

Special Lecture

Special Lecture 1

July 18 (Wed.) 9:00 - 9:55

Room 1

SL1 Toxicity testing in the 21st century—a vision and a strategy

Daniel ACOSTA, Jr.

Winkle College of Pharmacy, University of Cincinnati, USA

Chairperson: Jun KANNO (*Division of Cellular & Molecular Toxicology, Biological Safety Research Center, National Institute of Health Sciences, Japan*)

Special Lecture 2

July 18 (Wed.) 10:00 - 10:55

Room 1

SL2 Cellular adaptive response to environmental toxicants and other noxious stimuli

Young-Joon SURH

Tumor Microenvironment Global Core Research Center and WCU, Department of Molecular Medicine and Biopharmaceutical Sciences, College of Pharmacy, Seoul National University, Korea

Chairperson: Yoshito KUMAGAI (*Environmental Medicine Section, Faculty of Medicine, University of Tsukuba, Japan*)

Special Lecture 3

July 18 (Wed.) 11:00 - 11:55

Room 1

SL3 Molecular basis of Keap1-Nrf2 system function

Masayuki YAMAMOTO¹, Keiko TAGUCHI¹, Takafumi SUZUKI¹, Hozumi MOTOHASHI²

¹*Department of Medical Biochemistry, Graduate School of Medicine, Tohoku University, Japan,*

²*Center for Radioisotope Sciences, Graduate School of Medicine, Tohoku University, Japan*

Chairperson: Jin-Ho CHUNG (*College of Pharmacy, Seoul National University, Korea*)

Special Lecture 4

July 18 (Wed.) 15:30 - 16:25

Room 1

**SL4 Fifty years after the discovery of cytochrome P450:
what do we really know about the positive and negative roles in toxicology & health
issues?**

Frederick Peter GUENGERICH

Department of Biochemistry, Vanderbilt University School of Medicine, USA

Chairperson: Malyn CHULASIRI (*Faculty of Pharmacy, Mahidol University, Thailand*)

Educational Lecture

Educational Lecture 1	July 19 (Thu.) 9:00 - 9:55	Room 1
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EL1 Current understanding of perfluoroalkyl acid toxicology

Christopher Si-Lung LAU

Toxicity Assessment Division, National Health and Environmental Effects Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, USA

Chairperson: Shuji TSUDA (*Iwate Institute of Environmental Health Sciences, Japan*)

Educational Lecture 2	July 19 (Thu.) 10:00 - 10:55	Room 1
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EL2 A systemic review of the prothrombotic risk of xenobiotics: from cell to system

Kyung-Min LIM, Seung-Min CHUNG, Ok-Nam BAE, Ji-Yoon NOH, Jin-Ho CHUNG

College of Pharmacy, Seoul National University, Korea

Chairperson: Chen-Chang YANG (*Department of Environmental & Occupational Medicine, National Yang-Ming University / Division of Clinical Toxicology, Taipei Veterans General Hospital, Taiwan*)

Educational Lecture 3	July 19 (Thu.) 11:00 - 11:55	Room 1
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EL3 The successful approach of The Critical Path Institute's Predictive Safety Testing Consortium public-private partnership in qualifying biomarkers for drug induced kidney injury

Eslie DENNIS

Predictive Safety Testing Consortium (PSTC) and Polycystic Kidney Disease, Critical Path Institute, USA

Chairperson: Sunao MANABE (*Daiichi Sankyo Co., Ltd., Japan*)

Symposium

Symposium 1

July 18 (Wed.) 9:00 - 12:00

Room 4

Advances in clinical toxicology

Chairpersons : Winai WANANUKUL (*Ramathibodi Poison Center, Division of Clinical Pharmacology and Toxicology, Department of Internal Medicine, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand*)
Jou-Fang DENG (*Division of Clinical Toxicology, Department of Medicine, Taipei Veterans General Hospital, Taiwan*)

AS1-1 **Advance in the management of acute human poisonings: new treatment modalities**
9:00 - 9:30 **Chen-Chang YANG^{1,2}**

¹Department of Environmental & Occupational Medicine, Faculty of Medicine, School of Medicine, National Yang-Ming University, Taiwan,

²Division of Clinical Toxicology, Department of Medicine, Taipei Veterans General Hospital, Taiwan

AS1-2 **Complement inhibition alleviates paraquat-induced acute lung injury**
9:30 - 10:00 **Han Bin WANG**

Affiliated Hospital of Academy of Military Medical Sciences, China

AS1-3 **Management of insecticide poisoning**
10:00 - 10:30 **Hyung-Keun ROH**

Division of Clinical Pharmacology, Department of Internal Medicine, Gachon University Hospital, Korea

AS1-4 **How should we evaluate causality for adverse reactions during clinical trials?**
10:30 - 11:00 **Stewart GEARY**

Eisai Co., Ltd., Japan

AS1-5 **Advance in antidotes management**
11:00 - 11:30 **Winai WANANUKUL**

Committee on Policy in Development to Gain Access to Orphan Drugs, and Ramathibodi Poison Center, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand

AS1-6 **How should we make the most of the toxicological data in the clinical fields?**
11:30 - 12:00 **Tomoko HASUNUMA**

Division of Collagen Diseases, Department of Internal Medicine, Toho University, Japan

Symposium 2

July 18 (Wed.) 9:00 - 11:15

Room 5

Drug abuse

Chairpersons : Lin LU (*National Institute on Drug Dependence, Peking University, China*)
Hideyuki YAMADA (*Graduate School of Pharmaceutical Sciences, Kyushu University, Japan*)

AS2-1 **Emerging drugs of abuse in Taiwan, viewpoints from a clinical toxicologist**
9:00 - 9:45 **Wei-Jen TSAI, Jou-Fang DENG**

Division of Clinical Toxicology, Taipei Veterans General Hospital, Taiwan

AS2-2 **Current situation and characteristics on drug abuse in China**
9:45 - 10:30 **Zhimin LIU**

National Institute on Drug Dependence, Peking University, China

AS2-3 Drug abuse - current status in Japan -

10:30 - 11:15

Takemi YOSHIDA

Council on Pharmacists Credentials, Japan

Symposium 3

July 18 (Wed.) 13:30 - 15:50

Room 4

Molecular toxicology: update

Chairpersons : Young-Jin CHUN (*College of Pharmacy, Chung-Ang University, Korea*)

Keiko TAGUCHI (*Department of Medical Biochemistry, Graduate School of Medicine, Tohoku University, Japan*)

AS3-1 Toxicometabolomics and urinary biomarkers for nephrotoxicity

13:30 - 14:05

**Kyu-Bong KIM¹, So Young UM², Myeon Woo CHUNG², Seung Chul JUNG², Ji Seon OH²,
Seon Hwa KIM², Han Sung NA², Byung Mu LEE³, Ki Hwan CHOI²**

¹College of Pharmacy, Dankook University, Korea, ²Korea Food and Drug Administration, Korea, ³College of Pharmacy, Sungkyunkwan University, Korea

AS3-2 Highlights in toxicology research in Taiwan

14:05 - 14:40

Min-Liang KUO

Graduate Institute of Toxicology, National Taiwan University College of Medicine, Taiwan

AS3-3 Epigenetic dysregulation during chemical carcinogenesis

14:40 - 15:15

**Yongmei XIAO¹, Daochuan LI¹, Bo ZHANG¹, Qing WANG¹, Xiaowen ZENG¹, Ping YANG¹,
Huawei DUAN², Zhixiong ZHUANG^{1,3}, Yuxin ZHENG², Wen CHEN¹**

¹Department of Toxicology, School of Public Health, Sun Yat-sen University, China, ²Key Laboratory of Chemical Safety and Health; National Institute for Occupational Health and Poison Control, Chinese Center for Disease Control and Prevention, China, ³Shenzhen Center for Disease Control and Prevention, China

AS3-4 Keap1-Nrf2 system for maintenance of redox homeostasis

15:15 - 15:50

Keiko TAGUCHI¹, Nanako FUJIKAWA¹, Hozumi MOTOHASHI², Masayuki YAMAMOTO¹

¹Department of Medical Biochemistry, Graduate School of Medicine, Tohoku University, Japan, ²Center for Radioisotope Sciences, Graduate School of Medicine, Tohoku University, Japan

Symposium 4

July 18 (Wed.) 13:30 - 16:05

Room 5

Natural products as chemopreventive agents

Chairpersons : Tsung-Yun LIU (*Institute of Environmental and Occupational Health Sciences, College of Medicine, National Yang-Ming University, Taiwan*)

Daigo SUMI (*Department of Pharmaceutical Sciences, Tokushima Bunri University, Japan*)

AS4-1 Cancer chemopreventive effects of diallyl trisulfide derived from garlic

13:30 - 14:05

Hye-Kyung NA

Sungshin Women's University, Department of Food & Nutrition, Korea

AS4-2 The anti-cancer effects of pterostilbene in sensitive and nicotine-induced chemoresistant bladder cancer cells

14:05 - 14:40

Rong-Jane CHEN, Ying-Jan WANG

Department of Environmental and Occupational Health, Medical College, National Cheng Kung University, Taiwan

AS4-3 Induction of Nrf2-regulated enzymes by falcariindiol isolated from notopterygium incisum extract leads to protection against oxidative and electrophilic stress

14:40 - 15:15

Tomokazu OHNUMA

Department of Drug Metabolism and Molecular Toxicology, Tokyo University of Pharmacy and Life Sciences, Japan

AS4-4 Toxicological aspects of aconite alkaloids in decoction by using a microwave oven

15:15 - 15:50

Fumio IKEGAMI¹, Yan WANG¹, Megumi SUMINO¹, Atsushi CHINO²

¹Center for Environment, Health and Field Sciences, Chiba University, Japan, ²Department of Japanese-Oriental (Kampo) Medicine, Graduate School of Medicine, Chiba University, Japan

AS4-5 Closing Remarks:

15:50 - 16:05

Natural chemopreventive agents: mechanistic perspectives

Young-Joon SURH

Tumor Microenvironment Global Core Research Center, College of Pharmacy, Seoul National University, Korea

Program:
Symposium

Symposium 5: Pfizer Satellite Symposium

July 19 (Thu.) 9:00 - 11:30

Room 4

Regulatory sciences in Asia: current and future aspect of regulatory sciences in each country

Chairpersons : Kazuichi NAKAMURA (*Product Development Regulatory Affairs Department, Shionogi & Co., Ltd., Japan*)

Nasir KHAN (*Drug Safety Research & Development, Pfizer Inc., USA*)

AS5-1 Key note lecture: Regulatory science and toxicology

9:00 - 9:25

Takemi YOSHIDA

Council on Pharmacists Credentials, Japan

AS5-2 Regulatory science in Asia: current and future aspects of regulatory science in Korea

9:25 - 9:50

Ki-Hwan Choi

Toxicological Screening and Testing Division, Korean Center for the Validation of Alternative Test Methods, Toxicological Evaluation and Research Department, National Institute of Food and Drug Safety Evaluation, Korea Food and Drug Administration, Korea

AS5-3 Progresses on regulatory science and risk assessment in China

9:50 - 10:15

Lijie FU

Shin Nippon Biomedical Laboratories, Ltd., China

AS5-4 Current and future aspects of regulatory sciences in Taiwan

10:15 - 10:40

Jaw-Jou KANG

Drug Research Center, College of Medicine, National Taiwan University, Taiwan

AS5-5 Regulatory sciences in Asia: current and future aspect of regulatory sciences in Thailand

10:40 - 11:05

Songsak SRIANUJATA

Institute of Nutrition, Mahidol University, Thailand

AS5-6 Regulatory science of nonclinical drug development in Japan

11:05 - 11:30

Shunji NOMURA¹, Ikuo HORII^{2,3}

¹Drug Safety R&D, Pfizer Japan Inc., Japan, ²Pfizer, ³Showa University, Japan

Symposium 6

July 19 (Thu.) 9:00 - 12:00

Room 5

Nanotoxicology

Chairpersons : Myung-Haing CHO (*Laboratory of Toxicology, College of Veterinary Medicine, Seoul National University, Korea*)
Jun KANNO (*Division of Cellular & Molecular Toxicology, Biological Safety Research Center, National Institute of Health Sciences, Japan*)

AS6-1 Nanomaterial toxicity, its chronic aspects

9:00 - 9:45

Jun KANNO

Division of Cellular & Molecular Toxicology, Biological Safety Research Center, National Institute of Health Sciences, Japan

AS6-2 Some biological effects of carbon nanotubes (CNTs) in vivo and in vitro

9:45 - 10:30

Guang JIA¹, Hai Fang WANG², Yuan Fang LIU³

¹*Department of Occupational and Environmental Health, School of Public Health, Peking University, China,*

²*Institute Nanochemistry & Nanobiology, Shanghai University, China,*

³*College of Chemistry & Molecular Engineer, Peking University, China*

AS6-3 Comparing the toxic mechanism of synthesized zinc oxide nanomaterials by physicochemical characterization and reactive oxygen species properties

10:30 - 11:15

Myung-Haing CHO^{1,2,3}, Hu-Lin JIANG¹, Kyeong-Nam YU¹, Seung-Hee CHANG¹, Seong-Ho HONG¹,
Ah Young LEE¹, Somin LEE^{1,3}, Sang-Hwa KIM¹

¹*Laboratory of Toxicology, College of Veterinary Medicine, Seoul National University, Korea,*

²*Department of Nano Fusion Technology, Graduate School of Convergence Science and Technology, Seoul National University, Korea,*

³*Graduate Group of Tumor Biology, Seoul National University, Korea*

AS6-4 What we learned from toxicological studies for cadmium-based quantum dots in mice

11:15 - 12:00

Pinpin LIN

Division of Environmental Health and Occupational Medicine, National Health Research Institutes, Taiwan

Symposium 7

July 19 (Thu.) 13:30 - 15:30

Room 4

Oxidative stress: risk and benefit

Chairpersons : Shusuke KUGE (*Department of Microbiology, Tohoku pharmaceutical University, Japan*)
Toshiyuki KAJI (*Faculty of Pharmaceutical Sciences, Tokyo University of Science, Japan*)

AS7-1 Dose-dependant regulation of ROS on cell proliferation, apoptosis and necrosis

13:30 - 14:00

Chunxu HAI^{1,2}, Rui LIU^{1,2}, Xin WANG^{1,2}, Xujun QIN^{1,2}, Wenli LI^{1,2}, Xiaodi ZHANG^{1,2}, Hongli CHEN^{1,2},
Hua BAI^{1,2}, Wei ZHANG^{1,2}, Jiangzheng LIU^{1,2}

¹*Department of Toxicology, School of Preventive Medicine, The Fourth Military Medical University, China,* ²*Shaanxi Key Laboratory of Free Radical Medicine, China*

AS7-2 Pathological role of Pin1 in the neointima formation: reactive oxygen species production through Nrf2 down-regulation

14:00 - 14:30

Keon Wook KANG

College of Pharmacy and Research Institute of Pharmaceutical Sciences, Seoul National University, Korea

AS7-3 Oxidative stress and mercury-induced pancreatic β -cell injury

14:30 - 15:00

Ya-Wen CHEN¹, Chun-Fa HUANG², Shing-Hwa LIU³

¹Department of Physiology and Graduate Institute of Basic Medical Science, College of Medicine, China Medical University, Taiwan,

²Graduate Institute of Chinese Medical Science, School of Chinese Medicine, College of Chinese Medicine, China Medical University, Taiwan,

³Institute of Toxicology, College of Medicine, National Taiwan University, Taiwan

AS7-4 Peroxiredoxin and redox signaling

15:00 - 15:30

Shusuke KUGE, Hayato IROKAWA, Kenta IWAI, Ayako OGASAWARA, Takumi OHDATE, Toshihiko WATANABE

Department of Microbiology, Tohoku Pharmaceutical University, Japan

Symposium 8

July 19 (Thu.) 13:30 - 16:25

Room 5

Toxicological aspects in consumer products

Chairpersons : Malyn CHULASIRI (Faculty of Pharmacy, Mahidol University, Thailand)

Seiichiro HIMENO (Laboratory of Molecular Nutrition and Toxicology, Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Japan)

AS8-1 Risk assessment of volatile organic compounds (VOCs) and endocrine disrupting chemicals (EDCs) in consumer products

13:30 - 14:05

Byung-Mu LEE

Division of Toxicology, College of Pharmacy, Sungkyunkwan University, Korea

AS8-2 Toxicological concern in cosmetic products

14:05 - 14:40

Malyn CHULASIRI

Faculty of Pharmacy, Mahidol University, Thailand

AS8-3 Health effect of nonylphenols exposure on pregnant women and neonate

14:40 - 15:15

Mei-Lien CHEN¹, Chia-Huang CHANG¹, I-Fang MAO², Yen-An TSAI¹, Kai-Wei LIAO¹, Ming-Song TSAI^{3,4}

¹Institute of Environmental and Occupational Health Sciences, School of Medicine, National Yang-Ming University, Taiwan,

²Department of Occupational Safety and Health, Chung Shan Medical University, Taiwan, ³Department of Obstetrics and Gynecology, Cathay General Hospital, Taiwan, ⁴School of Medicine, Fu Jen Catholic University, Taiwan

AS8-4 Food chemical safety risk management options on how to deal with the results from new risk-benefit assessment methodologies

15:15 - 15:50

Yongning WU^{1,2}

¹China National Center for Food Safety Risk Assessment (CFSA), China, ²Key Lab of Chemical Safety and Health, Chinese Center for Disease Control and Prevention, China

AS8-5 Immunological effects of phthalates and other chemicals in consumer products

15:50 - 16:25

Eiko KOIKE¹, Rie YANAGISAWA¹, Hirohisa TAKANO²

¹Center for Environmental Health Sciences, National Institute for Environmental Studies, Japan, ²Graduate School of Engineering, Kyoto University, Japan

Symposium 9

July 20 (Fri.) 9:00 - 12:00

Room 4

Mutagenesis and carcinogenesis of drugs, metals and industrial chemicals

Chairpersons : Pinpin LIN (*Division of Environmental Health and Occupational Medicine, National Health Research Institutes, Taiwan*)

Masahiko SATOH (*Laboratory of Pharmaceutical Health Sciences, School of Pharmacy, Aichi Gakuin University, Japan*)

AS9-1 A new toxic biomarker of anticancer agent cisplatin

9:00 - 9:45

Sang Geon KIM¹, Chan Gyu LEE¹, Il Je CHO², Dal Woong CHOI³

¹College of Pharmacy, Seoul National University, Korea, ²College of Oriental Medicine, Daegu Haany University, Korea,

³College of Health Science, Korea University, Korea

AS9-2 Epigenetic alterations in human urothelial cells under sustained arsenic exposure in culture

9:45 - 10:30

Hsiu-Hua WANG, Te-Chang LEE

Institute of Biomedical Sciences, Academia Sinica, Taiwan

AS9-3 The roles of microRNAs involved in chemical carcinogenesis

10:30 - 11:15

Yiguo JIANG, Yan WU, Yao ZHAO, Linhua LIU

Institute for Chemical Carcinogenesis, State Key Laboratory of Respiratory Disease, Guangzhou Medical University, China

AS9-4 Animal model for arsenic carcinogenesis

11:15 - 12:00

Hideki WANIBUCHI, Min WEI, Anna KAKEHASHI, Shotaro YAMANO

Department of Pathology, Osaka City University Medical School, Japan

Symposium 10

July 20 (Fri.) 9:00 - 11:55

Room 5

Radiotoxicology: risk assessment

Chairpersons : Ping-Kun ZHOU (*Department of Radiation Toxicology and Oncology, Beijing Institute of Radiation Medicine, China*)

Shino HOMMA-TAKEDA (*Radiobiology for Children's Health Program, National Institute of Radiological Sciences, Japan*)

AS10-1 Genes and proteins regarding radiation protection and sensitization

9:00 - 9:35

In Gyu KIM

Nuclear Environmental Research Division, Korea Atomic Energy Research Institute, Korea

AS10-2 Health impacts of external protracted low dose-rate ionizing radiation exposure from the environment

9:35 - 10:10

Peter Wushou CHANG

College of Public Health and Nutrition, Taipei Medical University, Taiwan

AS10-3 Radiological genotoxicity: DNA damage signaling and biomarkers for the health risk assessment

10:10 - 10:45

Ping-kun ZHOU, Qin-Zhi XU, Ying CHEN, Xiao-Dan LIU, Zhi-Dong WANG, Xue-Qing ZHANG

Department of Radiation Toxicology, Beijing Institute of Radiation Medicine, China

AS10-4 Site-selective accumulation of uranium in the downstream of the proximal tubules and renal toxicity

10:45 - 11:20

Shino HOMMA-TAKEDA¹, Toshiaki KOKUBO², Teruaki KONISHI³, Noriyoshi SUYA³, Masakazu OIKAWA³, Kyoko SUZUKI⁴, Yasuko TERADA⁵, Tatsuo HAYAO², Tatsuya INOUE⁶, Mayumi NISHIMURA¹, Yoshiya SHIMADA¹

¹Experimental Radiobiology for Children's Health Research Program, National Institute of Radiological Sciences, Japan,

²Laboratory Animal and Genome Sciences Section, National Institute of Radiological Sciences, Japan,

³Radiation Engineering Section, National Institute of Radiological Sciences, Japan, ⁴International Coastal Research Center, Ocean Research Institute, The University of Tokyo, Japan, ⁵Japan Synchrotron Radiation Research Institute, Japan, ⁶Graduate School of Medicine, Juntendo University, Japan

AS10-5 Advances in radiobiological research using microbeam irradiation techniques

11:20 - 11:55

Teruaki KONISHI¹, Masakazu OIKAWA¹, Noriyoshi SUYA¹, Shino HOMMA-TAKEDA², Viann W.Y. CHOI³, Peter K.N. YU³, Jun WANG⁴, Alisa KOBAYASHI¹, Naoko SHIOMI¹, Kumiko KODAMA¹, Yukio UCHIHORI¹, Yoshiyuki SHIRAKAWA¹

¹Department of Technical Support and Development, National Institute of Radiological Sciences, Japan, ²Experimental Radiobiology for Children's Health Research Program, National Institute of Radiological Sciences, Japan, ³Department of Physics and Materials Science, City University of Hong Kong, China, ⁴Key Laboratory of Ion Beam Bioengineering, Chinese Academy of Sciences, China

Poster Session

Poster Session

July 20 (Fri.) 11:00 - 12:00

Room 2

Drug

AP-1 Antibacterial drug treatment causes enhanced levels of hepatic bile acid through alteration of ileal bile acid transporter expression

Masaaki MIYATA, Hiroki YAMAKAWA, Yasushi YAMAZOE

Division of Drug Metabolism and Molecular Toxicology, Graduate School of Pharmaceutical Sciences, Tohoku University, Japan

AP-2 Coordinate roles of pregnane X receptor and constitutive androstane receptor in the ineffectiveness of voriconazole in mice

Masato OHBUCHI^{1,2}, Kouichi YOSHINARI², Hayato KANEKO¹, Satoru MATSUMOTO³, Akiko INOUE¹, Ayako MERA¹, Akio KAWAMURA¹, Takashi USUI¹, Yasushi YAMAZOE²

¹Drug Metabolism Research Laboratories, Astellas Pharma Inc., Japan, ²Division of Drug Metabolism and Molecular Toxicology, Graduate School of Pharmaceutical Sciences, Tohoku University, Japan, ³Applied Pharmacology Research Laboratories, Astellas Pharma Inc., Japan

AP-3 Application of target organ dose model: route-to-route and chemical-to-chemical extrapolation of dose

Swee Cheng FOO, Ivan Siang-Meng SIN

Faculty of Engineering, Department of Chemical & Biomolecular Engineering, National University of Singapore, Singapore

AP-4 Development of functional prediction marker for SSRIs responsiveness capitalizing on platelets

Sojin PARK¹, Yoon-Kyong HEO¹, Kyung-Min LIM¹, Ok-Nam BAE², Jin-Ho CHUNG¹

¹College of Pharmacy, Seoul National University, Korea, ²College of Pharmacy, Hanyang University, Korea

AP-5 Doxorubicin-induced platelet procoagulant activities

Jung-Joon KIM, Se-Hwan KIM, Kyung-Min LIM, So-Youn KWON, Jin-Ho CHUNG

College of Pharmacy, Seoul National University, Korea

AP-6 Amiodarone-induced autophagy protects mouse lung cancer epithelial cells from apoptosis

Kang-Yo LEE¹, Se-Hee OH¹, Seon-Hee OH², Byung-Hoon LEE¹

¹College of Pharmacy and Research Institute of Pharmaceutical Sciences, Seoul National University, Korea, ²Research Center for Resistant Cells, College of Medicine, Chosun University, Korea

AP-7 Preclinical safety pharmacological evaluation of a novel bioenhancer derivative of piperine: SK-20

Gurdarshan SINGH¹, Rohit SHARMA¹, Sheikh Rafiq RAYEES¹, Dastagir Basheer AHAMAD², Manoj TIKOO¹, Vijay Kumar GUPTA¹, Surjeet SINGH¹

¹Indian Institute of Integrative Medicine (CSIR), India, ²Division of Veterinary Pathology, Sher-e-Kashmir University of Agricultural Sciences and Technology, India

- AP-8 Aerosol delivered-Akt1 shRNA using spermine-based poly(amino ester) suppressed lung tumorigenesis**
Ah Young LEE¹, Seong-Ho HONG¹, Hu-Lin JIANG¹, Hye-Joon KIM¹, Myung-Haing CHO^{1,2,3,4}
¹Laboratory of Toxicology, College of Veterinary Medicine, Seoul National University, Korea, ²Department of Nanofusion Technology, Graduate School of Convergence Science and Technology, Seoul National University, Korea, ³Advanced Institute of Convergence Technology, Seoul National University, Korea, ⁴Graduate Group of Tumor Biology, Seoul National University, Korea
- AP-9 Recommended dietary allowance (RDA) of baby aloe powder (BAP) based on toxicological evaluation**
Seong Kwang LIM¹, Myung Chan CHO¹, Min Young KWAK¹, Min Ji KIM¹, Yoon A NAM¹, Bu Young CHUNG¹, Minji KYUNG¹, Du Yeon BANG¹, Mi Jung KWON¹, Young Woo KIM¹, Seung Jun KWACK², Hyung Sik KIM³, Byung-Mu LEE¹
¹Division of Toxicology, College of Pharmacy, Sungkyunkwan University, Korea, ²Department of Biochemistry and Health Science, College of Natural Sciences, Changwon National University, Korea, ³College of Pharmacy, Pusan National University, Korea
- AP-10 Determination of human safe upper limit for (-)-hydroxycitric acid (HCA), a weight loss supplement**
Yoon-A NAM¹, Young Woo KIM¹, Min Ji KIM¹, Bu Young CHUNG¹, Minji KYUNG¹, Du Yeon BANG¹, Seong Kwang LIM¹, Myung Chan CHO¹, Mi Jung KWON¹, Hyung Sik KIM², Byung-Mu LEE¹
¹Division of Toxicology, College of Pharmacy, Sungkyunkwan University, Korea, ²College of Pharmacy, Pusan National University, Korea
- AP-11 Effect of UV irradiation on the ecotoxicity of pharmaceuticals in aquatic environment**
Kohei KAWABATA¹, Yuichi OGAWA¹, Kazumi SUGIHARA^{1,2}, Seigo SANO¹, Shigeyuki KITAMURA³, Shigeru OHTA¹
¹Graduate School of Biomedical and Health Science Hiroshima University, Japan, ²Faculty of Pharmaceutical Sciences Hiroshima International University, Japan, ³Department of Health and Pharmaceutical Sciences Nihon Pharmaceutical University, Japan
- AP-12 Target organ dose model for extrapolating animal toxicity data to human**
Swee-Cheng FOO, Siang-Meng SIN
Department of Chemical and Biomolecular Engineering, National University of Singapore, Singapore
- AP-13 Vitamin D has protective effects against cyclophosphamide-induced genomic instability in CHL cells in vitro and in mice in vivo**
Huaqing LIU¹, Xiaoqing FENG¹, Tianzhou ZONG², Hong WEI¹, Zengli ZHANG¹, Bingyan LI¹
¹Division of Toxicology, School of Public Health, Soochow University, China, ²Department of Radiotherapy & Oncology, The Second Affiliated Hospital of Soochow University, China
- AP-14 Effects of applying cold or warm compress to skin lesions induced by extravasation of anticancer drugs**
Masaki TAKAISHI¹, Yoichiro TANAKA¹, Ayaka OTAKE¹, Kaori IKEDA¹, Aoi NUMATA¹, Natsuko MIURA², Masahiro OIKAWA², Toshiaki TAKEDA², Satoshi ASANO¹
¹School of Pharmacy, International University of Health and Welfare, Japan, ²Faculty of Nursing, Iwate Prefectural University, Japan
- AP-15 Clinical metabolomics using ¹H NMR spectral data in acute drug-induced liver injury**
Ji Won KIM¹, Haeran JO¹, Siwon KIM², Jeong Ju SEO³, Jaemin CHA³, Hae Won LEE³, Mi-Sun LIM³, Sook Jin SEONG³, Suhkmann KIM², Young-Ran YOON³, Kyu-Bong KIM⁴
¹Department of Smart Foods and Drugs, Inje University, Korea, ²Department of Chemistry and Chemistry Institute for Functional Materials, Pusan National University, Korea, ³Kyungpook National University School of Medicine and Hospital, Department of Molecular Medicine and Clinical Trial Center, Korea, ⁴College of Pharmacy, Dankook University, Korea

Metal

AP-16 Blockade of p53 by HIF-2 α , but not HIF-1 α , is involved in arsenite-induced malignant transformation of human bronchial epithelial cells

Yuan XU, Yuan LI, Ying PANG, Jianwei ZHOU, Xinru WANG, Qizhan LIU

Department of Toxicology, School of Public Health, Nanjing Medical University, China

AP-17 Melatonin dose-dependently inhibits lead-induced caspase 3 activation and apoptotic features in rat lymphocytes

Minerva MARTÍNEZ-ALFARO¹, Lourdes PALMA -TIRADO², Nancy RAMÍREZ MAGAÑA¹, Yolanda ALCARAZ-CONTRERAS¹, Diana ROCHA- AMADOR¹, José Arnulfo PRADO-TORRES¹, Gustavo CRUZ-JIMÉNEZ¹

¹Universidad de Guanajuato, Mexico, ²INB UNAM, Mexico

AP-18 Identification of early biomarker for detecting acute kidney injury using in sprague-dawley rats

A Jin WON¹, Tae Hyung KIM¹, Yu Jin SHIN¹, Byung Mu LEE², Sukman KIM³, Hyung Sik KIM¹, Mi Ra YU¹, Eun Young PARK¹, Yu Gyung YI¹

¹Division of Molecular Toxicology, College of Pharmacy, Pusan National University, Korea, ²College of Pharmacy, Sungkyunkwan University, Korea, ³Department of Chemistry and Chemistry Institute for Functional Materials, Pusan National University, Korea

AP-19 In vitro evaluation of biomarkers for cisplatin-induced nephrotoxicity using HK-2 human kidney epithelial cells

So-Jung SOHN¹, Sun Young KIM¹, Hyung Sik KIM², Young-Jin CHUN³, Aree MOON¹

¹College of Pharmacy, Duksung Women's University, Korea, ²College of Pharmacy, Pusan National University, Korea, ³College of Pharmacy, Chung-Ang University, Korea

AP-20 Role of metallothionein and metal transporters on cadmium transport from mother to fetus in rat

Hisayoshi OHTA^{1,2}, Chiaki INABA¹, Yasuhiro NAKAMURA², Youhei FUKASE¹, Hisashi TSUGAMI¹, Kenichi ONBA²

¹Department of Environmental, Occupational Health and Toxicology, Graduate School of Medical Sciences, Kitasato University, Japan,

²Department of Environmental, Occupational Health and Toxicology, School of Allied Health Sciences, Kitasato University, Japan

AP-21 Methylmercury-induced mouse sertoli cells apoptosis: oxidative stress and down-regulated MAPKs-mediated mitochondria-dependent and endoplasmic reticulum stress-triggered signals pathway involved

Ling-Mei TSAI¹, Tien-Hui LU¹, Shing-Hwa LIU², Dong-Zong HUNG³, Kuo-Liang CHEN⁴, Chin-Chuan SU⁵, Yi-Chang SU⁶, Chun-Fa HUANG⁶, To-Jung TSENG⁷, Ya-Wen CHEN⁸

¹Graduate Institute of Basic Medical Science, China Medical University, Taiwan, ²Institute of Toxicology, National Taiwan University, Taiwan,

³Division of Toxicology, Trauma & Emergency Center, China Medical University Hospital, Taiwan, ⁴Department of Urology, China Medical University Hospital, Taiwan, ⁵Department of Otorhinolaryngology, Head and Neck Surgery, Changhua Christian Hospital, Taiwan,

⁶School of Chinese Medicine, China Medical University, Taiwan, ⁷Department of Anatomy, China Medical University, Taiwan,

⁸Department of Physiology, China Medical University, Taiwan

AP-22 Effect of oxidative stress of iron on erythropoietin production in HepG2 cell

Kazuhiko NISHIMURA, Masahiro TOKITA, Hideaki KATUYAMA, Hiroshi NAKAGAWA, Saburo MATUO

Laboratory of Bioenvironmental Sciences, Course of Veterinary Science, Graduate School of Life and Environmental Sciences, Osaka Prefecture University, Japan

- AP-23 Reduction of the degranulation in rat RBL-2H3 mast cells by chronic exposure to arsenite via impairment of store-operated Ca^{2+} entry**
Daigo SUMI, Yuri SHIMIZU, Seiichiro HIMENO
Laboratory of Molecular Nutrition and Toxicology, Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Japan
- AP-24 Bismethylmercury sulfide as a novel detoxicated metabolite of methylmercury in mammalian cells**
Eiko YOSHIDA¹, Takashi TOYAMA^{1,3}, Yasuhiro SHINKAI^{1,2}, Yoshito KUMAGAI^{1,2}
¹Doctoral Program in Biomedical Sciences, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan, ²Environmental Medicine Section, Faculty of Medicine, University of Tsukuba, Japan, ³JSPS Research Fellow, Japan
- AP-25 Cadmium suppresses iron transport system in mouse duodenum**
Yasuyuki FUJIWARA, Masahiko SATOH
School of Pharmacy, Aichi Gakuin University, Japan
- AP-26 Metabolism of organic selenometabolites in brassicaceae family plants**
Ayane KATAYAMA, Yurie OGIHARA, Ayako YAWATA, Yasumi ANAN, Yasumitsu OGRA
Laboratory of Chemical Toxicology and Environmental Health, Showa Pharmaceutical University, Japan
- AP-27 The molecular mechanism underlying the reduction of methylmercury toxicity through the palmyoylation of Meh1 by Akr1 in budding yeast**
Zhiting ZHANG, Gi-Wook Hwang, Akira NAGANUMA
Laboratory of Molecular and Biochemical Toxicology, Graduate School of Pharmaceutical Sciences, Tohoku University, Japan
- AP-28 Cadmium selectively and strongly induces the expression of ZIP8 in vascular endothelial cells**
Suzuka TAKAHASHI¹, Tomoya FUJIE¹, Chika YAMAMOTO², Toshiyuki KAJI¹
¹Department of Environmental Health, Faculty of Pharmaceutical Sciences, Tokyo University of Science, Japan, ²Department of Environmental Health, Faculty of Pharmaceutical Sciences, Hokuriku University, Japan
- AP-29 Methylmercury induces prostaglandin synthesis in the cells forming the neurovascular unit**
Masaru KURITA¹, Akishige HIRATA¹, Takashi HIROOKA¹, Chika YAMAMOTO², Toshiyuki KAJI¹
¹Department of Environmental Health, Faculty of Pharmaceutical Sciences, Tokyo University of Science, Japan, ²Department of Environmental Health, Faculty of Pharmaceutical Sciences, Hokuriku University, Japan
- AP-30 Manganese protects against cadmium cytotoxicity via a lower expression of ZIP8 and ZIP14 in vascular endothelial cells**
Reika ANDO¹, Suzuka TAKAHASHI¹, Chika YAMAMOTO², Yasunobu AOKI³, Toshiyuki KAJI¹
¹Department of Environmental Health, Faculty of Pharmaceutical Sciences, Tokyo University of Science, Japan, ²Department of Environmental Health, Faculty of Pharmaceutical Sciences, Hokuriku University, Japan, ³Center for Environmental Risk Research, National Institute for Environmental Studies, Japan
- AP-31 Cytotoxicity of organobismuth and organoantimony compounds**
Kumiko KOHRI¹, Chika YAMAMOTO², Shuji YASUIKE², Naoki KAKUSAWA², Jyoji KURITA², Toshiyuki KAJI¹
¹Faculty of Pharmaceutical Sciences, Tokyo University of Science, Japan, ²Faculty of Pharmaceutical Sciences, Hokuriku University, Japan

- AP-32 Cadmium induces ER stress and apoptosis in renal proximal tubular cells: protection by salubrinal**
Yuta KOMOIKE, Masato MATSUOKA
Department of Hygiene and Public Health I, Tokyo Women's Medical University, Japan
- AP-33 DNA damage evaluation using comet assay in workers occupationally exposed to lead**
Ahmet SAYAL¹, İlknur YAVUZ², Zeliha KAYAALTI², Ayşegül BACAŞIZ², Esmâ SÖYLEMEZ², Tülin SÖYLEMEZOĞLU²
¹*Division of Pharmaceutical Toxicology, Department of Pharmaceutical Sciences, Gulhane Military Medical Academy, Turkey,*
²*Forensic Sciences Institute, Ankara University, Turkey*
- AP-34 Induction of SLC39A8 expression by FGF-2 in vascular endothelial cells**
Emi HACHISUKA¹, Chika YAMAMOTO², Toshiyuki KAJI¹
¹*Faculty of Pharmaceutical Sciences, Tokyo University of Science, Japan,* ²*Faculty of Pharmaceutical Sciences, Hokuriku University, Japan*
- AP-35 Hypoxia potentiates the inhibitory effect of methylmercury on the repair of damaged monolayers of human brain microvascular endothelial cells**
Takashi HIROOKA¹, Chika YAMAMOTO², Akira YASUTAKE³, Komyo ETO⁴, Toshiyuki KAJI¹
¹*Faculty of Pharmaceutical Sciences, Tokyo University of Science, Japan,* ²*Faculty of Pharmaceutical Sciences, Hokuriku University, Japan,*
³*Graduated School of Science and Technology, Kumamoto University, Japan,* ⁴*Jushindai, Japan*
- AP-36 Regulations of expression of Ube2d family and accumulation of p53 in the kidney and liver of mice chronically exposed to cadmium**
Jin-Yong LEE¹, Maki TOKUMOTO^{1,2}, Yasuyuki FUJIWARA¹, Masahiko SATOH¹
¹*School of Pharmacy, Aichi Gakuin University, Japan,* ²*Showa Pharmaceutical University, Japan*
- AP-37 Impact of persistent lead toxicity on F2 generation of Wistar rat: neurohistopathological aspect**
F-Z. AZZAOU¹, H. HAMI², A. AHAMI¹, H. BOUAMAMA³, M. NAJIMI⁴, F. CHIGR⁴
¹*Equip of Clinic and Cognitive Neuroscience, Department of Biology, Faculty of Science, IBN TOFAIL University, Morocco,*
²*Laboratory of Genetic and Biometry, Faculty of Science, IBN TOFAIL University, Morocco,* ³*Laboratory of Bioorganic and Macromolecular Chemistry, Department of Biology, Faculty of Sciences and Technology, Morocco,* ⁴*Laboratory of Functional and Pathological Biology, Department of Biology, Faculty of Sciences and Technology, Morocco*
- AP-38 Molecular and genomic approach for understanding the gene-environment interaction between Nrf2 deficiency and carcinogen nickel-induced DNA damage**
Hye Lim KIM, Young Rok SEO
Department of Life Science, Institute of Environmental Medicine for Green Chemistry, Dongguk University, Korea
- AP-39 Effect of maternal metal levels on fetal nuchal translucency thickness**
Kai Wei LIAO¹, Chia Huang CHANG¹, I Fang MAO², Ming Song TSAI³, Mei Lien CHEN¹
¹*Institute of Environmental and Occupational Health Sciences, School of Medicine, National Yang Ming University, Taiwan,* ²*Department of Occupational Safety and Health, Chung Shan Medical University, Taiwan,* ³*Department of Obstetrics and Gynecology, Cathay General Hospital, Taiwan*
- AP-40 Annexin A5 may play an important role in cisplatin-mediated apoptosis of human kidney epithelial cells**
Young-Jin CHUN, Jin-Joo JUNG, Nahee PARK, Hee-Jung IM, Yeo-Jung KWON
College of Pharmacy, Chung-Ang University, Korea

- AP-41 Nickel chloride induced epithelial-mesenchymal transition by promoter hypermethylation of E-cadherin via ROS generation**
Chih-Hsien WU¹, Huei LEE¹, Jiunn-Liang KO^{1,2}
¹Institute of Medicine, Chung Shan Medical University, Taiwan, ²Department of Medical Oncology and Chest Medicine, Chung Shan Medical University Hospital, Taiwan
- AP-42 Elucidation of molecular mechanism underlying enhancement of methylmercury toxicity by transcription factor HOXB13 in HEK293 cells**
Hiromu FUKUZAWA, Gi-Wook HWANG, Akira NAGANUMA
Laboratory of Molecular and Biochemical Toxicology, Graduate School of Pharmaceutical Sciences, Tohoku University, Japan
- AP-43 Effect of fats on direct absorption of methyl mercury by lymph**
Takeshi MINAMI, Takamasa MATSUNO, Daiki UKIBE, Mika TAKAGI, Hideo YAMAZAKI, Kaeko MUROTA
Department of Life Sciences, School of Science & Engineering, Kinki University, Japan
- AP-44 Cadmium and arsenite causes p53-dependent apoptosis attributed to down-regulation of Ube2d family in rat proximal tubule cells**
Maki TOKUMOTO^{1,2}, Jin-yong LEE², Yasuyuki FUJIWARA², Yasumitsu OGRA¹, Masahiko SATOH²
¹Laboratory of Chemical Toxicology and Environmental Health, Showa Pharmaceutical University, Japan, ²Laboratory of Pharmaceutical Health Sciences, School of Pharmacy, Aichi Gakuin University, Japan
- AP-45 A metabolomics approach to identification of new biomarker for acute kidney injury**
A Jin WON¹, Tae Hyung KIM¹, Yu Jin SHIN¹, Byung Mu LEE², Sukman KIM³, Hyung Sik KIM¹
¹College of Pharmacy, Pusan National University, Korea, ²College of Pharmacy, Sungkyunkwan University, Korea, ³Department of Chemistry and Chemistry Institute for Functional Materials, Pusan National University, Korea
- AP-46 Changes in macrophage migration and adipokine gene expression induced by cadmium in white adipose tissue of metallothionein-null mice**
Takashige KAWAKAMI, Kaori NISHIYAMA, Jun-ichi TANAKA, Yoshito KADOTA, Masao SATO, Shinya SUZUKI
Laboratory of Public Health, Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Japan
- AP-47 Combined effect of Mn-Fe-dopamine: induction of oxidative stress and neuronal cell death**
Saori TAKEDA, Koji UEDA, Yoshinori OKAMOTO, Nakao KOJIMA
Faculty of Pharmacy, Meijo University, Japan
- AP-48 Involvement of reactive oxygen species in cytotoxic mechanisms of selenodiglutathione**
Chiho SUZUKI, Miyako YAMAMOTO, Koji UEDA, Yoshinori OKAMOTO, Nakao KOJIMA
Faculty of Pharmacy, Meijo University, Japan
- AP-49 Ligand-dependence of Pt(IV) complexes in its cytotoxicity and DNA damage**
Akemi MURASE, Kaori HAYASHI, Koji UEDA, Yoshinori OKAMOTO, Nakao KOJIMA
Faculty of Pharmacy, Meijo University, Japan

AP-50 Overexpression of Fap7, a NTPase involved in ribosome biogenesis, confers resistance to arsenite on yeast cells

JunXuan ZHU, Tsutomu TAKAHASHI, Akira NAGANUMA

Laboratory of Molecular and Biochemical Toxicology, Graduate School of Pharmaceutical Sciences, Tohoku University, Japan

AP-51 Age-related differences in cisplatin-induced nephrotoxicity in rats

Yu Jin SHIN¹, A Jin WON¹, Tae Hyung KIM¹, Kundu SOMA¹, Eun Young PARK¹, Zhou LAN¹, Yu Gyung YI¹, Mi Ra YU¹, Byung Mu LEE², Hyung Sik KIM¹

¹College of Pharmacy, Pusan National University, Korea, ²College of Pharmacy, Sungkyunkwan University, Korea

AP-52 Brain-specific expression of chemokines by methylmercury in mice

Min-Seok KIM¹, Jin-Yong LEE^{1,2}, Gi-Wook HWANG¹, Tsutomu TAKAHASHI¹, Akira NAGANUMA¹

¹Laboratory of Molecular and Biochemical Toxicology, Graduate School of Pharmaceutical Sciences, Tohoku University, Japan,

²Laboratory of Pharmaceutical Health Sciences, School of Pharmacy, Aichi Gakuin University, Japan

AP-53 Physiologically based pharmacokinetic (PBPK) modeling of cadmium exposure to Korean

Tae Hwan KIM¹, Beom Soo SHIN², Haeran JO³, Ji Won KIM³, Kyu-Bong KIM^{3,4}

¹School of Pharmacy, Sungkyunkwan University, Korea, ²College of Pharmacy, Catholic University of Daegu, Korea, ³Department of Smart Food and Drug, Inje University, Korea, ⁴College of Pharmacy, Dankook University, Korea

AP-54 Enhanced cytotoxic and genotoxic effect of gadolinium under the ELF-EMF irradiation in human lymphocytes

Seunghyun CHO, Young Joo CHOI, Joong Won LEE, Younhyun LEE, Sunyeong LEE, Soomin GOO, Hai Won CHUNG

Graduate School of Public Health and Institute of Health and Environment, Seoul National University, Korea

AP-55 Distribution and metabolism of inorganic- and organic selenocompounds in Japanese quail

Yasumi ANAN, Ai OHBO, Yuta TANI, Yoshiko HATAKEYAMA, Ayako YAWATA, Yasumitsu OGRA

Laboratory of Chemical Toxicology and Environmental Health, Showa Pharmaceutical University, Japan

AP-56 Induction of aldose reductase expression and reduction of sorbitol dehydrogenase expression by methylmercury in cultured human brain microvascular pericytes

Akishige HIRATA¹, Takashi HIROOKA¹, Chika YAMAMOTO², Toshiyuki KAJI¹

¹Faculty of Pharmaceutical Sciences, Tokyo University of Science, Japan, ²Faculty of Pharmaceutical Sciences, Hokuriku University, Japan

AP-57 Bacterial heavy metal transporter MerC increases mercury accumulation in arabidopsis thaliana

Masako KIYONO¹, Yuka SONE¹, Ryosuke NAKAMURA¹, Kou SAKABE², Hidemitsu PAN-HOU³

¹Department of Public Health and Molecular Toxicology, School of Pharmacy, Kitasato University, Japan, ²Department of Human Structure and Function, Tokai University School of Medicine, Japan, ³Faculty of Pharmaceutical Sciences, Setsunan University, Japan

AP-58 Susceptibility to cadmium shows diurnal variation

Nobuhiko MIURA¹, Yukie YANAGIBA¹, Katsumi OHTANI¹, Masako TOGAWA², Tatsuya HASEGAWA²

¹Japan National Institute of Occupational Safety and Health, Japan, ²Yamanashi Institute of Environmental Science, Japan

AP-59 Methylseleninic acid induces NAD(P)H:quinone oxidoreductase-1 expression through activation of NF-E2-related factor 2 in chang liver cells

Jong-Min PARK^{1,4}, Hye-Kyung NA³, An-Sik CHUNG², Young-Joon SURH^{1,4}

¹Tumor Microenvironment Research Center, College of Pharmacy, Seoul National University, Korea, ²Department of Biological Science, Korea Advanced Institute of Science and Technology, Korea, ³Department of Food and Nutrition, College of Human Ecology, Sungshin Women's University, Korea, ⁴WCU Department of Molecular Medicine and Biopharmaceutical Science, College of Pharmacy, Seoul National University, Korea

AP-60 Gender disparity in inorganic arsenic-induced oxidative stress among Bangladeshi population exposed to high arsenic through drinking water

Nayar SULTANA¹, Chiho WATANABE¹, Hana FURUSAWA¹, Masahiro UMEZAKI¹, Tsukasa INAOKA²

¹Department of Human Ecology, Faculty of International Health, Graduate School of Medicine, The University of Tokyo, Japan, ²Department of Environmental Sciences, Faculty of Agriculture, Saga University, Japan

AP-61 Transcriptional activation enhanced by the change in chromatin structure of mouse metallothionein-I promoter

Takuomi HOSAKA, Tomoki KIMURA, Yuzo FURUTA, Hiroyuki FUJIMORI, Masakazu ISOBE

Department of Toxicology, Faculty of Pharmaceutical Sciences, Setsunan University, Japan

Industrial chemical

AP-62 Neurobehavioural effects of brilliant blue FCF in two-generation toxicity study in mice

Toyohito TANAKA, Osamu TAKAHASHI, Ken-ichi OHYAMA, Akio OGATA

Department of Environmental Health and Toxicology, Tokyo Metropolitan Institute of Public Health, Japan

AP-63 Activation of 4-aminobiphenyl and DNA damage mediated by 5-lipoxygenase in human bronchial epithelial cells

Yue WU¹, Hongxiang ZHU^{1,2}, Yun HUANG¹, Qingping TAN³, Minru XIONG¹, Jianan HU¹

¹Department of Occupational and Environmental Health, College of Public Health, Central South University, China, ²Department of Control Effect Evaluation for Occupational Hazards, Hunan Provincial Institute for Labor Hygiene and Occupational Diseases, China, ³Dalang institute of health supervision in Baoan District of Shenzhen City, China

AP-64 Prioritization of request of in vivo micronucleus assay data for risk evaluation under the Kasin-law

Takeshi MORITA¹, Tomohiro TSUNEMI², Makoto HAYASHI³

¹National Institute of Health Sciences, Japan, ²Ministry of Economy, Trade and Industry, Japan, ³Biosafety Research Center, Japan

AP-65 The roles of annexin A5 in SiO2 activating macrophages

Chunhui NI

School of Public Health, Department of Occupational Medicine and Environmental Health, China

AP-66 The signal transduction pathways on 3,3'-dichlorobenzidine-induced cytotoxicity in HepG2 cells

Yen Fan TUAN¹, Lei Chin CHEN², Chien Cheng CHEN¹, Chih Ching CHIEN⁴, Ssu Ching CHEN³

¹Department of Biotechnology, National Kaohsiung Normal University, Taiwan, ²Department of Nutrition, I-Shou University, Taiwan, ³Department of Life Sciences, National Central University, Taiwan, ⁴Graduate School of Biotechnology and Bioengineering, Yuan Ze University, Taiwan

- AP-67 Prenatal exposure to 1-bromopropane, a substitute of ozone depleting chemicals, changes hippocampal basic excitability and drug-induced behaviors in the rat offspring during lactation period**
Yukiko FUETA¹, Toru ISHIDAO¹, Susumu UENO², Hajime HORI¹
¹Department of Environmental Measurement and Control, School of Health Sciences, University of Occupational and Environmental Health, Japan, ²Department of Occupational Toxicology, Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan
- AP-68 2,5-Hexanedione inhibits oocyte maturation and promotes oocyte apoptosis**
Jin LIU
Department of Occupational and Environmental Health, University of Public Health and Key Laboratory of Environment and Health, Fujian Medical University, China
- AP-69 Modulation of canonical Wnt signaling pathway during experimental oral carcinogenesis in Wistar rats**
Daniel A RIBEIRO, Juliana CARVALHO, Juliana NOGUTI, Carolina CARVALHO, Marcello FRANCO, Celina OSHIMA
Federal University of Sao Paulo, Brazil
- AP-70 Sesame oil reduces deoxycorticosterone acetate (DOCA) salt-induced renal fibrosis in rats**
Chuan-Teng LIU, Dur-Zong HSU, Ming-Yie LIU
Department of Environmental and Occupational Health, National Cheng Kung University College of Medicine, Taiwan
- AP-71 Anti-androgenic effects of diethyl-o-phthalate on immature male sprague-dawley rats**
Xiao lin LI^{1,2}, Lu QIU², Hong wei GUO¹, Yan WANG², Jing JIANG², Jian LI², Li na BIAN², Li ting ZHANG²
¹School of Public Health, Fudan University, China, ²Shanghai Entry-Exit Inspection and Quarantine Bureau, China
- AP-72 Lipid peroxidation and antioxidant status in the tissue and blood of the subjects suffering from the benign and malignant breast disease**
Madhu ANAND¹, Jyoti SINGH¹, MK J SIDDIQUI¹, Arun CHATURVEDI²
¹Indian Institute of Toxicology Research, India, ²Department of Surgical Oncology, King George's Medical University, India
- AP-73 Effects of genetic manipulation of prostaglandin terminal synthases on chemical carcinogenesis in a mouse model**
Shuntaro HARA, Yuka SASAKI
Department of Health Chemistry, School of Pharmacy, Showa University, Japan
- AP-74 Neurobehavioral effects in rats subchronically/prenatally exposed to 1-bromopropane: comparison to its direct effects on neurotransmitter receptors**
Susumu UENO¹, Yukiko FUETA², Toru ISHIDAO², Miki NONAKA³, Nobuyuki YANAGIHARA⁴, Hajime HORI²
¹Department of Occupational Toxicology, Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan, ²Department of Environmental Measurement and Control, School of Health Sciences, University of Occupational and Environmental Health, Japan, ³Department of Clinical Pharmacology, Graduate School of Medical Sciences, Kyushu University, Japan, ⁴Department of Pharmacology, School of Medicine, University of Occupational and Environmental Health, Japan

AP-75 Identification and verification of novel biomarkers for drug-induced renal papillary necrosis in rats using toxicoproteomic and toxicogenomic approaches

Daisuke SASAKI^{1,3}, Masayuki KANKI¹, Kumiko NISHIHARA¹, Masashi HIRAMOTO², Masatoshi YURI², Hitomi UMENO¹, Akira MORIGUCHI¹, Hikaru MITORI¹, Rika HIROTA¹, Jiro SEKI¹, Yoichi MIYAMAE¹, Gi-Wook HWANG³, Akira NAGANUMA³

¹Drug Safety Research Labs., Astellas Pharma Inc., Japan, ²Analysis & Pharmacokinetics Research Labs., Astellas Pharma Inc., Japan,

³Laboratory of Molecular and Biochemical Toxicology, Graduate School of Pharmaceutical Sciences, Tohoku University, Japan

AP-76 Benzophenone-1 stimulated the growth of BG-1 ovarian cancer cells by cell cycle regulation via an estrogen receptor alpha-mediated signaling pathway

Min Ah PARK¹, Myung-Haing CHO², Eui-Bae JEUNG¹, Kyung-Chul CHOI¹

¹Laboratory of Veterinary Biochemistry and Immunology, College of Veterinary Medicine, Chungbuk National University, Korea,

²Laboratory of Toxicology, College of Veterinary Medicine, Seoul National University, Korea

AP-77 Inhibitory effects of halogenated environmental chemicals on iodotyrosine deiodinase activity

Ryo SHIMIZU¹, Masafumi YAMAGUCHI¹, Shigeyuki KITAMURA², Shigeru OHTA³, Kazumi SUGIHARA¹

¹Faculty of Pharmaceutical Sciences, Hiroshima International University, Japan, ²Nihon Pharmaceutical University, Japan,

³Graduate School of Biomedical Sciences, Hiroshima University, Japan

AP-78 Involvement of nitric oxide/reactive oxygen species signaling in MPP⁺-induced neurotoxicity

Kumiko TAKEUCHI^{1,4}, Shingo KASAMATSU¹, Erika MAKINO¹, Motohiro NISHIDA², Takaaki AKAIKE³, Hideshi IHARA¹

¹Department of Biological Science, Osaka Prefecture University, Japan, ²Department of Pharmacology and Toxicology, Kyushu University, Japan,

³Department of Microbiology, Kumamoto University, Japan, ⁴Shionogi & Co., LTD., Japan

AP-79 Atypical antipsychotics improve toluene-induced cognitive and social dysfunction: a role of serotonin 5-HT_{1A} receptor

Mei-Yi LEE¹, Hwei-Hsien CHEN^{1,2}

¹Institute of Pharmacology and Toxicology, Tzu Chi University, Taiwan, ²Division of Mental Health and Addiction Medicine, Institute of Population Health Sciences, National Health Research Institutes, Taiwan

AP-80 1H-NMR based metabonomic approach for investigating effects of chemicals in mice

Kazumi SUGIHARA¹, Hanaka SAKO², Miyuki ARAI², Seigo SANO², Shigeyuki KITAMURA³, Katsuyoshi MATSUNAMI², Shigeru OHTA²

¹Faculty of Pharmaceutical Sciences, Hiroshima International University, Japan, ²Graduate School of Biomedical Sciences, Hiroshima University, Japan, ³Nihon Pharmaceutical University, Japan

AP-81 A lower dose of moringa oleifera lam pod is effective on the anti-tumor

Chaniphun BUTRYEE¹, Sirintip BUDDA¹, Piengchai KUPRADINUN², Anudep RUNGSIPIPAT³, Supradit WANGNAITHUM³, Jeong Sang LEE⁴, Siriporn TUNTIPOIPAT¹

¹Institute of Nutrition, Mahidol University, Thailand, ²Research Division, National Cancer Institute, Thailand, ³Faculty of Veterinary Science, Chulalongkorn University, Thailand, ⁴Comparative Medicine, Yale University School of Medicine, USA

AP-82 Effect of regular exercise on dextran sulfate sodium-induced mouse colitis

Baejung CHOI, Si-Young KIM, Young-Joon SURH

Tumor Microenvironment Global Core Research Center, College of Pharmacy, Seoul National University, Korea

AP-83 1-bromopropane increases triosephosphate isomerase carbonylation and advanced glycation end-products in the hippocampus of F344 rats

Zhenlie HUANG^{1,2}, Sahoko ICHIHARA³, Shinji OIKAWA⁴, Jie CHANG¹, Lingyi ZHANG¹, Kaviarasan SUBRAMANIAN¹, Sahabudeen Sheik MOHIDEEN¹, Gaku ICHIHARA¹

¹Department of Occupational and Environmental Health, Nagoya University Graduate School of Medicine, Japan,

²Department of Toxicology, Guangdong Prevention and Treatment Center for Occupational Diseases, China,

³Graduate School of Regional Innovation Studies, Mie University, Japan, ⁴Department of Environmental and Molecular Medicine, Mie University Graduate School of Medicine, Japan

AP-84 Up-regulation of cyclooxygenase-2 expression by 1-bromopropane in macrophages

Eol SHIM¹, Hyung Gyun KIM¹, Ji Hye YANG¹, Sun Woo JIN¹, Eun Hee HAN¹, Young Chul CHUNG², Kwang Youl LEE³, Tae Cheon JEONG⁴, Hye Gwang JEONG¹

¹Department of Toxicology, College of Pharmacy, Chungnam National University, Korea, ²Division of Food Science, Korea International University, Korea, ³College of Pharmacy and Research Institute of Drug Development, Chonnam National University, Korea, ⁴College of Pharmacy, Yeungnam University, Korea

AP-85 Exposure to 1-bromopropane decreases neuron proliferation in adult rat dentate gyrus

Lingyi ZHANG¹, Taku NAGAI², Kiyofumi YAMADA², Sahoko ICHIHARA³, Kaviarasan SUBRAMANIAN¹, Zhenlie HUANG¹, Sahabudeen Sheik MOHIDEEN¹, Hisao NAITO¹, Gaku ICHIHARA¹

¹Department of Occupational&Environmental Health, Nagoya University, Japan, ²Department of Clinical Pharmacy, Nagoya University Graduate School of Medicine, Japan, ³Mie University Graduate School of Regional Innovation Studies, Japan

AP-86 Regulation of hepatocyte nuclear factor 4-alpha by a novel naphtofuran derivated compound in hepatocellular carcinoma cell

Sun Mi KWON, Jung Ok BAN, Jin Tae HONG

College of Pharmacy and Medical Research Center, Chungbuk National University, Korea

AP-87 Oxidative metabolism effects of inhalation exposure to dimethylacetamide

Yukie YANAGIBA^{1,2}, Megumi SUDA¹, Rui-Sheng WANG¹, Hisayo KUBOTA¹, Rieko HOJO¹, Tamie NAKAJIMA²

¹National Institute of Occupational Safety and Health, Japan, ²Occupational and Environmental Health, Nagoya University Graduate School of Medicine, Japan

AP-88 Comparison of risk assessment values of hazardous chemicals estimated based on animal inhalation studies with the guideline values for ambient air based on epidemiological studies

Michi MATSUMOTO¹, Yukio MATSUMOTO², Yasunobu AOKI¹

¹National Institute for Environmental Studies, Japan, ²The Institute of Statistical Mathematics, Japan

Agricultural chemical & Food additive

AP-89 Evaluation of estrogenic response to gibberellic acid with in vitro reporter gene assay and E-screen assay

Hsin-Yi LU, Bao-Long TSAI, Yun-Ho WANG, Yen-Yun LEE

Division of Applied Toxicology, Taiwan Agricultural Chemicals and Toxic Substances Research Institute, Council of Agriculture, Executive Yuan, Taiwan

AP-90 Quercetin reduces oxidative damage induced by paraquat via modulating expression of antioxidant genes

Tamanna ZERIN, Yong-Sik KIM, Ho-Yeon SONG

Department of Microbiology, School of Medicine, Soonchunhyang University, Korea

AP-91 Pesticide use and health hazard of senchowa of Assam, India

Ranjit HAZARIKA

Zoology Department, MC College, India

AP-92 Neuroprotective effects of tert-butylhydroquinone on paraquat-induced dopaminergic cell degeneration

Huangyuan LI¹, Siying WU², Zhangjing WANG¹, Wei LIN¹, Chenzi ZHANG¹, Bin HUANG¹

¹Department of Occupational and Environmental Health, Fujian Province Key lab of Environment and Health, Institution of Environment and Health, Major Subject of Environment and Health of Fujian Key Universities, School of Public Health, Fujian Medical University, China,

²Department of Epidemiology and Health Statistics, Fujian Province Key lab of Environment and Health, Institution of Environment and Health, Major Subject of Environment and Health of Fujian Key Universities, School of Public Health, Fujian Medical University, China

AP-93 The effect of capsaicin on the expression of CYP3A4

Young Chul CHUNG⁴, Hyung Gyun KIM¹, Sun Woo JIN¹, Eol SHIM¹, Eun Hee HAN¹, Jae Ho CHOI¹, Sang Seop LEE², Tae Cheon JEONG³, Wonku KANG³, Hye Gwang JEONG¹

¹College of Pharmacy, Chungnam National University, Korea, ²Department of Pharmacology, Inje University College of Medicine, Korea,

³College of Pharmacy, Yeungnam University, Korea, ⁴Division of Food Science, Korea International University, Korea

AP-94 Preventive effect of sesame oil on experimental acute gouty inflammation in rats

Te-Jung HSU, Si-Jin CHEN, Pei-Yi CHU, Ming-Yie LIU

Department of Environmental and Occupational Health, Taiwan

AP-95 Fermentation drives goitrin formation upon glucosinolate degradation

Hanul PARK¹, Youngsun LEE¹, Minjeong KIM¹, Hoonjeong KWON^{1,2}

¹Department of Food and Nutrition, Seoul National University, Korea, ²Research Institute of Human Ecology, Seoul National University, Korea

AP-96 Application of percellome toxicogenomics approach to food safety: a case study of a flavor, estragole

Satoshi KITAJIMA, Ken-ichi AISAKI, Katsuhide IGARASHI, Jun KANNO

Division of Cellular & Molecular Toxicology, Biological Safety Research Center, National Institute of Health Sciences, Japan

AP-97 Resveratrol displayed the Inhibitory effect of BG-1 ovarian cancer cell growth Induced by 17beta-estradiol or various endocrine disrupting chemicals via down-regulating cell-cycle progression

Nam-Hee KANG, Kyung-A HWANG, Kyung-Chul CHOI

Laboratory of Veterinary Biochemistry and Immunology, College of Veterinary Medicine, Chungbuk National University, Korea

Poster Session

July 20 (Fri.) 11:00 - 12:00

Room 3

Environmental chemical & Endocrine disruptor

AP-98 Effect of great east Japan earthquake on the environmental pollution in the Sanriku offshore

Shuji TSUDA, Kazuaki SASAKI, Norimitsu SAITO

Iwate Institute of Environmental Health Sciences, Japan

AP-99 Mosquito coil smoke: new approaches of hazard identification and relevance for human risk assessment

Juergen PAULUHN

Experimental Toxicology, Bayer Pharma AG, Germany

AP-100 Recent increase in perfluorohexanoate in tap water from Osaka and Hyogo

Norimitsu SAITO, Kazuaki SASAKI, Shuji TSUDA

Iwate Institute of Environmental Health Sciences, Japan

AP-101 Biomonitoring human exposure to perfluoroalkyl compounds with human nails as non-invasive bioindicator

Yihe JIN¹, Wei LIU¹, Lei XU¹, Xiao LI¹, Kazuaki SASAKI², Norimitsu SAITO², Itaru SATO³, Shuji TSUDA²

¹School of Environmental Science and Technology, Dalian University of Technology, China, ²Research Institute for Environmental Sciences and Public Health of Iwate Prefecture, Japan, ³Laboratory of Veterinary Public Health, Department of Veterinary Medicine, Faculty of Agriculture, Iwate University, Japan

AP-102 Altered expression of hepatic metabolic enzyme genes, immune-related genes, oncogene and apoptotic genes in patients with trichloroethylene-induced allergic disorder

Xinyun XU, Jiyan MAO, Kanlang MAO

Shenzhen Key Laboratory of Modern Toxicology, Shenzhen Center for Disease Control and Prevention, China

AP-103 The effect of gender in thymoquinone toxicity in rats

Majed MABUKHADER

Faculty of Pharmacy, Applied Science University, Jordan

AP-104 Glutathione releases S-arylation of ubiquitin carboxyl-terminal hydrolase L1 by 1,2-naphthoquinone; evidence for S-transarylation reaction

Takashi TOYAMA^{1,2}, Aki YAZAWA³, Takashi MIURA⁴, Hidenao KAKEHASHI⁴, Yuko KATAYAMA⁵, Toshiyuki KAJI¹, Yoshito KUMAGAI^{4,5,6}

¹Faculty of Pharmaceutical Sciences, Tokyo University of Science, Japan, ²Research Fellow of the Japan Society for the Promotion of Science, Japan, ³Environmental Medicine Section, College of Biological Sciences, University of Tsukuba, Japan, ⁴Environmental Medicine Section, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan, ⁵Environmental Medicine Section, Graduate School of Life and Environmental Science, University of Tsukuba, Japan, ⁶Environmental Medicine Section, Faculty of Medicine, University of Tsukuba, Japan

AP-105 Benzo(a)pyrene negatively regulates skeletal myogenic differentiation and myotube formation

Chen Yuan CHIU¹, Cheng Tien WU¹, Yuan Peng YEN¹, Rong Sen YANG², Shing Hwa LIU¹

¹Institute of Toxicology, College of Medicine, National Taiwan University, Taiwan, ²Departments of Orthopaedics, College of Medicine, National Taiwan University, Taiwan

AP-106 Effects of long-term exposure to prometryne in real environmental concentration on some biometric, biochemical, hematological and histopathological parameters of common carp (*Cyprinus carpio* L.)

Josef VELISEK, Alzbeta STARA, Eliska ZUSKOVA

Research Institute of Fish Culture and Hydrobiology, Faculty of Fisheries and Protection of Waters, South Bohemian Research Center of Aquaculture and Biodiversity of Hydrocenoses, University of South Bohemia in Ceske Budejovice, Czech Republic

AP-107 Levels of PCB congeners in maternal blood and their effect on maternal and neonatal thyroid hormones - result from Hokkaido study on environment and children's health

Toshiaki BABA¹, Eiji YOSHIOKA², Seiko SASAKI¹, Chihiro MIYASHITA³, Motoyuki YUASA⁴, Sachiko ITO³, Jumboku KAJIWARA⁵, Takashi TODAKA⁵, Shizue KATO¹, Sumitaka KOBAYASHI¹, Emiko OKADA¹, Ikuko KASHINO¹, Thamar Ayo YILA³, Titilola BRAIMOH¹, Reiko KISHI³

¹Department of Public Health Sciences, Graduate School of Medicine, Hokkaido University, Japan, ²Division of Community Medicine and Epidemiology, Asahikawa Medical College, Japan, ³Center for Environment and Health Sciences, Hokkaido University, Japan, ⁴Department of Public Health, School of Medicine, Juntendo University, Japan, ⁵Fukuoka Institute of Health and Environmental Sciences, Japan

AP-108 Conditional knockout ARL6ip5 enhances dimethylbenz[a]anthracene induced DNA damage but suppresses phorbol ester triggered skin papillomas in mice

Zhenghua GONG¹, Yaowei SHI¹, Ze ZHU¹, Xuan LI¹, Yang YE¹, Jianbing ZHANG¹, Aiping LI¹, Gang LI², Jianwei ZHOU¹

¹Department of Molecular Cell Biology & Toxicology, the Key Laboratory of Modern Toxicology, Ministry of Education and Department of Occupational Medicine and Environmental Health, School of Public Health, Nanjing Medical University, China, ²Department of Dermatology and Skin Science, Jack Bell Research Centre, Vancouver Coastal Health Research Institute, University of British Columbia, Canada

AP-109 Cannabidiol-induced apoptosis in murine microglial cells is mediated by lipid rafts

Hsin-Ying WU¹, Ming-Chun CHUNG¹, Chia-Chi WANG², Tong-Rong JAN¹

¹School of Veterinary Medicine, National Taiwan University, Taiwan, ²School of Pharmacy, Kaohsiung Medical University, Taiwan

AP-110 Epigenetic defects of XRCC3 and XRCC5 induced by E6 oncoprotein may enhance benzo[a]pyrene-induced chromosome instability in lung cancer cells

Ya Wen CHENG, Huei LEE

Institute of Medicine, Chung Shan Medical University, Taiwan

AP-111 Role of the redox-sensitive transcription factor Nrf2 in vascular smooth muscle cell migration and vascular remodeling

Takashi ASHINO¹, Masayuki YAMAMOTO², Takemi YOSHIDA¹, Satoshi NUMAZAWA¹

¹Division of Biochemical Toxicology, School of Pharmaceutical Sciences, Showa University, Japan, ²Department of Medical Biochemistry, Tohoku University Graduate School of Medicine, Japan

AP-112 Activation of Nrf2 caused by tert-butylbenzoquinone, a metabolite of butylated hydroxyanisole, requires electrophilic modification of Keap1 through its reactive thiols

Yumi ABIKO¹, Takashi MIURA¹, Phuc Bui HOANG², Yasuhiro SHINKAI^{1,3}, Yoshito KUMAGAI^{1,3}

¹Doctoral Programs in Biomedical Sciences, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan,

²Master's Programs in Medical Sciences, Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan,

³Environmental Medicine Section, Faculty of Medicine, University of Tsukuba, Japan

AP-113 Evaluation and comparison the embryotoxicity of mainstream and sidestream smoke on cardiogenesis

Wei CHENG¹, Lixin FENG², Yan WANG^{1,3}

¹College of Public Health, School of Medicine, Shanghai Jiaotong University, China, ²College of Basic Medicine, School of Medicine, Shanghai Jiaotong University, China, ³Shanghai Xinhua Hospital Affiliated to Shanghai Jiao Tong University School of Medicine, MOE and Shanghai Key Laboratory of Children's Environmental Health, China

AP-114 The use of mysidopsis juniae as test organism for evaluation of acute and kinetics of acute toxicity from soluble fraction of the gasoline used in Brazil

Therezinha M. N. OLIVEIRA¹, Renata F. S. BÖHM², Paulo I. KOEHNTOPP², Renata A. GONÇALVES¹, Elaine C. SPITZNER¹, Tamila KLEINE¹, Carlos E. GALOSKI¹, Stéffany C. INÁCIO¹, Virgínia G. BARROS¹, Cleiton VAZ¹

¹Laboratory of Environmental Toxicology, Department of Environmental Engineering, Univille University, Brazil, ²Univille University, Brazil

AP-115 Evaluation of the toxicity of mixtures of diesel and gasoline to the marine organism mysidopsis juniae

Paulo I. KOEHNTOPP¹, Therezinha M. N. OLIVEIRA², Renata F. S. BÖHM², Renata A. GONÇALVES², Elaine C. SPITZNER², Tamila KLEINE², Carlos E. GALOSKI², Virgínia G. BARROS², Stéffany C. INÁCIO², Cleiton VAZ²

¹Rectory, Univille University, Brazil, ²Laboratory of Environmental Toxicology, Department of Environmental Engineering, Univille University, Brazil

AP-116 Formaldehyde-induced histone modifications and expression of proto-oncogenes

Ikuma YOSHIDA, Tatsushi TOYOOKA, Yuko IBUKI

Institute for Environmental Sciences, University of Shizuoka, Japan

AP-117 Effect and mechanism of haze particulate matter on apoptosis in human bronchial epithelial cells

Huiyan QIN, Yunfeng ZOU, Xiaowu PENG, ZhiJuan MENG, Jiongli HUANG, Qin LI, Guiqiang LIANG

Department of Toxicology, Guangxi Medical University, China

AP-118 Toxicological evaluation of perfluorohexanoate

Hiroyuki IWAI

Daikin Industries Ltd., Japan

AP-119 Activation of nociceptive transient receptor potential channels by phthalates

Hideto JINNO¹, Susumu OHKAWARA², Toshiko TANAKA-KAGAWA¹

¹Indoor Air Quality Section, Division of Environmental Chemistry, National Institute of Health Sciences, Japan, ²Department of Analytical Chemistry, School of Pharmaceutical Sciences, Kyushu University of Health and Welfare, Japan

AP-120 Enhancement of CD8 positive T cell proliferation caused by trichloroethylene

Ryo KOBAYASHI, Tsuyoshi NAKANISHI, Hisamitsu NAGASE

Laboratory of Hygienic Chemistry and Molecular Toxicology, Gifu Pharmaceutical University, Japan

AP-121 Disruption of undifferentiated state accompanied by DNA damage in murine embryonic stem cells induced by 7,12-dimethylbenz(a)anthracene

Tomoko IYODA¹, Yoshinori OKAMOTO¹, Mariko USHIDA¹, Tatsuyuki TAKADA², Nakao KOJIMA¹

¹Faculty of Pharmacy, Meijo University, Japan, ²Dept. of Pharm. Sci., Ritumeikan Univ., Japan

AP-122 Triphenyltin disrupt ubiquitin/proteasome-dependent pathway in vitro and in vivo

Guoqing SHI, Xiaoshen LU, Xinyu SUI, Li ZHANG, Juan CHEN, Dong LI

Department of Biological Science and Engineering, School of Chemistry and Biological Engineering, University of Science and Technology, China

AP-123 Triphenyltin promotes thymic aging via PPARgamma signaling pathway

Youhei HIROMORI^{1,2}, Noriyuki SAKAI², Ryo KOBAYASHI², Daichi JODAI², Hisamitsu NAGASE², Tsuyoshi NAKANISHI²

¹College of Pharmacy, Kinjo Gakuin University, Japan, ²Laboratory of Hygienic Chemistry and Molecular Toxicology, Gifu Pharmaceutical University, Japan

AP-124 Immunological effects of inhaled diesel exhaust in SD rat

Ilseob SHIM, Sangyong YANG, Hyunmi KIM, Min CHOI, Gyunback SEO, Mimi LEE, Philje KIM

Risk Assessment Division, Environmental Health Risk Research Department, National Institute of Environmental Research, Korea

AP-125 Chemoprotective effects of antioxidants against formaldehyde-induced toxicity in human keratinocytes

Min Ji KIM¹, Young Woo KIM¹, Eun Young HAN¹, Yoon A NAM¹, Bu Young CHUNG¹, Minji KYUNG¹, Du Yeon BANG¹, Seong Kwang LIM¹, Mi Jung KWON¹, Myung Chan CHO¹, Hyung Sik KIM², Byung-Mu LEE¹

¹Division of Toxicology, College of Pharmacy, Sungkyunkwan University, Korea, ²College of Pharmacy, Pusan National University, Korea

AP-126 Methionine inhibits benzo(a)pyrene-DNA adducts formation in human hepatocellular carcinoma HepG2 cells

Minji KYUNG¹, Young Woo KIM¹, Tae Hyun ROH¹, Min Ji KIM¹, Yoon A NAM¹, Bu Young CHUNG¹, Du Yeon BANG¹, Seong Kwang LIM¹, Mi Jung KWON¹, Myung Chan CHO¹, Seung Jun KWACK², Hyung Sik KIM², Byung-Mu LEE¹

¹Division of Toxicology, College of Pharmacy, Sungkyunkwan University, Korea, ²College of Natural Sciences, Changwon Nat'l University, Korea, ³College of Pharmacy, Pusan Nat'l University, Korea

AP-127 Withdrawn

AP-128 Withdrawn

AP-129 Probabilities of exceeding occupational exposure limits and overexposure to ethylene oxide and formaldehyde at some hospital workers in Korea

Mi-Yeon SHIN, Won KIM, Chungsik YOON, Sungkyoon KIM

Graduate School of Public Health, Seoul National University, Korea

AP-130 State of the art on the characterization of occupational and carcinogenic risk in the exposure to benzene

Maria de Fátima M. PEDROZO¹, Monica M. B. PAOLIELLO², Eduardo Macedo BARBOSA³, Ana Cláudia MORAES³

¹Mackenzie University, Brazil, ²Department of Pathology and Clinical and Toxicological Analysis, State University of Londrina, Brazil, ³PETROBRAS (Brazilian Oil Company), Brazil

AP-131 Low concentration of BPA-induced spermatogenesis disorder might be associated with the decrease of AR expression in rat testes

Liang-Lin QIU, Xuan WANG, Zhan ZHANG, Jun GU, Shou-Lin WANG

School of Public Health, Nanjing Medical University, China

AP-132 Verification of the effects of transovarian exposure to p,p'-DDT and p,p'-DDE on avian reproduction using Japanese quails

Ryo KAMATA^{1,2}, Fujio SHIRAISHI², Shinji TAKAHASHI², Akira SHIMIZU², Daisuke NAKAJIMA², Shiho KAGEYAMA³, Takushi SASAKI¹, Kyosuke TEMMA¹

¹Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University, Japan, ²National Institute for Environmental Studies, Japan,

³Faculty of Home Economics, Koriyama Women's University, Japan

AP-133 Xenoestrogens depressed gonadotropin-releasing hormone expression and affected embryonic development

Wenjau LEE¹, Chi-Wei KAN¹, Chung-Kai SU¹, Kataaki OKUBO², Yoshitaka NAGAHAMA³

¹Department of Bioscience Technology, Chang Jung Christian University, Taiwan, ²Department of Aquatic Bioscience, Graduate School of

Agricultural and Life Sciences, The University of Tokyo, Japan, ³Laboratory of Reproductive Biology, National Institute for Basic Biology, Japan

AP-134 Effects of TCDD on neuronal cell differentiations from human embryonic stem cells

Seiichiroh OHSAKO, Junko YAMANE, Satoshi IMANISHI, Chiharu TOHYAMA

Laboratory of Environmental Health Sciences, Center for Disease Biology and Integrative Medicine, The University of Tokyo, Japan

AP-135 Octyl-phenol and triclosan stimulated the growth of breast cancer cells by alteration of cell cycle related genes, *Cyclin D1* and *p21*, via an estrogen-receptor-mediated pathway

Hye-Rim LEE, Bo-Rim YI, Kyung-Chul CHOI

Laboratory of Veterinary Biochemistry and Immunology, College of Veterinary Medicine, Chungbuk National University, Korea

AP-136 Disruption of urine concentrating mechanism by dioxin induces hydronephrosis in mouse neonates

Wataru YOSHIOKA, Tatsuya KAWAGUCHI, Nozomi FUJISAWA, Keiko AIDA-YASUOKA, Chiharu TOHYAMA

Laboratory of Environmental Health Sciences, Center for Disease Biology and Integrative Medicine, Graduate School of Medicine, The University of Tokyo, Japan

AP-137 Antiproliferative effect of genistein on the growth of estrogen-dependant BG-1 ovarian cancer cells induced by 17beta-estradiol or bisphenol a via down-regulation of the cell cycle progression

Kyung-A HWANG, Nam-Hee KANG, Kyung-Chul CHOI

Laboratory of Veterinary Biochemistry and Immunology, College of Veterinary Medicine, Chungbuk National University, Korea

AP-138 Bisphenol A and phthalate caused the stimulation of cell growth and the alteration of TGF-beta signaling pathway in human prostate cancer cells

Hye-Rim LEE, Chang-Hwan AHN, Kyung-Chul CHOI

Laboratory of Veterinary Biochemistry and Immunology, College of Veterinary Medicine, Chungbuk National University, Korea

AP-139 Association between nonylphenols and sexual hormone in cord blood

Chia-Huang CHANG¹, Ming-Song TSAI^{2,3}, I-Fang MAO⁴, Yen-An TSAI¹, Kai-Wei LIAO¹, Mei-Lien CHEN¹

¹Institute of Environmental and Occupational Health Sciences, National Yang Ming University, Taiwan, ²Department of OBS & GYN, Cathay General Hospital, Taiwan, ³School of Medicine, Fu Jen Catholic University, Taiwan, ⁴Department of Occupational Safety and Health, Chung Shan Medical University, Taiwan

AP-140 Cypermethrin as an endocrine disruptive chemical in fish- a case study

Yasmin JOHN BASHA, Navaraj PERUMAL SAMY

Yadava College, India

AP-141 Transgenerational epigenetic effects of bisphenol-A on adult onset disease

Kundu SOMA, Tae Hyung KIM, A Jin WON, Hyun Jung LIM, Yu Jin SHIN, Young Ju LEE, Hyung Sik KIM

Division of Molecular Toxicology, College of Pharmacy, Pusan National University, Korea

AP-142 Toxicoproteomics of the mixture of Di(2-ethylhexyl) phthalate (DEHP) and dibutyl phthalate (DBP) in male sprague-dawley rats

Young Woo KIM¹, Min Young KWAK¹, Min Ji KIM¹, Yoon A NAM¹, Bu Young CHUNG¹, Minji KYUNG¹, Du Yeon BANG¹, Seong Kwang LIM¹, Mi Jung KWON¹, Myung Chan CHO¹, Seung Jun KWACK², Hyung Sik KIM², Byung-Mu LEE¹

¹Division of Toxicology, College of Pharmacy, Sungkyunkwan University, Korea, ²College of Natural Sciences, Changwon Nat'l University, Korea, ³College of Pharmacy, Pusan Nat'l University, Korea

AP-143 Possible aryl hydrocarbon receptor-independent pathway of 2,3,7,8-tetrachlorodibenzo-p-dioxin-induced antiproliferative response in human breast cancer cells

Akira AOKI¹, Hiroki YOSHIOKA¹, Yohei HIROMORI^{1,2}, Tomoki KIMURA³, Yoshiaki FUJII⁴, Hisamitsu NAGASE¹, Tsuyoshi NAKANISHI¹

¹Lab. of Hygienic Chem. Mol. Toxicol., Gifu Pharm. Univ., Japan, ²Kinjo Gakuin University School of Pharmacy, Japan, ³Setsunan University Faculty of Pharmaceutical Sciences, Japan, ⁴Tokyo Medical and Dental University, Japan

AP-144 Evaluation of the effects on sperm morphology in rat exposed with dibromochloropropane, by using dark field images in the computer-assisted sperm analysis

Katsumi OHTANI¹, Shigeru YAMAZAKI²

¹National Institute of Occupational Safety and Health, Japan, ²School of Medicine, Showa University, Japan

AP-145 Dioxin imprints the lowered expression of gonadotropin-releasing hormone: a mechanism underlying sexual immaturity caused by dioxin

Tomoki TAKEDA¹, Misaki FUJII¹, Junki TAURA¹, Takayuki KOGA¹, Midori YAMAMOTO², Masaru HIMENO², Yuji ISHII¹, Hideyuki YAMADA¹

¹Graduate School of Pharmaceutical Sciences, Kyushu University, Japan, ²Faculty of Pharmaceutical Sciences, Nagasaki International University, Japan

Nanomaterial

AP-146 Inhibition of delayed-type hypersensitivity by iron oxide nanoparticle administration is predominantly via suppressing T helper 1 cell-mediated immunity

Chien-Chang SHEN^{1,2}, Chia-Chi WANG³, Tong-Rong JAN¹

¹School of Veterinary Medicine, National Taiwan University, Taiwan, ²Ricerca Taiwan Ltd., Taiwan,

³School of Pharmacy, Kaohsiung Medical University, Taiwan

AP-147 Evaluation of reproductive and developmental toxicity of multi-wall carbon nanotubes in pregnant mice after tail vein administration

Norihiro KOBAYASHI¹, Mayumi KAWABE², Fumio FURUKAWA², Reiji KUBOTA¹, Naoki SUGIMOTO¹, Akihiko HIROSE³

¹Division of Environmental Chemistry, National Institute of Health Sciences, Japan, ²DIMS Institute of Medical Science Inc., Japan,

³Division of Risk Assessment, National Institute of Health Sciences, Japan

AP-148 Study of the manufacturing process of multi-walled carbon nanotubes for improving biocompatibility

Hisao HANI¹, Naoto SAITO², Yoshikazu MATSUDA³, Yuki USUI⁴, Seiji TAKANASHI¹, Shinsuke KOBAYASHI¹, Masanori OKAMOTO¹, Masayuki SHIMIZU¹, Nobuhide OGIHARA¹, Norio ISHIGAKI¹, Koichi NAKAMURA¹, Hiroyuki KATO¹

¹Department of Orthopaedic Surgery, Shinshu University School of Medicine, Japan, ²Department of Applied Physical Therapy, Shinshu University School of Health Sciences, Japan, ³Clinical Pharmaceutics Educational Center, Nihon Pharmaceutical University, Japan, ⁴Research Center for Exotic Nanocarbons, Shinshu University, Japan

AP-149 Intratracheal instillation of titanium nanoparticles accelerates renal injury and fibrotic signals in normal and diabetic mice

Kuo Tong HUANG^{1,2}, Cheng Tien WU², Chih Kang CHIANG^{1,3}, Shing Hwa LIU²

¹Department of Nephrology, Internal Medicine, National Taiwan University Hospital, Taiwan, ²Institute of Toxicology, College of Medicine, National Taiwan University, Taiwan, ³Departments of Integrated Diagnostics & Therapeutics and Internal Medicine, National Taiwan University Hospital and National Taiwan University College of Medicine, Taiwan

AP-150 Cytotoxicity of polyvinylpyrrolidone coated nanosilver in human hepatocellular carcinoma cells

Yuying XUE, Shanshan ZHANG, Yanmei HUANG, Meng TANG, Ting ZHANG, Lu KONG, Xiaorun LIU, Yuanyuan HU, Xiaobo LI, Lihong YIN

Key Laboratory of Environmental Medicine and Engineering, Ministry of Education, Jiangsu Key Laboratory for Biomaterials and Devices, School of Public Health, Southeast University, China

AP-151 Iron-oxide nanoparticles impaired the functionality and lysosomal activity of murine microglia activated by lipopolysaccharide

Chung-Hsiung HUANG¹, Ming-Chun CHUNG¹, Hsin-Ying WU¹, Chia-Chi WANG², Tong-Rong JAN¹

¹School of Veterinary Medicine, National Taiwan University, Taiwan, ²School of Pharmacy, Kaohsiung Medical University, Taiwan

AP-152 Dispersion method for in vivo safety researches on manufactured nanomaterials

Wenting WU¹, Sahoko ICHIHARA², Saeko TADA-OIKAWA², Jie CHANG², Gaku ICHIHARA¹

¹Department of Occupational and Environmental Health, Nagoya University Graduate School of Medicine, Japan, ²Graduate School of Regional Innovation Studies, Mie University, Japan

AP-153 Toxicological evaluation of TiO₂ nanomaterials on freshwater fish, *O. mossambicus*

Navaraj SAMY IYYAH KONAR, Karthigarani MANI

Division of Toxicology, P.G. Research Department of Zoology, Yadava College, India

AP-154 Effect of prenatal exposure to titanium dioxide nanoparticle on collagen expression in the kidney of offspring

Masakazu UMEZAWA^{1,2}, Taito OYABU², Ken-ichiro SUZUKI¹, Miyoko KUBO-IRIE¹, Sayaka KUDO², Mariko UCHIYAMA², Rikio NIKI¹, Ken TACHIBANA^{1,2}, Ken TAKEDA^{1,2}

¹The Center for Environmental Health Science on the Next Generation, Research Institute for Science and Technology, Tokyo University of Science, Japan, ²Department of Hygienic Chemistry, Faculty of Pharmaceutical Sciences, Tokyo University of Science, Japan

AP-155 Flow cytometric evaluation of nanoparticles using side-scattered light and ROS-mediated fluorescence -correlation with genotoxicity

Yousuke TODUKA, Tatsushi TOYOOKA, Yuko IBUKI

Institute for Environmental Sciences, University of Shizuoka, Japan

AP-156 Effects of single-walled carbon nanotubes on stress-responsive genes expressed in various human respiratory tract cells

Miki KATOH¹, Kotaro HITOSHI¹, Tomoko SUZUKI², Yoshinori ANDO², Masayuki NADAI¹

¹Faculty of Pharmacy, Meijo University, Japan, ²Faculty of Science and Technology, Meijo University, Japan

AP-157 Utility of a multidimensional evaluation scheme for nano scale materials

Takayuki ANZAI^{1,2}, Masamichi KAMINISHI¹, John HANDLEY¹, Detlef SCHULER¹, Albrecht POTH¹, Robert GUEST¹, Tetsuo SATO^{1,3}

¹Harlan Laboratories Japan Co., Ltd., Japan, ²Showa University School of Medicine, Japan, ³HAB Research Institute, Japan

AP-158 Reactive pulmonary hyperplasia induced by intra pulmonary spray of nano-sized carbon black particles

Mitsuru FUTAKUCHI¹, Jegou XU^{1,2}, Yoshiyuki INOUE³, Mineo TAKATSUKI³, Hiroyuki TSUDA², Masumi SUZUI¹

¹Department of Toxicology, Graduate School of Medical Sciences, Nagoya City University, Japan, ²Nanomaterial Toxicology Project, Nagoya City University, Japan, ³Chemical Evaluation and Research Institute, Japan

AP-159 Cadmium-based quantum Dots 705 induced autophagy formation for cell survival via oxidative stress

Yueh-Hsia LUO, Pinpin LIN

Division of Environmental Health and Occupational Medicine, National Health Research Institutes, Taiwan

AP-160 A cytotoxicity study for the superparamagnetic iron oxide nanoparticles in HepG2 and Huh-7 hepatocarcinoma cell platform

Ming Chun HO^{1,2}, Bing Hsun CHUNG¹, Pei Jia LIU¹, Lung Yuan CHEN¹, Der yuan WANG¹, Yang Chih SHIH¹, Jaw Jou KANG^{1,3}, Daniel Tzi-Bi SHIH², Yu Wen CHENG²

¹Section of Biologics and Advanced Therapeutic Product Analysis, Division of Research and Analysis, Food and Drug Administration, Taiwan, ²College of Pharmacy, Taipei Medicine University, Taiwan, ³College of Medicine, National Taiwan University, Taiwan

AP-161 Cytotoxicity of surface-modified ZnO nanoparticles in human lung epithelial cells: modified nanoparticles alter biological responses from cell death toward inflammation

I-Lun HSIAO, Yuh-Jeen HUANG

Department of Biomedical Engineering and Environmental Sciences, National Tsing Hua University, Taiwan

AP-162 Whole body inhalation exposure of multi-walled carbon nanotube by using an acoustical dust generator and measurements of its body burden in lung

Yuhji TAQUAHASHI¹, Yukio OGAWA¹, Atsuya TAKAGI¹, Shigetoshi AISO², Katsumi IMAIDA³, Jun KANNO¹

¹Division of Cellular and Molecular Toxicology, Biological Safety Research Center, National Institute of Health Sciences, Japan,

²Pathology Division, Japan Bioassay Research Center, Japan Industrial Safety & Health Association, Japan, ³Onco-Pathology Department of Pathology and Host-defense Faculty of Medicine, Kagawa University, Japan

AP-163 Teratogenicity of multi-wall carbon nanotube in ICR mice

Tomoko FUJITANI¹, Ken-ichi OHYAMA¹, Akihiko HIROSE², Tetsuji NISHIMURA², Dai NAKAE³, Akio OGATA¹

¹Department of Environmental Health and Toxicology, Tokyo Metropolitan Institute of Public Health, Japan, ²National Institute of Health Science, Japan, ³Department of Medical Science, Tokyo Metropolitan Institute of Public Health, Japan

AP-164 Genotoxicity mechanism of co-treatment of silver nanoparticles and Zinc sulfate or manganese (II) chloride in human cancer cell lines

Mi-Jung KWON¹, IL Young AHN¹, Young Woo KIM¹, Min Ji KIM¹, Yoon A NAM¹, Bu Young CHUNG¹, Minji KYUNG¹, Du Yeon BANG¹, Seong Kwang LIM¹, Myung Chan CHO¹, Hyung Sik KIM², Byung-Mu LEE¹

¹Division of Toxicology, College of Pharmacy, Sungkyunkwan University, Korea, ²College of Pharmacy, Pusan Nat'l University, Korea

AP-165 Zinc oxide nanoparticle induced autophagy and mitochondrial damage via ROS generation

Jae Ho LEE¹, Kyeong-Nam YU¹, Arash MINAI-TEHRANI¹, Sung-Jin PARK¹, Myung-Haing CHO^{1, 2, 3, 4, 5}

¹Laboratory of Toxicology, College of Veterinary Medicine, Seoul National University, Korea, ²Department of Nanofusion Technology, Graduate School of Convergence Science and Technology, Seoul National University, Korea, ³Advanced Institute of Convergence Technology, Seoul National University, Korea, ⁴Graduate Group of Tumor Biology, Seoul National University, Korea, ⁵Center for Food Safety and Toxicology, Seoul National University, Korea

AP-166 Repeated dose toxicity of fullerene C60 by gavage for a month in rats

Akihiko HIROSE¹, Mika TAKAHASHI¹, Hina KATO¹, Yuko DOI², Akihiro HAGIWARA², Mutsuko HIRATA-KOIZUMI¹, Atsushi ONO¹, Reiji KUBOTA³, Tetsuji NISHIMURA³

¹Division of Risk Assessment, National Institute of Health Sciences, Japan, ²DIMS Institute of Medical Science, Inc., Japan, ³Division of Environmental Chemistry, National Institute of Health Sciences, Japan

Natural compound

AP-167 In vitro anti-herpetic activity of aqueous or ethanol extract from *Acer tegmentosum*

Yong Pil HWANG¹, Yi Fan HONG², Tae-Rahk KIM², Jee Eun LEE¹, Hyun-Su KIM¹

¹Department of Pharmaceutical Engineering, International University of Korea, Korea, ²Kyung Hee University Skin Biotechnology, Gyeonggi Biocenter, Korea

AP-168 (-)-Xanthatin-mediated selective toxicity to cancer cells: ROS-assisted stabilization of tumor suppressor GADD45 expression

Shuso TAKEDA¹, Momoko NOGUCHI¹, Kazumasa MATSUO², Kuniyoshi KOYACHI², Yasuhiro YAMAGUCHI¹, Shunsuke OKAJIMA¹, Kazutaka YOSHIDA¹, Yoshiko OKAMOTO¹, Kenji MATSUMOTO³, Mitsuru SHINDO³, Curtis J OMIECINSKI⁴, Hironori ARAMAKI¹

¹Department of Molecular Biology, Daiichi University of Pharmacy, Japan, ²Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Japan, ³Institute for Materials Chemistry and Engineering, Kyushu University, Japan, ⁴Center for Molecular Toxicology and Carcinogenesis, Pennsylvania State University, USA

AP-169 4AAQB inhibits vascular endothelial growth factor-induced angiogenesis in in vitro and in vivo model

Ching-Hu CHUNG

Department of Pharmacology, Tzu Chi University, Taiwan

AP-170 Procoagulant and prothrombotic effects of herbal medicine, *dipsacus asper* on human platelets

Seojin KANG, Ji-Seon SONG, Kyung-Min LIM, Youn-Kyeong CHANG, Jin-Ho CHUNG

College of Pharmacy, Seoul National University, Korea

AP-171 Activation of immune defense system against salmonella enteric serovar Typhimurium infection

SungYeon KIM, BoYoon CHANG

College of Pharmacy, Wonkwang University, Korea

AP-172 Induction of cell cycle arrest and apoptosis in breast cancer by *Lantana camara* L.

EunByeol HAN, BoYoon CHANG, SungYeon KIM

College of Pharmacy, Wonkwang University, Korea

AP-173 Novel anti-platelet activity of protocatechuic acid through inhibition of shear stress-induced platelet aggregation

Keunyoung KIM¹, Kyung-Min LIM¹, Ok-Nam BAE², Ka Young CHUNG³, Seojin KANG¹, Yoon-Kyung HEO¹, Jin-Ho CHUNG¹

¹College of Pharmacy, Seoul National University, Korea, ²College of Pharmacy, Hanyang University, Korea, ³School of Pharmacy, Sungkyunkwan University, Korea

AP-174 Curcumin induces apoptosis in H-Ras transformed human mammary epithelial cells by blocking STAT3 signaling

Young Il HAHN¹, Su Jung KIM¹, Bu Young CHOI², Young-Joon SURH¹

¹Tumor Microenvironment Global Core Research Center, College of Pharmacy, Seoul National University, Korea,

²Molecular & Pharmacology Lab, C&C Research Laboratory, Korea

AP-175 Estrogen replacement effect of Brazilian propolis in ovariectomized rats

Ayaka YAMANAKA¹, Yoshinori OKAMOTO¹, Ayaka IWATA¹, Aya YASUI¹, Tatsuyuki TAKADA², Nakao KOJIMA¹

¹Faculty of Pharmacy, Meijo University, Japan, ²Dept. of Pharm. Sci., Ritsumeikan Univ., Japan

AP-176 Comparison of content of toxic components in Keishikabushito decocted by microwave oven and conventional method

Yan WANG¹, Atsushi CHINO², Megumi SUMINO¹, Fumio IKEGAMI¹

¹Center for Environment, Health and Field Sciences, Chiba University, Japan, ²Department of Japanese-Oriental "Kampo" Medicine, Graduate School of Medicine, Chiba University, Japan

AP-177 Hepatoprotective effects of thiacremonone, a sulfur compound isolated from garlic, on the acetaminophen-induced hepatotoxicity

Dong Cheol GIL, Jung Ok BAN, Eung Tae YEON, Sang Bae HAN, JinTae HONG

Division of Toxicology, Department of Pharmaceutical Sciences, Chungbuk University, Korea

AP-178 Metabolism of geniposide by human intestinal microflora and its cytotoxic effect

Bong Hwan PARK¹, Tilak KHANAL¹, Hyung Gyun KIM¹, Hwa Jeong HAN¹, Tae Cheon JEONG², Hye Gwang JEONG¹

¹Department of Toxicology, College of Pharmacy, Chungnam National University, Korea, ²College of Pharmacy, Yeungnam University, Gyeongsan, Korea

AP-179 The effect of curcumin on quantum dots phototoxicity induced by UVA irradiation in normal human lymphocytes and HL-60 cells

Soomin GOO, Joong Won LEE, Younhyun LEE, Sunyeong LEE, Seunghyun CHO, Young Joo CHOI, Hai Won CHUNG

Graduate School of Public Health and Institute of Health and Environment, Seoul National University, Korea

AP-180 Impact of plant leaf extracts on total free amino acids in the haemolymph of *Pericallia ricini*

Dhanasekaran SIVAN¹, Gnanamani RADHAKRISHNAN²

¹Division of Entomology, Department of Zoology, Yadava College, India, ²Department of Zoology, Yadava College, India

- AP-181 The apoptotic effect of brucine from the seed of *Strychnos nux-vomica* on human hepatoma cells is mediated via Bcl-2 and Ca²⁺ involved mitochondrial pathway**
Xukun DENG
 School of Pharmacy, South-Central University for Nationalities, China
- AP-182 Biological effects (anti-acne and wound healing) of honeybee (*Apis mellifera*. L) venom**
Sang Mi HAN¹, Kwang Gill LEE¹, Soon Ok WOO¹, In Pyo HONG¹, Yong Soo CHOI¹, Kwan Kyu PARK²
¹National Academy of Agricultural Science, Rural Development Administration, Korea, ²College of Medicine, Catholic University of Daegu, Korea
- AP-183 Toxicometabolomics approach to investigation of black ginseng on prevention of acute hepatitis in sprague dawley rats**
Sung Ha RYU¹, Haeran JO², Ji Won KIM², Kyu-Bong KIM³
¹Department of Pharmaceutical Engineering, Inje University, Korea, ²Department of Smart Foods and Drugs, Inje University, Korea, ³College of Pharmacy, Dankook University, Korea
- AP-184 Quercetagenin inhibits the inflammatory chemokines related with atopic dermatitis via the regulation of STAT1 signal and TGF-β1 expression**
Gyeong-Jin KANG, Sang-Chul HAN, Hee-Kyoung KANG, Eun-Sook YOO
 Department of Pharmacology, School of Medicine, Jeju National University, Korea
- AP-185 No interaction of red ginseng extract on toxicokinetics of deltamethrin in Sprague-Dawley rats**
Hae-Ran JO¹, Ji Won KIM¹, Sung-Ha RYU², Kyu-Bong KIM³
¹Department of Smart Foods and Drugs, Inje University, Korea, ²Department of Pharmaceutical Engineering, Inje University, Korea, ³Department of Pharmacy, Dankook University, Korea
- AP-186 Sargaquinoic acid suppresses the expression of inducible nitric-oxide synthase via the regulation of lipopolysaccharide-induced NF-κB signal**
Gyeong-Jin KANG¹, Sang-Chul HAN¹, Weon-Jong YOON², Eun-A HYUN¹, Hee-Kyoung KANG¹, Eun-Sook KANG¹
¹Department of Pharmacology, School of Medicine, Jeju National University, Korea, ²Jeju Biodiversity Research Institute, Jeju Technopark, Korea
- AP-187 Snake venom toxin from *Vipera lebetina turanica* sensitizes cancer cells to TRAIL through ROS- and JNK-mediated upregulation of death receptors and downregulation of survival proteins**
Eung Tae YEON, Mi Hee PARK, MiRan JO, Jin Tae HONG
 College of Pharmacy and Medical Research Center, Chungbuk National University, Korea
- AP-188 Flatfish (*Paralichthys olivaceus*) oil suppresses T helper cells type 1/2 response and up-regulates CD4+CD25+Foxp3+ T cells**
Sang Chul HAN¹, Gyeong Jin KANG¹, Yeong Jong KO¹, Hee Kyoung KANG¹, Sang Wook MOON², Yong Seok ANN³, Eun Sook YOO¹
¹Department of Pharmacology, School of Medicine, Jeju National University, Korea, ²Fermentec Inc., 207, Jeju Bio Industrial Center, Korea, ³Choung Ryong Fisheries Co. LTD., Korea

Radiation

AP-189 Overexpression of SKP2 promotes the radiotherapy resistance of esophageal squamous cell carcinoma

Xiao-Chun WANG, Yue-Ying WANG, Ai-Min MENG

Institute of Radiation Medicine, Chinese Academy of Medical Science, China

AP-190 Radiation enhances the invasion of pulmonary adenocarcinoma cells via STAT3

Feng Sheng LI², Ling GAO³, Xiao Hua CHEN¹

¹Department of Experimental Therapy of ARS, Beijing Institute of Radiation Medicine, China, ²The Second Artillery General Hospital, China,

³National Institute for Radiological Protection, China

AP-191 The expression of *Deinococcus radiodurans* ddrO gene and it's influence of resistance in *E. coli*

Du QIU¹, Li BinYUAN¹, Sun XiaoYU¹, Yang JIE¹, Li WEI¹, Liao Duan FANG², He SHUYA¹

¹Department of Biochemistry and Molecular Biology, University of South China, China, ²Department of Pharmacology, University of South China, China

AP-192 Investigation of molecular targets and signaling networks in response to high-LET neutron in in vivo-mimic spheroid of human carcinoma using toxicogenomic approach

Jee Young KWON^{1,2,3}, Young Rok SEO^{2,3}

¹Department of Biomedical Science, School of Medicine, Kyung Hee University, Korea, ²Department of Life Science, Dongguk University, Korea, ³Institute of Environmental Medicine for Green Chemistry, Dongguk University, Korea

AP-193 Beclin1-induced autophagy abrogates radioresistance

Somin LEE^{1,3}, Seung-Hee CHANG¹, Arash MINAI-TEHRANI¹, Sanghwa KIM¹,
Myung-Haing CHO^{1,2,3,4,5}

¹Laboratory of Toxicology, College of Veterinary Medicine, Seoul National University, Korea, ²Department of Nanofusion Technology, Graduate School of Convergence Science and Technology, Seoul National University, Korea, ³Graduate Group of Tumor Biology, Seoul National University, Korea, ⁴Center for Food Safety and Toxicology, Seoul National University National Institute of Food and Drug Safety, Korea, ⁵Advanced Institute of Convergence Technology, Seoul National University, Korea

AP-194 In vivo assessment of Pig-a gene mutation of peripheral red blood cells in mice exposed to X-irradiation

Naoki KUNUGITA, Shin OHTANI, Akira USHIYAMA

Department of Environmental Health, National Institute of Public Health, Japan

Poster Session

July 20 (Fri.) 11:00 - 12:00

Exhibition Hall "Sakura"

Others

AP-195 The roles of translationally controlled tumor protein (TCTP) underlying the mechanisms in the mouse brain

Sung-Ho CHEN¹, Ming-Jen TSAI¹, Chin-Hung LU¹, Heng LIN², Hsin-Fang YANG-YEN³

¹School of Medicine, Institute of Pharmacology & Toxicology, Tzu-Chi University, Taiwan, ²Department of Physiology, Taipei Medical University, Taiwan, ³Institute of Molecular Biology, Academia Sinica, Taiwan

AP-196 Identification of H-Ras-Specific motif for the activation of invasive signaling program in human breast epithelial cells

Hae-Young YONG¹, Jin-Sun HWANG¹, Hwajin SON¹, Yourim JEON¹, Yujin CHA¹, Hae-In PARK², Eok-Soo OH², Hyun-Hwi KIM³, Do Kyun KIM⁴, Wahn Soo CHOI⁴, Bong-Jin LEE³, Hyeong-Reh CHOI KIM⁵, Aree MOON¹

¹College of Pharmacy, Duksung Women's University, Korea, ²Department of Life Science, Division of Molecular Life Sciences and Center for Cell Signaling Research, Ewha Woman's University, Korea, ³Research Institute of Pharmaceutical Sciences, College of Pharmacy, Seoul National University, Korea, ⁴Department of Immunology and Physiology, College of Medicine, Konkuk University, Korea, ⁵Department of Pathology, Wayne State University School of Medicine, USA

AP-197 An experimental study on phlebitic potential of peripheral parenteral nutrition (PPN) solutions

Yuichiro YOSHIOKA, Takashi KUWAHARA, Shinya KANEDA, Yusuke MIYAMOTO, Shinji ICHIKAWA, Hideki UCHIMI, Yoshifumi NAKASHIMA, Yuichi KAWANO, Shigeo TANEI

Research and Development Center, Otsuka Pharmaceutical Factory, Inc., Japan

AP-198 Study on the mortality rate following oxygen concentration using SD rats

Hyeon-Yeong KIM, Yong Lim WON

Occupational Safety and Health Research Institute, KOSHA, Korea

AP-199 Genetic variants in the RUNX3 gene and gastric cancer prognosis

Dongmei WU^{1,3}, Shizhi WANG¹, Ming XU¹, Yan GAO¹, Dewei LUO¹, Yongfei TAN², Yan ZHOU², Jianwei ZHOU^{1,3}, Zhengdong ZHANG^{1,3}

¹Department of Molecular & Genetic Toxicology, The Key Laboratory of Modern Toxicology of Ministry of Education, School of Public Health, Nanjing Medical University, China, ²Department of Surgery, Yixing People's Hospital, China, ³Department of Occupational Medicine & Environmental Health, Jiangsu Key Lab of Cancer Biomarkers, Prevention and Treatment, Cancer Center, Nanjing Medical University, China

AP-200 Genetic variants in microRNAs predict bladder cancer risk and recurrence

Meilin WANG, Zhengdong ZHANG

Department of Molecular & Genetic Toxicology/Nanjing Medical University, China

AP-201 Prognostic and predictive role of JWA and XRCC1 expression in gastric cancer

Shouyu WANG

Department of Molecular Cell Biology and Toxicology, Jiangsu Key Lab of Cancer Biomarkers, Prevention & Treatment, Cancer Center, School of Public Health, Nanjing Medical University, China

AP-202 Ablation of the C/EBP homologous protein (CHOP) ameliorates obstruction-induced renal fibrosis

Wu Cheng TIEN

Graduate Institute of Toxicology College of Medicine National Taiwan University, Taiwan

AP-203 Nuclear receptornuclear receptor CAR down-regulates hepatic PPAR α -mediated expression of HMGCS2, a key enzyme of ketogenesis

Yuta OTSUKA, Kouichi YOSHINARI, Yasushi YAMAZOE

Division of Drug Metabolism and Molecular Toxicology, Graduate school of Pharmaceutical Sciences, Tohoku University, Japan

AP-204 Involvement of stearyl-CoA desaturase in cataractogenesis - phenotypic analysis using SCD1-null mice

Atsushi YABUNAKA, Izuru MIYAWAKI, Kaoru TOYOSAWA, Takeshi KUNIMATSU, Juki KIMURA, Hitoshi FUNABASHI

Safety Research Laboratories, Dainippon Sumitomo Pharma Co., Ltd., Japan

AP-205 Functional evaluation of peptide that induces formation of cell spheroid

Yoshiaki HIRANO¹, Megumi TANAKA¹, Yasuhiko TABATA²

¹Faculty of Chemistry, Materials and Bioengineering, Kansai University, Japan, ²Institute for Frontier Medical Sciences, Kyoto University, Japan

AP-206 Transcriptional activation of human CYP1A1 and CYP1A2 genes by LXRA

Kouichi YOSHINARI, Kikuko ARAKI, Yasushi YAMAZOE

Division of Drug Metabolism and Molecular Toxicology, Graduate School of Pharmaceutical Sciences, Tohoku University, Japan

AP-207 The changes of haematological parameters after nitrite exposure of rainbow trout

Eliska ZUSKOVA, Jana MACHOVA, Veronika PIACKOVA, Josef VELISEK, Martin PSENICKA, Hana KROUPOVA

Research Institute of Fish Culture and Hydrobiology, South Bohemian Research Center of Aquaculture and Biodiversity of Hydrocenoses, Faculty of Fisheries and Protection of Waters, University of South Bohemia in Ceske Budejovice, Czech Republic

AP-208 Two-zone model for estimating consumer exposure to ingredients used in fabric refresher products

Seok KWON¹, Christina E COWAN-ELLSBERRY²

¹Singapore Innovation Center, Procter & Gamble, Singapore, ²CE² Consulting, LLC, USA

AP-209 The effect on the regulation of blood lipids and the mechanism of two corn pollen with different broken methods in rats

Jian Guo CHEN, Hua Xing LUO, Jie Tao MA, Wei Qi LAI, Dong Ying LIU, Zhen LIU, Song MEI, Chun-Yan YAO, Ying FU, Wei LI, Ri Ping CHEN, Yin WANG

Zhejiang Academy of Medical Sciences, China

AP-210 Cytochrome P450 19A1 (aromatase) in human liver and its diseases

Shuko HATA¹, Yasuhiro MIKI^{1,2}, Hironobu SASANO¹

¹Department of Pathology, Tohoku University Graduate School of Medicine, Japan, ²Department of Oral Pathology, Tohoku University Graduate School of Dentistry, Japan

AP-211 Effects of ARB on cultured rat embryos

Atsushi YOKOYAMA

Kanagawa Life-science Research, Japan

AP-212 Establishment of new in vitro eye irritation test method using the reconstructed human corneal epithelium, LabCyte CORNEA-MODEL

Masakazu KATOH, Fumiyasu HAMAJIMA, Takahiro OGASAWARA, Ken-ichiro HATA

Japan Tissue Engineering Co., Ltd., Japan

AP-213 Multi-parametric profiling network based on gene expression and phenotype data: a novel approach to developmental neurotoxicity testing

Hideko SONE¹, Reiko NAGANO¹, Hiromi AKANUMA¹, Takeaki TANIGUCHI⁴, Satoshi IMANISHI², Wataru FUJIBUCHI³, Seiichiro OHSAKO²

¹Health Risk Research Section, Center for Environmental Risk Research, National Institute for Environmental Studies, Japan, ²Center for Disease Biology and Integrative Medicine, The University of Tokyo, Japan, ³Advanced Industrial Science and Technology (AIST), Computational Biology Research Center, Japan, ⁴Mitsubishi Research Institute, Inc., Japan

AP-214 Evaluation of contractile behavior of human iPS cell-derived cardiomyocytes based on motion vector prediction method

Tomohiro HAYAKAWA¹, Takeshi KUNIHIRO¹, Hatsume UNO¹, Eriko MATSUI¹, Akio YASUDA¹, Junko KUROKAWA², Tetsushi FURUKAWA²

¹Sony Corporation, Japan, ²Department of Bio-informational Pharmacology, Medical Research Institute, Tokyo Medical and Dental University, Japan

AP-215 Innate immune defense against bacteria infection in the mice

BoYoon CHANG, Bindu MALLA, SungYeon KIM

College of Pharmacy, Wonkwang University, Korea

AP-216 Evaluation of cell-based reporter assay systems for the assessment of the species-selective ligands of constitutive androstane receptor

Jun IMAI, Kouichi YOSHINARI, Yasushi YAMAZOE

Division of Drug Metabolism and Molecular Toxicology, Graduate School of Pharmaceutical Sciences, Tohoku University, Japan

AP-217 Electron transfer flux in redox network with Nrf2 regulation under hydrogen peroxide stress

Hirohisa NAGAHORI¹, Jingbo PI², Melvin E ANDERSEN², Qiang ZHANG²

¹Environmental Health Science Laboratory, Sumitomo Chemical Co., Ltd., Japan, ²The Hamner Institutes for Health Sciences, USA

AP-218 Establishment of a stable human cell line, HPL-A3, adaptable for the PXR/VDR-based reporter gene assays for screening of human CYP3A inducers

Masashi SEKIMOTO, Shinsuke SANO, Takuomi HOSAKA, Kiyomitsu NEMOTO, Masakuni DEGAWA

Department of Molecular Toxicology and Global Center of Excellence Program, School of Pharmaceutical Sciences, University of Shizuoka, Japan

AP-219 The effect of orotic acid on the regulation of endothelial nitric oxide synthase

Yujin YOON, Tran Thi HIEN, Keon Wook KANG, Byung-Hoon LEE

College of Pharmacy and Research Institute of Pharmaceutical Sciences, Seoul National University, Korea

AP-220 Formation of disulfide-linked high molecular protein complex by glutathione transferase in the mitochondrial inner membrane and adenine nucleotide translocator through peroxynitrite

Naoki IMAIZUMI, Shugo SAKIHAMA, Kenya MATSUDA, Hiroshi NAKAO, Yoko ANIYA

Laboratory of Molecular Genetics, School of Health Sciences, University of the Ryukyus, Japan

AP-221 Proposal for 'embryonic cells-originated epigenetic toxicology'

Tohru SHIBUYA, Yukiharu HORIYA, Takumi HARA

'Tox21' Study Group, Japan

- AP-222 L-serine attenuate steatosis by suppression of hyperhomocysteinemia**
Woo-Cheol SIM¹, Ho-Sung CHOI¹, Hu-Quan YIN¹, Hui Chan KWAK², Byung-Hoon LEE¹,
Sang Kyum KIM²
¹College of Pharmacy and Research Institute of Pharmaceutical Sciences, Seoul National University, Korea, ²College of Pharmacy, Chungnam National University, Korea
- AP-223 The identification of the important CYP isoforms in avian xenobiotic metabolism and its species difference among bird species**
Kensuke P WATANABE, Minami KAWATA, Yusuke KAWAI, Yoshinori IKENAKA, Mayumi ISHIZUKA
Laboratory of Toxicology, Department of Environmental Veterinary Sciences, Graduate School of Veterinary Medicine, Hokkaido University, Japan
- AP-224 Cytoplasmic Nrf2 promotes tumor growth and migration and predicts poor survival in colorectal cancer**
Tsang-Chi LIN^{1,2}, Po-Lin LIN¹, Ren-June HUANG¹, Shih-Wen CHANG³, Chi-Chou HUANG³,
Huei LEE^{1,4}
¹Institute of Medicine, Chung Shan Medical University, Taiwan, ²Colorectal Division, Department of Surgery, Changhua Christian Hospital, Taiwan, ³Department of Surgery, Chung Shan Medical University Hospital, Taiwan, ⁴Department of Medical Research, Chung Shan Medical University Hospital, Taiwan
- AP-225 Genome-wide discovery of chromosomal copy number variants in human amniotic cell using array-based comparative genomic hybridization**
Sang Min LEE
Laboratory for Molecular Environmental Medicine, Department of Life Science, Dongguk University, Korea
- AP-226 The establishment and validation of androgen receptor mediated stably transfected transcriptional activation assay to detect androgenic and anti-androgenic activities in 22RV1 cells**
Yun-Ho CHOI, Hyun-Ku KANG, Young In PARK, Mi-Sook DONG
School of Life Sciences and Biotechnology, Korea University, Korea
- AP-227 Sirtinol induces autophagic cell deaths in human breast cancer MCF-7 cells**
Jing WANG, Tae Hyung KIM, Mee Young AHN, Yu Jin SHIN, A Jin WON, Hyung Sik KIM
Division of Toxicology, College of Pharmacy, Pusan National University, Korea
- AP-228 Peroxiredoxin mediated redox regulation of gluconeogenesis and oxidative stress in yeast**
Hayato IROKAWA, Ayako OZASAWARA, Toshihiko WATANABE, Takumi OHDATE, Kenta IWAI,
Shusuke KUGE
Department of Microbiology, Tohoku Pharmaceutical University, Japan
- AP-229 Involvement of autophagy in low concentration of MPP⁺-induced neuronal cell death**
Masatsugu MIYARA, Yaichiro KOTAKE, Yuji HIROKANE, Shigeru OHTA
Graduate School of Biomedical and Health Science Hiroshima University, Japan
- AP-230 Potential clinical nephrotoxicity biomarkers**
Bu-Young CHUNG¹, Mi Jung KWON¹, Min Ji KIM¹, Yoon A NAM¹, Minji KYUNG¹, Du Yeon BANG¹,
Seong Kwang LIM¹, Myung Chan CHO¹, Young Woo KIM¹, Seung Jun KWACK², Hyung Sik KIM²,
Byung-Mu LEE¹
¹Division of Toxicology, College of Pharmacy, Sungkyunkwan University, Korea, ²Department of Biochemistry and Health Science, College of Natural Sciences, Changwon National University, Korea, ³College of Pharmacy, Pusan National University, Korea

AP-231 Development and application of risk management system for consumer products

Myung-Chan CHO¹, Mi Jung KWON¹, Young Woo KIM¹, IL Young AHN¹, Min Ji KIM¹, Yoon A NAM¹, Bu Young CHUNG¹, Minji KYUNG¹, Du Yeon BANG¹, Seong Kwang LIM¹, Hyung Sik KIM², Byung-Mu LEE¹

¹Division of Toxicology, College of Pharmacy, Sungkyunkwan University, Korea, ²College of Pharmacy, Pusan National University, Korea

AP-232 Leptin-induced SIRT1 expression: a potential linker between obesity and cancer

Na-Young SONG¹, Young-Joon SURH^{1,2,3}

¹Tumor Microenvironment Center, College of Pharmacy, Seoul National University, Korea, ²Department of Molecular Medicine and Biopharmaceutical Sciences, Graduate School of Convergence Sciences and Technology, Seoul National University, Korea,

³Cancer Research Institute, Seoul National University, Korea

AP-233 Resolvin D1 stimulates efferocytosis through p50/p50-mediated suppression of tumor necrosis factor- α during resolution of inflammation

Ha-Na LEE¹, Joydeb Kumar KUNDU¹, Young-Nam CHA², Young-Joon SURH¹

¹Tumor Microenvironment Research Center, College of Pharmacy, Seoul National University, Korea, ²Department of Pharmacology and Toxicology, College of Medicine, Inha University, Korea

AP-234 Withdrawn

AP-235 Amyloidogenic and neuroinflammatory effect through systemic inflammation of lipopolysaccharide

Young Jung LEE, Jin A KIM, Jin Tae HONG

College of Pharmacy and Medical Research Center, Chungbuk National University, Korea

AP-236 Phosphorylated PTEN links to chromatin remodeling in a protein phosphatase-dependent manner

Qinzhì XU¹, Zhongmin CHEN¹, Xia QIN¹, Yingchun HU¹, Qinong YE², Pingkun ZHOU¹

¹Department of Radiation Toxicology and Oncology, Beijing Institute of Radiation Medicine, China,

²Department of Molecular Oncology, Beijing Institute of Biotechnology, China

Lunchtime Seminar

Lunchtime Seminar 1	July 18 (Wed.) 12:15 - 13:15	Room 3
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Korea Institute of Toxicology (KIT)

Chairperson: Changwoo SONG, Ph.D. (*Principal Scientist, Division of Global Business Development, Korea Institute of Toxicology*)

Bioanalysis with competitive ligand binding assay for biologics

Kyungjin JUNG, Ph.D.

Senior Scientist, Analytical Center, Korea Institute of Toxicology

SEKISUI MEDICAL CO., LTD.

Changes in hepatic gene expression in hepatotoxicant-treated chimeric mice with highly humanized liver

Shinichiro NAGATSUKA, Ph.D.

SEKISUI MEDICAL CO., LTD.

Sponsored by Korea Institute of Toxicology (KIT) / SEKISUI MEDICAL CO., LTD.

Lunchtime Seminar 2	July 19 (Thu.) 12:15 - 13:15	Room 4
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SEKISUI MEDICAL CO., LTD.

Possible Role of Reactive Metabolites in Idiosyncratic Adverse Drug Reactions

Shinichiro NAGATSUKA, Ph.D.

SEKISUI MEDICAL CO., LTD.

Korea Institute of Toxicology (KIT)

Chairperson: Changwoo SONG, Ph.D. (*Principal Scientist, Division of Global Business Development, Korea Institute of Toxicology*)

Inhalation toxicity study on unknown cause severe pulmonary disease

Kyuhong LEE, Ph.D.

Senior Scientist, Inhalation Toxicology Center, Korea Institute of Toxicology

Sponsored by SEKISUI MEDICAL CO., LTD. / Korea Institute of Toxicology (KIT)

