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 Food Safety Risk Assessment Division, National Institute of Food and Drug Safety Evaluation,  
 Ministry of Food and Drug Safety, Korea
- P-002** INCREASED EXPRESSION OF FETUIN-A IN ACETAMINOPHEN-INDUCED HEPATOTOXICITY ..... 00  
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 College of Pharmacy and Research Institute of Pharmaceutical Sciences,  
 Seoul National University, Seoul, Republic of Korea
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 Laboratory of Biochemistry and Immunology, College of Veterinary Medicine,  
 Chungbuk National University, Cheongju, Chungbuk 28644 Republic of Korea
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 Laboratory of Biochemistry and Immunology, College of Veterinary Medicine,  
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 Cho-Won Kim and Kyung-Chul Choi\*  
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 Chungbuk National University, Cheongju, Chungbuk, Republic of Korea

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 Ji-Youn Kim and Kyung-Chul Choi\*  
 Laboratory of Biochemistry and Immunology, College of Veterinary Medicine,  
 Chungbuk National University, Cheongju, Chungbuk 28644 Republic of Korea
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 Laboratory of Biochemistry and Immunology, College of Veterinary Medicine,  
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- P-008** TRICLOSAN AND BISPHENOL-INDUCED EPITHELIAL-MESENCHYMAL TRANSITION AND METASTASIS OF BG-1 OVARIAN CANCER CELLS WERE REVERSED BY PHYTOESTROGENS IN AN ESTROGEN RECEPTOR SIGNALING PATHWAY ..... 00  
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 Chungbuk National University, Cheongju, Chungbuk, Korea
- P-009** 3,3'-DIINDOLYLMETHANE-INDUCED INHIBITION OF CELL MIGRATION OF MCF-7 BREAST CANCER CAUSED BY TRICLOSAN AND BISPHENOL A VIA THE REGULATION OF EPITHELIAL- MESENCHYMAL TRANSITION IN AN ESTROGEN RECEPTOR SIGNALING PATHWAY ..... 00  
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 Laboratory of Biochemistry and Immunology, College of Veterinary Medicine,  
 Chungbuk National University, Cheongju 28644 Chungbuk, Korea
- P-010** TREATMENTS WITH CIGARETTE SMOKE COMPONENTS ALTERED THE CELL GROWTH AND EPITHELIAL MESENCHYMAL TRANSITION OF JEG-3 HUMAN PLACENTA CELLS VIA ROS-INDUCED ER-STRESS PATHWAY ..... 00  
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<sup>1</sup>Laboratory of Biochemistry and Immunology, College of Veterinary Medicine, Chungbuk National University, Cheongju, Chungbuk, Republic of Korea, <sup>2</sup>Laboratory of Bioconvergence Technology, Korea Conformity Laboratories, Incheon, Republic of Korea

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Graduate School of Pharmaceutical Sciences, Tohoku University, Sendai 980-8578, Japan
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<sup>1</sup>College of Veterinary Medicine and Institute of Veterinary Science, <sup>2</sup>Division of Science Education, Kangwon National University, Chuncheon 200-701, Korea
- P-013** EXOGENOUS RECOMBINANT HUMAN THIOREDOXIN EXACERBATES TYPE I DIABETES INDUCED BY ALLOXAN TREATMENT IN MICE ..... 00  
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<sup>1</sup>College of Veterinary Medicine and Institute of Veterinary Science and <sup>2</sup>Division of Science Education, Kangwon National University, Chuncheon 24341, Republic of Korea
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College of Veterinary Medicine and Institute of Veterinary Science, Kangwon National University, Chuncheon 24341, Republic of Korea
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<sup>1</sup>Occupational Lung Diseases Research Institute, KCOMWEL, Incheon, Korea, <sup>2</sup>Institute of Nanoproduct Safety Research, Hoseo University, Asan, Korea, <sup>3</sup>Department of Mechanical Engineering, Hanyang University, Ansan, Korea
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Division of Toxicology, College of Pharmacy, Sungkyunkwan University, Seobu-ro 2066, Jangsan-Ku, Gyeonggi-Do, Suwon 440-746, Republic of Korea

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	Division of Toxicology, College of Pharmacy, Sungkyunkwan University, Seobu-ro 2066, Jangan-Ku, Gyeonggi-Do, Suwon 440-746, South Korea	
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	<sup>1</sup> Occupational Lung Diseases Research Institute, KCOMWEL, Incheon, <sup>2</sup> Institute of Nanoprodukt Safety Research, Hoseo University, Asan	
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	Laboratory of Veterinary Biochemistry and Molecular Biology, Chungbuk National University, Cheongju, Chungbuk 28644, Republic of Korea	
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	Laboratory of Veterinary Biochemistry and Molecular Biology, Chungbuk National University, Cheongju, Chungbuk 28644, Republic of Korea	
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	Safety Evaluation Center, Headquarter of Toxicity Study, Chemon Nonclinical Research Institute, 240, Nampyeong-ro, Yanggi-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, 17162, Republic of Korea	

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	<sup>1</sup> College of Pharmacy, Dongguk University, Goyang, Gyeonggi-do 10326, Republic of Korea, <sup>2</sup> College of Pharmacy, Chungnam National University, Daejeon 34134, Republic of Korea	
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	General Toxicity Evaluation Center, Korea conformity Laboratory (KCL), Korea	
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	Division of Life Sciences, College of Life Sciences and Bioengineering, Incheon National University, Incheon 406-772, Republic of Korea	
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	Risk Assessment Division, National Institute of Environmental Research, Incheon, Republic of Korea	
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	<sup>1</sup> Biosafety Research Institute and Laboratory of Pathology (BK21 Plus Program), College of Veterinary Medicine, Chonbuk National University, Iksan, Republic of Korea, <sup>2</sup> Inhalation Toxicology Center, Jeonbuk Department of Inhalation Research, Korea Institute of Toxicology, Jeongeup, Republic of Korea	
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	Department of Pharmacology, School of Medicine, Catholic University of Daegu, Republic of Korea 42472	

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	<sup>1</sup> College of Pharmacy and Research Institute of Pharmaceutical Sciences, Seoul National University, Seoul, Republic of Korea, <sup>2</sup> Kyung Hee East-West Pharmaceutical Research Institute, Kyung Hee University, Republic of Korea	
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	Safety Research Team, Applied Technology Division, AmorePacific Corporation R&D Unit, Yongin-si, Republic of Korea	
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	<sup>1</sup> Biosafety Research Institute and Laboratory of Pathology (BK21 Plus Program), College of Veterinary Medicine, Chonbuk National University, Iksan, Republic of Korea, <sup>2</sup> Inhalation Toxicology Center, Jeonbuk Department of Inhalation Research, Korea Institute of Toxicology, Jeongeup, Republic of Korea	
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	Woo-Cheol Sim and Byung-Hoon Lee*	
	College of Pharmacy and Research Institute of Pharmaceutical Sciences, Seoul National University, Seoul 151-742, Republic of Korea	

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and Coordination Division, QIA, 177 Hyeoksin 8-ro, Gimcheon-si, Gyeongsangbuk-do, 39660,  
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and Mingzhu Fang<sup>2</sup>  
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and Occupational Health Sciences Institute, NIEHS Center for Environmental Exposure and  
Disease, The State University of New Jersey, USA
- P-036** MiR-1246 AS A POTENTIAL THERAPEUTIC TARGET IN MELANOMA  
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Division of Life Sciences, College of Life Sciences and Bioengineering, Incheon National University,  
Incheon 406-772, Republic of Korea
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Young Ji Jo, Jeong-Sook Kim and Han-Seung Shin\*  
Department of Food Science and Biotechnology and Food and Bio Safety Research Center,  
Dongguk University, Seoul, Republic of Korea
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Seung-jeong Lee, Ga-young Lee and Han-Seung Shin\*  
Department of Food Science and Biotechnology and Food and Bio Safety Research Center,  
Dongguk University, Seoul, Republic of Korea

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Minsoo Koh<sup>1,#</sup>, Hae-Young Yong<sup>1,#</sup>, Eun-Sook Kim<sup>1</sup>, Hwajin Son<sup>1</sup>, You Rim Jeon<sup>1</sup>, Jin-Sun Hwang<sup>1</sup>, Myeong-Ok Kim<sup>1</sup>, Yujin Cha<sup>1</sup>, Wahn Soo Choi<sup>2</sup>, Dong-Young Noh<sup>3</sup>, Kyung-Min Lee<sup>3</sup>, Ki-Bum Kim<sup>4,†</sup>, Jae-Seon Lee<sup>4</sup>, Hyung Joon Kim<sup>5</sup>, Haemin Kim<sup>6</sup>, Hong-Hee Kim<sup>6</sup>, Eun Joo Kim<sup>7</sup>, So Yeon Park<sup>7</sup>, Hoe Suk Kim<sup>8</sup>, Woo Kyung Moon<sup>8</sup>, Hyeong-Reh Choi Kim<sup>9</sup> and Aree Moon<sup>1,\*</sup>

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**P-040** IDENTIFICATION OF A NOVEL PEPTIDE THAT SELECTIVELY BINDS TO KIDNEY INJURY MOLECULE-1 (KIM-1) BY PHAGE DISPLAYED PEPTIDE LIBRARY ..... 00

Tae-Jun Kwon<sup>1</sup>, Enamul Haque<sup>2</sup>, Byung-Heon Lee<sup>2</sup>, Sang Eun Kim<sup>3</sup>, Choong-Yong Kim<sup>1</sup>, Woo Suk Koh<sup>1</sup> and Sang Kyoon Kim<sup>1,\*</sup>

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**P-041** INHIBITORY EFFECT OF NED-135 ON THE INVASIVE BREAST CANCER CELLS ..... 00

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<b>P-044</b>	<b>THE CARDIOVASCULAR EFFECTS OF DOFETILIDE IN CONSCIOUS TELEMETERED BEAGLE DOGS AND ON hERG K<sup>+</sup> CHANNELS IN CONVENTIONAL PATCH-CLAMP ELECTROPHYSIOLOGY .....</b>	<b>00</b>
	Gun Kang, Jong-Min Kim, Ji-Ho Ryu, Kyu-Chang Kim, Jong-Hun Seo, Min-Jin Cha, Kap-Ho Kim, Hyun-Kul Lee, Si-Whan Song and Sun-Don Kim* Safety Evaluation Center, Headquarter of Toxicity Study, Chemon Nonclinical Research Institute, 240, Nampyeong-ro, Yanggi-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do 17162, Korea	
<b>P-045</b>	<b>MEASUREMENT OF CHOLINESTERASE ACTIVITY IN THE BRAIN SUSPECTED AS ORGANOPHOSPHATE PESTICIDE POISONING AND NORMAL WILD BIRD IN KOREA .....</b>	<b>00</b>
	Ji-Hyun Bang <sup>1</sup> , Young-Il Park <sup>1</sup> , Soohee Kim <sup>1</sup> , Sung-Won Park <sup>1</sup> , You-Chan Bae <sup>2</sup> , Gye-Hyeong Woo <sup>3</sup> , Jae-Young Song <sup>1</sup> , Hyun-Ok Ku <sup>1</sup> and Hee Yi <sup>1,*</sup> <sup>1</sup> Veterinary Drugs and Biologics Division, Animal and Plant Quarantine Agency (QIA), <sup>2</sup> Avian Disease Division, QIA, 177 Hyeoksin 8-ro, Gimcheon-si, Gyeongsangbuk-do, 39660, Korea, <sup>3</sup> Department of Clinical Laboratory Science, Semyung University, Jecheon, Chungbuk 390-711, Republic of Korea	

- P-046** ANTI-FIBROTIC EFFECTS OF CAPSAICIN ON DIMETHYLNITROSAMINE-INDUCED HEPATIC FIBROSIS IN RAT TROUGH THE REGULATION OF PPAR $\gamma$  EXPRESSION ..... 00  
 Sun Woo Jin<sup>1</sup>, Jae Ho Choi<sup>1</sup>, Young Chul Chung<sup>2</sup> and Hye Gwang Jeong<sup>1,\*</sup>  
<sup>1</sup>College of Pharmacy, Chungnam National University, Daejeon, Republic of Korea, <sup>2</sup>Department of Food and Medicine, College of Public Health and Natural Science, International University of Korea, Jinju, Republic of Korea
- P-047** PROTECTIVE EFFECT OF RUTAECARPINE AGAINST t-BHP-INDUCED HEPATOTOXICITY BY UPREGULATING ANTIOXIDANT ENZYMES ..... 00  
 Sun Woo Jin<sup>1</sup>, Yong Pil Hwang<sup>2</sup> and Hye Gwang Jeong<sup>1,\*</sup>  
<sup>1</sup>College of Pharmacy, Chungnam National University, Daejeon, Republic of Korea, <sup>2</sup>Department of Pharmaceutical Engineering, International University of Korea, Jinju, 660-759, Republic of Korea
- P-048** INHIBITORY EFFECT OF PLATYCODIN D ON OSTEOCLASTOGENESIS BY REPRESSING THE NFATc1 AND MAPK SIGNALING PATHWAY ..... 00  
 Jae-Ho Choi<sup>1</sup>, Youn-Ho Han<sup>2</sup>, Hyun-Sun Lee<sup>3</sup>, Young-Chul Chung<sup>4</sup>, Kwang-Youl Lee<sup>2</sup> and Hye Gwang Jeong\*  
<sup>1</sup>Department of Toxicology, College of Pharmacy, Chungnam National University, Daejeon, Republic of Korea, <sup>2</sup>College of Pharmacy and Research Institute of Drug Development, Chonnam National University, Gwangju, Republic of Korea, <sup>3</sup>Natural Medicine Research Center, Korea Research Institute of Bioscience and Biotechnology, Daejeon, Republic of Korea, <sup>4</sup>Department of Food Science, International University of Korea, Jinju, Republic of Korea
- P-049** 90-DAY REPEATED INHALATION TOXICITY STUDY OF SiO<sub>2</sub> (TETRAETHYL ORTHOSILICATE) IN F344 RATS ..... 00  
 Somin Lee, Jae Hyuck Sung, Byung-gil Choi, Hyeon-Yeol Ryu, Hye-Jin Kim, Mi-Jung Kim and Kyung-Seuk Song\*  
 General Toxicity Evaluation Center, Bio Convergence Technology Laboratory, Korea Conformity Laboratory (KCL), Korea
- P-050** NON-APOPTOTIC CELL DEATH OF GRAPHENE NANOPATELETS IN LUNG EPITHELIAL CANCER CELLS ..... 00  
 Baek Jin Ee\* and Shin Jae Hoon  
 Occupational Lung Diseases Institute, KCOMWEL, Bupyeong, Incheon, Republic of Korea
- P-051** CIGARETTE SMOKE EXTRACT FOR IN-VITRO ALTERNATIVE STUDY ..... 00  
 Hyo-Seon Yang, Sang Jin Lee, Mikyung Song, Jeongsik Park and Kyuhong Lee\*  
 National Center for Efficacy Evaluation for Respiratory Disease Product, Jeonbuk Department of Research Inhalation Safety, Korea Institute of Toxicology, Jeongeup, Jellobuk-do, Republic of Korea

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<b>P-052</b>	<b>DRUG TOXICITY-TARGET DISCOVERY OF SUNITINIB USING GENOME-WIDE DRUG TARGET SCREENING ON <i>S. POMBE</i> GENOME-WIDE DELETION LIBRARY</b> .....	00
	Ju-Hee Lee, Ji-Hyun Yeon and Dong-Myung Kim*	
	S. Pombe Screening Team, Gene-to-Drug Division, Bioneer Corporation, Daejeon, Republic of Korea	
<b>P-053</b>	<b>FUNCTIONAL CHARACTERIZATION OF HUMAN P450 2J2 GENETIC VARIATIONS: G312R, P351L AND P115L</b> .....	00
	Dabin Jeong, Hyung-goo Park, Young-ran Lim, Yejin Lee, Vitchan Kim and Donghak Kim*	
	Dept. of Biological Sciences, Konkuk University, Seoul 143-701 Korea	
<b>P-054</b>	<b>EXPRESSION OF DRUG TRANSPORTERS IN <i>KEAP1</i>-KNOCKDOWN HUMAN RENAL TUBULAR CELLS</b> .....	00
	In-geun Ryoo, Hyuk Sang Jeong and Mi-Kyoung Kwak*	
	The Catholic University of Korea, College of Pharmacy, Wonmi-gu, Bucheon, Gyeonggi-do 420-743 , Republic of Korea	
<b>P-055</b>	<b>NRF2 NEGATIVELY REGULATES PHORBOL-12-MYRISTATE-13-ACETATE (PMA)-INDUCED DIFFERENTIATION OF THE PROMONOCYTIC U937 CELLS</b> .....	00
	In-geun Ryoo and Mi-Kyoung Kwak*	
	The Catholic University of Korea, College of Pharmacy, Wonmi-gu, Bucheon, Gyeonggi-do 420-743 , Republic of Korea	
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	Kyeong-Ah Jung, Sujin Lee and Mi-Kyoung Kwak*	
	Laboratory of Pharmacology/Pharmacokinetics, College of Pharmacy, The Catholic University of Korea, Bucheon, Gyeonggi, Republic of Korea	
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	Soohee Kim, Hyobi Kim, Sunjin Park, Jae-Young Song and Sung-Won Park*	
	Veterinary Drugs & Biologics Division, Animal and Plant Quarantine Agency (QIA), Gimcheon-si, Gyeongsangbuk-do, Republic of Korea	

<b>P-058</b>	<b>DEVELOPMENT AND VALIDATION OF METHOD FOR THE DETERMINATION OF 18 PESTICIDE RESIDUES IN PORCINE MUSCLE BY LC-MS/MS .....</b>	<b>00</b>
	Sunjin Park, Soohee Kim, Hyobi Kim, Jae-Young Song and Sung-Won Park*	
	Veterinary Drugs & Biologics Division, Animal and Plant Quarantine Agency (QIA), Gimcheon-si, Gyeongsangbuk-do, Republic of Korea	
<b>P-059</b>	<b>REPEATED DOSE 13-WEEK ORAL TOXICITY STUDY OF SAPOSHNIKOVIAE RADIX WATER EXTRACT IN SPRAGUE-DAWLEY RATS .....</b>	<b>00</b>
	Kyu-Sup Ahn, Jea-Hyuck Sung, Hye-Jin Kim, Hyeon-Yeol Ryu, Jin-Kyu Lee and Kyung-Seuk Song*	
	Toxicity Evaluation Center, Korea Conformity Laboratories (KCL), Incheon, Republic of Korea	
<b>P-060</b>	<b>TUMORIGENICITY OF ANGIOCLUSTERTM IN <i>IN VIVO</i> AND <i>IN VITRO</i> SYSTEMS .....</b>	<b>00</b>
	Ok-Sun Kim <sup>1,†</sup> , Hyun-Jung Kim <sup>1,†</sup> , Jae-Woo Cho <sup>2</sup> , WooJin Kim <sup>1</sup> , Sang-Jin Park <sup>1</sup> , Sunyeong Lee <sup>1</sup> , Su-Yeon Han <sup>1</sup> , Jee-Hyun Hwang <sup>1</sup> , Ga-Young Lee <sup>1</sup> , Sang-Heon Kim <sup>3</sup> , Jong Hoon Choi <sup>3</sup> and Kyoung-Sik Moon <sup>1,*</sup>	
	<sup>1</sup> Department of Integrative Toxicology, Korea Institute of Toxicology, Daejeon, Republic of Korea, <sup>2</sup> Jeonbuk Department of Inhalation Research, Korea Institute of Toxicology, Jeongeup, Republic of Korea, <sup>3</sup> Center for Biomaterials, Medical Engineering Institute, Korea Institute of Science and Technology, Seoul, Republic of Korea	
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	Ok-Sun Kim <sup>1</sup> , Hyun-Jung Kim <sup>1</sup> , Sang-Jin Park <sup>1</sup> , Jae-Woo Cho <sup>2</sup> , Eun-Mi Koh <sup>1</sup> , Sunyeong Lee <sup>1</sup> , Su-Yeon Han <sup>1</sup> , Jee-Hyun Hwang <sup>1</sup> , Ga-Young Lee <sup>1</sup> , Sang-Heon Kim <sup>3</sup> , Jong Hoon Choi <sup>3</sup> and Kyoung-Sik Moon <sup>1,*</sup>	
	<sup>1</sup> Department of Integrative Toxicology, Korea Institute of Toxicology, Daejeon, Republic of Korea, <sup>2</sup> Jeonbuk Department of Inhalation Research, Korea Institute of Toxicology, Jeongeup, Republic of Korea, <sup>3</sup> Center for Biomaterials, Medical Engineering Institute, Korea Institute of Science and Technology, Seoul, Republic of Korea	
<b>P-062</b>	<b>PATIENT-DERIVED TUMOR XENOGRAFT MODELS AS EVALUATION TOOLS FOR PERSONALIZED CHEMOTHERAPY .....</b>	<b>00</b>
	Hyun Kyung Lim <sup>1</sup> , Kyoung Mee Kim <sup>1,2</sup> , Joon Seong Park <sup>3</sup> and Joohee Jung <sup>1,2,*</sup>	
	<sup>1</sup> Innovative Drug Center, Duksung Women's University, Seoul, Republic of Korea, <sup>2</sup> College of Pharmacy, Duksung Women's University, Seoul, Republic of Korea, <sup>3</sup> Department of Surgery, Gangnam Severance Hospital, Yonsei University, Seoul, Republic of Korea	

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<b>P-063</b>	<b>TOXICOGENOMIC APPROACH FOR THE INVESTIGATION OF GENOTOXICITY-RELATED PATHWAYS IN LEAD EXPOSED RAT KIDNEY</b> .....	00
	Hyun Soo Kim, Hyun Jin Lee, Yeo Jin Kim, Won Hee Jang and Young Rok Seo*	
	Institute of Environmental Medicine for Green Chemistry, Department of Life Science, Dongguk University Biomedical Campus, 32, Dongguk-ro, Ilsandong-gu, Goyang-si, Gyeonggi-do 10326, Republic of Korea	
<b>P-064</b>	<b>TOXICOGENOMIC ANALYSIS FOR ELUCIDATING THE REDUCTION OF REPAIR ACTIVITY IN RESPONSE TO LOW-LEVEL LEAD ACETATE EXPOSURE IN RAT LIVER MODEL</b> .....	00
	Hyun Soo Kim, Sang Min Lee, Yeo Jin Kim, Won Hee Jang and Young Rok Seo*	
	Institute of Environmental Medicine for Green Chemistry, Department of Life Science, Dongguk University Biomedical Campus, 32, Dongguk-ro, Ilsandong-gu, Goyang-si, Gyeonggi-do 10326, Republic of Korea	
<b>P-065</b>	<b>UNDERSTANDING THE ASSOCIATION BETWEEN SINGLE NUCLEOTIDE POLYMORPHISMS AND RISK OF KOREAN SEROUS OVARIAN CANCER AT STAGE IIIc BY GENOMIC APPROACH</b> .....	00
	Yeo Jin Kim <sup>1</sup> , Hyun Soo Kim <sup>1</sup> , Woong Shick Ahn <sup>2</sup> , Jee Young Kwon <sup>3</sup> and Young Rok Seo <sup>1,*</sup>	
	<sup>1</sup> Department of Life Science, Institute of Environmental Medicine for Green Chemistry, Dongguk University Biomedical Campus, Goyang-si, Gyeonggi-do, Korea, <sup>2</sup> Department of Obstetrics and Gynecology, College of Medicine, The Catholic University of Korea, Seoul, Korea, <sup>3</sup> The Jackson Laboratory for Genomic Medicine, Farmington, USA	
<b>P-066</b>	<b>EXPLORING THE POTENTIAL BIOMARKER OF CADMIUM USING COMPARATIVE NETWORK ANALYSIS IN <i>DAPHNIA MAGNA</i></b> .....	00
	Hyo Jeong Kim <sup>1,†</sup> , Jun Hyuek Yang <sup>1,†</sup> , Sang Min Lee <sup>1</sup> , Yeo Jin Kim <sup>1</sup> , Bo Mi Kim <sup>2</sup> and Young Rok Seo <sup>1,*</sup>	
	<sup>1</sup> Institute of Environmental Medicine for Green Chemistry, Department of Life Science, Dongguk University Biomedical Campus, 32, Dongguk-ro, Ilsandong-gu, Goyang-si, Gyeonggi-do 10326, Republic of Korea, <sup>2</sup> Division of Polar Life Sciences, Korea Polar Research Institute, Incheon 21990, South Korea	

<b>P-067</b>	<b>COMPARATIVE INVESTIGATION OF GENOTOXIC RESPONSE USING COMET ASSAY AND GAMMA-H2AX IMMUNOSTAINING IN HUMAN HEPATOMA CELLS .....</b>	<b>00</b>
	Hyo Jeong Kim <sup>1,2</sup> , Yeo Jin Kim <sup>1,2</sup> , Preeyaporn Koedrith <sup>1,3</sup> , Hyun Soo Kim <sup>2</sup> , Wook Jun Yu <sup>4</sup> , Jong Choon Kim <sup>5</sup> and Young Rok Seo <sup>1,2,*</sup>	
	<sup>1</sup> Institute of Environmental Medicine for Green Chemistry, Dongguk University Biomed Campus, Gyeonggi-do, Korea, <sup>2</sup> Department of Life Science, Dongguk University Biomed Campus, Gyeonggi-do, Korea, <sup>3</sup> Faculty of Environment and Resource Studies, Mahidol University, NakhonPathom, Thailand, <sup>4</sup> Korea Institute of Toxicology, Daejeon, Korea, <sup>5</sup> College of Veterinary Medicine, Chonnam National University, Gwangju, Korea	
<b>P-068</b>	<b>NOVEL GENE SIGNATURE FOR PREDICTING THE NEPHROTOXICITY IN THE KIDNEY CELLS FOLLOWING METABOLIC ACTIVATION WITH CO-CULTURED HEPATOCYTES .....</b>	<b>00</b>
	Se-Myo Park <sup>1</sup> , Heeyoung Yang <sup>1</sup> , Mi-Sun Choi <sup>1</sup> , Soojin Kim <sup>1</sup> , Eun-Hee Lee <sup>1</sup> , Mi-Sook Dong <sup>2</sup> , Seokjoo Yoon <sup>1,3</sup> and Jung-Hwa Oh <sup>1,3,*</sup>	
	<sup>1</sup> Department of Predictive Toxicology, Korea Institute of Toxicology (KIT), 141 Gajeong-ro, Yuseong-gu, Daejeon 34114, Republic of Korea, <sup>2</sup> School of Life Sciences and Biotechnology, Korea University, Seoul 02841, Republic of Korea, <sup>3</sup> University of Science and Technology (UST), 217 Gajeongro, Yuseong-gu, Daejeon 34113, Republic of Korea	
<b>P-069</b>	<b>THE REGULATION OF FATTY LIVER DISEASE THROUGH UBIQUITINATION .....</b>	<b>00</b>
	Heeyoung Yang <sup>1</sup> , Se-Myo Park <sup>1</sup> , Soojin Kim <sup>1</sup> , Mi-Sun Choi <sup>1</sup> , Eun-Hee Lee <sup>1</sup> , Jung-Hwa Oh <sup>1,2</sup> and Seokjoo Yoon <sup>1,2,*</sup>	
	<sup>1</sup> Department of Predictive Toxicology, Korea Institute of Toxicology (KIT), 141 Gajeong-ro, Yuseong-gu, Daejeon 34114, Republic of Korea, <sup>2</sup> University of Science and Technology (UST), 217 Gajeongro, Yuseong-gu, Daejeon 34113, Republic of Korea	
<b>P-070</b>	<b>EVALUATION OF HEPATOTOXICITY OF CHEMICALS USING PRIMARY HUMAN HEPATOCYTES, HEPATOCYTE-LIKE CELLS GENERATED FROM hiPSCs AND HepG2 .....</b>	<b>00</b>
	Nga Tham, Seok-Jin Kang, Hee Yi, Young-Il Park, Hwan-Goo Kang and Hyun-Ok Ku*	
	Veterinary drugs and Biologics Division, Animal and Plant Quarantine Agency, 177, Hyeoksins 8-ro, Gimcheon-si, Gyeongsangbuk-do 39660, Republic of Korea	

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- P-071** IN VIVO DISTRIBUTION OF STEM CELLS AFTER INTRAVENOUS INJECTION BY OPTICAL IMAGING TECHNIQUES ..... 00  
 Ji-Hyun Seok, Jin Hee Lee, Hang-Sik Roh, Hye-Sun Yu, Saet-byul Cho, Hye-Kyung Choi, Ye-Seul Kim, Jun-Young Yang, Soo-Yeul Cho and Soojung Sohn\*  
 Toxicological Research Division, National Institute of Food and Drug Safety Evaluation, 187, Osongsaengmyeong 2-ro, Osong-eup, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do 28159, Republic of Korea
- P-072** ACUTE TOXICITY OF INDOMETHACIN BY SINGLE ORAL ADMINISTRATION IN ZEBRAFISH ..... 00  
 Dong Gwan Shin<sup>1,3</sup>, Sun-Hwa Lim<sup>2</sup>, Byoung-Seok Lee<sup>2</sup>, Yu-Ri Lee<sup>1</sup>, Myung-Ae Bae<sup>1</sup>, Yong Moon Lee<sup>3</sup> and Jin Sook Song<sup>1,\*</sup>  
<sup>1</sup>Center for Drug Discovery Platform Technology, Korea Research Institute of Chemical Technology, Daejeon, Republic of Korea, <sup>2</sup>Division of Fusion Toxicology, Korea Institute of Toxicology, Daejeon, Republic of Korea, <sup>3</sup>College of Pharmacy, Chungbuk National University, Cheongju, Chungbuk, Republic of Korea
- P-073** THE ROLE OF DIESEL EXHAUST PARTICLE ON THE TRANSPORT AMYLOID- $\beta$  AT BLOOD-BRAIN BARRIER AND BLOOD-CSF BARRIER ..... 00  
 Da-Som Lee\*, Ju-Young Baek, Jung-Duck Park and Byung-Sun Choi  
 Department of Preventive Medicine, Chung-Ang University, Seoul
- P-074** IN VIVO GENOTOXICITY EVALUATION OF QUERCETIN AND ISOQUERCETIN USING COMET AND MICRONUCLEUS ASSAY ..... 00  
 Bum-Soo Pak, Sehee Han, Ji-yeon Lee, Seongmoo Heo, Samyoung Kim and Young-Shin Chung\*  
 Department of Biotechnology, Hoseo University, Asan, Chungnam, Republic of Korea
- P-075** EXPLORING THE SENSITIVITY OF FLUORESCENT OPTICAL IMAGING TO DETECT NEUROTOXICITY USING TRIMETHYLTIN AND DIZOCILPINE ..... 00  
 Hyun-Kyu Park<sup>1</sup>, Mi-Jin Yang<sup>1</sup>, Byoung-Seok Lee<sup>2</sup>, Ji-Seok Han<sup>2</sup>, Hee-Jin Park<sup>2</sup>, Wan-Jung Im<sup>2</sup>, Woo-Jin Kim<sup>2</sup>, Do-Yong Park<sup>2</sup>, Min-Sung Kang<sup>1</sup>, Su-Cheol Han<sup>1</sup>, Jae-Woo Cho<sup>1</sup> and Yong-Bum Kim<sup>2,\*</sup>  
<sup>1</sup>GLP Studies Support Center, Jeonbuk Department of Inhalation Research, Korea Institute of Toxicology (KIT), 30 Baekhak 1-gil, Jeongeup, Jeonbuk, Republic of Korea, <sup>2</sup>Pathology Analytical Research Center,, Korea Institute of Toxicology (KIT), 141 Gajeongro, Yuseong-gu, Daejeon, Republic of Korea

- P-076** COMPARISON OF HISTOLOGICAL EXAMINATION AND LUMINESCENT OPTICAL IMAGING IN KAINIC ACID (KA) AND TRIMETHYLTIN (TMT)-INDUCED NEUROTOXIC CHANGE ..... 00  
 Mi-Jin Yang<sup>1</sup>, Hyun-Kyu Park<sup>1</sup>, Byoung-Seok Lee<sup>2</sup>, Ji-Seok Han<sup>2</sup>, Hee-Jin Park<sup>2</sup>, Wan-Jung Im<sup>2</sup>, Woo-Jin Kim<sup>2</sup>, Do-Yong Park<sup>2</sup>, Woo-Jin Cho<sup>1</sup>, Jae-Woo Cho<sup>1</sup>, Su-Cheol Han<sup>1</sup> and Yong-Bum Kim<sup>2,\*</sup>  
<sup>1</sup>GLP Studies Support Center, Jeonbuk Department of Inhalation Research, Korea Institute of Toxicology (KIT), 30 Baekhak 1-gil, Jeongeup, Jeonbuk, Republic of Korea, <sup>2</sup>Pathology Analytical Research Center, Korea Institute of Toxicology (KIT), 141 Gajeongro, Yuseong-gu, Daejeon, Republic of Korea
- P-077** IN VITRO PERCUTANEOUS ABSORPTION OF AMARANTH, A COLORANT USING FRANZ DIFFUSION CELL SYSTEM ..... 00  
 Jung Dae Lee<sup>1,\*</sup>, Ji-young Kim<sup>2</sup>, Jin Ju Park<sup>2</sup>, Hyun Jun Jang<sup>2</sup>, Kyu-Bong Kim<sup>2</sup> and Byung-Mu Lee<sup>1</sup>  
<sup>1</sup>College of Pharmacy, Sungkyunkwan University, Sebu-ro 2066, Changan-gu, Gyeonggi-do, Suwon 440-746, Republic of Korea, <sup>2</sup>College of Pharmacy, Dankook University, 119 Dandae-ro, Chungnam 330-714, Republic of Korea
- P-078** FOUR WEEKS REPEATED ORAL DOSE TOXICITY STUDY OF ACETAMINOPHEN IN SPONTANEOUS HYPERTENSIVE RATS AND SPRAGUE-DAWLEY RATS ..... 00  
 Yun-Shik Oh\*, Si-Whan Song, Hak-Soo Kim, Min-Soo Kang and Kab-Ho Kim  
 Nonclinical Research Institute, Chemon Inc., 240, Nampyeong-ro, Yangji-myeon, Cheoin-gu, Yongsin-si, Gyeonggi-do 17162 Republic of Korea
- P-079** QUANTIFICATION OF HUMAN *Alu* GENE IN NUDE MOUSE GIVEN MESENCHYMAL STEM CELLS USING DROPLET DIGITAL PCR TECHNIQUE ..... 00  
 Hyun-Jung Kim, Sunyeong Lee, Su-Yeon Han, Sang-Jin Park, Jee-Hyun Hwang, Ga-Young Lee and Kyoung-Sik Moon\*  
 Department of Integrative Toxicology, Korea Institute of Toxicology, Daejeon, Republic of Korea
- P-080** IN VITRO DERMAL ABSORPTION OF TRANS-2-HEXENAL, A COSMETIC INGREDIENT ..... 00  
 Ji-young Kim<sup>1</sup>, Jung Dae Lee<sup>2</sup>, Jin Ju Park<sup>1</sup>, Hyun Jun Jang<sup>1</sup> and Kyu-Bong Kim<sup>1,\*</sup>  
<sup>1</sup>College of Pharmacy, Dankook University, 119 Dandae-ro, Chungnam 330-714, Republic of Korea, <sup>2</sup>College of Pharmacy, Sungkyunkwan University, Sebu-ro 2066, Changan-gu, Gyeonggi-do, Suwon 440-746, Republic of Korea



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- P-081** CYTOTOXIC EFFECTS OF VENOMS OF *ARGIOPE BRUENNICHI* AND *PARDOSA ASTRIGERA* AGAINST CANCER CELLS AND VENOM PEPTIDE PROFILING ..... 00  
Kwang-Min Lee<sup>1</sup>, In-Wook Hwang<sup>1</sup>, Seung Tae Kim<sup>2</sup>, Sue Yeon Lee<sup>3</sup> and Jung-Suk Sung<sup>1,\*</sup>  
<sup>1</sup>Department of Life Science, Dongguk University-Seoul, 32, Dongguk-ro, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea, <sup>2</sup>Research Institute for Agriculture and Life Sciences, Seoul National University, Seoul 08826, Korea, <sup>3</sup>Life and Environment Research Institute, Konkuk University, Seoul 05029, Korea
- P-082** TRIMETHYLTIN AND KAINIC ACID: NEUROTOXICITY AND DOSE-RANGE FINDING STUDY IN FVB MICE ..... 00  
Woo-Jin Kim<sup>1</sup>, Hyun-Kyu Park<sup>2</sup>, Mi-Jin Yang<sup>2</sup>, Youn-Hee Kim<sup>2</sup>, Sang-Hun Kwag<sup>2</sup>, Kil-Woong Ha<sup>2</sup>, Su-Cheol Han<sup>2</sup>, Byoung-Seok Lee<sup>1</sup>, Jae-Woo Cho<sup>2</sup> and Yong-Bum Kim<sup>1,\*</sup>  
<sup>1</sup>Pathology Analytical Research Center, Korea Institute of Toxicology (KIT), 141 Gajeongro, Yuseong-gu, Daejeon, Republic of Korea, <sup>2</sup>Pathology Research Center, Jeonbuk Department of Inhalation Research, Korea Institute of Toxicology (KIT), 30 Baekhak 1-gil, Jeongeup, Jeonbuk, Republic of Korea
- P-083** PRELIMINARY STUDY AIMING TO DEVELOP A STANDARDIZED *IN VITRO* COMET ASSAY ..... 00  
Hye Lyun Jeon<sup>†</sup>, Yoon-hee Hong<sup>†</sup>, Kyung Yuk Ko, Joohwan Kim, Jung-Sun Yi, Il Young Ahn, Tae Sung Kim and JongKwon Lee\*  
Toxicological Screening and Testing Division, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Cheongju, Chungbuk, Republic of Korea
- P-084** CHARACTERIZATION OF N-GLYCAN DERIVED FROM *BOMBUS TERRESTRIS* QUEEN ..... 00  
Mi Young Ahn<sup>1,\*</sup>, Jin Jang Mee<sup>2</sup>, Ha Jeong Kim<sup>1</sup> and Jae Sam Hwang<sup>1</sup>  
<sup>1</sup>Depart. Agricultural Biology, National Academy of Agricultural Science, RDA, Wanju-Gun, South Korea, <sup>2</sup>Dept. Mass Spectrometry Research, Korean Basic Science Research Institute, Ochang, South Korea
- P-085** A 4-WEEK REPEATED DOSE ORAL TOXICITY STUDY OF AGE-ASSOCIATED DIFFERENCE IN 26-MONTH AND 6-WEEK C57BL/6J MICE USING ACETAMINOPHEN ..... 00  
Hea-Sung Kwon\*, Hak-Soo Kim, Min-Soo Kang, Ji-Ran Jeong, Kap-Ho Kim, Hyun-Kul Lee and Si-Whan Song  
Chemon Nonclinical Research Institute, 240, Nampyeong-ro, Yanggi-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do 17162, Korea Republic

<b>P-086</b>	<b>VALIDATION FOR QUANTIFICATION OF HUMAN ADIPOSE-DERIVED MESENCHYMAL STEM CELLS IN RAT GENOMIC DNA USING REAL-TIME PCR</b> .....	00
	Sunyeong Lee, Hyun-Jung Kim, Sang-Jin Park, Su-Yeon Han, Ga-Young Lee, Ji-Hyun Hwang and Kyoung-Sik Moon*	
	Department of Integrative Toxicology, Korea Institute of Toxicology, Daejeon, Republic of Korea	
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	<sup>1</sup> Developmental and Reproductive Toxicology Research Group, Korea Institute of Toxicology, Daejeon, Republic of Korea, <sup>2</sup> College of Pharmacology, Dankook University	
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	<sup>1</sup> Depart. Agricultural Biology, National Academy of Agricultural Science, RDA, Wanju-Gun, South Korea, <sup>2</sup> Dept. Mass Spectrometry Research, Korean Basic Science Research Institute, Ochang, South Korea	
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	<sup>1</sup> Depart. Agricultural Biology, National Academy of Agricultural Science, RDA, Wanju-gun, South Korea, <sup>2</sup> Dept. Mass Spectrometry Research, Korean Basic Science Research Institute, Ochang, South Korea	

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	<sup>1</sup> Animal Model Research Center, Korea Institute of Toxicology, Jeongeup, Jeonbuk, Republic of Korea, <sup>2</sup> Department of Pharmacology and Toxicology, College of Veterinary Medicine, Gyeongsang National University, Jinju, Gyeongnam, Republic of Korea	
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<sup>1</sup>College of Pharmacy Institute of Pharmaceutical Science and Technology, Hanyang University, Ansan, Republic of Korea, <sup>2</sup>College of Pharmacy and Research Institute of Pharmaceutical Science and Technology (RIPST), Ajou University, Suwon, Republic of Korea
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<sup>1</sup>College of Pharmacy, Dankook University, 119 Dandae-ro, Chungnam 330-714, Republic of Korea, <sup>2</sup>College of Pharmacy, Sungkyunkwan University, Sebu-ro 2066, Changan-gu, Gyeonggi-do, Suwon 440-746, Republic of Korea
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<sup>1</sup>Toxicological Evaluation and Research Department, Korea Institute of Toxicology, Daejeon, Republic of Korea, <sup>2</sup>Predictive Toxicology Department, Korea Institute of Toxicology, Daejeon, Republic of Korea
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<sup>1</sup>Department of Occupational Health, College of Bio-Medical Sciences, Catholic University of Daegu, Daegu, Republic of Korea, <sup>2</sup>Department of Preventive Medicine, College of Medicine, Catholic University of Korea, Seoul, Republic of Korea
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<sup>1</sup>Department of Preventive Medicine, Chung-Ang University, College of Medicine, Seoul, Korea, <sup>2</sup>Department of Preventive Medicine, College of Medicine, Chungbuk National University, Cheongju, Korea, <sup>3</sup>Department of Preventive Medicine, College of Medicine, Dankook University, Cheonan, Korea

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	<sup>1</sup> Pathological and Analytical Research Center, Korea Institute of Toxicology, KRICT, 141 Gajeongro, Yuseong-gu, Daejeon 34114, Republic of Korea, <sup>2</sup> Jeonbuk Department of Inhalation Research, Korea Institute of Toxicology, KRICT, 30 Baekhak1-gil, Jeongeup, Jeolabuk-do 56212, Republic of Korea	
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<sup>1</sup>Pathological and Analytical Research Center, Korea Institute of Toxicology, 141 Gajungro, Yuseong-gu, Daejeon 34114, Republic of Korea, <sup>2</sup>Cellldi, 2-212 Jeonbuk TechnoPark, 224 Wanjusandan 6-ro, Bongdong-eup, Wanju-gun, Jeollabuk-do 55315, Korea
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<sup>1</sup>College of Pharmacy, Seoul National University, Seoul, Korea, <sup>2</sup>College of Pharmacy, Hanyang University, Ansan, Korea, <sup>3</sup>College of Pharmacy, Ewha Womans University, Seoul, Korea



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	<sup>1</sup> College of Pharmacy, Seoul National University, Seoul, Korea, <sup>2</sup> College of Pharmacy, Ewha Womans University, Seoul, Korea, <sup>3</sup> College of Pharmacy, Hanyang University, Ansan, Korea, <sup>4</sup> College of Pharmacy, Dongguk University, Goyang, Korea	
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	<sup>1</sup> College of Pharmacy, Seoul National University, Seoul, Korea, <sup>2</sup> College of Pharmacy, Hanyang University, Seoul, Korea, <sup>3</sup> College of Pharmacy, Ewha Womans University, Ansan, Korea	
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	<sup>1</sup> College of Pharmacy, Seoul National University, Seoul, Korea, <sup>2</sup> College of Pharmacy, Hanyang University, Seoul, Korea, <sup>3</sup> College of Pharmacy, Ewha Womans University, Ansan, Korea	
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	Occupational Safety and Health Research Institute, Korea Occupational Safety and Health Agency	

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 Occupational Safety and Health Research Institute, KOSHA, Daejeon, Republic of Korea
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<sup>1</sup>Laboratory of Veterinary Toxicology and Institute of Veterinary Science, College of Veterinary Medicine, Kangwon National University, Chuncheon, Republic of Korea, <sup>2</sup>Bio-Imaging Center, Korea Basic Science Institute, Chuncheon, Republic of Korea
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<sup>1</sup>Department of Food and Nutrition, College of Human Ecology, Sungshin Women's University, Seoul, <sup>2</sup>Tumor Microenvironment Global Core Research Center, College of Pharmacy, Seoul National University
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 Department of Biochemistry, College of Medicine, Inje University, Busan, Republic of Korea

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