포스터발표

P-001	CHARACTERIZATION OF POLYPROPYLENE MICROPLASTICS AND SINGLE ORAL DOSE TOXICITY STUDY OF THE MICROPLASTICS IN ICR MICE Sijoon Lee ¹ , Min-Soo Seo ¹ , Joo-Hee Choi ¹ , Kyung-Ku Kang ¹ , Soo-Eun Sung ¹ , Minkyoung Sung ¹ , Taeuk Park ¹ , Dongmin Kim ² , Sunjong Lee ² and Kil Soo Kim ^{1,*} ¹ Preclinical Research Center, Daegu-Gyeongbuk Medical Innovation Foundation, ² Korea Institute of Industrial Technology	117
P-002	PARKINSONISM CAUSED BY PESTICIDE UNMANNED AERIAL CONTROL ASSISTANCE SERVICE WORKER Jihye Lee Occupational Safety and Health Research Institute, Korea Occupational Safety and Health Agency, Republic of Korea	118
P-003	THE IMMUNO-TOXICOLOGICAL EFFECT OF HEAVY METALS ON INFLAMMASOME ACTIVATION Huijeong Ahn and Geun-Shik Lee [*] College of Veterinary Medicine and Institute of Veterinary Science, Kangwon National University, Republic of Korea	119
P-004	ToxSTAR: ALTERNATIVE TESTING METHODS FOR DRUG-INDUCED LIVER INJURY PREDICTION Woo-Keun Kim ^{1,2} , Hyun Kil Shin ¹ , Se-Myo Park ¹ , Hang-Suk Chun ¹ , Sangwoo Lee ¹ , Daeui Park ^{1,2} , Myung-Gyun Kang ¹ , Jung-Hwa Oh ^{1,2} and Seokjoo Yoon ^{1,2,*} ¹ Department of Predictive Toxicology, Korea Institute of Toxicology, Republic of Korea, ² Human and Environmental Toxicology, University of Science and Technology, Republic of Korea	120
P-005	EVALUATION OF SKIN IRRITATION OF ACIDS COMMONLY USED IN CLEANERS IN 3D-RECONSTRUCTED HUMAN EPIDERMIS MODEL, KERASKIN TM Jee-hyun Hwang ¹ , Seungmi Lee ¹ , Ho Geon Lee ² , Dalwoong Choi ^{2,*} and Kyung-Min Lim ^{1,*} ¹ College of Pharmacy, Ewha Womans University, Republic of Korea, ² Transdisciplinary Major in Learning Health Systems, Department of Health and Safety Convergence Science, Korea University, Republic of Korea	121
P-006	TOXICITY OF PARABENS ON INFLAMMASOMES Gilyoung Lee and Geun-Shik Lee [*] College of Veterinary Medicine, Kangwon National University, Republic of Korea	122
P-007	EVALUATION OF TRANSGENIC RODENT SOMATIC AND GERM CELL GENE MUTATION ASSAYS Dong-Won Son, Ji-Yeon Kim, Hye-Jin Lee, Su-Won Kim, Mi-Sook Jung, Sun-Hee Park and Jong-Koo Kang [*] Biotoxtech Co., Ltd., Republic of Korea	123

P-008	EFFECT OF INHALATION EXPOSURE TO CIGARETTE SMOKE ON MONOCROTALINE- INDUCED PULMONARY HYPERTENSION IN RATS Mia Yuliana Pratiwi ¹ , Jung-Min Park ¹ , Min-Seok Kim ² and Moo-Yeol Lee ^{1,*} ¹ BK21 FOUR Team and Integrated Research Institute for Drug Development, College of Pharmacy, Dongguk University, Republic of Korea, ² Inhalation Toxicology Research Center, Korea Institute of Toxicology, Republic of Korea	124
P-009	PROLACTIN-RELEASING PEPTIDE SUPPRESSED MICROGLIAL INFLAMMATION INDUCED BY 1,2-DIACETYLBENZENE Ngoc Minh Hong Hoang, Wonhee Jo and Min-Sun Kim [*] Department of Pharmacy, College of Pharmacy, Suncheon National University, Republic of Korea	125
P-010	EFFECTS OF A 1,2-DIACETYLBENZEN ON COGNITIVE IMPAIRMENT: FROM MOLECULAR MECHANISMS TO SOLUTION INVOLVED Hai Duc Nguyen, Won Hee Jo, Ngoc Hong Minh Hoang and Min-Sun Kim [*] Department of Pharmacy, College of Pharmacy and Research Institute of Life and Pharmaceutical Sciences, Sunchon National University, Republic of Korea	126
P-011	INTERACTION BETWEEN CADMIUM, LEAD, AND MERCURY MIXTURES AND NON-ALCOHOLIC FATTY LIVER DISEASES Hai Duc Nguyen, Won Hee Jo, Ngoc Hong Minh Hoang and Min-Sun Kim [*] Department of Pharmacy, College of Pharmacy and Research Institute of Life and Pharmaceutical Sciences, Sunchon National University, Republic of Korea	127
P-012	Atg5-INDEPENDENT AUTOPHAGY IS INVOLVED IN CELL SURVIVAL OF MALIGNANT TRANSFORMED CELLS Hye-Gyo Kim, Myeong-Han Ro, Sung-Hee Hwang and Michael Lee [*] Division of Life Sciences, College of Life Sciences and Bioengineering, Incheon National University, Republic of Korea	128
P-013	COMPARISON OF THE PATHOGENESIS OF SARS-CoV-2 INFECTION IN K18-hACE2 MICE AND SYRIAN GOLDEN HAMSTER MODELS Haengdueng Jeong, Sung-Hee Kim, Jiseon Kim, Donghun Jeon, Kyungrae Cho, Heeju Oh, Chanyang Uhm and Ki Taek Nam [*] Severance Biomedical Science Institute, Brain Korea 21 PLUS Project for Medical Science, Yonsei University College of Medicine, Republic of Korea	129
P-014	<i>IN UTERO</i> CIGARETTE SMOKE EXPOSURE AGGRAVATES APAP-INDUCED LIVER INJURY BY REGULATING miR-34a-5p IN MALE OFFSPRING MICE Daram Yang ^{1,†} , Jong Won Kim ^{1,†} , Hyuneui Jeong ¹ , Min Seok Kim ² , Chae Woong Lim ¹ , Kyuhong Lee ² and Bumseok Kim ^{1,*} ¹ Biosafety Research Institute and Laboratory of Veterinary Pathology, College of Veterinary Medicine, Jeonbuk National University, Republic of Korea, ² Inhalation Toxicology Center, Jeonbuk Department of Inhalation Research, Korea Institute of Toxicology, Republic of Korea	130

P-015	BENZO[a]PYRENE EXACERBATES ACETAMINOPHEN- INDUCED LIVER INJURY BY MODULATING ARYL HYDROCARBON RECEPTOR SIGNALING 131 Hyuneui Jeong, Daram Yang and Bumseok Kim [*] Laboratory of Veterinary Pathology, College of Veterinary Medicine, Jeonbuk National University, Republic of Korea
P-016	DIFFERENT EXPRESSION OF AUTOPHAGY IN DIFFERENT STAGES OF TUMORIGENESIS ····· 132 Myeong-Han Ro [†] , Hye-Gyo Kim [†] , Sung-Hee Hwang and Michael Lee [*] Division of Life Sciences, College of Life Sciences and Bioengineering, Incheon National University, Republic of Korea
P-017	MASS SPECTROMETRY-BASED NON-TARGETED METABOLOMICS APPROACH TO FENBENDAZOLE METABOLISM IN HUMAN AND DOG LIVER MICROSOMES Young-Heun Jung, Dong-Cheol Lee, Didi Zhang, Mi-Ji Seol, Ye-Min Kwon and Ju-Hyun Kim [*] College of Pharmacy, Yeungnam University, Republic of Korea
P-018	GERM FREE MICE ARE SUSCEPTIBLE TO GASTRIC CANCER INDUCED BY N-METHYL-N- NITROSOUREA 134 Jiseon Kim, Chanyang Uhm, Buhyun Lee, Haengdueng Jeong, Kwang H. Kim, Sunghee Kim, Yura Lee, Sumin Hur, Donghun Jeon, Heeju Oh, Kyungrae Cho, Yejin Cho, Kyunghee Nam, Minhee Joe, Mina Lee and Ki Taek Nam [*] Severance Biomedical Science Institute, Brain Korea 21 PLUS Project for Medical Science, Yonsei University College of Medicine, Republic of Korea
P-019	A THERAPEUTIC STRATEGY FOR RET-REARRANGEMENT CANCER USING A NOVEL RET/YES1 DUAL TARGET INHIBITOR 135 Yong June Choi ¹ , Yong-Chul Kim ² , Myung Jin Kim ³ and Keon Wook Kang ^{1,*} ¹ College of Pharmacy, Seoul National University, Republic of Korea, ² School of Life Sciences, Gwangju Institute of Science and Technology, Republic of Korea, ³ R&D Center, PeLeMed, Co. Ltd., Republic of Korea
P-020	ESTABLISHMENT OF EXPERIMENTAL CONDITIONS FOR <i>IN VIVO</i> CARCINOGENICITY ASSESSMENT OF RADIO FREQUENCY UNDER GOOD LABORATORY PRACTICE (GLP) REGULATION 136 Kang-Hyun Han ¹ , Eun-Young Gu ¹ , Sang Bong Jeon ² , Ae-Kyoung Lee ² , Hyung-Do Choi ² , Young Hwan Ahn ³ and Yong-Bum Kim ^{1,*} ¹ Korea Institute of Toxicology (KIT), Republic of Korea, ² Electronics and Telecommunications Research Institute (ETRI), Republic of Korea, ³ Ajou University School of Medicine, Republic of Korea
P-021	TOXICITY ASSESSMENTS OF THE RADIOLYTIC COMPOUNDS OF FATTY ACIDS 137 Min Seong Jang, Heesun Park, Seng-Min Baek, Byoung-Seok Lee, Heejin Park, Kang-Hyun Han and Yong-Bum Kim [*] Department of Advanced Toxicology Research, Korea Institute Toxicology, Republic of Korea

P-022	EVALUATION OF DEVELOPMENTAL NEUROTOXICITY AND CYTOTOXICITY MECHANISM OF ENDOCRINE DISRUPTING CHEMICAL BUTYL PARABEN Kangmin Kim, Jimin Lee, Yongin Kim and Eui-Bae Jeung [*] College of Veterinary Medicine, Chungbuk National University, Republic of Korea	138
P-023	A NEW MURINE LIVER FIBROSIS MODEL INDUCED BY POLYHEXAMETHYLENE GUANIDINE-PHOSPHATE	139
	Sumin Hur ^{1,†} , Minjeong Kim ^{2,†} , Kwang H. Kim ² , Yejin Cho ² , Keunyoung Kim ³ , Ha Ryong Kim ⁴ , Kyung- Min Lim ^{2,*} and Ki Taek Nam ^{1,*}	
	¹ Brain Korea 21 PLUS Project for Medical Science, College of Medicine, Yonsei University, Republic of Korea, ² College of Pharmacy, Ewha Womans University, Republic of Korea, ³ College of Pharmacy, Kangwon National University, Republic of Korea, ⁴ College of Pharmacy, Daegu Catholic University, Republic of Korea	
P-024	SARCOPENIA MODULATING PROTEIN AND BIOMARKER Woohyeong Jung ^{1,2} , Gyeyeong Kong ^{1,2} , Thuy-Trang T. Vo ^{1,2} , Uijin Juang ^{1,2} , Suhwan Gwon ^{1,2} , Huonggiang Nguyen ^{1,2} and Jongsun Park ^{1,2,*}	140
	¹ Department of Pharmacology, and ² Department of Medical Science, Institute for Cancer Research, School of Medicine, Chungnam National University, Republic of Korea	
P-025	CARDIOTOXICITY SCREENING FOR PROARRHYTHMIC POTENTIAL OF DRUGS IN HUMAN iPSC-DEREIVED CARDIOMYOCYTES USING MICROELECTRODE ARRAYS In Kyo Jung, Jin Ryeol An, Seong Hye Park, Kwan Soo Kim, Chan Hyeok Kwon and Sun Ok Choi [*] Pharmacological Research Division, Toxicological Evaluation and Research Department, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Republic of Korea	141
P-026	THE EFFECT OF PULMONARY INFLAMMATION BY SURFACE FUNCTIONALIZATION	140
	Dong-Han Lee ¹ , Ayoung Jung ² , Sung-Huyn Kim ³ , Ki Kyung Jung ¹ , Jun-Young Yang ¹ , Jae-Ho Oh ¹ and Jin Hee Lee ^{1,*}	142
	¹ Division of Toxicological Research, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Republic of Korea, ² Division of Expedited Review, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Republic of Korea, ³ Pharmacology and Toxicology Research team, Research Institute, DONG-WHA PHARM, Republic of Korea	
P-027	INHIBITION OF SIRT1/2 DEACETYLASE ACTIVITY BY TENOVIN-1 ATTENUATES STEATOSIS AND FIBROSIS IN NASH MODEL OF ZUCKER FATTY RATS FED A HIGH-FAT	
	DIE I Swati Sharma, Yeon Su Park, Ha-Eun Lee and Hyung Sik Kim [*] College of Pharmacy, Sungkyunkwan University, Republic of Korea	143
P-028	FT888-1, A NOVEL SIRT1 ACTIVATOR, INHIBITS UVB-INDUCED INFLAMMATION VIA SUPPRESSION OF NF-kB PHOSPHORYLATION IN HUMAN IMMORTALIZED	
	EPIDEKIMAL CELLS Ji Won Park, Tian Zheng, Jae Hyeon Park and Hyung Sik Kim [*] College of Pharmacy, Sungkyunkwan University, Republic of Korea	144

P-029	MULTI- AND TRANSGENERATIONAL EFFECTS OF TRICLOSAN ON <i>IN VIVO</i> ENDPOINTS, ANTIOXIDANT DEFENSE, AND DNA DAMAGE RESPONSE IN THE FRESHWATER WATER FLEA	
	Jin-Sol Lee, Chunxue Jiang, Hwa Young Cha and Hyung Sik Kim [*] College of Pharmacy, Sungkyunkwan University, Republic of Korea	
P-030	INCREASED AUTOPHAGY BY OXIDIZED PHOSPHATIDYLCHOLINES IN LIVER AND BREAST CANCERS 146 Jin Kyung Seok ¹ , Sin-Eun Kim ² , Kwang-Hyeon Liu ² and Joo Young Lee ^{1,*} ¹ College of Pharmacy, The Catholic University of Korea, Republic of Korea, ² BK21 Plus KNU Multi-Omics Based Creative Drug Research Team, College of Pharmacy and Research Institute of Pharmaceutical Sciences, Kyungpook National University, Republic of Korea	
P-031	EVALUATION OF DOMINANT-LETHAL MUTATION ASSAYS IN RODENT GERM CELLS	
P-032	COMPOUND K PROTECTS AGAINST OXIDATIVE STRESS-INDUCED DNA DAMAGE AND APOPTOSIS IN ARPE-19 CELLS THROUGH ACTIVATION Nrf2/HO-1 SIGNALING PATHWAY 148 Yung Hyun Choi ^{1,2,*} and Cheol Park ³ ¹ Anti-Aging Research Center, Dong-eui University, Republic of Korea, ² Department of Biochemistry, Dong-eui University College of Korean Medicine, Republic of Korea, ³ Division of Basic Sciences, Dong-eui University, Republic of Korea	
P-033	URBAN AEROSOL PROMOTES MITOCHONDRIAL OXIDATIVE STRESS-MEDIATED SENESCENCE IN HUMAN RETINAL PIGMENT EPITHELIAL CELLS 149 Yung Hyun Choi ^{1,2,*} , EunJin Bang ^{1,2} and Hyun Hwangbo ^{1,2} ¹ Anti-Aging Research Center, Dong-eui University, Republic of Korea, ² Department of Biochemistry, Dong-eui University College of Korean Medicine, Republic of Korea	
P-034	HUMAN STEROID SULFATASE(STS) DEFICIENCY INDUCES KERATINIZATION BY IMPROVING THE EXPRESSION LEVEL OF E-CADHERIN 150 Tae-Uk Kwon, Yeo-Jung Kwon, Yeon Ju Kwon, Boyoung Lee, Hyemin Park, Hyein Lee and Young-Jin Chun [*] College of Pharmacy and Center of Metareceptome Research, Chung-Ang University, Republic of Korea	
P-035	ESTROGEN RECEPTOR ALPHA 36 INCREASES THE PROLIFERATION OF TRIPLE NEGATIVE BREAST CANCER CELLS VIA AROMATASE EXPRESSION 151 Gi Ho Lee, Seung Yeon Lee, Mi Yeon Kim, Ju Yeon Chae, Jae Won Kim and Hye Gwang Jeong* <i>College of Pharmacy, Chungnam National University, Republic of Korea</i>	

P-036	PROTECTIVE EFFECT OF IMPRESSIC ACID ON THE FORMATION OF DIESEL EXHAUST PARTICLES-INDUCED NLRP1 INFLAMMASOME IN HUMAN KERATINOCYTES Seung Yeon Lee, Gi Ho Lee, Mi Yeon Kim, Ju Yeon Chae, Jae Won Kim and Hye Gwang Jeong [*] College of Pharmacy, Chungnam National University, Republic of Korea
P-037	AMIODARONE AS A MODEL COMPOUND TO DETECT MITOCHONDRIAL TOXICITY IN HEPATOCYTES 153 Jeongwoo Park, Munkyung Choi, Wan Seob Shim, Taeeung Kim and Keon Wook Kang [*] College of Pharmacy and Research Institute of Pharmaceutical Sciences, Seoul National University, Republic of Korea
P-038	IN VITRO 3D HUMAN KIDNEY TOXICITY MODEL WITH CO-CULTURED HUMAN IMMUNE CELLS DESCRIBING THAT IMMUNE-HYPERACTIVITY INTERFERES CILIA FORMATION VIA IL-1 SIGNALING AND RESULTS IN RENAL DAMAGES Hyewon Jung [†] , Inhye Kim [†] , Mi-lang Kyun, Tamina Park, Min-Heui Yoo, Myeongjin Choi, Seo Yule Jeong, Jihye Son, Dong Ho Woo, Chang Hoon Choi, Hyun-A Oh, Ye-Ji Kim, Yu Yeong Jeong, Yu Bin Lee [*] , Daeui Park [*] and Kyoung Sik Moon [*] Department of Advanced Toxicology Research, Korea Institute of Toxicology, Republic of Korea
P-039	SUBACUTE (28-DAY) INHALATION TOXICITY STUDY OF DECANE IN WISTAR RATS 155 Yong-Soon Kim [*] and Eun-Sang Cho Inhalation Toxicity Research Center, Chemical Research Bureau, Occupational Safety and Health Research Institute, KOSHA, Republic of Korea
P-040	COMET ASSAY OF 2-METHOXYETHANOL AND BENZALKONIUM CHLORIDE IN THREE- DIMENSIONALLY CULTURED CELLS FOR SCREENING OF CARCINOGENICITY 156 Cheol-Hong Lim, Kyeong-Min Shin and Dong-Suk Seo Inhalation Toxicity Research Center, Occupational Safety & Health Research Institute, KOSHA, Republic of Korea
P-041	CANDIDA ALBICANS INCREASES RISK FACTORS FOR ALZHEIMER'S DISEASE THROUGH ADHESION OF AMYLOID PRECURSOR PROTEIN AND UPREGULATION OF APOLIPOPROTEIN E IN U87MG ASTROCYTE CELL LINE Hyuk Cheol Kwon, Do Hyun Kim, Hyun Su Jung and Sung Gu Han [*] Toxicology Laboratory, Department of Food Science and Biotechnology of Animal Resources, Konkuk University, Republic of Korea
P-042	OVERACTIVATED NRF2 INDUCES PSEUDOHYPOXIA THROUGH STABILIZATION OF HIF-1a: IMPLICATIONS FOR PROGRESSION OF HEPATOCELLULAR CARCINOMA 158 Jie Zheng ¹ , Su-Jung Kim ² , Soma Saeidi ² , Seong Hoon Kim ¹ , Xizhu Fang ¹ , Yeon-Hwa Lee ¹ , Yanymee N Guillen-Quispe ² , Hoang Kieu Chi Ngo ¹ , Do-Hee Kim ³ , Doojin Kim ⁴ and Young-Joon Surh ^{1,5,*} ¹ College of Pharmacy, Seoul National University, Republic of Korea, ² Department of Molecular Medicine and Biopharmaceutical Science, Graduate School of Convergence Science and Technology, Seoul National University, Republic of Korea, ³ Department of Chemistry, College of Convergence and Integrated Science, Kyonggi University, Republic of Korea, ⁴ Department of Surgery, Gachon University Gil Medical Center, Gachon University School of Medicine, Republic of Korea, ⁵ Cancer Research Institute, Seoul National University, Republic of Korea

P-043	AN ELECTROPHILIC METABOLITE OF DOCOSAHEXAENOIC ACID PROTECTS AGAINST UVB-INDUCED DERMATITIS AND CARCINOGENESIS IN MICE 159 Seong Hoon Kim ¹ , So Eui Lee ² , Su-Jung Kim ² , Xizhu Fang ¹ and Young-Joon Surh ^{1,3,*} ¹ Research Institute of Pharmaceutical Sciences, College of Pharmacy, Seoul National University, Republic of Korea, ² Department of Molecular Medicine and Biopharmaceutical Sciences, Graduate School of Convergence Science and Technology, Seoul National University, Republic of Korea, ³ Cancer Research Institute, Seoul National University, Republic of Korea
P-044	PARTICULATE MATTER INHALATION CAN EXACERBATE HOUSE DUST MITE-INDUCED ASTHMA 160 Dong Im Kim ¹ , Mi-Kyung Song ^{1,2} , Ji Eun Yuk ¹ and Kyuhong Lee ^{1,2*} ¹ Inhalation Toxicology Center for Airborne Risk Factor, Korea Institute of Toxicology, Republic of Korea, ² Department of Human and Environmental Toxicology, University of Science & Technology, Republic of Korea
P-045	ACUTE INHALATION TOXICITY TEST FOR 2-METHOXY-1-PROPANOL USING SD RATS
P-046	ARD1 STABILIZES NRF2 THROUGH DIRECT INTERACTION AND PROMOTES COLON CANCER PROGRESSION 162 Xizhu Fang ¹ , Yeon-Hwa Lee ¹ , Jeong-Hoon Jang ¹ , Su-Jung Kim ² , Seong Hoon Kim ¹ , Do-Hee Kim ³ , Hye-Kyung Na ⁴ , Kyung-Ok Kim ⁵ , Jeong-Heum Baek ⁶ and Young-Joon Surh ^{1,7,*} ¹ College of Pharmacy, Seoul National University, Republic of Korea, ² Department of Molecular Medicine and Biopharmaceutical Science, Graduate School of Convergence Science and Technology, Seoul National University, Republic of Korea, ³ Department of Chemistry, College of Convergence and Integrated Science, Kyonggi University, Republic of Korea, ⁴ Department of Food Science and Biotechnology, College of Knowledge-Based Services Engineering, Sungshin Women's University, Republic of Korea, ⁵ Gachon Medical Research Institute, Gil Medical Center, Gachon University, Republic of Korea, ⁶ Division of Colon and Rectal Surgery, Department of Surgery, Gil Medical Center, Gachon University College of Medicine, Republic of Korea, ⁷ Cancer Research Institute, Seoul National University, Republic of Korea
P-047	 WILD-TYPE HRAS-INDUCED UPREGULATION OF NRF2 AND P-STAT3^{Y705} PROMOTES PROGRESSION OF BREAST CANCER 163 Su-Jung Kim¹, Nam-Chul Cho², Xizhu Fang³, Seong Hoon Kim³, Jie Zheng³ and Young-Joon Surh^{3,4,*} ¹Department of Molecular Medicine and Biopharmaceutical Sciences, Graduate School of Convergence Science and Technology, Seoul National University, Republic of Korea, ²Korea Chemical Bank, Korea Research Institute of Chemical Technology, Republic of Korea, ³College of Pharmacy, Seoul National University, Republic of Korea, ⁴Cancer Research Institute, Seoul National University, Republic of Korea
P-048	TOXICITY IN HEMATOPOIETIC STEM CELLS IN C57BL/6 AFTER THE ASARI RADIX ET RHIZOMA EXPOSURE: TRANSCRIPTOME ANALYSIS Da Yeon Kim, Seng-Min Back, Nan-Young Kim, Su-Min Bak, Na-Young Jeung and Seong-Hoon Park* Genetic & Epigenetic Toxicology Research Group, Korea Institute of Toxicology, Republic of Korea

P-049	EVALUATION OF THERAPEUTIC MONOCLONAL ANTIBODY-INDUCED IMMUNOTOXICITY IN HUMANIZED NSG MOUSE MODEL 16 Seo Yule Jeong [†] , Myeongjin Choi [†] , Mi-lang Kyun, Hyun-A Oh, Chang Hoon Choi, Jihye Son, Ye-Ji Kim, Inhye Kim, Yu Yeong Jeong, Hyewon Jung, Yu Bin Lee, Dong Ho Woo and Kyoung-Sik Moon [*] Department of Advanced Toxicology Research, Korea Institute of Toxicology, Republic of Korea	5
P-050	LOSS OF Rab25 REDUCES TUMORIGENESIS IN MMTV-PyMT BREAST CANCER MODEL 16 Chanyang Uhm, Haengdueng Jeong, Kwang H. Kim, Seoung Hee Kim, Yejin Cho, Mina Lee, Buhyun Lee, Yura Lee, Sumin Heo, Nakyum Lee, Jiseon Kim, Donghun Jeon, Heeju Oh, Kyoungrae Cho and Ki Taek Nam [*] Severance Biomedical Science Institute, Brain Korea 21 PLUS Project for Medical Science, Yonsei University College of Medicine, Republic of Korea	б
P-051	BEHAVIORAL AND MOLECULAR BIOLOGICAL VALIDATION OF THE MPTP TREATED MICE AS ANIMAL MODEL OF PARKINSON'S DISEASE FOR THE NEW THERAPEUTIC APPROACH Mijeong Park, Jimin Ha, Yuri Lee and Youn Kyoung Jeong [*] Radiological and Medical Support Center, Korea Institute of Radiological and Medical Sciences, Republic of Korea	7
P-052	BETA 2-MICROGLOBULIN-DEFICIENT NIG MICE TRANSFERRED WITH HUMAN PBMCs INDUCE MILD GVHD FOR LONG-TERM HUMAN IMMUNOLOGY RESEARCH 16 Inseon Bak ^{1,2,†} , Myeongjin Choi ^{3,†} , Hyejin Seong ¹ , Kyeong-Won Yoo ¹ , Seo Yule Jeong ³ , Kyoung-Sik Moon ^{3,*} and Dae-Yeul Yu ^{1,*} ¹ GHBIO Inc. (Genes & Health Biotechnology), Republic of Korea, ² Immunology and Immunopharmacology Laboratory, College of Pharmacy, Chungnam National University, Republic of Korea, ³ Korea Institute of Toxicology, Republic of Korea	8
P-053	A PESTICIDE, FLUDIOXONIL, INDUCED THE CHEMO-RESISTANCE BY THE TRANSFORMATION TO MULTINUCLEATION OF TRIPLE-NEGATIVE BREAST CANCER CELLS, MDA-MB-231 16 Ryeo-Eun Go, Hong Kyu Lee, Dohee Ahn and Kyung-Chul Choi [*] Laboratory of Biochemistry and Immunology, College of Veterinary Medicine, Chungbuk National University, Republic of Korea	9
P-054	 4-EA-NBOMe, AN AMPHETAMINE DERIVATIVE, ALTERS GLUTAMATERGIC SYNAPTIC TRANSMISSION THROUGH 5-HT RECEPTORS ON BOTH C57BL/6 MOUSE AND SPRAGUE-DAWLEY (SD) RATS 17 Chang Hoon Choi¹, Hyun-A Oh¹, Ye-Ji Kim^{1,2}, Mi-Lang Kyun¹, Seo Yule Jeong¹, Jihye Son¹, Myeongjin Choi¹, Kyoung-Sik Moon¹, Kyung-Seok Han^{3,*} and Dong Ho Woo^{1,2,*} ¹ Department of Advanced Toxicology Research, Korea Institute of Toxicology, KRICT, Republic of Korea, ²Human and Environmental Toxicology, University of Science and Technology, Republic of Korea, ³Department of Biological Sciences, Chungnam National University, Republic of Korea 	0

P-055	POTENTIAL EFFECTS OF CELL VIABILITY BY THE EXPOSURE OF PESTICIDES IN ESTROGEN RECEPTOR-EXPRESSING BREAST CANCER CELLS 171 Su-Min Seong, Yun-Jung Na and Kyung-Chul Choi [*] Laboratory of Biochemistry and Immunology, College of Veterinary Medicine, Chungbuk National University, Republic of Korea
P-056	ESTABLISHMENT STUDY OF SKIN IRRITATION DB ON ALTERNATIVE METHODS TO ANIMAL TESTING 172 Min Kyung Hyun, Nam-Hee Kang, Yoonsook Lee and Seo Young Bang [*] <i>Toxicological Screening & Testing Division, National Institute of Food and Drug Safety Evaluation,</i> <i>Ministry of Food and Drug Safety, Republic of Korea</i>
P-057	PHARMACOKINETIC SERVICE GUIDE OF K-MEDI HUB PRECLINICAL RESEARCH CENTER AND PHARMACOKINETIC STUDY OF MELITTIN USING RODENTS 173 So-Young Jung ¹ , Taeuk Park ¹ , Sanghyun Kim ¹ , Jihun Lee ² , Dongkyu Kim ¹ , Kil-Soo Kim ¹ and Eui-Suk Jeong ^{1,*} ¹ Preclinical Research Center, Daegu-Gyeongbuk Medical Innovation Foundation, Republic of Korea, ² New Drug Development Center, Daegu-Gyeongbuk Medical Innovation Foundation, Republic of Korea
P-058	POLYHEXAMETHYLENE GUANIDINE PHOSPHATE ADMINISTRATION INDUCES DIFFERENT INFLAMMATORY RESPONSES DEPENDING ON THE DOSE Hyo-Seon Yang, Mihyun Kang and Kyuhong Lee [*] Korea Institute of Toxicology, Inhalation Toxicology Center for Airborne Risk Factors, Republic of Korea
P-059	FOUR GERMLINE VARIANTS IN HUMAN POLH FAIL TO RESCUE CYTOTOXICITY FROM UV IRRADIATION AND CISPLATIN IN HUMAN EMBRYONIC KIDNEY CELLS Jin-Kyung Hong and Jeong-Yun Choi [*] Department of Pharmacology, Sungkyunkwan University College of Medicine, Republic of Korea
P-060	BIOCHEMICAL ANALYSIS OF NINE GERMLINE AND SOMATIC GENETIC VARIANTS OF HUMAN DNA POLYMERASE β Jin-Kyung Hong, Hye-Jin Han, Mina Yeom and Jeong-Yun Choi [*] Department of Pharmacology, Sungkyunkwan University College of Medicine, Republic of Korea
P-061	STEVIOSIDE ATTENUATES LIVER STEATOSIS THROUGH PPARα-MEDIATED LIPOPHAGY IN HEPATOCYTES 177 Miey Park, Hana Baek, Jin-Young Han, Chaewon Kang, Junho Yu and Hae-Jeung Lee Department of Food and Nutrition, College of BioNano Technology, Institute for Aging and Clinical Nutrition Research, Gachon University, Republic of Korea
P-062	METHODS TO EVALUATE THE MITOCHONDRIAL TOXICITY BY TOXICANT IN MOUSE KIDNEY STEM CELL 178 YongIn Kim, Minsu Lee, Jimin Lee, KangMin Kim and Eui-Bae Jeung [*] College of Veterinary Medicine, Chungbuk National University, Republic of Korea

P-063	POLICOSANOL SUPPRESSES THE PROLIFERATION OF GASTRIC CANCER CELLS THROUGH EMILIN1 INDUCTION Sunyi Lee ¹ , Ga Seul Lee ^{2,3} , Jeong Hee Moon ³ and Joohee Jung ^{1,4,*} ¹ Duksung Innovative Drug Center, Duksung Women's University, Republic of Korea, ² College of Pharmacy, Chungbuk National University, Republic of Korea, ³ Disease Target Structure Research Center, Korea Research Institute of Bioscience & Biotechnology (KRIBB), Republic of Korea, ⁴ College of Pharmacy, Duksung Women's University, Republic of Korea	179
P-064	EMBRYONIC DEVELOPMENT OF THE RESPIRATORY SYSTEM IN MINIPIG Ju-Yeon Lee ^{1,2} , Jinhyung Rho ¹ , Jeong Ho Hwang ^{1,3} and Mi-Jin Yang ^{1,2} ¹ Center for Companion Animal New Drug Development, Korea Institute of Toxicology, Republic of Korea, ² Jeonbuk Pathology Research Group, Korea Institute of Toxicology, Republic of Korea, ³ Animal Model Research Group, Korea Institute of Toxicology, Republic of Korea	180
P-065	EFFECTS OF HALOPERIDOL AND DOPAMINE ON ALZHEIMER'S DISEASE: AN IN SILICO STUDY Ngoc Minh Hong Hoang, Hai Duc Nguyen, Wonhee Jo and Min-Sun Kim [*] Department of Pharmacy, College of Pharmacy, Suncheon National University, Republic of Korea	181
P-066	PREDICTIVE EVALUATION OF PHOTOTOXICITY FOR TEST CHEMICALS USING <i>IN</i> <i>VITRO</i> SKIN MODEL KeraSkin TM Eun-Ji Gwak, Seol-Yeong Kim, Su-Ji Kim and Su-Hyeon Lee [*] <i>R&D Institute, Biosolution Co., Ltd., Republic of Korea</i>	. 182
P-067	A STUDY OF LUNG DAMAGE BY REPEATED INTRATRACHEAL INSTILLATION OF WHOLE CIGARETTE SMOKE CONDENSATES Jinhee Kim ^{1,*} , Gi-Jun Oh ¹ , Hae-Bin Park ¹ , Mi Jin Yang ¹ , Ryeo-Eun Go ² , Kyung-Chul Choi ² and Min- Seok Kim ¹ ¹ Inhalation Toxicity Research Group, Korea Institute of Toxicology, Republic of Korea, ² Laboratory of Biochemistry and Immunology, College of Veterinary Medicine, Chungbuk National University, Republic of Korea	. 183
P-068	CATALYTIC ACTIVITIES OF HYDROXYLATION AND LYASE REACTION OF STEROLS BY MOUSE CYP17A1 ENZYME Sung-Gyu Lee, Vitchan Kim, Gyu-Hyeong Lee, ChangMin Kim, EunSeo Jeong, Yoo-bin Lee and Donghak Kim [*] Department of Biological Sciences, Konkuk University, Republic of Korea	. 184
P-069	REFERENCE CHEMICAL DATABASE SYSTEM FOR THE DEVELOPMENT AND VALIDATION OF IN VITRO ALTERNATIVES TO EYE IRRITATION TEST Nam-Hee Kang [*] , So-Hee Kim, Hye-Lyun Jeon and Yoonsook Lee Toxicological Screening and Testing Division, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Republic of Korea	. 185

P-070	CHARACTERIZATION OF PACLITAXEL HYDROXYLATION ACTIVITY BY NEW HUMAN CYP2C8 GENETIC VARIANTS	
	Yoo-bin Lee, Vitchan Kim, Sung-gyu Lee, Gyu-hyeong Lee, Changmin Kim, Eunseo Jeong and Donghak Kim [*]	
	Department of Biological Sciences, Konkuk University, Republic of Korea	
P-071	EXPRESSION AND CHARACTERIZATION OF HUMAN CYTOCHROME P450 _{scc} , ADRENODOXIN AND ADRENODOXIN REDUCTASE	
	Changmin Kim, Vitchan Kim, Sung-Gyu Lee, Gyu-Hyeong Lee, Eunseo Jeong, Yoo-Bin Lee and Donghak Kim [*] Department of Biological Sciences, Konkuk University, Republic of Korea	
-		
P-072	1 HR-MAS NMR	188
	Seonghye Kim, Sujin Lee and Suhkmann Kim Department of Chemistry and Chemistry Institute for Functional Materials, Pusan National University, Republic of Korea	
P-073	INVESTIGATION OF METABOLIC RESPONSES OF ZEBRAFISH (DANIO RERIO) EXPOSED TO FIPRONIL USING NMR SPECTROSCOPY Sujin Lee, Seonghye Kim and Suhkmann Kim [*] Department of Chemistry and Chemistry Institute for Functional Materials, Pusan National University. Republic of Korea	
P-074	A NOVEL APPROACH IN THE AREA OF PRECLINICAL CARDIAC SAFETY TESTING VIA	
	THE CiPA CONCEPT Jin Ryeol An, In Kyo Jung, Kwan Soo Kim, Chan Hyeok Kwon and Sun Ok Choi [*] Pharmacological Research Division, Toxicological Evaluation and Research Department, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Republic of Korea	190
P-075	ASSESSING THE INTERACTION BETWEEN MSC1 AND STAT1 ON GLIOBLASTOMA	191
	Suhwan Gwon ^{1,2} , Gyeyeong Kong ^{1,2} , Thuy-Trang T. Vo ^{1,2} , Uijin Juang ^{1,2} , Woohyeong Jung ^{1,2} , Huonggiang Nguyen ^{1,2} and Jongsun Park ^{1,2}	191
	¹ Department of Pharmacology, ² Department of Medical Science, Institute of Cancer Research, College of Medicine, Chungnam National University, Republic of Korea	
P-076	TROVAFLOXACIN-INDUCED HEPATIC INJURY THROUGH MACROPHAGE	192
	Heeyoung Yang [*]	172
	Precision Toxicology Lab, Department of Predictive Toxicology, Korea Institute of Toxicology, Republic of Korea	

P-077	EVALUATION OF POLYPROPYLENE MICROPLASTICS-MEDIATED INFLAMMATORY OR OXIDATIVE STRESS ON HUMAN-DERIVED CELL LINES 193 Anju Maharjan ¹ , Ji-Hun Jo ¹ , Ravi Gautam ¹ , Manju Acharya ¹ , DaEun Lee ² , Pramod Bahadur KC ³ , Sarina Kusma ³ , ChangYul Kim ³ , MinHee Kim ³ , JiSun Lee ³ , HyoungAh Kim ⁴ and Yong Heo ^{1,2,3} ¹ Department of Public Health, Graduate School, Daegu Catholic University, Republic of Korea, ² Department of Occupational Health, Graduate School, Daegu Catholic University, Republic of Korea, ³ Department of Toxicology, Graduate School, Daegu Catholic University, Republic of Korea, ⁴ Department of Preventive Medicine, College of Medicine, The Catholic University of Korea, Republic of Korea
P-078	DOPAMINE-MODIFIED HYALURONIC ACID (DA-HA) AS A NOVEL DOPAMINE- MIMETICS WITH MINIMAL AUTOXIDATION AND CYTOTOXICITY 194 Ye-Ji Kim ^{1,2,+} , Sunpil Kim ^{3,4,+} , Kyoung Hwan Park ^{5,6} , Kang Moo Huh ⁵ , Sun-Woong Kang ^{1,6} , Yu Yeong Jung ¹ , Inhye Kim ¹ , Hyewon Jung ¹ , Yu Bin Lee ¹ , Kyoung-Sik Moon ¹ , C. Justin Lee ^{3,4,*} and Dong Ho Woo ^{1,2,*} ¹ Department of Advanced Toxicology Research, Korea Institute of Toxicology, Republic of Korea, ² Human and Environmental Toxicology, University of Science and Technology, Republic of Korea, ³ KU-KIST Graduate School of Converging Science and Technology, Korea University, Republic of Korea, ⁴ Center for Cognition and Sociality, Cognitive Glioscience Group, Institute for Basic Science, Republic of Korea, ⁵ Department of Polymer Science and Engineering, Chungnam National University, Republic of Korea, ⁶ Research Group for Biomimetic Advanced Technology, Korea Institute of Toxicology (KIT), KRICT, Republic of Korea
P-079	THE DEVELOPMENT OF TISSUE TRIMMING GUIDE FOR THE UPPER RESPIRATORY TRACT 195 Mi Ju Lee [*] and Hye-Yeon Choi Inhalation Toxicity Center, Occupational Safety and Health Research Institute, Republic of Korea
P-080	MOLECULAR MECHANISM OF YPEL3 FOR CELLULAR SENESCENCE MEDIATED BY THE HIPPO SIGNALING PATHWAY IN MCF-7 HUMAN BREAST CANCER CELLS 196 Yeonju Kwon, Tae-Uk Kwon, Yeo-Jung Kwon, Boyoung Lee, Hyemin Park, Hyein Lee and Young-Jin Chun [*] College of Pharmacy and Center of Metareceptome Research, Chung-Ang University, Republic of Korea
P-081	HUMIDIFIER DISINFECTANTS EXPOSED THP-1 AND HaCaT CELL ANALYSIS FOR SKIN 197 SENSITIZATION 197 Hyang Yeon Kim ^{1,2,*} , Jung Dae Lee ^{1,2} , YuJin Kim ¹ and Kyu-Bong Kim ^{1,2} 1 ² ¹ College of Pharmacy, Dankook University, Republic of Korea, ² Center for Human Risk Assessment, Dankook University, Republic of Korea
P-082	EXPRESSION OPTIMIZATION OF CYTOCHROME P450 171A1 ENZYME FROM STREPTOMYCES AVERMITILIS 198 Eunseo Jeong, Vitchan Kim, Sung-Gyu Lee, Gyu-Hyeong Lee, Changmin Kim, Yoo-Bin Lee and Donghak Kim [*] Department of Biological Sciences, Konkuk University, Republic of Korea

P-083	INTEGRATION OF TRANSCRIPTOMICS, PROTEOMICS AND METABOLOMICS IDENTIFIES BIOMARKERS FOR PULMONARY INJURY BY POLYHEXAMETHYLENE GUANIDINE PHOSPHATE (PHMG-p), A HUMIDIFIER DISINFECTANT, IN RATS Jung Dae Lee ¹ , Hyang Yeon Kim ² , Keunsoo Kang ³ , Hye Gwang Jeong ⁴ , Mi-Kyung Song ⁵ , In Hwan Tae ¹ , Su Hyun Lee ¹ , Hae Ri Kim ¹ , Kyuhong Lee ⁵ , Sehyun Chae ⁶ , Daehee Hwang ⁷ , Suhkmann Kim ⁸ , Hyung Sik Kim ¹ , Kyu-Bong Kim ^{2,*} and Byung-Mu Lee ^{1,*} ¹ Toxicology, College of Pharmacy, Sungkyunkwan University, Republic of Korea, ² Toxicology, College of Pharmacy, Dankook University, Republic of Korea, ³ Department of Microbiology, College of Natural Sciences, Dankook University, Republic of Korea, ⁴ College of Pharmacy, Chungnam National University, Republic of Korea, ⁶ Korea Brain Research Institute (KBRI), Republic of Korea, ⁷ Department of Biological Sciences, Seoul National University, Republic of Korea, ⁸ Department of Chemistry and Chemistry Institute of Functional Materials, Pusan National University, Republic of Korea	199
P-084	ALTERNATIVE TEST METHOD FOR PREDICTING IMMUNOTOXICITY POTENTIAL OF XENOBIOTICS THROUGH PROFILING OF CYTOKINES PRODUCTION FROM HUMAN PERIPHERAL BLOOD MONONUCLEAR CELLS Manju Acharya ¹ , DaEun Lee ² , Anju Maharjan ¹ , Pramod Bahadur K.C ³ , Sarina Kusma ³ , HyoungAh Kim ⁴ , GiYong Lee ⁵ , YooRee Choi ⁵ , ChangYul Kim ^{3,5} and Heo Yong ^{1,2,3,5} ¹ Dept. Public Health, Graduate School, Daegu Catholic University, Republic of Korea, ² Dept. Occupational Health, Graduate School, Daegu Catholic University, Republic of Korea, ³ Dept. Toxicology, Graduate School, Daegu Catholic University, Republic of Korea, ⁴ Dept. Preventive Medicine, College of Medicine, The Catholic University of Korea, Republic of Korea, ⁵ Dept. Toxicity Assessment, Graduate School of Medical and Health Industry, Daegu Catholic University, Republic of Korea	. 200
P-085	THE EFFECTS OF NAPHTHALENE AND ITS METABOLITES ON BONE FORMATION AND DIFFERENTIATION Chawon Yun ^{1,2} , Sou Hyun Kim ^{1,2} , Ji Eun Bae ^{1,2} and Young-Suk Jung ^{1,2,*} ¹ Department of Pharmacy, College of Pharmacy, Pusan National University, Republic of Korea, ² Research Institute for Drug Development, Pusan National University, Republic of Korea	201
P-086	THE ADVERSE EFFECTS OF CO-ADMINISTRATION OF POLYHEXAMETHYLENE GUANIDINE PHOSPHATE AND DEXAMETHASONE IN THE LIVER Hyo-Seon Yang, Mihyun Kang and Kyuhong Lee [*] Korea Institute of Toxicology, Inhalation Toxicology Center for Airborne Risk Factors, Republic of Korea	202
P-087	VALIDATION STUDY OF NanoBRET-BASED ESTROGEN RECEPTOR DIMERIZATION ASSAY FOR ENDOCRINE DISRUPTING CHEMICALS Na-Yeon Kim, Gyeong-yong Oh, Hyejin Jo, Mi-ran Kim, Hyun-Suk Oh, Haejung Yoon and Kang Bong Lee [*] Food Safety Risk Assessment Division, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Republic of Korea	203

P-088	4-WEEK ORAL REPEATED-DOSE TOXICOKINETIC STUDY OF SODIUM SALICYLATE IN CYNOMOLGUS MONKEYS 204 JinWoo Kim, Min-Woo Jang, Je-Teaik Youn, Ji-Yun Jung, Ji-Eun Kim, Ye-Ri Kim, Ji-A Lee, Wan-Je Park and Choong-Yong Kim [*] <i>Toxicology Research Center, ORIENT GENIA Inc., Republic of Korea</i>
P-089	<i>IN VITRO</i> EVALUATION OF NEW PSYCHOACTIVE SUBSTANCES (NPS) BY USING SYNAPTIC CHANNELS 205 Yu Yeong Jeong ^{1,2} , Ye-Ji Kim ^{2,3} , Hyun-A Oh ¹ , Yu Bin Lee ¹ , Myeongjin Choi ¹ , Hyewon Jung ¹ , Inhye Kim ¹ , Kyoung-Sik Moon ¹ , Kyung-Seok Han ² and Dong Ho Woo ^{1,3,*} ¹ Department of Advanced Toxicology Research, Korea Institute of Toxicology, Republic of Korea, ² Department of Biological Science, Chungnam National University, Republic of Korea, ³ Human and Environmental Toxicology, University of Science and Technology, Republic of Korea
P-090	DETECTION OF ESTROGEN RECEPTOR AGONIST AND ANTAGONIST USING TRANSACTIVATION <i>IN VITRO</i> ASSAY WITH METABOLIZING SYSTEM 206 Gyeong-yong Oh, Na-Yeon Kim, Hyejin Jo, Mi-ran Kim, Hyun-Suk Oh, Haejung Yoon and Kang Bong Lee [*] Food Safety Risk Assessment Division, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Republic of Korea
P-091	EVALUATION OF THE HepaRG CELLS AND INDUCED-PLURIPOTENT STEM CELLS FOR 207 DRUG METABOLISM AND TOXICITY STUDIES 207 Nam-Ju Kim, Ji-Hyun Bang, Hee Yi, Moon-Her, Hyun-Ok Ku and Byung-Suk Jeon [*] 207 Toxicological Evaluation Laboratory, Animal and Plant Quarantine Agency, Republic of Korea 207
P-092	ANALYSIS OF ENZYMATIC CATALYSIS OF HUMAN CYP2C19 IN METABOLISM OF PROGESTERONE AND STIMULATORY EFFECT OF CYTOCHROME <i>b</i> ₅ 208 Gyu-Hyeong Lee, Vitchan Kim, Sung-Gyu Lee, Changmin Kim, Eunseo Jeong, Yoo-Bin Lee and Donghak Kim [*] Department of Biological Sciences, Konkuk University, Republic of Korea
P-093	4-WEEK ORAL REPEATED-DOSE TOXICITY STUDY OF SODIUM SALICYLATE IN CYNOMOLGUS MONKEYS 209 Junghwan Lee, Kahee Cho, Yeonlee Seo, Kanghyun Chang, Wanje Park and Choong-Young Kim [*] <i>Toxicology Research Center, ORIENT GENIA Inc., Republic of Korea</i>
P-094	TOXICOKINETIC CHARACTERISTICS OF GLYPHOSATE, A HERBICIDE, IN RATS 210 Yu Jin Kim ^{1,2} , Hyang Yeon Kim ^{1,2} , Jung Dae Lee ^{1,2} and Kyu-Bong Kim ^{1,2,*} 210 ¹ College of Pharmacy, Dankook University, Republic of Korea, ² Center for Human Risk Assessment, Dankook University, Republic of Korea

P-095	IN VIVO STUDY OF RESPIRATORY EFFECT OF AIRBORNE BACTERIA COLLECTED	
	Sung-Hoon Yoon ¹ , Mi-Kyung Song ^{1,2} , Dong Im Kim ¹ , Wonsuck Yoon ³ and Kyuhong Lee ^{1,2,*} ¹ Inhalation Toxicology Center for Airborne Risk Factor, Korea Institute of Toxicology, Republic of Korea, ² Department of Human and Environmental Toxicology, University of Science & Technology, Republic of Korea, ³ The Environmental Health Center, University of Korea, Republic of Korea	211
P-096	ADVANCED VISUALIZATION USING A TRANSGENIC ZEBRAFISH FOR	
	TRIAZINETRIETHANOL'S NEUROTOXICITY	212
	Donggon Yoo ^{1,2} , Sangwoo Lee' and Woo-Keun Kim ^{1,2,7}	
	[•] Department of Predictive Toxicology, Korea Institute of Toxicology, Republic of Korea, [•] Human and Environmental Toxicology, University of Science and Technology, Republic of Korea	
P-097	MOLECULAR MECHANISMS BASED ON LIVER TOXICITY OF METYRAPONE TOWARD	
	Soon Seok Kim ^{1,2} Hang-Suk Chun ^{1,*} and Woo-Keun Kim ^{1,2,*}	215
	¹ Department of Predictive Toxicology, Korea Institute of Toxicology, Republic of Korea, ² Human and	
	Environmental Toxicology, University of Science and Technology, Republic of Korea	
P-098	MOLECULAR MECHANISMS RELATED TO COGNITIVE IMPAIRMENT INDUCED BY	
	CADMIUM AND NOTOGINSENOSIDE R1: AN IN SILICO STUDY	214
	Won Hee Jo, Hai Duc Nguyen, Ngoc Hong Minh Hoang and Min-Sun Kim	
	Sciences, Sunchon National University, Republic of Korea	
P-099	LOSS OF ADIPOSE METABOLIC SYNDROME COMPLEX 1 IN MICE REDUCES	
	LIPOGENESIS	215
	Huonggiang Nguyen, Gyeyeong Kong, Thuy-Trang T. Vo, Uijin Juang, Suhwan Gwon, Woohyeong Jung, Hyunji Lee, Jisoo Park and Jongsun Park	
	Department of Pharmacology, College of Medicine, Department of Medical Science, Institute of	
	Cancer Research, College of Medicine, Chungnam National University, Republic of Korea	
P-100	APOPTOTIC EFFECT OF TERFENADINE THROUGH INHIBITION OF MEK/STAT3	
		216
	Manoj Kumar Baniya and Kyung-500 Chun College of Pharmacy, Keimyung University, Republic of Korea	
P-101	EFFECT OF DOMPERIDONE ON APOPTOSIS THROUGH ERK/STAT3 IN HUMAN COLON	
	CANCER HCT116 CELLS	217
	So Jin Sim and Kyung-Soo Chun [®]	
	College of Pharmacy, Keimyung University, Republic of Korea	

P-102	COMPARATIVE ANALYSIS OF PATHOLOGICAL LESIONS BETWEEN POWDER AND WATER EXTRACT OF PIPERIS LONGI FRUCTUS IN 13-WEEK REPEATED TOXICITY	210
	Ki Hoon Kim ¹ , Do Hoon Kim ¹ , Min Jeong Lee ¹ , Ye Ji Bae ¹ , Gyu Baek Kim ¹ , Da Hui Jeong ¹ , Sun Hee Park ² , Woo Jin Kim ³ , Ji Seok Han ³ , Byeongwoo Ahn ⁴ and Beom Seok Han ^{1,*} ¹ Department of Pharmaceutical Engineering, College of Natural Science, Hoseo University, Republic of Korea, ² Department of Histopathology, Biotoxtech, Republic of Korea, ³ Department of Histopathology, Korea Institute of Toxicology, Republic of Korea, ⁴ Department of Veterinary Medicine, Chungbuk University, Republic of Korea	218
P-103	HISTOPATHOLOGICAL STUDY OF SPONTANEOUS AND TEST SUBSTANCE LESIONS BY ADMINISTRATION ROUTE OF ALKYLDIAMINOETHYLGLYCINE Ye Ji Bae ¹ , Ki Hoon Kim ¹ , Min Jeong Lee ¹ , Do Hoon Kim ¹ , Gyu Baek Kim ¹ , Da Hui Jeong ¹ , Gye-Hyeong Woo ² , Byung II Yoon ³ , Yong Baek Kim ⁴ and Beom Seok Han ^{1,*} ¹ Department of Pharmaceutical Engineering, Life Health College, Hoseo University, Republic of Korea, ² Department of Clinical Pathology, Health & Biotechnology College, Semyung University, Republic of Korea, ³ Department of Veterinary Medicine, Veterinary Medicine College, Kangwon National University, Republic of Korea, ⁴ Department of Veterinary Medicine, Veterinary Medicine College, Seoul National University, Republic of Korea	219
P-104	PREVENTION OF TUNICAMYCIN-INDUCED LIVER INJURY BY TAURINE SUPPLEMENTATION Somin Lee, Chawon Yun and Young-Suk Jung [*] Department of Pharmacy, College of Pharmacy, Research Institute for Drug Development, Pusan National University, Republic of Korea	220
P-105	ALLEVIATION OF ACETAMINOPHEN-INDUCED HEPATOTOXICITY BY DIETARY RESTRICTION IN MICE Ji Eun Bae, Sou Hyun Kim and Young-Suk Jung [*] Department of Pharmacy, College of Pharmacy; Research Institute for Drug Development, Pusan National University, Republic of Korea	221
P-106	GENE EXPRESSION PROFILES OF HUMAN LUNG EPITHELIAL CELL LINE BEAS-2B EXPOSED TO HEATED TOBACCO PRODUCTS AND STANDARD CIGARETTES Suin Park ¹ , Mi II Kim ¹ , Van Quan Do ¹ , Yoon-Seok Seo ¹ , Min-Seok Kim ² , Choongho Lee ¹ and Moo-Yeol Lee ^{1,*} ¹ Integrated Research Institute for Drug Development, College of Pharmacy, Dongguk University, Republic of Korea, ² Inhalation Toxicology Research Center, Korea Institute of Toxicology, Republic of Korea	222
P-107	EFFECTS OF DECAMETHYLCYCLOPENTASILOXANE AND OCTAMETHYLCYCLOTETRASILOXANE ON REPRODUCTIVE SYSTEMS IN FEMALE RAT Jimin Lee, KangMin Kim, Minsu Lee, YongIn Kim and Eui-Bae Jeung [*] College of Veterinary Medicine, Chungbuk National University, Republic of Korea.	223

P-108	3-WEEKS REPEATED DOSE ORAL TOXICITY STUDY OF <i>GNETUM MACROSTACHYUM</i> EXTRACT IN ICR MICE 22- Min Hee Hwang ¹ , Young Nam Kim ¹ , Sun-Mi Park ¹ , Jung A Lee ¹ , Young-Rak Cho ¹ , Myounghai Kwak ² , Soo-Hyun Cho ² and Eun-Kyung Ahn ^{1,*} ¹ Bio-Center, Gyeonggido Business and Science Accelerator (GBSA), Republic of Korea, ² National Institute of Biological Resources (NIBR), Republic of Korea
P-109	A TIME-SERIES ASSOCIATION ANALYSIS BETWEEN 1-NITROPYRENE AND URINARY 6-HYDROXY-1-NITROPYRENE CONCENTRATIONS 22: Bolormaa Ochirpurev ¹ , Sang-Yong Eom ¹ , Akira Toriba ² , Yong-Dae Kim ¹ and Heon Kim ¹ ¹ Department of Preventive Medicine, College of Medicine, Chungbuk National University, Republic of Korea, ² Department of Hygienic Chemistry, Graduate School of Biomedical Science, Nagasaki University, Japan
P-110	TOXIC EFFECTS OF BENZALKONIUM CHLORIDE ON HUMAN LUNG EPITHELIAL CELLS: NECROSIS, APOPTOSIS, OR EPITHELIAL MESENCHYMAL TRANSITION 220 Joohee Lee ¹ , Sou Hyun Kim ² , Young-Suk Jung ² and Doyoung Kwon ^{1,*} 220 ¹ College of Pharmacy, Jeju National University, Republic of Korea, ² College of Pharmacy, Pusan National University, Republic of Korea
P-111	DEVELOPMENT OF ADVERSE OUTCOME PATHWAY NETWORK BASED ON MOLECULAR INITIATING EVENT IDENTIFICATION: UTILIZATION OF MOLECULAR DOCKING SIMULATION 22 Kimoon Na, Jaeseong Jeong and Jinhee Choi [*] School of Environmental Engineering, University of Seoul, Republic of Korea
P-112	ESTABLISHMENT OF CELL MODELS FOR <i>IN VITRO</i> INHALATION TOXICITY TESTING IN AIR-LIQUID INTERFACE CULTURE SYSTEM Ji-Hyun Bang, Hyun-Ok Ku, Byung-Suk Jeon, Nam-Ju Kim, Moon Her and Hee Yi [*] <i>Veterinary Drugs and Biologics Division, Animal and Plant Quarantine Agency (APQA), Republic of</i> <i>Korea</i>
P-113	QUANTITATIVE DEMONSTRATION OF THE MICRO-DUST ABSORPTION IN THE BODY SYSTEM USING ¹⁴ C-NANOTRACING WITH ACCELERATE MASS SPECTROMETRY (AMS) 229 Seongeun Song ¹ , Min-seok Oh ¹ , Gwan-ho Lee ¹ , Sungsu Lim ² , Yun Kyung Kim ² and Byungyong Yu ^{1,*} ¹ Advanced Analysis and Data Center, Korea Institute of Science and Technology (KIST), Republic of Korea, ² Brain Science Institute, Korea Institute of Science and Technology (KIST), Republic of Korea
P-114	INTEGRATE <i>IN VITRO</i> BIOACTIVITIES FROM NEW APPROACH METHODOLOGIES (NAMs) INTO A HAZARD ASSESSMENT TO CHARACTERIZE PHTHALATES IN SHARED MODE OF ACTION 230 Donghyeon Kim and Jinhee Choi [*] School of Environmental Engineering, University of Seoul, Republic of Korea

P-115	WHOLE CIGARETTE SMOKE CONDENSATES GENERATED FROM HEATED TOBACCO PRODUCTS AND 3R4F REFERENCE CIGARETTE DISRUPTS CELL ADHESION AND THEREBY INDUCES ANOIKIS IN HUMAN BRONCHIAL EPITHELIAL CELLS Van Quan Do ¹ , Jaehyeong Kim ¹ , Min-Seok Kim ² and Moo-Yeol Lee ^{1,*} ¹ College of Pharmacy, Dongguk University, Republic of Korea, ² Jeonbuk Department of Inhalation Research, Korea Institute of Toxicology, Republic of Korea	231
P-116	MICRO/NANOPLASTICS INHIBIT THE DEVELOPMENT OF EMBRYOID BODY USING HUMAN STEM CELLS AND EPIGENETIC INFLUENCES ARE INVOLVED Keon Kang, Jeongeum Im and Jinhee Choi [*] School of Environmental Engineering, University of Seoul, Republic of Korea	232
P-117	STRUCTURAL CHARACTERIZATION AND FATTY ACID EPOXIDATION OF CYP184A1 FROM STREPTOMYCES AVERMITILIS Vitchan Kim, Dogyeong Kim, Sung-Gyu Lee, Gyuhyeong Lee, Changmin Kim, Eunseo Jeong, Yoo- Bin Lee and Donghak Kim [*] Department of Biological Sciences, Konkuk University, Republic of Korea	233
P-118	COMPARISON OF TWO CADMIUM PBTK MODELS FOR RISK ASSESSMENT Seung Chan Lee, Yun Ju Choi, Yong-Kook Kwon, Yong Mu Kim, Haejung Yoon and Kangbong Lee Food Safety Risk Assessment Division, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Republic of Korea	234
P-119	IODINE INTAKE THROUGH SEAWEED SOUP AND URINE IODINE EXCRETION DURING POSTNATAL CARE PERIOD: A CROSS-SECTIONAL STUDY Jihee Choi ^{1,2} , Jin Ah Kim ² , Se-A Lee ^{1,2} , Yeon-Kye Kim ³ and Hae-Jeung Lee ^{1,2,*} ¹ Department of Food and Nutrition, College of Bionanotechnology, Gachon University, Republic of Korea, ² Institute for Aging and Clinical Nutrition Research, Gachon University, Republic of Korea, ³ Food Safety and Processing Research Division, National Institute of Fisheries Science, Republic of Korea	235
P-120	CTD AND AOP-WIKI DATA INTEGRATION-DRIVEN AOP ON NEURODEVELOPMENTAL TOXICITY AND ITS EXPERIMENTAL VALIDATION USING <i>C. ELEGANS</i> Yongmin Jeong, Jinseon Son, Kimoon Na and Jinhee Choi [*] School of Environmental Engineering, University of Seoul, Republic of Korea	236
P-121	POLYHEXAMETHYLENE GUANIDINE PHOSPHATE INDUCES STRESS GRANULE FORMATION IN LUNG EPITHELIAL CELLS UNDER RESPIRATORY SYNCYTIAL VIRUS INFECTION Seri Choi ^{1,2} , Sunkyung Choi ³ , Yeongsoo Choi ³ , Seung-Yeon Kim ^{1,3} , Kee K. Kim ³ and Eun-Mi Kim ^{1,*} ¹ Department of Predictive Toxicology, Korea Institute of Toxicology, Republic of Korea, ² Korea Bioactive Natural Material Bank, Research Institute of Pharmaceutical Sciences, College of Pharmacy, Seoul National University, Republic of Korea, ³ Department of Biochemistry, Chungnam National University, Republic of Korea	237

P-122	APPLICATION OF PREDICTION MODEL FOR AEROSOL DEPOSITION IN <i>IN VITRO</i> CYTOTOXICITY SYSTEM YongJoo Park <i>College of Pharmacy, Kyungsung University, Republic of Korea</i>	238
P-123	ESTABLISHMENT OF <i>IN VITRO</i> RESPIRATORY HYPERSENSITIVITY MODEL USING POLY(I:C) Yubin Han ¹ and Ha-Ryong Kim ^{2,*} ¹ School of Pharmacy, Sungkyunkwan University, Republic of Korea, ² College of Pharmacy, Daegu Catholic University, Republic of Korea	239
P-124	EVALUATION OF TOXICITY OF HUMIDIFIER DISINFECTANT COMPONENT USING AN IN VITRO LUNG FIBROSIS MODEL Yubin Han ¹ and Ha-Ryong Kim ^{2,*} ¹ School of Pharmacy, Sungkyunkwan University, Republic of Korea, ² College of Pharmacy, Daegu Catholic University, Republic of Korea	240
P-125	TRANSFORMING GROWTH FACTOR BETA-MEDIATED FoxO3a OVEREXPRESSION PROMOTES FIBROGENSIS IN HEPATIC STELLATE CELLS Kyu Min Kim ^{1,2} and Sung Hwan Ki ² ¹ Department of Biomedical Science, College of Natural Science, Chosun University, Republic of Korea, ² College of Pharmacy, Chosun University, Republic of Korea	241
P-126	MITOCHONDRIAL UNCOUPLER CCCP INDUCED HEPATIC FIBROSIS VIA HEPATIC STELLATE CELL ACTIVATION Ji Hyun Lee ¹ , Kyu Min Kim ^{1,2} and Sung Hwan Ki ¹ ¹ College of Pharmacy, Chosun University, Gwangju, Republic of Korea, ² Department of Biomedical Science, College of Natural Science, Chosun University, Republic of Korea	242
P-127	TOXICOLOGICAL FINDINGS ASSOCIATED WITH 3-MONTH TREATMENT WITH ASIASARI RADIX ET RHIZOMA (SESIN) IN p53 KNOCK-OUT AND WILD TYPE FVB MOUSE AND <i>IN VITRO</i> ASSAYS Changwoo Yu ¹ , So-Hye Hong ^{1,2} , Bomi Shin ¹ , Su Yeon Kim ¹ , Hae Dong Kim ¹ , Jin Hee Lee ¹ , Eun Jeong Heo ¹ , Jun-Young Yang ¹ , Kikyung Jung ¹ and Jae-Ho Oh ^{1,*} ¹ Division of Toxicological Research, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Republic of Korea, ² Toxicity and Risk Assessment Division, National Institute of Agricultural Sciences, Rural Development Administration, Republic of Korea	243
P-128	TOXIC MECHANISM ANALYSIS OF NICKEL AND COBALT IN ATOPIC DERMATITIS USING ADVERSE OUTCOME PATHWAY FRAMEWORK Yeon-Ho Kang, Hye-Jin Jeong and YongJoo Park College of Pharmacy, Kyungsung University, Republic of Korea	244
P-129	PAEONOL INHIBITS COLLAGEN ACCUMULATION IN LIVER BY SUPPRESSING THE HEPATIC STELLATE CELLS HyeJin Jeong, YeonHo Kang and YongJoo Park College of pharmacy, Kyungsung University, Republic of Korea	245

P-130	ACE2 mRNA EXPRESSION PATTERNS ACCORDING TO THE DEVELOPMENTAL STAGES IN MINIPIGS Jeonghee Cho ^{1,2} , Su-Cheol Han ¹ , Jeong Ho Hwang ^{1,*} and Jeongah Song ^{1,2,*} ¹ Jeonbuk Branch, Korea Institute of Toxicology, Republic of Korea, ² Graduate School of Konyang University of Bioconvergence, Republic of Korea	246
P-131	ESTABLISHMENT OF PRECISE INTRACRANIAL INJECTION BY APPLYING MATHEMATICAL CORRECTION EQUATIONS IN NEONATAL RATS Sun-Taek Leem, Hyeon-Young Kim, In-Hyeon Kim and Sung-Hwan Kim [*] Human Health Risk Assessment Center, Korea Institute of Toxicology, Republic of Korea	247
P-132	CHANGES IN LIVER DAMAGE BIOMARKERS ACCORDING TO HEAVY METAL EXPOSURE Jung-Eum Lee, Jung-Duck Park and Byung-Sun Choi [*] College of Medicine, Chung-Ang University, Republic of Korea	248
P-133	IMAGE ANALYSIS FOR ACETAMINOPHEN (APAP)-INDUCED LIVER NECROSIS IN SD RAT USING CLASSIFICATION ALGORITHM Gyeongjin Han, Ji-Hee Hwang, Minyoung Lim, Gahyun Kim, Byoung-Seok Lee, Yong-Bum Kim and Jae-Woo Cho [*] Toxicologic Pathology Research Group, Department of Advanced Toxicology Research, Korea Institute of Toxicology, Republic of Korea	249
P-134	COMPARISON OF TOXICITY FOLLOWING 28-DAYS-REPEATED PULMONARY EXPOSURE OF DIFFERENT TYPES OF NANOFIBERS Min-Sung Kang ^{1,2,†} , Gwang-Hee Lee ^{3,†} , Mi-Jin Yang ² , Dongjoo Kim ³ , Byoung-Seok Lee ⁴ , Seung-Woo Jin ¹ , Dong-Wan Kim ^{3,*} and Eun-Jung Park ^{5,6,*} ¹ Department of Biomedical Science and Technology, Graduate School, Kyung Hee University, Republic of Korea, ² Jeonbuk Branch Institute, Korea Institute of Toxicology, Republic of Korea, ³ School of Civil, Environmental and Architectural Engineering, Korea University, Republic of Korea, ⁴ Toxicologic Pathology Research Group, Korea Institute of Toxicology, Republic of Korea, ⁵ Department of Biochemistry and Molecular Biology, Graduate School of Medicine, Kyung Hee University, Republic of Korea, ⁶ Human Health and Environmental Toxins Research Center, Kyung Hee University, Republic of Korea	250
P-135	THE ETHANOLIC EXTRACT OF <i>DICTYOPTERIS DIVARICATA</i> EXERTS ANTI-CANCER EFFECTS IN HUMAN NON-SMALL CELL LUNG CANCER CELLS WITH DIFFERENT EGFR MUTATION STATUS Shin-Hyung Park [*] and Hyun-Ji Park <i>College of Korean Medicine, Dong-eui University, Republic of Korea</i>	251
P-136	<i>IN VIVO</i> INHALATION EXPOSURE EVALUATION OF MOUTHWASHES CONTAINING FLUORINE COMPOUND USING ¹⁸ F RADIOLABELED SODIUM FLUORIDE (Na[¹⁸ F]F) RADIOTRACER BASED ON NUCLEAR MEDICINE MOLECULAR IMAGING Dong Hyun Kim, Hyunjun Park, Chae-Eun Lee, Jang Woo Park, Jisu Sun, Eunji Kim and Iljung Lee [*] <i>Korea Radioisotope Center for Pharmaceuticals, Korea Institute of Radiological & Medical Science,</i> <i>Republic of Korea</i>	252

P-137	OIT, AN ISOTHIAZOLINONE PRESERVATIVE, CAN PROMOTE THE PRO-COAGULANT ACTIVITY OF RBCs AND THROMBOSIS IN RATS Sungbin Choi and Ok-Nam Bae [*] College of Pharmacy, Hanyang University, Republic of Korea	253
P-138	IMPAIRMENT OF CANCER-LIKE PROPERTIES IN TNFα-INDUCED BREAST EPITHELIAL CELLS BY BARDOXOLONE Steffanus Pranoto Hallis ¹ , Jin-hee Lee ² and Mi-Kyoung Kwak ^{1,2,3,*} ¹ Department of Pharmacy, Graduate School of The Catholic University of Korea, Republic of Korea, ² Integrated Research Institute of Pharmaceutical Sciences, The Catholic University of Korea, Republic of Korea, ³ College of Pharmacy, The Catholic University of Korea, Republic of Korea	254
P-139	KERATINOCYTE DAMAGE BY CO-EXPOSURE OF BIOCIDES AND UV IRRADIATION IN HaCaT Sungbin Choi and Ok-Nam Bae [*] College of Pharmacy, Hanyang University, Republic of Korea	255
P-140	IN SILICO SELECTION OF ANALOGOUS CHEMICALS FOR HAZARD IDENTIFICATION OF COSMETIC INGREDIENTS USING THE QSAR TOOLBOX PROGRAM Yusun Shin, Hanjin Park and Ok-Nam Bae [*] College of Pharmacy, Hanyang University, Republic of Korea	256
P-141	ICP-MS COLLISION-GAS-MODE OPTIMIZATION FOR EFFECTIVE HEAVY-METAL ANALYSIS IN WHOLE BLOOD Se Eun Kim and Dalwoong Choi [°] Department of Health and Safety Convergence Science, Transdisciplinary Major in Learning Health Systems, Graduate School, Korea University, Republic of Korea	257
P-142	DEVELOPMENT AND VALIDATION OF ANALYTICAL METHOD FOR COCAMIDOPROPYL BETAINE Hee-Jin Jeong and Dalwoong Choi [*] Department of Public Health Sciences, Korea University, Republic of Korea	258
P-143	DEVELOPMENT OF A METHOD TO ANALYZE HYDROXYCITRONELLAL IN HYGIENE PRODUCTS Gyeong Tae Kim and Dal Woong Choi [*] Department of Health and Safety Convergence Science, Graduate School, Korea University, Republic of Korea	259
P-144	EVALUATION OF RESPIRATORY SENSITIVITY USING DIRECT PEPTIDE REACTIVITY ASSAY Hyeon Young Kim and Ha Ryong Kim [*] College of Pharmacy, Daegu Catholic University, Republic of Korea	260

P-145	DEVELOPMENT OF INSTRUMENTAL ANALYTICAL METHODS FOR SODIUM LAURYL ETHER SULFATE IN DISHWASHING DETERGENT Suyeon Han, Jung Min Lee and Dalwoong Choi [*] Department of Health and Safety Convergence Science, Graduate School, Korea University, Republic of Korea	261
P-146	THE ETHANOLIC EXTRACT OF PT LEAVES ATTENUATED ADRENERGIC RECEPTOR- MEDIATED CANCER CELL MIGRATION VIA SRC INHIBITION Shin-Hyung Park [*] and Jae-Hoon Jeong College of Korean Medicine, Dong-eui University, Republic of Korea	262
P-147	ADRENERGIC RECEPTOR PATHWAY STIMULATES M2 MACROPHAGE POLARIZATION TO PROMOTE CANCER CELL MIGRATION Shin-Hyung Park [*] College of Korean Medicine, Dong-eui University, Republic of Korea	263
P-148	ADRENERGIC RECEPTOR PATHWAY STIMULATES THE MIGRATION OF CANCER CELLS VIA SRC ACTIVATION Shin-Hyung Park [*] and Jae-Hoon Jeong College of Korean Medicine, Dong-eui University, Republic of Korea	264
P-149	THE ETHANOLIC EXTRACT OF ADENOPHORA TRIPHYLLA VAR. JAPONICA ROOT TRIGGERED APOPTOSIS IN HUMAN LUNG CANCER CELLS VIA INHIBITION OF Src/STAT3 PATHWAY Shin-Hyung Park [*] and Hyun-Ji Park College of Korean Medicine, Dong-eui University, Republic of Korea	265
P-150	BIOLOGICAL NETWORK ANALYSIS TO UNDERSTAND ADVERSE EFFECTS OF UVB ON SKIN THROUGH TRANSCRIPTOMIC APPROACH Su Ji Kim ¹ , Hye-Won Na ² , Yujin Jang ¹ , Dong Yeop Shin ¹ , Hyun-Jung Choi ² , Hyoung-June Kim ² ,* and Young Rok Seo ¹ ,* ¹ Department of Life Science, Dongguk University, Republic of Korea, ² Bioscience Research Institute, Amorepacific Corporation R&I Center, Republic of Korea	266
P-151	ZEBRAFISH FOR THE TOXICITY PROFILING OF ENVIRONMENTAL HAZARDOUS COMPONENTS Jin-Young Lee Department of Biological Sciences, Keimyung University, Republic of Korea	267
P-152	NETWORK ANALYSIS TO EXPLORE BIOLOGICAL ASSOCIATION BETWEEN PARTICULAR MATTER AND ENVIRONMENTAL SKIN DISEASES Hyun Soo Kim ^{1,2} , Hye Won Na ³ , Yujin Jang ¹ , Su Ji Kim ¹ , Nam Gook Kee ¹ , Dong Yeop Shin ¹ , Jun Lee ¹ , Hyunjung Choi ³ , Hyoung June Kim ^{3,*} and Young Rok Seo ^{1,*} ¹ Department of Life Science, Dongguk University, Republic of Korea, ² National Institute of Environmental Research, Republic of Korea, ³ Bioscience Research Institute, Amorepacific Corporation R&I Center, Republic of Korea	268

P-153	TOXICOGENOMIC APPROACH TO EXPLORE TOXIC EFFECTS OF FORMALDEHYDE
	INHALATION BASED ON NETWORK ANALYSIS 269
	Doo Seok Kang ¹ , Nahyun Lee ² , Dong Yeop Shin ¹ , Yujin Jang ¹ , Su-Hyon Lee ³ , Kyung-Min Lim ² , Yeon- Soon Ahn ⁴ , Cheol Min Lee ^{5,*} and Young Rok Seo ^{1,*}
	¹ Department of Life Science, Institue of Environmental Medicine, Dongguk University, Republic of Korea, ² College of Pharmacy, Ewha Womans University, Republic of Korea, ³ R&D Institute, Biosolution Co., Ltd., Republic of Korea, ⁴ Department of Preventive Medicine and Institute of Occupational and Environmental Medicine, Wonju College of Medicine, Yonsei University, Republic of Korea, ⁵ Department of Chemical and Biological Engineering, College of Natural Science and Engineering, Seokyeong University, Republic of Korea
P-154	ROLE OF miR-144-3p/Nrf2 AXIS IN CHRONIC KIDNEY DISEASE PROGRESSION 270 SeungKi Kim ¹ and Mi-Kyoung Kwak ^{1,2*} ¹ Department of Pharmacy, Graduate School of The Catholic University of Korea, Republic of Korea, ² College of Pharmacy, The Catholic University of Korea, Republic of Korea
P-155	DEVELOPMENT OF INSTRUMENTAL ANALYTICAL METHODS FOR BENZALKONIUM

Jung Min Lee and Dal Woong Choi^{*}

Department of Health and Safety Convergence Science, Graduate School, Korea University, Seoul, Republic of Korea