification of *PLA2G6* mutation in a consanguineous Pakistani family with deafness and muscle atrophy**  
Si On Lim<sup>p1</sup>, Hye Ri Park<sup>1</sup>, Sumaira Kanwal<sup>2</sup> and Ki Wha Chung<sup>c1</sup>  
<sup>1</sup>Department of Biological Sciences, Kongju National University  
<sup>2</sup>Department of Biosciences, COMSATS Institute of Information Technology
- P81 Genome editing for characterization of *NSD1*-deleted phenotypes in SH-sy5y cells using the CRISPR-Cas9 system**  
Hyewon Shin<sup>p</sup>, Bokyeong Song, Taejoon Kim, Chihyun Won and Im-Soon Lee<sup>c</sup>  
Department of Biological Sciences, Konkuk University
- P82 Cell growth regulation of NSD1 mutant cells is associated with NF- $\kappa$ B and ERK pathways**  
Bokyeong Song<sup>p</sup>, Hyewon Shin, Taejoon Kim, Chihyun Won, and Im-Soon Lee<sup>c</sup>  
Department of Biological Sciences, Konkuk University
- P83 Relationship between NSD overexpression and *Drosophila* immune system**  
Chihyun Won<sup>p</sup>, Taejoon Kim, Bokyeong Song, Hyewon Shin and Im-Soon Lee<sup>c</sup>  
Department of Biological Sciences, Konkuk University,
- P84 Overexpression of H3K36 methyltransferase NSD in glial cells induces apoptosis and neurological disorders in *Drosophila***  
Taejoon Kim<sup>p</sup>, Hyewon Shin, Bokyeong Song, Chihyun Won and Im-Soon Lee<sup>c</sup>  
Department of Biological Sciences, Konkuk University,
- P85 The immunostimulating effect of synbiotics feed supplement, *Lactococcus lactis* BFE920 and inulin, in starry flounder**  
Seok-Hong Hwang<sup>p</sup>, Soon Ho Lee, San-Sung Kwon, Hae Min Jeong and Seong Kyu Song<sup>c</sup>  
School of Life Science, Handong Global University
- P86 Comparison of hematological parameters in Sapsaree aged from 4 months to 2 years old**  
Seung-Won Yi<sup>1</sup>, Eunju Kim<sup>p1</sup>, Sang-Ik Oh<sup>1</sup>, Ji-Hong Ha<sup>2</sup>, Bugeun Lee<sup>2</sup>, Jae Gyu Yoo<sup>1</sup> and Yoon Jung Do<sup>c1</sup>

<sup>1</sup>Division of Animal Diseases & Health, National Institute of Animal Science, Rural Development Administration

<sup>2</sup>Korean Sapsaree Foundation

- P87 Anthocyanin contents of AromaT with black milky endosperm and its major physicochemical properties**  
Su-Kyung Ha<sup>d1</sup>, Youngjun Mo<sup>1</sup>, Ji-Ung Jeung<sup>1</sup>, Bo-Kyeong Kim<sup>1</sup>, Woo-Jae Kim<sup>1</sup>, Jong-Min Jeong<sup>1</sup>, Jinhee Kim<sup>1</sup> and Woo Duck Seo<sup>2</sup>  
<sup>1</sup>Crop Breeding Division, National Institute of Crop Science, Rural Development Agriculture  
<sup>2</sup>Division of Crop Foundation, National Institute of Crop Science, Rural Development Agriculture
- P88 Histone demethylase KDM4D cooperates with NFIB and MLL1 complex to regulate adipogenic differentiation of C3H10T1/2 mesenchymal stem cells**  
Jang Hyun Choi<sup>p</sup> and Hansol Lee<sup>c</sup>  
Department of Biological Sciences, College of Natural Science, Inha University
- P89 The nuclear factor IB (NFIB) acts as a upstream regulator of Dlx5 dependent osteogenic differentiation in C3H10T1/2 mesenchymal stem cells**  
Jang Hyun Choi<sup>p</sup>, Yeyoung Kim, Haram Lee and Hansol Lee<sup>c</sup>  
Department of biological sciences, College of Natural sciences, Inha University
- P90 Pembrolizumab interferes with the differentiation of human FoxP3<sup>+</sup> induced Tregs, but not with FoxP3 stability, through activation of mTOR and STAT1**  
Varun Sasidharan Nair<sup>p1</sup>, Salman M Toor<sup>1</sup>, Ghina Taouk<sup>1</sup>, Gerald Pfister<sup>2</sup>, Khalid Ouararhni<sup>1</sup>, Nehad M Alajez<sup>1</sup> and Eyad Elkord<sup>c13</sup>  
<sup>1</sup>Cancer Research Center, Qatar Biomedical Research Institute (QBRI), Hamad Bin Khalifa University (HBKU)  
<sup>2</sup>Flow Cytometry Core, Qatar Biomedical Research Institute (QBRI), Hamad Bin Khalifa University (HBKU)  
<sup>3</sup>Institute of Cancer Sciences, University of Manchester
- P91 Detection of multiple genotypes of porcine parvovirus in lung samples obtained from Korean wild boars**  
Gyu-Nam Park<sup>p</sup>, Se Eun Choe, Ra Mi Cha and Dong-Jun An<sup>c</sup>  
Animal and Plant Quarantine Agency
- P92 Strength of a conspecific fish cue and effects of fluoxetine on social response in zebrafish**  
Yeon-Hwa Kim<sup>p</sup>, Haram Lee, Hansol Lee and Chang-Joong Lee<sup>c</sup>  
Department of Biological Sciences, Inha University
- P93 Social preference to conspecific fish cue and mirror-reflected image cue in aged zebrafish**  
Yeon-Hwa Kim<sup>p1</sup>, Inn-Oc Han<sup>2</sup> and Chang-Joong Lee<sup>c1</sup>  
<sup>1</sup>Department of Biological Sciences, Inha University  
<sup>2</sup>Department of Physiology and Biophysics, College of Medicine, Inha University

- P94 Two new species of genus *Henricia* (Asteroidea: Spinulosida: Echinasteridae) from Korea**  
Michael Dadole Ubagan<sup>P</sup> and Sook Shin<sup>C</sup>  
Department of Animal Biotechnology & Resource, Marine Biological Resource Institute,  
Sahmyook University
- P95 Rapid detection of marine invasive hydra, *Ectopleura crocea*, based on eDNA analysis**  
Taekjun Lee<sup>P1</sup>, Philjae Kim<sup>2</sup>, Michael Dadole Ubagan<sup>3</sup> and Sook Shin<sup>C13</sup>  
<sup>1</sup>Marine Biological Resource Institute, Sahmyook University  
<sup>2</sup>National Science Museum  
<sup>3</sup>Department of Animal Biotechnology & Resource, Sahmyook University
- P96 Complete mitochondrial genome analysis of the taxonomically notorious sea stars, *Henricia leviuscula* and *H. pachyderma* (Asteroidea: Spinulosida: Echinasteridae), from Korea**  
Taekjun Lee<sup>P1</sup> and Sook Shin<sup>C12</sup>  
<sup>1</sup>Marine Biological Resource Institute, Sahmyook University  
<sup>2</sup>Department of Animal Biotechnology and Resource, Sahmyook University
- P97 Study for genetic resource to improve salt tolerance in japonica rice**  
Jinhee Kim<sup>P</sup>, Jong-Min Jeong<sup>C</sup>, Youngjun Mo, Su-Kyung Ha, Woo-Jae Kim, Bo-Kyeong Kim and Ji-Ung Jeung  
National Institute of Crop Science, Rural Development Administration
- P98 Dihydroartemisinin-induced miR-200b negatively modulates stem-like properties in ovarian cancer cells via targeting BMI-1 and VEGF-A**  
Jin Gu Cho<sup>P</sup>, Jihea Choi and Jongmin Kim<sup>C</sup>  
Department of Life Systems, Sookmyung Women's University
- P99 Nanog-miR-424/503-WEE1 signaling axis controls ovarian cancer stem like cells**  
Jin Gu Cho<sup>P†</sup>, Ha-neul Jeong<sup>†</sup>, Jihea Choi and Jongmin Kim<sup>C</sup>  
Department of Life Systems, Sookmyung Women's University,
- P100 MicroRNA-34a regulates vasculogenic mimicry by targeting AXL in breast cancer cells**  
Dansaem Lim<sup>P</sup>, Jin Gu Cho and Jongmin kim<sup>C</sup>  
Department of Life Systems, Sookmyung Women's University
- P101 Ginsenoside Rg3 restore endothelial-to-mesenchymal transition through miR-139-5p and NF-kB signaling in HUVECs**  
Eunsik Yun<sup>P</sup>, Aram Lee, Woochul Chang and Jongmin Kim<sup>C</sup>  
Department of Life Systems, Sookmyung Women's University
- P102 Development of LexA-inducible Ab-SPOP transgenic zebrafish**  
Joo Hwan Lee<sup>P1</sup>, Byung Joon Hwang<sup>2</sup> and Yun Kee<sup>C1</sup>  
<sup>1</sup>Division of Biomedical Convergence, Kangwon National University  
<sup>2</sup>Department of Molecular Bioscience, College of Biomedical Science, Kangwon National University

- P103 Report on a new species of *Plutomurus* (Collembola, Tomoceridae) and re-description *Plutomurus leei* Yosii, 1966 from a South Korean limestone cave, with notes on their DNA barcode**  
 Gyu-Dong Chang<sup>p</sup> and Kyung-Hwa Park<sup>c</sup>  
 Department of Biology Education and Institute of Science Education, Chonbuk National University
- P104 Acute social defeat stress-induced synaptic depression in the ventral subiculum to peri-PVN pathway**  
 Changsu Woo<sup>p</sup>, Soonje Lee, Changwoo Lee and Ki Soon Shin<sup>c</sup>  
 Department of Biology, Graduate School, Kyung Hee University
- P105 Comparative analysis on efficiency of bacterial 16S ribosomal RNA gene-based V3-V4 region amplicon sequencing and loop-sequencing in human fecal microbiome**  
 Jinuk Jeong<sup>p1</sup>, Seyoung Mun<sup>1</sup>, Kyudong Han<sup>c1</sup> and Yongju Ahn<sup>c2</sup>  
<sup>1</sup>Department of Nanobiomedical Science, BK21 PLUS NBM Global Research Center for Regenerative Medicine, Dankook University  
<sup>2</sup>Microbiome Division, Theragen Etex
- P106 RNA's touch for wounded DNA: R loop is resolved by TonEBP-mediated m6A RNA methylation**  
 Hyun Je Kang<sup>p1</sup>, Kyu Won Jeong<sup>1</sup>, Hyun Park<sup>1</sup>, Na Young Cheon<sup>2</sup>, Eun Jin Yoo<sup>1</sup>, Jun Ho Lee<sup>1</sup>, Ja Yil Lee<sup>1</sup>, Kyungjae Mying<sup>2</sup>, Hyug Moo Kwon<sup>c1</sup>  
<sup>1</sup>School of Life Sciences, Ulsan National Institute of Science and Technology  
<sup>2</sup>Center for Genomic Integrity, Institute for Basic Science
- P107 Transcriptional regulator TonEBP mediates oxidative damages in ischemic kidney injury**  
 Eun Jin Yoo<sup>p1†</sup>, Sun Woo Lim<sup>2†</sup>, Hyun Je Kang<sup>1</sup>, Hyun Park<sup>1</sup>, Sora Yoon<sup>1</sup>, Dougu Nam<sup>1</sup>, Satoru Sanada<sup>3</sup>, Mi Jin Kwon<sup>4</sup>, Whaseon Lee-Kwon<sup>1</sup>, Soo Youn Choi<sup>c1</sup> and Hyug Moo Kwon<sup>c1</sup>  
<sup>1</sup>School of Life Sciences, Ulsan National Institute of Science and Technology  
<sup>2</sup>Transplantation Research Center, The Catholic University of Korea School of Medicine  
<sup>3</sup>Division of Nephrology, Japan Community Health Care Organization Sendai Hospital  
<sup>4</sup>PSA Co., Ltd.
- P108 p90RSK inhibition ameliorates TGF-β1 signaling and pulmonary fibrosis by inhibiting Smad3 transcriptional activity**  
 Suji Kim<sup>p12</sup>, Ae-Rang Hwang<sup>12</sup> and Chang-Hoon Woo<sup>c12</sup>  
<sup>1</sup>Department of Pharmacology, Yeungnam University College of Medicine  
<sup>2</sup>Smart-Ageing Convergence Research Center, Yeungnam University College of Medicine
- P109 Anti-malarial drugs reduce Vascular smooth muscle cell proliferation via activation AMPK and inhibition of Smad3**  
 Heejung Lee<sup>p</sup>, Sujin Kim and Chang-Hoon Woo<sup>c</sup>  
 Department of Pharmacology and Smart-Ageing Convergence Research Center, Yeungnam University College of Medicine

- P110 Expression and functional studies of Fbxl16 in zebrafish embryogenesis**  
Hyeong Joo Lee<sup>p</sup> and Myungchull Rhee<sup>c</sup>  
Laboratory of NeuroGenesis, Department of Biological Science, Undergraduate School  
Chungnam National University
- P111 *siva1* is critical to formation of the organizer, shield in zebrafish embryos**  
Dahyun Koh<sup>p</sup> and Myungchull Rhee<sup>c</sup>  
Laboratory of NeuroGenesis, Department of Biological Science, Undergraduate School  
Chungnam National University
- P112 Transcriptomic analysis for biological effects of FAF1 in a Parkinson's disease mouse model**  
Jangham Jung<sup>p</sup> and Myungchull Rhee<sup>c</sup>  
Department of Bioscience & Biotechnology, Graduate School, Chungnam National  
University
- P113 *March5* governs the convergence & extension movement (CE) for organization of the telencephalon and diencephalon in zebrafish embryos**  
Jangham Jung<sup>p</sup> and Myungchull Rhee<sup>c</sup>  
Department of Bioscience & Biotechnology, Graduate School, Chungnam National  
University
- P114 The evolutionary history of LNX: from fish to human**  
Jeong-Gwan Hong<sup>p</sup> and Hyun-Ju Ro<sup>c</sup>  
Department of Biological Sciences, College of Biological Sciences and Biotechnology,  
Chungnam National University
- P115 Associations between microRNA (miR-25, miR-32, miR-125, and miR-222) single nucleotide variants and RIF (recurrent implantation failure) in Korean women**  
Jeong Yong Lee<sup>p1</sup>, Chang Soo Ryu<sup>1</sup>, Han Sung Park<sup>1</sup>, Hui Jeong An<sup>1</sup>, Eun Ju Ko<sup>1</sup>, Hyeon Woo Park<sup>1</sup>, Eun Hee Ahn<sup>2</sup>, Young Ran Kim<sup>2</sup>, Woo Sik Lee<sup>3</sup> and Nam Keun Kim<sup>c1</sup>  
<sup>1</sup>Department of Biomedical Science, College of Life Science, CHA University  
<sup>2</sup>Department of Obstetrics and Gynecology, CHA Bundang Medical Center, School of Medicine, CHA University  
<sup>3</sup>Department of Obstetrics and Gynecology, CHA Gangnam Medical Center, School of Medicine, CHA University
- P116 The association between the four miRNA polymorphisms (*miR-27a*, *miR-423*, *miR-449b* and *miR-604*) and the risk of recurrent implantation failure**  
Chang Soo Ryu<sup>p1</sup>, Han Sung Park<sup>1</sup>, Jeong Yong Lee<sup>1</sup>, Eun Ju Ko<sup>1</sup>, Hyeon Woo Park<sup>1</sup>, Yubin Lee<sup>23</sup>, Woo Sik Lee<sup>c2</sup> and Nam Keun Kim<sup>c1</sup>  
<sup>1</sup>Department of Biomedical Science, College of Life Science, CHA University  
<sup>2</sup>Department of Obstetrics and Gynecology, CHA Bundang Medical Center, College of Medicine, CHA University  
<sup>3</sup>CHA Fertility Center

- P117 SPIN90, SH3 protein interacting with Nck, regulates radial migration during corticogenesis**  
Ji-Eun Kang<sup>p</sup>, Yoo Dong Kwan, Wooyul Choi, Seunghyuk Choi, Ali Sadra and Sung-Oh Huh<sup>c</sup>  
Department of Pharmacology, College of Medicine, Institute of Natural Medicine, Hallym University
- P118 Polydopamine-enabled fluorescence enhancement for targeted cancer cell imaging**  
Miso Kim<sup>p</sup>, Hawon Lee and Young-Pil Kim<sup>c</sup>  
Department of Life Science, Hanyang University
- P119 Strategies for the treatment of colorectal cancer through asparagine synthetase (ASNS) and bile acids**  
Min Ki Kim<sup>p</sup> and Sungsoon Fang<sup>c</sup>  
Severance Biomedical Science Institute, BK21 PLUS project for Medical Science, Yonsei University College of Medicine
- P120 BMP signaling affects GLP-1 secretion through nutrient condition**  
Jae Woong Jeong<sup>p</sup> and Sungsoon Fang<sup>c</sup>  
Severance Biomedical Science Institute, BK21 PLUS project for Medical Science, Yonsei University College of Medicine
- P121 Function of SHP complex in non-alcoholic fatty liver disease**  
Hyeon Hui kim<sup>p</sup> and Sungsoon Fang<sup>c</sup>  
Severance Biomedical Science Institute, BK21 PLUS project for Medical Science, Yonsei University College of Medicine
- P122 Inositol pyrophosphate metabolism regulates presynaptic vesicle cycling at central synapses**  
Seung Ju Park<sup>1\*</sup>, Hoyong Park<sup>2\*</sup>, Min-Gyu Kim<sup>p1\*</sup>, Seungjae Zhang<sup>2</sup>, Seyun Kim<sup>c13</sup> and Chi Hye Chung<sup>c2</sup>  
<sup>1</sup>Department of Biological Sciences, Korea Advanced Institute of Science and Technology  
<sup>2</sup>Department of Biological Sciences, Konkuk University  
<sup>3</sup>KAIST Institute for the BioCentury, KAIST
- P123 Vertical hybrid nanoantenna arrays for extreme light localization in plasmon-based fluorescence imaging**  
Soojung Kim<sup>p1</sup>, Hyerin Song<sup>1</sup>, Heesang Ahn<sup>1</sup>, Taerim Yoon<sup>1</sup>, Teayeon Kim<sup>1</sup>, Seunghun Lee<sup>1</sup>, Yongjae Kwon<sup>1</sup> and Kyujung Kim<sup>c12</sup>  
<sup>1</sup>Department of Cogno-mechatronics Engineering, Pusan National University  
<sup>2</sup>Department of Optics and Mechatronics Engineering, Pusan National University
- P124 Characterization of Korean Charcot-Marie-Tooth disease type 2 family with mutation of Alanyl-tRNA synthetase 1 gene**  
Soo Hyun Nam<sup>p1</sup>, Ah Jin Lee<sup>2</sup>, Da Eun Nam<sup>2</sup>, Yu Jin Choi<sup>2</sup>, Hye Jin Kim<sup>3</sup>, Ki Wha Chung<sup>2</sup> and Byung-Ok Choi<sup>c13</sup>  
<sup>1</sup>Samsung Biomedical Research Institute, Samsung Medical Center  
<sup>2</sup>Department of Biological Sciences, Kongju National University  
<sup>3</sup>Department of Neurology and, SAIHST, Sungkyunkwan University School of Medicine



- P125 A novel mutation of *PHKA1* in Korean family with X-linked glycogen storage disease type IXd (GSD9D)**  
Hye Jin Kim<sup>p1</sup>, Soo Hyun Nam<sup>2</sup>, Hyun Myung Doo<sup>1</sup>, Bohyun Lee<sup>2</sup> and Byung Ok Choi<sup>c123</sup>  
<sup>1</sup>Department of Health Sciences and Technology, Samsung Advanced Institute for Health Science & Tech., Sungkyunkwan University  
<sup>2</sup>Stem Cell & Regenerative Medicine Institute, Samsung Medical Center  
<sup>3</sup>Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine
- P126 A proof-of-concept of CMT1A therapy with CRISPR / Cas9 using Schwann cell differentiation of patient-derived iPSCs and mouse model**  
Hyun M. Doo<sup>p1</sup>, Jae Y. Lee<sup>2</sup>, Dong W. Song<sup>2</sup>, Ji-Su Lee<sup>1</sup>, Hee S. Bae<sup>2</sup>, Ho S. Yu<sup>2</sup>, Kyu J. Lee<sup>2</sup>, Hee K. Kim<sup>3</sup>, Hyun Hwang<sup>3</sup>, Geon Kwak<sup>1</sup>, Daesik Kim<sup>45</sup>, Seokjoong Kim<sup>2</sup>, Young B. Hong<sup>c6</sup>, Jung M. Lee<sup>c7</sup> and Byung-Ok Choi<sup>c13</sup>  
<sup>1</sup>Department of Health Sciences and Technology, SAIHST, Sungkyunkwan University  
<sup>2</sup>ToolGen, Inc.  
<sup>3</sup>Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine  
<sup>4</sup>Center for Genome Engineering, Institute for Basic Science  
<sup>5</sup>Department of Chemistry, Seoul National University  
<sup>6</sup>Department of Biochemistry, College of Medicine, Dong-A University  
<sup>7</sup>School of Life Science, Handong Global University
- P127 Establishment of motor and sensory nerve conduction study methods on wild type and CMT1A model mouse**  
Bohyun Lee<sup>p1</sup>, Gun Kwak<sup>2</sup>, Soo Hyun Nam<sup>1</sup>, Hye Jin Kim<sup>2</sup>, Hyun Myung Doo<sup>2</sup> and Byung Ok Choi<sup>c1.2.3</sup>  
<sup>1</sup>Stem Cell & Regenerative Medicine Institute, Samsung Medical Center  
<sup>2</sup>Department of Health Sciences and Technology, Samsung Advanced Institute for Health Science & Tech., Sungkyunkwan University  
<sup>3</sup>Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine
- P128 Phenotypic characterization of autosomal recessive Charcot-Marie-Tooth disease type 4C with *SH3TC2* mutations**  
Byung-Ok Choi<sup>d12</sup>, Soo Hyun Nam<sup>1</sup>, Hye Jin Kim<sup>2</sup>, Hyun Myung Doo<sup>2</sup>, Ji-Su Lee<sup>2</sup>, Geon Kwak<sup>2</sup>, Ah Jin Lee<sup>3</sup>, Jin-Mo Park<sup>4</sup>, Jin-Sung Park<sup>5</sup> and Ki Wha Chung<sup>3</sup>  
<sup>1</sup>Department of Neurology, Samsung Medical Center, Sungkyunkwan University School of Medicine  
<sup>2</sup>Department of Health Sciences and Technology, SAIHST, Sungkyunkwan University  
<sup>3</sup>Department of Biological Sciences, Kongju National University  
<sup>4</sup>Department of Neurology, Dongguk University Gyeongju Hospital, Dongguk University College of Medicine  
<sup>5</sup>Department of Neurology, School of medicine, Kyungpook National University, Kyungpook National University Chilgok Hospital

- P129 Primary cilia formation by nephronophthisis 3 regulates the resistance induction to vinblastine in HeLa cervical cancer cells**  
Pham Xuan Thuy, Jae-Wook Lee and Eun-Yi Moon<sup>d</sup>  
Department of Bioscience and Biotechnology, Sejong University
- P130 Targeted recombination for chromosomal editing in *Drosophila***  
Wonseok Son<sup>p1</sup> and Ki Wha Chung<sup>c2</sup>  
<sup>1</sup>Department of Biological Science, KAIST  
<sup>2</sup>Department of Biological Sciences, Kongju National University
- P131 Oleuropein reduces anxiety-like responses by activating of serotonergic and neuropeptide Y (NPY)-ergic systems in a rat model of post-traumatic stress disorder**  
Bombi Lee<sup>d1</sup>, Insop Shim<sup>12</sup>, Hyejung Lee<sup>13</sup> and Dae-Hyun Hahm<sup>c12</sup>  
<sup>1</sup>Acupuncture and Meridian Science Research Center, College of Korean Medicine, Kyung Hee University  
<sup>2</sup>Department of Physiology, College of Medicine, Kyung Hee University  
<sup>3</sup>The Graduate School of Basic Science of Korean Medicine, College of Korean Medicine, Kyung Hee University