Special Lecture

Special Lecture

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

Chair: Gi-Wook HWANG (Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University)

SL
9:30 - 10:30

Functional role of pyruvate kinase M2 in diabetic kidney disease

○ Hyung Sik KIM
Division of Toxicology, School of Pharmacy, Sungkyunkwan University

Educational Lecture

Educational Lecture 1

July 3 (Thu) 11:00 - 12:00 Room 1

Chair: Mamoru MUTAI (Mediford Corporation)

EL1
11:00 - 12:00

Navigating the nonclinical pathway to clinical trials for AAV therapeutics

○ Jessica L LYNCH
Preclinical Sciences and Translational Safety, Johnson and Johnson

Educational Lecture 2

July 4 (Fri) 9:00 - 10:00 Room 1

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

EL2
9:00 - 10:00

Challenge for personalized healthcare: The Tohoku Medical Megabank Project

○ Masayuki YAMAMOTO
Tohoku Medical Megabank Organization, Tohoku University

Invited Lecture

Invited Lecture July 3 (Thu) 10:30 - 12:30 Room 2

Invited Lectures by Presidents in ASIATOX

Chairs: Yasumitsu OGRA (Graduate School of Pharmaceutical Sciences, Chiba University)
Rozaini ABDULLAH (Department of Environmental and Occupational Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia / Malaysian Society of Toxicology)

IL-1 10:30 - 10:54

Addressing Toxicological Challenges in Malaysia: Pathways to Sustainable Solutions

○ Rozaini ABDULLAH[1, 2]

[1]Department of Environmental and Occupational Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, [2]Malaysian Society of Toxicology

IL-2 10:54 - 11:18

Transforming growth factor-β2 antisense oligonucleotide enhances T-cell mediated anti-tumor activities against diverse human cancers in humanized mouse models

○ Kyung-Chul CHOI

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

IL-3 11:18 - 11:42

New Approach Methodologies for Fish Acute and chronic Toxicity: A novel integrated testing strategy (ITS) for Regulatory Applications

Yen-Ling LEE, Zi-Yu CHEN, Tzu-Ning LI, Jui-Chun KUO, Jian-Feng HSUEH,
○ Ying-Jan WANG

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

IL-4 11:42 - 12:06

Toxicology for Sustainable Safe Society with Thai Society of Toxicology (TST)

○ Songsak SRIANUJATA

President, Thai Society of Toxicology

IL-5 12:06 - 12:30

What to Develop a Sustainable and Diverse Academic Societies for Toxicology
-The JSOT initiatives and the need for new toxicological methods-

○ Akihiko HIROSE

Japanese Society of Toxicology

Symposium

Symposium 1

July 2 (Wed) 9:30 - 11:30 Room 1

Innovative Safety Assessment Using Real World Data

Chairs: Yoshito ZAMAMI (Department of Pharmacy, Okayama University Hospital)
Sachiko TANAKA (Kobe Pharmaceutical University)

Opening Remarks
9:30 - 9:32

S1-1 9:32 - 9:55
Post-marketing safety measures and utilization of Real-World Data at PMDA
○ Emiko KONDO
Pharmaceuticals and Medical Devices Agency

S1-2 9:55 - 10:18
Regulations on the Evaluation of Post-Marketing Drug Safety Using Real-World Data and International Harmonization
○ Takashi WAKI
Division of Pharmacoepidemiology, Office of Pharmacovigilance I, Pharmaceuticals and Medical Devices Agency

S1-3 10:18 - 10:41
Bringing data closer: Understanding and expanding the use of real world data (From the perspective of a private company)
○ Gen TERASHIMA
JMDC Inc.

S1-4 10:41 - 11:04
Drug safety evaluation using Nihon University School of Medicine's Clinical Data Warehouse
○ Takuya NAGASHIMA[1, 2]
[1]Division of Pharmacology, Department of Biomedical Sciences, Nihon University School of Medicine,
[2]Clinical Trials Research Center, Nihon University School of Medicine

S1-5 11:04 - 11:27
Bridging the gap between clinical and non-clinical safety evaluation of drugs
○ Yasunari KANDA, Hiroyuki KAWAGISHI
Division of Pharmacology, National Institute of Health Sciences

Closing Remarks
11:27 - 11:30

Symposium 2

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

KSOT-JSOT Joint Symposium: Breakthrough led by advanced *in vitro* models and its future

Chairs: Tadahiro SHINOZAWA (Takeda Pharmaceutical Company)
Young-jin CHUN (Chung-Ang University)

S2-1 9:30 - 9:54
Japanese Initiatives for the Industrial Implementation of MPS in Collaboration with Asian Countries
○ Seiichi ISHIDA[1, 2]
[1]Division of Applied Life Science, Graduate School of Engineering, Sojo University, [2]National Institute of Health Sciences

S2-2 9:54 - 10:18

Ex Vivo Live Full-Thickness Porcine Skin Model as a Versatile *In Vitro* Tool for Skin Safety Test

○ Kyung-Min LIM[1, 2], Jeong-Hyun HONG[1, 2], Jee-Hyun HWANG[1, 2], Hyeonyoung KIM[1, 2]

[1]College of Pharmacy, Ewha Womans University,
[2]Gradutate Program in Innovative Biomaterials Convergence, Ewha Womans University

S2-3 10:18 - 10:42

Current status and challenges of *in vitro* safety assessment of acute neurotoxicity caused by nucleic acid drugs

○ Toshikatsu MATSUI, Akio IMANISHI, Tomoya SAMESHIMA, Tadahiro SHINOZAWA

Global Drug Safety Research and Evaluation, Research, Takeda Pharmaceutical Company Limited

S2-4 10:42 - 11:06

Kidney Micro Physiological Systems for Nephrotoxicity Assessment

○ Sejoong KIM[1, 2]

[1]Seoul National University Bundang Hospital, [2]Seoul National University College of Medicine

S2-5 11:06 - 11:30

Organoid based drug discovery and development; From science to Industry

○ Jongman YOO[1, 2]

[1]Organoidsciences, Ltd., [2]CHA University School of Medicine

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Symposium 3 **July 2 (Wed) 10:00 - 11:30 Room 3**

How to evaluate chemical toxicity associated with hypothyroidism?

Chairs: Tsuyoshi NAKANISHI (Laboratory of Hygienic Chemistry and Molecular Toxicology, Gifu Pharmaceutical University)
Takeshi TOYODA (Division of Pathology, Center for Biological Safety and Research, National Institute of Health Sciences)

Introduction

10:00 - 10:01

S3-1 10:01 - 10:23

Why is the disruption of thyroid function by environmental chemicals a concern? ~ The critical role of thyroid hormones in neuronal development ~

○ Izuki AMANO

Department of Integrative Physiology, Graduate School of Medicine Gunma University

S3-2 10:23 - 10:45

Assessment of Reproductive and Developmental Toxicity in a Mouse Hypothyroidism Model: Correlation with Thyroid-Related Endpoints

○ Tsuyoshi NAKANISHI

Laboratory of Hygienic Chemistry and Molecular Toxicology, Gifu Pharmaceutical University

S3-3 10:45 - 11:07

Collection of basic information for the proper evaluation of thyroid effects – Possible effects of differences in dietary phytoestrogen levels and rat colonies

○ Akira SATO, Naruto TOMIYAMA, Tadashi KOSAKA, Atsushi SHIGA, Hitoshi HOJO, Hiroaki AOYAMA

The Institute of Environmental Toxicology

S3-4 11:07 - 11:29
Detection and mechanistic estimation of antithyroid chemicals in repeated-dose oral toxicity studies in rats
○ Takeshi TOYODA, Hirotoshi AKANE, Yuji ISHII, Kumiko OGAWA
Division of Pathology, Center for Biological Safety and Research, National Institute of Health Sciences

Conclusion 11:29 - 11:30

Symposium 4 **July 2 (Wed) 9:30 - 11:30 Room 4**

Career Development Support Symposium: Advice for Obtaining a PhD

Chairs: Kouichi YOSHINARI (School of Pharmaceutical Sciences, University of Shizuoka/JSOT Science and Publicity Committee)
Yukinori AMANO (JSOT Science and Publicity Committee)
Naoki TORITSUKA (Genmab K.K./JSOT Science and Publicity Committee)

S4-1 9:30 - 9:45
Introduction: Purpose of the symposium and survey results on obtaining a Ph.D.
○ Kouichi YOSHINARI[1, 2]
[1]Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka,
[2]The Academic Subcommittee of the Japanese Society of Toxicology

S4-2 9:45 - 10:00
The journey of a corporate toxicologist to obtain a Ph.D.: A case report
○ Hideaki YOKOYAMA
Toxicology Research Laboratories, Central Pharmaceutical Research Institute, JAPAN TOBACCO INC.

S4-3 10:00 - 10:15
My experience of obtaining a PhD
○ Yuko NAGAYAMA
Eisai Co., Ltd.

S4-4 10:15 - 10:30
Experiences in Earning a Ph.D on a Theme Different from Corporate Research
○ Yohei INAI
Translational Research Labs, Bio-Pharmaceutical Center, Kyowa Kirin Co., Ltd.

S4-5 10:30 - 10:45
The advantages of obtaining a doctoral degree before employment
○ Yuki MINAYOSHI
SNBL Co., Ltd.

Discussion 10:45 - 11:30

Toxicological Considerations of Weight of Evidence (WoE) Evaluation in Pharmaceutical Development

Chairs: Fumito MIKASHIMA (Pharmaceuticals and Medical Devices Agency)
Mutsumi SUZUKI (Japan Pharmaceutical Manufacturers Association/Kyowa Kirin Co., Ltd.)

Introduction
9:30 - 9:32

S5-1
9:32 - 9:55

Weight of Evidence Approach on DART evaluation - Work of HESI DART NHPs WG

○ Fumito MIKASHIMA, Kazushige MAKI
Pharmaceuticals and Medical Devices Agency

S5-2
9:55 - 10:13

Points to consider in carcinogenicity evaluation of rats using WoE Evaluation: A Regulatory Perspective

○ Jihei NISHIMURA[1], Takeshi TOYODA[2], Akiyoshi NISHIKAWA[2], Kumiko OGAWA[2]
[1]Pharmaceuticals and Medical Devices Agency, [2]National Institute of Health Sciences

S5-3
10:13 - 10:41

Carcinogenicity Risk Assessment by Weight of Evidence Approach and Waiver of 2-Year Rat Studies

○ Kenjiro TSUBOTA[1], Jose LEBRON[2]
[1]Astellas Pharma Inc., [2]Merck & Co., Inc.

S5-4
10:41 - 10:59

Weight of Evidence in Nonclinical Studies for Pediatric Drug Development: Insights from ICH-S11 Discussions

○ Yuhji TAQUAHASHI
Division of Cellular and Molecular Toxicology, CBSR, National Institute of Health Sciences

S5-5
10:59 - 11:27

WoE Approach in Decision to Conduct Non-Clinical Safety Studies Using Juvenile Animals

○ Ryuichi KATAGIRI[1, 2]
[1]Safety and Bioscience Research Dept., Chugai Pharmaceutical Co., Ltd.,
[2]KT2, Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association (JPMA)

Conclusion
11:27 -11:30

Symposium 6

July 2 (Wed) 14:15 - 15:45 Room 1

Practical Applications of Forward/Reverse Translational Research for Safety Evaluation of Drugs - Case Studies of Pharmaceutical Companies

Chairs: Ken-ichiro NAN-YA (Bio-Pharmaceutical Center, Translational Research Laboratories, Kyowa Kirin Co., Ltd.)
Masanori KURIBAYASHI (Ono Pharmaceutical, Co. Ltd., Safety Research Laboratories)

Introduction
14:15 - 14:18

S6-1
14:18 - 14:39

New insights from translational research to investigate the mechanism of toxicity

○ Koichi GOTO

Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.

S6-2
14:39 - 15:00

Evaluation of the extrapolation of serious toxic changes observed in monkeys to humans

○ Yuuki ISAJI, Kiyoshi SHIMIZU, Nobuto NAKANISHI, Masumi HIGASHIYAMA, Daisuke HIBI, Masanori KURIBAYASHI

Safety Research Laboratories, Discovery and Research, ONO Pharmaceutical co., ltd.

S6-3
15:00 - 15:21

Reverse translational research on cytokine release syndrome caused by the antibody drug in Phase I trials

○ Hironori OTSUKI, Yohei INAI, Rie HIRANO, Tetsuro ARAKI, Ken-Ichiro NAN-YA

Toxicology Research Group 1, Translational Research Labs., Bio-Pharmaceutical Center, Kyowa Kirin Co., Ltd.

S6-4
15:21 - 15:42

Reciprocal Translational Research: Lessons Learned from Internal Clinical Programs

○ Satoru KAJIKAWA

Non-Clinical Regulatory Science, Astellas Pharma Inc.

Conclusion
15:42 - 15:45

Symposium 7

July 2 (Wed) 14:15 - 15:45 Room 2

Technology and fundamental research to predict/assess drug toxicity based on pharmacokinetics - Liver, kidneys, and intestine -

Chairs: Miki NAKAJIMA (Faculty of Pharmaceutical Sciences, Kanazawa University)
Hiroyuki KUSUHARA (Graduate School of Pharmaceutical Sciences, the University of Tokyo)

S7-1
14:15 - 14:45

Association of reactive metabolite production with ferroptosis in drug-induced liver injury

○ Tatsuki FUKAMI[1, 2]

[1]Drug Metabolism and Toxicology, Faculty of Pharmaceutical Sciences, Kanazawa University,
[2]WPI Nano Life Science Institute (WPI-Nano LSI), Kanazawa University

S7-2
14:45 - 15:15

Development of an *in vitro* evaluation method for drug-induced kidney injury using 3D cultured human proximal tubular epithelial cells

○ Hiroshi ARAKAWA

Faculty of Pharmacy, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University

S7-3
15:15 - 15:45

Development of Drug Pharmacokinetics and Toxicity Evaluation Methods Using Small Intestinal Organoids

○ Hiroyuki KUSUHARA
Graduate School of Pharmaceutical Sciences, the University of Tokyo

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Symposium 8 **July 2 (Wed) 16:00 - 18:00 Room 2**

Symposium on the Mechanisms of Drug Toxicity: Animal models to elucidate the mechanisms of drug toxicity

Chairs: Mayumi ISHIZUKA (Laboratory of Toxicology, Faculty of Veterinary Medicine, Hokkaido University)
Mamoru MUTAI (Mediford Corporation)

Introduction
16:00 - 16:05

Mamoru MUTAI
Mediford Corporation

S8-1
16:05 - 16:40

Identification of Liver-Derived Exosomes as Biomarkers for Hepatotoxicity Using a Genetically Engineered Mouse Model

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

S8-2
16:40 - 17:15

Generation of humanized mice via designer chromosomes and the application for toxicological research

○ Yasuhiro KAZUKI[1], Kazuma TOMIZUKA[2], Hironobu SAITOH[1]
[1]Chromosome Engineering Research Center, Tottori University,
[2]Faculty of Life Sciences, Tokyo University of Pharmacy and Life Sciences

S8-3
17:15 - 17:50

Ultrahigh field MRI: A new strategy for imaging metabolomics to translate experimental medicine

○ Makoto SUEMATSU
Central Institute for Experimental Medicine and Life Science

Discussion
17:50 - 17:55

Conclusion
17:55 - 18:00

Mayumi ISHIZUKA
Laboratory of Toxicology, Faculty of Veterinary Medicine, Hokkaido University

Symposium 9 **July 2 (Wed) 14:15 - 16:15 Room 4**

JSEDR-JSOT Joint Symposium-1: Diversity and Commonality of Endocrine Disruptors Testing Methods

Chairs: Noriyuki KOIBUCHI (Gunma University)
Norihisa TATARAZAKO (Graduate School of Agriculture at Ehime University)

Introduction
14:15 -14:25

S9-1
14:25 - 14:35

Introduction: Collaboration with the Japanese Society of Endocrine Disruptors Reseach

○ Jun KANNO[1, 2, 3, 4]

[1]National Institute of Health Sciences, [2]Nissan Tamagawa Hospital, [3]University of Tsukuba, Faculty of Medicine, [4]Systems Biology Institute

S9-2
14:35 - 14:59

Evaluation Methods for Endocrine Disruption Using Fish

○ Norihisa TATARAZAKO

Graduate School of Agriculture at Ehime University

S9-3
14:59 - 15:23

Methods for assessing endocrine disruption in *Daphnia*

○ Hitoshi MIYAKAWA

Center for Bioscience Research and Education, Utsunomiya University

S9-4
15:23 - 15:47

Perinatal thyroid hormone disruption in offspring: Challenges in developing an evaluation system considering multiple points of action!

○ Tomoya YAMADA

Labcorp Laboratories Japan GK

S9-5
15:47 - 16:11

***In Vitro* and *In Vivo* Assays for Developmental Neurotoxicity Assessment of PFAS**

○ Yuki FUJIWARA, Ayane NINOMIYA, Kisho OBI, Izuki AMANO, Noriyuki KOIBUCHI

Department of Integrative Physiology, Gunma University Graduate School of Medicine

Conclusion
16:11 -16:15

Symposium 10 **July 2 (Wed) 16:15 - 18:15 Room 4**

JSEDR-JSOT Joint Symposium-2: Children's Toxicology - Recognition of the Adverse Effect of Chemical Exposure on Children's Higher Brain Function

Chairs: Nobuhiko HOSHI (Kobe University)
Jun KANNO (National Institute of Health Sciences / Nissan Tamagawa Hospital / University of Tsukuba, Faculty of Medicine / Systems Biology Institute)

Introduction
16:15 -16:18

S10-1
16:18 - 16:46

A silent pollution-our future stolen by low level neonicotinoids

○ Kumiko TAIRA

Department of Anesthesiology, Adachi Medical Center, Tokyo Women's Medical University

S10-2
16:46 - 17:14

Association between cord serum neonicotinoid and neurodevelopment: Findings from a birth cohort

○ Kenji J TSUCHIYA[1, 2]

[1]Research Center for Child Mental Development, Hamamatsu University School of Medicine,
[2]United Graduate School of Child Development, The University of Osaka, Kanazawa University, Hamamatsu University School of Medicine, Chiba University, and University of Fukui

S10-3
17:14 - 17:42

Evaluation of the transgenerational effects of endocrine-disrupting chemicals using a mouse model

○ Nobuhiko HOSHI

Laboratory of Animal Molecular Morphology, Department of Animal Science, Graduate School of Agricultural Science, Kobe University

S10-4
17:42 - 18:10

Effects of exposure to the organophosphorus insecticide acephate during development on the nervous system of adult male and female mice

○ Kentaro TANEMURA

Laboratory of Animal Reproduction and Development, Graduate School of Agricultural Science, Tohoku University

Discussion
18:10 -18:15

Symposium 11 **July 2 (Wed) 14:15 - 15:45 Room 5**

Cutting-edge approaches for toxicity prediction in drug safety research using 3D protein structure information

Chairs: Tomoya YUKAWA (Takeda Pharmaceutical Company Limited)
Kentaro TOMII (Artificial Intelligence Research Center, National Institute of Advanced Industrial Science and Technology (AIST))

Introduction
14:15 -14:17

Tomoya YUKAWA

Takeda Pharmaceutical Company Limited

S11-1
14:17 - 14:37

Recent Advances in Structural Analysis Techniques for Target Molecules

○ Hideyuki OKI

Axcelead Drug Discovery Partners Inc.

S11-2
14:37 - 14:57

Toward predicting drug repositioning and side effects using three-dimensional structures of proteins

○ Kentaro TOMII

Artificial Intelligence Research Center, National Institute of Advanced Industrial Science and Technology (AIST)

S11-3
14:57 - 15:17

Structure-based *in silico* assessment in very early stage to improve safety profile

○ Kazuko YONEMORI

DSRE, Takeda Pharmaceutical Company Limited

S11-4
15:17 - 15:37

SBDD in drug discovery – examples and future perspective for the efficient drug development

○ Mizuki TAKAHASHI

Daiichi Sankyo Co., Ltd.

Discussion
15:37 -15:43

Conclusion
15:43 -15:45

Kentaro TOMII

Artificial Intelligence Research Center, National Institute of Advanced Industrial Science and Technology (AIST)

Symposium 12 **July 2 (Wed) 16:00 - 18:00 Room 5**

Attractive metabolically active compounds produced by subtropical organisms and their utilization

Chairs: Junsei TAIRA (Department of Bioresources Technology, National Institute of Technology, Okinawa College)
Naoki IMAIZUMI (School of Health Sciences, Faculty of Medicine, University of the Ryukyus)

Introduction
16:00 -16:02

Junsei TAIRA

Department of Bioresources Technology, National Institute of Technology, Okinawa College

S12-1 Looking back on the search for bioactive substances from coral reef organisms
16:02 - 16:22

○ Junichi TANAKA

University of the Ryukyus

S12-2 Isolation and Characterization of Bioactive Compounds from Okinawan Marine Cyanobacteria for the Prevention and Amelioration of Lifestyle-Related Diseases
16:22 - 16:42

○ Toshiaki TERUYA

University of the Ryukyus

S12-3 Applications for Cosmetics, Food, and Medicine in the Subtropical Bioresources Library
16:42 - 17:02

○ Takayuki OGI

Okinawa Industrial Technology Center

S12-4 Screening for SARS-CoV-2 inhibitors from a subtropical biological library
17:02 - 17:22

○ Mizuki YAMAMOTO

Research Center for Asian Infectious Diseases, The Institute of Medical Science, The University of Tokyo

S12-5 Regulation of oxidative stress by antioxidant and Nrf2 modulation due to subtropical organisms metabolites
17:22 - 17:42

○ Junsei TAIRA

Department of Bioresources Technology, National Institute of Technology, Okinawa College

Discussion
17:42 -17:55

Conclusion
17:55 -18:00

Naoki IMAIZUMI

School of Health Sciences, Faculty of Medicine, University of the Ryukyus

Symposium 13 **July 2 (Wed) 16:30 - 18:00 Room 6**

Interactions of Biotrace Elements -Implication in Toxicology and Pharmacology-

Chairs: Yasumitsu OGRA (Graduate School of Pharmaceutical Sciences, Chiba University)
Yoshiro SAITO (Graduate School of Pharmaceutical Sciences, Tohoku University)

S13-1 16:30 - 16:52
Inhibition of selenium metabolism by electrophiles - Application to type 2 diabetes treatment targeting excess selenoprotein P expression
○ Yoshiro SAITO
Graduate School of Pharmaceutical Sciences, Tohoku University

S13-2 16:52 - 17:14
Toxicological relationship between selenium and methylmercury
○ Noriyuki SUZUKI[1], Shota ISHII[1], Reiya YANO[1], Natsumi KURIHARA[2], Soma SAKAKURA[2], Yu-Ki TANAKA[3], Yasunori FUKUMOTO[3], Yasumitsu OGRA[3]
[1]Faculty of Pharmaceutical Sciences, Toho University, [2]Faculty of Pharmaceutical Sciences, Chiba University, [3]Graduate School of Pharmaceutical Sciences, Chiba University

S13-3 17:14 - 17:36
The new roles of mitochondrial contact sites
○ Isshin SHIIBA
Gakushuin University

S13-4 17:36 - 17:58
Biological interaction between copper and molybdenum, and its toxicological application
○ Yasumitsu OGRA
Graduate School of Pharmaceutical Sciences, Chiba University

Conclusion
17:58 -18:00

Symposium 14 **July 2 (Wed) 14:10 - 16:15 Room 7**

Biometals Specialty Section Symposium: New developments in methylmercury toxicity research

Chairs: Masatake FUJIMURA (National Institute for Minamata Disease)
Masahiko SATOH (School of Pharmacy, Aichi Gakuin University)

Introduction
14:10 -14:12

S14-1 14:12 - 14:34
Objective evaluation of Minamata disease using magnetoencephalography and MRI
○ Masaaki NAKAMURA, Yoko MIURA, Yuri KIKUCHI
National Institute for Minamata Disease

S14-2 14:34 - 14:56
Involvement of endoplasmic reticulum stress in methylmercury toxicity
○ Takashi UEHARA
Graduate School of Medicine, Dentistry & Pharmaceutical Sciences, Okayama University

S14-3 14:56 - 15:18
Disfunction of peripheral sensory nervous system and their recovery in MeHg exposed rat
○ Yo SHINODA
Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences

S14-4 15:18 - 15:40
New insights from the re-evaluation of Minamata disease
○ Mineshi SAKAMOTO, Masumi MARUMOTO, Koichi HARAGUCHI, Komyo ETO, Masaaki NAKAMURA
National Institute for Minamata Disease

S14-5 15:40 - 16:12
Recent progress in understanding the mechanism of methylmercury toxicity at different life stages
○ Laurie Hm CHAN
University of Ottawa

Conclusion 16:12 -16:15

Symposium 15 **July 2 (Wed) 16:15 - 18:15 Room 7**

How do environmental chemicals regulate the epigenome?

Chairs: Takashi UEHARA (Graduate School of Medicine, Dentistry & Pharmaceutical Sciences, Okayama University)
Yoshito KUMAGAI (Graduate School of Pharmaceutical Sciences, Kyushu University)

Opening Remarks 16:15 - 16:20
Yoshito KUMAGAI
Graduate School of Pharmaceutical Sciences, Kyushu University

S15-1 16:20 - 16:43
Enviromental electrophiles modulate gene expression via adduct formation with DNMTs
○ Takashi UEHARA
Graduate School of Medicine, Dentistry & Pharmaceutical Sciences, Okayama University

S15-2 16:43 - 17:06
Biodeviersity monitoring by environmental DNA analysis and its application to epigenetics
○ Toshifumi MINAMOTO
Graduate School of Human Development and Environment, Kobe University

S15-3 17:06 - 17:29
Analysis of epigenetic changes induced by methylmercury exposure during neuronal development
○ Hisaka KURITA
Laboratory of Medical Therapeutics and Molecular Therapeutics, Gifu Pharmaceutical University

S15-4 17:29 - 17:52
Development of Chemical Analysis Methods for Environmental Chemicals
○ Kosuke DODO
RIKEN Center for Sustainable Resource Science

S15-5 17:52 - 18:15
Acquisition of Cisplatin Resistance through Epigenomic Alterations
○ Ryuichi ONO[1], Mie NARUSE[2, 3]
[1]Division of Cellular & Molecular Toxicology, Center for Biological Safety and Research (CBSR), National Institute of Health Sciences (NIHS),
[2]Laboratory of Neuroviruses, Department of Virology I, National Institute of Infectious Diseases,
[3]Central Animal Division / FIOC, National Cancer Center Research Institute

Symposium 16 **July 3 (Thu) 9:00 - 10:30 Room 2**

Domestic and International Use of New Approach Methodologies (NAMs) in Drug Development and their Application to Guidelines

Chairs: Makoto MIYAUCHI (FineToday Co., Ltd.)
Toshihiko KASAHARA (Safety Evaluation Center, FUJIFILM Corporation)

Introduction
9:00 - 9:03

S16-1 Status of Use and Future Development of Alternative Methods to Animal Experiments in New Drug Development
9:03 - 9:21

○ Hajime KOJIMA
Department of Pharmaceutical Engineering, Faculty of Engineering, Sanyo-Onoda City University

S16-2 Current status and trends of alternative methods for developmental toxicity testing using zebrafish
9:21 - 9:39

○ Kanako MORI[1], Takao ASHIKAGA[2], Mizuho ONO[3], Tomonori EBATA[4], Wataru SUGIMOTO[5], Toshio TANAKA[6], Hiromi HIRATA[7], Hajime KOJIMA[2, 8]
[1]Nonclinical Biomedical Science, Astellas Pharma Inc., [2]National Institute of Health Science,
[3]Mitsubishi Chemical Research Corporation, [4]BoZo Research Center Inc., [5]Maruho Co., Ltd.,
[6]Mie University School of Medicine, [7]Aoyama Gakuin University, [8]Sanyo-Onoda City University

S16-3 Development of AOP and IATA for Photosafety Evaluation and Its Adoption as OECD GD397
9:39 - 9:57

○ Satomi ONOUE
Laboratory of Biopharmacy, School of Pharmaceutical Sciences, University of Shizuoka

S16-4 Development of an *in silico* toxicity prediction model and its standardization as a guideline
9:57 - 10:15

○ Yasushi HIKIDA[1], Ryoichi MURAKAMI[1], Satoshi SUGIYAMA[1], Masakazu TATESHITA[1], Mika IMAMURA[2]
[1]Imaging & Informatics Laboratories, ICT Strategy Division, FUJIFILM Corporation,
[2]Safety Evaluation Center, Ecology & Quality Management Division, ESG Division, FUJIFILM Corporation

Discussion
10:15 - 10:30

Symposium 17 **July 3 (Thu) 9:15 - 10:45 Room 3**

Current status and opportunity for utilizing drug development tools

Chairs: Seiichi ISHIDA (Division of Applied Life Science, Graduate School of Engineering, Sojo University / National Institute of Health Sciences)
Tetsuro ARAKI (CHUGAI PHARMACEUTICAL CO., LTD.)

S17-1 Efforts toward the regulatory use of MPS and the environment surrounding these efforts
9:15 - 9:40

○ Seiichi ISHIDA[1, 2]
[1]Division of Applied Life Science, Graduate School of Engineering, Sojo University, [2]National Institute of Health Sciences

S17-2 Trends for Qualification of Drug Development Tools
9:40 - 10:05

○ Hitoshi NARAOKA[1, 2]
[1]Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association,
[2]Astellas Pharma Inc.

S17-3 10:05 - 10:25
Comparison of guidelines for drug development tools (DDT) qualification between FDA and EMA with one case study from Innovative Science and Technology Approaches for New Drugs (ISTAND) Pilot Program
○ Tetsuro ARAKI
Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association

S17-4 10:25 - 10:45
Introduction to the Membrane Proteome Array Contract Services offered by Integral Molecular
○ Yohei TAMIAKI
Funakoshi Co., Ltd. Custom Service Department

Symposium 18 **July 3 (Thu) 11:00 - 12:30 Room 3**

Preparedness Research: From the Field of Radiation Science and Health Science

Chairs: Shino HOMMA-TAKEDA (Institute for Radiological Science, National Institutes for Quantum Science and Technology)
Akihiro UEHARA (National Institutes for Quantum Science and Technology)

Introduction
11:00 - 11:01

S18-1 11:01 - 11:23
The FDNPS accident and behavior of radioactive materials
○ Nobuaki SATO
Center for Fundamental Research on Nuclear Decommissioning, Tohoku University

S18-2 11:23 - 11:41
Studies on the behavior of radionuclides in the environment as our responsibility to future generations
○ Keiko TAGAMI, Shigeo UCHIDA, Sergei DANILOV, Jian ZHENG
Institute of Radiological Science, National Institutes for Quantum Science and Technology

S18-3 11:41 - 11:57
Disaster monitoring: Fundamental study on the detection of radionuclides in bio-fluids
○ Akihiro UEHARA
Institute for Radiological Science, National Institutes for Quantum Science and Technology

S18-4 11:57 - 12:19
The Power to Create the Future: Wellness Literacy Acquired from Sports Medicine and Science
○ Yusaku SUGIURA
Meikai University

Discussion
12:19 - 12:29

Conclusion
12:29 - 12:30

Symposium 19 **July 3 (Thu) 9:15 - 10:45 Room 5**

New mechanistic insights in aging

Chairs: Motohiro NISHIDA (Kyushu University, Graduate School of Pharmaceutical Sciences)
Jin HAN (Inje University, College of Medicine)

Introduction
9:15 - 9:16

S19-1 Aging Fibrotic Disorders: Pathophysiology, Challenges and Therapies
9:16 - 9:39

○ Ippei SHIMIZU
National Cerebral and Cardiovascular Center Research Institute

S19-2 Supersulfide catabolism in cardiac early senescence
9:39 - 9:58

○ Motohiro NISHIDA[1, 2]
[1]Department of Physiology, Graduate School of Pharmaceutical Sciences, Kyushu University,
[2]Division of Cardiocirculatory Signaling, National Institute for Physiological Sciences & Exploratory Research Center on Life and Living Systems, National Institutes of Natural Sciences

S19-3 Cardiac-Specific Cereblon Deficiency Induces Metabolic Toxicity and Mitochondrial Dysfunction in the Aging Heart
9:58 - 10:21

Hyeong Rok YUN, Trong Kha PHAM, To Hoai NGUYEN, Hyoung Kyu KIM,
○ Jin HAN
Cardiovascular and Metabolic Disease Center, College of Medicine, Inje University

S19-4 Tetrahydrobiopterin (BH4) Preserves Cardiac Function by Activating PGC-1α-Mediated Mitochondrial Biogenesis in Metabolic and Aging-Associated Cardiomyopathy
10:21 - 10:44

○ Hyoung Kyu KIM[1], Jae Boum YOUM[1], Ippei SHIMIZU[2], Jin HAN[1]
[1]Department of Physiology, College of Medicine, Smart Marine Therapeutic Center, Cardiovascular and Metabolic Disease Core Research Support Center, Inje University,
[2]Department of Cardiovascular Aging, National Cerebral and Cardiovascular Center Research Institute, Japan

Conclusion
10:44 - 10:45

Symposium 20 **July 3 (Thu) 9:00 - 11:00 Room 6**

Joint Symposium of the Japanese Society for Clinical Toxicology: Clinicaltoxicology with a focus on the effects of long-term (subacute or chronic) exposure tochemicals

Chairs: Satoshi KITAJIMA (National Institute of Health Sciences)
Manabu SUGITA (Juntendo University Nerima Hospital)

S20-1 Overlooked Poisoning: Clinical Aspects of Subacute Poisoning and Lessons from Case Studies
9:00 - 9:15

○ Manabu SUGITA
Department of Emergency and Critical Care Medicine

S20-2 The importance of toxic kidney damage indicated by the Beni Koji scandal by Kobayashi Phamaceutical
9:15 - 9:50

○ Masaomi NANGAKU
Division of Nephrology and Endocrinology, The University of Tokyo Graduate School of Medicine

S20-3 9:50 - 10:20
Renal, electrolyte & acid-base disorders by food/drink & supplements
○ Yugo SHIBAGAKI
Division of Nephrology & Hypertension, St Marianna University

S20-4 10:20 - 10:50
Clinical experience and identification of Sarin in Matsumoto Sarin Terrorism 1994, and consideration on Tokyo Subway Sarin Terrorism 1995, and development chemical weapons such as VX and Novichok
○ Hiroshi OKUDERA[1], Masahiro WAKASUGI[2], Mikito YAMADA[3], Mayumi HASHIMOTO[4], Kumiko SAKATA[5], Mizuho II[6]
[1]Ditector of Emergency Medical Center, Central Japan International Medical Center, and Professor Emeritus, University of Toyama, [2]Director of Emergency Center, Toyama Prefectural Central Hospital,
[3]Vice Ditector of Hospital, Central Japan International Medical Center,
[4]Professor, Department of Crisis Management Nursing, Fukushima Medical Univeresity,
[5]Associate Professor, Department of Nursing Science, Nursing School, Aichi Medical University,
[6]Assistant Professor, Department of Adult Nursing, Faculty of Nursing, University of Toyama

Discussion
10:50 - 11:00

Symposium 21 **July 3 (Thu) 11:00 - 12:30 Room 6**

Involvement of cellular senescence in toxicity

Chairs: Hiroshi HASEGAWA (Kobe Pharmaceutical University)
Nurhanani RAZALI (Okinawa Institute of Science and Technology Graduate University)

Introduction
11:00 - 11:05

S21-1 11:05 - 11:25
Elucidation of the functional diversity of senescence in liver injury models
○ Yoshikazu JOHMURA
Cancer Research Institute, Kanazawa University

S21-2 11:25 - 11:45
Senescence-associated secretory phenotype (SASPs) regulation in estradiol-induced thymic involution
○ Nurhananibinti RAZALI[1, 2], Kei NAKAYAMA[2], Hiroshi HASEGAWA[2]
[1]Membranology Unit, Okinawa Institute of Science and Technology Graduate University,
[2]Lab. of Hygienic Science, Kobe Pharmaceutical University

S21-3 11:45 - 12:05
Environmental chemicals disruption of estrogen signaling: their interaction with postmenopausal breast cancer cells
○ Masayo HIRAO-SUZUKI[1], Shuso TAKEDA[2, 3]
[1]Faculty of Pharmaceutical Sciences, Hiroshima International University,
[2]Graduate School of Pharmacy and Pharmaceutical Sciences, Fukuyama University,
[3]Faculty of Pharmacy and Pharmaceutical Sciences, Fukuyama University

S21-4 12:05 - 12:25
Alcohol-induced toxicity and cellular senescence
○ Hiroshi HASEGAWA, Mari KONDO, Kei NAKAYAMA
Laboratory of Hygienic Sciences, Kobe Pharmaceutical University

Discussion
12:25 - 12:30

JSIT-JSOT Joint Symposium: New developments in immunotoxicological research that will open new doors in medicine <Occupational exposure, intestinal bacteria, alternative methods, cancer, aging>

Chairs: Yasumitsu NISHIMURA (Department of Hygiene, Kawasaki Medical School)
Eiko KOIKE (Health and Environmental Risk Division, National Institute for Environmental Studies)

Introduction
9:00 - 9:03

S22-1 Immunological mechanisms of pulmonary fibrosis induced by exposure to cross-linked water-soluble acrylic acid polymer
9:03 - 9:26

○ Takamasa KIDO
Department of Public Health and Environmental Medicine, The Jikei University School of Medicine

S22-2 Inflammatory diseases due to chemical exposure and their association with the gut microbiota
9:26 - 9:49

○ Rie YANAGISAWA
Health and Environmental Risk Division, National Institute for Environmental Studies

S22-3 Research on alternative methods for non-human primates - From the perspective of immunotoxicity -
9:49 - 10:12

○ Kumiko OGAWA, Kohei MATSUSHITA, Takeshi TOYODA
Pathology, CBSR, National Institute of Health Sciences

S22-4 Immunotoxicity of G-CSF through myeloid-derived suppressor cells
10:12 - 10:35

○ Masashi TACHIBANA
Laboratory for Context-dependent Cell Immunology, Department of Biomedical Sciences, College of Life Sciences, Ritsumeikan University

S22-5 Impact of senescence on evaluation of the immune responses related to sensitization potential of chemicals
10:35 - 10:58

○ Tomoki FUKUYAMA[1], Mao KANEKI[1], Koji ISHIDA[1], Chiharu OHIRA[1], Mana ICHIKAWA[1], Ibuki YASUDA[1], Chizuki USUI[1], Yoshiichi TAKAGI[1, 2]
[1]School of Veterinary Medicine, Azabu University, [2]Japan SLC, Inc.

Conclusion
10:58 -11:00

Symposium 23 **July 3 (Thu) 11:00 - 12:30 Room 7**

Nonclinical safety packages and profiles for recently approved new drugs

Chairs: Shoji ASAKURA (Global Drug Safety, Eisai Co., Ltd.)
Izuru MIYAWAKI (Preclinical Research Unit, Sumitomo Pharma Co., Ltd.)

Introduction
11:00 -11:01

S23-1 11:01 - 11:30
Nonclinical Safety Package and Profile: The Case of a Humanized Anti-Human Soluble Amyloid-β Aggregate Monoclonal Antibody
○ Ayano KORCHI, Motohiro SHIOTANI
Eisai Co. Ltd.

S23-2 11:30 - 11:59
Nonclinical Safety Packages and Profiles: Anti-Claudin18.2 Monoclonal Antibody
○ Satoru KAJIKAWA
Non-Clinical Regulatory Science, Astellas Pharma Inc.

S23-3 11:59 - 12:28
The non-clinical safety study package and its profile: A case study of LNP-mRNA vaccines for COVID-19
○ Hiroaki MIIDA
Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.

Conclusion
12:28 -12:30

Symposium 24 **July 3 (Thu) 16:30 - 18:30 Room 2**

SOT-JSOT Joint Symposium: Safety Evaluation of Complex Mixtures

Chairs: Yasunobu AOKI (Health and Environmental Risk Division, National Institute for Environmental Studies)
Cynthia V RIDER (SOT President)

Introduction
16:30 -16:32

S24-1 16:32 - 17:00
Learning through Addition: Evaluating the Effects of Priority Environmental Mixtures
○ Cynthia V RIDER
SOT President

S24-2 17:00 - 17:28
Carcinogenic risk assessment of a polycyclic aromatic hydrocarbon mixture in airborne particles by *in vivo* mutation assay
○ Yasunobu AOKI
Health and Environmental Risk Division, National Institute for Environmental Studies

S24-3 17:28 - 17:56
Innovative Approaches for One Health And Chemical Mixtures: Bridging Disciplines for Integrated Solutions
○ Kristin ECCLES
Environmental Health Science and Research Bureau, Healthy Environment and Consumer Safety Branch, Health Canada

S24-4 17:56 - 18:24

Environmental risk assessment of chemical mixtures considering their mode of action, structure, and exposure profile

○ Hiroshi YAMAMOTO, Haruna WATANABE, Yusuke ODA, Takahiro YAMAGISHI, Kyoshiro HIKI, Yoshitaka IMAIZUMI, Hiroyuki YOKOMIZO, Fujiko OZAWA, Koichi OHNO
Division of Health and Environmental Risk, National Institute for Environmental Studies

Conclusion 18:24 -18:30

Symposium 25 **July 3 (Thu) 16:30 - 18:30 Room 3**

International symposium on the 3Rs in Asia-New Approach Methodologies(NAMs)-

Chairs: Hajime KOJIMA (Sanyo-Onoda City University)
Yuhji TAQUAHASHI (National Institute of Health Sciences)

Introduction 16:30 -16:32

S25-1 16:32 - 17:01

NAMs in the safety assessment of chemical substances in Japan

○ Yoko HIRABAYASHI
Center for Biological Safety and Research, National Institute of Health Sciences

S25-2 17:01 - 17:30

Application of human stem cells-originated organoids-on-a chip in exploring the low-dose effect of microplastics

○ Wei CHENG[1], Yue ZHOU[1], Hange CHEN[1], Yan WANG[1, 2]
[1]School of Public Health, Shanghai Jiao Tong University,
[2]Ninth People's Hospital affiliated to School of Medicine, Shanghai Jiao Tong University

S25-3 17:30 - 17:59

Recent trends in New Approach Methods (NAMs) for cardiotoxicity testing in Korea

○ Ki-Suk KIM[1, 2]
[1]Division of Advanced Predictive Research, Korea Institute of Toxicology, [2]University of Science and Technology, UST

S25-4 17:59 - 18:28

Taiwan 3R Initiative Program (T3R) and TCHA in NAMs: Current status and future perspectives

Hsien-Jen CHENG[1], Cheng-Yung LAI[2], Bo-Lin CHEN[3], Yueh-Hsia LUO[4], Rong-Jane CHEN[5], ○ Ying-Jan WANG[6]
[1]National Laboratory Animal Center, National Applied Research Laboratories. Taiwan,
[2]Chemical Administration, Ministry of Environment, Taiwan, [3]Apollo Technology Co., LTD. Taiwan,
[4]Department of Life Sciences, National Central University, Taiwan,
[5]Department of Food Safety/Hygiene and Risk Management, College of Medicine, National Cheng Kung University, Taiwan,
[6]Department of Environmental and Occupational Health, College of Medicine, National Cheng Kung University

Conclusion 18:28 -18:30

Symposium 26 **July 3 (Thu) 16:30 - 18:00 Room 4**

New toxicological evaluation using several database

Chairs: Tamio FUKUSHIMA (SHIONOGI Co & Ltd.)
Kouichi YOSHINARI (School of Pharmaceutical Sciences, University of Shizuoka)

Introduction
16:30 -16:40

S26-1
16:40 - 17:05

Leveraging an Integrated AI and New Approach Methodologies (NAMs) Safety Strategy to understand multi-organ safety risk in Drug Discovery

○ Paul Andrew WALKER[1], Rene REX[2], Micael Fernandes DOS REIS[2], Benjamin PARK[1], Samantha BEVAN[1], Julie EAKINS[1], Alicia ROSELL-HIDALGO[1], Christopher BRUHN[2], Timur SAMATOV[2], Deniz YUEZAK[2], Ruediger FRITSCH[2]
[1]Cyprotex Discovery Ltd, [2]Evotec International GmbH

S26-2
17:05 - 17:30

Pattern Recognition of Toxicopathological Images Leveraging Open Databases

○ Tadahaya MIZUNO
Graduate School of Pharmaceutical Sciences, The University of Tokyo

S26-3
17:30 - 17:55

Utilization of toxicity study database and its challenge

○ Kazunori FUJIMOTO, Ayako SAGISAKA, Yoshimi TSUCHIYA
Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.

Conclusion
17:55 -18:00

Symposium 27 **July 3 (Thu) 16:30 - 18:00 Room 5**

How do living organisms sense and respond to various types of toxic stress? -New mechanisms and diseases-

Chairs: Atsushi MATSUZAWA (Laboratory of Health Chemistry, Graduate School of Pharmaceutical Sciences, Tohoku University)
Yaichiro KOTAKE (Graduate School of Biomedical and Health Science, Hiroshima University)

Introduction
16:30 -16:31

S27-1
16:31 - 16:51

Novel lysosomal damage response mediated by lysosomal protein insolubilization

○ Masatsugu MIYARA, Yaichiro KOTAKE
Graduate School of Biomedical and Health Sciences, Hiroshima University

S27-2
16:51 - 17:13

Selenoprotein synthesis pathway altered by various reactive species - Regulation of ferroptosis susceptibility and its application

○ Yoshiro SAITO
Graduate School of Pharmaceutical Sciences, Tohoku University

S27-3
17:13 - 17:34

Liquid droplet formation as a barometer of intracellular and extracellular environmental stress and neurodegenerative diseases

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

S27-4 17:34 - 17:59
Molecular Mechanisms and Physiological Functions of the Stress Responses Induced by Ribosome stalling and collision
○ Toshifumi INADA
Division of RNA and gene regulation Institute of Medical Science

Conclusion 17:59 -18:00

Symposium 28 **July 3 (Thu) 16:30 - 18:30 Room 6**

Current Concerns and Future Prospects on Respiratory Toxicity

Chairs: Jin-Yong LEE (School of Pharmacy, Aichi Gakuin University)
Min-Seok KIM (Korea Institute of Toxicology)

Introduction 16:30 -16:32
Jin-Yong LEE
School of Pharmacy, Aichi Gakuin University

S28-1 16:32 - 17:01
Functional role of ADAMTS4 in fibroblast activation during lung fibrosis
○ Keon Wook KANG, Young Joo LEE
College of Pharmacy, Seoul National University

S28-2 17:01 - 17:30
SARS-CoV-2 infection exacerbates fibrosis in mice with interstitial lung disease
○ Min-Seok KIM[1], Seulgi JEON[1], Youngkyu KIM[2], Jeongho HWANG[2]
[1]Center for Respiratory Safety Research, Korea Institute of Toxicology,
[2]Center for Large Animals Convergence Research, Korea Institute of Toxicology

S28-3 17:30 - 17:59
Impact of Artificial Sunlight Aging on the Respiratory Effects of Polyethylene Terephthalate Microplastics through Degradation-Mediated Terephthalic Acid Release
○ Yasuhiro ISHIHARA[1], Mizuo KAJINO[2], Hiroshi OKOCHI[3]
[1]Program of Biomedical Science, Graduate School of Integrated Sciences for Life, Hiroshima University,
[2]Meteorological Research Institute, Japan Meteorological Agency,
[3]School of Creative Science and Engineering, Waseda University

S28-4 17:59 - 18:28
Development of a Lung-on-a-Chip-Based Test Method to Evaluate Acute Inhalation Toxicity of Water-Soluble Substances
○ Ha Ryong KIM[1, 2], Ga Eun KIM[1], Jung Eun LIM[1, 2], Yubin HAN[1], In Jae BANG[1]
[1]College of Pharmacy, Korea University,
[2]Interdisciplinary Major Program in Innovative Pharmaceutical Science, Korea University

Closing Remarks 18:28 - 18:30
Min-Seok KIM
Korea Institute of Toxicology

Symposium 29 **July 3 (Thu) 16:30 - 18:00 Room 7**

New trends in cosmetic safety evaluation

Chairs: Kitaek NAM (Yonsei University, South Korea)
Makoto MIYAUCHI (FineToday Co., Ltd.)

Introduction
16:30 -16:32

S29-1
16:32 - 16:54

Case studies of safety evaluation of systemic toxicity using NGRA approach

○ Shuichi SEKINE
Brand Value R&D Institute, Shiseido Co., Ltd.

S29-2
16:54 - 17:16

Collaborative Efforts to Advance NAMs and NGRA for Cosmetics and their Ingredients

○ Masato HATAO[1, 2]
[1]Japan Cosmetic Industry Association, [2]International Collaboration on Cosmetics Safety, Core Acceptance Team

S29-3
17:16 - 17:38

Overview of Regulatory Framework for Cosmetic Ingredients in Korea and Case Study on the Risk Assessment of UV-filters(sunscreens) in Cosmetics

○ Seung Jun KWACK
School of Interdisciplinary Natural Science with Flexible Major, Glocal Advanced Institute of Science and Technology, Changwon National University

S29-4
17:38 - 18:00

Risk Assessment of Cosmetic Ingredients, Colorants

○ Kyu-Bong KIM
College of Pharmacy and Center for Human Risk Assessment, Dankook University, Korea

Symposium 30 **July 4 (Fri) 10:00 - 12:00 Room 1**

The relationship between histopathological changes and various toxicity endpoints

Chairs: Kaoru INOUE (Division of Risk Assessment, National Institute of Health Sciences)
Takeshi IZAWA (Laboratory of Veterinary Pathology, Osaka Metropolitan University)

S30-1
10:00 - 10:10

Toward scientifically appropriate judgment of adverse effects in a hazard assessment of chemicals

○ Kaoru INOUE
Division of Risk Assessment, National Institute of Health Sciences

S30-2
10:10 - 10:32

Secondary changes-Association between histopathology and toxicological endpoints-

○ Hiroko KOKOSHIMA
Shin Nippon Biomedical Laboratories, Ltd.

S30-3
10:32 - 10:54

Relationship between Various Toxicity Endpoints and Histopathological Changes in the Kidney

○ Etsuko OHTA
Global Drug Safety, Eisai Co., Ltd.

S30-4 10:54 - 11:16
The importance of associating histopathological findings with behavioral, electrophysiological, and liquid biomarkers for neurotoxicity assessment
○ Hironobu YASUNO, Tomoya SANO, Takeshi WATANABE
Takeda Pharmaceutical Company Limited

S30-5 11:16 - 11:38
Correlation between histopathological changes in the liver and classical biomarkers
○ Yuki KATO
Laboratory for Drug Discovery and Development, SHIONOGI & CO., LTD

S30-6 11:38 - 12:00
Toxicological significance of aldehyde storm appearing in acute hepatotoxicity
○ Yuki TAKAMI, Takeshi IZAWA
Laboratory of Veterinary Pathology, Osaka Metropolitan University

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Symposium 31 **July 4 (Fri) 9:00 - 10:30 Room 2**

【Joint Symposium with the Japanese Society for Safety Pharmacology】 Information sharing and discussion on safety pharmacology guidelines, ICH S7A and S7B Q&A

Chairs: Takashi YOSHINAGA (Eisai Co., Ltd.)
Masaki HONDA (Chugai Pharmaceutical Co.,Ltd.)

Introduction
9:00 - 9:02
Takashi YOSHINAGA
Eisai Co., Ltd.

S31-1 9:02 - 9:17
Initiatives for implementing ICH E14/S7B Q&As in pharmaceutical companies
○ Katsuyoshi CHIBA
Medicinal Safety Research Laboratories, Research Function, R&D Division, Daiichi Sankyo Co., Ltd.

S31-2 9:17 - 9:42
Regulatory (PMDA) Considerations for ICH-S7B E14 S7B Stage 2 Q&A
○ Satoshi TSUNODA
Pharmaceuticals and Medical Devices Agency

S31-3 9:42 - 10:02
Initiatives toward revamping the ICH S7A guidance; JPMA/EFPIA/PhRMA industry survey
○ Ryohei ICHIMURA
MSD K.K. Japan Development

Panel Discussion
10:02 - 10:30

Panelist

Takashi YOSHINAGA (Eisai Co., Ltd.)

Masaki HONDA (Chugai Pharmaceutical Co.,Ltd.)

Katsuyoshi CHIBA (Medicinal Safety Research Laboratories, Research Function, R&D Division, Daiichi Sankyo Co., Ltd.)

Satoshi TSUNODA (Pharmaceuticals and Medical Devices Agency)

Ryohei ICHIMURA (MSD K.K. Japan Development)

Symposium 32 **July 4 (Fri) 9:00 - 11:00 Room 3**

Seminar for researchers leading toward a new era

Chairs: Masatake FUJIMURA (National Institute for Minamata Disease)
Chika YAMAMOTO (Faculty of Pharmaceutical Sciences, Toho University)

Introduction
9:00 - 9:05

Masatake FUJIMURA
National Institute for Minamata Disease

S32-1
9:05 - 9:40

Applications of histopathological evaluation in CIVM for drug discovery research

○ Yuko ITO
Pathology and Technology Team, Pathobiology Group, Safety and Bioscience Research Dept., TR Division, Chugai Pharmaceutical Co., Ltd.

S32-2
9:40 - 10:15

A new relationship between environmental exposure and gut bacteria based on additive science

○ Masahiro AKIYAMA
Clinical Research Institute for Clinical Pharmacology and Therapeutics, Showa University

S32-3
10:15 - 10:50

Spatiotemporal heterogeneity of *in vivo* immune systems

○ Masaru ISHII
Department of Immunology and Cell Biology, Graduate School of Medicine, Osaka University

Conclusion
10:50 - 11:00

Chika YAMAMOTO
Faculty of Pharmaceutical Sciences, Toho University

Symposium 33 **July 4 (Fri) 9:00 - 10:30 Room 4**

The Near Future of AI implementation into Systems Toxicology – laboratory, clinic and cyberbrain –

Chairs: Satoshi KITAJIMA (National Institute of Health Sciences)
Jun KANNO (National Institute of Health Sciences / Nissan Tamagawa Hospital / University of Tsukuba, Faculty of Medicine / Systems Biology Institute)

S33-1
9:00 - 9:30

Percellome Project towards prediction of repeated-dose toxicity

○ Kenichi AISAKI[1], Noriko MORIYAMA[1], Masaki TSUJI[1], Koichi MORITA[1], Ryuichi ONO[1], Jun KANNO[1, 2, 3, 4], Satoshi KITAJIMA[1]
[1]National Institute of Health Sciences, [2]Nissan Tamagawa Hospital, [3]University of Tsukuba, Faculty of Medicine, [4]Systems Biology Institute

S33-2
9:30 - 10:00

Systems Toxicology in AI Era

○ Hiroaki KITANO
[1]The Systems Biology Institute, [2]Okinawa Institute for Science and Technology Graduate School, [3]Sony Computer Science Laboratories, Inc.

S33-3
10:00 - 10:30

Therapeutic molecules to rectify aberrant RNA splicing and their safety assessment with AI

○ Masatoshi HAGIWARA
Graduate School of Medicine, Kyoto University

Symposium 34 **July 4 (Fri) 10:30 - 12:00 Room 4**

Inhalation Toxicity of Particulate Matter - From the Mechanism of Toxicity to Toxicity Reduction -

Chairs: Akihiko HIROSE (Chemicals Evaluation and Research Institute, Japan)
Yuhji TAQUAHASHI (National Institute of Health Sciences)

Introduction
10:30 - 10:32

S34-1 Histopathological analysis of lung lesions and local lymphatics in mice exposed to carbon nanotube by Taquann whole body inhalation system
10:32 - 11:01

○ Jun KANNO[1, 3, 4, 5], Miho KOBAYASHI[2], Tetsuro WATABE[2], Masaki TSUJI[1], Koichi MORITA[1], Kousuke SUGA[1], Satoshi YOKOTA[1], Yuhji TAQUAHASHI[1], Satoshi KITAJIMA[1]

[1]National Institute of Health Sciences, [2]Graduate School of Medical and Dental Sciences, Institute of Science Tokyo, [3]Nissan Tamagawa Hospital, [4]University of Tsukuba, Faculty of Medicine, [5]Systems Biology Institute

S34-2 Inhalation Toxicity of Polystyrene Microplastics on the Respiratory System
11:01 - 11:30

○ Kyuhong LEE[1, 2]

[1]Korea Institute of Toxicology, Jeong-eup, Korea, [2]Univ. of Science and Technology, Republic of Korea

S34-3 Metrics that affect the safety and kinetics of nanomaterials: Implications for safe by design approaches and risk assessment of nanomaterials
11:30 - 11:59

○ Flemming R. CASSEE

National Institute for Public Health and Environment (RIVM) of the Netherlands and University of Utrecht, the Netherlands

Conclusion
11:59 - 12:00

Symposium 35 **July 4 (Fri) 9:00 - 10:30 Room 6**

The future of toxicology as envisioned by mass spectrometry technology

Chairs: Yoshinori IKENAKA (Hokkaido University)
Kei NOMIYAMA (Center for Marine Environmental Studies, Ehime University)

Introduction
9:00 - 9:05

Yoshinori IKENAKA (Hokkaido University)

Kei NOMIYAMA (Center for Marine Environmental Studies, Ehime University)

S35-1 The Challenge of Evaluating Neurotoxicity Using Mass Spectrometry
9:05 - 9:20

○ Yoshinori IKENAKA[1], Tomoya KOIKE[1], Anri HIRAI[1], Akifumi EGUCHI[2], Kei NOMIYAMA[3], Tetsushi HIRANO[4], Nobuhiko HOSHI[5], Collins NIMAKO[1], Yared BEYENE[1], Shouta NAKAYAMA[1], Mayumi ISHIZUKA[1]

[1]Hokkaido University, [2]Chiba Univeristy, [3]Ehime University, [4]Toyama University, [5]Kobe University

S35-2 Compound Grouping Based on Mass Spectral and Chemical Structure Similarity for Mixture Effect Analysis of Environmental Exposure
9:20 - 9:35

○ Akifumi EGUCHI[1], Kohki TAKAGUCHI[1], Takayuki KAWASHIMA[2], Norimichi SUZUKI[1, 3]

[1]Center for Preventive Medical Sciences, Chiba University, [2]School of Computing, Institute of Science Tokyo, [3]Design Research Institute, Chiba University

S35-3 9:35 - 9:50
Development of high-precision analytical methods for thyroid hormones and neurotransmitters and their application in toxicology
○ Kei NOMIYAMA[1], Rumi TANOUE[1], Yoshinori IKENAKA[2], Akira KUBOTA[3], Tatsuya KUNISUE[1]
[1]Center for Marine Environmental Studies (CMES) Ehime University, [2]One Health Research Center, Hokkaido University, [3]Department of Veterinary Medicine, Obihiro University of Agriculture and Veterinary Medicine

S35-4 9:50 - 10:10
Basics of mass spectrometry imaging and the effect of neonicotinoids on enzyme activity
○ Shuichi SHIMMA
Department of Engineering, Osaka University

S35-5 10:10 - 10:30
Development of extraction-ionization technique "t-SPESI" and its application to mass spectrometry imaging of diseased tissues and cells
○ Yoichi OTSUKA[1, 2, 3]
[1]Department of Physics, Graduate School of Science, The University of Osaka,
[2]Forefront Research Center, Graduate School of Science, The University of Osaka,
[3]Department of Chemistry, Graduate School of Science, The University of Osaka

Symposium 36 **July 4 (Fri) 10:00 - 12:00 Room 7**

JSOT-JPS Joint Symposium: Interpreting Drugs and Poisons from a Redox Perspective

Chairs: Motohiro NISHIDA (Kyushu University, Graduate School of Pharmaceutical Sciences)
Yasunari KANDA (Division of Pharmacology, National Institute of Health Sciences)

Introduction
10:00 - 10:01

S36-1 10:01 - 10:25
Yin and Yang principle for the functional duality of polyphenols
○ Hideo YAMASAKI
Faculty of Science, University of the Ryukyus

S36-2 10:25 - 10:48
Cardioprotective effect of oxidized glutathione through regulation of sulfur metabolism
○ Akiyuki NISHIMURA[1, 2], Xiaokang TANG[1, 2], Yuri KATO[3], Motohiro NISHIDA[1, 2, 3]
[1]Division of Cardiocirculatory Signaling, National Institute for Physiological Sciences,
[2]Cardiocirculatory Dynamism Research Group, Exploratory Research Center on Life and Living Systems,
[3]Graduate schhool of Pharmaceutical Sciences, Kyushu University

S36-3 10:48 - 11:11
Human-cell based safety and efficacy assessments for pediatric drug development
○ Hiroyuki KAWAGISHI[1, 2], Mitsuhiko YAMADA[2], Yasunari KANDA[1]
[1]National Institute of Health Sciences, [2]Shinshu University

S36-4 11:11 - 11:35
A new neural mechanism of itch
○ Makoto TSUDA
Department of Molecular and Systems Pharmacology, Graduate School of Pharmaceutical Sciences, Kyushu University

S36-5 11:35 - 11:59
Developing botanical drugs for neurodegenerative diseases from natural medicine; Potential and Challenge
○ Chihiro TOHDA, Ximeng YANG, Yuna INADA
Section of Neuromedical Science, Institute of Natural Medicine, University of Toyama

Conclusion
11:59 - 12:00

Symposium 37 — **July 4 (Fri) 14:45 - 16:15 Room 1**

Safety assessment of chemical substances by read-across: Challenges and prospects

Chairs: Kouichi YOSHINARI (School of Pharmaceutical Sciences, University of Shizuoka)
Takashi YAMADA (National Institute of Health Sciences)

S37-1
14:45 - 15:10

Read-across: Current status, issues, and future prospects

○ Takashi YAMADA[1], Yumi AKAHORI[2]

[1]Center of Biological Safety and Research, National Institute of Health Sciences,
[2]Chemicals Evaluation and Research Institute, Japan

S37-2
15:10 - 15:35

Utilizing toxicokinetic parameters as NAMs for read-across of repeated-dose toxicity

○ Atsushi ONO

Laboratory of Toxicology, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Division of Pharmaceutical Sciences, Okayama University

S37-3
15:35 - 16:00

Development of a read-across methodology utilizing *in silico* and *in vitro* techniques to predict systemic toxicity

○ Kouichi YOSHINARI

Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka

Discussion
16:00 - 16:15

Symposium 38 — **July 4 (Fri) 14:45 - 16:15 Room 2**

Revisiting GLP: Why It Matters Now

Chairs: Hideshi TSUSAKI (Shin Nippon Biomedical Laboratories, Ltd (SNBL))
Hirokazu SUDO (JPMA / Chugai Pharmaceutical Co.,Ltd.)

S38-1
14:45 - 14:50

Introduction

○ Hideshi TSUSAKI

Shin Nippon Biomedical Laboratories, Ltd (SNBL)

S38-2
14:50 - 15:13

Proposal for Shortening Retention Periods of GLP Facility Documents Using a Risk-Based Approach to Address the Strain on GLP Archive Facilities

○ Hirokazu SUDO[1, 2]

[1]JPMA, [2]Chugai Pharmaceutical Co.,Ltd.

S38-3
15:13 - 15:36

Issues Faced by CROs in GLP Study Contracts: Archiving and Test Substance Handling

○ Zen-Yo TANAKAMARU[1, 2]

[1]Japan Association of Contract Laboratories for Safety Evaluation (JACL), [2]Axcelead Drug Discovery Partners, Inc.

S38-4
15:36 - 15:59

Current issues related to GLP test facility

○ Kenji NAKANO

Pharmaceuticals and Medical Devices Agency

Discussion
15:59 - 16:15

Symposium 39 **July 4 (Fri) 14:45 - 16:15 Room 3**

Lipid metabolism and biological responses in chemicals-induced toxicity

Chairs: Shuntaro HARA (Division of Health Chemistry, Department of Healthcare and Regulatory Sciences, Showa Medical University School of Pharmacy)
Nozomu KONO (Grad Sch of Pharmaceut Sci, Univ of Tokyo)

Introduction
14:45 - 14:48

S39-1
14:48 - 15:09

Mechanisic insight into trans-fatty acid-mediated cell death: the role of intracellular metabolic fate and localization

○ Yusuke HIRATA, Takuya NOGUCHI, Atsushi MATSUZAWA
Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.

S39-2
15:09 - 15:30

Lipotoxicity and Mechanisms of Membrane Phospholipid Acyl Chain Homeostasis

○ Nozomu KONO
Laboratody of Health Chemistry, Graduate School of Pharmaceutical Sciences, the University of Tokyo

S39-3
15:30 - 15:51

Toxicolipidomics and its application

○ Shuntaro HARA, Yuki TOMITSUKA, Hiroshi KUWATA
Division of Health Chemistry, Department of Healthcare and Regulatory Sciences, Showa Medical University School of Pharmacy

S39-4
15:51 - 16:12

Toxic chemicals that induce an iron independent lipid peroxidation induced novel cell death, lipoxytosis, and their regulation by lipid metabolism enzymes

○ Hirotaka IMAI
Department of Hygenic Chemistry, School of Pharmaceutical Sciences, Kitasato University

Conclusion
16:12 - 16:15

Symposium 40 **July 4 (Fri) 14:45 - 16:15 Room 4**

Environmental Pollution and Human Health Effects of PFAS (per- and polyfluoroalkyl substances)

Chairs: Toshiyuki KAJI (Tokyo University of Science)
Chika YAMAMOTO (Faculty of Pharmaceutical Sciences, Toho University)

Introduction
14:45 - 14:50

Toshiyuki KAJI
Tokyo University of Science

S40-1
14:50 - 15:17

PFAS Exposure and health risks: overview from contamination cases

○ Kouji H. HARADA
Kyoto Prefectural University

S40-2
15:17 - 15:44

Exposure to PFAS and their health effects on children – Current findings and future challenges: the Hokkaido Study

○ Yu AIT BAMAI, Reiko KISHI
Center for Environmental and Health Sciences (CEHS), Hokkaido University

S40-3 15:44 - 16:11

PFOA (perfluorooctanic acid) transcriptome analysis and current status of the PFAS Percellome Project

○ Jun KANNO[1, 2, 3, 4], Noriko MORIYAMA[1], Masaki TSUJI[1], Koichi MORITA[1], Ryuichi ONO[1], Kenichi AISAKI[1], Satoshi KITAJIMA[1]

[1]National Institute of Health Sciences, [2]Nissan Tamagawa Hospital, [3]University of Tsukuba, Faculty of Medicine, [4]Systems Biology Institute

Conclusion

16:11 - 16:15

Chika YAMAMOTO

Faculty of Pharmaceutical Sciences, Toho University

Symposium 41 **July 4 (Fri) 14:45 - 16:15 Room 6**

Recent Trends and Issues in Benchmark Dose Methods for Risk Assessment

Chairs: Akihiko HIROSE (Chemicals Evaluation and Research Institute, Japan)
Mariko MATSUMOTO (Division of Risk Assessment, National Institute of Health Sciences)

S41-1 14:45 - 15:00

Current Trends and Issues in the Application of Benchmark Dose Method Using Bayesian Approach - Introduction -

○ Akihiko HIROSE

Chemicals Evaluation and Research Institute, Japan

S41-2 15:00 - 15:25

The characteristics of prior distribution settings in BMD estimation software using Bayesian model averaging methods

○ Takehiko I. HAYASHI

National Institute for Environmental Studies, Social Systems Division

S41-3 15:25 - 15:50

Challenges to the Application of the Benchmark Dose Method Using a Bayesian Approach to the Risk Assessment: Results of Dichotomous Data Analysis

○ Mariko MATSUMOTO

Division of Risk Assessment, National Institute of Health Sciences

S41-4 15:50 - 16:15

Challenges to the application of the benchmark dose method using a Bayesian approach to the risk assessment: Results of continuous data analysis

○ Asako FUKUSHIMA

Chemicals Evaluation and Research Institute, Japan

Practical use of AI/ML for nonclinical toxicity assessment in pharmaceutical companies

Chairs: Kazunori FUJIMOTO (Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.)
Kaori AMBE (School of Data Science, Nagoya City University / Graduate School of Pharmaceutical Sciences, Nagoya City University)

Introduction
14:45 - 14:46

S42-1 Utilization of AI for drug-induced seizure evaluation
14:46 - 15:08

○ Takafumi SHIRAKAWA
Astellas Pharma Inc.

S42-2 Exploring AI in Investigative Toxicology: Opportunities and Challenges
15:08 - 15:30

○ Tadahiro SHINOZAWA[1], Johji NOMURA[2], Kazuko YONEMORI[1], Yoshiko OKAI[1], Toshikatsu MATSUI[1], Tomoya SAMESHIMA[1], Wenlong WANG[1], Kenji TAKI[2], Makoto MIYAMOTO[1]
[1]Takeda Pharmaceutical Company, [2]FRONTEO

S42-3 Utilization of AI in Exploratory Toxicity Assessment
15:30 - 15:52

○ Kenji WATANABE
Mitsubishi Tanabe Pharma Corporation

S42-4 Predicting the human hepatotoxicity risk from non-clinical data: the reality of an approach using machine learning models
15:52 - 16:14

○ Misaki TANAKA
Chugai Pharmaceutical Co. Ltd.

Conclusion
16:14 - 16:15

Workshop

Workshop 1

July 2 (Wed) 16:00 - 17:30 Room 1

Testing strategy to predict drug-induced liver injury in drug discovery: intuitional knowledge from case studies

Chairs: Sho AKAI (Chugai Pharmaceutical Co., Ltd.)
Satoko KAKIUCHI-KIYOTA (Translational Safety, Genentech)

Opening Remarks
16:00 - 16:03

W1-1
16:03 - 16:24

Introduction of testing strategies to predict the risk of drug-induced liver injury in humans

○ Satoko KAKIUCHI-KIYOTA

Translational Safety, Genentech

W1-2
16:24 - 16:45

Risk assessment strategy for hepatotoxicity using *in vitro* assays

○ Tomoya SAMESHIMA, Maya KIMURA, Hisakazu KOMORI, Tadahiro SHINOZAWA

Drug Safety Research and Evaluation, Preclinical and Translational Sciences, Research, Takeda Pharmaceutical Company Limited

W1-3
16:45 - 17:06

Evaluation of a high throughput microphysiological liver system for hepatotoxicity screening early in drug discovery

○ Anna BORGSTRÖM

InSphero AG, Switzerland

W1-4
17:06 - 17:27

Regulatory (PMDA) Perspective on Human Hepatotoxicity Risk Assessment of Pharmaceuticals

○ Satoshi TSUNODA

Pharmaceuticals and Medical Devices Agency

Closing Remarks
17:27 - 17:30

Workshop 2

July 3 (Thu) 9:15 - 10:45 Room 4

Diversity of drug modalities and non-clinical safety assessment - Part 1 Challenges Faced by Toxicologists

Chairs: Masafumi DOI (Daiichi Sankyo Co., Ltd.)
Akinori MATSUSHITA (Shin Nippon Biomedical Laboratories, Ltd.)

W2-1
9:15 - 9:21

Introduction

○ Izuru MIYAWAKI

Preclinical Research Unit, Sumitomo Pharma Co., Ltd.

W2-2
9:21 - 9:42

Case Studies in Non-Clinical Safety Evaluation of Liposomal Formulations

○ Naoko TANAKA

Evaluation Center, Terumo Corporation

W2-3 9:42 - 10:03
Challenges and Initiatives in Evaluating Off-Target Protein Degradation for Safety Assessment in TPD
○ Takafumi YOTSUMOTO
Daiichi Sankyo Co., Ltd.

W2-4 10:03 - 10:24
Challenges of nonclinical safety evaluation of cell therapy products - Tumorigenicity evaluation -
○ Takeshi WATANABE
Drug Safety Research and Evaluation, Takeda Pharmaceutical Company Limited

W2-5 10:24 - 10:45
Non-clinical Safety Evaluation Strategy for Non-Natural Peptide Drugs
○ Sho AKAI
Chugai Pharmaceutical Co., Ltd.

Workshop 3 **July 3 (Thu) 11:00 - 12:30 Room 4**

Diversity of drug modalities and non-clinical safety assessment - Part 2 Consideration of Regulatory Strategies

Chairs: Satoshi TSUNODA (Pharmaceuticals and Medical Devices Agency)
Yutaka NAKANISHI (Axcelead Drug Discovery Partners, Inc.)

W3-1 11:00 - 11:25
Toward the development of mRNA vaccines with reduced adverse reactions
○ Yasuo YOSHIOKA[1, 2, 3, 4, 5]
[1]Research Institute for Microbial Diseases, Osaka University,
[2]Institute for Open and Transdisciplinary Research Initiatives, Osaka University,
[3]Graduate School of Pharmaceutical Sciences, Osaka University, [4]Center for Advanced Modalities and DDS, Osaka University,
[5]The Research Foundation for Microbial Diseases of Osaka University

W3-2 11:25 - 11:50
Development of radiopharmaceuticals containing complexes of peptides and radioisotopes
○ Hideo FUKUI
Axcelead DDP

W3-3 11:50 - 12:15
Issues for Preclinical Safety Assessments of Drugs using New Modalities - From the Perspective of Regulatory Authority -
○ Yukiko HOSHINO
Pharmaceuticals and Medical Devices Agency

Discussion
12:15 - 12:30

Workshop 4 **July 4 (Fri) 10:30 - 12:00 Room 2**

Current Status of Clinical pathology toward VCG

Chairs: Koji OTABE (Shin Nippon Biomedical Laboratories, Ltd. Scientific Affairs Division)
Takuya FUJITA (Mitsubishi Tanabe Pharma Corporation, Safety Research Laboratories, Soyaku Innovative Research Division)

W4-1 An Overview of Virtual Control Group
10:30 - 10:50

○ Takao KUROOKA[1, 2], Yuichiro AMANO[2, 3], Ikuro TAKAKURA[2, 4], Takashi TANAHARU[2, 5], Keiko MOTOYAMA[2, 6], Satomi NISHIKAWA[2, 7], Kuniyoshi SAKAI[2, 8], Gen SATO[2, 9], Kiyohiro HASHIMOTO[2, 3], Mutsumi SUZUKI[2, 10]

[1]EA Pharma.Co.,Ltd.,
[2]Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association,
[3]Takeda Pharmaceutical Company Limited, [4]Kissei Pharmaceutical Co., Ltd., [5]Bristol-Myers Squibb K.K.,
[6]Janssen Pharmaceutical K.K., [7]Mitsubishi Tanabe Pharma Corporation, [8]ASKA Pharmaceutical Co., Ltd., [9]Eisai Co., Ltd.,
[10]Kyowa Kirin Co., Ltd.

W4-2 Current status of clinical pathology and issues for standardization based on analysis of non-clinical sample survey data
10:50 - 11:10

○ Shiho NARUSAWA[1], Yasunori ODA[2], Naoto TOYOTA[1, 3]

[1]Translational Research Division, Chugai Pharmaceutical Co., Ltd., [2]R&I Business Development, Sysmex Corporation,
[3]Committee on Animal Clinical Pathology, Japan Society of Clinical Chemistry

W4-3 Efforts toward the standardization of clinical pathology in the non-clinical field at the Committee on Animal Clinical Pathology, Japan Society of Clinical Chemistry
11:10 - 11:30

○ Takashi TATEOKA[1, 2]

[1]Committee on Animal Clinical Pathology, Japan Society of Clinical Chemistry,
[2]Mitsubishi Tanabe Pharma Corporation / Safety Research Laboratories - Sohyaku. Innovative Research Division

Discussion
11:30 - 12:00

Takasumi SHIMOMOTO
Pharmaceuticals and Medical Devices Agency

Workshop 5 **July 4 (Fri) 9:00 - 10:00 Room 7**

Toxicology in the Core Curriculum Era in Medical, Dental, and Veterinary Education

Chairs: Naohiko ANZAI (Department of Pharmacology, Chiba University Graduate School of Medicine)
Fumiyo SAITO (Department of Toxicology, Faculty of Veterinary Medicine, Okayama University of Science)

Introduction
9:00 - 9:05

Naohiko ANZAI
Department of Pharmacology, Chiba University Graduate School of Medicine

W5-1 Current status and issues of toxicology in medical education
9:05 - 9:20

○ Naohiko ANZAI
Department of Pharmacology, Chiba University Graduate School of Medicine

W5-2 9:20 - 9:35
Toxicology education in Japanese dental schools: Current status and perspectives
○ Tadashi SAIGUSA
Department of Pharmacology, Nihon University School of Dentistry at Matsudo

W5-3 9:35 - 9:50
Toxicology in Veterinary Education: Whole Body Approach and Regulatory Science
○ Fumiyo SAITO
Division of Toxicology, Faculty of Veterinary Medicine, Okayama University of Science

Discussion
9:50 - 10:00

Workshop 6 **July 4 (Fri) 14:45 - 16:15 Room 5**

Current status and prospects for toxicity assessment using organoid and spheroid culture systems

Chairs: Katsuhiro MIYAJIMA (Tokyo University of Agriculture, Faculty of Applied Biosciences)
Satoshi YOKOTA (National Institute of Health Sciences)

Introduction
14:45 - 14:47
Satoshi YOKOTA
National Institute of Health Sciences

W6-1 14:47 - 15:15
The potential of new approached methodologies (NAMs) evaluating male reproductive toxicity for childhood cancer survivor
○ Satoshi YOKOTA
Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences

W6-2 15:15 - 15:43
Enhancing safety assessment of nucleic acid drugs with liver spheroid cultures
○ Maya KIMURA, Tomoya SAMESHIMA, Tadahiro SHINOZAWA
Takeda Pharmaceutical Company Limited

W6-3 15:43 - 16:11
Development of a Genotoxicity Assessment for Chemical Substances Using Organoids Derived from Normal Tissues
○ Yukari TOTSUKA
Department of Environmental Health Sciences, Hoshi University

Conclusion
16:11 - 16:15
Katsuhiro MIYAJIMA
Tokyo University of Agriculture, Faculty of Applied Biosciences

Workshop by Young Planning Committee

Workshop by Young Planning Committee 1

July 2 (Wed) 14:15 - 16:15 Room 3

Survival strategies for toxicology researchers

Chairs: Hitomi FUJISHIRO (Faculty of Pharmaceutical Sciences, Tokushima Bunri University)
Nozomi FUJISAWA (Translational Research Division, Chugai Pharmaceutical Co., Ltd.)

Introduction
14:15 - 14:18

Y1-1
14:18 - 14:36

Summary of the 51st Annual Meeting of JSOT Career Paths Questionnaire through Machine Learning Analysis

○ Kazuki TAKEDA
Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University

Y1-2
14:36 - 14:54

University of the Ryukyus Initiatives to Promote Diversity

Makiko OKAMOTO
Gender Equality Promotion Office, University of the Ryukyus

Y1-3
14:54 - 15:12

Nagoya City University Initiatives to Promote Diversity

○ Kaori AMBE[1, 2]
[1]School of Data Science, Nagoya City University, [2]Graduate School of Pharmaceutical Sciences, Nagoya City University

Y1-4
15:12 - 15:30

Initiatives to Promote Diversity by Chugai Pharmaceutical

○ Tatsuya IKUNO
Research Div., Chugai Pharmaceutical Co., Ltd.

Y1-5
15:30 - 15:48

Career paths across industry and academia (1)

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

Y1-6
15:48 - 16:06

Career paths across industry and academia (2)

○ Hiroyuki KAWAGISHI[1, 2]
[1]National Institute of Health Sciences, [2]Shinshu University

Discussion
16:06 - 16:15

Toxicology Meets New Technology: Reimagining Toxicology with Advanced Technologies

Chairs: Kazuki TAKEDA (Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University)
Fumiyo SAITO (Department of Toxicology, Faculty of Veterinary Medicine, Okayama University of Science)
Yuki YOSHIZAWA (Sumitomo Pharma Co., Ltd. Preclinical Research Unit)

Introduction
16:15 - 16:20

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

Y2-1
16:20 - 16:35

Pattern Recognition Study of Life Science Data for Advancing Toxicology

○ Tadahaya MIZUNO
Graduate School of Pharmaceutical Sciences, The University of Tokyo

Y2-2
16:35 - 16:50

Introduction of quantitative structure–toxicity relationship model using machine learning and its application to cytochrome P450 function prediction

○ Kazuma KAITOH
Advanced Industrial Science and Technology

Y2-3
16:50 - 17:05

Practical application of next generation risk assessment (NGRA) using ChemTunes・ToxGPS

○ Kinya TODA
Life Science Dept., MOLSIS inc.

Y2-4
17:05 - 17:20

Compound Safety Assessment Method for the Nervous System and Heart Using *In Vitro* Advanced Measurement and Analytical Technologies

○ Ikuro SUZUKI
Department of Electronics, Tohoku Institute of Technology

Y2-5
17:20 - 17:35

Business development of disulfide-rich peptides, which began with basic research on tarantula venom: Aiming to become a unicorn company

○ Tadashi KIMURA
Veneno Technologies Co. Ltd.

Y2-6
17:35 - 17:50

Development of Next-Generation Human Immune System Mice for Drug Discovery Research

○ Ryoji ITO
Central Institute for Experimental Medicin and Life Science

Discussion
17:50 - 18:13

Conclusion
18:13 - 18:15

Award Lecture

Award Lecture July 3 (Thu) 16:30 - 18:15 Room 1

Distinguished Scholar Award

Chair: Satoshi KITAJIMA (National Institute of Health Sciences)

AWL1 16:30 - 17:00

Toward Cybernetic Scientist: Accelerating Scientific Discovery by Augmenting and Complementing Human Scientist's Capability using AI and Robotics

○ Hiroaki KITANO[1, 2, 3]

[1]The Systems Biology Institute, [2]Okinawa Institute for Science and Technology Graduate School, [3]Sony Computer Science Laboratories, Inc.

The JSOT Award

Chair: Yuhji TAQUAHASHI (National Institute of Health Sciences)

AWL2 17:00 - 17:30

Comprehensive *in vivo* toxicity research by incorporating genetic modification, cell analysis, gene expression and epigenetic analysis

○ Satoshi KITAJIMA

National Institute of Health Sciences

The JSOT Young Scientist Award 1

Chair: Yasuo YOSHIOKA (Research Institute for Microbial Diseases, Osaka University)

AWL3 17:30 - 17:45

Analysis of placental toxicity to clarify the mechanism of nanoparticle-induced reproductive and developmental toxicity

○ Kazuma HIGASHISAKA[1, 2, 3]

[1]Institute for Advanced Co-Creation Studies, Osaka University, [2]Graduate School of Pharmaceutical Sciences, Osaka University, [3]School of Pharmaceutical Sciences, Osaka University

The JSOT Young Scientist Award 2

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

AWL4 17:45 - 18:00

Advancing Toxicological Research Through Language Model-Based Frameworks

○ Tadahaya MIZUNO

Graduate School of Pharmaceutical Sciences, The University of Tokyo

The JSOT Young Scientist Award 3

Chair: Tsuyoshi NAKANISHI (Laboratory of Hygienic Chemistry and Molecular Toxicology, Gifu Pharmaceutical University)

AWL5 18:00 - 18:15

Development of toxicity evaluation systems using reporter mice and their application to chemical risk assessment

○ Keishi ISHIDA

Laboratory of Hygienic Chemistry and Molecular Toxicology, Gifu Pharmaceutical University

田邊賞 / Tanabe Award

表彰式 / Award Ceremony

7月3日（木）/ July 3 (Thu)　15:00 - 16:30
第 1 会場 / Room 1

田邊賞受賞論文と受賞者
Tanabe Award

論　文：Paternal methamphetamine exposure differentially affects first and second generations in mice

Sakiko Munetomo-Aoki, Asuka Kaizaki-Mitsumoto, Ryota Nakano, Satoshi Numazawa

J. Toxicol. Sci. Vol.49, No.1, 9-26, 2024

受賞者：光本（貝崎）明日香（昭和医科大学大学院 薬学研究科 毒物学分野）
宗友（青木）咲子　（昭和医科大学 薬学部 病院薬剤学講座）
中野　僚太（昭和医科大学大学院 薬学研究科 生理学分野）
沼澤　　聡（昭和医科大学大学院 薬学研究科 毒物学分野）

論　文：Developing a GNN-based AI model to predict mitochondrial toxicity using the bagging method

Yoshinobu Igarashi, Ryosuke Kojima, Shigeyuki Matsumoto, Hiroaki Iwata, Yasushi Okuno, Hiroshi Yamada

J. Toxicol. Sci. Vol.49, No.3, 117-126, 2024

受賞者：五十嵐芳暢（国立研究開発法人医薬基盤・健康・栄養研究所トキシコゲノミクス・インフォマティクスプロジェクト
国立研究開発法人理化学研究所マルチモーダルＡＩ基盤技術研究チーム）
小島　諒介（京都大学大学院医学研究科ビッグデータ医科学分野）
松本　篤幸（京都大学大学院医学研究科ビッグデータ医科学分野）
岩田　浩明（京都大学大学院医学研究科ビッグデータ医科学分野）
奥野　恭史（京都大学大学院医学研究科ビッグデータ医科学分野）
山田　　弘（国立研究開発法人医薬基盤・健康・栄養研究所 トキシコゲノミクス・インフォマティクスプロジェクト）

論　文：Comparative study of susceptibility to methylmercury cytotoxicity in cell types composing rat peripheral nerves: a higher susceptibility of dorsal root ganglion neurons

Eiko Yoshida, Kazuhiro Aoki, Yu Sasaki, Hinako Izuhara, Tsutomu Takahashi, Yasuyuki Fujiwara, Tomoya Fujie, Ke Du, Komyo Eto, Yo Shinoda, Toshiyuki Kaji

J. Toxicol. Sci. Vol.49, No.5, 241-248, 2024

受賞者：吉田　映子（一般財団法人電力中央研究所）
高橋　　勉（東京薬科大学 薬学部）
藤原　泰之（東京薬科大学 薬学部）
藤江　智也（東京理科大学 薬学部）
篠田　　陽（東京薬科大学 薬学部）
鍛冶　利幸（東京理科大学 薬学部）

論　文：Validation of a new protocol for a zebrafish MEFL (malformation or embryo-fetal lethality) test method that conforms to the ICH S5 (R3) guideline

Kanako Mori, Yoshinobu Aoki, Fumito Mikashima, Kazushige Maki, Toshio Tanaka, Mai Hayashi, Wataru Sugimoto, Mizuho Ono, Saaya Umekita, Tatsuhiro Niino, Michio Fujiwara, Tomonori Ebata, Hiromi Hirata, Hajime Kojima

J. Toxicol. Sci. Vol.49, No.8, 337-348, 2024

受賞者：小島　　肇（山陽小野田市立山口東京理科大学）
平田　普三（青山学院大学）
森　華奈子（アステラス製薬株式会社）
青木　嘉信（アステラス製薬株式会社）
三ヶ島史人（独立行政法人医薬品医療機器総合機構）
田中　利男（三重大学大学院医学系研究科システムズ薬理学）
杉本　　航（マルホ株式会社）
小野美都穂（株式会社三菱ケミカルリサーチ　プロダクトスチュワードシップ推進部　リスク評価・新規課題グループ）
梅北さあや（株式会社三菱ケミカルリサーチ　プロダクトスチュワードシップ推進部　リスク評価・新規課題グループ）
新野　竜大（三菱ケミカル株式会社　SC レスポンシブルケア本部　化学品＆輸出管理・企画部
株式会社三菱ケミカルリサーチ プロダクトスチュワードシップ推進部）
江畑　知憲（株式会社ボゾリサーチセンター 御殿場研究所）
藤原　道夫（エムオデッセイ合同会社）

選考委員長：安彦　行人（国立医薬品食品衛生研究所）
プレゼンター：広瀬　明彦（一般社団法人日本毒性学会理事長／一般財団法人化学物質評価研究機構）

ファイザー賞 / Pfizer Award

表彰式 / Award Ceremony

7月3日（木）/ July 3 (Thu)　15:00 - 16:30
第1会場 / Room 1

ファイザー賞受賞論文と受賞者
Pfizer Award

論　文：Involvement of *Npas2* and *Per2* modifications in zinc-induced acute diurnal toxicity in mice

Hiroki Yoshioka, Sarah Tominaga, Masumi Suzui, Yasuro Shinohara, Tohru Maeda, Nobuhiko Miura

J. Toxicol. Sci. Vol.47, No.12, 547-553, 2022

受賞者：三浦　伸彦（横浜薬科大学薬学部）
吉岡　弘毅（北里大学医学部（旧 岐阜医療科学大学薬学部））
酒々井眞澄（名古屋市立大学大学院医学研究科）
篠原　康郎（金城学院大学薬学部）
前田　　徹（金城学院大学薬学部）

論　文：Involvement of polycyclic aromatic hydrocarbons and endotoxin in macrophage expression of interleukin-33 induced by exposure to particulate matter

Nami Ishihara, Tomoaki Okuda, Hiroyuki Hagino, Ami Oguro, Yuto Tani, Hiroshi Okochi, Chiharu Tokoro, Yoshiaki Fujii-Kuriyama, Kouichi Itoh, Christoph F.A. Vogel, Yasuhiro Ishihara

J. Toxicol. Sci. Vol.47, No.5, 201-210, 2022

受賞者：石原　康宏（広島大学）
大黒　亜美（広島大学）

論　文：Perfluorooctanoic acid (PFOA) as a stimulator of estrogen receptor-negative breast cancer MDA-MB-231 cell aggressiveness: Evidence for involvement of fatty acid 2-hydroxylase (FA2H) in the stimulated cell migration

Genki Sakai, Masayo Hirao-Suzuki, Takayuki Koga, Takanobu Kobayashi, Jun Kamishikiryo, Michitaka Tanaka, Kiyonaga Fujii, Masufumi Takiguchi, Narumi Sugihara, Akihisa Toda, Shuso Takeda

J. Toxicol. Sci. Vol.47, No.4, 159-168, 2022

受賞者：竹田 修三（福山大学 薬学部 衛生薬学研究室）
平尾 雅代（広島国際大学 薬学部 環境毒物代謝学研究室）
古賀 貴之（第一薬科大学 薬学部 衛生化学分野）
小林 隆信（徳島文理大学 香川薬学部 生体防御学講座）
瀧口 益史（広島国際大学 薬学部 環境毒物代謝学研究室）
杉原 成美（福山大学 薬学部 衛生薬学研究室）
戸田 晶久（九州栄養福祉大学 食物栄養学部 食物栄養学科）

選考委員長：鍛冶　利幸（東京理科大学）
プレゼンター：広瀬　明彦（一般社団法人日本毒性学会理事長／一般財団法人化学物質評価研究機構）

技術賞 / Outstanding Technology Award

表彰式 / Award Ceremony

7月3日（木）/ July 3 (Thu)　15:00 - 16:30
第1会場 / Room 1

技術賞
Outstanding Technology Award

研究課題名：機械学習と心拍変動解析を用いた薬物誘発性痙攣の予測法の開発

受 賞 者 ：久我　和寛 / Kazuhiro Kuga
（アステラス製薬株式会社）

研究課題名：イヌ及びヒト MRGPRX2 発現細胞を用いた in vitro アレルギー様反応評価系の開発

受 賞 者 ：浜村　えり / Eri Hamamura-Yasuno
（第一三共株式会社　安全性研究所）

研究課題名：胚･胎児発生毒性評価を目的としたゼブラフィッシュ胚MEFL試験法の最適化とその標準化･実用化に向けた実証

受 賞 者 ：森　華奈子 / Kanako Mori
（アステラス製薬株式会社）

選考委員長：三島　雅之（国立医薬品食品衛生研究所）
プレゼンター：広瀬　明彦（一般社団法人日本毒性学会理事長／一般財団法人化学物質評価研究機構）

日化協 LRI 賞 / The JCIA LRI Award

表彰式 / Award Ceremony

7 月 3 日（木）/ July 3 (Thu)　15:00 - 16:30
第 1 会場 / Room 1

日化協LRI賞
The JCIA LRI Award

研究課題名：環境化学物質の毒性研究から紐解かれた生体の防御システム

受 賞 者 ：田口　恵子 / Keiko Taguchi
（東京大学大学院農学生命科学研究科応用生命化学専攻食糧化学研究室）

選 考 委 員 長：小椋　康光（千葉大学）
プレゼンター：広瀬　明彦（一般社団法人日本毒性学会理事長／一般財団法人化学物質評価研究機構）

Candidates for the Excellent Presentation Award (Oral)

Candidates for the Excellent Presentation Award (Oral) 1

July 2 (Wed) 9:30 - 10:30 Room 6

Chairs: Tamio FUKUSHIMA (Shoinogi Co & Ltd)
Masashi SEKIMOTO (Laboratory of Environmental Hygiene, School of Life and Environmental Science, Azabu University)

Organ toxicity

P-1E 9:30 - 9:36

Analysis of the changes in early (J-T_{peak}) and late (T_{peak}-T_{end}) ventricular repolarization preceding the onset of drug-induced Torsade de pointes

○ Ryuichi KAMBAYASHI[1], Ai GOTO[1], Atsushi SUGIYAMA[1, 2, 3]

[1]Department of Pharmacology, Faculty of Medicine, Toho University,
[2]Yamanashi Research Center of Clinical Pharmacology, [3]Internal Medicine, Koshu Rehabilitation Hospital

P-4E 9:36 - 9:42

Development of a Prediction Model for Drug-Induced Liver Injury Using *in vitro* Panel Assays System

○ Hiroya ISHII, Yuki KATO, Naoyuki SUZUKI, Shingo TAKAGI, Tomoyuki KAWACHI, Yusuke TATENO, Kousuke MAEDA, Koji KASAMATSU, Tamio FUKUSHIMA

Drug Discovery Research Division, Shionogi & Co., Ltd.

P-5E 9:42 - 9:48

Involvement of platelet activation by mitochondrial permeability transition in acetaminophen-induced liver injury

○ Akinori TAKEMURA, Yugo IKEYAMA, Atsuya FUJITA, Kousei ITO

Laboratory of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Chiba University

P-19E 9:48 - 9:54

Evaluating the effects of Azoles on androgen production using extracted rat testis

○ Kanata IBI[1, 2], Eri MIZUGUCHI[1], Hiroki SAKAI[2]

[1]Pharmacokinetics and Safety Department, Drug Research Center, K Pharmaceutical CO. LTD.,
[2]Laboratory of Veterinary Pathology, Joint Department of Veterinary Medicine, Gifu University

Environmental pollutants

P-29E 9:54 - 10:00

Nanoplastics Disrupt Liver Homeostasis: A Pathway to NAFLD and Fibrosis

○ Narayan Sah SONAR[1, 2], Laxmi Sen THAKURI[3], Hye Bin PARK[1, 2], Jiun KANG[1, 2], Dong Young RHYU[1, 2]

[1]Department of Biomedicine, Health & Life Convergence Sciences, BK21 FOUR, Mokpo National University, Republic of Korea,
[2]School of Food & Pharmaceutical Engineering, Mokpo National University, Republic of Korea,
[3]Bio-medicine Advanced Formulation Research Centre, College of Natural Science, Mokpo National University, Republic of Korea

P-30E 10:00 - 10:06

Exploring Toxic Target Candidates of Puberulic Acid through Comprehensive Molecular Docking Calculations on Protein Structure Proteomes: 'Binding Proteomics' Analysis

○ Kazuki TAKEDA, Teppei HAYAMA, Rin SUGAWARA, Ryo KAMATA
Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University

P-32E 10:06 - 10:12

Distribution and single-dose toxicity in rats of ^{225}Ac manufactured in-house

○ Saori SHIMIZU, Naoki UJIKE, Masato YAMADA, Naoaki YAMADA
Research Center, Nihon Medi-Physics Co., Ltd.

P-37E 10:12 - 10:18

A Novel Mechanism of PFOS-Induced Developmental Neurotoxicity via the Thyroid Hormone-Converting Enzyme DIO2

○ Yuki FUJIWARA[1], Yuhei MIYASAKA[2], Ayane NINOMIYA[1], Izuki AMANO[1], Wataru MIYAZAKI[3], Noriyuki KOIBUCHI[1]
[1]Department of Integrative Physiology, Gunma University Graduate School of Medicine,
[2]Gunma University Heavy Ion Medical Center,
[3]Department of Bioscience and Laboratory Medicine, Hirosaki University Graduate School of Health Science

P-40E 10:18 - 10:24

Combined effects of PFOA and MEHP on the gene expression profile in human hepatocyte-like HepaRG cells

○ Wataru MURASE[1], Atsuhito KUBOTA[1], Ayaka YASUDA[1], Ryo HAKOTA[1], Koji NAKAGAWA[2], Atsuko IKEDA[3, 4], Hiroyuki KOJIMA[1]
[1]Division of Health and Environmental Sciences, Department of Pharmaceutical Health Science & Environmental Toxicology, Graduate School of Pharmaceutical Sciences, Health Sciences University of Hokkaido,
[2]Division of Biochemistry Department of Molecular Biosciences, Graduate School of Pharmaceutical Sciences, Health Sciences University of Hokkaido ,
[3]Faculty of Health Sciences, Hokkaido University, [4]Center for Environmental and Health Sciences, Hokkaido University

P-42E 10:24 - 10:30

Chemical hazard assessment of chlorinated paraffins with human stem cells as a new approach methodology (NAM)

○ Islem BOUKARA[1], Mari OCHIAI[1, 2], Hisato IWATA[1]
[1]Center for Marine Environmental Studies, Ehime University, Japan,
[2]School of Life and Environmental Science, Azabu University, Japan

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Candidates for the Excellent Presentation Award (Oral) 2 — **July 2 (Wed) 10:30 - 11:30 Room 6**

Chairs: Yumi ABIKO (Department of Hygienic Chemistry, Graduate School of Biomedical Sciences, Nagasaki University)
Yasumitsu NISHIMURA (Department of Hygiene, Kawasaki Medical School)

AOP (adverse outcome pathway), and Others

P-43E 10:30 - 10:36

Comparative Toxicity of Dibutyl Phthalate and Dibutyl Adipate in Zebrafish Embryos: Impacts on Development, Neurobehavior, and the GH/IGFs Axis

○ Kijeong YUN[1], Kyunghee JI[2]
[1]Seoul National Science and Technology University, [2]Yongin University

P-44E 10:36 - 10:42

Reproductive toxicity of Nivalenol in the earthworm *Eisenia andrei*

○ Aika HAMAUZU, Reo MATSUSAKA, Mao KANEKI, Chiharu OHIRA, Tomoki FUKUYAMA, Noriyuki KAJI

Pharmacology Lab, School of Veterinary Medicine, Azabu University

Inflammation, and Immunotoxicology

P-53E 10:42 - 10:48

Involvement of damage-associated molecular patterns (DAMPs) in the immune checkpoint inhibitor-induced myocarditis in A/J mice

○ Junya MATSUSHITA[1], Chiho KAZAMA[1], Kyoko MIWA[1], Mayumi GOTO[1], Kazuyoshi KUMAGAI[2], Tetsuo AIDA[1], Yoshimi TSUCHIYA[1]

[1]Daiichi Sankyo Co., Ltd., Medicinal Safety Research Laboratories, [2]Daiichi Sankyo Inc.

P-54E 10:48 - 10:54

Elucidation the mechanism of clone-specific anaphylaxis induced by anti PD-L1 antibodies

○ Ruiheng TANG[1], Riho KUME[1], Kazuto YASUDA[1], Yuta TAMEMOTO[1], Aizemaiti AIBAI[1], Kyohei HIGASHI[2], Hiroto HATAKEYAMA[1]

[1]Graduate School and Faculty of Pharmaceutical Sciences, Chiba University,
[2]Graduate School and Faculty of Pharmaceutical Sciences, Tokyo University of Science

P-55E 10:54 - 11:00

Immunogenicity assessment of phospholipase B-like 2 (PLBL2) by *in vivolin vitro* non-clinical studies

○ Eri HAMAMURA[1], Kyohei YASUNO[1], Kota INOUE[2], Koichi GOTO[1], Yoshimi TSUCHIYA[1]

[1]Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.,
[2]Modality Research Laboratories II, Daiichi Sankyo Co., Ltd.

P-56E 11:00 - 11:06

Reverse translational research on cytokine release syndrome caused by the antibody drug in Phase I trials

○ Hironori OTSUKI, Yohei INAI, Rie HIRANO, Tetsuro ARAKI, Ken-Ichiro NAN-YA

Translational Research Labs., Bio-Pharmaceutical Center, Kyowa Kirin Co., Ltd.

Metals

P-64E 11:06 - 11:12

Investigation of Metal Absorption Characteristics by Dermal Exposure to Welding Fumes

○ Makiko IWASE[1], Megumi ONO[1], Qi WANG[1], Yukie YANAGIBA[1], Yasumitsu OGRA[2]

[1]National Institute of Occupational Safety and Health, Japan, [2]Graduate School of Pharmaceutical Sciences, Chiba University

P-68E 11:12 - 11:18

Inhibition of selenium metabolism by methylmercury and regulation of ferroptosis sensitivity through PRDX6

○ Hayato TAKASHIMA[1], Takashi TOYAMA[1], Junya ITO[2], Eikan MISHIMA[2], Yoshiro SAITO[1]

[1]Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University,
[2]Helmholtz Munich

P-75E 11:18 - 11:24

Downregulation of Selenoprotein P Expression by Curcumin Analogues: A Novel Approach for the Treatment and Prevention of Diabetes

○ Ichidaku OU[1], Takashi TOYAMA[1], Hiroyuki YAMAKOSHI[2], Yoshiharu IWABUCHI[2], Yoshiro SAITO[1]

[1]Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University, [2]Laboratory of Synthetic Chemistry, Graduate School of Pharmaceutical Sciences, Tohoku University

Cytotoxicity, and cellular response

P-83E 11:24 - 11:30

NRF2-dependent selenium metabolic reprogramming enhances ferroptosis resistance and promotes hepatocellular carcinoma progression

○ Kotoko ARISAWA, Moeka NATORI, Tetta HIRANUMA, Takashi TOYAMA, Yoshiro SAITO

Graduate School of Pharmaceutical Sciences, Tohoku University

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Candidates for the Excellent Presentation Award (Oral) 3 — **July 2 (Wed) 14:10 - 15:04 Room 6**

Chairs: Ryuichi ONO (Division of Cellular & Molecular Toxicology, Center for Biological Safety and Research (CBSR), National Institute of Health Sciences (NIHS))
Kazuma HIGASHISAKA (Institute for Advanced Co-Creation Studies, Osaka University/Graduate School of Pharmaceutical Sciences, Osaka University/School of Pharmaceutical Sciences, Osaka University)

Cytotoxicity, and cellular response

P-88E 14:10 - 14:16

Unique Regulatory Mechanism of Ferroptosis in Nrf2-Upregulated Glioblastoma Cells

○ Stephanie Ka Kiu SIU, Takashi TOYAMA, Yoshiro SAITO

Tohoku University Graduate School of Pharmaceutical Sciences, Laboratory of Molecular Biology and Metabolism

P-93E 14:16 - 14:22

Role of gut bacterial supersulfide in modulating antioxidant capacity in host and bacteria

○ Jun UCHIYAMA[1, 2], Masahiro AKIYAMA[1]

[1]Clinical Research Institute for Clinical Pharmacology and Therapeutics, Showa University, [2]Graduate School of Pharmaceutical Sciences, Keio University

Toxicity-testing methods

P-98E 14:22 - 14:28

Evaluation of Cardiotoxicity in Anti-cancer Drugs: Measurement of Changes in hiPSC-CMs under Chronic Condition

○ Eueun KIM

Division of Business Development, NEXEL Co., Ltd

P-99E 14:28 - 14:34

Development of an LC/MS multi-omics assay system for the evaluation of hepatotoxicity *in vitro*

○ Kazuki IKEDA[1, 2], Masatomo TAKAHASHI[1], Kosuke HATA[1], Masaki MATSUMOTO[3], Takeshi BAMBA[1], Yoshihiro IZUMI[1]

[1]Division of Metabolomics, Medical Institute of Bioregulation, Kyushu University, [2]JSPS PD, [3]Department of Omics and Systems Biology Niigata University

P-100E 14:34 - 14:40

Establishment of *in vitro* cholestatic test model without Matrigel sandwich culture

○ Teruhiko WATANABE[1], Tsubasa FUKUDA[1], Nobuaki SHIRAKI[2], Shoen KUME[2]

[1]Life Science Laboratory, Technology & Development Division, Kanto Chemical Co., Inc., [2]School of Life Science and Technology, Institute of Science Tokyo

P-104E 14:40 - 14:46

Characterization of human neuroblastoma cell line IMR-32 as a neuronal differentiation model for *in vitro* DNT detection tool

○ Shunsuke TOMITA, Keishi ISHIDA, Daisuke MATSUMARU, Tsuyoshi NAKANISHI

Laboratory of Hygienic Chemistry and Molecular Toxicology, Gifu Pharmaceutical University

P-107E 14:46 - 14:52

Evaluation of peripheral neuropathy using human induced pluripotent stem cells (hiPSCs)-induced sensory neurons

○ Yuma NAGAI, Takuma IGUCHI, Tetsuo AIDA, Yoshimi TSUCHIYA

Daiichisankyo CO., LTD

P-108E 14:52 - 14:58

Development of an alternative method for risk assessment of trace skin sensitizers and identification of sensitization causes using novel high-sensitive detection reagents

○ Yohei SHIMIZU[1], Masataka KITADANI[1], Hideyuki MIZUMACHI[2], Akihiro MORIUCHI[1], Ryou KOIKE[1]

[1]Analytical Science Research Laboratory, Kao Corporation, [2]Safety Science Research Laboratory, Kao Corporation

P-112E 14:58 - 15:04

Comparison of Usefulness and Tissue Damage Potential of Titer Max Gold (TMG) and Freund's Complete Adjuvant (FCA) in the Guinea Pig Maximization Test (GPMT)

○ Kiho NISHINOSONO, Tomoka SABUTA, Hiroki SHIMIZU, Nobuyoshi YAMASHITA, Yusuke YAMASHITA, Yasuharu OTSUBO

Drug Safety Research Laboratories, Shin Nippon Biomedical Laboratories, Ltd.

Chairs: Yasuhiro ISHIHARA (Hiroshima University)
Hitoshi NARAOKA (Astellas Pharma Inc.)

Organoid

P-113E 15:04 - 15:10
Metabolic activation and carcinogenesis of 4-NQO in rasH2 mouse-derived esophageal organoids

○ Manami AKEYOSHI, Chiyoko NISHIME, Misa MOCHIZUKI, Kenji KAWAI, Masami SUZUKI, Toshio IMAI
Central Institute for Experimental Medicine and Life Science

P-115E 15:10 - 15:16
Development of the risk evaluation methods for drug-induced emesis based on serotonin release using human intestinal spheroids

○ Yoshiki HASHIMOTO[1], Kazuya MAEDA[2], Osamu SHIMOMURA[3], Yoshihiro MIYAZAKI[3], Shinji HASHIMOTO[3], Tatsuya ODA[3], Hiroyuki KUSUHARA[1]
[1]Laboratory of Molecular Pharmacokinetics, Graduate School of Pharmaceutical Sciences, The University of Tokyo,
[2]Laboratory of Pharmaceutics, School of Pharmacy, Kitasato University,
[3]Department of Gastrointestinal and Hepato-Biliary-Pancreatic Surgery, Faculty of Medicine, University of Tsukuba

P-119E 15:16 - 15:22
Establishment of HepaRG monolayer and spheroid culture system with oxygen permeable plates for predicting drug-induced liver injury

○ Naoki TAKAOKA[1], Momoka MORITA[1], Tassei ISAKA[1], Jun TAKAHASHI[2], Katsuhiro ESASHIKA[2], Shigeru OHTA[1], Seigo SANOH[1]
[1]Laboratory of Pharmaceutical Health Science, School of Pharmaceutical Sciences, Wakayama Medical University,
[2]Synthetic Chemicals Laboratory, Mitsui Chemicals, Inc.

Information technology, AI, and big data

P-126E 15:22 - 15:28
Application of Drug-Induced Liver Injury (DILI) Prediction Model Using Integrated Datasets and Machine Learning Approaches

○ Taro KAKUZAKI[1], Shuki TAKIZAWA[3], Kentaro MATSUURA[3], Misaki TANAKA[2]
[1]Research Division, Chugai Pharmaceutical, Co., Ltd.,
[2]Translational Research Division, Chugai Pharmaceutical, Co., Ltd.,
[3]Digital Transformation Unit, Chugai Pharmaceutical, Co., Ltd.

P-128E 15:28 - 15:34
AI-Based Histopathological Lesion Assessment for Safety Evaluation in Rat Kidney and Testis

○ Mikiko MOTOMURO[1], Kaito KIKUCHI[1], Kiyonori KAI[2], Kyohei YASUNO[2], Hiroki KAWAI[1]
[1]LPIXEL Inc., [2]Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.

P-131E 15:34 - 15:40
Cross-sectional analysis of the onset of hypersensitivity associated with antibody therapeutics using the adverse event reporting system

○ Yuta TAMEMOTO, Kenta SATO, Atsuki YAMAGUCHI, Ruiheng TANG, Hiroto HATAKEYAMA
Laboratory of Design and Drug Disposition, Graduate School of Pharmaceutical Sciences, Chiba University

Genetic toxicity, and carcinogenisity

P-133E
15:40 - 15:46

Features of extrachromosomal circular DNA in acetamide-induced rat liver tumors and the involvement of chromothripsis in its formation

○ Yohei YAMAGAMI[1, 2], Yuji ISHII[1], Kenji NAKAMURA[1, 3], Hirofumi HARASHIMA[4], Shinji TAKASU[1], Meili SOMA[1], Takeshi TOYODA[1], Tomoaki MURAKAMI[2], Kumiko OGAWA[1]

[1]Division of Pathology, National Institute of Health Sciences,
[2]Laboratory of Veterinary Toxicology, Tokyo University of Agriculture and Technology,
[3]Laboratory of Veterinary Pathology, Tokyo University of Agriculture and Technology,
[4]Tonomachi Solution Research Lab., As One Corporation

P-134E
15:46 - 15:52

Mode of action analysis for mouse lung tumors induced by permethrin: Involvement of CYP2F2 enzyme and human relevancy

○ Dai HASEGAWA, Kensuke KAWAMOTO, Keiko OGATA, Satoki FUKUNAGA, Hiroyuki ASANO

SUMITOMO CHEMICAL Co., Ltd

P-139E
15:52 - 15:58

Simultaneous analysis of caffeine and paraxanthine provides potentially useful indexes in the treatment of acute caffeine intoxication

○ Yoshitaka YAMAZAKI[1, 2], Asuka KAIZAKI-MITSUMOTO[1, 2], Mariko SATO[3], Yumiko INOUE[3], Kazuyuki MIYAMOTO[4], Keisuke SUZUKI[4], Munetaka HAYASHI[4, 5], Kenji DOHI[4], Satoshi NUMAZAWA[1, 2]

[1]Department of Toxicology, Showa Medical University Graduate School of Pharmacy,
[2]Showa Medical University Pharmacological Research Center,
[3]Department of Hospital Pharmaceutics, Showa Medical University Graduate School of Pharmacy,
[4]Department of Emergency and Disaster Medicine, Showa Medical University Graduate School of Medicine,
[5]Department of Critical Care and Emergency Medicine, Showa Medical University Fujigaoka Hospital

Oral Session

Oral Session 1

July 2 (Wed) 9:30 - 10:30 Room 5

Chairs: Hiroshi HASEGAWA (Kobe Pharmaceutical University)
Yo SHINODA (Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences)

Nervous system

O-1
9:30 - 9:42

Involvement of HMGB1 in vincristine-induced peripheral neuropathy and its modulation by the locally activated coagulation cascade in mice: roles of macrophages and Schwann cells

○ Fumiko SEKIGUCHI[1], Momoko SAKO[1], Yui AOKIBA[1], Kenta YATSU[1], Shiho KADOKAWA[1], Kakeru KITA[1], Natsuki ASAKURA[1], Maho TSUBOTA[1], Yasuko TOMONO[2], Masahiro NISHIBORI[2], Atsufumi KAWABATA[1]

[1]Laboratory of Pharmacology and Pathophysiology, Faculty of Pharmacy, Kindai University,
[2]Department of Translational Research and Drug Development, Faculty of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University

O-2
9:42 - 9:54

The Quantitative Voltage Imaging Method Captures Widespread Cortical Activity Modifications: Disrupted Interhemispheric Communication by Cuprizone at the Anterior Cingulate Cortex

○ Takashi TOMINAGA[1, 2, 3], Kyoka TSUKUDA[3], Makiko TAKETOSHI[1], Michiko MIWA[2], Kentaro NAKASHIMA[1, 2, 3], Yoko TOMINAGA[1]

[1]Institute of Neuroscience, Tokushima Bunri University,
[2]Kagawa School of Pharmaceutical Sciences, Tokushima Bunri University,
[3]Graduate School of Pharmaceutical Sciences, Tokushima Bunri University

O-3
9:54 - 10:06

Effects of nicotine-related compounds and salt-inducible kinase SIK on Ca^{2+} oscillations in spheroid neuronal cultures

○ Tsutomu SASAKI[1], Sunao HISADA[1], Kazuto NUNOMURA[2], Bangzhong LIN[2], Kumiko NISHIYAMA[1], Takaya KITANO[1], Tomohiro KAWANO[1], Hideaki KANKI[1], Hideki MOCHIZUKI[1]

[1]Department of Neurology, Osaka University Graduate School of Medicine,
[2]Graduate School of Pharmaceutical Sciences Drug Innovation Center, Osaka University

O-4
10:06 - 10:18

Ubiquitin ligase Nedd4-binding protein Ndfip1 differentially expresses and exerts neuroprotective effects against methamphetamine-induced neurotoxicity

○ Masato ASANUMA[1], Ikuko MIYAZAKI[1], Jean Lud CADET[2]

[1]Department of Medical Neurobiology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences,
[2]Molecular Neuropsychiatry Section, NIH/NIDA, Intramural Research Program, USA

O-5
10:18 - 10:30

Sulforaphane protects against benzo[*a*]pyrene-induced hippocampal neurotoxicity in mice

○ Yousra REDA[1, 2], Zong CAI[1], Akane IKOMA[1], Alzahraa FERGANY[1], Saleh AHMED[1], Sahoko ICHIHARA[3], Gaku ICHIHARA[1]

[1]Department of Occupational and Environmental Health, Faculty of Pharmaceutical Sciences, Tokyo University of Science,
[2]Department of Forensic Medicine and Toxicology, Faculty of Veterinary Medicine, Suez Canal University, Ismailia, Egypt,
[3]Department of Environmental and Preventive Medicine, Jichi Medical University, Japan

Oral Session 2

July 2 (Wed) 10:30 - 11:30 Room 5

Chairs: Shuichi SEKINE (SHISEIDO Co. Ltd. Brand Value R&D Institute)
Toshihide TAKESHITA (Safety Science Research Laboratories, Kao Corporation)

Skin

O-6
10:30 - 10:42

Dysregulation of Extracellular Matrix Metabolism by p-Cresyl Sulfate in Human Dermal Fibroblasts

○ Koji MIZUNO, Yuma IBUSHI, Satoshi SAWADA, Toshikazu KOIWAI, Katsuki OKUYAMA, Takashi SATO

Department of Biochemistry, Tokyo University of Pharmacy and Life Sciences

O-7
10:42 - 10:54

Downregulation of collagen and elastin expression in murine skin induced by cisplatin and vincristine administration

○ Hiroyasu SAKAI[1, 2], Miho KIYAMA[1], Yuan SOMEYA[1], Haruka KITAMURA[1, 2], Shiori YONAMINE[1, 2], Fumiaki SATO[3], Risako KON[1], Nobutomo IKARASHI[1], Yoshihiko CHIBA[4], Tomoo HOSOE[1], Kumiko OGAWA[2]

[1]Department of Biomolecular Pharmacology, School of Pharmacy, Hoshi University,
[2]Department of Toxicology, School of Pharmacy, Hoshi University,
[3]Laboratory of Pathological Analysis, Faculty of Pharmacy, Juntendo University,
[4]Department of Physiology and Molecular Sciences, School of Pharmacy, Hoshi University

O-8
10:54 - 11:06

Augmentation of sebum production and cell proliferation due to mTOR activation by cyclosporine A in hamster sebocytes *in vitro*

○ Toshikazu KOIWAI, Tatsuya HOJO, Katsuki OKUYAMA, Koji MIZUNO, Takashi SATO

Department of Biochemistry, Tokyo University of Pharmacy and Life Sciences, Tokyo, Japan

O-9
11:06 - 11:18

In Silico Toxicity Prediction and *In Vitro* Cytotoxicity Validation for the Selection of Test Substances in Dermal Acute Toxicity Testing

○ Tatsushi TOYOOKA[1], Takaki AMAMOTO[1], Shinobu MIWA[1], Masahiro TOMIOKA[2], Toshiaki SASAKI[1], Emi BABAMOTO[1], Yusuke FURUKAWA[1], Masaaki SUZUKI[1], Makoto SANO[1]

[1]National Institute of Occupational Safety and Health, Shonan District, Japan,
[2]National Institute of Occupational Safety and Health, Noborito District, Japan

AOP（adverse outcome pathway）

O-10
11:18 - 11:30

The development of Adverse Outcome Pathway (AOP) 298

○ Shihori TANABE[1], Sabina QUADER[2], Ryuichi ONO[3], Horacio CABRAL[4], Edward J PERKINS[5]

[1]Division of Risk Assessment, National Institute of Health Sciences, [2]Innovation Center of NanoMedicine (iCONM),
[3]Division of Cellular and Molecular Toxicology, National Institute of Health Sciences,
[4]Department of Bioengineering, Graduate School of Engineering, The University of Tokyo,
[5]US Army Engineer Research and Development Center

Oral Session 3

July 3 (Thu) 10:50 - 11:38 Room 5

Chairs: Hiroshi ARAKAWA (Graduate School of Pharmaceutical Sciences, Nagoya City University)
Satoshi YOKOTA (Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences)

Toxicity-testing methods

O-11
10:50 - 11:02

Effect of single and repeated dose oral administration of carbon tetrachloride on liver in zebrafish

○ Satoshi FURUKAWA[1], Yukiko NAKAJIMA[2], Naomi FUJIWARA[2], Shiro TOYOHISA[2], Yasushi MISAWA[3], Kazuya TAKEUCHI[3]

[1]Planning and Development Department, Nissan Chemical Corporation,
[2]Technology Laboratory, KOBELCO ECO-SOLUTION Co. Ltd.,
[3]Biological Research Laboratories, Nissan Chemical Corporation

O-12
11:02 - 11:14

Development of zebrafish-based oncocardionephrology

Fumihiro TERAMI[1, 2], Akiyoshi SHIMIZU[1, 2], Aoi MORI[1, 2], Saori MATSUOKA[1, 2], Kanako NISHINO[1, 2], Kana SHINOGI[1, 2], Yuki SATODA[1, 2], ○ Toshio TANAKA[1, 2]

[1]Department of Systems Pharmacology, Mie University Graduate School of Medicine,
[2]Mie University Medical Zebrafish Research Center

O-13
11:14 - 11:26

Development of an Analytical Method Using StemPanTox-alpha for Highly Accurate Prediction of Developmental Neurotoxicity

○ Kenta SAKAI, Ryusei KUSAKABE, Dagjidsuren BATTSETSEG, Tsunehiko HONGEN, Masashi ASAI, Hideko SONE

Graduate School of Pharmaceutical Sciences, Yokohama University of Pharmacy

O-14
11:26 - 11:38

Development of an Oral Exposure System Using Microcapsules for Fish as an Alternative to Mammals in Chemical Safety Testing

○ Norihisa TATARAZAKO, Soramu KOMEYAMA, Yukiyo OKAZAKI

Graduate School of Agriculture at Ehime University

Oral Session 4

July 3 (Thu) 11:40 - 12:28 Room 5

Chairs: Mutsumi SUZUKI (Kyowa Kirin Co., Ltd./JPMA Drug Evaluation Committee Non-Clinical Evaluation Expert Committee)
Seigo SANOH (School of Pharmaceutical Sciences, Wakayama Medical University)

Clinical toxicology

O-15
11:40 - 11:52

DNA barcoding in the investigation of toxic plant poisoning – experience of a tertiary referral toxicology laboratory in Hong Kong

○ Kelvin Yat-Chung YU, Ying-Hoo LAM, Yeow-Kuan CHONG

Hospital Authority Toxicology Reference Laboratory, Department of Pathology, Princess Margaret Hospital

Information technology, AI, and big data

O-16 11:52 - 12:04

The IHI VICT3R Project - Implementing Virtual Control Group to Reduce Animal Use in Toxicity Studies

○ William P HOUSER[1], Thomas STEGER-HARTMANN[2], Ferran SANZ[3], Nadege LE ROUX[1]

[1]Bristol Myers Squibb, [2]Bayer, [3]Universitat Pompeu Fabra

O-17 12:04 - 12:16

Environmental impact assessment study on reef-building corals - With a view to achieving Nature-Positive outcomes

○ Akira IGUCHI

National Institute of Advanced Industrial Science and Technology (AIST)

Epigenetics

O-18 12:16 - 12:28

The role of CCCTC-binding factor:(CTCF) in transgenerational epigenetic inheritance: (TEI)

○ Yukiharu HORIYA, Tohru SHIBUYA

Laboratory of Environmental Epigenetics, Japan

Oral Session 5 **July 4 (Fri) 11:00 - 12:00 Room 3**

Chairs: Yasunari KANDA (Division of Pharmacology, National Institute of Health Sciences)
Satoshi NUMAZAWA (Showa Med Univ Grad Sch Pharm)

Nervous system

O-19 11:00 - 11:12

Behavior of neutrophils and platelets, and their roles as possible HMGB1-releasing cells in oxaliplatin-induced peripheral neuropathy

Maho TSUBOTA[1], Misaki ICHIKAWA[1], Chisato SEKI[1], Ayano KISHIMOTO[1], Fumiko SEKIGUCHI[1], Yasuko TOMONO[2], Masahiro NISHIBORI[2], ○ Atsufumi KAWABATA[1]

[1]Laboratory of Pharmacology and Pathophysiology, Faculty of Pharmacy, Kindai University,
[2]Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University

Pharmaceutical drugs (chemicals)

O-20 11:12 - 11:24

Effects of 5-fluorouracil on expression levels of drug-metabolizing enzymes in human fetal hepatocytes: Induction of CYP3A7 by 5-fluorouracil

○ Ayako HANZAWA, Satoshi YAMAORI

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

O-21 11:24 - 11:36

Hemodynamic and cardiac toxicity due to tetrahydrozoline hydrochloride (Visine® Red Eye) ingestion

○ Ranie Rovine Sayago BRILLANTES, Christopher Guanzon MANALO

Department of Emergency Medicine, University of the Philippines - Philippine General Hospital

O-22 11:36 - 11:48

Bleomycin promotes cellular senescence and activation of the cGAS-Sting pathway but has no direct effect on fibrosis in an idiopathic pulmonary fibrosis model

○ Satoshi KANAZAWA, Akiho TAKATA, Yoko MIURA
Dep. Neurodevelopmental Disorder Genetics, Nagoya City University

Clinical toxicology

O-23 11:48 - 12:00

Neuro-Psychiatric Systemic Lupus Erythematosus Diagnosed Through Intentional Hydroxychloroquine Poisoning: A Case Report

○ Maria Michellaida Therese Lim SALDUA[1, 2], Emily Sarne OLANO[1, 3]
[1]East Avenue Medical Center Toxicology Referral and Training Center,
[2]East Avenue Medical Center Department of Emergency Medicine,
[3]East Avenue Medical Center Department of Pediatrics

Oral Session 6 **July 4 (Fri) 9:00 - 10:00 Room 5**

Chairs: Kumiko OGAWA (Dept. Toxicol., Hoshi Univ.)
Eiko KOIKE (Health and Environmental Risk Division, National Institute for Environmental Studies)

Immunotoxicology

O-24 9:00 - 9:12

Immunotoxicological effects of Nivalenol exposure during pregnancy on the next generation

○ Koji ISHIDA[1], Mao KANEKI[1], Chiharu OHIRA[1], Mana ICHIKAWA[1], Ibuki YASUDA[1], Yuta KAGA[1], Kazutoshi SUGITA[2], Shiro MIYAKE[3], Tomoki FUKUYAMA[1]
[1]Pharmacology Lab, Vet Med, Azabu Univ., [2]Public Health Lab, Azabu Univ., [3]Food and Hygiene Lab, Azabu Univ.

O-25 9:12 - 9:24

Investigation of the Mechanism of Infusion Related Reaction (IRR) to Antibody Drugs in a Mouse Model of Carcinoma Cancer

○ Riho KUME, Kazuto YASUDA, Eikou TOU, Aibai EZMAT, Tomoki NAGASHIMA, Kenta SATO, Yuta TAMEMOTO, Hiroto HATAKEYAMA
Graduate School of Pharmaceutical Sciences, Chiba University

O-26 9:24 - 9:36

Glycolytic metabolism of CD8$^+$ T cells affects susceptibility to HLA-mediated drug-induced hypersensitivity reactions

○ Takeshi SUSUKIDA[1], Yuchen SUN[2], Noriaki ARAKAWA[2], Takuya HIRAO[3], Tadahaya MIZUNO[4], Shigeki AOKI[5], Kousei ITO[5], Yoshihiro HAYAKAWA[1]
[1]Laboratory of Cancer Biology and Immunology, Section of Host Defenses, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama,
[2]Division of Medicinal Safety Science, National Institute of Health Sciences,
[3]Divisions of Clinical Pharmacokinetics, Department of Pharmaceutical Sciences, International University of Health and Welfare,
[4]Molecular Pharmacokinetics, Graduate School of Pharmaceutical Sciences, The University of Tokyo,
[5]Laboratory of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Chiba University

O-27 9:36 - 9:48

Dermal exposure to low concentrations of volatile organic compounds significantly aggravates the house dust mite induced atopic dermatitis symptoms via direct influence on epidermal keratinocytes

○ Chiharu OHIRA[1], Kengo TOMITA[2], Mao KANEKI[1], Satoshi TAKAGI[1], Tomoki FUKUYAMA[1]

[1]Vet Med, Azabu Univ, [2]Institute of Technology, Shimizu Corporation.

O-28 9:48 - 10:00

Study of immunotoxic effects on Peyer's patches in the small intestine of rats by 90-day oral administration of titanium dioxide particles with different crystallite sizes

○ Jun-Ichi AKAGI, Yasuko MIZUTA, Mizuho UNEYAMA, Hirotoshi AKANE, Kohei MATSUSHITA, Takeshi TOYODA, Kumiko OGAWA

Division of Pathology, National Institute of Health Sciences

Oral Session 7

July 4 (Fri) 10:00 - 11:00 Room 5

Chairs: Yasuyuki FUJIWARA (School of Pharmacy, Tokyo University of Pharmacy and Life Sciences)
Hyogo HORIGUCHI (Department of Hygiene, Kitasato University School of Medicine)

Cellular response

O-29 10:00 - 10:12

Regulation of Heparan Sulfate Proteoglycan Expression in Vascular Endothelial Cells via ATP-Mediated Purinergic Receptor Signaling

○ Lihito IKEUCHI[1], Tsuyoshi NAKANO[2], Takato HARA[2], Kazuki KITABATAKE[1], Chika YAMAMOTO[2], Mitsutoshi TSUKIMOTO[1], Tomoya FUJIE[1], Toshiyuki KAJI[1]

[1]Faculty of Pharmaceutical Science, Tokyo University of Science, [2]Faculty of Pharmaceutical Sciences, Toho University

O-30 10:12 - 10:24

Identification of endogenous methylation products of cysteine, homocysteine, and glutathione persulfides in bacteria, plants, and mammalian cells

○ Tomohiro SAWA[1], Touya TOYOMOTO[1], Tianli ZHANG[2]

[1]Department of Microbiology, Graduate School of Medical Sciences, Kumamoto University,
[2]Center for Integrated Control, Epidemiology, and Molecular Pathophysiology of Infectious Diseases, Akita University

Environmental pollutants

O-31 10:24 - 10:36

Effects of microplastics on drug metabolizing enzymes and transporters in the small intestine and liver

○ Atsushi KAWASE, Yunsik WOO, Mimi NAKAO, Hiroaki SHIMADA, Fuminori SAKURAI

Kindai University

O-32 10:36 - 10:48

Nanoplastics disrupt brain homeostasis and activate Alzheimer's-related pathways

○ Laxmi Sen THAKURI[1, 3], Narayan Sah SONAR[1, 2], Hyebin PARK[1, 2], Jiun KANG[1, 2], Dong Young RHYU[1, 2, 3]

[1]School of Food and Pharmaceuticals Engineering, Mokpo National University,
[2]Department of Biomedicine, Health and Life Convergence Science, Mokpo National University,
[3]Bio-medicine Advanced Formulation Research Center, Mokpo National University

Others

O-33 10:48 - 11:00

Evaluation of the effects of differences in LED wavelength on mice sleep and lifespan

○ Kazuyuki OKAMURA, Miyuki SATO, Keiko NOHARA

Health and Environmental Risk Division, National Institute for Environmental Studies

Oral Session 8 **July 4 (Fri) 11:00 - 12:00 Room 5**

Chairs: Takuya NISHIMURA (National Institute of Health Sciences)
Kazuki TAKEDA (Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University)

Toxicity-testing methods

O-34 11:00 - 11:12

Development of a DNA damage assay system using human hepatocytes

○ Masayuki MISHIMA[1], Masataka TSUDA[1], Yuichiro HIGUCHI[2], Shotaro UEHARA[2], Hiroshi SUEMIZU[2], Kei-Ichi SUGIYAMA[1]

[1]Division of Genome Safety Science, National Institute of Health Sciences,
[2]Liver Engineering Laboratory, Department of Applied Research for Laboratory Animals, Central Institute for Experimental Medicine and Life Science

O-35 11:12 - 11:24

Development of new method for the evaluation of the safety and quality control of SARS-Cov-2 mRNA vaccine

○ Kou HIRAGA, Haruka MOMOSE, Sayuri SAKURAGI, Kiyoko NOJIMA, Mieko ISHII, Keiko IMAI, Junichi MAEYAMA, Yohei SEKI, Madoka KURAMITSU, Takuo MIZUKAMI

Research Center for Biological Products in the Next Generation, National Institute of Infectious Diseases

O-36 11:24 - 11:36

Evaluation of drug-induced cardiotoxicity via hepatic metabolism in a liver-heart co-culture using microphysiological system

○ Daiju YAMAZAKI[1], Shinichiro HORIUCHI[1], Yui IKEDA[2], Kenta SHINHA[3], Nanae KODA[1], Yusuke MASUO[2], Hiroshi KIMURA[3], Yukio KATO[2]

[1]Division of Pharmacology, National Institute of Health Sciences,
[2]Faculty of Pharmacy, Kanazawa University, [3]Micro/Nano Technology Center, Tokai University

O-37 11:36 - 11:48

Novel Approaches to Replace Inhalation Studies with Instillation Experiments: Minimizing Animal Testing and Enhancing Toxicity Assessment

○ Gustav BRUER[1], Katharina BLÜMLEIN[1], Otto CREUTZENBERG[1], Daria GÖDECKE[1], Manuel BREVA[2], Alejandro GARABATOS[2], Maren BODE[3], Arne BURZLAFF[3]

[1]Fraunhofer Institute for Toxicology and Experimental Medicine ITEM, Hannover, Germany,
[2]Inorganic Pigments Consortium, Castellon, Spain,
[3]EBRC Consulting GmbH, Hannover, Germany

Omics

O-38 11:48 - 12:00

Proteomics for toxicological science

○ Naoshi DOHMAE, Takehiro SUZUKI

RIKEN Center for Sustainable Resource Science

Oral Session 9 **July 4 (Fri) 10:30 - 11:42 Room 6**

Chairs: Yasuhiro SHINKAI (School of Life Sciences, Tokyo University of Pharmacy and Life Sciences)
Yaichiro KOTAKE (Graduate School of Biomedical and Health Sciences, Hiroshima University)

Risk assessment and communication

O-39 10:30 - 10:42

Issues in the Food Safety Commission's PFAS Risk Assessment Report and Towards Addressing Improving the Risk Assessment of Contaminant Chemicals

○ Chiharu TOHYAMA[1], Kouji HARADA[2], Noriyuki KOIBUCHI[3]

[1]The University of Tokyo, [2]Kyoto University, [3]Gunma University

O-40 10:42 - 10:54

Problems with risk assessment in pesticide re-evaluation

○ Junko KIMURA-KURODA

Environmental Neuroscience Information Center

O-41

Withdrawal

Metals

O-42 10:54 - 11:06

Investigating the Use of Ascorbic Acid as an Intervention for Metal Toxicity in Dogs in Kabwe District

○ Nelly BANDA[1], Rio DOYA[1], Nyein Chan SOE[1], Andrew KATABA[2], John YABE[2, 3], Golden ZYAMBO[2], Kaampwe MUZHANDU[2], Yared Beyene YOHANNES[1], Yoshinori IKENAKA[1, 4], Mayumi ISHIZUKA[1], Shouta Mm NAKAYAMA[1, 2]

[1]Hokkaido University, Department of Environmental Science, Laboratory of Toxicology,
[2]School of Veterinary Medicine, University of Zambia, [3]School of Veterinary Medicine, University of Namibia,
[4]North West University

O-43
11:06 - 11:18

Semen essential and toxic elements in relation to semen quality in Japanese men

○ Miyuki IWAI-SHIMADA[1], Kenta IWAI[1], Nozomi TATSUTA[1], Tomohiko ISOBE[1], Mai TAKAGI[1], Yayoi KOBAYASHI[1], Shoji F. NAKAYAMA[1], Yukiyo KUMAZAWA[2], Kazumasa TAKAHASHI[2], Takashi TANAKA[3], Yukihiro TERADA[2], Kyoko NOMURA[4], Hiroshi OKADA[3], Akiko TAMAKOSHI[5], Eri MAEDA[5]

[1]Health and Environmental Risk Division, National Institute for Environmental Studie,
[2]Department of Obstetrics and Gynecology, Akita University Graduate School of Medicine,
[3]International Center for Reproductive Medicine, Dokkyo Medical University Saitama Medical Center,
[4]Department of Environmental Health Science and Public Health, Akita University Graduate School of Medicine,
[5]Department of Public Health, Hokkaido University Faculty of Medicine and Graduate School of Medicine

O-44
11:18 - 11:30

Tributyltin induces non-canonical autophagy via V-ATPase-ATG16L1 association

○ Shunichi HATAMIYA, Masatsugu MIYARA, Yaichiro KOTAKE

Graduate School of Biomedical and Health Sciences, Hiroshima University

O-45
11:30 - 11:42

Research on development of biomarkers determining differences in individual susceptibility to methylmercury poisoning

○ Masatake FUJIMURA[1], Fusako USUKI[2], Takamitsu UNOKI[1]

[1]National Institute for Minamata Disease, [2]Joint Research Center for Human Retrovirus Infection

Poster Session

P- ● E：Candidates for the Excellent Presentation Award
P- ● S：Candidates for the Student Poster Award

Day 1 (July 2 (Wed) 13:00 - 14:00) Poster&Exhibition Room

Cardio vascular system

P-1E **Analysis of the changes in early (J-T_{peak}) and late (T_{peak}-T_{end}) ventricular repolarization preceding the onset of drug-induced Torsade de pointes**

○ Ryuichi KAMBAYASHI[1], Ai GOTO[1], Atsushi SUGIYAMA[1, 2, 3]
[1]Department of Pharmacology, Faculty of Medicine, Toho University,
[2]Yamanashi Research Center of Clinical Pharmacology, [3]Internal Medicine, Koshu Rehabilitation Hospital

Liver

P-2S **Investigation of the effects of repeated short-term administration of Monocrotaline on the liver of mice**

○ Sayaka OHASHI[1], Noriko KEMURIYAMA[2], Tatsuya MAEKAWA[2], Katsuhiro MIYAJIMA[1, 2]
[1]Department of Food and Nutritional Science, Graduate School of Agriculture, Tokyo University of Agriculture,
[2]Department of Nutritional Science and Food Safety, Faculty of Applied Biosciences, Tokyo University of Agriculture

P-3S **Elucidation of the pathogenesis of hepatic osteodystrophy secondary to metabolic dysfunction-associated steatohepatitis (MASH)**

○ Yuki OKAMOTO[1], Yoshiharu TSURU[2], Taiki MIHARA[1], Masatoshi HORI[1]
[1]Department of Veterinary Pharmacology, Graduate School of Agriculture and Life Sciences, The University of Tokyo,
[2]Research Support Department, Prime Tech Co., Ltd.

P-4E **Development of a Prediction Model for Drug-Induced Liver Injury Using *in vitro* Panel Assays System**

○ Hiroya ISHII, Yuki KATO, Naoyuki SUZUKI, Shingo TAKAGI, Tomoyuki KAWACHI, Yusuke TATENO, Kousuke MAEDA, Koji KASAMATSU, Tamio FUKUSHIMA
Drug Discovery Research Division, Shionogi & Co., Ltd.

P-5E **Involvement of platelet activation by mitochondrial permeability transition in acetaminophen-induced liver injury**

○ Akinori TAKEMURA, Yugo IKEYAMA, Atsuya FUJITA, Kousei ITO
Laboratory of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Chiba University

Kidney

P-6S Evaluation of transporter-mediated drug-induced kidney injury in inflammation using human kidney biopsies and 3D-RPTEC

○ Moeno KADOGUCHI[1], Megumi OSHIMA[2], Etsushi TAKAHASHI[3], Hiroko IKEDA[4], Minaho YAMAUCHI[1], Sui NOMURA[1], Ikumi TAMAI[1], Sumio OHTSUKI[5], Yasunori IWATA[2], Hiroshi ARAKAWA[1]

[1]Faculty of Pharmaceutical Sciences, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University,
[2]Department of Nephrology and Laboratory Medicine, Kanazawa University,
[3]Bio Business Promotion Department, Medical Division, NIKKISO CO., LTD.,
[4]Department of Diagnostic Pathology, Kanazawa University Hospital,
[5]Department of Pharmaceutical Microbiology, Graduate School of Pharmacological Sciences, Kumamoto University

P-7S Protective effects of BRD9 inhibitors against renal fibrosis via chromatin remodeling

○ Ibuki KAMIYOSHIHARA[1], Shiori HASHIBA[1], Masataka NAKANO[1, 2], Kiamu KUROSAWA[1], Etsushi TAKAHASHI[3], Kaoru MORIMURA[3], Yukiko NISHIOKA[3], Ayano ARAKI[3], Yoichi JIMBO[3], Hiroshi ARAKAWA[4], Tatsuki FUKAMI[1, 2], Miki NAKAJIMA[1, 2]

[1]Drug Metabolism and Toxicology, Faculty of Pharmaceutical Sciences, Kanazawa University,
[2]Nano Life Science Institute (WPI-NanoLSI), Kanazawa University,
[3]Bio Business Promotion Department, Medical Division, NIKKISO Co., LTD. ,
[4]Clinical Pharmacy and Healthcare Sciences, Faculty of Pharmaceutical Sciences, Kanazawa University

P-8S Investigation of Rodenticidal Effects and Mechanisms of Toxicity of Dcha-20, a Novel Vitamin D Receptor Agonist with Lithocholic Acid Scaffold

○ Misaki FUKAMATSU[1], Chiharu OGURA[2], Satoru NAGAOKA[3], Kana OKAMURA[2], Miyuna YOSHIHARA[2], Hiroyuki KAGECHIKA[4], Aya TANATANI[2], Kazuki TAKEDA[1]

[1]Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University,
[2]Department of Chemistry, Faculty of Science, Ochanomizu University, [3]Daimaru Compound Chemical CO., LTD.,
[4]Institute of Biomaterials and Bioengineering Division of Biomolecular Chemistry, Institute of Science Tokyo

P-9S Induction mechanism of OAT1 in three-dimensionally cultured human proximal tubular epithelial cells and its impact of its regulation on the sensitivity to drug-induced toxicity

○ Itsuki YOKOSEKI[1], Masataka NAKANO[1, 2], Etsushi TAKAHASHI[3], Kaoru MORIMURA[3], Yukiko NISHIOKA[3], Ayano ARAKI[3], Yoichi JIMBO[3], Hiroshi ARAKAWA[4], Ikumi TAMAI[5], Tatsuki FUKAMI[1, 2], Miki NAKAJIMA[1, 2]

[1]Drug Metabolism and Toxicology, Faculty of Pharmaceutical Sciences, Kanazawa University,
[2]WPI Nano Life Science Institute (WPI-NanoLSI), Kanazawa University,
[3]Bio Business Promotion Department, Medical Division, NIKKISO Co., LTD.,
[4]Clinical Pharmacy and Healthcare Sciences, Faculty of Pharmaceutical Sciences, Kanazawa University,
[5]Membrane Transport and Biopharmaceutics, Faculty of Pharmaceutical Sciences, Kanazawa University

P-10S Effects of RAS inhibitor administration on kidney in obese type 2 diabetic mice

○ Kaito NAKANISHI[1], Kinuko UNO[1], Tomohiko SASASE[1], Minori OKUMURA[1], Yuiko KUBOTA[1], Misato MATSUI[1], Yoshinobu DOI[2], Masami SHINOHARA[2], Miki SUGIMOTO[1], Takeshi OHTA[1]

[1]Laboratory of Animal Physiology and Functional Anatomy, Graduate School of Agriculture, Kyoto University,
[2]CLEA Japan Inc.

Other organs or system

P-11S Comparison of skeletal muscle and kidney pathology in type 2 diabetes model mice

○ Motoharu NAKAJIMA[1], Mei TOYOFUKU[2], Aiwa SAKAGUCHI[2], Nodoka KAGAMI[1], Noriko KEMURIYAMA[2], Katsuhiro MIYAJIMA[1, 2], Tatsuya MAEKAWA[1, 2]

[1]Department of Food and Nutritional Science, Graduate School of Agriculture, Tokyo University of Agriculture,
[2]Department of Nutritional Science and Food Safety, Faculty of Applied Biosciences, Tokyo University of Agriculture

P-12S Effects of SGLT2 Inhibitor Administration on Muscle in Obese Type 2 Diabetes Model *db/db* Mice

○ Yuiko KUBOTA[1], Kinuko UNO[1], Tomohiko SASASE[1], Minori OKUMURA[1], Kaito NAKANISI[1], Misato MATSUI[1], Yoshinobu DOI[2], Masami SHINOHARA[2], Miki SUGIMOTO[1], Takeshi OHTA[1]

[1]Laboratory of Animal Physiology and Functional Anatomy, Graduate School of Agriculture, Kyoto University,
[2]CLEA Japan Inc.

Reproductive and developmental toxicology

P-13S Trophoblast cell fusion suppressed by amino-modified polystyrene in forskolin-induced sycytialization BeWo model

○ Intan Cahaya DANI[1], Kazuma HIGASHISAKA[1, 2, 3], Mikihiro YOSHIE[4], Kazuhiro TAMURA[4], Yuya HAGA[1, 3], Yasuo TSUTSUMI[1, 3, 5, 6, 7]

[1]Grad. Sch. Pharm. Sci., Osaka Univ., [2]IACS., Osaka Univ., [3]Sch. Pharm. Sci. Osaka Univ.,
[4]Grad. Sch. Pharm. Sci., Tokyo Univ. Pharm. Life Sci., [5]MEI Ctr, Osaka Univ., [6]OTRI., Osaka Univ., [7]INSD., Osaka Univ.

P-14S Protective effect of *Sasa veitchii* extract against mycophenolate mofetil-induced inhibition of human palatal cell proliferation through downregulation of *microRNA-4680-3p*

○ Hanane HORITA[1], Yosuke TSUKIBOSHI[2], Kenichi OGATA[3], Makoto SANO[4], Hirotaka YAMASHITA[1], Hyogo HORIGUCHI[5], Hiroki YOSHIOKA[5]

[1]Gifu University of Medical Science, [2]Nagoya City University Graduate School of Medical Sciences,
[3]Karatsu Red Cross Hospital, [4]National Institute of Occupational Safety and Health, [5]Kitasato University School of Medicine

P-15S Different effects of the antiepileptic drugs phenytoin and phenobarbital on placental syncytialization

○ Momoe SERIZAWA[1], Kazuma HIGASHISAKA[1, 2, 3], Wakako OKUNO[3], Mikihiro YOSHIE[4], Kazuhiro TAMURA[4], Yuya HAGA[1, 3], Yasuo TSUTSUMI[1, 3, 5, 6, 7]

[1]Grad. Sch. Pharm. Sci., Osaka Univ., [2]IACS., Osaka Univ., [3]Sch. Pharm. Sci., Osaka Univ.,
[4]Grad. Sch. Pharm. Sci., Tokyo Univ. Pharm. Life Sci., [5]MEI Ctr., Osaka Univ., [6]OTRI., Osaka Univ., [7]INSD., Osaka Univ.

P-16S Developmental Toxicity Assessment of COVID-19 antiviral drugs Using Human iPS Cells Based on Signal Disruption

○ Kanon SATO[1, 3], Koki MURAYAMA[2, 3], Rieko MATSUURA[3], Archana MOOTHA[3], Yoko HIRABAYASHI[4], Yoshihiro NAKAJIMA[5], Yusuke OKUBO[3, 6], Junji FUKUDA[2, 6]

[1]College of Engineering Science, Yokohama National University, [2]Faculty of Engineering, Yokohama National University,
[3]Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences,
[4]Center for Biological Safety & Research, National Institute of Health Sciences,
[5]Health and Medical Research Institute, National Institute of Advanced Industrial Science and Technology (AIST),
[6]Institute of Advanced Sciences, Yokohama National University

P-17S **Methylphenidate induced sperm epigenomic changes and their plasticity**

○ Kanata AKAIKE, Asuka MITSUMOTO, Satoshi NUMAZAWA
Department of Toxicology, Showa Medical University Graduate School of Pharmacy

P-18S **Application of a Signal Disruption-Based Assay Using Human iPS Cells for Testicular Toxicity Assessment**

○ Koki MURAYAMA[1, 3], Kanon SATO[2, 3], Rieko MATSUURA[3], Archana MOOTHA[3], Yoko HIRABAYASHI[4], Yoshihiro NAKAJIMA[5], Yusuke OKUBO[3, 6], Junji FUKUDA[1, 6]
[1]Faculty of Engineering, Yokohama National University, [2]College of Engineering Science, Yokohama National University, [3]Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences, [4]Center for Biological Safety & Research, National Institute of Health Sciences, [5]Health and Medical Research Institute, National Institute of Advanced Industrial Science and Technology (AIST), [6]Institute of Advanced Sciences, Yokohama National University

P-19E **Evaluating the effects of Azoles on androgen production using extracted rat testis**

○ Kanata IBI[1, 2], Eri MIZUGUCHI[1], Hiroki SAKAI[2]
[1]Pharmacokinetics and Safety Department, Drug Research Center, K Pharmaceutical CO. LTD., [2]Laboratory of Veterinary Pathology, Joint Department of Veterinary Medicine, Gifu University

P-20S **Both pre- and post-natal exposure to secondhand smoke affects inhibitory neuronal mechanisms in the nucleus tractus solitarius of rats**

○ Yoshiyasu NAGASHIMA[1], Shin-Ichi SEKIZAWA[1], Ryota TOCHINAI[1], Masayoshi KUWAHARA[1], Kent E. PINKERTON[2]
[1]Department of Veterinary Pathophysiology and Animal Health, The University of Tokyo, [2]Center for Health and The Environment, University of California Davis

P-21S **Investigation of adverse outcome pathways for low-dose lead-induced developmental neurotoxicity**

○ Kisaki NAITO, Keishi ISHIDA, Daisuke MATSUMARU, Tsuyoshi NAKANISHI
Laboratory of Hygienic Chemistry and Molecular Toxicology, Gifu Pharmaceutical University

Behavioral toxicology

P-22S **Effects of acute glufosinate exposure during the postnatal developmental period on higher brain functions in adulthood**

○ Kenshi KAKU, Kenshiro HARA, Kentaro TANEMURA
Laboratory of Animal Reproduction and Development

P-23S **Effects of alpha-naphthoflavone exposure on pregnant mouse behavior**

○ Nobuki MURATA, Wataru YOSHIOKA, Kazutoshi SUGITA
Laboratory of Public HealthI, Azabu University School of Veterinary Medicine

Environmental pollutants

P-24S Cellular uptake of nanoferrite particles in osteoblasts and its effect on gene expression

○ Hono ENDO[1], Hidehiko NOBUOKA[1], Rintaro UENO[1], Masaki MIMURA[1], Makoto IZUMIYA[2], Naoto SAITO[3], Hisao HANIU[3]

[1]Department of Biomedical Engineering, Graduate School of Science and Technology, Shinshu University,
[2]Department of Biomedical Engineering, Graduate School of Medicine, Science and Technology, Shinshu University,
[3]Institute for Biomedical Sciences, Shinshu University Interdisciplinary Cluster for Cutting Edge Research

P-25S The effects of different-sized multi-walled carbon nanotubes on human THP-1-macrophages

○ Ayako SASAKI[1], Cai ZONG[1], Shiho MURAKI[1], Ryouya TAKIZAWA[2], Sahoko ICHIHARA[2], Gaku ICHIHARA[1]

[1]Tokyo University of Science, [2]Jichi Medical University

P-26S Preparation of polyethylene nanoplastics samples reflecting environmental conditions and assessment of their cytotoxic effects

○ Mii HOKAKU[1], Yuya HAGA[1, 2], Hirofumi TSUJINO[1, 2, 3], Sota MANABE[2], Wakaba IDEHARA[2], Phyo Bo Bo AUNG[1], Yuto MOTOYAMA[1], Ayaha MORI[2], Kazuma HIGASHISAKA[1, 2, 4], Yasuo TSUTSUMI[1, 2, 5, 6, 7]

[1]Grad. Sch. Pharm. Sci., Osaka Univ., [2]Sch. Pharm. Sci., Osaka Univ., [3]Museum Links, Osaka Univ., [4]IACS., Osaka Univ., [5]MEI Ctr., Osaka Univ., [6]OTRI., Osaka Univ., [7]INSD., Osaka Univ.

P-27S Preparation of environmentally relevant polypropylene nanoplastics for the safety assessment

○ Yuto MOTOYAMA[1], Yuya HAGA[1, 2], Hirofumi TSUJINO[1, 2, 3], Sota MANABE[2], Wakaba IDEHARA[2], Mii HOKAKU[1], Phyo Bo Bo AUNG[1], Ayaha MORI[2], Kazuma HIGASHISAKA[1, 2, 4], Yasuo TSUTSUMI[1, 2, 5, 6, 7]

[1]Grad. Sch. Pharm. Sci., Osaka Univ., [2]Sch. Pharm. Sci., Osaka Univ., [3]Museum Links, Osaka Univ., [4]IACS., Osaka Univ., [5]MEI Ctr., Osaka Univ., [6]OTRI., Osaka Univ., [7]INSD., Osaka Univ.

P-28S Establishment of environmental relevant polyvinyl chloride microplastics and nanoplastics considering their physiochemical properties for the safety assessment

○ Phyo Bo Bo AUNG[1], Yuya HAGA[1, 2], Hirofumi TSUJINO[1, 2, 3], Sota MANABE[2], Wakaba IDEHARA[2], Mii HOKAKU[1], Yuto MOTOYAMA[1], Ayaha MORI[2], Kazuma HIGASHISAKA[1, 2, 4], Yasuo TSUTSUMI[1, 2, 5, 6, 7]

[1]Grad. Sch. Pharm. Sci., Osaka Univ., [2]Sch. Pharm. Sci., Osaka Univ., [3]Museum Links, Osaka Univ., [4]IACS., Osaka Univ., [5]MEI Ctr., Osaka Univ., [6]OTRI., Osaka Univ., [7]INSD., Osaka Univ.

P-29E Nanoplastics Disrupt Liver Homeostasis: A Pathway to NAFLD and Fibrosis

○ Narayan Sah SONAR[1, 2], Laxmi Sen THAKURI[3], Hye Bin PARK[1, 2], Jiun KANG[1, 2], Dong Young RHYU[1, 2]

[1]Department of Biomedicine, Health & Life Convergence Sciences, BK21 FOUR, Mokpo National University, Republic of Korea,
[2]School of Food & Pharmaceutical Engineering, Mokpo National University, Republic of Korea,
[3]Bio-medicine Advanced Formulation Research Centre, College of Natural Science, Mokpo National University, Republic of Korea

P-30E Exploring Toxic Target Candidates of Puberulic Acid through Comprehensive Molecular Docking Calculations on Protein Structure Proteomes: 'Binding Proteomics' Analysis

○ Kazuki TAKEDA, Teppei HAYAMA, Rin SUGAWARA, Ryo KAMATA

Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University

P-31S **Accuracy evaluation of Binding Proteomics, a binding target candidates method using comprehensive molecular docking calculations**

○ Rin SUGAWARA, Teppei HAYAMA, Ryo KAMATA, Kazuki TAKEDA
Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University

P-32E **Distribution and single-dose toxicity in rats of ^{225}Ac manufactured in-house**

○ Saori SHIMIZU, Naoki UJIKE, Masato YAMADA, Naoaki YAMADA
Research Center, Nihon Medi-Physics Co., Ltd.

P-33S **Contamination of harmful substances and their effects on steroid hormones in Morelet's crocodile (Crocodylus moreletii) from Mexico**

○ Ryo NAKANISHI[1], Nanako KUBO[1], Marisol BUENFIL-ROJAS[1], Mauricio GONZALEZ-JAUREGUI[2], Yared Beyene YOHANNES[3], Yoshinori IKENAKA[3, 4], Rumi TANOUE[1], Hisato IWATA[1], Kei NOMIYAMA[1]
[1]Center for Marine Environmental Studies (CMES) Ehime University, [2]CEDESU - Universidad Autónoma de Campeche, [3]Graduate School of Veterinary Medicine, Hokkaido University, [4]One Health Research Center, Hokkaido University

P-34S **Contribution of oxidative stress and DNA damage to pulmonary inflammatory responses induced by diesel exhaust particles**

○ Tomohiro OKUGAWA[1, 2], Raga ISHIKAWA[3], Akiko HONDA[1], Tomonari MATSUDA[1], Hirohisa TAKANO[3, 4, 5]
[1]Graduate School of Engineering, Kyoto University, [2]Shenzhen International Graduate School, Tsinghua University, [3]Graduate School of Global Environmental Studies, Kyoto University, [4]Institute for International Academic Research, Kyoto University of Advanced Science, [5]Research Institute for Coexistence and Health Science, Kyoto University of Advanced Science

P-35S **Evaluation of the effects of PFOA alternatives (HFPO-TA, HFPO-TeA) on thyroid hormones using zebrafish embryos**

○ Mei YAMAMOTO[1], Rumi TANOUE[1], Akira KUBOTA[2], Tatsuya KUNISUE[1], Kei NOMIYAMA[1]
[1]Center for Marine Environmental Studies (CMES) Ehime University, [2]Department of Veterinary Medicine, Obihiro University of Agriculture and Veterinary Medicine

P-36S **Evaluation of Testicular Toxicity Effects on Male Mice from Daily Intake Equivalent Exposure to a Mixture of Nine Perfluoroalkyl Substances (PFASs)**

○ Wakana YOSHIMURA[1], Hiromi KUSAKA[2], Chihiro KANNO[3], Makoto SUGIYAMA[4], Masashi NAGANO[5], Ryo KAMATA[1], Kazuki TAKEDA[1]
[1]Laboratory of Toxicology, School of Veterinary Medicine, Kitasato University, [2]Laboratory of Theriogenology, School of Veterinary Medicine, Kitasato University, [3]Laboratory of Clinical Veterinary Medicine for Large Animals, School of Veterinary Medicine, Kitasato University, [4]Laboratory of Anatomy, School of Veterinary Medicine, Kitasato University, [5]Laboratory of Animal Reproduction, School of Veterinary Medicine, Kitasato University

P-37E **A Novel Mechanism of PFOS-Induced Developmental Neurotoxicity via the Thyroid Hormone-Converting Enzyme DIO2**

○ Yuki FUJIWARA[1], Yuhei MIYASAKA[2], Ayane NINOMIYA[1], Izuki AMANO[1], Wataru MIYAZAKI[3], Noriyuki KOIBUCHI[1]
[1]Department of Integrative Physiology, Gunma University Graduate School of Medicine, [2]Gunma University Heavy Ion Medical Center, [3]Department of Bioscience and Laboratory Medicine, Hirosaki University Graduate School of Health Science

P-38S **Molecular Mechanisms of PFAS-Induced Nephrotoxicity: Roles of Inflammasome Activation**

○ Jidapa HANVORAVONGCHAI, Yusuke KIMURA, Akihiko IKEGAMI, Yuki KITAMURA, Nathan MISE, Sahoko ICHIHARA
Jichi Medical University

P-39S **Evaluation of the effects of PFAS on placental syncytialization**

○ Minaho YAMAUCHI[1], Kazuma HIGASHISAKA[1, 2, 3], Wakako OKUNO[3], Momoe SERIZAWA[1], Risa SAKAI[3], Yuya HAGA[1, 3], Yasuo TSUTSUMI[1, 3, 4, 5, 6]
[1]Graduate School of Pharmaceutical Sciences, Osaka University,
[2]Institute for Advanced Co-Creation Studies, Osaka University, [3]School of Pharmaceutical Sciences, Osaka University,
[4]Global Center for Medical Engineering and Informatics, Osaka University ,
[5]Institute for Open and Transdisciplinary Research Initiatives, Osaka University,
[6]R³ Institute for Newly-Emerging Science Design, Osaka University

P-40E **Combined effects of PFOA and MEHP on the gene expression profile in human hepatocyte-like HepaRG cells**

○ Wataru MURASE[1], Atsuhito KUBOTA[1], Ayaka YASUDA[1], Ryo HAKOTA[1], Koji NAKAGAWA[2], Atsuko IKEDA[3, 4], Hiroyuki KOJIMA[1]
[1]Division of Health and Environmental Sciences, Department of Pharmaceutical Health Science & Environmental Toxicology, Graduate School of Pharmaceutical Sciences, Health Sciences University of Hokkaido,
[2]Division of Biochemistry Department of Molecular Biosciences, Graduate School of Pharmaceutical Sciences, Health Sciences University of Hokkaido ,
[3]Faculty of Health Sciences, Hokkaido University, [4]Center for Environmental and Health Sciences, Hokkaido University

P-41S ***In vitro* monitoring of perfluorooctanoic acid gastric toxicity using a stress granule reporter system**

○ Jung-Min LEE[1], Kee K. KIM[1], Eun-Mi KIM[2]
[1]Department of Biochemistry, College of Natural Sciences, Chungnam National University,
[2]Department of Bio & Environmental Technology, College of Science and Convergence Technology, Seoul Women's University

P-42E **Chemical hazard assessment of chlorinated paraffins with human stem cells as a new approach methodology (NAM)**

○ Islem BOUKARA[1], Mari OCHIAI[1, 2], Hisato IWATA[1]
[1]Center for Marine Environmental Studies, Ehime University, Japan,
[2]School of Life and Environmental Science, Azabu University, Japan

AOP (adverse outcome pathway), and Others

P-43E **Comparative Toxicity of Dibutyl Phthalate and Dibutyl Adipate in Zebrafish Embryos: Impacts on Development, Neurobehavior, and the GH/IGFs Axis**

○ Kijeong YUN[1], Kyunghee JI[2]
[1]Seoul National Science and Technology University, [2]Yongin University

P-44E **Reproductive toxicity of Nivalenol in the earthworm *Eisenia andrei***

○ Aika HAMAUZU, Reo MATSUSAKA, Mao KANEKI, Chiharu OHIRA, Tomoki FUKUYAMA, Noriyuki KAJI
Pharmacology Lab, School of Veterinary Medicine, Azabu University

Inflammation, and Immunotoxicology

P-45S A molecular mechanism underlying the senescence-associated pro-inflammatory response promoted by trans-fatty acids

○ Ryota KOJIMA, Yusuke HIRATA, Takuya NOGUCHI, Atsushi MATSUZAWA
Lab. of Health Chem., Grad. Sch. of Pharm. Sci., Tohoku Univ.

P-46S Investigation of the mechanism of lorlatinib-induced liver injury

○ Haruna TAKAGAKI[1], Chihiro OTSUBO[1], Takumi NODA[1, 2], Kazuya URASHIMA[1, 3], Ayumi FUJIMOTO[1, 4], Serina MIZUGUCHI[1], Saori TANAKA[1], Yuka KOHDA[1], Ryuji KATO[1]
[1]Department of Pharmacotherapeutics and Toxicology, Faculty of Pharmacy, Osaka Medical and Pharmaceutical University, [2]National Hospital Organization Osaka National Hospital, [3]Osaka Minato Central Hospital, [4]Osaka City General Hospital

P-47S HLA-independent T-cell activation induced by antiepileptic drugs

○ Satoru NAKADA, Kousei ITO, Shigeki AOKI
Laboratory of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Chiba University

P-48S Development of human gene cluster transfer methods for the generation of HLA cluster-containing mice

○ Nanami KISHIMA[1], Satoshi ABE[2], Akane OKADA[2], Hitomaru MIYAMOTO[1], Wakana NAKAGAWA[1], Reika YUNO[1], Yui MORIGUCHI[1], Kyotaro YAMAZAKI[1, 3, 4], Kanako KAZUKI[2], Takashi MORIWAKI[1], Teruhiko SUZUKI[5], Narumi UNO[6], Kazuma TOMIZUKA[6], Yasuhiro KAZUKI[1, 2, 3]
[1]Department of Chromosome Biomedical Engineering, Graduate School of Medical Sciences, Tottori University, [2]Chromosome Engineering Research Center (CERC), [3]Chromosome Engineering Research Group, Exploratory Research Center on Life and Living Systems (ExCELLS), [4]Homeostatic Regulation, National Institute for Physiological Sciences, National Institutes of Natural Sciences, [5]Stem Cell Project, Tokyo Metropolitan Institute of Medical Science,, [6]Laboratory of Bioengineering, Department of Applied Life Science, School of Life Science, Tokyo University of Pharmacy and Life Sciences

P-49S Serum metallomics of inflammation model mice and anti-inflammatory effects of selenium-containing compounds

○ Shunsuke YOGIASHI[1], Misaki SHIMIZU[1], Takashi TOYAMA[1], Masana YAZAKI[2], Mieko ARISAWA[2], Yoshiro SAITO[1]
[1]Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University, [2]Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu University

P-50S Pulmonary Inflammation Induced by Heated Tobacco Products Aerosol Exposure and MicroRNAs as Potential Mediators

○ Kazuma MATSUMOTO, Akihiko IKEGAMI, Ryoya TAKIZAWA, Yusuke KIMURA, Yuki KITAMURA, Nathan MISE, Sahoko ICHIHARA
Department of Environmental and Preventive Medicine, School of Medicine, Jichi Medical University

P-51S Involvement of the spleen in the induction of anti-PEG IgM by topical application of cosmetics containing PEG derivatives

○ Yuri KIM[1], Haruka TAKATA[1, 2], Hidenori ANDO[1, 2], Tatsuhiro ISHIDA[1, 2]
[1]Department of Pharmacokinetics and Biopharmaceutics, Institute of Biomedical Sciences, Tokushima University, [2]Innovative Research Center for Drug Delivery System, Institute of Biomedical Sciences, Tokushima University

P-52S Does Subacute Exposure to Ethylene Glycol Induce a Systemic Inflammatory Response?

○ Sui NAKAGAWA[1], Takashi ASHINO[1], Kanata AKAIKE[1], Asuka KAIZAKI-MITSUMOTO[1], Norimitsu KURATA[2], Satoshi NUMAZAWA[1]
[1]Department of Toxicology, Showa Medical University Graduate School of Pharmacy, [2]Department of Pharmacology, Showa Medical University, School of Medicine

P-53E **Involvement of damage-associated molecular patterns (DAMPs) in the immune checkpoint inhibitor-induced myocarditis in A/J mice**

○ Junya MATSUSHITA[1], Chiho KAZAMA[1], Kyoko MIWA[1], Mayumi GOTO[1], Kazuyoshi KUMAGAI[2], Tetsuo AIDA[1], Yoshimi TSUCHIYA[1]

[1]Daiichi Sankyo Co., Ltd., Medicinal Safety Research Laboratories, [2]Daiichi Sankyo Inc.

P-54E **Elucidation the mechanism of clone-specific anaphylaxis induced by anti PD-L1 antibodies**

○ Ruiheng TANG[1], Riho KUME[1], Kazuto YASUDA[1], Yuta TAMEMOTO[1], Aizemaiti AIBAI[1], Kyohei HIGASHI[2], Hiroto HATAKEYAMA[1]

[1]Graduate School and Faculty of Pharmaceutical Sciences, Chiba University,
[2]Graduate School and Faculty of Pharmaceutical Sciences, Tokyo University of Science

P-55E **Immunogenicity assessment of phospholipase B-like 2 (PLBL2) by *in vivolin vitro* non-clinical studies**

○ Eri HAMAMURA[1], Kyohei YASUNO[1], Kota INOUE[2], Koichi GOTO[1], Yoshimi TSUCHIYA[1]

[1]Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.,
[2]Modality Research Laboratories II, Daiichi Sankyo Co., Ltd.

P-56E **Reverse translational research on cytokine release syndrome caused by the antibody drug in Phase I trials**

○ Hironori OTSUKI, Yohei INAI, Rie HIRANO, Tetsuro ARAKI, Ken-Ichiro NAN-YA

Translational Research Labs., Bio-Pharmaceutical Center, Kyowa Kirin Co., Ltd.

P-57S **Immunohistochemical analysis of merlin and Hippo pathway on canine and feline meningiomas**

○ Ryo SAITO, James Kenn CHAMBERS, Kazuyuki UCHIDA

Laboratory of Veterinary Pathology, Graduate School of Agricultural and Life Sciences, the University of Tokyo

P-58S **Pathophysiological analysis of auricular and lymphoid organs in a mouse model of DNFB (2,4-dinitrofluorobenzene)-induced dermatitis**

○ Mayuka WATANABE[1], Noriko KEMURIYAMA[2], Tomohiko SASASE[3], Tatsuya MAEKAWA[1, 2], Katsuhiro MIYAJIMA[1, 2]

[1]Department of Food and Nutritional Science, Graduate School of Agriculture, Tokyo University of Agriculture,
[2]Department of Nutritional Science and Food Safety, Faculty of Applied Biosciences, Tokyo University of Agriculture,
[3]Laboratory of Animal Physiology and Functional Anatomy, Graduate School of Agriculture, Kyoto University

P-59S **Elucidation of mechanism for vildagliptin-induced liver injury: Evaluation of inflammasome activation by covalent binding**

○ Serina MIZUGUCHI[1], Takumi NODA[2], Kazuya URASHIMA[3], Ayumi FUJIMOTO[4], Saori TANAKA[1], Yuka KOHDA[1], Ryuji KATO[1]

[1]Department of Pharmacotherapeutics and Toxicology, Faculty of Pharmacy, Osaka Medical and Pharmaceutical University,
[2]Department of pharmacy, National Hospital Organization Osaka National Hospital,
[3]Department of pharmacy, JCHO Osaka Minato Central Hospital, [4]Department of pharmacy, Osaka City General Hospital

P-60S **Antagonistic activity of combined exposure to mycotoxins Nivalenol and Deoxynivalenol on the inflammatory cytokine production in dendritic cells**

○ Reo MATSUZAKA[1], Kazutoshi SUGITA[2], Shiro MIYAKE[3], Tomoki FUKUYAMA[1]

[1]Pharmacology Lab, Vet Med, Azabu Univ, [2]Public Health Lab, Azabu Univ, [3]Food and Hygiene Lab, Azabu Univ

P-61S Development of Bowel AccumBody: An Intestine-Targeting Antibody Derived from Chromosome Engineering-Driven Fully Human Antibody-Producing Animals for IBD Therapy

○ Genki HICHIWA[1, 2], Yayan WANG[1, 2], Ryohei OGIHARA[2], Kanako KAZUKI[2], Asaki NAGASHIMA[3], Jatnika Feisal MUHAMMAD[3], Yumi IWAI[3], Ryosuke SHIMAMOTO[3], Hidetsugu HONDA[4], Kana UNO[4], Hiroyuki SATOFUKA[2], Rafique ABDUR[3], Narumi UNO[3], Kazuma TOMIZUKA[4], Yuji ITO[3], Yasuhiro KAZUKI[1, 2, 5, 6]

[1]Department of Chromosome Biomedical Engineering, Graduate School of Medical Sciences, Tottori University, [2]Chromosome Engineering Research Center, Tottori University, [3]Chemistry Program, Department of Science, Graduate School of Science and Engineering, Kagoshima University, [4]Laboratory of Bioengineering, Faculty of Life Sciences, Tokyo University of Pharmacy and Life Sciences, [5]Division of Chromosome Biomedical Engineering, School of Life Science, Faculty of Medicine, Tottori University, [6]The Exploratory Research Center on Life and Living Systems (ExCELLS), National Institutes of Natural Sciences

Metals

P-62S Involvement of Histone Deacetylases in the Selective Induction of Metallothionein Isoforms in Vascular Endothelial Cells

○ Nao YAMADA[1], Haruka KONDO[1], Takehiro NAKAMURA[2], Tomoki KIMURA[2], Hiroshi NAKA[3], Toshiyuki KAJI[1], Tomoya FUJIE[1]

[1]Faculty of Pharmaceutical Sciences, Tokyo University of Science, [2]Faculty of Pharmaceutical Sciences, Setsunan University, [3]Graduate School of Pharmaceutical Sciences, Kyoto University

P-63S ATP potentiates lead-induced toxicity in vascular endothelial cells

○ Tomoki OKADA, Lihito IKEUCHI, Kazuki KITABATAKE, Mitsutoshi TSUKIMOTO, Toshiyuki KAJI, Tomoya FUJIE

Faculty of Pharmaceutical Sciences, Tokyo University of Science

P-64E Investigation of Metal Absorption Characteristics by Dermal Exposure to Welding Fumes

○ Makiko IWASE[1], Megumi ONO[1], Qi WANG[1], Yukie YANAGIBA[1], Yasumitsu OGRA[2]

[1]National Institute of Occupational Safety and Health, Japan, [2]Graduate School of Pharmaceutical Sciences, Chiba University

P-65S Potentiation of cadmium-induced toxicity in vascular endothelial cells by cyclic stretching

○ Sara OGAWA[1], Yukino KASAMA[1], Hikaru FUJIMORI[2], Takato HARA[2], Chika YAMAMOTO[2], Toshiyuki KAJI[1], Tomoya FUJIE[1]

[1]Faculty of Pharmaceutical Sciences, Tokyo University of Science, [2]Faculty of Pharmaceutical Sciences, Toho University

P-66S MeHg exposure-induced damage to brain areas associated with psychiatric symptoms *in vivo*

○ Ryohei MIKI[1], Yuta IIJIMA[1], Ryosuke NOMURA[1], Takao IWAWAKI[2], Masatake FUJIMURA[3], Takashi UEHARA[1]

[1]Department of Medicinal Pharmacology, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University, [2]Division of Cell Medicine, Department of Life Science, Medical Research Institute, Kanazawa Medical University, [3]Department of Basic Medical Science, National Institute for Minamata Disease

P-67S **The histological analysis of neurons and satellite glial cells in the dorsal root ganglion of a methylmercury-exposed rat**

○ Misaki OZAWA[1, 2], Ayaka MATSUKI[2], Yuka SEKIGUCHI[2], Kaito YAMASHIRO[2], Tsutomu TAKAHASHI[2], Yasuyuki FUJIWARA[2], Eiko YOSHIDA[3], Toshiyuki KAJI[4], Yo SHINODA[2]

[1]HIROO GAKUEN Senior High School,
[2]Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences,
[3]Central Research Institute of Electric Power Industry,
[4]Department of Environmental Health, Faculty of Pharmaceutical Sciences, Tokyo University of Science

P-68E **Inhibition of selenium metabolism by methylmercury and regulation of ferroptosis sensitivity through PRDX6**

○ Hayato TAKASHIMA[1], Takashi TOYAMA[1], Junya ITO[2], Eikan MISHIMA[2], Yoshiro SAITO[1]

[1]Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University,
[2]Helmholtz Munich

P-69S **A novel mechanism underlying the cell death caused by methylmercury via the thioredoxin binding protein**

○ Ryoko FUKUSHIMA, Naoya YAMASHITA, Soujun YADOYA, Ryota YAMAGATA, Gi-Wook HWANG

Division of Environmental and Health Sciences, Department of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University

P-70S **Involvement of P450 Enzymes in the Expression of Skin Sensitization Properties of Thimerosal and its decomposition products**

○ Hayato SUZUKI, Shintaro WATANABE, Masashi SEKIMOTO

Laboratory of Environmental Hygiene, School of Life and Environmental Science, Azabu University

P-71S **Study on the construction of a mouse model of metabolic disease caused by arsenic exposure**

○ Asami MORI[1], Hitomi FUJISHIRO[1], Kanako MATSUMOTO[1], Seiichiro HIMENO[1, 2], Daigo SUMI[1]

[1]Faculty of Pharmaceutical Sciences, Tokushima Bunri University, [2]School of Pharmacy, Showa University

P-72S **Effect of arsenite on glutathione metabolism pathway in vascular endothelial cells**

○ Kion TAGUCHI[1], Takahiro YAMAGUCHI[1], Tomohiro TAJIMA[1], Tsutomu TAKAHASHI[1], Kaito YAMASHIRO[1], Yo SHINODA[1], Chika YAMAMOTO[2], Toshiyuki KAJI[3], Yasuyuki FUJIWARA[1]

[1]Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences,
[2]Department of Environmental Health, Faculty of Pharmaceutical Sciences, Toho University,
[3]Department of Environmental Health, Faculty of Pharmaceutical Sciences, Tokyo University of Science

P-73S **Mechanism of toxicity via arsenic-induced disturbance of selenium metabolism**

○ Reiko MAKINO[1], Hayato TAKASHIMA[1], Takashi TOYAMA[1], Junya ITO[2], Eikan MISHIMA[2], Yoshiro SAITO[1]

[1]Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University,
[2]Helmholtz Munich

P-74S **Impact of environmental electrophiles on gut microbial enzyme activity**

○ Rika IMAI[1, 2], Kohsuke SUGIYAMA[3], Kensuke SATO[4], Hanako AOKI[1, 4], Jun UCHIYAMA[2, 4], Ryota NAKANO[1], Maiko KUSANO[3], Noriko HIDA[1], Masahiro AKIYAMA[4]

[1]Showa Univ. Fac. Pharm., [2]Keio Univ. Fac. Pharm., [3]Showa Univ. Sch. Med., [4]Showa Univ. Clin. Res. Inst.

P-75E Downregulation of Selenoprotein P Expression by Curcumin Analogues: A Novel Approach for the Treatment and Prevention of Diabetes

○ Ichidaku OU[1], Takashi TOYAMA[1], Hiroyuki YAMAKOSHI[2], Yoshiharu IWABUCHI[2], Yoshiro SAITO[1]

[1]Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University, [2]Laboratory of Synthetic Chemistry, Graduate School of Pharmaceutical Sciences, Tohoku University

P-76S Effects of Epigallocatechin Gallate on Selenoprotein P Function via Chemical Modification

○ Katsuki SATO[1], Takashi TOYAMA[2], Yoshiro SAITO[2]

[1]Laboratory of Molecular Biology & Metabolism, Department of Pharmaceutical Sciences, Tohoku University, [2]Laboratory of Molecular Biology & Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University

P-77S Promotion of lead-induced cytotoxicity via ER stress in differentiating neural cells and protective effects of selenium

○ Satoru SHIINA, Takayuki KANEKO, Takashi TOYAMA, Yoshiro SAITO

Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University

P-78S Methylation of Ebselen by Thiopurine S-Methyltransferase

○ Ayune WATANABE[1], Yasunori FUKUMOTO[2], Yoshikazu YAMAGISHI[3], Yu-Ki TANAKA[2], Noriyuki SUZUKI[4], Yasumitsu OGRA[2]

[1]Faculty of Pharmaceutical Sciences, Chiba University, [2]Graduated School of Pharmaceutical Sciences, Chiba University, [3]Graduated School of Medicine, Chiba University, [4]Faculty of Pharmaceutical Sciences, Toho University

P-79S Development and application of quantitative analysis with a chemical derivatization for reactive selenium species

○ Mizuki KAMATA[1], Noriyuki SUZUKI[2], Misaki MATSUNAGA[3], Yoshikazu YAMAGISHI[4], Yasumitsu OGRA[5]

[1]Faculty of Pharmaceutical Sciences, Chiba University, [2]Faculty of Pharmaceutical Sciences, Toho University, [3]Graduate School of Medical and Pharmaceutical Sciences, Chiba University, [4]Graduate School of Medicine, Chiba University, [5]Graduate School of Pharmaceutical Sciences, Chiba University

Epigenetics

P-80S Identification of food additive-derived histone acylation and its epigenetic impact

○ Komei AOKI[1, 2], Kota NORITSUGU[1], Takehiro SUZUKI[2], Yoshito KUMAGAI[3], Naoshi DOHMAE[2], Akihiro ITO[1]

[1]School of Life Sciences, Tokyo University of Pharmacy and Life Sciences, [2]Biomolecular Characterization Unit, RIKEN Center for Sustainable Resource Science, [3]Faculty of Pharmaceutical Sciences, Kyushu University

P-81S L-theanine-induced protein modifications and their epigenetic regulation

○ Kohei KAWAHARA[1, 2], Kota NORITUGU[1], Komei AOKI[1, 2], Takehiro SUZUKI[2], Kota KOIKE[3], Kosuke DODO[3], Mikiko SODEOKA[3], Yoshito KUMAGAI[4], Naoshi DOHMAE[2], Akihiro ITO[1]

[1]Laboratory of Cell Signaling, School of Life Sciences, Tokyo University of Pharmacy and Life Sciences, [2]RIKEN CSRS Biomolecular Characterization Unit, [3]RIKEN CSRS Catalysis and Integrated Research Group, [4]Faculty of Pharmaceutical Sciences, Kyushu University

Cytotoxicity, and cellular response

P-82S The mechanism of cell death caused by nitric oxide in human nasal septum cells

○ Shizuki KAMIUEZONO[1], Tomoki TSUCHIDA[2], Sho KUBOTA[2], Takashi UEHARA[2]

[1]Department of Medicinal Pharmacology,Faculty of Pharmaceutical Sciences, Okayama University,
[2]Department of Medicinal Pharmacology, Faculty of Pharmaceutical Sciences, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University

P-83E NRF2-dependent selenium metabolic reprogramming enhances ferroptosis resistance and promotes hepatocellular carcinoma progression

○ Kotoko ARISAWA, Moeka NATORI, Tetta HIRANUMA, Takashi TOYAMA, Yoshiro SAITO

Graduate School of Pharmaceutical Sciences, Tohoku University

P-84S Inhibition of FSP1-mediated ferroptosis by environmental chemicals, naphthoquinones

○ Kei ISHIDA[1], Takashi TOYAMA[1], Eikan MISHIMA[2], Yoshiro SAITO[1]

[1]Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University,
[2]Helmholtz Association of German Research Centres

P-85S AADAC plays a protective role against amodiaquine-induced liver injury by suppressing ferroptosis

○ Seijo UCHIJIMA[1], Tatsuki FUKAMI[1, 2], Soshi SHINOHARA[1], Miki NAKAJIMA[1, 2]

[1]Drug Metabolism and Toxicology, Faculty of Pharmaceutical Sciences, Kanazawa University,
[2]Nano Life Science Institute (WPI-NanoLSI), Kanazawa University

P-86S Establishment of the novel strategy for anti-cancer treatment using ferritinophagy

○ Kohei OTANI, Yusuke HIRATA, Takuya NOGUCHI, Atsushi MATSUZAWA

Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.

P-87S Development of Selenium Metabolism Inhibitors to Improve Prognosis of Glioblastoma, a Malignant Brain Tumor

○ Tatsuya TAKAHASHI, Xi ZHENG, Takashi TOYAMA, Yoshiro SAITO

Graduate School of Pharmaceutical Sciences, Tohoku University

P-88E Unique Regulatory Mechanism of Ferroptosis in Nrf2-Upregulated Glioblastoma Cells

○ Stephanie Ka Kiu SIU, Takashi TOYAMA, Yoshiro SAITO

Tohoku University Graduate School of Pharmaceutical Sciences, Laboratory of Molecular Biology and Metabolism

P-89S Effect of photodynamic therapy on the expression levels of stress response factors in glioblastoma

○ Narumi IWAKI[1], Yukina NAGAKURA[1], Keiko MIURA[1], Tsutomu TAKAHASHI[1], Yo SHINODA[1], Jiro AKIMOTO[2], Yasuyuki FUJIWARA[1]

[1]Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences,
[2]Department of Neurosurgery, Tokyo Medical University

P-90S **Synergistic effect of fucoxanthin on the antitumor effect of photodynamic therapy in human glioblastoma cells**

○ Keisuke KAWASHIMA[1], Tsutomu TAKAHASHI[1], Yo SHINODA[1], Jiro AKIMOTO[2], Yasuyuki FUJIWARA[1]

[1]Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences, [2]Department of Neurosurgery, Tokyo Medical University

P-91S **Elucidation of fragrance compounds-induced MCS symptoms mediated by Cytochrome P450 in the brain**

○ Hideaki SATO, Ami OGURO, Yaichiro KOTAKE

Graduate School of Biomedical and Health Sciences, Hiroshima University

P-92S **Benzo[a]pyrene induces cellular senescence and promotes migration in breast cancer cells**

○ Natsuko KITAMOTO[1], Yuya HAGA[1, 2], Minami KUBO[2], Kazuma HIGASHISAKA[1, 2, 3], Yasuo TSUTSUMI[1, 2, 4, 5, 6]

[1]Grad. Sch. Pharm. Sci., Osaka Univ., [2]Sch. Pharm. Sci., Osaka Univ., [3]IACS., Osaka Univ., [4]MEI Ctr., Osaka Univ., [5]OTRI., Osaka Univ., [6]INSD., Osaka Univ.

P-93E **Role of gut bacterial supersulfide in modulating antioxidant capacity in host and bacteria**

○ Jun UCHIYAMA[1, 2], Masahiro AKIYAMA[1]

[1]Clinical Research Institute for Clinical Pharmacology and Therapeutics, Showa University, [2]Graduate School of Pharmaceutical Sciences, Keio University

P-94S **Study on Species Differences in Nociceptive Stimulation by Monocyclic Monoterpenes**

○ Mirei AMANO[1], Tamaki AZUMA[1], Yoko MORI[2], Akira AOKI[1], Yoshinori OKAMOTO[1], Takashi ISOBE[3], Susumu OHKAWARA[3], Nobumitsu HANIOKA[3], Toshiko TANAKA-KAGAWA[3], Hideto JINNO[1]

[1]Faculty of Pharmacy, Meijo University , [2]National Institute of Health Sciences, [3]Yokohama University of Pharmacy

P-95S **Analysis of proteoglycan core protein reduction in endothelial cells under hypoxic conditions**

○ Misaki SHIRAI[1, 2], Takato HARA[1], Toshiyuki KAJI[3], Chika YAMAMOTO[1]

[1]Fac. of Pharm. Sci., Toho Univ., [2]JSPS Research Fellow, [3]Fac. of Pharm. Sci., Tokyo Univ. Sci.

P-96S **Study on the pathway for removal of damaged lysosomes via insolubilization of lysosomal proteins**

○ Futa SUZUKI, Masatsugu MIYARA, Kanae MIYARA, Yaichiro KOTAKE

Grad. Sch. of Biomed. and Health Sci., Hiroshima Univ.

Toxicity-testing methods

P-97S **Evaluation of ion transport during hERG channel inhibition with inhibitors using electrical impedance tomography and extracellular voltage activation**

○ Kanta SUZUKI[1], Daisuke KAWASHIMA[2], Zeyang DAI[2], Satoshi OGASAWARA[3, 4], Takeshi MURATA[3, 4], Masahiro TAKEI[2]

[1]Department of Mechanical Engineering, Graduate School of Science and Engineering, Division of Fundamental Engineering, Chiba University,
[2]Graduate School of Engineering, Chiba University, [3]Graduate School of Science, Chiba University,
[4]Molecular Chirality Research Center, Chiba University

P-98E **Evaluation of Cardiotoxicity in Anti-cancer Drugs: Measurement of Changes in hiPSC-CMs under Chronic Condition**

○ Eueun KIM
Division of Business Development, NEXEL Co., Ltd

P-99E **Development of an LC/MS multi-omics assay system for the evaluation of hepatotoxicity *in vitro***

○ Kazuki IKEDA[1, 2], Masatomo TAKAHASHI[1], Kosuke HATA[1], Masaki MATSUMOTO[3], Takeshi BAMBA[1], Yoshihiro IZUMI[1]
[1]Division of Metabolomics, Medical Institute of Bioregulation, Kyushu University, [2]JSPS PD,
[3]Department of Omics and Systems Biology Niigata University

P-100E **Establishment of *in vitro* cholestatic test model without Matrigel sandwich culture**

○ Teruhiko WATANABE[1], Tsubasa FUKUDA[1], Nobuaki SHIRAKI[2], Shoen KUME[2]
[1]Life Science Laboratory, Technology & Development Division, Kanto Chemical Co., Inc.,
[2]School of Life Science and Technology, Institute of Science Tokyo

P-101S **Investigation of Adenine-Induced Acute Kidney Injury in Zebrafish**

○ Mai TOMATSURI[1], Noriko KEMURIYAMA[2], Katsuhiro MIYAJIMA[1, 2], Tatsuya MAEKAWA[1, 2]
[1]Department of Food and Nutritional Science, Graduate School of Agriculture, Tokyo University of Agriculture,
[2]Department of Nutritional Science and Food Safety, Faculty of Applied Biosciences, Tokyo University of Agriculture

P-102S **A G3BP1-GFP Reporter System for Real-time Monitoring of Stress Granule Dynamics in Lung Epithelial Cells: A Novel Approach for *In vitro* Chemical Toxicity Assessment**

○ Seung-Yeon KIM[1], Sangsoo LEE[1], Kee K. KIM[1], Eun-Mi KIM[2]
[1]Department of Biochemistry, Chungnam National University,
[2]Department of Bio & Environmental Technology, Seoul Women's University

P-103S **Development of a novel G3BP1-GFP stress granule monitoring system for real-time stress analysis in human neuroblastoma cells**

○ Haesoo JUNG[1], Eun-Mi KIM[2], Kee K. KIM[1]
[1]Department of Biochemistry, College of Natural Sciences, Chungnam National University,
[2]Department of Bio & Environmental Technology, College of Science and Convergence Technology, Seoul Women's University

P-104E **Characterization of human neuroblastoma cell line IMR-32 as a neuronal differentiation model for *in vitro* DNT detection tool**

○ Shunsuke TOMITA, Keishi ISHIDA, Daisuke MATSUMARU, Tsuyoshi NAKANISHI
Laboratory of Hygienic Chemistry and Molecular Toxicology, Gifu Pharmaceutical University

P-105S **Establishment of an evaluation system for clearance of amyloid-β using human iPS cell-derived brain microvascular endothelial-like cells**

○ Kazue NAGAE[1], Hiroyuki SATO[2], Tadahiro HASHITA[1, 2], Eisei HORI[1, 2], Takahiro IWAO[1, 2]
[1]Education and Research Center for Clinical Pharmacy, Faculty of Pharmaceutical Sciences, Nagoya City University,
[2]Department of Clinical Pharmacy, Graduate School of Pharmaceutical Sciences, Nagoya City University

P-106S **Elucidation of mechanism of transferrin uptake using human iPS cell-derived brain microvascular endothelial-like cells**

○ Miyu TAKAGI[1], Hiroyuki SATO[2], Tadahiro HASHITA[1, 2], Eisei HORI[1, 2], Takahiro IWAO[1, 2]
[1]Education and Research Center for Clinical Pharmacy, Faculty of Pharmaceutical Sciences, Nagoya City University,
[2]Department of Clinical Pharmacy, Graduate School of Pharmaceutical Sciences, Nagoya City University

P-107E **Evaluation of peripheral neuropathy using human induced pluripotent stem cells (hiPSCs)-induced sensory neurons**

○ Yuma NAGAI, Takuma IGUCHI, Tetsuo AIDA, Yoshimi TSUCHIYA
Daiichisankyo CO., LTD

P-108E **Development of an alternative method for risk assessment of trace skin sensitizers and identification of sensitization causes using novel high-sensitive detection reagents**

○ Yohei SHIMIZU[1], Masataka KITADANI[1], Hideyuki MIZUMACHI[2], Akihiro MORIUCHI[1], Ryou KOIKE[1]
[1]Analytical Science Research Laboratory, Kao Corporation, [2]Safety Science Research Laboratory, Kao Corporation

P-109S **Development of machine learning models for predicting skin sensitization intensity - Use of the amino acid derivative binding test ADRA**

○ Rino SATAKE[1], Juri TOKUNAGA[1], Kei KINOSITA[1], Honoka IWASA[2], Kota HATANO[2], Nobuaki NAKAMURA[2], Takao ASHIKAGA[3], Kaori AMBE[1, 4]
[1]Department of Regulatory Science, Graduate School of Pharmaceutical Sciences, Nagoya City University,
[2]General Research & Development Institute, Hoyu Co., Ltd.,
[3]Division of Genome Safety Science, National Institute of Health Sciences, [4]School of Data Science, Nagoya City University

P-110S **Investigation of the Effect of Intestinal Mucus Layer on Aspirin-Induced Intestinal Injury**

○ Ai SAKAMOTO[1], Ryosuke SAKAI[2], Takaaki NAKAI[2], Aoi OYA[1], Miumi OHKUBO[1], Takahiro IWAO[1, 2], Tamihide MATSUNAGA[1, 2]
[1]Faculty of Pharmaceutical Sciences, Education and Research Center for Clinical Pharmacy, Nagoya City University,
[2]Department of Clinical Pharmacy, Graduate School of Pharmaceutical Sciences, Nagoya City University

P-111S **Utility of HepaSH cells in an *in vitro* cell-based assay for detecting drug-induced phospholipidosis**

○ Yuki OBATA[1, 2], Shotaro UEHARA[2], Yuichiro HIGUCHI[2], Yukari TOTSUKA[1], Hiroshi SUEMIZU[2]
[1]Department of Environmental Health Sciences, Hoshi University,
[2]Department of Applied Research for Laboratory Animals, Central Institute for Experimental Medicine and Life Science

P-112E **Comparison of Usefulness and Tissue Damage Potential of Titer Max Gold (TMG) and Freund's Complete Adjuvant (FCA) in the Guinea Pig Maximization Test (GPMT)**

○ Kiho NISHINOSONO, Tomoka SABUTA, Hiroki SHIMIZU, Nobuyoshi YAMASHITA, Yusuke YAMASHITA, Yasuharu OTSUBO
Drug Safety Research Laboratories, Shin Nippon Biomedical Laboratories, Ltd.

Organoid

P-113E **Metabolic activation and carcinogenesis of 4-NQO in rasH2 mouse-derived esophageal organoids**

○ Manami AKEYOSHI, Chiyoko NISHIME, Misa MOCHIZUKI, Kenji KAWAI, Masami SUZUKI, Toshio IMAI
Central Institute for Experimental Medicine and Life Science

P-114S Generation of chemically induced canine bladder cancer organoids using normal bladder organoids

○ Yuko NAGASHIMA, Haru YAMAMOTO, Yoshiko NAITO, Tatsuya USUI, Kazuaki SASAKI

Laboratory of Veterinary Pharmacology, Tokyo University of Agriculture and Technology

P-115E Development of the risk evaluation methods for drug-induced emesis based on serotonin release using human intestinal spheroids

○ Yoshiki HASHIMOTO[1], Kazuya MAEDA[2], Osamu SHIMOMURA[3], Yoshihiro MIYAZAKI[3], Shinji HASHIMOTO[3], Tatsuya ODA[3], Hiroyuki KUSUHARA[1]

[1]Laboratory of Molecular Pharmacokinetics, Graduate School of Pharmaceutical Sciences, The University of Tokyo,
[2]Laboratory of Pharmaceutics, School of Pharmacy, Kitasato University,
[3]Department of Gastrointestinal and Hepato-Biliary-Pancreatic Surgery, Faculty of Medicine, University of Tsukuba

P-116S Establishment of a 3D organoid method for canine oral melanoma

○ Honoka HASHIZUME, Ting-Wei YU, Tatsuya USUI, Kazuaki SASAKI

Tokyo University of Agriculture and Technology Department of Veterinary Medicine Laboratory of Veterinary Pharmacology

P-117S Establishment of an *in vitro* hepatotoxicity prediction and evaluation model using genome-edited human hepatocyte-derived organoids

○ Akira WATANABE[1], Chiharu IMAMURA[1], Yukiko UEYAMA-TOBA[1, 2, 3, 4], Hiroyuki MIZUGUCHI[1, 2, 3, 4, 5]

[1]School of Pharmaceutical Sciences, Osaka University,
[2]Graduate School of Pharmaceutical Sciences, Osaka University,
[3]National Institute of Biomedical Innovation, Health and Nutrition,
[4]Integrated Frontier Research for Medical Science Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University,
[5]Global Center for Medical Engineering and Informatics, Osaka University

P-118S Improving culture conditions for hepatocyte-like cells differentiated from primary human hepatocyte-derived organoids for predicting cholestatic hepatotoxicity

○ Yanran TONG[1, 2], Yukiko UEYAMA-TOBA[1, 2, 3], Hiroyuki MIZUGUCHI[1, 2, 3, 4]

[1]Graduate School of Pharmaceutical Sciences, Osaka University,
[2]National Institute of Biomedical Innovation, Health and Nutrition,
[3]Integrated Frontier Research for Medical Science Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University,
[4]Global Center for Medical Engineering and Informatics, Osaka University

P-119E Establishment of HepaRG monolayer and spheroid culture system with oxygen permeable plates for predicting drug-induced liver injury

○ Naoki TAKAOKA[1], Momoka MORITA[1], Tassei ISAKA[1], Jun TAKAHASHI[2], Katsuhiro ESASHIKA[2], Shigeru OHTA[1], Seigo SANOH[1]

[1]Laboratory of Pharmaceutical Health Science, School of Pharmaceutical Sciences, Wakayama Medical University,
[2]Synthetic Chemicals Laboratory, Mitsui Chemicals, Inc.

P-120S Challenge to fabricate a three-dimensional fiber- shaped intestinal-like tissue with villus-like tissue structure using human colon cancer-derived cell lines aggregates.

○ Lupeng TENG[1, 2], Ryosuke IWAI[2]

[1]Division of Natural Science, Graduate School of Science and Engineering, Okayama University of Science,
[2]Institute of Frontier Science and Technology, Okayama University of Science

P-121S Induction of *in vitro* sweat gland duct formation using mesenchymal cell aggregates as tissue beds

○ Riku HIKASA[1], Ryosuke IWAI[1, 2], Marina IWAI[2]

[1]Division of Natural Science, Graduate School of Science and Engineering, Okayama University of Science,
[2]Institute of Frontier Science and Technology, Okayama University of Science

Information technology, AI, and big data

P-122S Prediction of YES1 inhibitors based on machine learning and molecular docking

○ Akira MIYAMOTO[1], Honoka NOBE[1], Moeka SHIMAMOTO[1], Takayoshi KAWABATA[1, 2], Tatsuaki TAKEDA[3], Soichiro USHIO[4], Hirofumi HAMANO[1, 2], Yoshito ZAMAMI[1, 2]

[1]Department of Clinical Pharmacy, Okayama University, [2]Department of Pharmacy, Okayama University Hospital,
[3]Department of Education and Research Center for Clinical Pharmacy, Okayama University,
[4]Department of Emergency and Disaster Medical Pharmacy, Fukuoka University

P-123S Understanding the Impact of Architectural Differences in Encoder-Decoder Chemical Language Models

○ Yosuke KIKUCHI, Shumpei NEMOTO, Tadahaya MIZUNO, Hiroyuki KUSUHARA

Laboratory of Molecular Pharmacokinetics, Graduate School of Pharmaceutical Sciences, The University of Tokyo

P-124S Development of a machine learning model for semi-quantitative prediction of human acetylcholinesterase activity inhibition

○ Chisato HAYAKAWA[1], Takashi YAMADA[2], Kouichi YOSHINARI[3], Kaori AMBE[1, 4]

[1]Department of Regulatory Science, Graduate School of Pharmaceutical Sciences, Nagoya City University,
[2]Division of Risk Assessment, National Institute of Health Sciences,
[3]Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka,
[4]School of Data Science, Nagoya City University

P-125S Discovery of α7-nicotinic acetylcholine receptor agonists based on machine learning

○ Honoka NOBE[1], Akira MIYAMOTO[1], Moeka SHIMAMOTO[1], Takayoshi KAWABATA[1, 2], Ikuya KIMURA[2], Soichiro USHIO[3], Hirofumi HAMANO[1, 2], Yoshito ZAMAMI[1, 2]

[1]Department of Clinical Pharmacy, Okayama University, [2]Department of Pharmacy, Okayama University Hospital,
[3]Department of Emergency and Disaster Medical Pharmacy, Fukuoka University

P-126E Application of Drug-Induced Liver Injury (DILI) Prediction Model Using Integrated Datasets and Machine Learning Approaches

○ Taro KAKUZAKI[1], Shuki TAKIZAWA[3], Kentaro MATSUURA[3], Misaki TANAKA[2]

[1]Research Division, Chugai Pharmaceutical, Co., Ltd.,
[2]Translational Research Division, Chugai Pharmaceutical, Co., Ltd.,
[3]Digital Transformation Unit, Chugai Pharmaceutical, Co., Ltd.

P-127S Prediction of chemical-induced rat hepatocellular necrosis using deep learning models and transcriptome data

○ Kouki MAEBARA[1], Kyoko ONDO[3], Tomoaki TOCHITANI[3], Toru USUI[3], Izuru MIYAWAKI[3], Kaori AMBE[1, 2]

[1]Department of Regulatory Science, Graduate School of Pharmaceutical Sciences, Nagoya City University,
[2]School of Data Science, Nagoya City University, [3]Preclinical Research Unit, Sumitomo Pharma Co., Ltd.

P-128E **AI-Based Histopathological Lesion Assessment for Safety Evaluation in Rat Kidney and Testis**

○ Mikiko MOTOMURO[1], Kaito KIKUCHI[1], Kiyonori KAI[2], Kyohei YASUNO[2], Hiroki KAWAI[1]

[1]LPIXEL Inc., [2]Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.

P-129S **Extraction of Latent Representations from Peripheral Blood Smear Images and Evaluation of Their Expressive Power**

○ Takumi IWASAKA, Tadahaya MIZUNO, Katsuhisa MORITA, Iori AZUMA, Eri NAKASIMA, Tomoka NAKAGAWA, Hiroyuki KUSUHARA

Laboratory of Molecular Pharmacokinetics, Graduate School of Pharmaceutical Sciences, The University of Tokyo

P-130S **Development of a wearable device system for rats to enable long-term, continuous, automated behavioral diagnosis**

○ Naoaki MATSUDA[1], Yusuke OKUBO[2], Ibuki OHARA[3], Aoi KOISHIKAWA[3], Min MA[1], Tamami TAKANO[3], Takuya NISHIMURA[2], Yuhji TAQUAHASHI[2], Satoshi KITAJIMA[2], Yoko HIRABAYASHI[4], Shin-Ichi SEKIZAWA[1], Masayoshi KUWAHARA[1], Hiroki OTA[3], Ryota TOCHINAI[1]

[1]Veterinary Pathophysiology and Animal Health, The University of Tokyo,
[2]Division of Cellular and Molecular Toxicology, Center for Biological Safety and Research, National Institute of Health Sciences,
[3]Graduate School of System Integration, Yokohama National University,
[4]Center for Biological Safety and Research, National Institute of Health Sciences

P-131E **Cross-sectional analysis of the onset of hypersensitivity associated with antibody therapeutics using the adverse event reporting system**

○ Yuta TAMEMOTO, Kenta SATO, Atsuki YAMAGUCHI, Ruiheng TANG, Hiroto HATAKEYAMA

Laboratory of Design and Drug Disposition, Graduate School of Pharmaceutical Sciences, Chiba University

Genetic toxicology, and carcinogenicity

P-132S **Analysis of the molecular mechanism of malignant transformation in Bhas42 cells using gene expression analysis**

○ Toshinori MIURA, Naoteru DENTA, Masashi SEKIMOTO

Laboratory of Environmental Hygiene, School of Life and Environmental Science, Azabu University

P-133E **Features of extrachromosomal circular DNA in acetamide-induced rat liver tumors and the involvement of chromothripsis in its formation**

○ Yohei YAMAGAMI[1, 2], Yuji ISHII[1], Kenji NAKAMURA[1, 3], Hirofumi HARASHIMA[4], Shinji TAKASU[1], Meili SOMA[1], Takeshi TOYODA[1], Tomoaki MURAKAMI[2], Kumiko OGAWA[1]

[1]Division of Pathology, National Institute of Health Sciences,
[2]Laboratory of Veterinary Toxicology, Tokyo University of Agriculture and Technology,
[3]Laboratory of Veterinary Pathology, Tokyo University of Agriculture and Technology,
[4]Tonomachi Solution Research Lab., As One Corporation

P-134E **Mode of action analysis for mouse lung tumors induced by permethrin: Involvement of CYP2F2 enzyme and human relevancy**

○ Dai HASEGAWA, Kensuke KAWAMOTO, Keiko OGATA, Satoki FUKUNAGA, Hiroyuki ASANO

SUMITOMO CHEMICAL Co., Ltd

P-135S Expression patterns of gastric glandular epithelial differentiation marker and *RHOA* mutations in canine gastric signet-ring cell carcinoma

○ Kento ISHIKAWA, James K CHAMBERS, Kazuyuki UCHIDA
Laboratory of Veterinary Pathology, Graduate School of Agricultural and Life Sciences, The University of Tokyo

Pharmaceutical drugs (chemicals), and Others

P-136S The Effects of Prescription Drugs on Gut Microbial Enzymes

○ Kohsuke SUGIYAMA[1], Kensuke SATO[2], Ryota NAKANO[3], Maiko KUSANO[1], Masahiro AKIYAMA[2]
[1]Department of Legal Medicine, School of Medicine, Showa Medical University,
[2]Department of Clinical Immuno-Oncology, Clinical Research Institute for Clinical Pharmacology and Therapeutics, Showa Medical University,
[3]Department of Physiology, Graduate School of Pharmacy, Showa Medical University

P-137S Safety evaluation of ionic liquid as oral absorption enhancers on repeated oral administration

○ Shoichiro FUKUDA[1], Haruka TAKATA[1, 2], Takashi NAKAE[3], Noboru TATSUMI[3], Hidetoshi HAMAMOTO[3], Hidenori ANDO[1, 2], Shingo KOBAYASHI[1, 2], Tatsuhiro ISHIDA[1, 2]
[1]Department of Pharmacokinetics and Biopharmaceutics, Institute of Biomedical Sciences, Tokushima University,
[2]Innovative Research Center for Drug Delivery System, Institute of Biomedical Sciences, Tokushima University,
[3]MEDRx Co., Ltd.

P-138S Evaluation of the interaction between drug of hyperkalemia and drug for heart failure

○ Yuri MIZUNO, Fumihiko OGATA, Yugo UEMATSU, Naohito KAWASAKI
Public Health, Faculty of Pharmacy, Kindai University

P-139E Simultaneous analysis of caffeine and paraxanthine provides potentially useful indexes in the treatment of acute caffeine intoxication

○ Yoshitaka YAMAZAKI[1, 2], Asuka KAIZAKI-MITSUMOTO[1, 2], Mariko SATO[3], Yumiko INOUE[3], Kazuyuki MIYAMOTO[4], Keisuke SUZUKI[4], Munetaka HAYASHI[4, 5], Kenji DOHI[4], Satoshi NUMAZAWA[1, 2]
[1]Department of Toxicology, Showa Medical University Graduate School of Pharmacy,
[2]Showa Medical University Pharmacological Research Center,
[3]Department of Hospital Pharmaceutics, Showa Medical University Graduate School of Pharmacy,
[4]Department of Emergency and Disaster Medicine, Showa Medical University Graduate School of Medicine,
[5]Department of Critical Care and Emergency Medicine, Showa Medical University Fujigaoka Hospital

P-140S Identification of Livestock- and Poultry-Specific Metabolites of Clenbuterol for Anti-Doping

○ Yuki TODA[1], Yoshikazu YAMAGISHI[2], Sayaka NAGASAWA[3], Yasumitsu OGRA[3]
[1]Graduate School of Medical and Pharmaceutical Sciences, Chiba University, [2]Graduate School of Medicine, Chiba University,
[3]Graduate School of Pharmaceutical Science, Chiba University

P-141 Assessment of abuse potential of pharmaceuticals

○ Rei SAITO, Jihei NISHIMURA, Misaki NAOTA
Pharmaceuticals and Medical Devices Agency, Toxicology

Metals

P-142 Combined Exposure to Aluminum, Arsenic, and Mercury on NOS2 and BDNF Expression and Cognitive Function

○ Daeun LEE, Haesoo KIM, Jinwoo LEE, Kisok KIM
College of Pharmacy, Keimyung University

P-143 Vanadium causes damage to the dopamine system and motor function in the mouse brain

○ Jinwoo LEE, Daeun LEE, Haesoo KIM, Kisok KIM
College of Pharmacy, Keimyung University, Daegu, Korea

P-144 Potential of waste basil seeds for gadolinium ion removal from aqueous solutions

○ Fumihiko OGATA, Nanami MATSUMOTO, Yugo UEMATSU, Naohito KAWASAKI
Public Health, Faculty of Pharmacy, Kindai University

P-145 Effect of cystine transporter inhibitor on Darinaparsin-induced cytotoxicity

○ Kayoko KITA[1], Kaede SHIRAI[1], Misaki KOUZUMA[1], Taro HONMA[1], Kozo YAO[2], Toshihide SUZUKI[1]
[1]Laboratory of Toxicology, Faculty of Pharmaceutical Sciences, Teikyo University, [2]Solasia Pharma K.K.

P-146 Relationship between cadmium and arsenic concentrations in rice cropped in the cadmium-polluted areas in Akita prefecture where the flooding of paddy fields is implemented for rice farming

○ Hyogo HORIGUCHI[1], Etsuko OGUMA[1], Yuki OMORI[1], Momoko KOBAYASHI[1], Yumiko KUMAZAWA[2], Maki TOKUMOTO[3], Seiichiro HIMENO[4]
[1]Department of Hygiene, Kitasato University School of Medicine,
[2]Department of Health Science, Akita University, Graduate School of Medicine,
[3]Laboratory of Public Health, School of Pharmacy, Aichi Gakuin University,
[4]School of Pharmacy, Showa Medical University

P-147 Analysis of Methylmercury Toxicity Mechanisms Using a Sensor Vector

○ Akio SUMIOKA, Masatake FUJIMURA
National Institute for Minamata Disease

P-148 Association of serum RANTES (CCL5) levels with asthma and skin lesions in arsenic-exposed individuals in Bangladesh

○ Seiichiro HIMENO[1], Khaled HOSSAIN[2]
[1]Division of Health Chemistry, School of Pharmacy, Showa Medical University, [2]Rajshahi University

P-149 Fundamental examination of intracellular distribution of uranium in renal tubular cells that retain ureteral and vascular polarity

○ Shino HOMMA-TAKEDA[1], Izumi TANAKA[1], Hitomi FUJISHIRO[2], Hiroki TAGUCHI[2], Miyu TERAUCHI[1, 3], Haruko YAKUMARU[1], Kyoko AYAMA[1], Seiichiro HIMENO[2, 4]
[1]Institute for Radiological Science, National Institutes for Quantum Science and Technology,
[2]Faculty of Pharmaceutical Sciences, Tokushima Bunri University,
[3]Graduate School of Interdisciplinary Science and Engineering, Chiba University,
[4]School of Pharmacy, Showa Medical University

P-150 **A method for analyzing cesium distribution in the small intestine**

○ Haruko YAKUMARU[1], Izumi TANAKA[1], Kyoko AYAMA[1], Chiya NUMAKO[2], Shino HOMMA-TAKEDA[1]

[1]National Institutes for Quantum Science and Technology, [2]Graduate School of Science, Chiba University

P-151 **Involvement of the transcription factor tmRT1 in methylmercury-caused motor impairment**

○ Ryota YAMAGATA, Yuka YOSHIDA, Naoya YAMASHITA, Gi-Wook HWANG

Division of Environmental and Health Sciences, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University

P-152 **Mechanism of methylmercury-caused cell death mediated by RACK1 in mouse neural stem cells**

○ Miki SAWADA, Naoya YAMASHITA, Ayaka SHOJI, Ryota YAMAGATA, Gi-Wook HWANG

Division of Environmental and Health Sciences, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University

P-153 **Enhancement of EGFR phosphorylation associated with increase in sialylated EGFR levels by arsenic exposure**

○ Daigo SUMI[1], Saho NAKAHIRA[1], Ayako NAKAYAMA[1], Hiroki TAGUCHI[1, 2], Hitomi FUJISHIRO[1]

[1]Faculty of Pharmaceutical Sciences, Tokushima Bunri University,
[2]Graduate School of Pharmaceutical Sciences, Tohoku University

Agricultural chemicals

P-154 **Effects of acetamiprid and thiacloprid on cell viability and expression levels of drug-metabolizing enzymes in human fetal hepatocytes**

○ Momoka YOSHIZAWA, Satoshi YAMAORI, Takahito NISHIYAMA

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

P-155 **Development of *in vitro* assay systems using common key events of neurotoxicity as indicators to assess the combined effects of multiple chemicals**

○ Tetsushi HIRANO[1], Yoshinori IKENAKA[2], Nobuhiko HOSHI[3], Yoshiaki TABUCHI[1]

[1]Faculty of Pharmaceutical Sciences, University of Toyama,
[2]Translational Research Unit, Veterinary Teaching Hospital, Faculty of Veterinary Medicine, Hokkaido University,
[3]Laboratory of Animal Molecular Morphology, Department of Animal Science, Graduate School of Agricultural Science, Kobe University

Industrial chemicals

P-156 **Subchronic (28-Day) Inhalation Toxicity Study of Ethyl 2-methylpentanoate in Wistar Rats**

○ Dae-Seong KIM, Dae-Sik RHA

Inhalation Toxicity Research Center, Occupational Safety & Health Research Institute, Korea

Foods, food additives, and food contaminants

P-157 Divergent Pathways of Lactobacillus Formulations in Mitigating Age-Related Muscle Decline: Modulation of Gut Microbiota and Mitochondrial Function in Naturally Aged Mice

○ Yueh-Hsia LUO[1], Yao-Tsung YEH[2], Wan-Hua TSAI[3]
[1]Department of Life Sciences, National Central University,
[2]Aging and Diseases Prevention Research Center, Fooyin University, Kaohsiung, Taiwan,
[3]Research and Development Department, GenMont Biotech Incorporation, Tainan, Taiwan

P-158 A 28-day subacute toxicity study of puberulic acid in Crl:CD(SD) rats

○ Kohei MATSUSHITA[1], Genichiro TSUJI[2], Hirotoshi AKANE[1], Yuji ISHII[1], Shinji TAKASU[1], Kumiko OGAWA[1], Takahito ITO[2], Hidetomo YOKOO[2], Yosuke DEMIZU[2], Yoko HIRABAYASHI[3], Yoshiro SAITO[4], Masamitsu HONMA[4], Takeshi TOYODA[1]
[1]Division of Pathology, Center for Biological Safety and Research, National Institute of Health Sciences,
[2]Division of Organic Chemistry, National Institute of Health Sciences,
[3]Center for Biological Safety and Research, National Institute of Health Sciences, [4]National Institute of Health Sciences

P-159 Production of antibodies against 3,4-dihydrocoumarin and analysis of protein chemical modifications induced by this compound

○ Yasuhiro SHINKAI[1], Shiori SHIDA[1], Yoshito KUMAGAI[2]
[1]School of Life Sciences, Tokyo University of Pharmacy and Life Sciences,
[2]Graduate School of Pharmaceutical Sciences, Kyushu University

P-160 Surveillance for milk or soy food allergies in adult induced by whey or soy protein products

○ Yuuki TAKAHASHI, Tomoyasu TAGUCHI, Daisuke KOZUTSUMI
Meiji Co., Ltd.

P-161 Study on potential hazard factors of cell cultured meat in food safety

○ Toshime IGARASHI, Takuya NISHIMURA, Satoshi KITAJIMA
Division of Cellular & Molecular Toxicology, Center for Biological Safety & Research, National Institute of Health Sciences

Pharmaceutical drugs (chemicals)

P-162 Structural optimization and biological evaluation of indolin-2-one derivatives as novel CDK8 inhibitors for idiopathic pulmonary fibrosis

○ Jui-Yi HSU[1, 2], Chia-Ron YANG[3], Wei-Jan HUANG*[4, 5], Kai-Cheng HSU*[2, 4, 6, 7, 8]

[1]Ph.D. Program for Cancer Molecular Biology and Drug Discovery, College of Medical Science and Technology, Taipei Medical University and Academia Sinica, Taipei, Taiwan,
[2]Graduate Institute of Cancer Biology and Drug Discovery, College of Medical Science and Technology, Taipei Medical University, Taipei, Taiwan,
[3]School of Pharmacy, College of Medicine, National Taiwan University, Taipei, Taiwan,
[4]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[5]School of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[6]Ph.D. Program for Cancer Molecular Biology and Drug Discovery, College of Medical Science and Technology, Taipei Medical University, Taipei, Taiwan,
[7]TMU Research Center of Cancer Translational Medicine, Taipei Medical University, Taipei, Taiwan,
[8]Cancer Center, Wan Fang Hospital, Taipei Medical University, Taipei, Taiwan

P-163 Discovery of 2-Trifluoromethylacrylamide-Derived Inhibitors of Protein Disulfide Isomerase with Anti-Glioblastoma Multiforme Activity

○ Yi-Hung YANG[1], Jung-Chun CHU[3], Hui-Ju TSENG[2], Chien-Ju LIN[2], Wei-Jan HUANG*[1]

[1]School of Pharmacy, Taipei Medical University,
[2]School of Pharmacy, College of Pharmacy, Kaohsiung Medical University, Kaohsiung, Taiwan,
[3]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taipei, Taiwan

P-164 Pharmacological mechanisms and toxicological analysis of novel inhibitors targeting mRNA splicing in pancreatic cancer

○ Shiow-Lin PAN[1], Yi-Wen WU[1], Chia-Ming HSU[1], Kai-Cheng HSU[1], Hsing-Pang HSIEH[2]

[1]Graduate Institute of Cancer Biology and Drug Discovery, College of Medical Science and Technology, Taipei Medical University,
[2]Institute of Biotechnology and Pharmaceutical Research, National Health Research Institutes, Miaoli, Taiwan

P-165 A study on a novel cyclin-dependent kinase 8 inhibitor that mitigates pulmonary fibrosis progression

○ Chia-Ron YANG[1], Tzu-Ying HE[1], Kai-Cheng HSU[2, 3]

[1]School of Pharmacy, National Taiwan University,
[2]Graduate Institute of Cancer Biology and Drug Discovery, College of Medical Science and Technology, Taipei Medical University,
[3]Ph.D. Program for Cancer Molecular Biology and Drug Discovery, College of Medical Science and Technology, Taipei Medical University

P-166 The development of NLRP3 inflammasome inhibitor for Alzheimer's disease using a mouse disease model

○ Haesoo KIM, Yongjin OH, Hashim Khan ALI, Daeun LEE, Jinwoo LEE, Youngho SEO, Kisok KIM

College of Pharmacy, Keimyung University, Daegu, Korea

P-167 Exploration of Rutacarpine-Based MAP4K4 Inhibitors as Potential Leads for Kidney Fibrosis

○ Yen-Hsiang CHANG[1], Kai-Hung TAI[2], Nain-Chu GAO[1], Heng LIN[3], Kai-Cheng HSU[4], Wei-Jan HUANG[5]

[1]Graduate Institute of Pharmacognosy, College of Pharmacy, Taipei Medical University,
[2]School of Pharmacy, College of Pharmacy, Taipei Medical University,
[3]Department of Physiology, School of Medicine, Taipei Medical University,
[4]Graduate Institute of Cancer Biology and Drug Discovery, College of Medical Science and Technology, Taipei Medical University,
[5]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University

P-168 Synthesis and biological evaluation of ortho-phenyl phenylhydroxamic acids containing phenothiazine with improved selectivity for class IIa histone deacetylases

○ Yun-Yi HUANG[1], Kai-Cheng HSU[1, 2, 3, 4], Jung-Chun CHUA[1], Yu-Wen HUANG[5], Jing-Lan HU[6], Tony Eight LIN[2, 3], Shih-Chung YEN[7], Jing-Ru WENG[6], Wei-Jan HUANG[1, 5, 8]

[1]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[2]Graduate Institute of Cancer Biology and Drug Discovery, College of Medical Science and Technology, Taipei Medical University, Taipei, Taiwan,
[3]Ph.D. Program for Cancer Molecular Biology and Drug Discovery, College of Medical Science and Technology, Taipei Medical University, Taipei, Taiwan,
[4]Cancer Center, Wan Fang Hospital, Taipei Medical University, Taipei, Taiwan,
[5]Graduate Institute of Pharmacognosy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[6]Department of Marine Biotechnology and Resources, National Sun Yat-sen University, Kaohsiung, Taiwan,
[7]Warshel Institute for Computational Biology, The Chinese University of Hong Kong (Shenzhen), Shenzhen, Guangdong, People's Republic of China,
[8]School of Pharmacy, Taipei Medical University, Taipei, Taiwan

P-169 Treatment of amiodarone resulted in mitochondrial dysfunction and excessive autophagy, and increased in apoptosis in thyroid cancer cells by increasing cytosolic and mitochondrial reactive oxygen species levels

Seung-Hyeon AHN,○ Kyung-Chul CHOI

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

P-170 Discovery and biological evaluation of potent 2-trifluoromethyl acrylamide warhead-containing inhibitors of protein disulfide isomerase

○ Jung-Chun CHU[1], Chin-Chung WU[2], Wei-Jan HUANG*[1, 3]

[1]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taiwan,
[2]Graduate Institute of Natural Products, Kaohsiung Medical University, Kaohsiung, Taiwan,
[3]School of Pharmacy, Taipei Medical University, Taipei, Taiwan

P-171 Re-evaluation of the acyclovir metabolic pathway using PXB-cells

○ Saki TAKEDA[1], Satoshi NUMAZAWA[2, 3], Naho KATO[1], Rie NISHIKATA[1], Kazuki HARADA[1]

[1]Department of Forensic Medicine, Fukushima Medical University School of Medicine,
[2]Department of Toxicology, Showa Medical University Graduate School of Pharmacy,
[3]Showa Medical University Pharmacological Research Center

P-172 *In vitro* toxicity tests of the anticancer drug etoposide using human skin fibroblasts

○ Masaki TAKAISHI, Eimi MAEBAYASHI, Ayaka MORO, Ritsu ISONO, Kosuke FUJITA, Akio KOBAYASHI

Department of Pharmaceutical Sciences, International University of Health and Welfare

Middle molecular drugs

P-173 Therapeutic Effects of the Visual Cycle Inhibitor MPT1A340 in Protecting Against Blue Light- and A2E-Induced Retinal Degeneration in ARPE-19 Cells and a Mouse Model of Dry Age-Related Macular Degeneration

○ Yu-Ting CHU[1], Yen-Ju CHAN[1, 2], Tai-Ju HSU[3], Ahmad Dzulfikri NURHAN[1], Chien-Yu LIN[1], Jing-Ping LIOU[4], George HSIAO[5], Yu-Wen CHENG[1]

[1]School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[2]Department of Physiology, School of Medicine, Taipei Medical University, Taipei, Taiwan,
[3]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[4]Department of Pharmaceutical Sciences, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[5]Department of Pharmacology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan

P-174 Exploring the Role of Azatyrosine-Phenylbutyric Hydroxamides (Aza-PBHA, AzP) in Treating Blue Light-Induced Dry Eye Disease

○ Chien-Yu LIN[1], Yen-Ju CHAN[1, 2], Yu-Yen CHEN[5], Tai-Ju HSU[4], Ahmad Dzulfikri NURHAN[1], Yu-Ting CHU[1], Ching-Hao LI[2], George HSIAO[3], Yu-Wen CHENG[1]

[1]School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[2]Department of Physiology, School of Medicine, Taipei Medical University, Taipei, Taiwan,
[3]Department of Pharmacology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan,
[4]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[5]Department of Medical Education, Taichung Veterans General Hospital, Taichung, Taiwan

P-175 Evaluating the treating feasibility of the dual PARP1-VEGFR3 inhibitors for diabetic retinopathy

○ Tai-Ju HSU[1], Mandeep RANA[2], Yan-Ju CHAN[2, 4], Ahmad Dzulfikri NURHAN[2], Yu-Tin CHU[2], Chien-Yu LIN[2], George HSIAO[3], Kunal NEPALI[2], Yu-Wen CHENG[2]

[1]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[2]School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[3]Department of Pharmacology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan,
[4]Department of Physiology, School of Medicine, Taipei Medical University, Taipei, Taiwan

P-176 The potential therapeutic mechanisms of Aza-PBHA regulate aryl aromatic hydrocarbon receptors in blue light-induced retinopathy

○ Yen-Ju CHAN[1, 2], Yu-Yen CHEN[5], Tai-Ju HSU[4], Ahmad Dzulfikri NURHAN[1], Yu-Tin CHU[1], Chien-Yu LIN[1], Ching-Hao LI[2], George HSIAO[3], Yu-Wen CHENG[1]

[1]School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[2]Department of Physiology, School of Medicine, Taipei Medical University, Taipei, Taiwan,
[3]Department of Pharmacology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan,
[4]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[5]Department of Medical Education, Taichung Veterans General Hospital, Taichung, Taiwan

P-177 Desensitization mechanisms in ameliorating mice with allergic rhinitis: An immunotherapeutic strategy to prohibit recurrence of attacks

○ Ahmad Dzulfikri NURHAN[1, 2], Yen-Ju CHAN[1, 3], Tai-Ju HSU[4], Yu-Ting CHU[1], Chien-Yu LIN[1], Chrismawan ARDIANTO[2, 5], Mahardian RAHMADI[2, 5], Junaidi KHOTIB[2, 7], George HSIAO[6], Yu-Wen CHENG[1]

[1]School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[2]Department of Pharmacy Practice, Faculty of Pharmacy, Universitas Airlangga, Surabaya, Indonesia,
[3]Department of Physiology, School of Medicine, Taipei Medical University, Taipei, Taiwan,
[4]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[5]Biomedical Pharmacy Research Group, Faculty of Pharmacy, Universitas Airlangga, Surabaya, Indonesia,
[6]Department of Pharmacology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan,
[7]Biomaterial Translational Research Group, Faculty of Pharmacy, Universitas Airlangga, Surabaya, Indonesia

P-178 Nonclinical development of approved oligonucleotide products －1. Survey and discussion of non-clinical packages－

○ Tetsuya OHTA[1, 2], Yutaka TONOMURA[1, 3], Yukari FUJIWARA[1, 4], Yuichi TAKAI[1, 5], Hiroaki MIIDA[1, 6], Keiko MOTOYAMA[1, 7], Tomoko IZUMI[1, 8], Kanae KURODA[1, 9], Shunsuke OZAWA[1, 10], Nobuyoshi HASEBE[1, 11], Ryo SAITO[1, 12], Tomofumi YONEDA[1, 13], Taketoshi WAKIZAKA[1, 14], Takahiro AYA[1, 15], Yosuke SAKURADA[1, 16], Anna ABE[1, 17], Michiaki KANAI[1, 18]

[1]Japan Pharmaceutical Manufacturing Association (JPMA), [2]Mitsubishi Tanabe Pharma Co., [3]Nippon Shinyaku Co., Ltd.,
[4]Novartis Pharma K.K., [5]Takeda Pharmaceutical Company Ltd., [6]Daiichi Sankyo Co., Ltd., [7]Janssen Pharmaceutical K.K.,
[8]AbbVie GK, [9]Eli Lilly Japan K.K., [10]Kyorin Pharmaceutical Co., Ltd.,
[11]The Research Foundation for Microbial Diseases of Osaka University, [12]Mochida Pharmaceutical Co., Ltd.,
[13]Toa Eiyo Ltd., [14]AstraZeneca K.K., [15]MSD K.K., [16]Taiho Pharmaceutical Co., Ltd., [17]Bayer Yakuhin, Ltd,
[18]Novo Nordisk Pharma Ltd.

P-179 Nonclinical development of approved oligonucleotide products －2. Survey and discussion of non-clinical toxicity study design－

○ Yukari FUJIWARA[1, 2], Yutaka TONOMURA[1, 3], Tetsuya OHTA[1, 4], Yuichi TAKAI[1, 5], Hiroaki MIIDA[1, 6], Keiko MOTOYAMA[1, 7], Tomoko IZUMI[1, 8], Kanae KURODA[1, 9], Shunsuke OZAWA[1, 10], Nobuyoshi HASEBE[1, 11], Ryo SAITO[1, 12], Tomofumi YONEDA[1, 13], Taketoshi WAKIZAKA[1, 14], Takahiro AYA[1, 15], Yosuke SAKURADA[1, 16], Anna ABE[1, 17], Michiaki KANAI[1, 18]

[1]Japan Pharmaceutical Manufacturing Association (JPMA), [2]Novartis Pharma K.K., [3]Nippon Shinyaku Co., Ltd., [4]Mitsubishi Tanabe Pharma Co., [5]Takeda Pharmaceutical Company Ltd., [6]Daiichi Sankyo Co., Ltd., [7]Janssen Pharmaceutical K.K., [8]AbbVie GK, [9]Eli Lilly Japan K.K., [10]Kyorin Pharmaceutical Co., Ltd., [11]The Research Foundation for Microbial Diseases of Osaka University, [12]Mochida Pharmaceutical Co., Ltd., [13]Toa Eiyo Ltd., [14]AstraZeneca K.K., [15]MSD K.K., [16]Taiho Pharmaceutical Co., Ltd., [17]Bayer Yakuhin, Ltd, [18]Novo Nordisk Pharma Ltd.

P-180 Nonclinical development of approved oligonucleotide products －3. Survey and discussion of hybridization dependent off-target toxicity evaluation－

○ Yutaka TONOMURA[1, 2], Tetsuya OHTA[1, 3], Yukari FUJIWARA[1, 4], Yuichi TAKAI[1, 5], Hiroaki MIIDA[1, 6], Keiko MOTOYAMA[1, 7], Tomoko IZUMI[1, 8], Kanae KURODA[1, 9], Shunsuke OZAWA[1, 10], Nobuyoshi HASEBE[1, 11], Ryo SAITO[1, 12], Tomofumi YONEDA[1, 13], Taketoshi WAKISAKA[1, 14], Takahiro AYA[1, 15], Yosuke SAKURADA[1, 16], Anna ABE[1, 17], Michiaki KANAI[1, 18]

[1]Japan Pharmaceutical Manufacturing Association (JPMA), [2]Nippon Shinyaku Co., Ltd., [3]Mitsubishi Tanabe Pharma Co., [4]Novartis Pharma Co., [5]Takeda Pharmaceutical Company Ltd., [6]Daiichi Sankyo Co., Ltd., [7]Janssen Pharmaceutical K.K., [8]AbbVie GK, [9]Eli Lilly Japan K.K., [10]Kyorin Pharmaceutical Co., Ltd., [11]The Research Foundation for Microbial Diseases of Osaka University, [12]Mochida Pharmaceutical Co., Ltd., [13]Toa Eiyo Ltd., [14]AstraZeneca K.K., [15]MSD K.K., [16]Taiho Pharmaceutical Co., Ltd., [17]Bayer Yakuhin, Ltd, [18]Novo Nordisk Pharma Ltd.

Biopharmaceuticals

P-181 Survey results and Re-evaluation on the significance of long-term tox study for biopharmaceuticals

○ Yui SUZUKI[1, 12], Tetsuo AIDA[2, 12], Bunichiro OGAWA[3, 12], Dai KAKIUCHI[4, 12], Kiyoshi KINOSHITA[5, 12], Satoshi SAKAI[6, 12], Yuko SEMI[7, 12], Toshiyuki TSUCHIYA[8, 12], Junichi NAMEKAWA[9, 12], Nozomi FUJISAWA[10, 12], Shogo MATSUMURA[11, 12], Mutsumi SUZUKI[1, 12]

[1]Kyowa Kirin Co., Ltd., [2]Daiichi Sankyo Co., Ltd., [3]Taisho Pharmaceutical Co., Ltd., [4]Eisai Co., Ltd., [5]MSD K.K., Tokyo, Japan, [6]Asahi Kasei Pharma Corporation, [7]Ono Pharmaceutical Co., Ltd., [8]Meiji Seika Pharma Co., Ltd., [9]Bristol-Myers Squibb K.K., [10]CHUGAI PHARMACEUTICAL Co., LTD., [11]Astellas Pharma Inc., [12]Non-Clinical Evaluation Committee, Japan Pharmaceutical Manufacture Associations

P-182 Rethinking the need for long-term toxicity studies for non-oncology biotherapeutics

○ Masanori KOBAYASHI[1], Masanori HIZUE[1], Payal M RANA[2]

[1]Pfizer R&D Japan, [2]Drug Safety Research and Development, Pfizer Inc.

P-183 Investigation of Intrathecal Administration and Cerebrospinal Fluid Sampling Using Micro-Computed Tomography

○ Kazuki SATO, Makoto KONNO, Yuko DOI, Takuya OISHI, Mayumi KAWABE, Masahiro MOCHIZUKI, Masaaki KURATA

Trans Genic Inc.

P-184 **The Tissue Distribution and Antigen-Dependent Toxicity of Antibody-Drug Conjugates**

○ Shota YOSHIDA, Tomoaki HITOTSUMACHI, Takamasa SUZUKI, Sakiho TANAKA, Hideki TANAKA, Jun-Ichi SUGIYAMA, Yosuke SAKURADA, Takuya KONDO, Hiroko HITOTSUMACHI

Preclinical Basic Research, Taiho Pharmaceutical Co., Ltd.

P-185 **Antitumor effects of a novel antibody-drug conjugate (ADC) targeting intracellular iron metabolism and porphyrin biosynthesis pathways on colorectal cancer cell lines**

○ Reina ITO[1], Katsuya SASAKI[2], Maho KUMAGAI[2], Toshinori EZAWA[3], Hirotoshi MATSUMURA[3], Fumie ITOH[1], Yutaka TANAKA[1], Masato SASAKI[1], Masafumi KIKUCHI[2]

[1]Division of Infection and Host Defense, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University,
[2]Department of Pharmacy, Akita University Hospital,
[3]Department of Life Science, Graduate School of Engineering Science, Akita University

P-186 **Evaluation of the usefulness of frozen-preserved primary cultured neurons derived from rat cerebral cortex for detection of antisense oligonucleotide-induced acute CNS toxicity using Ca^{2+}-oscillation assay**

○ Ryota TAMURA, Daichi ISHII, Yutaka TONOMURA

Nippon Shinyaku Co., Ltd.

Regenerative medicine and cell therapy

P-187 **Effect of storage conditions on the stability of cell suspensions using rat bone marrow-derived mesenchymal stem cells**

○ Keisuke MURABE, Miyuki KASAHARA, Kaoru YABE, Kohtaro KAWAMURA, Yutaka MATSUI

Safety Research Institute for Chemical Compounds Co., Ltd

P-188 **Key considerations for dose selection in first-in-human studies of cell and gene therapy products**

○ Gen HIGASHIYAMA, Fumito MIKASHIMA, Yusuke NOZAKI, Misaki NAOTA

Pharmaceuticals and Medical Devices Agency（PMDA)

Environmental pollutants

P-189 **Evaluating the Toxicity and Mechanisms of Polystyrene Nanoplastics Combined with Heavy Metals on Swim Bladder Development in Zebrafish Embryos**

○ Yen-Yu CHEN, Zi-Yu CHEN, Ying-Jan WANG

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

P-190 **PM_{10} exposure triggers metabolic dysfunction, neuroinflammation, and cognitive impairment**

○ Hye Bin PARK[1, 2], Jiun KANG[1, 2], Narayan Sah SONAR[1, 2], Laxmi Sen THAKURI[1, 3], Dong Young RHYU[1, 2, 3]

[1]School of Food and Pharmaceutical Engineering, Mokpo National University,
[2]Department of Biomedicine, Health & Life Convergence Sciences, Mokpo National University,
[3]Bio-medicine Advanced Formulation Research Center, Mokpo National University

P-191 **Determination of the role of heavy metals in the bioaccumulation effect of nanoplastics in freshwater food chains**

○ Yun Jui CHIH, Zi Yu CHEN
Department of Environmental and Occupational Health, National Cheng Kung University

P-192 **Respiratory Toxicity of Non-Exhaust Particulate Matter: Brake Pad Dust**

○ Gyuri KIM, Soyeon JEON, Wan-Seob CHO
Lab of Toxicology, Department of Health Sciences, Dong-A University

P-193 **Novel Approaches for Quantifying Polystyrene Microplastics in Organisms Using Proteinase K and UV-Vis Spectrophotometer**

○ Soyeon JEON, Gyuri KIM, Wan-Seob CHO
Lab of Toxicology, Department of Health Sciences, Dong-A University

P-194 **Establishment of a Standard Sample Library Considering the Physicochemical Properties of Environmental Micro- and Nanoplastics and Its Application to Cytotoxicity Analysis**

○ Yuya HAGA[1, 2], Sota MANABE[2], Wakaba IDEHARA[2], Mii HOKAKU[1], Phyo BO BO AUNG[1], Yuto MOTOYAMA[1], Ayaha MORI[2], Hirofumi TSUJINO[1, 2, 3], Haruyasu ASAHARA[1, 2, 4], Kazuma HIGASHISAKA[1, 2, 5], Yasuo TSUTSUMI[1, 2, 4, 6, 7]
[1]Grad. Sch. Pharm. Sci., Osaka Univ., [2]Sch. Pharm. Sci., Osaka Univ., [3]Museum Links, Osaka Univ., [4]OTRI., Osaka Univ., [5]IACS., Osaka Univ., [6]MEI Ctr., Osaka Univ., [7]INSD., Osaka Univ.

P-195 **Investigation of the effects of PPCPs on plant seed germination and growth**

○ Kazumi SUGIHARA[1], Yoshitaka TAYAMA[1], Taro IMURA[1], Reiji SADAMATSU[1], Ryo UJIHARA[1], Takashi AZUMA[2]
[1]Faculty of Pharmaceutical Sciences, Hiroshima International University,
[2]Faculty of Pharmacy, Osaka Medical and Pharmaceutical University

P-196 **Study on the malodor reduction effect using tea waste**

○ Takehiro NAKAMURA, Tomoya OHASHI, Sumika HIGASHIGUCHI, Shoko OGUSHI, Tomoki KIMURA
Fac. Pharm. Sci., Setsunan Univ.

P-197 **Oxidative damage of DNA by atmospheric quinones *in vitro***

○ Yumi ABIKO, Keigo MATSUDA, Akira TORIBA
Department of Hygienic Chemistry, Graduate School of Biomedical Sciences, Nagasaki University

P-198 **Mechanisms of wheat bran-enhanced mercury excretion after methylmercury exposure in mice**

○ Masaaki NAGANO[1], Masatake FUJIMURA[1], Yuya TADA[2], Yoshiyuki SEKO[3]
[1]Department of Basic Medical Sciences, National Institute for Minamata Disease,
[2]Department of Environment and Public Health, National Institute for Minamata Disease, [3]Mount Fuji Research Institute

P-199 **Analysis of structure-activity relationships, cell-type dependency and mechanisms of PFAS-induced cytotoxicity in cultured vascular endothelial cells**

○ Sayori ICHIJO, Toshiyuki KAJI, Tomoya FUJIE
Faculty of Pharmaceutical Sciences, Tokyo University of Science

P-200 **Neurotoxic effects of perfluorooctanoic acid (PFOA) on immortalized hypothalamic neurons (GT1-7 cells)**

○ Masahiro KAWAHARA, Midori NEGISHI, Ken-ichiro TANAKA
Department of Bio-Analytical Chemistry, Research Institute of Pharmaceutical Sciences, Faculty of Pharmacy, Musashino University

P-201 **Analysis of biological effects of perfluorobutanesulfonic acid in Crl:CD(SD) rats**

○ Mizuho UNEYAMA, Hirotoshi AKANE, Tomomi MORIKAWA, Takeshi TOYODA

Division of Pathology, National Institute of Health Sciences

P-202 **Molecular effects of perfluorooctanesulfonic acid on the kidneys of rats using metabolomic and lipidomic approaches**

○ Ching-Yu LIN[1, 2], Tzu-Hsin YEN[1], Tzu-Han HUNG[1], Hao-Jan LIANG[1]

[1]Institute of Environmental and Occupational Health Sciences, College of Public Health, National Taiwan University, [2]Department of Public Health, College of Public Health, National Taiwan University

P-203 **Effects of bisphenol A on the function and differentiation of placenta-associated cells**

○ Tomoki KIMURA[1], Shoko OGUSHI[1], Reina ABE[2], Takehiro NAKAMURA[1], Tsuyoshi NAKANISHI[3]

[1]Faculty of Pharmaceutical Sciences, Setsunan University, [2]Faculty of Science and Engineering, Setsunan University, [3]Gifu Pharmaceutical University

P-204 **Protective Mechanisms Mediated by p62/SQSTM1 Against Methylmercury**

○ Yasukazu TAKANEZAWA, Ryosuke NAKAMURA, Yuka OHSHIRO, Shimpei URAGUCHI, Masako KIYONO

Department of Public Health, School of Pharmacy, Kitasato University

P-205 **Effects of TNFR3 knockout on mice with repeated exposure to perfluorooctanesulfonic acid**

○ Anna HOSHINA, Ryota YAMAGATA, Naoya YAMASHITA, Gi-Wook HWANG

Division of Environmental and Health Sciences, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University

Endocrine disruptors

P-206 **An endocrine-disrupting chemical, bisphenol A diglycidyl ether (BADGE), accelerate neurite outgrowth of cortical neurons via G-protein-coupled estrogen receptor**

○ Ikuko MIYAZAKI, Chiharu NISHIYAMA, Takeru NAGOSHI, Akane MIYAKO, Suzuka ONO, Ichika MISAWA, Aika ISSE, Kana TOMIMOTO, Kaori MASAI, Kazumasa ZENSHO, Masato ASANUMA

Department of Medical Neurobiology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences

P-207 **Isopropylphenyl phosphate, an organophosphate ester flame retardant, induces depressive- and anxiety-like behaviors in mice**

Yuina INOUE[1], Shun CHIBA[1], Hayato MAEDA[1, 2], ○ Akira NAKAJIMA[1, 2]

[1]Faculty of Agriculture and Life science, Hirosaki University,
[2]Hirosaki University Graduate School of Sustainable Community Studies

P-208 **Effect of flame retardant TDCIPP combined with polystyrene microplastic exposure on estrogen homeostasis and mammary gland hyperplasia in rats**

○ Xiaobo LU, Wusi ZHANG, Le WANG, Mingyang XIAO

Department of Toxicology, China Medical University

P-209 Prenatal bisphenol A exposure inhibits predator odor-induced fear behavior in young rat offspring

○ Tetsuya FUJIMOTO
Faculty of Health and Medical Science, Department of Health and Dietetics, Teikyo Heisei University

Nanomaterials

P-210 Evaluation of embryotoxic effects of silver nanoparticles using a rat whole embryo culture system *in vitro*

○ Ba-Reun JIN, Woong-Il KIM, Sin-Hyang PARK, In-Sik SHIN, Jong-Choon KIM
College of Veterinary Medicine and BK21 FOUR Program, Chonnam National University, Republic of Korea

P-211 ZnONPs induced aquatic toxicity and transgenerational effect in Daphnia magna

○ Ching-Ju HUNG, Yu-Ying CHEN, Shih-Yu OU, Ying-Jan WANG
Department of Environmental and Occupational Health, National Cheng Kung University

P-212 Development of a high-throughput nanotoxicity testing model using autophagy as a biomarker in zebrafish

○ Jing Yu LU, Zi Yu CHEN, Tzu Ning LI, Ying Jan WANG
Department of Environmental and Occupational Health, College of Medicine, National Cheng Kung University, Tainan, Taiwan

P-213 Enhancing blood-brain barrier permeability of terfenadine using albumin-based nanoplatform for the therapy of glioblastoma

○ Manoj Kumar BANIYA, Kyung-Soo CHUN
Lab of Molecular Toxicology, College of Pharmacy, Keimyung University, Daegu, Republic of Korea

P-214 Analysis of the physical form changes and mechanisms of orally ingested silver nanoparticles

○ Kazuya NAGANO[1], Ikkei TASAKI[1], Yasuo TSUTSUMI[2]
[1]Graduate School of Medical and Pharmaceutical Sciences, Wakayama Medical University,
[2]Graduate School of Pharmaceutical Sciences, Osaka University

P-215 Brain Migration of Nanodiamonds and Carbon Black in Mice

○ Hidehiko NOBUOKA[1], Hono ENDO[2], Hisao HANIU[3], Jun TAKAHASHI[4]
[1]Biomedical Engineering Division, Graduate School of Medicine, Science and Technology, Shinshu University,
[2]Biomedical Engineering Division, Graduate School of Science and Technology, Shinshu University,
[3]Institute for Biomedical Sciences, Interdisciplinary Cluster for Cutting Edge Research, Shinshu University,
[4]Department of Orthopaedic Surgery

P-216 The role of the transcription factor Nrf2 in lung inflammation induced by exposure to amorphous silica nanoparticles in mice

○ Kyoka YAMAZAKI[1], Cai ZONG[1], Mamiko TAKISADA[1], Takuto MORIMOTO[1], Sooyeun KIM[1], Sahoko ICHIHARA[2], Gaku ICHIHARA[1]
[1]Department of Occupational and Environmental Health, Faculty of Pharmaceutical Sciences, Tokyo University of Science,
[2]Department of Environmental and Preventive Medicine, School of Medicine, Jichi Medical University

P-217 Effect of sulforaphane on multi-walled carbon nanotube-induced pulmonary inflammation in mice

○ Saleh AHMED[1], Cai ZONG[1], Kyoka YAMAZAKI[1], Keisuke INOUE[1], Mamiko TAKISADA[1], Ummara ALTAF[1], Yousra REDA[1], Sahoko ICHIHARA[2], Gaku ICHIHARA[1]
[1]Department of Occupational and Environmental Health, Faculty of Pharmaceutical Science, Tokyo University of Science, Japan,
[2]Department of Environmental and Preventive Medicine, Jichi Medical University, Japan

P-218 **Transcription factor Nrf2 enhances multi-walled carbon nanotubes-induced lung inflammation in mice**

Wenting WU[1, 2], ○ Gaku ICHIHARA[1, 3], Akihiko IKEGAMI[4], Yuka SUZUKI[2], Kiyora IZUOKA[2], Saleh AHMED[3], Cai ZONG[1, 3], Ken ITOH[5], Masayuki YAMAMOTO[6], Sahoko ICHIHARA[2, 4]

[1]Nagoya University, [2]Mie University, [3]Tokyo University of Science, [4]Jichi Medical University, [5]Hirosaki University, [6]Tohoku University

P-219 **Comparison of effects of micro/nanoplastics (MNPs) with different material, surface and size on astrocytes**

○ Cai ZONG[1], Emi KATO[1], Risa TSUYUKI[1], Sonja BOLAND[2], Yuki KITAMURA[3], Sahoko ICHIHARA[3], Gaku ICHIHARA[1]

[1]Faculty of Pharmaceutical Sciences, Tokyo University of Science,
[2]Université Paris Cité, CNRS, Unit of Functional and Adaptive Biology, Paris, France,
[3]School of Medicine, Jichi Medical University

P-220 **Effect of estrogen on pulmonary inflammation induction by multi-walled carbon nanotubes**

○ Shiho MURAKI[1], Cai ZONG[1], Ryoya TAKIZAWA[2], Sahoko ICHIHARA[2], Gaku ICHIHARA[1]

[1]Department of Pharmacoscience, Graduate School of Pharmaceutical Sciences, Tokyo University of Science,
[2]Department of Environmental of Preventive Medicine, Jichi Medical University School of Medicine

P-221 **Impact of Prenatal Titanium Dioxide Nanoparticle Exposure on DNA Methylation and Gene Expression Patterns in the Brains of Mice**

○ Saori TANEO, Atsuto ONODA, Ken TAKEDA, Ken TACHIBANA

Division of Toxicology and Health Science, Department of Pharmaceutical Sciences, Sanyo-Onoda City University

Radiation

P-222 **Investigate the relationship of autophagy in radiation-induced acute skin injury and fibrosis**

○ Yung-Hsuan CHENG, Wei-Chin HUANG, Ying-Jan WANG

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

P-223 **Draft of "Guidelines for nonclinical studies and clinical study designs for therapeutic radiopharmaceuticals"**

○ Yoshiro SAITO[1], Akiko HACHISUKA[1], Satoshi TSUNODA[2], Osamu FUEKI[2]

[1]National Institute of Health Sciences, [2]Pharmaceuticals and Medical Devices Agency

P-224 **Effect on Pituitary in Rats by Differences in Timing of γ-ray Irradiation**

○ Dai YAMAMOTO[1], Junko SATO[1], Takuya DOI[1], Takeshi KANNO[1], Toshiaki KOKUBO[2]

[1]Mediford Corporation, [2]National Institutes for Quantum Science and Technology

Other materials

P-225 Effectiveness and Safety of a Novel Antimicrobial Sheet with Both Bactericidal and Biofilm Formation Inhibitory Effects

○ Yoichi YAMADA[1], Hisato KATO[1], Hideki HAYASHI[2], Hiroshi SEKIYA[3], Keisuke YOSHII[1], Takeji UEDA[4], Shun HOSODA[1], Kento YAMANISHI[2], Eiji TAMAI[3], Toshiyuki SHIBAKAWA[5], Kenichi SHIMADA[1], Sumiko SHIOTA[1], Hajime SUZUKI[6], Wakano OGAWA[1]

[1]School of Pharmacy, Shujitsu University, [2]Faculty of Psychology, Shujitsu University, [3]College of Pharmaceutical Sciences, Matsuyama University, [4]ENERGYFRONT Co., [5]Department of Infant Education, Shujitsu Junior College, [6]Shinagawa General Co., Ltd.

Nervous system

P-226 Comparative examination of cerebrospinal fluid (CSF) collection methods in mice

○ Marina TSUGARU, Haruka NISHIYA, Kenichi NORITAKE

Drug Safety & Animal Care Technology Unit, Tsukuba Division, Sunplanet Co., Ltd.

P-227 Effects of Fetal Uterine Blood Flow Insufficiency on the Subtype Balance of GABAergic Neurons in the Prefrontal Cortex

○ Atsuto ONODA, Saki FUJIMURA, Ken TACHIBANA, Ken TAKEDA

Division of Toxicology and Health Science, Faculty of Pharmaceutical Sciences, Sanyo-Onoda City University

P-228 Biomarker, neurophysiological examination, and histopathologic evaluation of Chemotherapy-Induced Peripheral Neuropathy rat model induced by paclitaxel and bortezomib

○ Aya GOTO[1], Rena ISHIKAWA[1], Yoko NOGAMI[1], Motohiro SHIOTANI[1], Takahiro MOMMA[2]

[1]Global Drug Safety, BA Unit, DHBL PPD Function, Eisai Co., Ltd., [2]Animal Care Group 2, Drug Safety & Animal Care Technology Unit, Tsukuba Division, Sunplanet Co., Ltd.

P-229 Human glioma-preferential cell-type-specific aberrant activation of signal transduction related to oxidative stress, MAP kinase activation, transcription factor regulation, and glutathione metabolism by exposure to diphenylarsinic acid

○ Takayuki NEGISHI[1], Daiki YOSHIOKA[1], Shoto SASAKI[2], Takamasa TSUZUKI[1], Kazunori YUKAWA[1]

[1]Department of Physiology, Faculty of Pharmacy, Meijo University, [2]Faculty of Pharmacy, International University of Health and Welfare

P-230 Evaluation of the Usefulness of Plasma Neurofilament-light-chain for Early Detection of Peripheral Neurotoxicity in Rats

○ Ryohei OBA, Junji YANO, Ayumi EGUCHI, Yukako SHIMOTSUMA, Kensuke KAWAMOTO, Satoki FUKUNAGA, Hiroyuki ASANO

Sumitomo Chemical Co., Ltd.

P-231 ADAM17-mediated ACE2 shedding in the spinal cord contributes to diabetic neuropathic pain

○ Wataru NEMOTO, Ryota YAMAGATA, Osamu NAKAGAWASAI, Tomohiro HOSHI, Ruka KOBAYASHI, Mizuki WATANABE, Koichi TAN-NO

Division of Pharmacology, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University

P-232 **Neurotoxicity prediction and adverse effect risk estimation using MEA data of human iPSC-derived neurons for 100 compounds**

○ Yuto ISHIBASHI, Nami NAGAFUKU, Ikuro SUZUKI
Department of Electrical and Electronic Engineering, Tohoku Institute of Technology

P-233 **Development of a Machine Learning-Based Neurotoxicity Evaluation Method Using MEA Measurements of Human iPS Neurons**

○ Naoki MATSUDA, Nami NAGAFUKU, Yuto ISHIBASHI, Ikuro SUZUKI
Department of Electrical and Electronics Engineering, Tohoku Institute of Technology

P-234 **High-Density CMOS-MEA Analysis of Neurotoxicity-Induced Functional Disruptions in Rat Hippocampal Cultures**

○ Hideaki KURASHIKI, Xiaobo HAN, Naoki MATSUDA, Ikuro SUZUKI
Department of Electronics, Graduate School of Engineering, Tohoku Institute of Technology

Liver

P-235 **The role of the ferroptosis pathway in the toxic mechanism of TCDD-induced liver damage in zebrafish**

○ Wu DONG[1], Yunqi GAO[1], Hongsong CHEN[1], Hua LIAN[1], Xiaoxu CAI[1], Lingtian XIE[2], R.G AHMED[3], Hongxin CHEN[2], Xuguang LIN[1]
[1]College of Animal Science and Technology, Inner Mongolia Minzu University/ Inner Mongolia Key Laboratory of Toxicant Monitoring and Toxicology, Tongliao, Inner Mongolia, China,
[2]SCNU Environmental Research Institute, Guangdong Provincial Key Laboratory of Chemical Pollution and Environmental Safety & MOE Key Laboratory of Theoretical Chemistry of Environment, South China Normal University, Guangzhou, China,
[3]Division of Anatomy and Embryology, Zoology Department, Faculty of Science, Beni-Suef University, Beni-Suef, Egypt

P-236 **Warming exacerbates TCDD-induced hepatotoxicity in zebrafish embryos/larvae**

○ Yangfan XU[1], Hongsong CHEN[1], Hao CHEN[1, 2], Lian HUA[1], Yunqi GAO[1], Yuehua YAO[1], Jingfeng YANG[1], Lingtian XIE[3], Yongju LUO[4], Ting HUANG[4], Hongxing CHEN[3], Xuguang LIN[1], Wu DONG[1]
[1]College of Animal Science and Technology, Inner Mongolia Minzu University/ Inner Mongolia Key Laboratory of Toxicant Monitoring and Toxicology, Tongliao, Inner Mongolia, China,
[2]Center for Energy Metabolism and Reproduction, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China,
[3]SCNU Environmental Research Institute, Guangdong Provincial Key Laboratory of Chemical Pollution and Environmental Safety & MOE Key Laboratory of Theoretical Chemistry of Environment, South China Normal University, Guangzhou, China,
[4]Guangxi Key Laboratory of Aquatic Genetic Breeding and Healthy Aquaculture, Guangxi Academy of Fishery Science, Nanning, China

P-237 **Withdrawal**

P-238 **Peroxisome proliferator-activated receptor α modulates chaperone-mediated autophagy through LAMP2A transcriptional regulation**

○ You-Jin CHOI[1], Ji Ye HYUN[2], Byung-Hoon LEE[2]
[1]College of Pharmacy, Daegu Catholic University, Gyeongsan, Republic of Korea,
[2]College of Pharmacy and Research Institute of Pharmaceutical Sciences, Seoul National University, Seoul, Republic of Korea

P-239 **Comparison of the SNAP Protocol and Conventional NAC Therapy for Acetaminophen Overdose: A Four-Year Retrospective Study at Saint Vincent Hospital**

○ Hwan SONG
Department of Emergency Medicine, College of Medicine, The Catholic University of Korea, Seoul, Korea

P-240 Development of culture media for proliferation and maturation of human iPS cell-derived liver organoids and their application to hepatotoxicity evaluation

○ Ai YAMAGUCHI[1], Yu TAKAHASHI[2], Ayane KUBOYAMA[2], Yoshio YAMAUCHI[2], Ryuichiro SATO[3]

[1]Life Science Laboratory, Technology and Development Division, Kanto Chemical Co., Inc.,
[2]Food Biochemistry Laboratory, Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo,
[3]Nutri-Life Science Laboratory, Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo

P-241 The Efficacy and Safety of Traditional Chinese Medicine, Shigyakusan, in cholelithiasis mouse model and dogs

○ Yuta SHINOHARA[1, 2], Go UTSUNOMIYA[1], Haruki KURIHARA[1], Yishan LIU[1], Yusuke ISHIHARA[1], Minami KOBAYASHI[1], Tatsuya USUI[1], Kazuaki SASAKI[1]

[1]Laboratory of Veterinary Pharmacology, Department of Veterinary Medicine, Faculty of Agriculture, Tokyo University of Agriculture and Technology,
[2]Pet Health & FoodDivision, Iskara Industry CO., LTD

P-242 Assessment of predictivity of reactive metabolite formation using cyanide trapping assay for drug-induced liver injury

○ Shingo ODA[1], Yumi YAMAMOTO[1], Jun KATAGI[1], Natsuki MAKIDA[1], Atsushi SHIMABUKURO[2], Nobuyuki NAKAMURA[2], Yuzo IWAKI[2], Masaya HIROBE[2], Masanori KURIBAYASHI[1]

[1]Safety Research Laboratories, ONO Pharmaceutical Co., LTD., [2]Drug Discovery Chemistry, ONO Pharmaceutical Co., LTD.

P-243 Utility of Reactive Metabolite Evaluation Using CysGlu-Dan Trapping for Drug-induced Liver Injury

○ Natsuki MAKIDA[1], Shingo ODA[1], Kei MOTOHKA[1], Atsushi SHIMABUKURO[2], Nobuyuki NAKAMURA[2], Yuzo IWAKI[2], Masaya HIROBE[2], Jun KATAGI[1], Yumi YAMAMOTO[1], Masanori KURIBAYASHI[1]

[1]Safety Research Laboratories, ONO Pharmaceutical Co., LTD., [2]Drug Discovery Chemistry, ONO Pharmaceutical Co., LTD.

P-244 Investigation of Autophagy-mediated removal of hepatic micronuclei targeting rat liver

○ Mai TODOROKI[1, 2], Yidan BAI[1], Mio KOBAYASHI[1, 2], Tatsu KURIKI[1], Takuma KOZONO[3], Makoto SHIBUTANI[1], Toshinori YOSHIDA[1]

[1]Laboratory of Veterinary Pathology, Cooperative Department of Veterinary Medicine, Tokyo University of Agriculture and Technology,
[2]Cooperative Division of Veterinary Sciences, Tokyo University of Agriculture and Technology,
[3]Electron Microscopy Group, Smart-Core-Facility Promotion Organization, Tokyo University of Agriculture and Technology

P-245 Molecular Mechanisms of Iron Metabolism Disorders in Thioacetamide-Induced Liver Cirrhosis in Rats

○ Takashi HORIUCHI, Takeshi IZAWA, Mitsuru KUWAMURA

Osaka Metropolitan University Laboratory of Veterinary Pathology

P-246 Altered intrahepatic adenosine dynamics switch MASH progression

○ Momoka YAMAGUCHI[1], Naoki DOHI[1], Akira OOKA[1], Shin-Ya SAITO[1, 2], Tomohisa ISHIKAWA[1]

[1]Department of Pharmacology, School of Pharmaceutical Sciences, University of Shizuoka,
[2]Department of Drug Discovery and Pharmacology, Faculty of Veterinary Medicine, Okayama University of Science

Kidney

P-247 Zinc protoporphyrin accumulation triggers ferroptosis, contributing to the progression of chronic kidney disease

○ Li-Ting TSAI, Chih-Kang CHIANG, Shing-Hwa LIU
National Taiwan University, College of Medicine

P-248 Uremic Toxins and Their Influence on Cell Death Mechanisms in a Replicative Senescence Renal Tubular Cell Model

○ Chieh-Yun LIU, Chih-Kang CHIANG, Shing-Hwa LIU
College of Medicine, National Taiwan University

P-249 *In vitro* evaluation of nephrotoxicity using ATP assay and nephrotoxicity marker genes in human renal proximal tubular epithelial cell spheroids

○ Masako OSAWA
SEKISUI MEDICAL CO., LTD.

Skin

P-250 Investigating the effects of perfluorooctanoic acid (PFOA) on the exacerbation of atopic dermatitis

○ Wei-Ting LIN[1], Yu- Hsuan LEE[2], Ying-Jan WANG[1]
[1]Department of Environmental and Occupational Health , College of Medicine, National Cheng Kung University, Tainan, Taiwan,
[2]Department of Cosmeceutics, China Medical University, Taichung, Taiwan

P-251 Natural substances alleviate acute radiation-induced skin injury via regulating ferroptosis and mitophagy

○ Yu-Tung TSAI[1], Ying-Jan WANG[1], Shine-Gwo SHIAH[2]
[1]Department of Environmental and Occupational Health, College of Medicine, National Cheng Kung University,
[2]National Institute of Cancer Research, National Health Research Institutes, Miaoli, Taiwan

P-252 Development of *in vitro* skin corrosion test using Keraskin™-VM

○ Jeong-Hyun HONG[1, 2], Kyung-Min LIM[1, 2]
[1]College of Pharmacy and Graduate School of Pharmaceutical Sciences Ewha Womans University, Seoul, Korea,
[2]Gradutate Program in Innovative Biomaterials Convergence, Ewha Womans University, Seoul, Korea

Sensory organ

P-253 Mechanistic consideration of HCN inhibitor-induced retinal dysfunction using a paired-ERG method in rats

○ Naohisa UMEYA, Toru USUI, Izuru MIYAWAKI
Preclinical Research unit, Sumitomo Pharma Co., Ltd.

P-254 Transcriptomic profiling to understand spontaneous retinal functional deficits in male Wistar Han rats

○ Tetsuki KATO[1], Chang-Ning LIU[2], Seo-Kyoung HWANG[2], Darien CAPUNITAN[2], Sophia LEE[2], Tom LANZ[2], Elias OZIOLOR[2], Nagappan MATHIALAGAN[2]
[1]Drug Safety R&D, Pfizer R&D Japan, [2]Drug Safety R&D, Pfizer Inc

P-255 Evaluation of Sodium Thiosulfate on Reduction of Ototoxicity Caused by Cisplatin

○ Yuya ASANO[1], Akino WADA[2], Hiroyasu MURASAWA[1], Tetsuomi TAKASAKI[2], Katsuhiro HIGUCHI[1], Shoko OTSU[1], Kiyohide MIYAGOSHI[2], Mayumi KANO[1], Kenji MIYAMOTO[2], Takahiko NAGASE[1]

[1]Nihon Bioresearch Inc., [2]NIKON SOLUTIONS CO., LTD.

P-256 *In vitro* peripheral neuropathy assessment with human iPSC-derived neurons cultured in a novel MPS-MEA system

○ Xiaobo HAN[1], Naoki MATSUDA[1], Chinatsu SUZUKI[1], Makoto YAMANAKA[2], Ikuro SUZUKI[1]

[1]Tohoku Institute of Technology, [2]Ushio Inc

P-257 Establishment of a method for retinal toxicity assessment by optokinetic reflex (OKR) analysis in zebrafish

○ Dai KAKIUCHI[1], Mizuki YUGE[2], Takashi SHIROMIZU[2], Kota NAKAJIMA[1], Chihiro NAKAZAWA[1], Tsuyoshi YOKOBATA[1], Etsuko OHTA[1], Yuhei NISHIMURA[2], Shoji ASAKURA[1]

[1]Global Drug Safety, Eisai Co., Ltd., [2]Department of Integrative Pharmacology, Mie University Graduate School of Medicine

Gastrointestinal system

P-258 Deciphering the functional role of the mesenteric lymph nodes and their stromal cells during inflammatory bowel disease

○ Pia Pascale PEPPERMUELLER-RINDLER[1, 2], Manuela BUETTNER[2], Ahmet HASSAN[2], Anja SIEBERT[2], Maria MELLIN[2], Martin MEIER[2]

[1]Fraunhofer Institute for Toxicology and Experimental Medicine (ITEM), [2]Hannover Medical School

P-259 Invasive AhR Phosphorylated by TPL2 Drives Tumor-Associated Macrophage Polarization, Enhancing Immune Escape and Metastasis via IFITM2

○ Meei-Ling SHEU

Institute of Biomedical Sciences, Rong Hsing Research Center for Translational Medicine, National Chung Hsing University, Taichung, Taiwan

P-260 Effect of Drug Inducing Soft Stool or Constipation on the Frequency of Bowel Sounds in Beagle Dogs

○ Atsushi NARA[1], Sachiko TSUKADA[1], Kenichi KIKUTA[1], Yuki TANAKA[1], Kenichi NORITAKE[1], Etsuko OHTA[2]

[1]Drug Safety & Animal Care Technology Unit, Tsukuba Division, Sunplanet Co., Ltd., [2]Global Drug Safety, Eisai Co., Ltd.

Respiratory system

P-261 Development of an *in vitro* test method for assessing the inhalation toxicity of essential oils

○ Hye-Jin JEONG, Ah-Yoon SONG, Hye-In PARK, Tae-Rim IM, Yong Joo PARK
College of Pharmacy, Kyungsung University

P-262 Assessment of mixture toxicity in household insecticides and synergistic effects of tetramethrin and hydramethylnon

○ Taerim IM, Hye-Jin JEONG, Ah-Yoon SONG, Hye-In PARK, Yong Joo PARK
College of Pharmacy, Kyungsung University

P-263 *In Vitro* Acute Respiratory Toxicity Test Method Using An Artificial Airway Tissue Model, SoluAirway™

○ Jiwoo CHOE[1], Geonhee LEE[2], Suhyun LEE[2], Gaeun KIM[3], Haryong KIM[3], Kyungmin LIM[1]
[1]College of Pharmacy and Graduate School of Pharmaceutical Sciences, Ewha Womans University, Seoul, Korea, [2]R&D Institute, Biosolution Co., Ltd., Seoul, Korea, [3]College of Pharmacy, Korea University, Sejong, Korea

P-264 Impact of PEG Content on Aerosol Properties and Inhalation Toxicity of QACs Mixtures

○ Gijun OH, Su-Hyun CHOI, Yoon CHO, Min-Seok KIM
Center for Respiratory Safety Research, Korea Institute of Toxicology

P-265 Impact of Polyethylene glycol Content on Aerosol Properties and Inhalation Toxicity of Hydramethylnon Mixtures

○ Woo Kown JUNG, Yoon CHO, Su Hyun CHOI, Min-Seok KIM
Korea Institute of Toxicology

P-266 Study on the effect of exposure to polyhexamethylene guanidine-phosphate (PHMG-p) and chloromethylisothiazolinone/ methylisothiazolinone (CMIT/MIT) on infectious pneumonia susceptibility

○ Jiyoung PARK[1], Jiwon CHOI[1], Mi-Kyung SONG[1], Kyuhong LEE[1, 2]
[1]Respiratory Safety Research Center, Korea Institute of Toxicology,
[2]Department of Human and Environmental Toxicology, University of Science & Technology

P-267 Background data for repeated-dose inhalation toxicity studies in monkeys

○ Keisuke HOTTA, Kiyoshi WAKO, Yutaka SASAKI, Kazuto MATSUDA, Masanori HOSHINO, Yuki TOMONARI, Dai YAMAMOTO
Regulatory Center (Kashima Laboratories), Mediford Corporation

P-268 Comparison of Intratracheal Administration and Oropharyngeal Aspiration in Bleomycin-induced Lung Fibrosis in Rat

○ Junji YANO, Koji NARITA, Dai HASEGAWA, Yukako SHIMOTSUMA, Satoki FUKUNAGA, Hiroyuki ASANO
Sumitomo Chemical Co., Ltd.

Cardio vascular system

P-269 Study on the Protective Effect of Sodium Ferulate Against Doxorubicin-Induced Cardiotoxicity in Zebrafish

○ Yue Hua YAO[1], Xiao Yu YIN[2], Hao CHEN[3], Tonglaga LI[4], Mei Rong BAI[5], Jing Li MU[6], Wu DONG[1]

[1]College of Animal Science and Technology, Inner Mongolia Minzu University/ Inner Mongolia Key Laboratory of Toxicant Monitoring and Toxicology, Tongliao, Inner Mongolia, China,
[2]Graduate School of Engineering, Muroran Institute of Technology, Japan,
[3]Center for Energy Metabolism and Reproduction, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China,
[4]Affiliated Hospital of Inner Mongolia Minzu University, Tongliao, China,
[5]College of Mongolian Medicine and Pharmacy, Inner Mongolia Minzu University, Tongliao, China,
[6]Fujian Key Laboratory on Conservation and Sustainable Utilization of Marine Biodiversity, Minjiang University, Fuzhou, China

P-270 The integrated TdP risk assessment using Quinine with the multi-ion channel blocking effect

○ Shoichi KAYATANI[1], Hisashi NOGAWA[1], Atsuhiro YAMANISHI[1], Junko SHINOZAKI[1], Masayo YAMAKAWA[1], Hayato ABUKAWA[2]

[1]Toxicology Research Laboratory, Kyorin Pharmaceutical CO., LTD.,
[2]DMPK Research Laboratory, Kyorin Pharmaceutical CO., LTD.

P-271 Best Practice Methods: Essential for $Ca_V1.2$ Channel Assays?

Mao YAMAGUCHI, Satomi TOMIZAWA, Rie URA, Nao SAKAMOTO, Yuji SUZUKI, Koji NAKANO, ○ Masaru TSUBOI

Drug Safety Testing Center Co., Ltd. (DSTC)

P-272 Evaluation of Moxifloxacin-Induced QT Interval Prolongation in Monkeys following the Recommended Methods of ICH S7B Best Practices

○ Hiroko KATAOKA[1], Kei MIKAMOTO[1], Satoshi TAMAI[1], Miho MATSUOKA[1], Hiroya KONNO[1], Michiharu YOSHIIKE[2], Tomomichi ISHIZAKA[1], Katsuyoshi CHIBA[1]

[1]Medicinal Safety Laboratories, Daiichi Sankyo CO., Ltd., [2]Translational Science Department II, Daiichi Sankyo Co., Ltd.

P-273 Evaluation of the Long-Term Exposure Effects of Compounds on Human iPS Cell-Derived Cardiomyocytes Using a Multi-Electrode Array

○ Nobuyuki MOCHIZUKI, Kaori SAIKAWA, Hiroshi KATO, Shingo MIZUNAGA

Toyama Research and Development Center, FUJIFILM Toyama Chemical Co., Ltd.

P-274 Analysis of the mechanism of contractile dysfunction caused by SARS-CoV-2 infection using human iPSC-derived cardiomyocytes

○ Shota YANAGIDA[1], Hiroyuki KAWAGISHI[1], Shigeru YAMADA[1], Naoya HIRATA[1], Yuri KATO[2], Motohiro NISHIDA[2, 3], Yasunari KANDA[1]

[1]Division of Pharmacology, National Institute of Health Sciences,
[2]Department of Physiology, Graduate School of Pharmaceutical Sciences, Kyushu University,
[3]National Institute for Physiological Sciences and Exploratory Research Center on Life and Living System, National Institutes of National Sciences

Reproductive system

P-275 Reproductive Effects of Perinatal and Postweaning Tributyltin Exposure in Male Offspring Mice

○ Pei-Yu TSENG, Yi-Kai CHANG, Shing-Hwa LIU
College of Medicine, National Taiwan University, Taipei, Taiwan

Endocrine system

P-276 Using an alternative testing method in zebrafish to explore the mechanisms by which organotin compounds cause endocrine disruption and developmental toxicity

○ Tzu Chu HSU[1], Chia-Chi HSU[1], Kai-Ni WANG[1], Pei-Cheng SU[1], Rong-Jane CHEN[1], Ying-Jan WANG[2]
[1]Department of Food Safety / Hygiene and Risk Management, College of Medicine, National Cheng Kung University, Tainan, Taiwan,
[2]Department of Environmental and Occupational Health, College of Medicine, National Cheng Kung University, Tainan, Taiwan

P-277 Histopathological and immunohistochemical analyses for detection and mechanism estimation of antithyroid effects of TSH synthesis inhibitors in rats

○ Hirotoshi AKANE[1], Mizuho UNEYAMA[1], Tomomi MORIKAWA[1], Tadashi KOSAKA[2], Hiroaki AOYAMA[2], Kumiko OGAWA[1], Takeshi TOYODA[1]
[1]Division of Pathology, National Institute of Health Sciences, [2]Toxicology Division, Institute of Environmental Toxicology

P-278 The Effects of Anemia on the Timing of Vaginal Opening in Female Rats

○ Yoshinori HOSOKAWA, Mariko SHIMADA, Misaki MATSUMOTO, Masahiro IZUMI, Shun SUGAYA, Keiko OGATA, Katsumasa IWASHITA, Ryoko MATSUYAMA, Hiroyuki ASANO
Environmental Health Science Laboratory, Sumitomo Chemical Co., Ltd.

Other organs or system

P-279 Hematopoietic lineage-specific Mst1/2 depletion reveals extramedullary hematopoiesis

○ Taeho PARK[1], Inyoung KIM[3], Hanseul JEONG[1, 2], So Hee KIM[1, 2], Eunju SHIN[1], Hyunmin CHUNG[1, 2], Jinwoo KIM[1, 2], Chuna KIM[1, 2], Wantae KIM[3], Ji-Yoon NOH[1, 2]
[1]Aging Convergence Research Center, Korea Research Institute of Bioscience and Biotechnology,
[2]Department of Functional Genomics, Korea University of Science & Technology,
[3]Department of Life Science, University of Seoul

P-280 Construction of tumor microenvironment model using pin-type bioprinter

○ Shohei CHIKAE[1, 2], Atsushi ODA[1, 2]
[1]NTN Corporation, [2]NTN Next Generation Research Alliance Laboratories, Graduate School of Engineering, Osaka University

P-281 Analysis of expression and function of drug transporters in syncytiotrophoblast derived from human placental stem cells

○ Ayako FURUGEN[1, 2], Riko SAWADA[2], Ayami UEDA[2], Katsuya NARUMI[2], Masaki KOBAYASHI[2]
[1]Faculty of Pharmacy, Keio University, [2]Faculty of Pharmaceutical Sciences, Hokkaido University

P-282 **INHAND: International Harmonization of Nomenclature and Diagnostic Criteria - An Update - 2025**

○ Shimmo HAYASHI[1], Ute BACH[2], Alys BRADLEY[3], Mark CESTA[4], Stacey FOSSEY[5], Takanori HARADA[6], Matt JACOBSEN[7], Rupert KELLNER[8], Victoria LAAST[9], Emily MESECK[9], Thomas NOLTE[10], Susanne RITTINGHAUSEN[8], Junko SATO[11], John VAHLE[12], Katsuhiko YOSHIZAWA[13]

[1]Division of Food Additives, National Institute of Health Sciences, [2]Bayer, [3]Charles River Laboratories, [4]National Institute Environmental Health of Sciences, [5]Abbvie, [6]The Institute of Environmental Toxicology, [7]Astrazeneca, [8]Fraunhofer, [9]Covance, [10]Boehringer Ingelheim, [11]LSI Medience, [12]Eli Lilly, [13]Mukogawa Women's University

General toxicology

P-283 **Pharmacodynamic Concomitant Toxicity Observation Assay of mRNA Vaccine Targeting KRAS Mutation in a Tumor-Bearing Mouse Model of Subcutaneously Inoculated Mouse Pancreatic Ductal Adenocarcinoma Cells (PANC02HLA-A1101G12V)**

○ Yang CHEN[1, 2], Lina NI[1, 2], Xueling YU[1], Yang CAO[2]

[1]Pharmacology and Toxicology/Joinn Laboratories(Suzhou) Co., Ltd.,
[2]Pharmacology and Toxicology/Joinn Express(Suzhou) Co., Ltd.

P-284 **Human pluripotent stem-cell-derived islets ameliorate diabetes in STZ-induced type I diabetic F344RG rats**

○ Sha LI[1], Yang CAO[2], Lin XING[1], Jiangqiang WANG[1], Debao HOU[1]

[1]Department of Pharmacology and Toxicology, JOINN Laboratories(Suzhou) Co., Ltd.,
[2]Department of Pharmacology and Toxicology. JOINN Express & Collabo Laboratories (Suzhou) Co., Ltd.

P-285 **Body weight loss without reduction in food consumption observed in cynomolgus monkeys –Comparison of animals in 4- and 13-week repeated dose toxicity studies–**

○ Kazuaki TAKAHASHI, Norio HIKE, Hiroyuki OGURA, Takayuki OKAMURA, Dai YAMAMOTO, Junko SATO

Mediford Corporation

P-286 **Comparative study of acute CNS toxicity in rodents and non-human primates administered with centrally delivered antisense oligonucleotides**

○ Hironobu NISHINA, Keisuke YOSHIKAWA, Tetsuya OHTA, Noriaki TANIMOTO, Yuuichi YOKOYAMA, Kenji WATANABE, Noriko UCHIYAMA, Akane KASHIMURA, Mao MIZUKAWA, Hiroko SATO

Safety Research Laboratories, Research Division, Mitsubishi Tanabe Pharma Corporation

P-287 **Current Status and Outlook on Fish Employed for the Nonclinical Safety Studies of Pharmaceutical Excipients**

○ Moritake IIJIMA[1], Hiroshi ONODERA[2]

[1]Department of Pathology and Molecular Diagnostics, Nagoya City University Graduate School of Medical Sciences and Medical School,
[2]National Institute of Health Sciences

P-288 **An exploratory toxicity study focusing on the metabolite**

○ Sanae OMI, Saki IZUMI, Ken HATANAKA, Shoji ASAKURA

Eisai Co., Ltd.

P-289 Heparin sensitivity of various APTT reagents and stability of heparin-added plasma in blood coagulation tests in experimental animals and humans

○ Nao KIKUGAWA, Seiji MIYOSHI, Hidenori YOSHIOKA, Shinya KANEDA
Otsuka Pharmaceutical Factory

Reproductive and developmental toxicology

P-290 Selenomethionine antagonizes arsenic-induced reproductive toxicity in zebrafish

○ Yan ZHANG[1], Huan WANG[1], Xinru BO[1], Lingtian XIE[4], Na ZHENG[2], Baoquan ZHAO[3], Hongxing CHEN[4], Jingli MU[5], Wu DONG[1]

[1]College of Animal Science and Technology, Inner Mongolia Minzu University/ Inner Mongolia Key Laboratory of Toxicant Monitoring and Toxicology, Tongliao, Inner Mongolia, China,
[2]Key Laboratory of Groundwater Resources and Environment of the Ministry of Education, College of New Energy and Environment, Jilin University, Changchun, Jilin, China,
[3]State Key Laboratory of Toxicology and Medical Countermeasures, Institute of Pharmacology and Toxicology, Academy of Military Medical Sciences, Beijing, China,
[4]SCNU Environmental Research Institute, Guangdong Provincial Key Laboratory of Chemical Pollution and Environmental Safety & MOE Key Laboratory of Theoretical Chemistry of Environment, South China Normal University, Guangzhou, China,
[5]Fujian Key Laboratory on Conservation and Sustainable Utilization of Marine Biodiversity, Minjiang University, Fuzhou, China

P-291 Reproductive and neurobehavioral effects of combined exposure to dinotefuran and synergist in an F_1-generation toxicity study in mice: Synergistic effect of piperonyl butoxide

○ Toyohito TANAKA[1], Akemichi NAGASAWA[1], Akiko INOMATA[2]

[1]Division of Toxicology, Department of Pharmaceutical and Environmental Sciences, Tokyo Metropolitan Institute of Public Health,
[2]Department of Pharmaceutical and Environmental Sciences, Tokyo Metropolitan Institute of Public Health

P-292 Investigation of the contraception period and its rationale based on the Guidance on Contraception for Drugs

○ Naomi KOYAMA[1, 8], Tsukasa ISHIGURO[2, 8], Daisuke KIGAMI[3, 8], Hiroki KIMOTO[4, 8], Shohei KOBAYASHI[5, 8], Takashi TANAHARU[6, 8], Yuki INOUE[4, 8], Mutsumi SUZUKI[7, 8]

[1]Kaken Pharmaceutical Co., Ltd., [2]Sanwa Kagaku Kenkyusho Co., Ltd., [3]Astellas Pharma Inc.,
[4]Otsuka Pharmaceutical Co., Ltd.,
[5]Kissei Pharmaceutical Co., Ltd., [6]Bristol-Myers Squibb K.K., [7]Kyowa Kirin Co., Ltd.,
[8]DART team, Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association

P-293 Questionnaire Survey on Judgment on Conduct of Non-Clinical Safety Studies Using Juvenile Animal

○ Takuro OSAWA[1, 8], Tetsuyoshi SOH[2, 8], Ryuichi KATAGIRI[3, 8], Satomi NISHIKAWA[4, 8], Tatsunobu MATSUI[5, 8], Yuki INOUE[6, 8], Mutsumi SUZUKI[7, 8]

[1]Kowa Company, Ltd., [2]Shionogi & Co., Ltd., [3]Chugai Pharmaceutical Co., Ltd., [4]Mitsubishi Tanabe Pharma Corporation,
[5]Nippon Shinyaku Co., Ltd., [6]Otsuka Pharmaceutical, [7]Kyowa Kirin Co., Ltd.,
[8]KT2, Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association (JPMA)

P-294 Current trends of study designs for juvenile animal studies in domestically approved drugs

○ Tetsuyoshi SOH[1, 8], Takuro OSAWA[2, 8], Ryuichi KATAGIRI[3, 8], Satomi NISHIKAWA[4, 8], Tatsunobu MATSUI[5, 8], Yuki INOUE[6, 8], Mutsumi SUZUKI[7, 8]

[1]Shionogi & Co., Ltd., [2]Kowa Company, Ltd., [3]Chugai Pharmaceutical Co., Ltd., [4]Mitsubishi Tanabe Pharma Corporation, [5]Nippon Shinyaku Co., Ltd., [6]Otsuka Pharmaceutical, [7]Kyowa Kirin Co., Ltd., [8]KT2, Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Manufacturers Association (JPMA)

P-295 Optimization of the method for detecting swimming behavior in developmental neurotoxicity assessment using zebrafish

○ Mizuho ONO[1], Saaya UMEKITA[1], Junko KOIWA[2], Tatsuhiro NIINO[1, 3], Yuhei NISHIMURA[2]

[1]Product Stewardship Promotion Department, Mitsubishi Chemical Research Corporation, [2]Department of Integrative Pharmacology, Mie University Graduate School of Medicine, [3]Product Safety & Export Control, and Planning Department, Mitsubishi Chemical Corporation

P-296 Inhibition of valproic acid on syncytial formation of placental cells and investigation into its toxicity mechanism

○ Kazuma HIGASHISAKA[1, 2, 3], Wakako OKUNO[3], Momoe SERIZAWA[2], Minaho YAMAUCHI[2], Risa SAKAI[3], Yuya HAGA[2, 3], Yasuo TSUTSUMI[2, 3, 4, 5, 6]

[1]IACS., Osaka Univ., [2]Grad. Sch. Pharm. Sci., Osaka Univ., [3]Sch. Pharm. Sci., Osaka Univ., [4]MEI Ctr., Osaka Univ., [5]OTRI., Osaka Univ., [6]INSD., Osaka Univ.

P-297 New Approach Methodologies to Confirm Developmental Toxicity of Pharmaceuticals Based on Weight of Evidence

○ Yuji ISOBE[1], Natasha R. CATLIN[2], Gregg D. CAPPON[2, 3], Scott D. DAVENPORT[2], Christine M. STETHEM[2], William S. NOWLAND[2], Sarah N. CAMPION[2], Christopher J. BOWMAN[2]

[1]DSRD-Tokyo, Drug Safety Research & Development, Pfizer R&D Japan, [2]Pfizer Inc., Groton, CT, USA, [3]Current: ToxStrategies, Katy, TX, USA

P-298 Embryo-fetal development study in rabbits under AAALAC-compliant cage environment (historical data comparison)

○ Takafumi OTA[1], Ryuuji YOSHIDA[2], Naoki AIZAWA[1], Naoki HAYASHI[2], Keisuke HANDA[2], Akemi GOTOU[2], Yuka MIYAZAKI[2], Shinya SHIMAZU[2], Tetsuji SAITO[1], Emi TAKESHITA[1], Haruka MORIYAMA[1], Yuka SASAKI[1], Jun TSUCHIDA[1], Hitoshi KATOU[1], Tsuyoshi HIGUCHI[1]

[1]Research Unit II, Drug Discovery Innovation Center, Mediford Corporation, [2]Research Unit I, Drug Discovery Innovation Center, Mediford Corporation

P-299 Investigation of the contents of the electronic package insert for prescription drugs "Patients with Reproductive Potential"

○ Maho SHIZUYA, Tsubasa WAKABAYASHI, Shunsuke KUME, Kazuhiro SHIMOMURA

Non-Clinical Development Department, Research & Development Division, Meiji Seika Pharma Co., Ltd.

Genetic toxicology

P-300 Advancing High-Throughput Transcriptomics: Multi-Omic Profiling from Bulk Cells and Tissues to Liquid Biopsy and Single-Cell Resolution

○ Joel MCCOMB[1], Megan OPICHKA[1], Monica HERNANDEZ[1], Kevin WHITE[1], Salvatore CAMIOLO[2], Dennis EASTBURN[1], Zhoutao CHEN[1], Joanne YEAKLEY[1], Greg SAHAGIAN[3], Bruce SELIGMANN[1]

[1]BioSpyder Technologies, Inc., [2]BioClavis Limited, [3]Neurology Center of Southern California

P-301 **Inter-laboratory Reproducibility of Ames and *In Vitro* Micronucleus Tests for Complex Mixture Samples**

○ Haruna YAMAMOTO, Tsuneo HASHIZUME
JAPAN TOBACCO INC.

P-302 **Investigation of automated analysis of micronucleus tests using a three-dimensional human epidermis model with AI-based analysis**

○ Haruna TAHARA[1], Takumi NUKAGA[1], Masaaki MORI[1], Hiroki KAWAI[2], Akiko TAMURA[1]
[1]Brand Value R&D Institute, Shiseido Co., Ltd., [2]Research and Development Department, LPIXEL Inc.

P-303 **Analysis of *in vivo* mutagenicity of acrylamide in mice and germline mutations induced in the next generation**

○ Kenichi MASUMURA[1], Tomoko ANDO[2], Katsuyoshi HORIBATA[2], Yuji ISHII[3], Kei-Ichi SUGIYAMA[2]
[1]Division of Risk Assessment, National Institute of Health Sciences (NIHS), [2]Division of Genome Safety Science, NIHS, [3]Division of Pathology, NIHS

P-304 **Structural features involved in the large micronucleus formation by acetamide**

○ Meili SOMA[1], Yuji ISHII[1], Yohei YAMAGAMI[1, 2], Shinji TAKASU[1], Takeshi TOYODA[1], Kumiko OGAWA[1]
[1]Division of Pathology, National Institute of Health Sciences,
[2]Laboratory of Veterinary Toxicology, Tokyo University of Agriculture and Technology

Carcinogenicity

P-305 **Evaluating the carcinogenic potential of polyhexamethylene guanidine-phosphate using a cell transformation assay**

○ Jihyun YU[1, 4], Yubin HAN[1], Yong-Wook BAEK[2], Haewon KIM[3], In Jae BANG[1], Ha Ryong KIM[1, 4]
[1]College of Pharmacy, Korea University, Sejong, Republic of Korea,
[2]Environmental Energy Research Division, National Institute of Environmental Research, Incheon, Republic of Korea,
[3]Humidifier Disinfectant Health Center, National Institute of Environmental Research, Incheon, Republic of Korea,
[4]Interdisciplinary Major Program in Innovative Pharmaceutical Sciences, Korea University, Sejong, South Korea

P-306 **Inhalation Carcinogenicity Study of 1,2-Dichlorobenzene in B6C3F1 Mice**

○ Yong-Soon KIM, Ja-Young JANG, Eun-Sang CHO
Inhalation Toxicity Research Center, Occupational Safety & Health Research Institute, Korea

P-307 **The evaluation of skin carcinogenicity of a TRPV1 antagonist SJP-0132 using the ultra-short-term two-stage skin carcinogenesis assay with Tg-rasH2 mice**

○ Yoshinori YAMAGIWA[1], Mayumi KAWABE[2, 3], Shingo NEMOTO[1], Ikuyo ATSUMI[1]
[1]Central Research Laboratories, Research and Development Devision, Senju Pharmaceutical Co., Ltd., [2]Trans Genic Inc., [3]DIMS Institute of Medical Science Inc.

P-308 Antitumor effect of *Sasa veitchii* extract against murine pancreatic adenocarcinoma *in vivo* and *in vitro*

○ Hiroki YOSHIOKA[1], Ayane HORIUCHI[2], Junya HAMANAKA[1, 3], Kenichi OGATA[4], Makoto SANO[5], Hirotaka YAMASHITA[2], Nobuhiko MIURA[6], Hyogo HORIGUCHI[1]

[1]Department of Hygiene, Kitasato University School of Medicine,
[2]Department of Pharmacy, Gifu University of Medical Science,
[3]Department of Neurotoxicology, Nagoya City University Graduate School of Medical Sciences,
[4]Department of Dentistry and Oral Surgery, Karatsu Red Cross Hospital,
[5]Department of Toxicological Test Methodology Development, National Institute of Occupational Safety and Health,
[6]Department of Health Science, Yokohama University of Pharmacy

P-309 A 26-week Carcinogenesis Bioassay of DMBA by Dermal Treatment in Tg-rasH2 Mice

○ Yuko DOI, Shiori KUMAGAI, Takuya OISHI, Kazuki SATO, Masahiro MOCHIZUKI, Masaaki KURATA, Mayumi KAWABE

TransGenic Inc.

P-310 *N*-methyl-*N*-nitrosourea-induced neoplastic lesions in the forestomach of rasH2 mice at 13 weeks following a single intra-abdominal injection

○ Takamasa NUMANO[1], Ryo INOUE[1], Chiyoko NISHIME[1], Masahiko YASUDA[1], Yoko KAMAI[1], Misa MOCHIZUKI[1], Kenji KAWAI[1], Tatsuya MIYAKE[2], Takashi KATSUMATA[2], Izumi OWADA[2], Taichi YAMAMOTO[1], Masami SUZUKI[1]

[1]Central Institute for Experimental Medicine and Life Science, [2]CLEA Japan, Inc.

P-311 Investigation of the mechanism of liver tumor increase in male offspring by gestational arsenic exposure involving the intestinal barrier function

○ Takehiro SUZUKI[1], Takamasa KIDO[2], Kazuyuki OKAMURA[1], Machi SUKA[2], Keiko NOHARA[1]

[1]Health and Environmental Risk Division, National Institute for Environmental Studies, Japan,
[2]Department of Public Health and Environmental Medicine, Jikei University School of Medicine

P-312 Involvement of the transcription factor tmRT1 in azoxymethane-induced colon carcinogenesis in mice

○ Futa ANBE, Ryota YAMAGATA, Naoya YAMASHITA, Gi-Wook HWANG

Division of Environmental and Health Sciences, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University

P-313 Investigation of the hepatocarcinogenic mechanism of methylcarbamate in rats

○ Yuji ISHII[1], Shinji TAKASU[1], Yohei YAMAGAMI[1, 2], Meili SOMA[1], Takeshi TOYODA[1], Kumiko OGAWA[1]

[1]Division of Pathology, National Institute of Health Sciences,
[2]Laboratory of Veterinary Toxicology, Tokyo University of Agriculture and Technology

P-314 The Alternative Approach for Carcinogenicity Risk Assessment: Accumulating Weight of Evidence in Early-Stage Drug Discovery

○ Chun-Yao LEE[1], Jace HSU[1], Ian HUANG[1], Steven YIN[1], Elsa LIU[1], Lori FAN[1], Shih-Ting LIN[1], Yao-Chieh CHOU[1], Chi-Ling TENG[1], Luciano GALDIERI[2], Alastair KING[2]

[1]Eurofins Panlabs Discovery Services Taiwan, [2]Eurofins Discovery North America

P-315 Targeted Protein Degradation of the Androgen Receptor by ARCC-4 and ARD-2128: Proteomic and Therapeutic Potential in AR-driven Cancers

○ Chun-Yao LEE[1], Elsa LIU[1], Judy FU[1], Lori FAN[1], Luciano GALDIERI[2], Justin LIPNER[2], Steven GARNER[2], Brogan EPKINS[2], Emily SCHULTZ[2], Daria CLUCAS[2], Kaitlyne POWERS[2], Julie CHUNG[1], Ian HUANG[1], Pei-Ching CHENG[1], Andy CHOU[1], Phil LIN[1], Alastair KING[2]

[1]Eurofins Panlabs Discovery Services Taiwan, [2]Eurofins Discovery North America

Behavioral toxicology

P-316 Involvement of TNFR3 in peripheral neuropathy induced by anticancer drug oxaliplatin

○ Masatoshi YAMADA, Ryota YAMAGATA, Naoya YAMASHITA, Gi-Wook HWANG

Faculty of Pharmaceutical Sciences, Division of Environmental and Health Sciences, Tohoku Medical and Pharmaceutical University

P-317 Neurobehavioral analysis of emotional and cognitive functions in male mice exposed to xylene during the postnatal developmental period

○ Hirokatsu SAITO[1], Kousuke SUGA[1], Koji FUJIHARA[2], Motoh MUTSUGA[2], Satoshi YOKOTA[1], Takuya NISHIMURA[1], Satoshi KITAJIMA[1]

[1]Division of Cellular and Molecular Toxicology, Center for Biological Safety and Research, National Institute of Health Sciences,
[2]Division of Food Additives, National Institute of Health Sciences

Analytical method

P-318 Analytical Validation of a Bead-Based Multiplex Assay for Direct miRNA Quantification

○ Eun Kyeong LEE[1], Eun-Jeong JEON[1], So-Hyeon HAN[1], Kyung Jin JUNG[2]

[1]Center for Convergence Toxicology Research, Korea Institute of Toxicology,
[2]Division of Advanced Predictive Research, Korea Institute of Toxicology

P-319 Development of novel high-sensitive detection reagents for risk assessment of sensitization by trace skin-sensitizers and identification of the causes

○ Masataka KITADANI[1], Yohei SHIMIZU[1], Hideyuki MIZUMACHI[2], Akihiro MORIUCHI[1], Ryo KOIKE[1]

[1]Analytical Science Research laboratory, Kao Corporation, [2]Safety Science Research laboratory, Kao Corporation

Immunotoxicology

P-320 Rubinaphthin A Enhances the Cytotoxicity of the Natural Killer Leukemia Cell Line KHYG-1 by Increasing the Expression Levels of Granzyme B and IFN-gamma Through the MAPK pathway

○ Yi-Ching CHUANG[1], Ming-Ju HSIEH[1, 2]

[1]Oral Cancer Research Center, Changhua Christian Hospital, Changhua, Taiwan,
[2]Graduate Institute of Clinical Medicine, College of Medicine, National Chung Hsing University, Taichung, Taiwan

P-321 **Nephroprotective effects of roselle (Hibiscus sabdariffa) aqueous extracts against aristolochic acid-induced renal toxicity in zebrafish**

○ Yau-Hung CHEN[1], Ping-Hsun LU[2], Yun-Hsin WANG[3]

[1]Department of Chemistry, Tamkang University,
[2]Department of Chinese Medicine, Taipei Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation,
[3]Department of Molecular Medicine, Koo Foundation Sun Yat-Sen Cancer Center

P-322 **Production of monoclonal antibodies against CEACAM6 and detection of their binding affinities**

Yun-Hsin WANG[1], ○ Yau-Hung CHEN[2]

[1]Department of Molecular Medicine, Koo Foundation Sun Yat-Sen Cancer Center,
[2]Department of Chemistry, Tamkang University

P-323 **Study of the mechanism of bicalutamide induced liver injury and reduction of toxicity by separation of optical isomers**

○ Saori TANAKA[1], Takumi NODA[1, 2], Kazuya URASHIMA[1, 3], Ayumi FUJIMOTO[1, 4], Serina MIZUGUCHI[1], Yuka KOHDA[1], Ryuji KATO[1]

[1]Faculty of Pharmacy, Osaka Medical and Pharmaceutical University, [2]National Hospital Organization Osaka National Hospital, [3]Osaka Minato Central Hospital, [4]Osaka City General Hospital

P-324 **Comparison of Cytokine induction of Oligonucleotide Therapeutics using human PBMC in 2 Test Facilities - Collaborative Study of the Consortium for Safety Evaluation of Oligonucleotide Therapeutics -**

○ Beibei BI[1], Kae FUJISAWA[1], Tamio FUKUSHIMA[1], Yuko NAGAYAMA[2], Kohei IZUSAWA[3], Tomomi KAKUTANI[3], Tomoaki TOCHITANI[3], Maya KIMURA[4], Hisakazu KOMORI[4], Chinami ARUGA[5], Tetsuya OHTA[5]

[1]Laboratory for Drug Discovery and Development SHIONOGI & CO., LTD., [2]Eisai Co., Ltd., [3]Sumitomo Pharma Co., Ltd., [4]Takeda Pharmaceutical Company Limited, [5]Mitsubishi Tanabe Pharma Corporation

P-325 **Exploration of amodiaquine-induced liver injury biomarkers in co-cultured peripheral blood mononuclear cells and hepatic carcinoma cell line**

○ Ryosuke NAKAMURA[1, 2], Yuchen SUN[2], Toshiko MOMIYAMA[2], Ruri HANAJIRI-KIKURA[2]

[1]Laboratory of Pharmaceutical Bioscience, Faculty of Pharmaceutical Sciences, Teikyo University,
[2]Division of Medicinal Safety Science, National Institute of Health Sciences

P-326 **Investigation of the immunotoxic effects of indium tin oxide (ITO) exposure on the human $CD4^+$ T cells: Cytotoxicity, gene expression, intracellular stress, and mitochondrial morphology**

○ Yasumitsu NISHIMURA[1], Nao MARUO[2], Masamitsu EITOKU[2], Kazuya KOBIRO[3], Tatsuo ITO[1], Narufumi SUGANUMA[2]

[1]Department of Hygiene, Kawasaki Medical School, [2]Department of Environmental Medicine, Kochi Medical School, [3]Laboratory for Structural Nanochemistry, Kochi University of Technology

P-327 **Evaluation of Immunotoxicity through the T-Cell Dependent Antibody Response Assay in Common Marmosets**

○ Ryo INOUE[1], Kohei MATSUSHITA[2], Chiyoko NISHIME[1], Takeshi TOYODA[2], Masahiko HATAKEYAMA[3], Yuka BUNZUI[3], Taichi YAMAMOTO[1], Kumiko OGAWA[2], Masami SUZUKI[1]

[1]Central Institute for Experimental Medicine and Life Science, [2]National Institute of Health Sciences, [3]CLEA Japan, Inc.

P-328 Evaluation of the agonist activity of MRGPRX2 receptors for compounds that induce anaphylactoid reactions

○ Chinami ARUGA, Yui HIBINO, Tetsuya OHTA, Akane KASHIMURA, Shuichi TOWA

Safety Research Laboratories, Mitsubishi Tanabe Pharma Corporation

Cytotoxicity

P-329 Anticancer Properties of Cepharanthine in Cervical Cancer

○ Ya Hui CHEN[1], Jyun Xue WU[1], Yi Hsuan HSIAO[1, 2]
[1]Women's Health Research Laboratory, Changhua Christian Hospital, Changhua, Taiwan,
[2]Department of Obstetrics and Gynecology, Changhua Christian Hospital, Changhua, Taiwan

P-330 Effect of various metal solutions on *EPO* mRNA expression in HepG2 cells

○ Kazuhiko NISHIMURA, Naotake KIRIYAMA, Suzuka IIDAKA, Masahiro TOKITA, Md. Anamul HAQUE, Hiroshi NAKAGAWA
Laboratory of Bioenvironmental Sciences, Department of Veterinary Science, Graduate School of Veterinary Science, Osaka Metropolitan University

P-331 Cytotoxicity of $HgCH_2CHO$ and $HgCH_2COOH$ suggested in rethinking of the causative agent of Minamata disease

○ Kaito YAMASHIRO[1], Shun KONO[1], Takumi KATSUZAWA[1], Sachie ARAE[2], Ryo IRIE[2], Yuuki FUJIMOTO[1], Tsutomu TAKAHASHI[1], Yasuyuki FUJIWARA[1], Yo SHINODA[1]
[1]Department of Environmental Health, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences,
[2]Department of Chemistry, Faculty of Advanced Science and Technology, Kumamoto University

P-332 ER protein OST48 reduces dihydropyrazine-mediated cytotoxicity

○ Yuu MIYAUCHI[1], Madoka SAWAI[2], Hisao KANSUI[1], Shinji TAKECHI[1]
[1]Faculty of Pharmaceutical Sciences, Sojo University,
[2]School of Pharmacy at Fukuoka, International University of Health and Welfare

P-333 Three-dimensional HepaSH spheroid model for assessment of drug-induced liver injury

○ Shotaro UEHARA[1], Hiroyuki KAWAGISHI[2], Xingming LIU[2], Yuta SAKAMOTO[2], Nao YONEDA[1], Yuichiro HIGUCHI[1], Hiroshi SUEMIZU[1], Yasunari KANDA[2]
[1]Department of Applied Research for Laboratory Animals, Central Institute for Experimental Medicine and Life Science,
[2]Division of Pharmacology, National Institute of Health Sciences

P-334 Protein insolubilization induced by chemical exposure under $NaHCO_3$-depleted conditions

○ Masatsugu MIYARA, Yuuki TSUCHIDA, Saya TAKAO, Yaichiro KOTAKE
Graduate School of Biomedical and Health Sciences, Hiroshima University

P-335 Tyrosine Kinase Inhibitor Sorafenib Suppresses EET Biosynthesis via CYP2C8 and CYP2J2 Inhibition

○ Miki KATOH, Ayaka KOJIMA, Masayuki NADAI
Faculty of Pharmacy, Meijo University

P-336 Effect of long-term exposure to low concentrations of arsenic acid on UV-induced apoptosis in human keratinocytes

○ Mihiro KASHIWAI[1], Kazuhiko NISHIMURA[2], Hiroshi NAKAGAWA[2]
[1]Laboratory of Toxicology, School of Veterinary Science, Osaka Metropolitan University,
[2]Laboratory of Toxicology, Graduate school of Veterinary Science, Osaka Metropolitan University

P-337 Internalization pathways and effects of silica particles in Caco-2 cells

○ Hana TAKEDA[1], Hiroshi NAKAGAWA[2], Kazuhiko NISHIMURA[2]
[1]Laboratory of Toxicology, School of Veterinary Science, Osaka Metropolitan University,
[2]Laboratory of Toxicology, Graduate School of Veterinary Science, Osaka Metropolitan University

P-338 **Toxicity evaluation of hepatotoxicants metabolized by CYP450 on HepaSH and HepaRG cells**

○ Nanami OGINO, Sakae SAKAMOTO, Hiroki TAKASHIMA, Hotaka KUSABUKA, Yukari TERASHIMA, Tomoyuki IJIRO, Morimichi HAYASHI, Shinichi MUTO
Safety Reseach Laboratory, Kissei Pharmaceutical Co., Ltd.

P-339 **Effect of insoluble metal compounds contained in cosmetics on the production of itch mediators in cultured keratinocytes**

○ Kanon NAGAMINE[1], Kazuhiko NISHIMURA[2], Hiroshi NAKAGAWA[2]
[1]Laboratory of Toxicology, School of Veterinary Science, Osaka Metropolitan University,
[2]Laboratory of Toxicology, Graduate School of Veterinary Science, Osaka Metropolitan University

P-340 **Involvement of lysosomal exocytosis in the permeation of polystyrene particles through a Caco-2 cell intestinal epithelium model**

○ Hiroshi NAKAGAWA[1], Chiaki OKAWA[2], Md. Anamul HAQUE[1], Kazuhiko NISHIMURA[1]
[1]Laboratory of Toxicology, Graduate School of Veterinary Science, Osaka Metropolitan University,
[2]Laboratory of Toxicology, School of Veterinary Medicine, Osaka Metropolitan University

P-341 **Evaluation of crystallinity and size dependent lung cytotoxicity of respirable silica particles**

○ Takaki AMAMOTO, Maromu YAMADA, Tatsushi TOYOOKA
National Institute of Occupational Safety and Health, Japan

P-342 **Comparison of the effects of dimercaptosuccinic acid and 2,3-dimercaptopropane-1-sulfonate on the aberrant activation in cultured normal rat cerebellar astrocytes induced by diphenylarsinic acid**

○ Shoto SASAKI[1], Kazunori YUKAWA[2], Takamasa TSUZUKI[2], Takayuki NEGISHI[2]
[1]School of Pharmacy at Narita, International University of Health and Welfare, [2]Faculty of Pharmacy, Meijo University

Oxidative stress

P-343 **Pectolinarigenin induces ROS-mediated cell death via GPX4 and FTH1 downregulation in AGS human gastric cancer cells**

○ Ju Hong LEE, Sang Joon LEE, Ho Jeong LEE, Kwang Hun HWANG
Center for Bio-Health Research, Division of Gyeongnam Bio-Environmental Research, Korea Institute of Toxicology (KIT), Republic of Korea

P-344 **Mechanism of oxidative DNA damage caused by fructose and sucralose**

○ Yurie MORI[1], Kokoro KOBAYASHI[1], Kaoru MIDORIKAWA[1, 2], Shosuke KAWANISHI[3], Hatasu KOBAYASHI[1], Shinji OIKAWA[1], Mariko MURATA[1, 4]
[1]Department of Environmental and Molecular Medicine, Mie University Graduate School of Medicine,
[2]Faculty of Child Education, Suzuka University, [3]Faculty of Pharmaceutical Science, Suzuka University of Medical Science,
[4]Graduate School of Medical Science, Suzuka University of Medical Science

P-345 **Protective Effects of *Aurantiochytrium* Extract Against Oxidative Stress in Human Skin Cells**

○ Naoki IMAIZUMI[1], Yoichi TOYOKAWA[2], Ayaka KIKUGAWA[3], Takuya KOKI[3], Shugo SAKIHAMA[3], Takuya FUKUSHIMA[3], Tsutomu SASAKI[2]
[1]Laboratory of Clinical Physiology, School of Health Sciences, Faculty of Medicine, University of the Ryukyus,
[2]KANEHIDE BIO Co., Ltd.,
[3]Laboratory of Hemato-immunology, School of Health Sciences, Faculty of Medicine, University of the Ryukyus

P-346 The mechanism of formation of high molecular weight species of 10-formyltetrahydrofolate metabolizing enzymes ALDH1L1 and ALDH1L2

○ Rira AKUTAGAWA[1], Sara YANAGISAWA[1], Yutaka TANAKA[1], Fumie ITOH[1], Sachiko KOMATSU[3], Kazuhiro WATANABE[2], Tsutomu FUJIMURA[3], Masato SASAKI[1]

[1]Division of Infection and Host Defense, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University,
[2]Division of Synthetic Medical Chemistry, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University,
[3]Division of Bioanalytical Chemistry, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University

Inflammation

P-347 Potential antioxidant and anti-inflammatory properties from Cirsium japonicum and Stachys Affinis Extract (SAE) Phenolic Compounds

○ Sangjoon LEE[1, 2], Kwanghyun HWANG[1], Sehyo JEONG[2], Gonsup KIM[2], Juhong LEE[1]

[1]Korea Institute of Toxicology Center for Bio-Health Research, Republic of Korea,
[2]Research Institute of Life Science and College of Veterinary Medicine, Gyeongsang National University, Republic of Korea

P-348 Natural Fungal Compound 3,4-Dihydroxybenzalacetone Mitigates Blue Light-Induced Retinal Degeneration by Regulating Oxidative Stress, Inflammation, and Autophagy-Apoptosis Dynamics

○ Yi-Chien LIU[1, 2], Liang-Huan WU[1, 2], Yan-Cheng SHEN[2], Fan-Li LIN[3], Li-Huei CHEN[2], Jau-Der HO[4], Ching-Hao LI[5], Yueh-Hsiung KUO[6], Yu-Wen CHENG[1, 7], George HSIAO[1, 2]

[1]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[2]Graduate Institute of Medical Sciences and Department of Pharmacology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan,
[3]Department of Pharmacology, School of Medicine, College of Medicine, Kaohsiung Medical University, Kaohsiung, Taiwan,
[4]Department of Ophthalmology, Taipei Medical University Hospital, Taipei, Taiwan,
[5]Department of Physiology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan,
[6]Department of Chinese Pharmaceutical Sciences and Chinese Medicine Resources, College of Chinese Medicine, China Medical University, Taichung, Taiwan,
[7]Department of Pharmaceutical Sciences, School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan

P-349 Aspalathin-Rich Unfermented Aspalathus linearis Extract Mitigates Vascular Endothelial Inflammation by Inhibiting the TNF-α/Hexokinase 2/NF-κB Signaling Pathway

○ Chih-Pin CHUU[1], Ya-Pei WANG[1], Bi-Juan WANG[1], Christo J.F. MULLER[2], Elizabeth JOUBERT[3]

[1]Institute of Cellular and System Medicine, National Health Research Institutes, Taiwan,
[2]Biomedical Research and Innovation Platform (BRIP), South African Medical Research Council, Tygerberg, South Africa,
[3]Plant Bioactives Group, Post-Harvest and Agro-Processing Technologies, Agricultural Research Council (ARC), Infruitec-Nietvoorbij, Stellenbosch, South Africa

P-350 Fungal Natural Compound Radicicol Protects the Retina from Retinopathies by Reducing Inflammation and Restoring Retinal Functions

○ Kai-Chieh KAN[1, 2], Liang-Huan WU[2, 3], Jing-Lun YEN[1, 2], Yan-Cheng SHEN[2], Yi-Chien LIU[2, 3], Tsung-Jen WANG[4], Yu-Wen CHENG[3, 5], Tzong-Huei LEE[6], George HSIAO[1, 2, 3]

[1]Graduate Institute of Medical Sciences, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan,
[2]Department of Pharmacology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan,
[3]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[4]Department of Ophthalmology, Taipei Medical University Hospital, Taipei, Taiwan,
[5]Department of Pharmaceutical Sciences, School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[6] Institute of Fisheries Science, National Taiwan University, Taipei, Taiwan

P-351 Investigation of the Mechanism of GA Mitigates Glaucomatous Retinal Injury via Inhibition Neuroinflammation Mediated through the Interaction between Microglia and Müller Cells

○ Cheng-Yan JIANG[1], Tzong-Huei LEE[3], Liang-Huan WU[1, 4], Jing-Lun YEN[1], Shu-Jung HUANG[3], Yi-Chien LIU[1, 4], Yan-Cheng SHAN[1], Tsung-Jen WANG[5], Yu-Wen CHENG[4, 6], George HSIAO[1, 2, 4]

[1]Department of Pharmacology, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan,
[2]Graduate Institute of Medical Sciences, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan,
[3]Institute of Fisheries Science, National Taiwan University, Taipei, Taiwan,
[4]Ph.D. Program in Drug Discovery and Development Industry, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[5]Department of Ophthalmology, Taipei Medical University Hospital, Taipei, Taiwan,
[6]Department of Pharmaceutical Sciences, School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan

P-352 Anti-Neuroinflammatory Effects of the Marine Fungal Compound HMH1-80-3 Against SARS-CoV-2 Spike-1 Protein-Induced Neuroinflammation

○ Yan-Cheng SHEN[1], Chih-Kuang CHEN[2, 3, 4], Jia-Hua LIANG[1, 4], Yu-Wen CHENG[5], Jing-Lun YEN[1], Liang-Huan WU[1], Ting-Min CHEN[5], Tzong-Huei LEE[6], George HSIAO[1]

[1]Graduate Institute of Medical Sciences and Department of Pharmacology, College of Medicine, Taipei Medical University, Taipei, Taiwan,
[2]Graduate Institute of Clinical Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan,
[3]Department of Physical Medicine and Rehabilitation, Chang Gung Memorial Hospital, Taoyuan, Taiwan,
[4]School of Medicine, Chang Gung University, Taoyuan, Taiwan,
[5]School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
[6]Institute of Fisheries Sciences, National Taiwan University, Taipei, Taiwan

P-353 Caffeic acid phenethyl ester suppresses cGAS or STING agonists-induced production of IFN-β and IL-6

○ Minhyuk KIM, Daehyeon SON, Joo Young LEE

BK21FOUR team, College of Pharmacy, The Catholic University of Korea, Bucheon, Republic of Korea

P-354 Protective effect of dihydropyrazine on multiple organs

○ Madoka SAWAI[1], Yutaka TATANO[1], Katsuya MIYAKE[3], Jian-Rong ZHOU[2], Hisao KANSUI[2], Hidetoshi TOZAKI-SAITOH[1], Yuu MIYAUCHI[2], Shinji TAKECHI[2]

[1]School of Pharmacy at Fukuoka, International University of Health and Welfare,
[2]Faculty of Pharmaceutical Sciences, Sojo University,
[3]Center for Basic Medical Research at Narita, International University of Health and Welfare

P-355 Inhibitory Effects of 2-deoxy-D-glucose on Diffuse Alveolar Damage Induced by Tobacco Extract

○ Kousuke ISHINO[1], Takamasa NUMANO[2], Mitsuhiro KUDO[1], Kiyoshi TEDUKA[1], Yoko KAWAMOTO[1], Fumio FURUKAWA[2], Zenya NAITO[1], Ryuji OHASHI[1]

[1]Departments of Integrated Diagnostic Pathology, Graduate School of Medicine, Nippon Medical School,
[2]DIMS Institute of Medical Science, Inc.

Mechanisms of toxicity

P-356 Neurotoxic effects of 6PPD and metabolites in zebrafish: oxidative stress and dopaminergic dysregulation

○ Kanghee KIM, Yooeun CHAE, Chang-Beom PARK

Center for Ecotoxicology and Environmental Future Research, Division of Gyeongnam Bio-Environmental Research, Korea Institute of Toxicology

P-357 **Mechanistic Study of Cell Death in Bronchial Epithelial Cells Induced by Pyrethroid Insecticides**

○ Hye-In PARK, Ah-Yoon SONG, Hye-Jin JEONG, Tae-Rim LIM, Yong Joo PARK
Kyungsung University

P-358 **A network approach to the adverse outcome pathway of DEHP-induced asthma**

○ Ah-Yoon SONG, Hye-In PARK, Hye-Jin JEONG, Tae-Rim LIM, Yong Joo PARK
Kyungsung University

P-359 **Amine-modified polystyrene nanoparticle (PSNP) exposure can induce BBB dysfunction via caveolin-1 related cell signal disturbance**

○ Hanjin PARK, Donghyun KIM, Ok-Nam BAE
Lab of Toxicology and Environmental Pathology, College of Pharmacy, Hanyang University Republic of Korea

P-360 **Possible Nonimmunological Toxicological Mechanisms of Vesnarinone-associated Agranulocytosis in HL-60 Cells: Role of Reduced Glutathione as Cytotoxic Defense**

○ Toshihisa KOGA
Quality Assurance Unit, Preclinical Research, Otsuka Pharmaceutical Co., Ltd.

P-361 **Examination of a mechanism and establishment of a screening scheme in backup compounds for the central nervous system toxicity observed in repeated dosing study of Compound X to dogs**

○ Reo KAWATA[1], Takuma TSUCHIYA[1], Mai NAKAMURA[2], Tomoki ISHIMARU[3], Hiroki NISHIHARA[4], Tetsuo YUKI[1], Yusuke YOSHIKAWA[4], Daichi OGAWA[4], Satoshi AKIYAMA[2], Yasuhiro IWATA[1], Kanako IWATA[1], Hitomi NAKATANI[1], Nobuya ISHIHARADA[1], Kaori ABE[5]
[1]Department of Investigative Toxicology, Preclinical Research, Tokushima Research Center for Drug Discovery, Otsuka Pharmaceutical Co., Ltd.,
[2]Department of CNS Research, Tokushima Research Center for Drug Discovery, Otsuka Pharmaceutical Co., Ltd.,
[3]Department of Drug Metabolism and Pharmacokinetics, Preclinical Research, Tokushima Research Center for Drug Discovery, Otsuka Pharmaceutical Co., Ltd.,
[4]Department of Medicinal Chemistry, Tokushima Research Center for Drug Discovery, Otsuka Pharmaceutical Co., Ltd.,
[5]Preclinical Research, Tokushima Research Center for Drug Discovery, Otsuka Pharmaceutical Co., Ltd.

P-362 ***In silico* screening of fragrance ingredients to discover TRPA1 antagonists**

○ Kano HIROTA[1], Yuuka SUZUKI[1], Shino OGAWA[1], Yoko MORI[2], Susumu OHKAWARA[1], Yasuyuki KITAGAWA[1], Noriyuki HATAE[1], Takashi ISOBE[1], Nobumitsu HANIOKA[1], Hideto JINNO[3], Toshiko TANAKA KAGAWA[1]
[1]Yokohama University of Pharmacy, [2]National Institute of Health Sciences, [3]Faculty of Pharmacy, Meijo University

P-363 **Intense activation of AhR is not sufficient to induce hydronephrosis in the kidneys of mouse pups**

○ Wataru YOSHIOKA, Kanta KIKUTAKE
Laboratory of Veterinary Public Health 1, Azabu University

P-364 **Fasiglifam-Induced mitochondrial swelling and its underlying mechanism**

○ Kazuma HAMADA
Biopharmaceutics and Molecular Toxicology Unit, Faculty of Pharmaceutical Sciences, Teikyo Heisei University

P-365 **Selenoprotein P attenuates cisplatin cytotoxicity identified from cisplatin-resistant proximal tubular cells**

○ Hiroki TAGUCHI[1, 2], Takashi TOYAMA[1], Hitomi FUJISHIRO[2], Daigo SUMI[2], Yoshiro SAITO[1]

[1]Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University,
[2]Faculty of Pharmaceutical Sciences, Tokushima Bunri University

P-366 **Identification of transcription factors activated by phenobarbital treatment in mouse liver using CAGE**

○ Ryota SHIZU, Aki TAKESHITA, Akira OOKA, Kouichi YOSHINARI

Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka

Cellular response

P-367 **Effects of cell-cell interactions on the expression of TRPM8, a cold-sensitive receptor with cytostatic effects**

○ Tomofumi FUJINO, Saki OHKAWA, Mizuki NAKAMURA

School of Pharmacy, Tokyo University of Pharmacy and Life Sciences

P-368 **Insolubilization of lysosomal proteins during lysosomal membrane damage**

○ Kanae MIYARA, Natsumi FUJIWARA, Futa SUZUKI, Ayaka YABUKI, Masatsugu MIYARA, Yaichiro KOTAKE

Graduate School of Biomedical and Health Sciences, Hiroshima University

P-369 **Effect of glucocorticoid receptor on the enhancement of fibrinolytic activity of vascular endothelial cells by organoantimony compounds with 1,2,3-triazole structure**

○ Takato HARA[1], Yuka IJIRI[1], Naoki AZUMA[1], Mio MATSUMURA[2], Shuji YASUIKE[2], Chika YAMAMOTO[1]

[1]Fac. Pharm. Sci., Toho Univ., [2]Sch. Pharm. Sci., Aichi Gakuin Univ.

P-370 **Identification of proteases that degrade ALDH1L2 protein involved in one-carbon metabolism in mitochondria**

○ Haruka YAMAMOTO, Misato SHIOZAWA, Shotaro KIKUCHI, Fumie ITOH, Yutaka TANAKA, Masato SASAKI

Division of Infection and Host Defense, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University

P-371 **Confirmation of $GABA_A$ receptor subunit expression by proteomic analysis of primary cultured rat cortical neurons and investigation of various drug responses acting on the receptors using the MEA system**

○ Norimasa MIYAMOTO[1, 2], Yuki SEKI[3, 4], Yuka MORIMITSU[5], Takeo KAMAKURA[5], Ikue MIHARA[1, 6], Taroumaru OKAWA[1, 6], Takashi YOSHINAGA[1]

[1]Advanced Biosignal Safety Assessment, Eisai Co., Ltd.,
[2]Laboratory of Genomics-based Drug Discovery, Faculty of Medicine, University of Tsukuba,
[3]Global Drug Safety, Eisai Co., Ltd.,
[4]Doctoral Program in Medical Sciences, Graduate School of Comprehensive Human Sciences, University of Tsukuba,
[5]Molecular Profiling Department, Eisai Co., Ltd.,
[6]Business Controlling Department, TechnoPro R&D Company TechnoPro, Inc.

P-372 Usefulness of Adeno-Associated Virus-DJ in On-Target Toxicity Studies Using Human Hepatocarcinoma Cells and Human iPS Cell-Derived Cardiomyocytes

○ Hitoshi NAKAMURA, Toshikatsu MATSUI, Tadahiro SHINOZAWA
Global Drug Safety Research and Evaluation, Preclinical and Translational Sciences, Research, Takeda Pharmaceutical Company Limited

P-373 Anti-Cancer Treatments Induce Constitutive NRF2 Activation and Confer Cisplatin Resistant in Head and Neck Squamous Cell Carcinoma

Yuki NAKAYAMA[1], ○ Keiko TAGUCHI[1, 2], Shun WAKAMORI[1], Masayuki YAMAMOTO[1]
[1]Department of Biochemistry & Molecular Biology, Tohoku Medical Megabank Organization, Tohoku University,
[2]Laboratory of Food Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo

P-374 Screening for novel compounds that inhibit aryl hydrocarbon receptor-mediated sphere formation

○ Naoya YAMASHITA[1, 2], Junpei MATSUOKA[2, 3], Noriko SANADA[2], Yasutomo YAMAMOTO[2], Gi-Wook HWANG[1], Ryoichi KIZU[2]
[1]Division of Environmental and Health Sciences, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University,
[2]Faculty of Pharmaceutical Sciences, Doshisha Women's College of Liberal Arts,
[3]School of Pharmaceutical Sciences, Kindai University

Molecular toxicology

P-375 Investigating the Pathway of PKCα in the Disruption of Endothelial Tight Junctions Induced by Blue Light

○ Ching-Hao LI, Hau-Ting CHUNG, Wang-Nok WAN
Department of Physiology, College of Medicine, Taipei Medical University, Taipei, Taiwan

P-376 Comparative Analysis of Human and Mouse Cytochrome b5 in Regulating Cytochrome P450 17A1 Activity

○ Jiyeon HONG, Hyeonseo PARK, Donghak KIM
Department of Biological Science, Konkuk University

P-377 Diclofenac-induced Rnd1 Overexpression Disrupt Kidney Tubular Integrity via Actin Cytoskeleton Destabilization

○ Hyeong Ryeol CHO[1], Ju Young LEE[1], Hyung-Sun KIM[1], Jeong Ho HWANG[1, 2]
[1]Center for Large Animals Convergence Research, Korea Institute of Toxicology, Republic of Korea,
[2]Center for Large Animals Medicine and Food, Korea Institute of Toxicology, Republic of Korea

P-378 Withdrawal

Omics

P-379 Off-Target Proteome Analysis of Thalidomide and Its Derivatives

○ Yusaku MATSUSHITA, Ryotaro BAN, Atsuya MORITA, Daichi ONOZATO, Nana KASAMORI, Takafumi KOMORI
Eisai Co., Ltd.

Biomarkers

P-380 Diacylglycerol *O*-acyltransferase 1 inhibitor increases plasma ALT and AST activities via a shedding of the intestinal villi and an increase in intestinal permeability in rats

○ Hideaki YOKOYAMA[1, 2], Taku MASUYAMA[1], Yuki TANAKA[1], Taishi SHIMAZAKI[1], Yuzo YASUI[1], Takuya ABE[1], Kouichi YOSHINARI[2]

[1]Toxicology Research Laboratories, Central Pharmaceutical Research Institute, JAPAN TOBACCO INC., [2]Laboratory of Molecular Toxicology, School of Pharmaceutical Sciences, University of Shizuoka

P-381 Study on usefulness of neurotoxicity biomarker, neurofilament light chain (NfL), in monkey toxicity study

○ Manami MIYAKE, Satomi NISHIKAWA, Takashi TATEOKA, Yoshimi INOUE, Tetsuya SAKAIRI, Takuya FUJITA

Mitsubishi Tanabe Pharma Corporation

P-382 Challenges in prediction of drug-induced convulsion in non-human primates: Improvement and Evaluation of a Convulsion Prediction Model

○ Hiroshi MIZUNO[1], Motohiro SHIOTANI[2], Kentaro HORI[3], Yusaku MATSUSHITA[1], Shoji ASAKURA[2], Takashi YOSHINAGA[1], Kohei HAYASHI[3], Takatomi KUBO[4], Manabu KANO[5]

[1]Advanced Biosignal Safety Assessment, Eisai Co., Ltd., [2]Global Drug Safety, Eisai Co., Ltd., [3]Quadlytics Inc., [4]Nara Institute of Science and Technology, [5]Kyoto University

P-383 Development of GLDH measurement reagents capable of measuring samples from various animal species

○ Yuichi NAKAGAWA, Fumie AKUTSU, Masaaki KOJIMA

FUJIFILM Wako Pure Chemical Corporation

P-384 Evaluation of species differences in the metabolism of clenbuterol metabolites in the human and livestock microsomes for anti-doping

○ Yoshikazu YAMAGISHI[1], Yuki TODA[2], Sayaka NAGASAWA[1, 3], Hirotaro IWASE[1], Yasumitsu OGRA[1, 3]

[1]Graduate School of Medicine, Chiba University, [2]Graduate School of Medicine and Pharmaceutical Sciences, Chiba University, [3]Graduate School of Pharmaceutical Sciences, Chiba University

P-385 Evaluation of diagnostic performance of circulating microRNAs as biomarkers of retinal toxicity in the rat

○ Daichi ISHII, Miharu SOEDA, Yutaka TONOMURA, Yuki NUMAKURA, Yoko KITSUNAI, Yuki OSAWA, Keiichi ASAKURA, Yasuhiro YAMASHITA

NIPPON SHINYAKU CO., LTD.

P-386 The method evaluation of measurement of muscle masses using MRI in the dexamethasone-induced muscle atrophy mice model

○ Masamitsu NAKANO[1], Shohei ITO[1], Maki TAKAHASHI[1], Akihiro KANNO[1], Takahiro NATSUME[2], Reina WATANABE[2]

[1]CMIC Pharma Science Co., Ltd., [2]Hamamatsu Pharma Research, Inc.

Toxicity-testing methods

P-387 Reference Chemical Database for Development of Alternative Testing Methods in Acute Inhalation Toxicity

○ Jung Eun LIM[1, 2], Ga Eun KIM[1], Ji Hyun YU[1, 2], Ji Yeong PARK[1, 2], Jin YOO[1, 2], In Jae BANG[1], Yu Bin HAN[1], Ha Ryong KIM[1, 2]

[1]College of Pharmacy, Korea University,
[2]Interdisciplinary Major Program in Innovative Pharmaceutical Sciences, Korea University, Sejong, South Korea

P-388 High-Throughput Environmental Water Screening Using Alternative Test Methods: Focus on Liver Adverse Outcome Pathways (AOPs) and Endocrine Disruption Effects

○ Olivia LAUTAN[1, 2], Ssu-Ning CHEN[2], Jia-Ying CHENG[2], Yan-Ping HUANG[2], Pei-Hsuan LI[2], Po-Yu CHENG[2], Rong-Jane CHEN[2]

[1]Department of Environmental and Occupational Health, National Cheng Kung University,
[2]Department of Food Safety/Hygiene and Risk Management, National Cheng Kung University

P-389 Physiological liver microtissue 384-well microplate system for preclinical hepatotoxicity assessment of therapeutic small molecule drugs

○ Anna BORGSTRÖM[1], Lola FÄS[1], Minjun CHEN[2], Weida TONG[2], Friederike WENZ[1], Nicola J. HEWITT[3], Monika TU[1], Katarzyna SANCHEZ[1], Natalia ZAPIÓRKOWSKA-BLUMER[1], Hajnalka VARGA[1], Karolina KACZMARSKA[1], Maria Vittoria COLOMBO[1], Bruno G.H. FILIPPI[1]

[1]InSphero AG, Switzerland,
[2]Division of Bioinformatics and Biostatistics, National Center for Toxicological Research (NCTR), U.S. Food and Drug Administration, Jefferson, USA,
[3]Scientific Writing Services, Erzhausen, Germany

P-390 Establishing an *in vitro* complement-activation assessment system using serum of humans and monkeys for oligonucleotide therapeutics -Collaborative Study of the Consortium for Safety Evaluation of Oligonucleotide Therapeutics-

○ Yuko NAGAYAMA[1], Manami MIYAKE[2], Akihito YAMASHITA[3], Tetsuya OHTA[2], Takuya FUJITA[2]

[1]Eisai Co., Ltd., [2]Mitsubishi Tanabe Pharma Corporation, [3]Astellas Pharma Inc.

P-391 A Novel *in vitro* Toxicity Assay for Predicting Acute Inhalation Toxicity in Rats

○ Arpamas VACHIRAARUNWONG[1], Min GI[1], Masaki FUJIOKA[2], Shugo SUZUKI[2], Guiyu QIU[1], Runjie GUO[1], Ikue NOURA[2], Anna KAKEHASHI[2], Kwanchanok PRASEATSOOK[1, 3], Hideki WANIBUCHI[1, 2]

[1]Department of Environmental Risk Assessment, Osaka Metropolitan University, Graduate School of Medicine,
[2]Department of Molecular Pathology, Osaka Metropolitan University, Graduate School of Medicine,
[3]Department of Biochemistry, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

P-392 Development of oxidative stress and lipid accumulation assays and prediction of DILI using *in vitro* multi-assay

○ Ryo FUJINO, Koichi SHIBUSAWA, Toshiyuki TANAKA

SEKISUI MEDICAL CO., LTD.

P-393 Effects of single and repeated forced oral administration of allyl alcohol on the liver in zebrafish

○ Naomi FUJIWARA[1], Satoshi FURUKAWA[2], Yukiko NAKAJIMA[1], Shiro TOYOHISA[1], Yasushi MISAWA[2], Kazuya TAKEUCHI[2]

[1]KOBELCO ECO-SOLUTION CO.,LTD., [2]Nissan Chemical Corporation

P-394 Pharmacokinetics of caffeine in zebrafish after forced oral and intraperitoneal administration

○ Shiro TOYOHISA[1], Yasushi MISAWA[2], Yukiko NAKAJIMA[1], Naomi FUJIWARA[1], Kazuya TAKEUCHI[2], Satoshi FURUKAWA[2]
[1]KOBELCO ECO-SOLUTIONS CO.,LTD, [2]Nissan Chemical Corporation

P-395 Machine Learning-Driven Cell Painting Assay for Predicting Drug-induced Liver Toxicity

○ Wenlong WANG, Kosuke HARADA, Hideto HARA, Tomoya SAMESHIMA, Tadahiro SHINOZAWA
Drug Safety Research and Evaluation, Takeda Pharmaceutical Company Limited

P-396 Potential for Drug Responsiveness Evaluation Based on Morphology Using Three-Dimensional Cell Aggregates with Different Shapes

○ Yoshihiko WATANABE[1, 2], Kyoko KUMAGAI[1, 2], Nobuhiko KOJIMA[1, 2]
[1]Ecocell Co., Ltd, [2]Graduate School of Nanoscience, Yokohama City University

P-397 Evaluation of chlorpromazine-induced cholestasis using PXB-cells and liver slices of PXB-mice

○ Mikaru YAMAO[1], Yuko OGAWA[1], Suzue FURUKAWA[1], Yuji ISHIDA[1, 2], Katsuhiro ESASHIKA[3], Jun TAKAHASHI[3], Chise TATENO[1, 2]
[1]PhoenixBio Co., Ltd., [2]Research Center for Hepatology and Gastroenterology, Hiroshima University, [3]Mitsui Chemicals, Inc.

P-398 Quantitative translational gene editing hazard assessment in human and cynomolgus macaque hepatocytes

○ Seiji ISHIHARA[1], Dakota ROBARTS[2], Tom LANZ[3], Yangfang FU[4], Matt MARTIN[2], Elias OZIOLOR[2]
[1]Pfizer R&D Japan Drug Safety Research & Development,
[2]Computational Safety Sciences, Drug Safety Research and Development, Pfizer, Inc.,
[3]Multiomics and Biomarkers, Drug Safety Research and Development, Pfizer, Inc.,
[4]Gene Editing, Emerging Science and Innovations, Pfizer, Inc.

P-399 Rundown correction in $Ca_v1.2$ channels: a proposal for a novel testing approach

○ Hiromu AMANO[1], Mayumi OBO[1], Hiromi NEGISHI[1], Yoshio MATSUMOTO[1], Minami ARAYAMA[1], Atsushi SUGIYAMA[2, 3, 4]
[1]Mediford Corporation, [2]Faculty of Medicine, Toho University, [3]Yamanashi Research Center of Clinical Pharmacology, [4]Internal Medicine, Koshu Rehabilitation Hospital

P-400 Prediction of Toxicity of Anticancer Drugs Using Human Pluripotent Stem Cells with StemPanTox-alpha

○ Dagjidsuren B BATTSETSEG, Maresuke SEGAWA, Tsunehiko HONGEN, Ryusei KUSAKABE, Hideko SONE
Graduate School of Pharmaceutical Sciences, Yokohama University of Pharmacy

P-401 Development of a Toxicity Testing Method using Electrical Tomography

○ Daisuke KAWASHIMA[1], Satoshi OGASAWARA[2], Takeshi MURATA[2], Masahiro TAKEI[1]
[1]Graduate School of Engineering, Chiba University, [2]Graduate School of Science, Chiba University

P-402 Evaluation of cell irritation by bisphosphonates using an *in vitro* test system

○ Tomoko NAMIKAWA, Arina UCHIYAMA, Yuu MORITA, Yoshiyuki TANAKA
Sawai Pharmaceutical Co., Ltd.

P-403 Development of highly sensitive methods for detecting cardiotoxicity and predicting its mechanism of action using by UHD-CMOS-MEA

○ Nami NAGAFUKU, Naoki MATSUDA, Yuto ISHIBASHI, Ikuro SUZUKI
Department of Electronics, Tohoku Institute of Technology

Toxicokinetics

P-404 Questionnaire survey on strategies for with metabolites evaluation: Human mass balance studies and safety assessment of metabolites

○ Shunji KURIBAYASHI[1, 11], Tomoyuki KISHIDA[2, 11], Takuya KUNO[3, 11], Miyuki TAMURA[4, 11], Tuneo DEGUCHI[5, 11], Makoto NIWA[6, 11], Masayo HASHIMOTO[3, 11], Shinya HOSAKA[7, 11], Takafumi MUTO[8, 11], Yuu MORIYA[9, 11], Yuki INOUE[3, 11], Mutsumi SUZUKI[10, 11]
[1]Otsuka Pharmaceutical Factory, Inc., [2]Kissei Pharmaceutical Co., Ltd., [3]Otsuka Pharmaceutical Co., Ltd., [4]SANWA KAGAKU KENKYUSHO CO., LTD., [5]Daiichi Sankyo Co., Ltd., [6]Nippon Shinyaku Co., Ltd., [7]KAKEN PHARMACEUTICAL CO., LTD., [8]TAIHO PHARMACEUTICAL CO., LTD., [9]Takeda Pharmaceutical Company Limited, [10]Kyowa Kirin Co., Ltd., [11]KT4, Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association

P-405 Evaluation of oral exposure increase for poorly soluble compounds with dissolution-improving formulations

○ Teruki HAMADA[1], Toshiko HAYASHI[1], Yuki UMEMORI[2], Yukako MINAMI[2], Mari YASUI[2], Satsuki CHIKURA[2], Seiji YAMASAKI[1], Michiharu KAGEYAMA[2], Ryo MATSUYAMA[2], Yutaka NAKANISHI[1], Fumihiro JINNO[1], Nobuyuki AMANO[1], Tomomi IZUMIDA[2], Kazunobu AOYAMA[1]
[1]Axcelead Drug Discovery Partners, Inc., [2]Axcelead Tokyo West Partners, Inc.

Toxicologic pathology

P-406 Repeated Dose Toxicity Assessment of a SARS-CoV2 mRNA Vaccine Candidate in Cynomolgus macaque (Macaca fascicularis)

○ Byeong-Cheol KANG[1, 2], Jae-Hun AHN[2], Na-Young LEE[2, 3], Hee-Jin BAE[1, 2], Euna KWON[2], Ji-Eun KIM[2], Gyochang KEUM[4], Jun-Won YUN[3], Jae-Hwan NAM[5]
[1]Seoul National University College of Medicine, [2]Biomedical Research Institute, Seoul National University Hospital, [3]College of Veterinary Medicine, Seoul National University, [4]Brain Science Institute Korea Institute of Science and Technology, [5]The Catholic University of Korea

P-407 The strategy of incorporating the histopathological examination into the Bovine Corneal Opacity and Permeability (BCOP) test - For optimization of histopathological findings -

○ Yukie ABIKO
Safety Research Institute for Chemical Compounds Co., Ltd.

P-408 Pathological analyses of compound-induced lesions leading to marked vacuolation in the central nervous system based on astrocytic dysfunction

○ Junichi SUGIYAMA[1, 2], Hideki TANAKA[1], Shota YOSHIDA[1], Mitsuru KUWAMURA[2]
[1]Preclinical Basic Research, Discovery and Preclinical Research Division, TAIHO Pharmaceutical Co., Ltd., [2]Osaka Metropolitan University, Laboratory of Veterinary Pathology

P-409 Histopathological analysis of the effects of acrylamide or cycloheximide on the rat pineal gland

○ Hirofumi HATAKEYAMA[1, 2], Satoshi INOUE[2], Miki MASATSUGU[2], Riko ITO[2], Kouji OONO[2], Toko MAEHARA[2], Hiroshi SATOH[2]

[1]SNBL INA Ltd.,
[2]Veterinary Pharmacology and Toxicology Laboratory, Graduate School of Veterinary Sciences, Iwate University

Alternatives to mammalian models

P-410 Applying IATA and OECD-Based Alternative Testing Methods for Chemical Substance Registration

○ Ya-Ling YEH[1, 3], Ssu-Ning CHEN[2, 3], Chia-Chi TSENG[1, 3], Olivia LAUTAN[1, 3], Yu-Ying CHEN[1, 3], Yung-Hsuan CHENG[1, 3], Tzu-Ning LI[1, 3], Zi-Yu CHEN[1, 3], Rong-Jane CHEN[2, 3], Ying-Jan WANG[1, 3]

[1]Department of Environmental and Occupational Health, College of Medicine, National Cheng Kung University, Tainan, Taiwan,
[2]Department of Food Safety/Hygiene and Risk Management, College of Medicine, National Cheng Kung University, Tainan, Taiwan,
[3]3Rs Alternative Testing Industry-Academia Alliance, National Cheng Kung University, Tainan, Taiwan

P-411 Development of a high-throughput fluorometric assay for screening skin-sensitizing chemicals using N-acetyl-L-cysteine methyl ester *in chemico*

○ Rahul Upadhyay NEPAL, Tae Cheon JEONG

College of Pharmacy, Yeungnam University

P-412 Elucidating the Ca^{2+} dynamics of a Cardiac Alternans tissue model created from human iPSC-derived cardiomyocytes

○ Yuto HINATA[1], Daisuke SASAKI[2], Katsuhisa MATSUURA[2, 3], Tatsuya SHIMIZU[2]

[1]Ogino Memorial Laboratory, Nihon Kohden Corporation,
[2]Institute of Advanced Biomedical Engineering and Science, TWIns, Tokyo Women's Medical University,
[3]Department of Pharmacology, Tokyo Women's Medical University

P-413 Applicability of our newly developed consensus model in predicting skin sensitization by combining multiple alternative methods

○ Mika IMAMURA[1], Koji TAKAKU[2], Ryoichi MURAKAMI[3], Masakazu TATESHITA[3], Yasushi HIKIDA[3]

[1]Safety Evaluation Center, Ecology & Quality Management Division, ESG Division, FUJIFILM Corporation,
[2]CRO Business Development Office, FUJIFILM Corporation,
[3]Imaging & Informatics Laboratories, ICT Strategy Division, FUJIFILM Corporation

P-414 Efforts Towards Alternative Systemic Toxicity Assessment Through Precise Plasma Concentration Prediction Based on a Two-Layer Skin Model

○ Shunta SHIGEMURA, Shimpei TERASAKA, Yuichi ITO, Kazutoshi SAITO

Safety Science Resarch Laboratories, Kao Corporation

P-415 Predicting dermal absorption using Hansen Solubility Parameters (HSP)

○ Yuki SUZAWA, Shigeyuki NOMURA, Kentaro YOSHIKAWA, Megumi SAKUMA, Makoto MIZUNO

KOSE Coporation

P-416 Study for risk-based approach toward expanding the applicability domain of *in vitro* skin irritation assessment

○ Mami KAWAI[1], Maki NAKAMURA[2], Mamoru SUGIHARA[2], Shinji SAKANE[3], Kazuhiko UMESHITA[3], Kei YAMAMOTO[3], Mitsuko HATANAKA[4], Hiromichi MITAKE[4], Daisuke MURAMATSU[5], Kenichi TAKANO[5], Hideki NISHIURA[6], Hayato YAMAOKA[6], Masaya ITO[6], Hidefumi IKEDA[7], Masayuki TAKAISHI[7], Tetsuo FURUNO[1], Noriyasu IMAI[8], Mariko SUGIYAMA[9], Morihiko HIROTA[10]

[1]Rohto Pharmaceutical Co.,Ltd., [2]Kobayashi Pharmaceutical Co., Ltd., [3]Sunstar Inc., [4]Japan Tissue Engineering Co., Ltd., [5]DRC CO., LTD., [6]TOA Inc. (ex/ Nihon Kolmar Co., Ltd.), [7]Mandom Corporation, [8]KOSÉ Corporation, [9]General Incorporated Association SSCI-Net, [10]Japan Cosmetic Industry Association / Shiseido Brand Value R&D Institute

P-417 Development of the nephrotoxicity evaluation system by nucleic acid drugs using 3D-cultured human renal proximal tubule epithelial cells Expansion of evaluation compounds and biomarker research

○ Kaoru MORIMURA, Etsushi TAKAHASHI, Hayata MAEDA, Yukiko NISHIOKA, Ayano ARAKI, Yoichi JIMBO

SectionII Bio Business Promotion Department Medical Division, Nikkiso Co. Ltd

P-418 Multisite validation study of nephrotoxicity evaluation model using 3D-cultured human renal proximal tubule epithelial cells (3D-RPTEC)

○ Etsushi TAKAHASHI[1], Hanwei PENG[2], Hiroshi ARAKAWA[2], Kohei MATSUSHITA[3], Takafumi YOTSUMOTO[4], Noriko UCHIYAMA[5], Shunsuke OZAWA[6], Takashi KITAGUCHI[7], Takami SARASHINA[8], Koichi SHIBUSAWA[8], Yuya ASANO[9], Hiroyuki KOBAYASHI[9], Yoichi JIMBO[1]

[1]Bio Business Promotion Department, Medical Division, NIKKISO CO., LTD., [2]Faculty of Pharmaceutical Sciences, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, [3]Division of Pathology, National Institute of Health Sciences, [4]Daiichi Sankyo Co., Ltd., [5]Mitsubishi Tanabe Pharma Corporation, [6]KYORIN PHARMACEUTICAL CO., LTD., [7]Global Food Safety Institute, NISSIN FOODS HOLDINGS CO., LTD., [8]SEKISUI MEDICAL CO., LTD., [9]Nihon Bioresearch Inc.

P-419 Evaluation of the Predictive Accuracy of *In Silico* Tools for NOAEL Prediction

○ Junko NARITA, Shigeyuki NOMURA, Satoru MIYAZAWA, Megumi SAKUMA

KOSÉ Corporation

Animal model

P-420 Development of SARS-CoV-2 infectious animal models and analysis of pathophysiological trait

○ Sung-Hee KIM, Haengdueng JEONG, Jiseon KIM, Donghun JEON, Chanyang UHM, Kyungrae CHO, Heejoo OH, Yejin CHO, Kyunghee NAM, Yumi KIM, Mina LEE, Ki Taek NAM

Severance Biomedical Science Institute, Medical Science, Yonsei University College of Medicine, Seoul

P-421 Standardizing Non-rodent Animal Models: Monkey for Choroidal Neovascularization and Rabbit for Retinal Neovascularization

○ Hua LI, Hang SU, Yong MENG, Hua MEI

Shanghai InnoStar Bio - tech Co., Ltd.

P-422 Humanized B-hIL4/hIL4RA Mice Model for Efficacy and Toxicity Evaluation

Shan Shan NIU, Song ZHAO, Chonghui LIU, ○ Xiaofei ZHOU

Biocytogen Pharmaceuticals (Beijing) Co., Ltd.

P-423 Comparison of tumor incidence in inflammatory colon carcinogenesis mouse model between 2 strains

○ Saeko HAMANAKA, Norio IMAI, Hiroyasu MURASAWA, Tadashi ITO, Jun IMAI, Tetsuya YAMADA, Miki SUGIYAMA, Takahiko NAGASE
Nihon Bioresearch Inc.

P-424 Validation of a human model of cell proliferation through nuclear accumulation of YAP by administration of Phenobarbital

○ Shun SUGAYA, Yukako SHIMOTSUMA, Satoki FUKUNAGA, Hiroyuki ASANO
Sumitomo Chemical Co., Ltd. Environmental Health Science Laboratory

P-425 Evaluation of Anticancer Drugs and Tumor Microenvironment in an Endoscopic Orthotopic Lung Cancer Model

○ Chiyoko NISHIME, Eiko NISHINAKA, Masayuki KOMATSU, Toshio IMAI, Misa MOCHIZUKI, Kenji KAWAI, Hitomi SATOU, Sunao YAMAUCHI, Taichi YAMAMOTO, Masami SUZUKI
Central Institute for Experimental Medicine and Life Science Translational Research Division

P-426 Background data on various neuropathic pain models: Evaluation of pain responses to mechanical stimulation

○ Hiroyuki ABE, Shotaro HORI, Tatsuya HATTORI, Akihito ITO, Ayahito KIMURA, Hiroshi SAKONJO
NISSEI BILIS Co., Ltd.

P-427 Pathogenetic analysis of pancreatic tumor-specific *Bmal1* knockout mice

○ Makoto SANO[1, 2], Jinsuk KIM[2], Yukino OSHIMA[2], Tomoaki ITAYA[2], Ichie KAJIWARA[2], Tomoya KURAMOCHI[2], Taira WADA[3], Takahiro NAKAMURA[4], Shigeki SHIMBA[3], Hideaki IJICHI[5], Takahiro SUZUKI[2]
[1]Department of Toxicological Test Methodology Development, Hazard Evaluation Test and Research Area, National Institute of Occupational Safety and Health,
[2]Department of Anesthesiology, Nihon University School of Medicine,
[3]Laboratory of Health Science, Nihon University School of Pharmacy,
[4]Laboratory of Animal Physiology, School of Agriculture, Meiji University,
[5]Department of Gastroenterology, Graduate School of Medicine, The University of Tokyo

P-428 Evaluation of peripheral edema by endothelin receptor antagonists using a rat diuresis model

○ Toshinori MORITANI, Masanari YOSHIMOTO, Serina ITO, Tomoko NAGAO, Takuya AKASHI, Shotaro HORI, Ayahito KIMURA
NISSEI BILIS Co., Ltd., Shiga Laboratory

P-429 Analysis of Tumor Growth and Distribution of Human Leukemia Cells (K562-Luc) in an Orthotopic Mouse Model Using IVIS Imaging

○ Takashi TAKANO[1], Yutaka NAKAHARA[1], Yuka SASAKI[1], Jun TSUCHIDA[1], Shinya SHIMAZU[2], Keisuke HANDA[2], Hitoshi KATOU[1], Tsuyoshi HIGUCHI[1]
[1]Research Unit II, Kumamoto Laboratories, Mediford Corporation,
[2]Research Unit I, Kumamoto Laboratories, Mediford Corporation

P-430 The evaluation of Humanized Mice Model Using Flow Cytometry

○ Jun TSUCHIDA, Takashi TAKANO, Yuka SASAKI, Hitoshi KATOU, Tsuyoshi HIGUCHI
Research Unit II, Drug Discovery Innovation Center, Mediford Corporation

Epidemiology

P-431 Assessment of Blood PFAS Levels and Their Impact on Glycosylated Hemoglobin in the Korean Population: A Focus on Gender Differences in Exposure Effects

○ Yong-Dae KIM[1], Sang-Yong EOM[1], Sun-Haeng CHOI[1], Seonmi HONG[1], Byung-Sun CHOI[2], Hyeon-Jeong LIM[1], Young-Seoub HONG[3], Hyunjin SON[3], Kwan LEE[4], Won-Ju PARK[5], Jae-Seok SONG[6], Nam-Jun KIM[6], Hyo-Jeong HWANG[7]

[1]Dept. of Preventive Medicine, College of Medicine, Chungbuk National University,
[2]Dept. of of Preventive Medicine, College of Medicine, Chung-Ang University, Seoul, Korea,
[3]Dept. of Preventive Medicine, College of Medicine, Dong-A University, Busan,
[4]Dept. of Preventive Medicine, Dongguk University College of Medicine, Gyeongju, Korea,
[5]Dept. of Occupational and Environmental Medicine, Chonnam National University Hwasun Hospital, Hwasun, Korea,
[6]Dept. of Preventive Medicine, College of Medicine, Catholic Kwandong University, Gangneung, Korea,
[7]Dept. of Food and Nutrition, Sahmyook University, Seoul, Korea

P-432 Association of Dietary Pattern with Oxidative Stress and Pediatric Hearing Loss among school-aged children

○ Chia-Huang CHANG[1], Ming-Zhen CHUANG[1], Chun-Ting LU[1], Tai-Ling CHEN[2], Chen-Wei CHANG[3], Yu-Lin YU[3]

[1]School of Public Health, Taipei Medical University, [2]Department of Otorhinolaryngology, Ren-Ai Branch, Taipei City Hospital,
[3]Department of Speech-Language Pathology and Audiology, National Taipei University of Nursing and Health Sciences

P-433 Safety Signal Detection And Patient Profile Heterogeneity In Multiple Indication Drugs

○ Atsushi MIDORIKAWA[1], Nikola PANAJOTOVIKJ[2], Adria Torras FERNANDEZ[2], Ricard Serna GARCIA[2], Jordi MESTRES[2]

[1]World Fusion Co., LTD., [2]Chemotargets SL.

P-434 International Trends in Adverse Drug Event-Related Mortality (2001–2019): An Analysis of the WHO Mortality Database

○ Tsukasa HIGASHIONNA[1, 2], Hirofumi HAMANO[2], Yoshito ZAMAMI[2], Toshihiro KOYAMA[1]

[1]Department of Health Data Science, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University,
[2]Okayama University Hospital

Clinical toxicology

P-435 Evaluation of Cut-off Values in Acute Paracetamol Poisoning for Safe Termination of N-acetylcysteine

○ Kyungman CHA[1], Dahae KIM[1], Jeeyong LIM[2]

[1]Department of Emergency Medicine, Suwon St. Vincent Hospital, The Catholic University of Korea,
[2]Department of Emergency Medicine, Seoul St. Mary's Hospital, The Catholic University of Korea

Risk assessment and communication

P-436 Leveraging high-throughput transcriptomics for mixture risk assessment of perfluoroalkyl substances in human biomonitoring

○ Yi-Jun LIN[1, 2], Yi CHUANG[3]

[1]Institute of Food Safety and Health Risk Assessment, College of Pharmaceutical Sciences, National Yang Ming Chiao Tung University, Taiwan,
[2]National Institute of Environmental Health Sciences, National Health Research Institutes, Taiwan,
[3]Institute of Environmental and Occupational Health Sciences, College of Public Health, National Taiwan University, Taiwan

P-437 Image-Based Zernike Moment Descriptor for Robust Molecular Similarity Capture and Enhanced Read-across/QSAR in Toxicology

○ Yusun SHIN, Ok-Nam BAE
College of Pharmacy, Hanyang University

P-438 Updates to the 'Dokuseishiken Yougosyuu' and Development of a Usable Terminology Database

○ Takuya NISHIMURA[1], Yoko HIRABAYASHI[1], Kumiko OGAWA[1], Satoshi TSUNODA[2], Mutsumi SUZUKI[3, 4], Gen SATO[3, 5], Takeshi TOYODA[1], Yuhji TAQUAHASHI[1]
[1]National Institute of Health Sciences (NIHS), Center for Biological Safety and Research (CBSR), [2]Pharmaceuticals and Medical Devices Agency (PMDA), [3]Japan Pharmaceutical Manufacturers Association (JPMA), [4]Kyowa Kirin Co., Ltd., [5]Eisai Co., Ltd.

P-439 Safety assessment of pharmaceuticals from a non-clinical perspective in review for market authorization

○ Aiko TAKASU, Takasumi SHIMOMOTO, Jihei NISHIMURA, Keiji HIRABAYASHI, Mahiro EGASHIRA, Mizuho SUZUKI, Misaki NAOTA
Pharmaceuticals and Medical Devices Agency, Toxicology

P-440 Evaluation of sleep disorders induced by single intraperitoneal administration of tramadol in rats using Electroencephalography (EEG) analysis

○ Kota NAKAJIMA[1], Motohiro SHIOTANI[1], Yuki SEKI[1], Shoji ASAKURA[1], Kazumasa AOYAMA[2]
[1]Global Drug Safety, Eisai Co., Ltd., [2]Group3, Pharmacological Evaluation Unit, Tsukuba Division, Sunplanet Co.,Ltd.

P-441 International efforts in safety assessment of nanomaterials contained in food products

○ Akiko OHNO[1], Junichi AKAGI[2], Norimasa TAMEHIRO[3], Akihiko HIROSE[4], Kumiko OGAWA[2]
[1]Division of Genome Safety Science, Center for Biological Safety & Research, National Institute of Health Sciences, [2]Division of Pathology, Center for Biological Safety & Research, National Institute of Health Sciences, [3]Division of Biochemistry, National Institute of Health Sciences, [4]Chemicals Evaluation and Research Institute

P-442 Investigation on the Use of Non-human Primates in Approved Drugs in Japan and Opportunities for Alternative Methods

○ Takuma IGUCHI[1, 2], Chinami ARUGA[1, 3], Miki ISHINO[1, 4], Keiko MOTOYAMA[1, 5], Hitoshi NARAOKA[1, 6], Mutsumi SUZUKI[1, 7]
[1]Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association, [2]Daiichi Sankyo Co., Ltd., [3]Mitsubishi Tanabe Pharma Corporation, [4]FUJIFILM Toyama Chemical Co., Ltd., [5]Janssen Pharmaceutical K.K. , [6]Astellas Pharma Inc., [7]Kyowa Kirin Co., Ltd.

P-443 Health-based guidance values for carbendazim based on quantitative analysis of *in vivo* micronucleus formation

○ Takako ISO[1], Takaaki UMANO[1], Yasumasa MURATA[1], Nozomu HIROSE[1], Michiko WAKAYAMA[1], Kei-Ichi SUGIYAMA[2], Kenichi MASUMURA[1], Mariko MATSUMOTO[1]
[1]Division of Risk Assessment, Center for Biological Safety and Research, National Institute of Health Sciences (NIHS), [2]Division of Genome Safety Science, Center for Biological Safety and Research, National Institute of Health Sciences (NIHS)

P-444 Screening of Organic Cyanide Compounds Looking Toward Revising Inclusive Specification as Deleterious Substances

○ Nozomu HIROSE, Takaaki UMANO, Yasumasa MURATA, Takako ISO, Michiko WAKAYAMA, Mariko MATSUMOTO
National Institute of Health Sciences

Information technology, AI, and big data

P-445 Toxicity study database construction improved by using SEND format

○ Ayako SAGISAKA, Kentarou KUBOTA, Koichi GOTO, Kazunori FUJIMOTO, Yoshimi TSUCHIYA
Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.

P-446 Information extraction using AI: Identification of skin sensitization data through natural language processing

○ Yuri HATAKEYAMA, Takumi NUKAGA, Haruna TAHARA, Tomoka HISAKI, Akiko TAMURA
SHISEIDO CO., LTD. Brand Value R&D Institute

P-447 Development of an AI Algorithm for the Automatic Detection and Classification of Rat Bone Marrow Cells

○ Naohito YAMADA, Yusuke SUZUKI, Takuya ABE, Chizuru MATSUURA, Taishi SHIMAZAKI, Takuya MATSUI, Tadakazu TAKAHASHI, Toshiyuki SHODA
JAPAN TOBACCO INC., Toxicology Res. Lab.

P-448 Report of AI Pathology Task Force, Non-clinical Evaluation Expert Committee, JPMA Mapping of Vendors' Expertise to the Development Process of a New AI Pathology Platform

○ Satoru KAJIKAWA[1, 2], Emi TOMIKAWA[1, 3], Yusuke KAGAWA[1, 4], Miyoko OKADA[1, 5], Shino KUMABE[1, 6], Masaki YAMAZAKI[1, 7], Akira INOMATA[1, 8], Gen SATO[1, 9], Mutsumi SUZUKI[1, 10]
[1]AI Pathology Task Force, Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceuticals Manufacturers Association,
[2]Astellas Pharma Inc., [3]Toray Industries, Inc., [4]Novartis Pharma K.K., [5]Janssen Pharmaceutical K.K.,
[6]Nippon Shinyaku Co., Ltd., [7]Chugai Pharmaceutical Co., Ltd., [8]FUJIFILM Toyama Chemical Co., Ltd., [9]Eisai Co., Ltd.,
[10]Kyowa Kirin Co., Ltd.

P-449 Development of rat hepatotoxicity prediction models and improvement of interpretability by visualizing the basis for prediction: aiming for the use of machine learning in chemical safety assessment

○ Koji JOJIMA, Takashi YAMADA, Mahito FUJII, Kenichi MASUMURA
Division of Risk Assessment, National Institute of Health Sciences

P-450 Skin sensitization *in silico* consensus models based on multiple Key Events using rule-based models, LLNA and GPMT statistics-based models

○ Ryoichi MURAKAMI[1], Mika IMAMURA[2], Masakazu TATESHITA[1], Satoshi SUGIYAMA[1], Yuka MATSUMOTO[1], Hajime KOJIMA[3], Yasushi HIKIDA[1]
[1]Imaging & Informatics Laboratories, FUJIFILM Corporation,
[2]Safety Evaluation Center, Ecology & Quality Management Div., ESG Div., FUJIFILM Corporation,
[3]Department of Pharmaceutical Engineering, Faculty of Engineering, Sanyo-Onoda City University, Yamaguchi, Japan

P-451 Report from VCG Discussion Team, Non-clinical Evaluation Expert Committee, JPMA (1) Introduction to Our Activities on Virtual Control Group (VCG) in the JPMA and Prospects

○ Gen SATO, Keisuke UCHIDA, Kuniyoshi SAKAI, Takao KUROOKA, Takahiro AYA, Yuki INOUE, Ikuro TAKAKURA, Tetsuyoshi SOH, Yuta FUJII, Makoto SHIRAI, Yuichiro AMANO, Satomi NISHIKAWA, Naoki KOYAMA, Takashi TANAHARU, Akio KAWAKAMI, Keiko MOTOYAMA, Tomomi OE, Kiyohiro HASHIMOTO, Mutsumi SUZUKI

Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association (JPMA)

P-452 Report from VCG Discussion Team, Non-clinical Evaluation Expert Committee, JPMA (2): Interpretation of Statistical Analysis with VCG in Toxicity Study and Potential Application of ASCG

○ Ikuro TAKAKURA[1, 2], Yuichiro AMANO[1, 3], Takashi TANAHARU[1, 4], Keiko MOTOYAMA[1, 5], Satomi NISHIKAWA[1, 6], Takao KUROOKA[1, 7], Kuniyoshi SAKAI[1, 8], Gen SATO[1, 9], Kiyohiro HASHIMOTO[1, 3], Mutsumi SUZUKI[1, 10]

[1]Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association (JPMA), [2]Kissei Pharmaceutical Co., Ltd.,
[3]Takeda Pharmaceutical Company Limited, [4]Bristol-Myers Squibb K.K., [5]Janssen Pharmaceutical K.K.,
[6]Mitsubishi Tanabe Pharma Corporation, [7]EA Pharma Co., Ltd., [8]ASKA Pharmaceutical Co., Ltd., [9]Eisai Co., Ltd.,
[10]Kyowa Kirin Co., Ltd.

P-453 A report from the VCG Discussion Team Non-clinical Evaluation Expert Committee, JPMA (3) A case study of virtual control group verification using historical control data at a single facility

○ Yuichiro AMANO[1, 2], Hideto HARA[2], Ikuro TAKAKURA[1, 3], Takashi TANAHARU[1, 4], Keiko MOTOYAMA[1, 5], Satomi NISHIKAWA[1, 6], Takao KUROOKA[1, 7], Kuniyoshi SAKAI[1, 8], Gen SATO[1, 9], Kiyohiro HASHIMOTO[1, 2], Mutsumi SUZUKI[1, 10]

[1]Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association (JPMA),
[2]Takeda Pharmaceutical Co., Ltd., [3]Kissei Pharmaceutical Co., Ltd., [4]Bristol-Myers Squibb K.K., [5]Janssen Pharmaceutical K.K.,
[6]Mitsubishi Tanabe Pharma Corporation, [7]EA Pharma Co., Ltd., [8]ASKA Pharmaceutical Co., Ltd., [9]Eisai Co., Ltd.,
[10]Kyowa Kirin Co., Ltd.

P-454 Report from VCG Discussion Team, Non-clinical Evaluation Expert Committee, JPMA (4) Survey Results on Pathological Evaluation when Introducing VCG

○ Satomi NISHIKAWA[1, 2], Keisuke UCHIDA[1, 3], Kuniyoshi SAKAI[1, 4], Gen SATO[1, 5], Yuta FUJII[1, 6], Makoto SHIRAI[1, 7], Kiyohiro HASHIMOTO[1, 8], Mutsumi SUZUKI[1, 9]

[1]Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association (JPMA),
[2]Mitsubishi Tanabe Pharma Corporation, [3]Asahi Kasei Pharma Corporation, [4]ASKA Pharmaceutical Co., Ltd., [5]Eisai Co., Ltd.,
[6]Sumitomo Pharma Co., Ltd., [7]Daiichi Sankyo Co., Ltd., [8]Takeda Pharmaceutical Company Limited, [9]Kyowa Kirin Co., Ltd.

P-455 A report from the VCG Discussion Team Non-clinical Evaluation Expert Committee, JPMA (5) Current situations and challenges in implementing virtual control groups: Survey results from stakeholders

Naoki KOYAMA[1, 2], ○ Takahiro AYA[1, 3], Akio KAWAKAMI[1, 4], Ikuro TAKAKURA[1, 5], Tetsuyoshi SOH[1, 6], Tomomi OE[1, 7], Kuniyoshi SAKAI[1, 8], Gen SATO[1, 9], Kiyohiro HASHIMOTO[1, 10], Mutsumi SUZUKI[1, 11]

[1]Non-Clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association (JPMA),
[2]Chugai Pharmaceutical Co., Ltd., [3]MSD K.K., [4]Merck Biopharma Co., Ltd., [5]Kissei Pharmaceutical Co., Ltd., [6]Shionogi & Co., Ltd., [7]Wakamoto Pharmaceutical Co., Ltd., [8]ASKA Pharmaceutical Co., Ltd., [9] Eisai Co., Ltd., [10]Takeda Pharmaceutical Company Limited, [11]Kyowa Kirin Co., Ltd.

P-456 Deep Learning-Based Image Analysis Model for Detecting Unlearned Findings in Early Toxicity Screening Studies

○ Takayuki TSUCHIYA[1], Thomas FOREST[1], Roujia WANG[1], Tiffany JENKINS[1], Janardhan KYATHANAHALLI[1], Geetank RAIPURIA[2], Nitin SINGHAL[2]

[1]Merck & Co., Inc., Rahway, NJ, USA, [2]AIRA Matrix Private Limited, Mumbai, India

P-457 Evaluation of the Generation Method for Virtual Control Groups Using In-house Historical Control Data

○ Hideto HARA, Takeshi WATANABE, Tomoya SANO, Yuichiro AMANO

Drug Safety Research and Evaluation, Takeda Pharmaceutical Company Limited

P-458 Identification of strong sensitizers/non-sensitizers using Learning to Rank models

○ Takaho ASAI, Kei YAMAMOTO, Kazuhiko UMESHITA, Yasuo NAKASHIMA, Shinji SAKANE

Safety & Analysis, R&D Support, Sunstar Inc.

P-459 SENDIG-DART v1.2: Updates from v1.1 and introduction to the SEND data checklist

○ Tohru SEKIDO[1, 2], Takashi UOTA[1, 3], Tadashi USHIMARU[1, 4], Yoshihumi KANEKO[1, 5], Akito SAKAMOTO[1, 6], Koichi SATO[1, 7], Gen SATO[1, 2], Matsuki TSUCHIYA[1, 8], Chihiro NAKAZAWA[1, 2], Takashi NAKAJIMA[1, 4], Atsushi HAMADA[1, 9], Misa MATSUMURA[1, 10], Takayuki YASUDA[1], Yuta SAKAKIBARA[1]

[1]CDISC Japan User Group SEND Team, [2]Eisai Co., Ltd., [3]EPS Corporation, [4]SNBL INA Ltd., [5]KYORIN Pharmaceutical Co., Ltd., [6]Mediford Corporation, [7]Takumi Information Technology Inc., [8]FUJITSU LIMITED, [9]Japan Tobacco Inc., [10]SHIONOGI & CO., LTD.

P-460 Investigation of off-target toxicity risk assessment using large language models

○ Makoto SHIRAI, Masako IMAOKA, Yoshimi TSUCHIYA

Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.

P-461 29-Hour Continuous QT Analysis of Non-Human Primate Data Using Jacketed External Telemetry (JET) with AI

○ Kaoru HATANO[1], Hiroki TADA[1], Tsuyoshi UCHINO[2], Daisuke MATSUSHITA[2], Masaaki BAN[2], Tetsuya YOSHIKAWA[2], Tatsuya JIKUZONO[2], Mineki TAKECHI[1], Yuichi TAMURA[1]

[1]Cardio Intelligence Inc., [2]Shin Nippon Biomedical Laboratories (SNBL), Ltd.

P-462 Determination of SEND Scope with a Flowchart based on FDA's Study Data Technical Compliance Guide in anticipation of mandatory submission of SEND Data Packages for Genotoxicity Studie

○ Chihiro NAKAZAWA[1, 2], Takashi UOTA[1, 3], Yoshihumi KANEKO[1, 4], Akito SAKAMOTO[1, 5], Koichi SATO[1, 6], Gen SATO[1, 2], Tohru SEKIDO[1, 2], Matsuki TSUCHIYA[1, 7], Takashi NAKAJIMA[1, 8], Atsushi HAMADA[1, 9], Misa MATSUMURA[1, 10], Takayuki YASUDA[1], Yuta SAKAKIBARA[1]

[1]CDISC Japan User Group SEND Team, [2]Eisai Co., Ltd., [3]EPS Corporation, [4]KYORIN Pharmaceutical Co., Ltd., [5]Mediford Corporation, [6]Takumi Information Technology Inc., [7]FUJITSU LIMITED, [8]SNBL INA Ltd., [9]Japan Tobacco Inc., [10]SHIONOGI & CO., LTD.

P-463 Challenges in Accumulation of SEND Data and Their Solutions

○ Shinichi HORIKAWA, Konomi IINO, Takashi NAKAJIMA, Atsushi UEMATSU, Minako HAYASHI, Terumasa HIRAI

SNBL INA Ltd.

P-464 Comparative Analysis of Adverse Events Between Biosimilars and Reference Biopharmaceuticals

○ Hirofumi HAMANO[1, 2], Midori FUJI[1], Takashi MAKITA[2], Tomoka MAMORI[3], Maki TANIOKA[3, 4], Shinichi TOYOOKA[3], Yoshito ZAMAMI[1, 2]

[1]Department of Clinical Pharmaceutics, Okayama University, [2]Department of Pharmacy, Okayama University Hospital, [3]Department of General Thoracic Surgery and Breast and Endocrinological Surgery, Okayama University, [4]Clinical AI Human Resources Development Program, Okayama University

Organoid

P-465 Comprehensive Modeling of Drug-Induced Liver Injury Using Human Pluripotent Stem Cell-Derived Liver Organoids

○ Seonju MUN[1], Yeon-Hwa HONG[1], Taejin KIM[1], Min-Ah SI[1], Hyunji SIM[1], Jaeseo LEE[1], Yongbo SHIN[1, 2], Hyeongeol JEON[1, 2], Myung Jin SON[1, 2]

[1]Stem Cell Convergence Research Center, Korea Research Institute of Bioscience and Biotechnology (KRIBB), [2]Department of Advanced Bioconvergence, Korea University of Science & Technology (UST), Republic of Korea

P-466 Hepatic function evaluation of a 3D culture model(invivoid®) without medium exchange intended for Long-Term Exposure to Accumulated Metabolites

○ Yasuyuki NAITO[1], Koichi HATTORI[1], Yasuhiro YAMADA[2], Shiro KITANO[1], Michiya MATSUSAKI[3]

[1]Technical Research Institute, TOPPAN Holdings Inc., [2]Division of Clinical Pharmacy, Department of Pharmaceutical Sciences, Nihon Pharmaceutical University, [3]Department of Applied Chemistry, Graduate School of Engineering, Osaka University

P-467 Modeling Myocardial Infarction using Multi-cellular Cardiac Organoids from hiPSCs

○ Ami KIM

Division of Business Development, NEXEL Co., Ltd., Korea

P-468 Analysis of expression of cell differentiation markers in rasH2 mouse-derived lung, liver, and forestomach organoids

○ Toshio IMAI, Manami AKEYOSHI, Chiyoko NISHIME, Misa MOCHIZUKI, Hitomi SATOH, Ryo INOUE, Kenji KAWAI, Masami SUZUKI

Translational Research Division, Central Institute for Experimental Medicine and Life Science

P-469 Novel safety assessment models of spheroid-like aggregates of different cell types constructed using a gelatin fiber substrate

○ Kenji MIYAMOTO[1], Toshiki SAOTOME[1], Kohei SAWADA[1, 2]
[1] R&D Center, The Japan Wool Textile Co., Ltd., [2]Pharmacological Evaluation Institute of Japan (PEIJ)

P-470 Functional characterization of brain organoids and midbrain–striatum assembloids using UHD-CMOS MEA technology

○ Remi YOKOI, Naoki MATSUDA, Yuto ISHIBASHI, Ikuro SUZUKI
Tohoku Institute of Technology

Others

P-471 The Influence of advanced glycation end-products in myogenic differentiation in myoblasts and muscle regeneration in D-galactose-induced aging mice

○ Jia Hua JHUANG[1], Ding Cheng CHAN[1], Fang Yu CHANG[1], Meei Ling SHEU[2], Kuo Cheng LAN[3], Rong Sen YANG[1], Shing Hwa LIU[1]
[1]National Taiwan University, College of Medicine, [2]Institute of Biomedical Sciences, National Chung Hsing University, [3]Department of Emergency Medicine, Tri-Service General Hospital, National Defense Medical Center

P-472 Systemic toxicity assessment of cosmetic ingredients using Next Generation Risk Assessment (NGRA) : Part 1 - Overview of NGRA and comparative analysis of existing case studies -

○ Megumi SAKUMA[1, 9], Kota HATANO[2, 9], Toshihide TAKESHITA[3, 9], Shuichi SEKINE[4, 9], Yusuke YAMAMOTO[5, 9], Atsuko SANO[6, 9], Shimpei TERASAKA[3, 9], Akane HAYASHI[3, 9], Morihiko HIROTA[4, 9], Yukiya TATSUHIRO[7], Masato HATAO[7], Akemi TOYODA[8, 9]
[1]Research Laboratories, KOSÉ Corporation, [2]General Research & Development Institute, Hoyu Co., Ltd., [3]Safety Science Research Laboratories, Kao Corporation, [4]Brand Value R&D Institute, Shiseido Co., Ltd., [5]Safety Evaluation Center, FUJIFILM Corporation, [6]Specialty Chemicals Dept., AJINOMOTO Co., Inc., [7]Science Dept., Japan Cosmetic Industry Association, [8]Frontier Research Center, POLA CHEMICAL INDUSTRIES, INC., [9]Japan Cosmetic Industry Association, NGRA working group

P-473 Systemic toxicity assessment of cosmetic ingredients using Next Generation Risk Assessment (NGRA): Part 2 –Read-across case studies–

○ Toshihide TAKESHITA[1, 9], Yusuke YAMAMOTO[2, 9], Shuichi SEKINE[3, 9], Megumi SAKUMA[4, 9], Kota HATANO[5, 9], Atsuko SANO[6, 9], Shimpei TERASAKA[1, 9], Akane HAYASHI[1, 9], Morihiko HIROTA[3, 9], Yukiya TATSUHIRO[7], Masato HATAO[7], Akemi TOYODA[8, 9]
[1]Safety Science Research Laboratories, Kao Corporation, [2]Safety Evaluation Center, FUJIFILM Corporation, [3]Brand Value R&D Institute, Shiseido Co., Ltd., [4]Research Laboratories, KOSÉ Corporation, [5]General Research & Development Institute, Hoyu Co., Ltd., [6]Specialty Chemicals Dept., AJINOMOTO Co., Inc., [7]Science Dept., Japan Cosmetic Industry Association, [8]Frontier Research Center, POLA CHEMICAL INDUSTRIES, INC., [9]Japan Cosmetic Industry Association, NGRA working group

P-474 Systemic toxicity assessment of cosmetic ingredients using Next Generation Risk Assessment (NGRA): Part3 -TTC/iTTC case studies-

○ Akemi TOYODA[1, 9], Shuichi SEKINE[2, 9], Toshihide TAKESHITA[3, 9], Yusuke YAMAMOTO[4, 9], Megumi SAKUMA[5, 9], Kota HATANO[6, 9], Atsuko SANO[7, 9], Shimpei TERASAKA[3, 9], Akane HAYASHI[3, 9], Morihiko HIROTA[2, 9], Yukiya TATSUHIRO[8], Masato HATAO[8]

[1]Frontier Research Center, POLA CHEMICAL INDUSTRIES, INC., [2]Brand Value R&D Institute, Shiseido Co., LTD., [3]Safety Science Research Laboratories, Kao Corporation, [4]Safety Evaluation Center, FUJIFILM Corporation, [5]Research Laboratories, KOSÉ Corporation, [6]General Research & Development Institute, Hoyu Co., Ltd., [7]Specialty Chemicals Dept., AJINOMOTO Co., Inc., [8]Science Dept., Japan Cosmetic Industry Association, [9]Japan Cosmetic Industry Association, NGRA working group

P-475 Questionnaire survey on the ICH S7A guideline revision

○ Saburo TANIUCHI[1, 2], Ryohei ICHIMURA[1, 3], Takashi YOSHINAGA[1, 4], Katsuyoshi CHIBA[1, 5], Toru OGAWA[1, 6], Tomokazu KANEHISA[1, 7], Tomohiro OMURA[1, 8], Kaku NAKANO[1, 9], Kana IKEMOTO[1, 10], Sayuri IIJIMA[1, 11], Masakatsu YAMAMOTO[1, 3]

[1]Japan Pharmaceutical Manufacturers Association, Drug Evaluation Committee, Non-Clinical Evaluation Expert Committee, [2]Fuso Pharmaceutical Industries, LTD., [3]MSDK.K., [4]Eisai Co., Ltd., [5]Daiichi Sankyo Co., Ltd., [6]Nippon Chemiphar Co., Ltd., [7]Torii Pharmaceutical Co. Ltd., [8]Alfresa Pharma Co., Ltd., [9]Kowa Company, Ltd., [10]Senju Pharmaceutical Co., Ltd., [11]Otsuka Pharma Co., Ltd.

P-476 Investigation on Toxicity Evaluation of Components Other than the Active Ingredient of New Modalities: *in vivo* Gene Therapy Products

○ Tomoko IZUMI[1, 2], Yuichi TAKAI[3], Yosuke SAKURADA[4], Anna ABE[5], Kanae KURODA[6], Yutaka TONOMURA[7], Taketoshi WAKIZAKA[8]

[1]Japan Pharmaceutical Manufacturing Association (JPMA), [2]AbbVie GK, [3]Takeda Pharmaceutical Company Ltd., [4]Taiho Pharmaceutical Co., Ltd., [5]Bayer Yakuhin, Ltd., [6]Eli Lilly Japan K.K., [7]Nippon Shinyaku Co., Ltd., [8]AstraZeneca K.K.

P-477 Investigation on Toxicity Evaluation of Components Other than the Active Ingredient of New Modalities: Cellular and Tissue-Based Products

○ Yosuke SAKURADA[1, 4], Yuichi TAKAI[1, 2], Tomoko IZUMI[1, 3], Anna ABE[1, 5], Kanae KURODA[1, 6], Yutaka TONOMURA[1, 7], Taketoshi WAKIZAKA[1, 8]

[1]Japan Pharmaceutical Manufacturing Association (JPMA), [2]Takeda Pharmaceutical Company Ltd., [3]AbbVie GK, [4]Taiho Pharmaceutical Co., Ltd., [5]Bayer Yakuhin, Ltd., [6]Eli Lilly Japan K.K., [7]Nippon Shinyaku Co., Ltd., [8]AstraZeneca K.K.

P-478 Investigation on Toxicity Evaluation of Components Other than the Active Ingredient of New Modalities: Oligonucleotide Products

○ Yuichi TAKAI[1, 2], Tomoko IZUMI[1, 3], Yosuke SAKURADA[1, 4], Anna ABE[1, 5], Kanae KURODA[1, 6], Yutaka TONOMURA[1, 7], Taketoshi WAKIZAKA[1, 8]

[1]Japan Pharmaceutical Manufacturing Association (JPMA), [2]Takeda Pharmaceutical Company Ltd., [3]AbbVie GK, [4]Taiho Pharmaceutical Co., Ltd., [5]Bayer Yakuhin, Ltd., [6]Eli Lilly Japan K.K., [7]Nippon Shinyaku Co., Ltd., [8]AstraZeneca K.K.

P-479 Survey on Issues Faced by CROs in GLP Testing Contracts: Archiving and Test Substance Handling

○ Hideomi UCHIDA[1, 2], Zenyo TANAKAMARU[1, 3], Masahiko KATTO[1, 4], Hirofumi MINOMO[1, 5]

[1]Nippon Biomedical Laboratories, Ltd., [2]Mediford Corporation, [3]Axcelead Drug Discovery Partners Inc., [4]Nissei Bilis Co., Ltd., [5]Shin Nippon Biomedical Laboratories, Ltd.

P-480 ICH E14/S7B Guidelines Q&As 2.1 Best Practice hERG Assay: Comparative Study with International Test Facilities

○ Yuki MONZEN, Hiroshi MATSUKAWA, Keisuke YAMASHITA, Yukina MIYAZAKI, Yumi IWASHITA, Naoko YAMASHITA, Akiko SUZUKI, Masaaki BAN, Yukiko ARIMURA, Hiroyuki YAMASHITA

SHIN NIPPON BIOMEDICAL LABORATORIES, LTD. (SNBL)

Information technology, AI, and big data

P-481 Leveraging Safety Toxicology Data for Enhanced Translatability of Preclinical Adverse Drug Reactions: Insights from the PharmaPendium Tox Navigator

○ Thomas VARGUES[1], Amy NIELSEN[2], Danielle THOMAS[2], Olivier BARBERAN[1]
[1]Elsevier B. V., [2]Elsevier Inc.

Reproductive and developmental toxicology

P-482 *P. gingivalis*-OMVs compromise placental angiogenesis and fetal development

○ Airi TANAI[1, 2], Yoko FUKUHARA[3], Weng YAO[3], Koji UEDA[4],
Takanori EGUCHI[5], Mika IKEGAME[3], Soichiro IBARAGI[6], Hirohiko OKAMURA[3]
[1]Department of Oral Morphology, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University,
[2]Department of Oral Maxillofacial Surgery, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University,
[3]Department of Oral Morphology, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University,
[4]Cancer Proteomics Group, Cancer Precision Medicine Center, Japanese Foundation for Cancer Research,
[5]Department of Dental Pharmacology, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University,
[6]Department of Oral Maxillofacial Surgery, Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama University

Environmental pollutants

P-483 Green tea extracts rich in epicatechins inducing aggregation and inhibiting absorption of amine surface functionalized polystyrene microplastics *in vitro* mimick system

○ Soon-Mi SHIM
Sejong University

P-484 Investigations into the degradation and mineralization of ibuprofen using various electrochemical advanced oxidation processes

○ Kanano HOMMA, Masahiro ISEKI
Department of Environmental Science, Graduate School of Science, Toho Univ.

P-485 Highly Efficient Adsorption and Subsequent Desorption Potential of PFOA by Ion-exchange Resins

○ Masahito KATAYAMA, Masahiro ISEKI
Department of Environmental Science, Graduate School of Science, Toho University

P-486 Dendropanoxide Attenuates Cadmium-Induced Hepatotoxicity via Nrf2-Mediated Antioxidant, Anti-inflammatory, and Anti-apoptotic Mechanisms

○ Da Hyeon PARK, Young Joo YOO, Ye Rim LEE, Hyung Sik KIM*
Sungkyunkwan University, Department of Pharmacy

P-487 PFAS-Induced Mitochondrial Dysregulation Promotes Renal Injury through Oxidative Stress and Apoptotic Pathways

○ Young Joo YOO, Da Hyeon PARK, Ye Rim LEE, Hyung Sik KIM*
School of Pharmacy, Sungkyunkwan University (SKKU)

P-488 From Garden Soil to Green Solutions: Microbial Degradation of Fluorinated Pyrethroids

Mohd Faheem KHAN[1], ○ Jun LIAO[2], Zhenyang LIU[2], Gaurav CHUGH[3]
[1]School of Agriculture and Food Science, University College Dublin, Belfield, Ireland,
[2]Guangzhou Dublin International College of Life Sciences & Technology, South China Agricultural University, China,
[3]School of Biomolecular and Biomedical Science, University College Dublin, Ireland

Others

P-489 Proteomic Biomarkers for Early Detection of Sepsis-Induced Acute Kidney Injury

○ Ye Rim LEE, Da Hyeon PARK, Young Joo YOO, Hyung Sik KIM*
School of Pharmacy, Sungkyunkwan University

P-490 Hamster capabilities – United Kingdom

○ Thomas Charles de Renzy MARTIN, Christopher MILLER, Catherine ROSS
Toxicology Study Direction, Labcorp Early Development Laboratories Limited