

Plenary Lecture

Plenary Lecture

July 4 (Thu) 10:45 - 11:45 Room 1

Chair: Takashi UEHARA (Department of Medicinal Pharmacology, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University)

PL **“Dark” Pathways of Protein Transnitrosylation Injure Synapses in Alzheimer’s Disease: Mechanism and Potential Treatment**
10:45 - 11:45

Stuart A. LIPTON (Neurodegeneration New Medicines Center and Department of Molecular Medicine, The Scripps Research Institute, La Jolla, CA, USA)

Special Lecture

Special Lecture 1

July 3 (Wed) 9:30 - 10:30 Room 1

Chair: Akihiro ITO (School of Life Sciences, Tokyo University of Pharmacy and Life Sciences)

SL1 **Exploring the mode of action of bioactive molecules**
9:30 - 10:30

Minoru YOSHIDA^{1,2} (¹RIKEN Center for Sustainable Resource Science, ²Office of University Professors, University of Tokyo)

Special Lecture 2

July 3 (Wed) 10:45 - 11:45 Room 1

Chair: Takashi UEHARA (Department of Medicinal Pharmacology, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University)

SL2 **Immunological memory to toxic aldehydes**
10:45 - 11:45

Koji UCHIDA (Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo.)

Special Lecture 3

July 4 (Thu) 9:30 - 10:30 Room 1

Chair: Yoshito KUMAGAI (Graduate School of Pharmaceutical Sciences Kyushu University)

SL3 **Molecular Basis of the Oxidative Stress Response and Diseases**
9:30 - 10:30

Masayuki YAMAMOTO (Tohoku Medical Megabank Organization, Tohoku University)

Special Lecture 4

July 5 (Fri) 9:00 - 10:00 Room 1

Chair: Motohiro NISHIDA (Department of Physiology, Graduate School of Pharmaceutical Sciences, Kyushu University)

SL4 **Data science that prevents adverse events**
9:00 - 10:00

Shuji KANEKO (Department of Biomedical Data Intelligence, Graduate School of Medicine, Kyoto University)

Educational Lecture

Educational Lecture

July 3 (Wed) 13:30 - 14:30 Room 2

Chair: Jun KANNO (National Institute of Health Sciences)

EL **Understanding Current Situation of New Psychoactive (Dangerous; illicit, quasi-legal) Drugs in Japan, and How Correspond to This Issue**
13:30 - 14:30

Takemi YOSHIDA (Council for Pharmacists Credentials)

Symposium

Symposium 1

July 3 (Wed) 9:30 - 11:30 Room 2

Human drug metabolizing enzymes from experimental animal information

Chairs: Hiroshi YAMAZAKI (Showa Pharmaceutical University)

Makiko SHIMIZU (Laboratory of Drug Metabolism and Pharmacokinetics, Showa Pharmaceutical University)

S1-1 Identification and analysis of cytochromes P450 in dogs, pigs, cynomolgus macaques, and tree shrews

9:30 - 10:00

Yasuhiro UNO (Joint Faculty of Veterinary Medicine, Kagoshima University)

S1-2 Functional analysis of flavin-containing monooxygenase in animals and humans

10:00 - 10:30

Makiko SHIMIZU (Laboratory of Drug Metabolism and Pharmacokinetics, Showa Pharmaceutical University)

S1-3 Species-specific differences in drug metabolism: Humanized-liver mice as predictive models for drug metabolism and toxicity in humans

10:30 - 11:00

Shotaro UEHARA (Central Institute for Experimental Medicine and Lifescience)

S1-4 Pharmacokinetic modeling for medicines in humans using humanized-animal model data

11:00 - 11:30

Hiroshi YAMAZAKI (Showa Pharmaceutical University)

Symposium 2

July 3 (Wed) 9:30 - 11:30 Room 4

Korea-Japan joint symposium on redox signaling and organ/tissue toxicity

Chairs: Yoshito KUMAGAI (Graduate School of Pharmaceutical Sciences Kyushu University)

Jin HAN (Cardiovascular and Metabolic Disease Center, College of Medicine, Inje University)

Introduction

9:30 - 9:32

S2-1 Finding NOX2 inhibitors: Targeting regulatory subunits for isoform selectivity

9:32 - 10:01

Moo-Yeol LEE (BK21 FOUR Team, Integrated Research Institute for Drug Development, College of Pharmacy, Dongguk University)

S2-2 Supersulfide catabolism underlies cardiac vulnerability to ischemic and electrophilic stress

10:01 - 10:30

Akiyuki NISHIMURA (Division of Cardiocirculatory Signaling, National Institute for Physiological Sciences)

S2-3 Adaptive cell responses to excess intracellular reactive sulfur species-induced stress

10:30 - 10:59

Masahiro AKIYAMA (Pharmacological Research Center, Showa University)

S2-4 Novel cardiac and mitochondrial effects of Echinochrome A

10:59 - 11:28

Hyoung Kyu KIM (Cardiovascular and Metabolic Disease Center, Inje University)

Conclusion

11:28 - 11:30

Reversibility of chemical-induced lesions from the viewpoint of the Japanese Society of Toxicologic Pathology

Chairs: Tomoya **SANO** (Takeda Pharmaceutical Company Limited)
Yuki **KATO** (SHIONOGI & CO., LTD)

Introduction

9:30 - 9:32

S3-1 Overview of reversibility evaluation and recovery group setting in general toxicity studies

9:32 - 9:52

Junko **TAKETO** (Chugai Pharmaceutical Co., Ltd.)

S3-2 How we interpret the reversibility of vacuolation lesions in the adrenal cortex?

9:52 - 10:16

Ryo D. **OBARA** (Laboratory for Drug Discovery and Development, Shionogi & Co., Ltd.)

S3-3 Recoverability in Chemical-induced Lung Lesions in Rodents

10:16 - 10:40

Shotaro **YAMANO** (National Institute of Occupational Safety and Health, Japan Organization of Occupational Health and Safety)

S3-4 Recovery of gastric mucosal injury -Temporal histopathological findings after chief cell damage in rats-

10:40 - 11:04

Hironobu **YASUNO** (Takeda Pharmaceutical Company Limited)

S3-5 Reversibility of lesions induced by low molecular weight anticancer agents

11:04 - 11:28

Ayako **SAYAMA** (Medicinal Safety Research Laboratory, Daiichi Sankyo Co., Ltd.)

Conclusion

11:28 - 11:30

Biometals Specialty Section Symposium - Immunotoxicity of metals -

Chairs: Daigo **SUMI** (Faculty of Pharmaceutical Sciences, Tokushima Bunri University)
Gi-Wook **HWANG** (Laboratory of Environmental and Health Sciences, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University)

Introduction

9:30 - 9:32

S4-1 The toxicity of titanate nanosheets on human monocytes: cell death through control failure of lysosomal function caused by increase in intracellular calcium ions

9:32 - 10:01

Yasumitsu **NISHIMURA** (Department of Hygiene, Kawasaki Medical School)

S4-2 The effect of chemical properties of particulate matter on alveolar macrophage activation : inflammatory versus non-inflammatory particles

10:01 - 10:30

Etsushi **KURODA** (Department of Immunology, School of Medicine, Hyogo Medical University)

S4-3 Macrophage recognition of carbon nanotubes leading to inflammation

10:30 - 10:59

Masafumi **NAKAYAMA** (Laboratory of Immunology and Microbiology, College of Pharmaceutical Sciences, Ritsumeikan University)

S4-4 Dysfunction of natural killer cells by arsenic

10:59 - 11:28

Daigo SUMI (Faculty of Pharmaceutical Sciences, Tokushima Bunri University)

Conclusion

11:28 - 11:30

Symposium 5

July 3 (Wed) 15:30 - 17:30 Room 1

Understanding of toxicity mechanisms and their application to toxicity evaluation

Chairs: Kouichi YOSHINARI (Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka)
Akinori TAKEMURA (Laboratory of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Chiba University)

Introduction

15:30 - 15:32

S5-1 Understanding the mechanism of liver injury caused by mitochondrial membrane permeability transition

15:32 - 16:01

Akinori TAKEMURA (Laboratory of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Chiba University)

S5-2 Establishment an in vitro developmental toxicity testing based on signal disruption and advancing the understanding of its mechanism

16:01 - 16:30

Yusuke OKUBO^{1,2} (¹Cellular & Molecular Toxicology Division, Biological Safety Research Center, National Institute of Health Sciences, ²Institute of Advanced Sciences, Yokohama National University)

S5-3 Evaluation of developmental neurotoxicity due to thyroid hormone disrupting effects of chemicals: Current status of efforts aimed at developing new evaluation methods

16:30 - 16:59

Tomoya YAMADA (Environmental Health Science Laboratory, Sumitomo Chemical Co., Ltd.)

S5-4 Development of read-across method using in vitro tests based on carcinogenic mechanisms as an alternative method for rat carcinogenicity tests

16:59 - 17:28

Kouichi YOSHINARI (Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka)

Conclusion

17:28 - 17:30

An attempt to promote interaction between toxidrome and new findings in molecular toxicology

Chairs: Satoshi KITAJIMA (Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences)

Manabu SUGITA (Juntendo University Nerima Hospital)

S6-1 MRP1-dependent Extracellular Release of Glutathione Induces Cardiomyocyte Ferroptosis After Ischemia-Reperfusion

13:30 - 14:00

Yoshinori KATSUMATA (Keio University School of Medicine)

S6-2 Percellome Toxicogenomics in the liver and hippocampus of mice after single oral administration of tetrodotoxin, a pufferfish poison

14:00 - 14:25

Satoshi KITAJIMA (Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences)

S6-3 Toxidrome in Acute Poisoning Diagnosis and Treatment

14:25 - 14:50

Kentaro KOBAYASHI (Department of Emergency Medicine and Critical Care, National Center for Global Health and Medicine)

S6-4 The toxidrome of chemical agent

14:50 - 15:15

Katsura HAYAKAWA (Department of Critical Care Medicine, Toranomon Hospital)

Discussion

15:15 - 15:30

Epigenetic regulation by environmental factors

Chairs: Akihiro ITO (School of Life Sciences, Tokyo University of Pharmacy and Life Sciences)

Naoko HATTORI (Institute for Molecular and Cellular Regulation, Gunma University)

Introduction

15:30 - 15:35

Akihiro ITO (School of Life Sciences, Tokyo University of Pharmacy and Life Sciences)

S7-1 Plasticity of epigenetic regulation

15:35 - 15:57

Yoichi SHINKAI (Cluster for Pioneering Research, RIKEN)

S7-2 Epigenome alterations in normal tissue ecosystem and their impact on carcinogenesis

15:57 - 16:19

Naoko HATTORI^{1,2} (¹Institute for Advanced Life Sciences, Hoshi University, ²Institute for Molecular and Cellular Regulation, Gunma University)

S7-3 Intergenerational epigenetic inheritance induced by environmental stress in father

16:19 - 16:41

Keisuke YOSHIDA (Department of Bioregulation, Institute for Advanced Medical Sciences, Nippon Medical School)

S7-4 DNA methylation changes in next generation sperm by gestational arsenic exposure

16:41 - 17:03

Takehiro SUZUKI (Health and Environmental Risk Division, National Institute for Environmental Studies, Japan)

S7-5 Associations between early environmental factors and epigenomic changes in humans.

17:03 - 17:25

Tomoko KAWAI (Department of Maternal-Fetal Biology, National Research Institute for Child Health and Development)

Conclusion

17:25 - 17:30

Naoko HATTORI (Institute for Molecular and Cellular Regulation, Gunma University)

Symposium 8

July 3 (Wed) 13:30 - 15:30 Room 4

■ Korea-Japan joint symposium on organelle toxicity and metabolic diseases

Chairs: Motohiro NISHIDA (Department of Physiology, Graduate School of Pharmaceutical Sciences, Kyushu University)
Sang Geon KIM (College of Pharmacy, Dongguk University)

Introduction

13:30 - 13:32

S8-1 Navigating drug-targetome-phenotype interaction and their translational implications

13:32 - 14:02

HoJeong KWON (Chemical Genomics Leader Research Lab, Department of Biotechnology, Yonsei University)

S8-2 Roles of Gα12 and NEMO in toxicant-induced ferroptosis

14:02 - 14:32

Sang Geon KIM (College of Pharmacy, Dongguk University)

S8-3 Cereblon-induced endoplasmic reticulum stress in diabetic cardiomyopathy

14:32 - 15:02

Jin HAN (Cardiovascular and Metabolic Disease Center, College of Medicine, Inje University)

S8-4 Systemic glucose metabolism disorders caused by formation of Drp1-filamin protein complex

15:02 - 15:28

Yuri KATO (Department of Physiology, Graduate School of Pharmaceutical Sciences, Kyushu University)

Conclusion

15:28 - 15:30

Symposium 9

July 3 (Wed) 15:30 - 17:30 Room 4

■ [KSOT-JSOT Joint Symposium] Trends and latest findings on PFAS issues

Chairs: Gi-Wook HWANG (Laboratory of Environmental and Health Sciences, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University)

Hyung Sik KIM (Division of Toxicology, School of Pharmacy, Sungkyunkwan University)

Introduction

15:30 - 15:32

S9-1 Assessment of biological effects and the potential mode of action of per- and polyfluoroalkyl substances in developing zebrafish

15:32 - 16:01

Akira KUBOTA^{1,2,3} (¹Research Center for Global Agromedicine, Obihiro University of Agriculture and Veterinary Medicine, ²Department of Veterinary Medicine, Obihiro University of Agriculture and Veterinary Medicine, ³Diagnostic Center for Animal Health and Food Safety)

S9-2 Risk of PFAS on human health

16:01 - 16:30

Shoji F NAKAYAMA (Japan Environment and Children's Study Programme Office, National Institute for Environmental Studies)

S9-3 Occurrence and Human Exposure of Perfluoroalkyl Substances in South Korea

16:30 - 16:59

Jeong Eun OH (Dept of Environmental Engineering, Pusan National University)

S9-4 Nephrotoxicity mechanism of perfluorinated compounds PFOA and PFOS in rats

16:59 - 17:28

Hyung Sik KIM (Division of Toxicology, School of Pharmacy, Sungkyunkwan University)

Conclusion

17:28 - 17:30

Symposium 10

July 3 (Wed) 13:30 - 15:30 Room 5

■ Novel biological response systems to various types of oxidative and toxic stress

Chairs: Atsushi MATSUZAWA (Laboratory of Health Chemistry, Graduate School of Pharmaceutical Sciences, Tohoku University)
Kotoko ARISAWA (Graduate School of Pharmaceutical Sciences, Tohoku University)

Introduction

13:30 - 13:32

Atsushi MATSUZAWA (Laboratory of Health Chemistry, Graduate School of Pharmaceutical Sciences, Tohoku University)

S10-1 Intracellular magnesium regulation and ROS production by PRL/CNNM

13:32 - 14:01

Hiroaki MIKI (Graduate School of Engineering, Kyoto University)

S10-2 The mechanism of ferroptosis control through selenoprotein P-mediated intracellular selenium metabolism modulation

14:01 - 14:30

Kotoko ARISAWA (Graduate School of Pharmaceutical Sciences, Tohoku University)

S10-3 Regulatory mechanisms of the novel oxidative stress-induced cell death parthanatos by the balance of several post-translational modifications and various diseases

14:30 - 14:59

Atsushi MATSUZAWA (Laboratory of Health Chemistry, Graduate School of Pharmaceutical Sciences, Tohoku University)

S10-4 Analysis of mechanism of a novel lipid oxidation-dependent cell death, lipoxytosis by lipoxytosis inducer

14:59 - 15:28

Hiroataka IMAI (School of Pharmaceutical Sciences, Kitasato University)

Conclusion

15:28 - 15:30

Kotoko ARISAWA (Graduate School of Pharmaceutical Sciences, Tohoku University)

Symposium 11

July 3 (Wed) 13:30 - 15:30 Room 7

■ Vaccinology from the perspective of immunotoxicology

Chairs: Yasuo YOSHIOKA (RIMD, Osaka University)
Shogo MISUMI (Department of Environmental and Molecular Health Sciences, Faculty of Medical and Pharmaceutical Sciences, Kumamoto University)

Introduction

13:30 - 13:33

Yasuo YOSHIOKA (RIMD, Osaka University)

S11-1 Epidemiological research on adverse reactions and adverse events following immunization

13:33 - 14:00

Wakaba FUKUSHIMA (Department of Public Health, Graduate School of Medicine, Osaka Metropolitan University)

S11-2 Toward the development of mRNA-LNP vaccines with reduced adverse reactions

14:00 - 14:17

Yasuo YOSHIOKA^{1,2,3,4,5,6,7} (¹RIMD, Osaka University, ²OTRI, Osaka University, ³Graduate School of Pharmaceutical Sciences, Osaka University, ⁴CAMaD, Osaka University, ⁵CiDER, Osaka University, ⁶MEI, Osaka University, ⁷The Research Foundation for Microbial Diseases of Osaka University (BIKEN))

S11-3 Immune profiling for understanding the immunogenicity and reactivity of new vaccine platforms

14:17 - 14:44

Yoshimasa TAKAHASHI (Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases)

S11-4 Role of extracellular vesicles in an inactivated whole virus particle influenza vaccine and control of side effects

14:44 - 15:01

Shogo MISUMI (Department of Environmental and Molecular Health Sciences, Faculty of Medical and Pharmaceutical Sciences, Kumamoto University)

S11-5 Science and design to separate immunotoxicity from vaccine adjuvant efficacy

15:01 - 15:28

Ken J ISHII (Division of Vaccine Science, The Institute of Medical Science, The University of Tokyo)

Conclusion

15:28 - 15:30

Shogo MISUMI (Department of Environmental and Molecular Health Sciences, Faculty of Medical and Pharmaceutical Sciences, Kumamoto University)

Symposium 12

July 3 (Wed) 15:30 - 17:30 Room 7

Potential of Occupational Pharmacists

Chairs: Hideko SONE (Yokohama University of Pharmacy)

Yusuke KIMURA (Department of Environmental and Preventive Medicine, School of Medicine, Jichi Medical University)

Introduction

15:30 - 15:31

S12-1 Potential of occupational pharmacists

15:31 - 15:36

Gaku ICHIHARA (Tokyo University of Science)

S12-2 Self-regulation in chemical management at industrial sites

15:36 - 15:56

Akiyoshi ITO (National Institute of Occupational Safety and Health, Japan)

S12-3 The Role of Industrial Pharmacists in Companies

15:56 - 16:16

Junya WAKU (Science Center of Industrial Hygiene, Panasonic Health Insurance Organization)

S12-4 The insurance pharmacy pharmacist as a key component of chemical management in the community

16:16 - 16:31

Yoichi ARIMURA (Silky Pharmacy Matrix Co., Ltd.)

S12-5 Occupational health in pharmaceutical education and interest in industrial pharmacists

16:31 - 16:46

Daichi NAGASHIMA^{1,2} (¹Laboratory of Clinical Pharmaceutics, Yokohama University of Pharmacy, ²General Health Medical Research Center, Yokohama University of Pharmacy)

Panelist

16:46 - 16:56

Yuko YAMANO (Department of Hygiene, Public Health and Preventive Medicine Showa University, School of Medicine)

Discussion

16:56 - 17:29

Conclusion

17:29 - 17:30

Artificial Intelligence (AI) and Biomedical Science and Toxicology.

Chairs: Masatoshi HAGIWARA (Department of Drug Discovery Medicine, Kyoto University)

Jun KANNO (National Institute of Health Sciences)

Introduction

9:00 - 9:03

S13-1 Impact of Artificial Intelligence and Automated Robotics Experimental Systems for Biomedical Sciences

9:03 - 9:38

Hiroaki KITANO (Okinawa Institute of Science and Technology Graduate School, The Systems Biology Institute)

S13-2 AI x Genome x Splicing Regulatory Compounds = Preemptive Medicine

9:38 - 10:13

Masatoshi HAGIWARA (Department of Drug Discovery Medicine, Kyoto University)

S13-3 Biomedicine and Toxicology as Collaboration with AI

10:13 - 10:48

Yayoi NATSUME-KITATANI^{1,2} (¹National Institutes of Biomedical Innovation, Health and Nutrition, ²Tokushima University)

S13-4 ToxEye: *In visio* models for toxicogenomics data

10:48 - 11:23

Samik GHOSH (The Systems Biology Institute)

Conclusion

11:23 - 11:30

Seminar for researchers leading toward a new era: Reproducing living tissues outside the body - Towards understanding its functions and its applications -

Chairs: Chika YAMAMOTO (Toho University)

Makoto MIYAUCHI (Basic and Generic Research Department, FineToday Co., Ltd.)

Introduction

9:00 - 9:06

S14-1 Connecting Neural Organoids to Mimic Circuits

9:06 - 9:42

Yoshiho IKEUCHI (Institute of Industrial Science, The University of Tokyo)

S14-2 Microdevice-based vascular model

9:42 - 10:18

Kae SATO (Department of Chemical and Biological Sciences, Faculty of Science, Japan Women's University)

S14-3 Toward reconstruction of human lung tissue using iPS cells

10:18 - 10:54

Shimpei GOTOH (Center for iPS Cell Research and Application, Kyoto University)

Conclusion

10:54 - 11:00

Bird Lead Poisoning: A Health Hazard Happening "Now" in Japan

Chairs: Mayumi ISHIZUKA (Faculty of Veterinary Medicine, Hokkaido University)

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

S15-1 What is lead poisoning in birds?

9:00 - 9:10

Mayumi ISHIZUKA (Faculty of Veterinary Medicine, Hokkaido University)

S15-2 Current situation of lead (Pb) pollution of wild bird in Japan, focusing on wild waterfowls

9:10 - 9:45

Mitsuki KONDO (Division of Biodiversity, National Institute for Environmental Studies)

S15-3 Assessment of lead exposure risk for raptors distributed in Honshu using hunting statistics data

9:45 - 10:20

Manabu ONUMA (Biodiversity Division, National Institute for Environmental Studies)

S15-4 Characteristics of lead toxicity and species differences in birds

10:20 - 10:55

Shouta NAKAYAMA^{1,2} (¹Laboratory of Toxicology, Faculty of Veterinary Medicine, Hokkaido University, ²School of Veterinary Medicine, The University of Zambia)

S15-5 What's wrong with lead poisoning in wild birds? ~Focusing on rare birds of prey and waterfowl~

10:55 - 11:30

Keisuke SAITO (Institute for Raptor Biomedicine Japan)

Issues and Initiatives for Safety Evaluation of Oligonucleotide Therapeutics

Chairs: Maya KIMURA (Takeda Pharmaceutical Company Limited)

Yuko NAGAYAMA (Global Drug Safety, Eisai Co., Ltd.)

Introduction

9:00 - 9:05

S16-1 Challenges and Efforts to Evaluate Innate Immune Activation in Oligonucleotide Therapeutics

9:05 - 9:30

Chinami ARUGA (Mitsubishi Tanabe Pharma Corporation)

S16-2 Establishing an in vitro complement-activation assessment system with oligonucleotide therapeutics-- Collaborative Study of the Consortium for Safety Evaluation of Oligonucleotide Therapeutics--

9:30 - 9:55

Akihito YAMASHITA (Astellas Pharma, Inc.)

S16-3 Safety evaluation challenges in nucleic acid drug development (development of viltolarsen)

9:55 - 10:30

Tomohiko HANADA (Safety Assessment Department, Discovery Research Laboratories, Nippon Shinyaku Co., Ltd.)

S16-4 Preliminary studies of in vitro/vivo convulsion evaluation in drug development for nucleic acid drugs

10:30 - 10:55

Motohiro SHIOTANI (Global Drug Safety, Eisai Co., Ltd.)

Conclusion

10:55 - 11:00

Biometric analysis technology linked to morphology

Chairs: Makoto SHIBUTANI (Tokyo University of Agriculture and Technology Graduate School, Institute of Agriculture Science)
Yuji ISHII (Division of Pathology, National Institute of Health Sciences)

S17-1 Application of mass spectrometry imaging to safety research.

15:00 - 15:30

Yuji ISHII (Division of Pathology, National Institute of Health Sciences)

S17-2 Importance of quantitative local imaging in drug discovery for diversified therapeutic modalities

15:30 - 16:00

Masataka OITATE (Drug Metabolism & Pharmacokinetics Research Laboratories, Daiichi Sankyo)

S17-3 Proteomic analysis technology for pathological elucidation using FFPE tissue samples

16:00 - 16:30

Tomoaki MURAKAMI (Laboratory of Veterinary Toxicology, Tokyo University of Agriculture and Technology)

S17-4 High-Resolution and High-Depth Spatial Transcriptome Profiling in Microstructures

16:30 - 17:00

Mizuki HONDA^{1,2} (¹Graduate School of Integrated Sciences for Life, Hiroshima University, ²Graduate School of Medicine, Kyoto University)

Intestinal Toxicology

Chairs: Hiroshi ONODERA (National Institute of Health Sciences)
Yasuko SAKAGUCHI (Kyowa Kirin Co., Ltd.)

Introduction

15:00 - 15:05

S18-1 Development of microphysiological systems (MPS) that recapitulate the small intestine function for ADMET research

15:05 - 15:28

Hiroyuki KUSUHARA (Graduate School of Pharmaceutical Sciences, the University of Tokyo)

S18-2 Effects of differences by species, region, and developmental stage/aging on gastrointestinal toxicity

15:28 - 15:51

Masako IMAOKA (Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.)

S18-3 Investigation of predictivity by non-clinical toxicity studies on gastrointestinal adverse events observed in the clinical trials of new drugs

15:51 - 16:14

Akio KOBAYASHI (Department of Pharmaceutical Sciences, International University of Health and Welfare)

S18-4 Clinical gastrointestinal toxicity based on epidemiological data

16:14 - 16:37

Mutsuhiro IKUMA (Office of Pharmacovigilance I, Pharmaceuticals and Medical Devices Agency)

S18-5 Development of highly functional human intestinal model for pharmaceutical research

16:37 - 17:00

Hiroyuki MIZUGUCHI^{1,2,3,4,5} (¹Laboratory of Biochemistry and Molecular Biology, Graduate School of Pharmaceutical Sciences, Osaka University, ²National Institute of Biomedical Innovation, Health and Nutrition, ³Integrated Frontier Research for Medical Science Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University, ⁴Global Center for Medical Engineering and Informatics, Osaka University, ⁵Center for Infectious Disease Education and Research, Osaka University)

■ Disruption of the circadian clock underlying health disorders and diseases: towards an understanding of the mechanisms and the development of preventive strategies

Chairs: Satoru KOYANAGI (Department of Pharmaceutics, Faculty of Pharmaceutical Sciences, Kyushu University)
Kentaro USHIJIMA (Division of Pharmaceutics, Faculty of Pharmaceutical Sciences, Sanyo-Onoda City University)

S19-1 The molecular mechanism of cellular oncogenesis and acquisition of drug resistance through modulation of circadian clock function

15:00 - 15:30

Satoru KOYANAGI (Department of Pharmaceutics, Faculty of Pharmaceutical Sciences, Kyushu University)

S19-2 Circadian clock regulates severity of allergic disease symptoms

15:30 - 16:00

Yuki NAKAMURA (Department of Immunology, Graduate of School of Medicine, University of Yamanashi)

S19-3 Sex-dependent effect of aberrant lighting conditions on circadian clock and metabolism

16:00 - 16:30

Shinobu YASUO (Faculty of Agriculture, Kyushu University)

S19-4 Biomarkers of Osteoarthritis Explored by Biological Clock Disorders

16:30 - 17:00

Kentaro USHIJIMA^{1,2} (¹Division of Pharmaceutics, Faculty of Pharmaceutical Sciences, Sanyo-Onoda City University, ²Division of Clinical Pharmacology, Jichi Medical University)

■ Cutting Edge of Metallomics in Toxicology "New Developments in Industry-Government-Academia Collaboration"

Chairs: Yu-ki TANAKA (Graduate School of Pharmaceutical Sciences, Chiba University)
Miyuki IWAI-SHIMADA (National Institute for Environmental Studies)

Introduction

15:00 - 15:02

S20-1 Development of analytical method for nanomaterials using asymmetric flow field-flow fractionation (AF4) coupled with inductively coupled plasma mass spectrometry

15:02 - 15:31

Yu-ki TANAKA (Graduate School of Pharmaceutical Sciences, Chiba University)

S20-2 Instrumental Analysis - ICP Mass Spectrometry - in Metallomics Research

15:31 - 16:00

Kyoko KOBAYASHI (PerkinElmer Japan G.K.)

S20-3 Principle and technical introduction of LA-ICP-MS for multifaceted analysis of elemental information in biological samples

16:00 - 16:29

Yasuo KUROKI (Application Group, Elemental Dept, Thermo Fisher Scientific K.K.)

S20-4 Industry-government-academia collaboration from epidemiological studies: trends in metallomics research

16:29 - 16:58

Miyuki IWAI-SHIMADA (National Institute for Environmental Studies)

Conclusion

16:58 - 17:00

Data science develops the new future for drug toxicology

Chairs: Shuji KANEKO (Department of Biomedical Data Intelligence, Graduate School of Medicine, Kyoto University)
Yoshito ZAMAMI (Department of Pharmacy, Okayama University Hospital)

Opening Remarks

15:00 - 15:04

S21-1 Advancing drug evaluation using big data analysis

15:04 - 15:32

Yasunari KANDA (Division of Pharmacology, National Institute of Health Sciences)

S21-2 Quantitative prediction of pharmacological activities from chemical structures by graph convolutional neural network

15:32 - 16:00

Kazuki NAGAYASU (Department of Molecular Pharmacology, Graduate School of Pharmaceutical Sciences, Kyoto University)

S21-3 Drug Toxicity Assessment Utilizing Clinical Information and Genetic Data Databases

16:00 - 16:28

Hirofumi HAMANO (Department of Pharmacy, Okayama University Hospital)

S21-4 Challenges in evaluating drug safety using real-world database

16:28 - 16:56

Sachiko TANAKA-MIZUNO (Laboratory of Epidemiology and Prevention, Kobe Pharmaceutical University)

Closing Remarks

16:56 - 17:00

Drug induced seizure assessment in drug development - improvement of nonclinical seizure risk assessment

Chairs: Motohiro SHIOTANI (Global Drug Safety, Eisai Co., Ltd.)
Takafumi SHIRAKAWA (Non-clinical Regulatory Science, Astellas Pharma Inc.)

S22-1 Introduction: Assessment of drug-induced convulsion in drug development

15:00 - 15:12

Motohiro SHIOTANI (Global Drug Safety, Eisai Co., Ltd.)

S22-2 Challenge to develop an in vitro MEA test to predict in vivo seizure risk

15:12 - 15:39

Norimasa MIYAMOTO^{1,2} (¹Advanced Biosignal Safety Assessment, Biopharmaceutical Assessment Unit, Eisai Co., Ltd., ²Laboratory of Genomics-based Drug Discovery, Faculty of Medicine, University of Tsukuba)**S22-3 Prediction of drug-induced seizure using rat EEG**

15:39 - 16:06

Kenichi KINOSHITA (Targeted Protein Degradation, Astellas Pharma Inc.)

S22-4 Prediction of Seizure Liability and Mechanism of Action Using Human iPSC-Derived Neuronal Cells and Astrocytes

16:06 - 16:33

Ikuro SUZUKI (Department of electronics, Tohoku Institute of technology)

S22-5 Drug-induced convulsions: Overview from Clinical Department

16:33 - 17:00

Riki MATSUMOTO (Division of Neurology, Kobe University Graduate School of Medicine)

Children's Toxicology: Research findings on the mechanism of modification of higher brain function by perinatal chemical exposure and their biological relevance to reported findings in human children.

Chairs: Jun KANNO (National Institute of Health Sciences)

Kentaro TANEMURA (Laboratory of Animal Reproduction and Development Graduate School of Agricultural Science Tohoku University)

Opening Remarks

10:00 - 10:02

Jun KANNO (National Institute of Health Sciences)

S23-1 Introduction

10:02 - 10:07

Jun KANNO (National Institute of Health Sciences)

S23-2 Mechanism of aberrant brain development induced by exposure to the reverse transcriptase inhibitor during fetal stages

10:07 - 10:32

Kinichi NAKASHIMA (Graduate School of Medical Sciences, Kyushu University)

S23-3 Step-by-step neuronal development and the AUTS2 syndrome

10:32 - 10:57

Mikio HOSHINO (National Institute of Neuroscience, NCNP)

S23-4 Is prenatal exposure to PFASs associated with neurodevelopmental delay and the emergence of neurodevelopmental disorders?

10:57 - 11:22

Kenji J TSUCHIYA^{1,2} (¹Research Center for Child Mental Development, Hamamatsu University School of Medicine, ²Osaka University United Graduate School of Child Development)

S23-5 Effects of early-life tosufloxacin tosilate hydrate administration on growth rate, and neurobehavior at adulthood in male mice

11:22 - 11:47

Kentaro TANEMURA (Laboratory of Animal Reproduction and Development Graduate School of Agricultural Science Tohoku University)

Discussion

11:47 - 11:57

Closing Remarks

11:57 - 12:00

Jun KANNO (National Institute of Health Sciences)

Unravel the mechanism of action of bioactive substances/environmental chemicals by instrumental analysis.

Chairs: Naoshi DOHMAE (RIKEN Center for Sustainable Resource Science)

Takahiro SHIBATA (Graduate School of Bioagricultural Sciences, Nagoya University)

S24-1 Analysis of the effects of bioactive and environmental chemicals on living organisms by proteomics.

9:00 - 9:30

Naoshi DOHMAE (RIKEN Center for Sustainable Resource Science)

S24-2 Ultra-deep proteomics by DIA-MS

9:30 - 10:00

Yusuke KAWASHIMA (Kazusa DNA Research Institute)

S24-3 Protein adductome analysis using mass spectrometry

10:00 - 10:30

Takahiro SHIBATA^{1,2,3} (¹Graduate School of Bioagricultural Sciences, Nagoya University, ²Institute of Nano-Life-Systems, Institutes of Innovation for Future Society, Nagoya University, ³Institute for Glyco-core Research (iGCORE), Nagoya University)

S24-4 Infection and inflammation control approaching by supersulfidomics

10:30 - 11:00

Tomohiro SAWA (Department of Microbiology, Graduate School of Medical Sciences, Kumamoto University)

SOT-JSOT Joint Symposium: NAMs and Risk Assessment

Chairs: Akihiko HIROSE (Chemicals Evaluation and Research Institute, Japan)

Introduction

9:00 - 9:05

Akihiko HIROSE (Chemicals Evaluation and Research Institute, Japan)

S25-1 Development and future challenges in integrating *in silico* approaches to support regulatory decisions in chemical risk assessment

9:05 - 9:40

Takashi YAMADA (Division of Risk Assessment, Center of Biological Safety and Research, National Institute of Health Sciences)

S25-2 [Video Lecture] Using NAMs to inform mode of action and human relevance in chemical safety assessment: A case-study involving PFAS

9:40 - 10:15

Laurie C. HAWS (ToxStrategies LLC)

S25-3 Challenges and Perspectives in Utilizing New Approach Methodologies (NAMs) for Food Safety Assessments

10:15 - 10:50

Atsushi ONO (Laboratory of Toxicology, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Division of Pharmaceutical Sciences, Okayama University)

S25-4 Learning by Doing: Gaining confidence in new approaches for regulatory decision-making and risk assessment

10:50 - 11:25

Kristie M. SULLIVAN (Institute for In Vitro Sciences)

Conclusion

11:25 - 11:30

Akihiko HIROSE (Chemicals Evaluation and Research Institute, Japan)

Glial Crosstalk in Neurological Disorders

Chairs: Masato ASANUMA (Department of Medical Neurobiology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences)

Eiji SHIGETOMI (Yamanashi GLIA Center, Interdisciplinary Graduate School of Medicine, University of Yamanashi)

Overview

9:00 - 9:10

Eiji SHIGETOMI (Yamanashi GLIA Center, Interdisciplinary Graduate School of Medicine, University of Yamanashi)

S26-1 Neuronal hyper-excitability through an excitatory molecule derived from reactive astrocytes.

9:10 - 9:35

Eiji SHIGETOMI^{1,2} (¹Yamanashi GLIA Center, Interdisciplinary Graduate School of Medicine, University of Yamanashi, ²Department of Neuropharmacology, Interdisciplinary Graduate School of Medicine, University of Yamanashi)

S26-2 Mechanism of chronic pain after nerve injury from the viewpoint of microglia

9:35 - 10:00

Makoto TSUDA (Department of Molecular and System Pharmacology, Graduate School of Pharmaceutical Sciences, Kyushu University)

S26-3 Possibility of oxytocin as a treatment for stroke sequelae through the phenotypic control effect of activated microglia

10:00 - 10:25

Youichirou HIGASHI (Department of Pharmacology, Kochi Medical School, Kochi University)

S26-4 Neuron-glia crosstalk in Parkinson's disease

10:25 - 10:50

Ikuko MIYAZAKI (Department of Medical Neurobiology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences)

Conclusion

10:50 - 10:55

Masato ASANUMA (Department of Medical Neurobiology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences)

Eiji SHIGETOMI (Yamanashi GLIA Center, Interdisciplinary Graduate School of Medicine, University of Yamanashi)

Current situation and issues in regulatory and industrial acceptance of MPS

Chairs: Hitoshi NARAOKA (Astellas Pharma Inc.)

Kaoru SATO (National Institute of Health Sciences)

S27-1 Current status and issues of regulatory acceptance of microphysiological systems

9:00 - 9:30

Seiichi ISHIDA^{1,2} (¹Division of Applied Life Science, Graduate School of Engineering, Sojo University, ²National Institute of Health Sciences)

S27-2 Research on MPS at the Joint Center - Toward robust technology-

9:30 - 10:00

Yuzuru ITO (Faculty of Life and Environmental sciences, University of Tsukuba)

S27-3 Improving Predictive Toxicology with Organ-Chips and Continuous Innovation

10:00 - 10:30

Haruka HISADA (FUJIFILM Wako Pure Chemical Corporation.)

S27-4 Use of Microphysiological systems at CRO

10:30 - 11:00

Yoshiaki SUWA^{1,2} (¹Shin Nippon Biomedical Laboratories, Ltd., ²Institute of Life and Environmental Sciences, University of Tsukuba)

Unity in diversity: Adducts-linked Toxicology

Chairs: Keiko TAGUCHI (Laboratory of Food Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo)

Yumi ABIKO (Nagasaki University)

Introduction

9:00 - 9:03

S28-1 Activation of redox signaling pathways by environmental chemicals through adduct formation with sensor proteins

9:03 - 9:26

Yumi ABIKO (Graduate School of Biomedical Sciences, Nagasaki University)

S28-2 Metabolic remodeling of selenium through adduct formation of selenoprotein P

9:26 - 9:49

Takashi TOYAMA (Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University)

S28-3 Aberrant protein S-nitrosylation contributes to synaptic impairment and neuronal damage in neurodegenerative diseases

9:49 - 10:12

Tomohiro NAKAMURA (Department of Molecular Medicine, The Scripps Research Institute)

S28-4 Post-translational modifications induced by food additives.

10:12 - 10:35

Kota NORITSUGU (School of Life Sciences, Tokyo University of Pharmacy and Life Sciences)

S28-5 Adduct formation in the KEAP1-NRF2 system

10:35 - 10:58

Keiko TAGUCHI (Laboratory of Food Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo)

Conclusion

10:58 - 11:00

PDE/OEL setting by toxicologist - For quality control of pharmaceuticals and worker safety -

Chairs: Shoji ASAKURA (Global Drug Safety, Eisai Co., Ltd.)

Kiyohiro HASHIMOTO (Takeda Pharmaceutical, Research, Drug Safety Research and Evaluation)

Introduction

9:00 - 9:02

S29-1 PDE and OEL in the Pharmaceutical Industry

9:02 - 9:25

Yukako ISHITSUKA (JAPAN NUS. CO., LTD.)

S29-2 How to use PDE/OEL in the pharmaceutical industry

9:25 - 9:48

Tomoyuki HASEGAWA (EHS Promotion, Sustainability Promotion Department, ONO Pharmaceutical Co., LTD.)

S29-3 PDE/OEL setting in the pharmaceutical company

9:48 - 10:11

Takao KOROOKA (EA Pharma Co., Ltd.)

S29-4 PDE/OEL settings of pharmaceuticals lacking sufficient toxicological information

10:11 - 10:34

Tae HAYASHI (Chemicals Assessment and Research Center)

S29-5 Considerations for AI/OEL Calculation of Mutagenic Carcinogens

10:34 - 10:57

Kiyohiro HASHIMOTO (Takeda Pharmaceutical, Research, Drug Safety Research and Evaluation)

Conclusion

10:57 - 11:00

Symposium 30

July 5 (Fri) 14:00 - 16:30 Room 1

Current status and future perspectives of drug evaluation toward personalized medicine.

Chairs: Yasunari KANDA (Division of Pharmacology, National Institute of Health Sciences)

Hiromi SATO (Clinical Pharmacology & Pharmacometrics, Graduate School of Pharmaceutical Sciences, Chiba University)

Introduction

14:00 - 14:02

Yasunari KANDA (Division of Pharmacology, National Institute of Health Sciences)

S30-1 Separation of error structures based on clearance classification and individualized prediction of pharmacokinetics

14:02 - 14:31

Hiromi SATO (Clinical Pharmacology & Pharmacometrics, Graduate School of Pharmaceutical Sciences, Chiba University)

S30-2 Genetic factors involved in the idiosyncratic serious adverse drug reactions

14:31 - 15:00

Ryosuke NAKAMURA^{1,2} (¹National Institute of Health Sciences, ²Faculty of Pharmaceutical Sciences, Teikyo University)

S30-3 Gender considerations in toxicity assessment of drugs

15:00 - 15:29

Junko KUROKAWA (Department of Bio-Informational Pharmacology, Faculty of Pharmaceutical Sciences, University of Shizuoka)

S30-4 Non-clinical assessments of efficacy and safety for developing a novel therapeutic for pediatric heart failure

15:29 - 15:58

Hiroyuki KAWAGISHI^{1,2} (¹National Institute of Health Sciences, ²Shinshu university)

S30-5 Prediction of individual difference via a side effect mechanism

15:58 - 16:27

Yasunari KANDA (Division of Pharmacology, National Institute of Health Sciences)

Conclusion

16:27 - 16:30

Hiromi SATO (Clinical Pharmacology & Pharmacometrics, Graduate School of Pharmaceutical Sciences, Chiba University)

Toxicity and function of short-lived reactive species

Chairs: Fumie NAKASHIMA (Graduate School of Bioagricultural Sciences, Nagoya University)

Ken-ichi YAMADA (Department of Molecular Pathobiology, Faculty of Pharmaceutical Sciences, Kyushu University)

S31-1 Oxidative transformation gives function to food-derived low-molecular compounds

14:00 - 14:30

Fumie NAKASHIMA (Graduate School of Bioagricultural Sciences, Nagoya University)

S31-2 Search for functional food ingredients using supersulfide omics analysis

14:30 - 15:00

Shingo KASAMATSU (Dept. of Biol. Chem., Grad. Sch. of Sci., Osaka Metropolitan Univ.)

S31-3 Exploring novel oxidized phospholipids to elucidate an exhaustive understanding of their functions

15:00 - 15:30

Mirinthorn JUTANOM (Department of Molecular Pathobiology, Faculty of Pharmaceutical Sciences, Kyushu University)

S31-4 Role of Nrf2 in Cellular Adaptive Response to Reactive Oxygen/Nitrogen Species and Electrophilic Toxicants: Pros and Cons

15:30 - 16:00

Young-Joon SURH (College of Pharmacy, Seoul National University)

Symposium 32

July 5 (Fri) 14:00 - 16:00 Room 3

Career development support program for toxicologists: Technology transfer and career development in safety research

Chairs: Kouichi YOSHINARI (Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka)

Yukinori AMANO (JSOT Science and Publicity Committee, Kowa Dental Health Co., Ltd.)

Introduction

14:00 - 14:03

S32-1 Efforts for transfer of experimental technique and career development in the pharmaceutical company

14:03 - 14:23

Yoshimi TSUCHIYA (Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.)

S32-2 Human resource development for safety assessment in an agrochemical company: current status and challenges

14:23 - 14:43

Kazuya TAKEUCHI (Toxicology & Environmental Science Department, Biological Research Laboratories, Nissan Chemical Corporation)

S32-3 Initiatives of education and training for toxicology researchers in CROs

14:43 - 15:03

Hideshi TSUSAKI (Shin Nippon Biomedical Laboratories, Ltd (SNBL))

S32-4 Current Status and Future Issues of Safety Evaluation Education in Partner Research Organization (PRO)

15:03 - 15:23

Yoshiyuki FURUKAWA (Axelead Drug Discovery Partners, Inc.)

Discussion

15:23 - 15:58

Conclusion

15:58 - 16:00

Current Status and Future Prospects of Environmental Risk Assessment of Pharmaceuticals

Chairs: Takashi YAMADA (Division of Risk Assessment, Center of Biological Safety and Research, National Institute of Health Sciences)

Akihiko HIROSE (Chemicals Evaluation and Research Institute, Japan)

Introduction

1400 - 1405

S33-1 Environmental risks of pharmaceuticals and guidance of environmental impact assessment of newly applied pharmaceuticals in Japan

1405 - 1428

Tetsuji NISHIMURA (Teikyo Heisei University)

S33-2 Occurrence of 111 Human Pharmaceuticals in Aquatic Environments in Japan

1428 - 1451

Norihiro KOBAYASHI (National Institute of Health Sciences)

S33-3 Ecotoxicity tests and ecological risk assessment for chemicals including pharmaceuticals

1451 - 1514

Hiroshi YAMAMOTO^{1,2} (¹Division of Health and Environmental Risk, National Institute for Environmental Studies, ²Graduate School of Frontier Sciences, The University of Tokyo)

S33-4 Development of a database and *in silico* prediction methods to support the ecotoxicity assessment of pharmaceuticals

1514 - 1537

Takashi YAMADA (Division of Risk Assessment, Center of Biological Safety and Research, National Institute of Health Sciences)

S33-5 Pharmaceutical industry initiatives for environmental risk assessment (ERA) of human pharmaceuticals – Aspects of ERA for new therapeutic modalities such as gene therapy products

1537 - 1600

Keiichiro SATO (EditForce, Inc.)

Peripheral neuropathy caused by cancer chemotherapy drugs: mechanisms and prevention/treatment

Chair: Makoto TSUDA (Department of Molecular and System Pharmacology, Graduate School of Pharmaceutical Sciences, Kyushu University)

Introduction

1500 - 1503

S34-1 Research on the mechanism of chemotherapy-induced peripheral neuropathy focusing on myelinating Schwann cells and new research attempts using a novel sensory nerve organoid

1503 - 1531

Satoshi IMAI (Department of Medical Pharmacology, School of Pharmaceutical Sciences, Wakayama Medical University)

S34-2 Drug repositioning studies to prevent oxaliplatin-induced peripheral neuropathy

1531 - 1559

Takehiro KAWASHIRI (Department of Clinical Pharmacy and Pharmaceutical Care, Graduate School of Pharmaceutical Sciences, Kyushu University)

S34-3 Mechanisms and risk factors for the development of chemotherapy-induced peripheral neuropathy

15:59 - 16:27

Atsufumi KAWABATA (Laboratory of Pharmacology and Pathophysiology, Faculty of Pharmacy, Kindai University)

Conclusion

16:27 - 16:30

Symposium 35

July 5 (Fri) 15:00 - 16:30 Room 6

Toxicity assessment strategy using advanced in vitro model in drug discovery

Chairs: Tadahiro SHINOZAWA (Takeda Pharmaceutical Company)

Eri HAMAMURA-YASUNO (Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.)

S35-1 Current status and issues of safety evaluation in early phase of drug discovery

15:00 - 15:05

Hitoshi NARAOKA (Non-clinical Biomedical Science, Astellas Pharma Inc.)

S35-2 A strategy for microphysiological system uses in nonclinical safety evaluation

15:05 - 15:25

Yudai WATANABE (Astellas Pharma Inc.)

S35-3 Gaps between ideal state and reality of microphysiological system in the safety evaluation

15:25 - 15:45

Kosuke HARADA (Drug Safety Research & Evaluation, Pharmaceutical Research Division, Takeda Pharmaceutical Company Limited)

S35-4 Evaluation of gastrointestinal toxicity using human intestinal organoids and image analysis

15:45 - 16:05

Yuki SUDO (Translational Research Division, CHUGAI PHARMACEUTICAL CO., LTD.)

S35-5 Selection of complex/simple in vitro evaluation models for efficient understanding and mitigation of toxicity

16:05 - 16:25

Eri HAMAMURA-YASUNO (Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.)

Workshop

Workshop 1

July 3 (Wed) 9:30 - 11:30 Room 3

Safety considerations and drug development strategies unique to new modality drugs

Chairs: Tomoyuki MORIYAMA (Global Drug Safety, Eisai Co., Ltd.)

Yuichi TAKAI (Drug Safety Research and Evaluation, Takeda Pharmaceutical Company Limited)

Introduction

9:30 - 9:33

W1-1 Survey on the development and use of antidotes in new drug modalities devoid of a concept of “treatment cessation” as risk management

9:33 - 9:58

Tomoyuki MORIYAMA^{1,2} (¹Japan Pharmaceutical Manufacturing Association, ²Global Drug Safety, Eisai Co., Ltd.)

W1-2 [Video Lecture] Protein Degraders in Drug Development: A Safety Perspective

9:58 - 10:18

Katie STAMP (Nonclinical Safety Sciences, Bristol Myers Squibb)

W1-3 Nonclinical evaluation of the immunotoxic potential and the immunogenic potential of antibody drugs with innovative technologies

10:18 - 10:43

Chiyomi KUBO (Chugai Pharmaceutical Co., Ltd.)

W1-4 PMDA's Perspective on Non-clinical Safety Assessment of New Modalities

10:43 - 11:08

Kazushige MAKI (Pharmaceuticals and Medical Devices Agency)

Discussion

11:08 - 11:27

Conclusion

11:27 - 11:30

Workshop 2

July 3 (Wed) 13:30 - 15:30 Room 1

Frontiers of safety evaluation of drug candidates using human-derived samples- Toward improved prediction of clinical side effects-

Chairs: Ken-ichiro NAN-YA (Toxicological Research Laboratories, Kyowa Kirin Co., Ltd.)

Yoshika IWATA (Chugai Pharmaceutical Co., Ltd.)

Introduction

13:30 - 13:35

Ken-ichiro NAN-YA (Toxicological Research Laboratories, Kyowa Kirin Co., Ltd.)

W2-1 Development of 3D-cultured spheroid model using human renal proximal tubule epithelial cells for drug discovery

13:35 - 13:57

Etsushi TAKAHASHI (R & D Department, Precision Engineering Center, Industrial Division, Nikkiso Co., Ltd.)

W2-2 Usage of Human iPSC-derived Neurons for Neurotoxicity Evaluation in Drug Discovery

13:57 - 14:19

Sho AKAI (Chugai Pharmaceutical Co., Ltd.)

W2-3 Current status and challenges of in vitro evaluation of complement activation-related pseudoallergy by LNP using human plasma

14:19 - 14:41

Natsumi MAEDA (Drug Safety Research and Evaluation, Takeda)

W2-4 Development of in vitro cytokine release assay (CRA) and evaluation strategy for improved clinical predictability

14:41 - 15:03

Rie HIRANO (Toxicological Research Laboratories, Kyowa Kirin Co., Ltd.)

W2-5 Mechanistic studies of adaptive immune-mediated drug-induced liver injury (DILI) using drug-specific T-cells in patients

15:03 - 15:25

Toru USUI (Preclinical Research Unit, Sumitomo Pharma Co.,LTD.)

Conclusion

15:25 - 15:30

Yoshika IWATA (Chugai Pharmaceutical Co., Ltd.)

Workshop 3

July 3 (Wed) 15:30 - 17:30 Room 5

Konjaku Monogatari (Tales of Times Now Past) of safety evaluation technology: Study the old to understand the new

Chairs: Masafumi DOI (Group IV, Hit Discovery Platform Laboratories, Daiichi Sankyo Co., Ltd.)
Nozomi FUJISAWA (Chugai Pharmaceutical Co., Ltd.)

W3-1 Introduction: Evolution of Toxicity Assessment Techniques

15:30 - 15:42

Izuru MIYAWAKI (Preclinical Research Unit, Sumitomo Pharma. Co., Ltd.)

W3-2 Novel in vitro neurotoxicity evaluation systems applicable to drug discovery

15:42 - 16:09

Takuya KONDO (Preclinical Basic Research, Discovery and Preclinical Research Division, TAIHO Pharmaceutical Co., Ltd.)

W3-3 Current status of the error-corrected next generation sequencing (ecNGS)

16:09 - 16:36

Takayoshi SUZUKI (Division of Genome Safety Science, National Institute of Health Sciences)

W3-4 Current status of placental MPS research and potential application to reproductive and developmental toxicity studies

16:36 - 17:03

Hirokazu KAJI (Department of Diagnostic and Therapeutic Systems Engineering, Institute of Biomaterials and Bioengineering (IBB), Tokyo Medical and Dental University (TMDU))

W3-5 Can SGDD make a contribution to Toxicology?

17:03 - 17:30

Yoshinori FUJIYOSHI (TMDU Advanced Research Institute, Tokyo Medical and Dental University)

How do you get the right information from laboratory tests?

Chairs: Kumi HONDA (Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.)
Naoko TANAKA (Terumo Corporation)

Introduction

9:00 - 9:02

W4-1 Overview of laboratory testing in the non-clinical field: From the viewpoint of clinical pathology expert

9:02 - 9:32

Naoto TOYOTA^{1,2} (¹Chugai Pharmaceutical Co., Ltd. Translational Research Division, ²Committee on Animal Clinical Pathology, Japan Society of Clinical Chemistry)

W4-2 Differences in Interpretation Surrounding Clinical Pathology: Speculation of Discrepancies Between the Client and the Contractor

9:32 - 10:02

Daisuke SASAKI (Astellas Pharma Inc.)

W4-3 Transfer of knowledge on clinical pathology in non-clinical testing: actual practice at a CRO

10:02 - 10:32

Aika KAWABATA (Shin Nippon Biomedical Laboratories (SNBL), Ltd.)

Discussion

10:32 - 10:57

Panelists

Naoto TOYOTA (Chugai Pharmaceutical Co., Ltd. Translational Research Division)

Daisuke SASAKI (Astellas Pharma Inc.)

Aika KAWABATA (Shin Nippon Biomedical Laboratories (SNBL), Ltd.)

Yoshie MANABE (Preclinical Basic Research, TAIHO PHARMACEUTICAL CO., LTD.)

Conclusion

10:57 - 11:00

Toxicologic Pathology in the DX Era - Current Issues and Prospects for AI Pathology Systems and Big Data -

Chairs: Akira INOMATA (FUJIFILM Toyama Chemical Co., Ltd.)
Etsuko OHTA (Global Drug Safety, Eisai Co., Ltd.)

Opening Remarks

9:00 - 9:02

W5-1 Investigation on the automated histopathology using image recognition models

9:02 - 9:27

Makoto SHIRAI (Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.)

W5-2 Development of AI-driven image analysis/pathological diagnosis tool at Life Intelligence Consortium (LINC)

9:27 - 9:42

Yuki KATO (SHIONOGI & CO., LTD)

W5-3 Challenges in AI development for toxicologic pathology from the perspective of machine learning engineer

9:42 - 9:57

Mitsuru NEGISHI (Imaging & Informatics Laboratories, FUJIFILM Corporation)

W5-4 The Practical Implementation of Digital Pathology and AI Pathology Model Creation

9:57 - 10:12

Masaki YAMAZAKI (Safety and Bioscience Research Dept., TR Division, Chugai Pharmaceutical Co., Ltd.)

W5-5 Toxicologic Pathology Goes Digital: European BIGPICTURE Project and Efforts at Boehringer Ingelheim for GLP-Digital Pathology

10:12 - 10:27

Yumi KANGAWA (Boehringer Ingelheim, Kobe, Japan)

W5-6 Deep learning for spatial transcriptome with H&E-stained images

10:27 - 10:42

Masaru KOIDO (Department of Computational Biology and Medical Sciences, Graduate School of Frontier Sciences, The University of Tokyo)

Discussion

10:42 - 10:57

Closing Remarks

10:57 - 11:00

Workshop by Young Planning Committee

Workshop by Young Planning Committee 1

July 3 (Wed) 14:30 - 16:00 Room 2

■ Considering how researchers of childcare generation work

Chairs: Satoshi YOKOTA (Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences)

Hitomi FUJISHIRO (Faculty of Pharmaceutical Sciences, Tokushima Bunri University)

Y1-1 Takashi UEHARA (Department of Medicinal Pharmacology, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University)
14:30 - 14:35

Y1-2 Kazuki TAKEDA (Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University)
14:35 - 14:50

Y1-3 Miyuki IWAI-SHIMADA (National Institute for Environmental Studies)
14:50 - 15:00

Y1-4 Satoshi YOKOTA (Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences)
15:00 - 15:10

Y1-5 Yuki YOSHIZAWA (Sumitomo Pharma Co., Ltd)
15:10 - 15:20

Y1-6 Naoko TANAKA (Terumo Corporation)
15:20 - 15:30

Y1-7 Keiko KATSUI (Japan Agency for Medical Research and Development)
15:30 - 15:45

Discussion

15:45 - 16:00

■ Tomorrow's Toxicology Today: Cutting-Edge Technologies for Practical Use

Chairs: Fumiyo SAITO (Division of Toxicology, Faculty of Veterinary Medicine, Okayama University of Science)

Kazuki TAKEDA (Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University)

Introduction

16:00 - 16:05

Kazuki TAKEDA (Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University)

Y2-1 AI/Machine Learning in Toxicology ~ Development of toxicity prediction model for chemical substances ~

16:05 - 16:17

Kaori AMBE (Department of Regulatory Science, Graduate School of Pharmaceutical Sciences, Nagoya City University)

Y2-2 Advances in *in vitro* evaluation of pharmacokinetics and drug-induced toxicity using organoid cultures

16:17 - 16:29

Hiroshi ARAKAWA (Faculty of Pharmacy, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University)

Y2-3 Odorant in Toxicology ~Elucidation of the direct effects of fragrance substances on the brain~

16:29 - 16:41

Ami OGURO (Graduate School of Biomedical and Health Sciences, Hiroshima University)

Y2-4 Gut bacteria in Toxicology

16:41 - 16:53

Masahiro AKIYAMA (Pharmacological Research Center, Showa University)

Y2-5 Liquid-liquid phase separation in Toxicology ~approach from *in vitro* experiments~

16:53 - 17:05

Chiho WATANABE (Graduate School for Integrated Life Sciences, Hiroshima University)

Booth Session

17:05 - 17:30

Award Lecture

Award Lecture

July 4 (Thu) 15:00 - 17:05 Room 1

■ Distinguished Scholar Award

Chair: Takashi UEHARA (Department of Medicinal Pharmacology, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University)

AWL1 Deciphering the mysteries of sleep: from basic neuroscience to real-world applications

Masashi YANAGISAWA (International Institute for Integrative Sleep Medicine (WPI-IIIS), University of Tsukuba)

■ The JSOT Award

Chair: Satoshi KITAJIMA (Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences)

AWL2 Understanding of hepatotoxicity mechanisms for chemical risk assessment

Kouichi YOSHINARI (School of Pharmaceutical Sciences, University of Shizuoka)

■ The Tetsuo Satoh Award

Chair: Yasumitsu OGRA (Graduate School of Pharmaceutical Sciences, Chiba University)

AWL3 Academic and society activities in light of the progress of globalization

Yoshito KUMAGAI (Graduate School of Pharmaceutical Sciences, Kyushu University)

■ The JSOT Young Scientist Award 1

Chair: Yuji ISHII (Graduate School of Pharmaceutical Sciences, Kyushu University)

AWL4 Induction of oxidative stress by various mechanisms: toxicity by Maillard reaction products and suppression of cytochrome P450 through protein-protein interaction

Yuu MIYAUCHI (Faculty of Pharmaceutical Sciences, Sojo University)

■ The JSOT Young Scientist Award 2

Chair: Hisamitsu NAGASE (Department of Pharmacy, Gifu University of Medical Science)

AWL5 Involvement of microRNA against medicine-induced cleft palate

Hiroki YOSHIOKA (Department of Pharmacy, Gifu University of Medical Science)

■ The JSOT Young Scientist Award 3

Chair: Yoshimi TSUCHIYA (Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.)

AWL6 Sensitivity differences in drug-induced IgE-independent pseudo-allergic reactions via Mas-related G-protein coupled receptor X2

Eri HAMAMURA-YASUNO (Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.)

Candidates for the Excellent Presentation Award (Oral)

Candidates for the Excellent Presentation Award (Oral) 1

July 3 (Wed) 9:30 - 10:36 Room 6

Candidates for the Excellent Presentation Award (Oral) 1

Chairs: Mayumi ISHIZUKA (Faculty of Veterinary Medicine, Hokkaido University)

Ryuichi ONO (Division of Cellular & Molecular Toxicology, Center for Biological Safety and Research (CBSR),
National Institute of Health Sciences (NIHS))

Agricultural Toxicology

P-1E Mechanisms of disturbance of microglia-neuron interactions induced by fipronil metabolites
9:30 - 9:36

Tetsushi HIRANO (Faculty of Pharmaceutical Sciences, University of Toyama)

Redox Toxicology

P-3E Molecular mechanisms underlying anti-ferroptotic role of methylglyoxal
9:36 - 9:42

Takuya NIIJIMA (Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

P-10E Analysis of the role of acyl-CoA synthetase long-chain family member 4 in drug-induced lung injury
9:42 - 9:48

Yuki TOMITSUKA (Division of Health Chemistry, Department of Healthcare and Regulatory Sciences, School of Pharmacy, Showa University)

P-11E Improvement of exercise endurance in mice through hydrogen water intake: antioxidant effects and metabolic improvements
9:48 - 9:54

Eika MIZUNO (Doctoral Program in Medical Sciences, University of Tsukuba)

Drug Toxicology

P-15E A quantitative risk assessment of linezolid-associated thrombocytopenia based on pharmacokinetic/toxicodynamic simulation
9:54 - 10:00

Tetsushu ONITA (Department of Pharmacy, Shimane University Hospital)

P-16E Mechanism analysis of vancomycin-induced kidney injury focused on macrophages and circadian rhythm
10:00 - 10:06

Taiki FUKUDA (Department of Clinical Pharmacokinetics, Faculty of Pharmaceutical Sciences, Kyushu University)

P-17E Visualization of brain distribution of a benzimidazole analog, metonitazene, in mouse after intraperitoneal administration using desorption electrospray ionization-mass spectrometry imaging (DESI-MSI)
10:06 - 10:12

Sakiko NOMURA (Department of Pharmaceutical and Environmental Sciences, Tokyo Metropolitan Institute of Public Health)

P-18E Multi-Omics approach to identifying gender differences in cisplatin excretion mechanisms in the proximal tubules of the kidney
10:12 - 10:18

Satoshi SHIMIZU^{1,2} (¹Department of Bio-informational Pharmacology, School of Pharmaceutical Sciences, University of Shizuoka, ²Center for SI Medical Research and Department of Laboratory Medicine, The Jikei University School of Medicine)

P-19E Mechanism of bile acid-dependent hepatocyte death by cccDNA modulator with IFN α -like activity
10:18 - 10:24

Akinori TAKEMURA (Laboratory of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Chiba University)

P-20E Discovery of novel factors responsible for cisplatin renal damage using cisplatin-resistant proximal tubular cells

10:24 - 10:30

Hiroki TAGUCHI (Laboratory of Molecular Nutrition and Toxicology, Graduate School of Pharmaceutical Sciences, Tokushima Bunri University)

Food Toxicology

P-28E A comprehensive toxicological assessment of trans-fatty acids (TFAs) for application to prevention and treatment of TFA-related diseases

10:30 - 10:36

Shinnosuke KIMURA (Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

Candidates for the Excellent Presentation Award (Oral) 2 July 3 (Wed) 10:36 - 11:42 Room 6

Candidates for the Excellent Presentation Award (Oral) 2

Chairs: Yasunari KANDA (Division of Pharmacology, National Institute of Health Sciences)

Takashi TOYAMA (Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University)

Neuro Toxicology

P-32E AI-based abnormal behavior detection models in cynomolgus monkeys

10:36 - 10:42

Hiroya KONNO (Medichianl Safety Research Laboratories, R&D Division, Daiichi Sankyo Co., Ltd.)

P-35E Separation of neuronal and astrocytic signals for drug toxicity evaluation in the central nervous system

10:42 - 10:48

Hideaki KURASHIKI (Department of Electronics, Graduate School of Engineering, Tohoku Institute of Technology)

P-36E Quantitative 3D image analysis of cell death or microglia dynamics in larval zebrafish brain to test neurotoxicity

10:48 - 10:54

Mizuki YUGE (Department of Integrative Pharmacology, Mie University Graduate School of Medicine)

Organelle Toxicology

P-43E The role of hiPSC-derived cardiomyocytes in cardiac safety pharmacology study: NEXEL's Cardiosight®-S and CiPA assay

10:54 - 11:00

Ami KIM (Department of Commercializing iPSC Technology, Division of Drug & Cell Cooperative Relation, NEXEL Co., Ltd., Korea.)

Genetic Toxicology

P-44E Early detection of hepatocarcinogens in rats using γ -H2AX and stem cell markers

11:00 - 11:06

Mizuho UNEYAMA (Division of Pathology, National Institute of Health Sciences)

P-45E An indicator of ovulation time in cynomolgus monkeys by ultrasonography and efforts to improve pregnancy rate

11:06 - 11:12

Erise SUGATA (Drug Safety Research Laboratories, Shin Nippon Biomedical Laboratories, Ltd.)

P-48E Activation of inflammatory responses via inhibition of DNA methylation by environmental electrophile 1,2-Naphthoquinone

11:12 - 11:18

Tomoki TSUCHIDA (Department of Medicinal Pharmacology, Faculty of Pharmaceutical Sciences, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University)

P-50E Investigation of the involvement of chromosomal rearrangements in the hepatocarcinogenic process of acetamide in rats

11:18 - 11:24

Yohei YAMAGAMI^{1,2} (¹Division of Pathology, National Institute of Health Sciences, ²Laboratory of Veterinary Toxicology, Tokyo University of Agriculture and Technology)

Environmental Toxicology

P-52E Fundamental study on removal of cadmium using bagasse from aquatic environments

11:24 - 11:30

Kaito YAMASHIRO^{1,2} (¹Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences, ²Laboratory of Public Health, Faculty of Pharmacy, Kindai University)

P-53E Evaluation of estrogenic activity at low doses of bisphenol A using a novel *in vivo* detection method

11:30 - 11:36

Keishi ISHIDA (Laboratory of Hygienic Chemistry and Molecular Toxicology, Gifu Pharmaceutical University)

P-59E Comparative Assessment of Co-Exposure Effects of the Ferruginous Components of Subway and Ambient PM with Lipopolysaccharide on Vascular Function

11:36 - 11:42

Oluwatoyin Hannah OWOKONIRAN (Division of Environmental Health, Graduate School of Global Environmental Studies, Kyoto University, Kyoto, Japan)

Candidates for the Excellent Presentation Award (Oral) 3 July 3 (Wed) 13:30 - 14:24 Room 6

Candidates for the Excellent Presentation Award (Oral) 3

Chairs: Yasuhiro ISHIHARA (Graduate School of Integrated Sciences for Life, Hiroshima University)
Makiko KUWAGATA (Teikyo Heisei University)

Chrono Toxicology

P-60E The Relationship Between Heart Failure And Alteration of Circadian Clock in Monocyte: A Novel Cardio-renal Interaction

13:30 - 13:36

Yuya YOSHIDA (Department of Clinical Pharmacokinetics, Faculty of Pharmaceutical Sciences, Kyushu University)

Pharmacol. Toxicology

P-62E Development of a compound Ames mutagenicity prediction system that includes information on mutagenicity strength

13:36 - 13:42

Satoshi SUGIYAMA (Imaging & Informatics Laboratories, ICT Strategy Division, FUJIFILM Corporation)

P-64E Development of read-across method derived from toxicity-specific space using machine learning technology: Example of multi-class skin sensitization risk assessment

13:42 - 13:48

Takaho ASAI (Safety & Analysis, R&D Support, Sunstar Inc.)

P-69E Development of an Artificial Neural Network Model for Risk Assessment of Skin Sensitization using ADRA

13:48 - 13:54

Kosuke IMAI (SHISEIDO CO., LTD. Brand Value R&D Institute)

P-70E Establishment of an evaluation system for gastrointestinal toxicity using human intestinal organoids

13:54 - 14:00

Yuki SUDO (Translational Research Division, CHUGAI PHARMACEUTICAL CO., LTD.)

P-74E Correlation analysis between structural similarities and NOEL differences in repeated dose toxicity with Hazard Evaluation Support System Integrated Platform (HESS) database
14:00 - 14:06

Shota NAKAGAWA (Kao Corporation, Safety Science Research)

P-78E Drug evaluation using Human pluripotent stem cell derived cardiomyocyte under updated ICH E14/S7B
14:06 - 14:12

Eueun KIM (Department of Commercializing iPSC Technology, NEXEL Co., Ltd)

P-89E Assessment of genotoxicity and carcinogenic potential of animal-based traditional Chinese medicine
14:18 - 14:18

Yun-Rong TSAI (Master Degree Program in Toxicology, College of Pharmacy, Kaohsiung Medical University)

Immuno Toxicology

P-96E Real-world surveillance of immune checkpoint inhibitor-induced immune-related adverse events and their impact on survival outcomes
14:18 - 14:24

Ryosuke MATSUKANE (Kyushu University Hospital, Department of Pharmacy)

Candidates for the Excellent Presentation Award (Oral) 4

July 3 (Wed) 14:24 - 15:18 Room 6

Candidates for the Excellent Presentation Award (Oral) 4

Chairs: Tomoki KIMURA (Faculty of Pharmaceutical Sciences, Setsunan University)

Yoshiro SAITO (Graduate School of Pharmaceutical Sciences, Tohoku University)

Drug Toxicology

P-21E Exploring the advantages and limitations of Zwitterionic Ionic Liquids (ZIL) as a novel solvent in in vitro toxicity testing
14:24 - 14:30

Yusuke KUBOTA (Suntory Holdings Limited)

Pharmacol. Toxicology

P-22E Construction of an In Vitro Vascular Tolerance Testing System
14:30 - 14:36

Yuki YAMAMURO (Chugai Pharmaceutical Co., Ltd., Translational Research Div.)

Drug Toxicology

P-23E Comparison of a methods for detecting human mesenchymal stem cells in mouse tissues in non-clinical studies using quantitative PCR and immunohistochemical staining
14:36 - 14:42

Yuriko YATSUSHIRO (CMIC Pharma Science)

Pharmacol. Toxicology

P-79E Four-week time-course analysis of the pathogenesis of atopic dermatitis model induced by MC903 repeated topical application in mice
14:42 - 14:48

Yuya HOSHINO (Department of Investigative Toxicology, Preclinical Research, Tokushima Research Center for Drug Discovery, Otsuka Pharmaceutical Co., Ltd.)

Metallomics Toxicology

P-111E Mechanism of cadmium-induced migration and invasion inhibition in extravillous trophoblast HTR-8/SVneo
14:48 - 14:54

Shoko OGUSHI (Laboratory of Public Health & Preventive Pharmacology Faculty of Pharmaceutical Sciences, Setsunan University)

Organ Toxicology

P-119E Reversible and monitorable nephrotoxicity in rats by the novel potent transcriptional enhanced associate domain (TEAD) inhibitor, K-975

14:54 - 15:00

Hironori OTSUKI^{1,2} (¹Toxicological Research Laboratories, Kyowa Kirin Co., Ltd., ²Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka)

P-124E Elucidation of the liver pathophysiology of progressive familial intrahepatic cholestasis using patient-derived iPS cells

15:00 - 15:06

Sayaka DEGUCHI (Center for iPS Cell Research and Application, Kyoto University)

P-126E Establishment of gall bladder organoid derived from cholesteric cholelithiasis model mouse and its application

15:06 - 15:12

Haru YAMAMOTO (Laboratory of Veterinary Pharmacology, Tokyo University of Agriculture and Technology)

P-132E Relationship between immunohistochemical changes of vimentin in Sertoli cells and spermatogenic defects

15:12 - 15:18

Hirokatsu SAITO (Division of Cellular and Molecular Toxicology, Center for Biological Safety and Research, National Institute of Health Sciences)

Oral Session

Oral Session 1

July 3 (Wed) 15:30 - 16:18 Room 6

Oral Session 1

Chairs: Tsuyoshi NAKANISHI (Laboratory of Hygienic Chemistry and Molecular Toxicology, Gifu Pharmaceutical University)
Ryota SHIZU (Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka)

Drug Toxicology

O-1 New bioluminescence mechanism by luciferin analogue TokeOni

15:30 - 15:42

Atsushi NAKAMURA^{1,2} (¹Department of Engineering Science, Graduate School of Informatics and Engineering, The University of Electro-Communications, ²Center for Neuroscience and Biomedical Engineering, The University of Electro-Communications)

O-2 Mitochondrial dysfunction associated with cisplatin-induced muscle atrophy in mouse skeletal muscle

15:42 - 15:54

Hiroyasu SAKAI (Department of Biomolecular Pharmacology, Hoshi University)

O-3 A case of suspected drug-induced liver injury due to aripiprazole

15:54 - 16:06

Noboru HOKAMA (Department of Pharmacy, University of the Ryukyus Hospital)

Food Toxicology

O-5 Method validation of inorganic arsenic using HPLC-ICPMS and assessing its contamination in rice sold in Malaysia

16:06 - 16:18

Ahmad Faizal ABDULL RAZIS^{1,2} (¹Department of Food Science, Faculty of Food Science and Technology, Universiti Putra Malaysia, Malaysia, ²Laboratory of Food Safety and Food Integrity, Institute of Tropical Agriculture and Food Security, Universiti Putra Malaysia, Malaysia)

Oral Session 2

July 3 (Wed) 16:30 - 17:30 Room 6

Oral Session 2

Chairs: Akiyuki NISHIMURA (Division of Cardiocirculatory Signaling, National Institute for Physiological Sciences)
Satoshi YOKOTA (Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences)

Neuro Toxicology

O-6 Neurons in the island of Calleja major are novel targets of dioxin in the mouse brain

16:30 - 16:42

Eiki KIMURA (Department of Environmental Health, University of Fukui School of Medical Sciences)

O-7 Large-scale voltage-sensitive dye imaging of mouse prefrontal cortex: A new assay for brain function modulator

16:42 - 16:54

Takashi TOMINAGA^{1,2,3} (¹Institute of Neuroscience, Tokushima Bunri University, ²Kagawa School of Pharmaceutical Science, Tokushima Bunri University, ³Graduate School of Pharmaceutical Science, Tokushima Bunri University)

Organelle Toxicology

O-8 Benzo[a]pyrene and benzo[a]pyrene diol epoxide induce cellular senescence in breast cancer cells

16:54 - 17:06

Natsuko KITAMOTO (Grad. Sch. Pharm. Sci., Osaka Univ.)

O-9 **Effects of Aldehyde dehydrogenase 1 family member L1 expression on tetrahydrofolate metabolism and pentose phosphate pathway in hepatocellular carcinoma cell line HuH-7 cells**

17:06 - 17:18

Masato SASAKI (Division of Infection and Host Defense, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University)

Genetic Toxicology

O-10 **Detection of genotoxic reactions by analyzing DNA damage response using chromatin immunoprecipitation**

17:18 - 17:30

Katsuyoshi HORIBATA (Division of Genome Safety Science, National Institute of Health Sciences)

Oral Session 3

July 4 (Thu) 11:00 - 11:36 Room 4

Oral Session 3

Chairs: Hisaka KURITA (Gifu Pharmaceutical University)

Sho KUBOTA (Department of Medicinal Pharmacology, Faculty of Pharmaceutical Sciences, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University)

Genetic Toxicology

O-11 **Establishing of epigenetic toxicology**

11:00 - 11:12

Tohru SHIBUYA (Laboratory of Environmental Epigenetics, Japan)

O-12 **Elucidation of the mechanisms by which arsenic compounds induce parthanatos**

11:12 - 11:24

Takuya NOGUCHI (Laboratory of Health Chemistry, Graduate School of Pharmaceutical Sciences, Tohoku University)

O-13 **Glycidamide-formamidopyrimidine derivative induces DNA replication block and mutagenesis**

11:24 - 11:36

Jun-ichi AKAGI (Division of Pathology, National Institute of Health Sciences)

Oral Session 4

July 4 (Thu) 11:00 - 11:36 Room 6

Oral Session 4

Chairs: Yasuhiro SHINKAI (Tokyo University of Pharmacy and Life Sciences)

Kotoko ARISAWA (Graduate School of Pharmaceutical Sciences, Tohoku University)

Genetic Toxicology

O-14 **Pterostilbene confers endothelial protection under hyperglycemic microenvironment through epigenetic regulation of Nrf2**

11:00 - 11:12

Ramkumar KUNKA MOHANRAM (Professor (Research) Department of Biotechnology School of Bioengineering SRM Institute of Science and Technology, India)

Environmental Toxicology

O-15 **Effects of PFAS exposure on the blood-brain barrier evaluated using a human iPSC cell-derived BBB model**

11:12 - 11:24

Yuki FUJIWARA (Department of Integrative Physiology, Gunma University Graduate School of Medicine)

O-16 **Maternal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin causes developmental disorder of offspring: Aripiprazole restores reduced breast milk volume, rescuing normal growth**

11:24 - 11:36

Xing ZOU (Grad Sch Pharmaceut Sci, Kyushu University)

Oral Session 5

Chairs: Yumi ABIKO (Nagasaki University)
Hirofumi HAMANO (Okayama University Hospital)

Environmental Toxicology

O-17 MBP, a metabolite of bisphenol A, stimulates breast cancer cell malignancy via ER β -GPER1 axis

11:00 - 11:12

Masayo HIRAO-SUZUKI (Faculty of Pharmaceutical Sciences, Hiroshima International University)

Pharmacol. Toxicology

O-18 Evaluating the Impact of Loperamide on Irinotecan-Induced Adverse Events: A Disproportionality Analysis of the WHO Pharmacovigilance Database (VigiBase)

11:12 - 11:24

Tomoaki AKAGI (Department of Hospital Pharmacy Nagasaki University Hospital)

O-19 Investigation of methods for constructing prediction models for the small dataset of Cytochrome P450 (CYPs) inhibition using deep learning

11:24 - 11:36

Elpri E. PERMADI^{1,2} (¹Institute for Protein Research, Osaka University, ²Research Center for Pharmaceutical Ingredients and Traditional Medicine, National Research and Innovation Agency, Indonesia)

Oral Session 6

Chairs: Hiromi SATO (Clinical Pharmacology & Pharmacometrics, Graduate School of Pharmaceutical Sciences, Chiba University)
Tomoki TAKEDA (R&D Group, F-SEEDS CO., LTD.)

Pharmacol. Toxicology

O-20 Machine Learning-Based Drug Screening System Using Human iPS Cell-Derived Cardiomyocytes and Cardiac Tissues to Discover Novel Therapies for Drug-Induced Cardiotoxicity

11:00 - 11:12

Shunsuke FUNAKOSHI (Dept. of Cell Growth and Differentiation, Center for iPS Cell Research and Application (CiRA), Kyoto University)

O-21 A study on mechanisms of clioquinol (Quinoforn)-induced down-regulation of SCO2, a mitochondrial copper chaperone

11:12 - 11:24

Masato KATSUYAMA (Radioisotope Center, Kyoto Prefectural University of Medicine)

O-22 Evaluation of an *in vitro* drug-induced cholestasis model using cryopreserved human hepatocytes cultured with human hepatocyte-derived conditioned medium

11:24 - 11:36

Yuji ISHIDA^{1,2,3} (¹Research and Development Unit, PhoenixBio Co., Ltd., ²Graduate School of Biomedical and Health Sciences, Hiroshima University, ³Division of Gastrointestinal and Liver Diseases, Department of Medicine, Keck School of Medicine, University of Southern California)

Oral Session 7

Chairs: Naoko HATTORI (Institute for Molecular and Cellular Regulation, Gunma University)
Hitomi FUJISHIRO (Faculty of Pharmaceutical Sciences, Tokushima Bunri University)

Omics Toxicology

O-23 High-throughput RNA sequencing combined with multiparametric in vitro assays for cardiotoxicity risk assessment and mechanistic determination

11:00 - 11:12

Paul A WALKER (Cyprotex Discovery Ltd, Department of Toxicology, Alderley Park, Cheshire, UK)

Nano Toxicology

O-24 Synergistic increase in autism spectrum disorder risk from Setd5 gene mutation and maternal exposure to carbon black nanoparticle

11:12 - 11:24

Atsuto ONODA (Division of Toxicology and Health Science, Faculty of Pharmaceutical Sciences, Sanyo-Onoda City University)

O-25 Assessment of Pulmonary Toxicity and Carcinogenicity of Carbon Nano-Horns (CNH) and Carbon Nano-Brushes (CNB) Using Intra Tracheal Instillation in the Rats

11:24 - 11:36

Omnia Hosny Mohamed AHMED^{1,2,3} (¹Nanotoxicology Project Lab, Nagoya City University, Nagoya, Japan, ²Department of Experimental Pathology and Tumor Biology, Nagoya City University, Nagoya, Japan, ³Department of Forensic Medicine and Clinical Toxicology, Aswan University, Aswan, Egypt)

Oral Session 8

Chairs: Daigo SUMI (Faculty of Pharmaceutical Sciences, Tokushima Bunri University)
Ami OGURO (Graduate School of Biomedical and Health Sciences, Hiroshima University)

Nano Toxicology

O-26 Investigations of toxicity of aged-polystyrene nanoplastics in co-cultured cacao-2 cell models

11:00 - 11:12

Yuki KITAMURA (Department of Environmental and Preventive Medicine, School of Medicine, Jichi Medical University)

O-27 Evaluation of the ability to activate antigen-presenting cells and analysis of the activation mechanism for various types of zinc oxide nanoparticles

11:12 - 11:24

Kazutoshi IJIMA^{1,2} (¹Faculty of Engineering, Yokohama National University, ²Institute of Advanced Sciences, Yokohama National University)

Immuno Toxicology

O-28 Role of CXCL5/CXCR2/LIF/LIFR Signaling in Enhancing Immunosuppression and Neuroendocrine Differentiation in Prostate Cancer

11:24 - 11:36

Yen-Nien LIU (Graduate Institute of Cancer Biology and Drug Discovery, College of Medical Science and Technology, Taipei Medical University)

Oral Session 9**Chairs:** Chiyomi KUBO (Chugai Pharmaceutical Co., Ltd.)

Miyuki IWAI-SHIMADA (National Institute for Environmental Studies)

Immuno Toxicology

- O-29** Comparison of age-related changes in immune function and pathology in a mouse model of allergic contact dermatitis between senescence-accelerated mouse prone1 mice and usual aging mice
11:00 - 11:12

Mao KANEKI (Laboratory of Veterinary Pharmacology, Graduate School of Veterinary Medicine, Azabu University)

Clinical Toxicology

- O-30** Reactive blue 2 staining is applicable for evaluating male reproductive toxicity
11:12 - 11:24

Satoshi YOKOTA^{1,4} (¹Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences, ⁴Department of Histology, Graduate School of Medical Sciences, Kumamoto University)

- O-31** Exploring the Utility of Tissue-Specific cfDNA Methylation Patterns as Toxicity Markers for Detecting Drug-Induced Testicular Toxicity
11:24 - 11:36

Daisuke SASAKI (Astellas Pharma Inc.)

Oral Session 10**Chairs:** Maki TOKUMOTO (School of Pharmacy, Aichi Gakuin University)

Fumiyo SAITO (Division of Toxicology, Faculty of Veterinary Medicine, Okayama University of Science)

Clinical Toxicology

- O-32** Evaluation of Cardiotoxicity Risk Associated with Tyrosine Kinase Inhibitors Using Large-scale Databases
14:00 - 14:12

Yusuke IGAWA^{1,2} (¹Department of Pharmacy, Okayama University Hospital, ²Department of Clinical Pharmacology and Pharmacy, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University)

- O-33** Extracellular Vesicle Small RNAs Secreted from Mouse Amniotic Fluid Induced by Repeated Oral Administration of VPA to Pregnant Mice
14:12 - 14:24

Ryuichi ONO (Division of Cellular & Molecular Toxicology, Center for Biological Safety and Research (CBSR), National Institute of Health Sciences (NIHS))

Regulation Toxicology

- O-34** The prediction of activation states of molecular pathways related to epithelial-mesenchymal transition and coronavirus
14:24 - 14:36

Shihori TANABE (Division of Risk Assessment, National Institute of Health Sciences)

Developmental Toxicology

- O-35** Comparative studies between thalidomide and bisphenol A on transcriptome profiles using pluripotent stem cells
14:36 - 14:48

Hideko SONE (Yokohama University of Pharmacy)

O-36 Prenatal exposure to Poly(I:C) in mice embryos induces behavioral abnormalities correlated with abnormal brain morphogenesis and developmental disorders
14:48 - 15:00

Munekazu KOMADA (Department of Life Science, Faculty of Science and Engineering, Kindai University)

Oral Session 11

July 5 (Fri) 14:00 - 14:48 Room 6

Oral Session 11

Chairs: Akio SUMIOKA (Department of Basic Medical Sciences, National Institute for Minamata Disease)

Gi-Wook HWANG (Laboratory of Environmental and Health Sciences, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University)

Metallomics Toxicology

O-37 Continuous Zn²⁺-H₂O₂ toxic signaling in dopaminergic neurodegeneration and its protection by unique phenanthrenes of *Juncus effusus*
14:00 - 14:12

Atsushi TAKEDA (School of Pharmaceutical Sciences, University of Shizuoka)

O-38 BDNF specifically expressed in hippocampal neurons is involved in methylmercury neurotoxicity resistance
14:12 - 14:24

Masatake FUJIMURA (National Institute for Minamata Disease)

O-39 Study on cell type-specific cytotoxicity and its mechanism of expression induced by copper phenanthroline complexes
14:24 - 14:36

Takehiro NAKAMURA (Fac. Pharm. Sci., Setsunan Univ.)

O-40 Chronic exposure to arsenic causes sarcopenic obesity in humans
14:36 - 14:48

Seiichiro HIMENO^{1,2} (¹Showa University, School of Pharmacy, ²Tokushima Bunri University, School of Pharmaceutical Sciences)

Oral Session 12

July 5 (Fri) 14:00 - 15:00 Room 7

Oral Session 12

Chairs: Yuhji TAQUAHASHI (Division of Cellular and Molecular Toxicology, CBSR, National Institute of Health Sciences)

Yuri KATO (Department of Physiology, Graduate School of Pharmaceutical Sciences, Kyushu University)

Organ Toxicology

O-41 Valproic acid decreases the expression level of placental tryptophan transporter through HDAC inhibition
14:00 - 14:12

Kazuma HIGASHISAKA^{1,2,3} (¹IACS., Osaka Univ., ²Grad. Sch. Pharm. Sci., Osaka Univ., ³Sch. Pharm. Sci., Osaka Univ.)

O-42 Bleomycin causes senescence and lung cytotoxicity, but does not directly cause fibrosis
14:12 - 14:24

~Evaluation of cytotoxicity and fibrosis in precision-cut lung slices, PCLS~

Satoshi KANAZAWA (Department of Neurodevelopmental Disorder Genetics, Nagoya City University Graduate School of Medical Sciences)

O-43 Generation of low adsorption device for engineered cardiac tissue
14:24 - 14:36

Yuya FUJIWARA^{1,4} (¹Center for iPS cell Research and Application, Kyoto University, ⁴T-CiRA Project)

O-44 Impact on liver pathology via novel targets of SREBP-1
14:36 - 14:48

Noriko KEMURIYAMA (Dept. Nutr. Sci. Food Safety, Facul. Biosci., Tokyo Univ. Agricul.)

O-45 Repeated administration of carbon tetrachloride to iron-overloaded rats induces severe liver injury with systemic hemorrhage

14:48 - 15:00

Takeshi IZAWA (Laboratory of Veterinary Pathology, Osaka Metropolitan University)

Oral Session 13

July 5 (Fri) 15:00 - 16:12 Room 7

Oral Session 13

Chairs: Yasumitsu NISHIMURA (Department of Hygiene, Kawasaki Medical School)

Ikuko MIYAZAKI (Department of Medical Neurobiology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences)

Organ Toxicology

O-46 An activation of MAPK pathway is associated with the suppression of sebum production by a BRAF inhibitor, dabrafenib, in hamster sebocytes *in vitro*

15:00 - 15:12

Toshikazu KOIWAI (Department of Biochemistry, Tokyo University of Pharmacy and Life Sciences, Tokyo, Japan)

O-47 A possible mechanism of sebaceous hyperplasia by cyclosporine that augments sebum production and cell proliferation in hamster sebocytes *in vitro*

15:12 - 15:24

Tatsuya HOJO (Department of Biochemistry, Tokyo University of Pharmacy and Life Sciences)

O-48 Creation and application of a novel high-throughput individualized zebrafish nephrotoxicity screening system

15:24 - 15:36

Toshio TANAKA^{1,2} (¹Department of Systems Pharmacology, Mie University Graduate School of Medicine, ²Mie University Medical Zebrafish Research Center)

O-49 Regulatory mechanisms of MMP and TIMP-1 expression by uremic toxins, indoxyl sulfate, in human dermal fibroblasts

15:36 - 15:48

Ryousuke TOMITA (Department of Biochemistry, Tokyo University of Pharmacy and Life Sciences)

O-50 Effects of thiamine supplementation on type 2 diabetes status in leptin-receptor deficient mice

15:48 - 16:00

Yuka KOHDA (Department of Pharmacotherapeutics and Toxicology, Faculty of Pharmacy, Osaka Medical and Pharmaceutical University)

Food Toxicology

O-4 Development of a bidirectional mass transfer device with food component ratio modulation function

16:00 - 16:12

Tomofumi FUJINO (School of Pharmacy, Tokyo University of Pharmacy and Life Sciences)

Poster Session

P-●E: Candidates for the Excellent Presentation Award

P-●S: Candidates for the Student Poster Award

Day 1 (July 3 (Wed) 17:30 - 18:30) Poster&Exhibition Room

Agricultural Toxicology

- P-1E** Mechanisms of disturbance of microglia-neuron interactions induced by fipronil metabolites
Tetsushi HIRANO (Faculty of Pharmaceutical Sciences, University of Toyama)
- P-2S** Evaluation of the Aromatic Hydrocarbon Receptor (AhR) Activation Potential by Sensitizer-Related Compounds in Waste Paper Recycling Effluent
Jiayan i. SUN (Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University)

Redox Toxicology

- P-3E** Molecular mechanisms underlying anti-ferroptotic role of methylglyoxal
Takuya NIJIMA (Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)
- P-4S** Pharmacological activation of TRPC6 channels improves heart failure
Chenlin SU (Graduate School of Pharmaceutical Sciences, Kyushu University)
- P-5S** Involvement of TRPC3-Nox2 complex formation in the progression of striated muscle atrophy
Di WU (Department of Physiology Graduate School of Pharmaceutical Sciences, Kyushu University)
- P-6S** Analysis of lipid peroxidation process in ferroptosis and contribution of CYP7A1
Kei ISHIDA (Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University)
- P-7S** Metabolomic changes of human hepatoma HepG2 cells under cold stress
Ayano FUKUDA (Graduate School of Medicine and Pharmaceutical Sciences, Chiba University)
- P-8S** The effects of gut microbial reactive sulfur species on the antioxidant capacity of host and bacteria
Jun UCHIYAMA^{1,2} (¹Faculty of Pharmacy, Keio University, ²Clinical Research Institute for Clinical Pharmacology and Therapeutics, Showa University)
- P-9S** Synergistic effect of retinoids on the antitumor effect of photodynamic therapy in human glioblastoma cells
Shun KOUNO (Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences)
- P-10E** Analysis of the role of acyl-CoA synthetase long-chain family member 4 in drug-induced lung injury
Yuki TOMITSUKA (Division of Health Chemistry, Department of Healthcare and Regulatory Sciences, School of Pharmacy, Showa University)

P-11E Improvement of exercise endurance in mice through hydrogen water intake: antioxidant effects and metabolic improvements

Eika MIZUNO (Doctoral Program in Medical Sciences, University of Tsukuba)

P-12S Supersulfide metabolism participates in regulating cardiomyocyte morphology

Liuchenzi ZHOU^{1,2} (¹Department of Cardiocirculatory, National Institute of Physiological Sciences, ²Life Science Research, The Graduate University for Advanced Studies)

P-13S Mitochondrial ROS and dynamin-related protein 1 mediates angiotensin II-induced Ca²⁺ signaling in vascular smooth muscle cells

Yoon-Seok SEO (BK21 FOUR Team and Integrated Research Institute of Drug Development, College of Pharmacy, Dongguk University, Republic of Korea)

Human Toxicology

P-14S The impact of long-term exposure to low levels of arsenate on erythropoietin production in vitro and in vivo

Md. Anamul HAQUE (Laboratory of Toxicology, Faculty of Veterinary Medicine, Osaka Metropolitan University)

Drug Toxicology

P-15E A quantitative risk assessment of linezolid-associated thrombocytopenia based on pharmacokinetic/toxicodynamic simulation

Tetsushu ONITA (Department of Pharmacy, Shimane University Hospital)

P-16E Mechanism analysis of vancomycin-induced kidney injury focused on macrophages and circadian rhythm

Taiki FUKUDA (Department of Clinical Pharmacokinetics, Faculty of Pharmaceutical Sciences, Kyushu University)

P-17E Visualization of brain distribution of a benzimidazole analog, metonitazene, in mouse after intraperitoneal administration using desorption electrospray ionization-mass spectrometry imaging (DESI-MSI)

Sakiko NOMURA (Department of Pharmaceutical and Environmental Sciences, Tokyo Metropolitan Institute of Public Health)

P-18E Multi-Omics approach to identifying gender differences in cisplatin excretion mechanisms in the proximal tubules of the kidney

Satoshi SHIMIZU^{1,2} (¹Department of Bio-informational Pharmacology, School of Pharmaceutical Sciences, University of Shizuoka, ²Center for SI Medical Research and Department of Laboratory Medicine, The Jikei University School of Medicine)

P-19E Mechanism of bile acid-dependent hepatocyte death by cccDNA modulator with IFN α -like activity

Akinori TAKEMURA (Laboratory of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Chiba University)

P-20E Discovery of novel factors responsible for cisplatin renal damage using cisplatin-resistant proximal tubular cells

Hiroki TAGUCHI (Laboratory of Molecular Nutrition and Toxicology, Graduate School of Pharmaceutical Sciences, Tokushima Bunri University)

P-21E Exploring the advantages and limitations of Zwitterionic Ionic Liquids (ZIL) as a novel solvent in in vitro toxicity testing

Yusuke KUBOTA (Suntory Holdings Limited)

P-23E Comparison of a methods for detecting human mesenchymal stem cells in mouse tissues in non-clinical studies using quantitative PCR and immunohistochemical staining

Yuriko YATSUSHIRO (CMIC Pharma Science)

P-24S Influence of environmental toxicants on avian gut microbiome

Kohei OGASAWARA (Laboratory of Toxicology, Department of Environmental Veterinary Sciences, Faculty of Veterinary Medicine, Hokkaido University)

Food Toxicology

P-25S Analysis of the exacerbation mechanism of chronic kidney disease (CKD) cardiomyopathy through abnormal intestinal IgA secretion via vitamin A accumulation

Kohei FUKUOKA (Department of Clinical Pharmacokinetics, Faculty of Pharmaceutical Sciences, Kyushu University)

P-26S Regulatory mechanism of phosphorus homeostasis in uninephrectomized mice fed a high phosphorus diet

Nodoka KAGAMI (Department of Food and Nutritional Science, Graduate School of Agriculture, Tokyo University of Agriculture)

P-27S Comprehensive search for novel lysine acyl modifications derived from L-theanine

Kohei KAWAHARA (Laboratory of Cell Signaling, School of Life Sciences, Tokyo University of Pharmacy and Life Sciences)

P-28E A comprehensive toxicological assessment of trans-fatty acids (TFAs) for application to prevention and treatment of TFA-related diseases

Shinnosuke KIMURA (Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

P-29S Exploration of lysine acyl modifications derived from food ingredients

Komei AOKI^{1,2} (¹School of Life Sciences, Tokyo University of Pharmacy and Life Sciences, ²Biomolecular Characterization Unit, RIKEN Center for Sustainable Resource Science)

Neuro Toxicology

P-30S Study on the protective effect of amorphous formula of curcumin on maternal imidacloprid exposure-induced disruptive hippocampal neurogenesis in rats

Yuri EBIZUKA (Laboratory of Veterinary Pathology, Tokyo University of Agriculture and Technology)

P-31S Effects of maternal exposure to imidacloprid on cerebellar development and behaviors of rat offspring

Xinyu ZOU^{1,2} (¹Laboratory of Veterinary Pathology, Tokyo University of Agriculture and Technology, ²Cooperative Division of Veterinary Sciences, Graduate School of Agriculture, Tokyo University of Agriculture and Technology)

P-32E AI-based abnormal behavior detection models in cynomolgus monkeys

Hiroya KONNO (Medichian Safety Research Laboratories, R&D Division, Daiichi Sankyo Co., Ltd.)

P-33S The hypoalgesia-specific sensory impairment in MeHg-exposed rats is not associated with peripheral neural degeneration

Misaki OZAWA^{1,2,5} (¹HIROO GAKUEN Senior High School, ²Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences, ⁵Keio Global Science Campus/JST)

P-34S The association between inflammatory-related cells and neurodegeneration in dorsal root ganglion of MeHg-exposed rat

Yuka SEKIGUCHI (Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences)

P-35E Separation of neuronal and astrocytic signals for drug toxicity evaluation in the central nervous system

Hideaki KURASHIKI (Department of Electronics, Graduate School of Engineering, Tohoku Institute of Technology)

P-36E Quantitative 3D image analysis of cell death or microglia dynamics in larval zebrafish brain to test neurotoxicity

Mizuki YUGE (Department of Integrative Pharmacology, Mie University Graduate School of Medicine)

Organelle Toxicology

P-37S Expression of proteoglycan core proteins and that of their mRNAs are independently regulated in cultured vascular endothelial cells under hypoxic conditions

Misaki SHIRAI^{1,3} (¹Faculty of Pharmaceutical Sciences, Toho University, ³JSPS Research Fellow)

P-38S Alteration of proteoglycan expression in human vascular endothelial EA.hy926 cells under hypoxic conditions

Haruka AKIMOTO (Faculty of Pharmaceutical Sciences, Toho University)

P-39S STAT1 phosphorylation is induced via epigenomic regulation by dithionon

Hirota ITO (Department of Medicinal Pharmacology, Faculty of Pharmaceutical Sciences, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University)

P-40S ATP potentiates hydrogen peroxide toxicity via P2Y receptors in vascular endothelial cells

Rina TSURUTA (Department of Environmental Health, Faculty of Pharmaceutical Sciences, Toho University)

P-41S Suppression of Perlecan Expression via P2Y2R-Akt signaling Mediated by ATP in vascular Endothelial Cells

Lihito IKEUCHI (Faculty of Pharmaceutical Science, Tokyo University of Science)

P-42S Variation in mRNA expression of glycosaminoglycan synthase in vascular endothelial cells under hypoxic conditions

Yutaka MINAGAWA (Department of Environmental Health, Faculty of Pharmaceutical Sciences, Toho University)

P-43E The role of hiPSC-derived cardiomyocytes in cardiac safety pharmacology study: NEXEL's Cardiosight®-S and CiPA assay

Ami KIM (Department of Commercializing iPSC Technology, Division of Drug & Cell Cooperative Relation, NEXEL Co., Ltd., Korea.)

Genetic Toxicology

P-44E Early detection of hepatocarcinogens in rats using γ -H2AX and stem cell markers

Mizuho UNEYAMA (Division of Pathology, National Institute of Health Sciences)

P-45E An indicator of ovulation time in cynomolgus monkeys by ultrasonography and efforts to improve pregnancy rate

EriSe SUGATA (Drug Safety Research Laboratories, Shin Nippon Biomedical Laboratories, Ltd.)

P-46S Investigation of nuclear receptor CAR-mediated transcriptional control of Gadd45b through demethylation of Gadd45b gene promoter

Aki TAKESHITA (Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka)

P-47S Regulation of mRNA expression in nasal septum cells via epigenomic changes induced by nitric oxide

Shizuki KAMIUEZONO (Department of Medicinal Pharmacology, Faculty of Pharmaceutical Sciences, Okayama University)

P-48E Activation of inflammatory responses via inhibition of DNA methylation by environmental electrophile 1,2-Naphthoquinone

Tomoki TSUCHIDA (Department of Medicinal Pharmacology, Faculty of Pharmaceutical Sciences, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University)

P-49S Comparison of estrogen genotoxicity between mouse Bhas42 and human MCF-7 cells

Kohei SUGIHARA (Azabu University)

P-50E Investigation of the involvement of chromosomal rearrangements in the hepatocarcinogenic process of acetamide in rats

Yohei YAMAGAMI^{1,2} (¹Division of Pathology, National Institute of Health Sciences, ²Laboratory of Veterinary Toxicology, Tokyo University of Agriculture and Technology)

P-51S The cigarette smoke induced attenuation of SLCO2A1 expression is through Aryl hydrocarbon receptor (AhR) activation

Melody N. SHUMBA (Laboratory of Molecular Pharmacokinetics, School of Pharmacy Takasaki University of Health and Welfare)

Environmental Toxicology

P-52E Fundamental study on removal of cadmium using bagasse from aquatic environments

Kaito YAMASHIRO^{1,2} (¹Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences, ²Laboratory of Public Health, Faculty of Pharmacy, Kindai University)

P-53E Evaluation of estrogenic activity at low doses of bisphenol A using a novel *in vivo* detection method

Keishi ISHIDA (Laboratory of Hygienic Chemistry and Molecular Toxicology, Gifu Pharmaceutical University)

P-54S Investigation into the intracellular dynamics of micro- and nanoplastics

Wakaba IDEHARA (Sch. Pharm. Sci., Osaka Univ.)

P-55S Mechanisms of DNMT1-mediated disturbance of neural functions by methylmercury exposure

Ayu OKUDA (Laboratory of Medical Therapeutics and Molecular Therapeutics, Gifu Pharmaceutical University)

P-56S Activation of EGFR-ERK signaling by 1,2-naphthoquinone

Yuexuan PAN (Department of Medicinal Pharmacology, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University)

P-57S Species differences between humans and rats in the responsiveness of the nuclear receptor PXR to phenolic antioxidants

Makoto KATSUME (Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University)

P-58S Transcriptional regulation of an adhesion-related gene by organotins via the retinoid X receptor in *Mytilus galloprovincialis*

Asuka NOMURA (Gifu Pharm. Univ.)

P-59E Comparative Assessment of Co-Exposure Effects of the Ferruginous Components of Subway and Ambient PM with Lipopolysaccharide on Vascular Function

Oluwatoyin Hannah OWOKONIRAN (Division of Environmental Health, Graduate School of Global Environmental Studies, Kyoto University, Kyoto, Japan)

Chrono Toxicology

P-60E The Relationship Between Heart Failure And Alteration of Circadian Clock in Monocyte: A Novel Cardio-renal Interaction

Yuya YOSHIDA (Department of Clinical Pharmacokinetics, Faculty of Pharmaceutical Sciences, Kyushu University)

P-61S Involvement of Cry2 against cisplatin-induced renal toxicity in mice

Shintaro TORIMOTO (Department of Pharmacy, Gifu University of Medical Science)

Pharmacol. Toxicology

P-22E Construction of an In Vitro Vascular Tolerance Testing System

Yuki YAMAMURO (Chugai Pharmaceutical Co., Ltd., Translational Research Div.)

P-62E Development of a compound Ames mutagenicity prediction system that includes information on mutagenicity strength

Satoshi SUGIYAMA (Imaging & Informatics Laboratories, ICT Strategy Division, FUJIFILM Corporation)

P-63S Prediction of drug permeability using human iPS cell-derived brain capillary microvascular endothelial cells

Hiroyuki SATO (Department of Clinical Pharmacy, Graduate School of Pharmaceutical Sciences, Nagoya City University)

P-64E Development of read-across method derived from toxicity-specific space using machine learning technology: Example of multi-class skin sensitization risk assessment

Takaho ASAI (Safety & Analysis, R&D Support, Sunstar Inc.)

P-65S The impact of SMILES representation inconsistencies in the operation of chemical language models for QSAR prediction

Yosuke KIKUCHI (Graduate School of Pharmaceutical Sciences, The University of Tokyo)

P-66S Pharmacological and toxicological evaluations of various adjuvants combined with norovirus VLPs

Juan ZHANG (Kyushu University - Graduate School of Pharmaceutical Sciences - Physiology)

- P-67S Large-Scale Study of the Myocarditis Risk in Children After COVID-19 Vaccination**
Sakura HIGASHI (Department of Clinical Pharmaceutics, Okayama University)
- P-68S Development of an *in silico* model to predict the increase of blood alanine aminotransferase in mice by gapmer antisense oligonucleotide**
Kotaro SUZUKI (Regulatory Science, Graduate School of Pharmaceutical Sciences, Nagoya City University)
- P-69E Development of an Artificial Neural Network Model for Risk Assessment of Skin Sensitization using ADRA**
Kosuke IMAI (SHISEIDO CO., LTD. Brand Value R&D Institute)
- P-70E Establishment of an evaluation system for gastrointestinal toxicity using human intestinal organoids**
Yuki SUDO (Translational Research Division, CHUGAI PHARMACEUTICAL CO., LTD.)
- P-71S Constructing Predictive Models for Myocarditis Induced by Immune Checkpoint Inhibitors**
Reina YAMAMOTO (Department of Medicinal Pharmacology, Faculty of Pharmaceutical Sciences, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University)
- P-72S Analysis of Megalin-Mediated Kidney Injury Using 3D-RPTEC Cell Model**
Hanwei PENG (Faculty of Pharmaceutical Sciences, Institute of Medical Pharmaceutical and Health Sciences, Kanazawa University)
- P-73S Development of machine learning models to predict drug-induced liver injury from various biomedical bigdata**
Shogo MOMOKITA (Department of Creative Informatics, Graduate School of Computer Science and Systems Engineering, Kyushu Institute of Technology)
- P-74E Correlation analysis between structural similarities and NOEL differences in repeated dose toxicity with Hazard Evaluation Support System Integrated Platform (HESS) database**
Shota NAKAGAWA (Kao Corporation, Safety Science Research)
- P-75S Study on heart rate variability indexes for Safety Pharmacology assessments of drug-induced undesirable effects on the central nervous systems**
Yoshiyasu NAGASHIMA (Department of Veterinary Pathophysiology and Animal Health, The University of Tokyo)
- P-76S Evaluating the Impact of Gastric Acid Suppressants on the Efficacy and Safety of Dasatinib Using Prescription Data**
Maki KAMEOKI (Department of Clinical Pharmaceutics, Okayama University)
- P-77S Measurement of Drug Responses in Acute Mouse Brain Slices Using Simultaneous Recording of Extracellular Potentials and Electrochemical Signals with Microelectrode Array System**
Aiko HASEGAWA (Department of Electronic Engineering, Graduate School of Engineering, Tohoku Institute of Technology)
- P-78E Drug evaluation using Human pluripotent stem cell derived cardiomyocyte under updated ICH E14/S7B**
Eueun KIM (Department of Commercializing iPSC Technology, NEXEL Co., Ltd)

- P-79E Four-week time-course analysis of the pathogenesis of atopic dermatitis model induced by MC903 repeated topical application in mice**
Yuya HOSHINO (Department of Investigative Toxicology, Preclinical Research, Tokushima Research Center for Drug Discovery, Otsuka Pharmaceutical Co., Ltd.)
- P-80S Establishment of a novel chemical carcinogenesis model using rat bladder organoids**
Yuko NAGASHIMA (Laboratory of Veterinary Pharmacology, Tokyo University of Agriculture and Technology)
- P-81S Development of a microfluidic device and organoid-based system for evaluation of anticancer drug sensitivity and side effects**
Yuki KOBAYASHI (Lab. of Veterinary Pharmacology, Dept. of Veterinary Medicine, Faculty of Agriculture, Tokyo University of Agriculture and Technology)
- P-82S A Novel Therapeutic Strategy for Diabetic Retinopathy by Using the Dual PARP-VEGFR Inhibitor**
Tai-Ju HSU (Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taipei, Taiwan, R.O.C.)
- P-83S Reversing the epithelial-mesenchymal transition by histone deacetylase inhibitor against diabetic retinopathy progression**
Yen-Ju CHAN (School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan, R.O.C.)
- P-84S Therapeutic Effect of Aza-PBHA Through Regulated A2E-related Dry Age-Related Macular Degeneration in ARPE-19 Cell and Mice Retina**
Yu-Ting CHU (School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan, R.O.C.)
- P-85S Exploring the Protective Effects of Azatyrosine-Phenylbutyric Hydroxamides under Blue Light Exposure-induced Geographic Atrophy through Complement Inhibition**
En-Pei SU (School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan, R.O.C.)
- P-86S The Development of Medicinal Fungi *Cordyceps cicadae* and *Hericium erinaceus* in The Therapeutic Application of Blue Light-Induced Age-related Macular Degeneration**
Nien-Nien CHEN (School of Pharmacy, College of Pharmacy, Taipei Medical University)
- P-87S Assessment of platelet activity and thrombogenic potential in soluble epoxide hydrolase-null mice**
Jae-Hyeong KIM (BK21 FOUR Team and Integrated Research Institute of Drug Development, College of Pharmacy, Dongguk University)
- P-88S Drug library screening identifies NOX2 inhibitor with in vivo efficacy**
Yoon-Seok SEO (BK21 FOUR Team and Integrated Research Institute of Drug Development, College of Pharmacy, Dongguk University, Republic of Korea)
- P-89E Assessment of genotoxicity and carcinogenic potential of animal-based traditional Chinese medicine**
Yun-Rong TSAI (Master Degree Program in Toxicology, College of Pharmacy, Kaohsiung Medical University)

Nano Toxicology

- P-90S Evaluation of Toxicity of Silver Nanoparticle on Male Reproductive Capacity**
Yuma SAEKI (Sch. Pharm. Sci., Osaka Univ.)

P-91S Preparation of fluorescent nanoplastics for kinetic analysis

Mii HOKAKU (Sch. Pharm. Sci., Osaka Univ.)

Immuno Toxicology

P-92S Development of a method to enhance cancer immunity by microcurrent stimulation targeting the circadian clock system of macrophages

Fumiaki TSURUSAKI (Department of Pharmacokinetics, Graduate School of Pharmaceutical Sciences, Kyushu University)

P-93S Exploring peptides from human herpes virus which related with the HLA-B*58:01-mediated oxyprinol-induced idiosyncratic adverse effect

Nanami MITSUYAMA (Graduate School of Pharmaceutical Sciences, Nagoya City University, Regulatory Science)

P-94S Development of the regression model in machine learning to predict skin sensitization intensity and considerations for improving interpretability

Juri TOKUNAGA (Department of Regulatory Science, Graduate School of Pharmaceutical Sciences, Nagoya City University)

P-95S Selenium metabolic remodeling triggered by nitric oxide produced in inflammatory macrophages

Hayato TAKASHIMA (Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University)

P-96E Real-world surveillance of immune checkpoint inhibitor-induced immune-related adverse events and their impact on survival outcomes

Ryosuke MATSUKANE (Kyushu University Hospital, Department of Pharmacy)

P-97S Comparative study of the induction and enhancement of lung inflammation by different types of environmental particles

Wei LIU (Graduate School of Engineering, Kyoto University)

P-98S Effects of personal care product particulates on a murine atopic dermatitis model

Binyang QIU (Graduate School of Engineering, Kyoto University)

Clinical Toxicology

P-99S Screening for compounds that inhibit chronic kidney disease-induced cardiac inflammation and fibrosis

Miyu SAKUGAWA (Department of Clinical Pharmacokinetics, Faculty of Pharmaceutical Sciences, Kyushu University)

P-100S Drug structure design by deep learning to avoid hepatotoxicity

Kenshin GOTO (Biochemical Information Engineering Research Department, Graduate School of Information Engineering, Kyushu Institute of Technology)

P-101S Prediction by non-clinical toxicity studies for gastrointestinal adverse events caused by small molecule drugs

Masaru SAITO (Department of Pharmaceutical Sciences, International University of Health and Welfare)

Regulation Toxicology

P-102S Construction and Evaluation of a High-Performance Ames Prediction Model Using a Combination of Image Recognition and Molecular Description Methods Based on 3D Molecular Structures

Yuma IWASHITA (Department of Medical Molecular Informatics, Meiji Pharmaceutical University)

Developmental Toxicology

P-103S Effects of Fetotoxic Chemicals on the BeWo Cell Syncytialization Process

Wakako OKUNO (Sch. Pharm. Sci., Osaka Univ.)

P-104S Elucidation of the function of amino acid transporter SLC6A19 during placental syncytialization process

Momoe SERIZAWA (Sch. Pharm. Sci., Osaka Univ.)

P-105S Effects of paternal exposure to methylphenidate on the next generation in Balb/c mice

Kanata AKAIKE (Department of Toxicology, Showa University Graduate School of Pharmacy)

P-106S Developmental Toxicity Assessment Using Human iPSCs by Automated Measurement of FGF Signaling Disruption

Kashu MIZOTA^{1,3} (¹Faculty of Engineering, Yokohama National University, ³Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences)

P-107S Comprehensive Assessment of Pharmacovigilance: Drug-Induced Developmental Toxicity Insights from the VigiBase Individual Case Safety Reports Database

Tomoya KOMASAKA (Department of Medical Molecular Informatics, Meiji Pharmaceutical University)

P-108S Effects of Intrauterine Blood Flow Insufficiency on Brain Development: A Cross-Understanding for Developmental Neurotoxicology

Saki FUJIMURA (Division of Toxicology and Health Science, Faculty of Pharmaceutical Sciences, Sanyo-Onoda City University)

P-109S Assessment of maternal immune activation-induced neurodevelopmental effects on a neuronal differentiation tracer mouse model

Moeka NAGAHIRA (Gifu Pharm Univ)

P-110S Assessment of the early developmental toxicity of chlorinated paraffins using human iPSCs

Islem BOUKARA (Center for Marine Environmental Studies, Ehime University, Japan)

Metallomics Toxicology

P-111E Mechanism of cadmium-induced migration and invasion inhibition in extravillous trophoblast HTR-8/SVneo

Shoko OGUSHI (Laboratory of Public Health & Preventive Pharmacology Faculty of Pharmaceutical Sciences, Setsunan University)

P-112S Arsenite suppressed Thrombomodulin protein expression in vascular endothelial cells via ERK1/2 pathways activation

Ryoya TOKORO (Department of Environmental Health, Faculty of Pharmaceutical Sciences, Toho University)

P-113S Effect of arsenite on PAI-1 expression in macrophage-like cells - analysis of different macrophage types -

Natsumi SASA (Department of Environmental Health, Faculty of Pharmaceutical Sciences, Toho University)

P-114S Evaluation of enzyme activity of selenosugar synthase by speciation analysis

Karin TAKAHASHI (Graduate School of Medicine and Pharmaceutical Sciences, Chiba University)

P-115S Defense Response against Arsenite Toxicity via ATF-4 Activation in Vascular Endothelial Cells

Tomohiro TAJIMA (Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences)

P-116S 4-Phenylbutyrate inhibition of methylmercury-Induced neuronal cell death

Ryohei MIKI (Department of Medicinal Pharmacology, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University)

P-117S Contribution of claudin-5/ZO-1 to cadmium-induced endothelial cytotoxicity

Tatsuya YAMAGISHI (Department of Environmental Health, Faculty of Pharmaceutical Sciences, Toho University)

Organ Toxicology

P-118S Recapitulation of IBD pathophysiology and evaluation of its drug efficacy using colon organoids

Fuki YOKOI (Center for iPS Cell Research and Application (CiRA), Kyoto University)

P-119E Reversible and monitorable nephrotoxicity in rats by the novel potent transcriptional enhanced associate domain (TEAD) inhibitor, K-975

Hironori OTSUKI^{1,2} (¹Toxicological Research Laboratories, Kyowa Kirin Co., Ltd., ²Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka)

P-120S Analysis of the relationship between blood levels of Mac-2 binding protein (Mac-2bp) and hepatic lesion in a mouse model of NASH

Ryohei KAMINO (Department of Food and Nutritional Science, Graduate School of Agriculture, Tokyo University of Agriculture)

P-121S Mechanism for centrilobular hepatocyte hypertrophy: Analysis using gene expression data and machine learning

Kazuki IKOMA (Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka)

P-122S Transcriptome analysis of cultured human vascular endothelial cells after γ -ray irradiation and correlation analysis with ATP, ADP, and adenosine as secondary soluble factors

Miyabi KOBAYASHI (Faculty of Pharmaceutical Sciences, Tokyo University of Science)

P-123S Pathophysiological roles of macromolecular complex of I_{Ks} channels during sepsis

Yuma SUZUKI (University of Shizuoka Department of Bio-informational Pharmacology)

P-124E Elucidation of the liver pathophysiology of progressive familial intrahepatic cholestasis using patient-derived iPS cells

Sayaka DEGUCHI (Center for iPS Cell Research and Application, Kyoto University)

P-125S Establishment of a mouse drinking water model of liver injury using 4,4'-methylene dianiline and evaluation of toxicity profile

Takumi IWASAKA (Laboratory of Molecular Pharmacokinetics, Graduate School of Pharmaceutical Sciences, The University of Tokyo)

P-126E Establishment of gall bladder organoid derived from cholesteric cholelithiasis model mouse and its application

Haru YAMAMOTO (Laboratory of Veterinary Pharmacology, Tokyo University of Agriculture and Technology)

P-127S Pathophysiological analysis of repeated dose toxicity study of Ethyl Carbamate (EC;Urethane) in mice

Sayaka OHASHI (Division of Nutritional Science and Food Safety, Department of Applied Biosciences, Tokyo University of Agriculture)

P-128S Fibroblast growth factor 23 exacerbates myocardial hypertrophy induced by non-alcoholic steatohepatitis

Yuma NONOSHITA (Department of Veterinary Pharmacology, Graduate School of Agriculture and Life Sciences, The University of Tokyo)

P-129S Echinochrome prevents sulfide catabolism-associated chronic heart failure after myocardial infarction in mice

Xiaokang TANG^{1, 2, 3} (¹National Institute of Natural Sciences, National Institute for Physiological Sciences, Division of Cardiovascular Signaling, ²National Institutes of Natural Sciences, Exploratory Research Center on Life and Living Systems (EXCELLS), Cardiovascular Dynamism Research Group, ³The Graduate University for Advanced Studies, School of Life Science, Department of Physiological Sciences)

P-130S Quantitative relationships between the LOEL values for hepatotoxicity and cytochrome P450-inhibitory activity of chemical substances

Nana UCHIDA (Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka)

P-131S Association analysis of CYP1A1 inhibition with hepatotoxicity using the results of rat repeated-dose toxicity study of pesticides

Minami SHIBATA (Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka)

P-132E Relationship between immunohistochemical changes of vimentin in Sertoli cells and spermatogenic defects

Hirokatsu SAITO (Division of Cellular and Molecular Toxicology, Center for Biological Safety and Research, National Institute of Health Sciences)

Day 2 (July 4 (Thu) 17:15 - 18:00) Poster&Exhibition Room

Agricultural Toxicology

P-133 Novel *in vitro* eye irritation screening test for Agrochemical formulations

Yoshitaka KAWARAI (Kyoyu Agri Co., Ltd.)

P-134 Understanding species differences in drug susceptibility based on protein 3D structures: A case study on VKOR

Kazuki TAKEDA^{1, 2} (¹Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University, ²Department of Computer Science, Tokyo Institute of Technology)

P-135 Evaluation of neurotoxicity and prediction of mechanism of action for insecticides in MEA measurement of human iPS cell-derived neurons

Naoki MATSUDA (Tohoku Institute of Technology)

Redox Toxicology

P-136 Essential Oils Derived from Okinawan Plants Protect Oxidative Stress-Induced Mitochondrial Dysfunction in Human Skin Cells

Naoki IMAIZUMI (Laboratory of Clinical Physiology, School of Health Sciences, Faculty of Medicine, University of the Ryukyus)

P-137 Effects of environmental chemical exposure on gut bacteria via protein chemical modification

Hanako AOKI (Showa University Clinical Research Institute for Clinical Pharmacology and Therapeutics)

P-138 Effect of falcariindiol on hydrogen sulfide-induced cytotoxicity in PC12 cells

Tomokazu OHNUMA (School of Pharmacy, Tokyo University of Pharmacy and Life Sciences)

P-139 Evaluation of Cardiotoxicity by Anticancer Drugs Focusing on Mitochondrial Function

Moe KONDO^{1,2} (¹Department of Medicine and Biosystemic Science, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan, ²Graduate School of Pharmaceutical Sciences, Kyushu University, Fukuoka, Japan)

Food Toxicology

P-140 Recent trends in developments and regulatory systems in other countries regarding food safety of the so-called “cultured meat”

Toshime IGARASHI (Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences)

P-141 Food Biohazard Study for Cell Culture Food 2: Effects of old age on gene expression in cultured cells and gene variation in biosynthesis/degradation of toxic substances in vivo during passaging

Masatoshi HORI (Laboratory of Veterinary Pharmacology, Department of Veterinary Medical Sciences, Graduate School of Agriculture and Life Sciences, The University of Tokyo)

Organelle Toxicology

P-142 Effect of long-term treatment with metal compounds on itch mediator production in keratinocytes

Kazuhiko NISHIMURA (Laboratory of Bioenvironmental Sciences, Department of Veterinary Science, Graduate School of Veterinary Science, Osaka Metropolitan University)

P-143 Viability evaluation of cultured cells (cell lines, iPS) using a particle counting analyzer

Yasunori ODA (R&I Business Development, Sysmex Corporation)

P-144 Analysis of mitochondrial susceptibility to hepatotoxicants in aged steatotic liver

Kazuma HAMADA (Biopharmaceutics and Molecular Toxicology Unit, Faculty of Pharmaceutical Sciences, Teikyo Heisei University)

P-145 Examination of the involvement of tight junctions in the permeation of polystyrene particles in a Caco-2 cell intestinal epithelial model

Hiroshi NAKAGAWA (Laboratory of Toxicology, Graduate School of Veterinary Science, Osaka Metropolitan University)

P-146 Inhibition of proteoglycan synthesis in vascular endothelial cells by carbonyl compounds involved in the generation of advanced glycation endproducts (AGEs)

Takato HARA (Department of Environmental Health, Faculty of Pharmaceutical Sciences, Toho University)

P-147 Cigarette smoke extract-induced mitochondria hyperfission and cardiomyocyte early senescence

Akiyuki NISHIMURA (Division of Cardiocirculatory Signaling, National Institute for Physiological Sciences)

Genetic Toxicology

P-148 Developing molecular and computational approaches for detection of integration of AAV gene therapy constructs

Masanori KOBAYASHI (Pfizer R&D Japan)

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Byeong-Cheol KANG^{1,2} (¹Graduate School of Translational Medicine, Seoul National University College of Medicine, ²Department of Experimental Animal Research, Biomedical Research Institute, Seoul National University Hospital, Seoul, Korea)

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Masaki FUJIOKA (Department of Molecular Pathology, Osaka Metropolitan University Graduate School of Medicine)
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Lucia Satiko YOSHIDA-YAMASHITA (Division of Risk Assessment, National Institute of Health Sciences)
- P-301 A questionnaire survey on reproductive and developmental toxicity studies and its alternative assays for pharmaceutical products**
Fumito MIKASHIMA (Pharmaceuticals and Medical Devices Agency)
- P-302 Changes in gene expression due to product-related impurities of nucleic acid therapeutics**
Kazuya ISHIDA (Chemicals Evaluation and Research Institute, Japan)
- P-303 *In vivo* mutagenicity evaluation of cobalt acetate tetrahydrate**
Takako ISO (Division of Risk Assessment, Center for Biological Safety and Research, National Institute of Health Sciences)
- P-304 Draft guideline for non-clinical safety evaluation of chemically synthesized peptide drugs with nonnatural structures**
Yoshiro SAITO (National Institute of Health Sciences)
- P-305 Developmental neurotoxicity assessment of pyrethroids using human iPSC-derived neurons with multi-electrode array system**
Yukuto YASUHIKO (Division of Pharmacology, National Institute of Health Sciences)
- P-306 Development of a risk assessment scheme for leachables from water supply equipment**
Akihiko HIROSE (Chemicals Evaluation and Research Institute, Japan)
- P-307 Case of establishment of a SEND data utilizing system through a cross-study data integration and visualization in a pharmaceutical company**
Keigo IKEDA (Sumitomo Pharma Co., Ltd.)
- P-308 Development of analytical method for thyroid hormones (T3 and T4) in blood using LC-MS/MS**
Hiromi NOZAKI (Safety Research Institute for Chemical Compounds Co., Ltd)

P-309 Understanding Changes in SENDIG-DART v1.2 and Exploring Specific Approaches to Address the Changes

Shin-ichi HORIKAWA (Ina Research Inc.)

Developmental Toxicology

P-310 Reproductive and neurobehavioral effects of combined exposure to dinotefuran and synergist in an F₁-generation toxicity study in mice: Single and combined administration based on ADI

Toyohito TANAKA (Division of Toxicology, Department of Pharmaceutical and Environmental Sciences, Tokyo Metropolitan Institute of Public Health)

P-311 Solutions to problems in reproductive and developmental toxicity studies (2) -Development of drugs causing testicular toxicity and analysis of reasons for their approval-

Ryuichi KATAGIRI^{1,5} (¹Chugai Pharmaceutical Co., Ltd., ⁵KT2, Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association)

P-312 Solutions for issues in reproductive and developmental toxicity studies (1) Strategy of Reproductive and Developmental Toxicity Studies for Marketing Application in Pharmaceutical Development

Takuro OSAWA^{1,6} (¹Kowa Company, Ltd., ⁶KT2, Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association)

P-313 ex vivo MicroCT and Finite Element Analyses of Trabecular Bone in Pediatric Femoral Neck

Yuji ISOBE (Drug Safety Research & Development, Pfizer R&D Japan)

P-314 Developmental Toxicity Assessment Using Human iPSCs Based on the Wnt Signal Disruption

Rieko MATSUURA (Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences)

P-315 Effect on Testicular Development in Rats by Differences in Timing of γ -ray Irradiation

Dai YAMAMOTO (Mediford Corporation)

P-316 An attempt to assess developmental neurotoxicity through behavioral analysis using zebrafish

Mizuho ONO (New Business Development Group, Environmental, Health and Safety Assessment Center, Mitsubishi Chemical Research Corporation)

P-317 Retrospective survey of key toxicological findings related to developmental neurotoxicity caused by pesticides

Makiko KUWAGATA (Division of Cellular and Molecular Toxicology, CBSR, National Institute of Health Sciences)

P-318 Animal model of intrauterine hypo-perfusion for understanding the commonalities of developmental toxicity

Wakana YAMADA (Division of Toxicology and Health Science, Faculty of Pharmaceutical Sciences, Sanyo-Onoda City University)

■ Metallomics Toxicology

P-319 Novel synthetic approaches and biological functions of selenosugars

Noriyuki SUZUKI^{1,3} (¹Faculty of Pharmaceutical Sciences, Toho University, ³Graduate School of Pharmaceutical Sciences, Chiba University)

P-320 Verification of Cell Specificity in Methylmercury Toxicity

Akio SUMIOKA (Department of Basic Medical Sciences, National Institute for Minamata Disease)

P-321 Eliminating effect of retinoic acid on cadmium toxicity and gene expression changes

Jin-Yong LEE (School of Pharmacy, Aichi Gakuin University)

P-322 Diphenylarsinic acid could bind to specific intracellular proteins in cultured normal rat cerebellar astrocytes

Shoto SASAKI (Department of Pharmaceutical Sciences, International University of Health and Welfare)

P-323 Uranium dynamics and localization in established renal tubular cells derived from S1 to S3 regions

Shino HOMMA TAKEDA (Institute for Radiological Science, National Institutes for Quantum Science and Technology)

P-324 The association between toxic metal exposure and site-selective biomarkers of renal injury

Kenta IWAI (Health and Environmental Risk Division, National Institute for Environmental Studies)

P-325 Alteration in protein supersulfide induced by methylmercury in neuronal cells

Takamitsu UNOKI (National Institute for Minamata Disease)

P-326 Role of Nrf2 in Arsenic-induced Endothelial Vascular Toxicity in Vitro Studies

Yusuke KIMURA (Department of Environmental and Preventive Medicine, School of Medicine, Jichi Medical University)

P-327 Protective effects of glutathione on the cytotoxicity of various metalloids in rat proximal tubular epithelial cells

Maki TOKUMOTO (School of Pharmacy, Aichi Gakuin University)

■ Organ Toxicology

P-328 Identification of novel PPAR γ -regulated microRNAs as involved in hepatic lipid accumulation

Kohei MATSUI (Faculty of Pharmaceutical Sciences, Department of Pharmaceutical Sciences, Fukuoka University)

P-329 Evaluation of phenobarbital-induced perturbation of thyroid hormone in wild type and CAR knockout mice using micro-sampling technique

Junji YANO (Sumitomo Chemical Co., Ltd.)

P-330 Mouse tracheal epithelial cells in Air-Liquid Interface culture recapitulate in vivo responses to long-term cigarette smoke exposure

Kyoko KUSHIBE (Scientific Product Assessment Center, Japan Tobacco)

P-331 Development of culture technology and functional evaluation of human liver organoids

Ai YAMAGUCHI (Life Science Laboratory, Technology and Development Division, Kanto Chemical Co., Inc.)

- P-332** Feasibility study on prediction of drug-induced cardiac events using Multivariate Analysis of the Ca transient in human iPS Cell-Derived Cardiomyocytes
Atsunori HATTORI (Laboratory for Drug Discovery and Development, Shionogi & CO., LTD.)
- P-333** The New Medium to Promote Bile Canaliculi Formation without Matrigel Sandwich Culture
Teruhiko WATANABE (Technology & Development Division, Life Science Laboratory, Kanto Chemical Co., Inc.)
- P-334** Development of an *in vitro* co-culture model to evaluate the mechanism of gastrointestinal toxicity induced by a GUCY2c/CD3 bispecific antibody
Tetsuki KATO (Pfizer R&D Japan)
- P-335** Evaluation of skin inflammatory responses with an *in vitro* three-dimensional reconstructed skin model containing human-induced pluripotent stem cell-derived macrophages
Takahiro YAMAZAKI (KIRIN Central Research Institute, Kirin Holdings Co., Ltd.)
- P-336** *In vitro* three-dimensional reconstruction of a model of aged skin with epidermal thinning and lowered barrier function
Yuji MORITA (KIRIN Central Research Institute, Kirin Holdings Co., Ltd.)
- P-337** Effects of multiple blood sampling on detection sensitivity for QT prolongation by moxifloxacin in cynomolgus monkey
Katsuyuki KAZUSA (Astellas Pharma Inc.)
- P-338** CD44 expression in an allopurinol-induced rat model of AKI to CKD
Kohei MATSUSHITA (Division of Pathology, National Institute of Health Sciences)
- P-339** Possible relationship between genetic polymorphisms of phase II drug metabolizing enzymes (SLUT1E1, NAT2) and liver cancer in Japanese
Yasuna KOBAYASHI (Showa University, School of Pharmacy)
- P-340** Comparison of intra-tracheal intrapulmonary spraying (TIPS) and systemic inhalation methods for classification of poisonous and deleterious substances in rats
Hirotohi AKANE (Division of Pathology, National Institute of Health Sciences)
- P-341** Quantitative evaluation of drug-induced cholestatic hepatotoxicity using an *in vitro* culture model
Mimori YAMADA (Chugai Pharmaceutical Co., Ltd.)
- P-342** An exploratory study to establish a method for evaluating gut sound data in monkeys using an electronic stethoscope
Etsuko OHTA (Global Drug Safety, Eisai Co., Ltd.)
- P-343** AI-based CT imaging analysis for drug-induced lung injury in cynomolgus monkeys
Ken SAKURAI (Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.)
- P-344** Examination of co-culture medium of human cryopreserved hepatocytes and engineered heart tissue for a cardiotoxicity evaluation via drug metabolism
Daiju YAMAZAKI (Division of Pharmacology, National Institute of Health Sciences)

P-345 The role of activating transcription factor 5 (ATF5) on lipid droplet formation in mouse liver

Akari URANO (Laboratory of Environmental Biology, School of Life Sciences, Tokyo University of Pharmacy and Life Sciences)

P-346 Development of the nephrotoxicity evaluation system by nucleic acid drugs using 3D-cultured human renal proximal tubule epithelial cells

Kaoru MORIMURA (R&D Department, Precision Engineering Center, Industrial Division, Nikkiso Co., Ltd.)

P-347 Strain differences in diet-induced nonalcoholic steatohepatitis conditions in rats

Kinuko UNO (Laboratory of Animal Physiology and Functional Anatomy, Graduate School of Agriculture, Kyoto University)

P-348 Development of cardiac contractile function evaluation system by measuring impedance of human iPS cell-derived cardiomyocytes using a multipoint electrode array

Reiko HARA (FUJIFILM Corporation)

P-349 Analysis of the mechanism of impaired cadmium reabsorption using rat proximal tubule-cells

Hitomi FUJISHIRO (Faculty of Pharmaceutical Sciences, Tokushima Bunri University)

Pathological Toxicology

P-350 The strategy of incorporating the histopathological examination into the Bovine Corneal Opacity and Permeability (BCOP) test: New development for implementation

Yukie ABIKO (Safety Research Institute for Chemical Compounds Co., Ltd.)

P-351 Development and application of immunostaining database at Conference on Experimental Animal Histopathology

Takayasu MOROKI^{1,2} (¹Conference on Experimental Animal Histopathology, ²Department of Drug Safety Research, Preclinical Research, Tokushima Research Center for Drug Discovery, Otsuka Pharmaceutical Co., Ltd.)

Drug Toxicology

P-352 Developing predictive in vitro Glomerulus, Proximal Tubule and Loop of Henle renal cell model platforms to investigate the renal uptake and nephrotoxic liability of Large Molecules

Colin BROWN (Newcells Biotech)

Environmental Toxicology

P-353 Utilization of high-content imaging for the study of lung fibrosis

Colin BROWN (Newcells Biotech)