

8:45

Registration

9:15 - 9:20 〈2F Main Hall〉

Opening Remarks

Masamitsu HONMA
Organizing Committee Chair of ACEM/JEMS 2019
National Institute of Health Sciences, Japan

9:20 - 10:00 〈2F Main Hall〉

Keynote Lecture

Chairpersons: Masamitsu HONMA (National Institute of Health Sciences)
Shuichi HAMADA (LSI Medience)

KN-1

QSAR is an essential tool of integrative assessment strategies
Romualdo BENIGNI
Alpha-Pretox, Italy

10:00 - 12:00 〈2F Main Hall〉

Symposium 1 **Genotoxicity of Aristolochic Acid and Other Plant Toxicants in Asia**

Chairpersons: Yang LUAN (Shanghai Jiao Tong University School of Medicine, China)
Takayoshi SUZUKI (National Institute of Health Sciences)

S1-1 10:00 What should we be concerned about carcinogenic risk of aristolochic acid in China?

Yang LUAN
School of Public Health, Shanghai Jiaotong University School of Medicine, China

S1-2 10:24 How big is the problem of aristolochic acid?

Steven George ROZEN^{1,2}, Arnoud BOOT¹, Alvin Wei-Tian NG¹, Song-Ling POON³,
Mi-Ni HUANG¹, Shenli ZHANG¹, Szu-Chi HO¹, Carol Shi-Ting DING¹, Alex CHANG⁵,
Patrick TAN^{1,2,4}, Po-Hung LIN⁶, See-Tong PANG⁶, Sen-Yung HSIEH⁶, Bin Tean TEH^{1,3,7}
¹Duke-NUS Medical School Singapore, Singapore,
²SingHealth/Duke-NUS Precision Medicine Institute, Singapore, ³National Cancer Centre Singapore,
⁴Genome Institute of Singapore, ⁵National Taiwan University, Taipei,
⁶Chang Gung Memorial Hospital, Linkou, Taoyuan, Taiwan,
⁷Institute of Molecular and Cell Biology, Singapore

S1-3 10:48 Genotoxicity of pyrrolizidine alkaloids in plants

Nan MEI, Lei GUO, Peter P FU, Tao CHEN
U.S. FDA National Center for Toxicological Research, U.S.A.

S1-4 11:12 Genotoxicity of alkenylbenzene compounds in plants

Yuji ISHII
Division of Pathology, National Institute of Health Sciences

Program	S1-5	11:36	Genotoxicity Evaluation of the Flavoring Ingredient, Perillaldehyde, Used in Regulatory Safety Assessments <u>Cheryl A. HOBBS</u> Toxicology Program, Integrated Laboratory Systems, Inc., USA
	10:00 - 11:00 <1F Session Room>		
Program(JPN)	Platform Session 1 DNA adduct and repair 1		Presentation 10 min, Discussion 2 min
Keynote Lecture	Chairpersons: Kaoru SUGASAWA (Kobe University Biosignal Research Center) Young Rok SEO (Dongguk University Department of Life Science, Korea)		
Award Lecture	O-1-1 (P-2)	10:00	A pyrimidine ring-opened product from the oxidative DNA damage 5-formyl-2'-deoxyuridine <u>Hiroshi KASAI</u> , Yuya KAWASAKI, Kazuaki KAWAI Department of Environmental Oncology, Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan
Symposium	O-1-2 (P-37)	10:12	Abasic site analog in lagging strand template induces mutations more frequently than that in leading strand template <u>Tetsuya SUZUKI</u> ^{1,2} , Yuri KATAYAMA ² , Hiroyuki KAMIYA ^{1,2} ¹ Graduate School of Biomedical and Health Sciences, Hiroshima University, ² School of Pharmaceutical Sciences, Hiroshima University
Workshop	O-1-3 (P-32)	10:24	Functional analysis of Endonuclease/exonuclease/phosphatase family domain containing 1 protein <u>Shota UEDA</u> , Isao KURAOKA Faculty of Science, Fukuoka University
Special Program	O-1-4 (P-26)	10:36	Nucleotide excision repair disruption by dibromoacetonitrile <u>Yukako KOMAKI</u> , Yuko IBUKI Graduate Division of Nutritional and Environmental Sciences, University of Shizuoka
Platform Session	O-1-5 (P-18)	10:48	Chromatin dynamics regulating DNA lesion recognition in nucleotide excision repair Masayuki KUSAKABE ¹ , Fumika KURIHARA ^{1,2} , Kanako KUSAO ^{1,2} , Masayuki YOKOI ^{1,2} , Wataru SAKAI ^{1,2} , <u>Kaoru SUGASAWA</u> ^{1,2} ¹ Biosignal Research Center, Kobe University, ² Graduate School of Science, Kobe University
Poster Session	11:00 - 12:00 <1F Session Room>		
Author Index	Platform Session 2 DNA adduct and repair 2		Presentation 10 min, Discussion 2 min
	Chairpersons: Manabu YASUI (National Institute of Health Sciences) Mugimane MANJANATHA (National Center for Toxicological Research, USA)		
	O-2-1 (P-25)	11:00	Alternate processing pathways of a single ribonucleotide incorporated into DNA and its consequences in human cells <u>Akira SASSA</u> ¹ , Haruto TADA ² , Ayuna TAKEISHI ¹ , Kaho HARADA ¹ , Kazuma NAKATANI ¹ , Masataka TSUDA ³ , Hiroyuki SASANUMA ⁴ , Shunichi TAKEDA ⁴ , Kaoru SUGASAWA ² , Manabu YASUI ⁵ , Masamitsu HONMA ⁵ , Kiyoe URA ¹ ¹ Graduate School of Science, Chiba University, ² Biosignal Research Center, Kobe University, ³ Graduate School of Integrated Science for Life, Hiroshima University, ⁴ Graduate School of Medicine, Kyoto University, ⁵ Division of Genetics and Mutagenesis, National Institute of Health Sciences

O-2-2 (P-22)	11:12	Repair of topoisomerase 2 covalent cleavage complexes by tyrosyl-DNA phosphodiesterase 2 (TDP2) <u>Masataka TSUDA</u> ¹ , Kaito KITAMASU ¹ , Toshiaki NAKANO ² , Hiroshi IDE ¹ ¹ Program of Mathematical and Life Sciences, Graduate School of Integrated Sciences for Life, Hiroshima University, ² DNA Damage Chemistry Research Group, National Institutes of Quantum and Radiological Science and Technology	Program
O-2-3 (P-29)	11:24	FTO's roles in DNA damage response and underlying mechanism <u>Weiyang LIU</u> ¹ , Manabu YASUI ² , Akira SASSA ³ , Yiyi CAO ¹ , Jing XI ¹ , Xinyue YOU ¹ , Masamitsu HONMA ² , Yang LUAN ¹ ¹ School of Public Health, Shanghai Jiao Tong University School of Medicine, China, ² Division of Genetics and Mutagenesis, National Institute of Health Sciences, ³ Graduate School of Science, Chiba University	Program(JPN)
O-2-4 (P-30)	11:36	Disruption of DNA damage response (DDR) and chromosomal aberration: EGFP-MDC1 foci formation-inhibition assay <u>Sou ARAKI</u> , Tomonari MATSUDA Graduate School of Engineering, Kyoto University	Keynote Lecture
O-2-5 (P-16)	11:48	Comparative γ-H2AX analysis for assessment of the genotoxicity of four chemicals implicated in bladder cancer <u>Yonggang QI</u> ^{1,2} , Tatsushi TOYOOKA ² , Hyogo HORIGUCHI ¹ , Shigeki KODA ² , Rui-Sheng WANG ² ¹ Department of Hygiene, Kitasato University School of Medicine, Japan, ² National Institute of Occupational Safety and Health, Japan	Award Lecture

13:30 - 15:00 <2F Main Hall>

Symposium 2

Unravelling of Cancer in Asia by Using Genomics and Adductomics Approach

Chairpersons: Yukari TOTSUKA (National Cancer Center Research Institute)
Yingsong LIN (Aichi Medical University School of Medicine)

S2-1	13:30	Detection of DNA adducts in human tissue <u>Haruhiko SUGIMURA</u> , Yuji IWASHITA Department of Tumor Pathology, Hamamatsu University School of Medicine	Workshop
S2-2	13:45	Exploration of esophageal cancer etiology using DNA adductome analysis <u>Yukari TOTSUKA</u> National Cancer Center Research Institute	Special Program
S2-3	14:00	Multi-omics analysis of esophageal squamous cell carcinoma reveals alcohol drinking-related mutation signature and genomic alterations mediating interactions in tumor ecosystem <u>Chen WU</u> National Cancer Center/Cancer Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College, China	Platform Session
S2-4	14:20	Mutational signatures in cancer epidemiology: the example of aflatoxin <u>Steven George ROZEN</u> ^{1,2} , Mi Ni HUANG ¹ , Willie YU ¹ , Arnoud BOOT ¹ , Wei Wei TEOH ³ , Szu-Chi HO ¹ , Magali OLIVIER ⁴ , Monica HOLLSTEIN ⁴ , Patrick TAN ^{1,2,5} , Bin Tean TEH ^{1,3} , Kanaga SABAPATHY ³ , Jiri ZAVADIL ⁴ ¹ Duke-NUS Medical School Singapore, Singapore, ² SingHealth-Duke-NUS Precision Medicine Institute, Singapore, ³ National Cancer Centre Singapore, ⁴ International Agency for Research on Cancer, Lyon, France, ⁵ Genome Institute Singapore	Poster Session

Program

Program(JPN)

Keynote Lecture

Award Lecture

Symposium

Workshop

Special Program

Platform Session

Poster Session

Author Index

Program	S2-5	14:40	Pan-cancer mutational fingerprints of acrylamide: hiding in plain sight Maria ZHIVAGUI ¹ , Alvin WT NG ² , Mona I CHURCHWELL ³ , Manuraj PANDEY ¹ , Claire RENARD ¹ , Martha R STAMPFER ⁴ , Steven G ROZEN ² , Frederick A BELAND ³ , Michael KORENJAK ¹ , <u>Jiri ZAVADIL</u> ¹ ¹ Molecular Mechanisms and Biomarkers Group, International Agency for Research on Cancer WHO, Lyon, France, ² Centre for Computational Biology, Duke-NUS Medical School, Singapore, ³ Division of Biochemical Toxicology, National Center for Toxicological Research, Jefferson, AR, USA, ⁴ Biological Systems and Engineering Division, Lawrence Berkeley National Laboratory, Berkeley, CA, USA
Program(JPN)	13:30 - 14:54 <1F Session Room>		
Keynote Lecture	Platform Session 3 Environment and risk		Presentation 10 min, Discussion 2 min
	Chairpersons: Kenichi MASUMURA (National Institute of Health Sciences) Rajaguru PALANICHAMY (Anna University Dept. of Biotechnology, India)		
Award Lecture	O-3-1 (P-103)	13:30	Effects of Fructus Mume Carbon on antioxidative and hypoglycemic activities <u>Yun-Shan LI</u> , Kazuaki KAWAI, Hiroshi KASAI, Yuko OOTSUYAMA Dept. Environ. Oncol., Univ. Occup. Environ. Health, Japan
Symposium	O-3-2 (P-82)	13:42	What have we known about air pollution and metabolism? <u>Cuiqing LIU</u> ^{1,2} , Ran LI ^{1,2} , Qing SUN ^{1,2} , Rucheng CHEN ^{1,2} , Guoqing ZHANG ¹ , Junyao ZHU ¹ , Weijia GU ^{1,2} , Lu ZHANG ^{1,2} , Sin Man LAM ³ , Guanghou SHUI ³ , Lung-Chi CHEN ^{2,4} , Qinghua SUN ⁵ , Sanjay RAJAGOPALAN ⁶ ¹ Division of Toxicology, College of Public Health, Zhejiang Chinese Medical University, China, ² Joint China-US Research Center for Environment and Pulmonary Diseases, Zhejiang Chinese Medical University, Hangzhou, China, ³ State Key Laboratory of Molecular Developmental Biology, Beijing, China Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, ⁴ Department of Environmental Medicine, New York University of School of Medicine, New York, USA, ⁵ College of Public Health, The Ohio State University, Columbus, Ohio, USA, ⁶ Division of Cardiovascular Medicine Harrington Heart and Vascular Institute, Case Western Reserve University
Workshop	O-3-3 (P-84)	13:54	Evaluation of fullerene soot induced genotoxicity and DNA methylation in human peripheral blood mononuclear cells and tobacco BY-2 cells <u>Abhishek SADHU</u> ¹ , Ilika GHOSH ¹ , Yuji MORIYASU ¹ , Anita MUKHERJEE ² , Maumita BANDYOPADHYAY ³ ¹ Graduate School of Science and Engineering, Saitama University, Saitama, Japan, ² Cell Biology and Genetic Toxicology Laboratory, Centre of Advanced Study, Department of Botany, University of Calcutta, West Bengal, India, ³ Plant Molecular Cytogenetics Laboratory, Centre of Advanced Study, Department of Botany, University of Calcutta, West Bengal, India
Special Program	O-3-4 (P-93)	14:06	Aging Induced by Copper in <i>Caenorhabditis elegans</i> <u>Ying ZHANG</u> , Chao ZHAO, Hu ZHANG, Qiang LU, Jingjing ZHOU, Yuepu PU, Lihong YIN Southeast University, China
Platform Session	O-3-5 (P-97)	14:18	Genotoxic activities of river water extracts in Kanagawa prefecture using the umu test <u>Takeji TAKAMURA</u> ¹ , Shuya SAKAMOTO ¹ , Yoshimitsu ODA ² ¹ Department of Applied Chemistry, Kanagawa Institute of Technology, ² Osaka Shin-Ai College
Poster Session			
Author Index			

O-3-6 (P-107)	14:30	<p>Determination of genotoxicity threshold for ENU and EMS based on an in vivo multi-endpoint genotoxicity assessment platform in rats</p> <p><u>Xuejiao ZHU</u>^{1,2}, Jiao HUO^{1,2}, Zhu ZENG^{1,2}, Ruirui LI^{1,2}, Rui WU^{1,2}, Yunjie LIU^{1,2}, Zihao PENG^{1,2}, Jinyao CHEN^{1,2}, Lishi ZHANG^{1,2}</p> <p>¹West China School of Public Health and Healthy Food Evaluation Research Center, Sichuan University, Chengdu, Sichuan, China ²Food Safety Monitoring and Risk Assessment Key Laboratory of Sichuan Province, Chengdu, Sichuan, China</p>	Program
O-3-7 (P-106)	14:42	<p>Pyrrrolizidine Alkaloids Mode of Action: Examining differences in dose response of adduct formation and micronuclei</p> <p><u>Tianyi ZHANG</u>, Ashley ALLEMANG, Cathy LESTER, Peter STOFFOLANO, Ken WEHMEYER, Catherine MAHONY, Stefan PFUHLER</p> <p>The Procter & Gamble Company, Singapore</p>	Program(JPN)
15:00 - 16:00	<2F Poster Session Room>		Keynote Lecture
Poster Session	Core time for odd numbers		Award Lecture
16:00 - 18:00	<2F Main Hall>		Award Lecture
Symposium 3	What is the Problem Now in Environmental Mutagen Research in Asia?	<p>Chairpersons: Li-shi ZHANG (West China School of Public Health, Sichuan University, China) Takeshi MORITA (National Institute of Technology and Evaluation)</p>	Symposium
S3-1	16:00	<p>Sunlight: Australia's most harmful environmental mutagen</p> <p><u>Terrence J. PIVA</u></p> <p>School of Health & Biomedical Sciences, RMIT University, Australia</p>	Workshop
S3-2	16:15	<p>Protection of UV with Farm Feed and Food Crops</p> <p><u>Malyn UNGSURUNGSIE</u></p> <p>Faculty of Pharmacy, Silpakorn University, Thailand</p>	Workshop
S3-3	16:30	<p>Genomics in Health and Agriculture Researches: The Philippine Experience</p> <p><u>Amelia P. GUEVARA</u></p> <p>Institute of Chemistry, University of the Philippines Diliman, Philippines</p>	Special Program
S3-4	16:45	<p>Application of Cell-based Model for Cancer Risk Assessment of PM2.5 Exposure in Three Megacities, China</p> <p><u>Wen CHEN</u>, Shen CHEN, Daochuan LI, Qiong LI, Guanghui DONG</p> <p>Department of Toxicology, School of Public Health, Sun Yat-sen University, China</p>	Platform Session
S3-5	17:00	<p>Organ Toxicity and Endocrine Disrupting Effects of Genetically Modified Foods</p> <p><u>Sepideh ARBABI BIDGOLI</u>^{1,2}, Peyman ARABSHAHI², Yousef RAMEZAN³, Saeed ATAEE⁴</p> <p>¹Department of Toxicology and Pharmacology, Faculty of Pharmacy and Pharmaceutical Sciences, Tehran Medical Sciences, Islamic Azad University, Iran, ²Iranian Environmental Mutagen Society(IrEMS), Iran, ³Nutrition and Food Sciences Research Center, Faculty of Pharmacy and Pharmaceutical Sciences, Tehran Medical Sciences, Islamic Azad University, Tehran, Iran, ⁴Pharmaceutical Sciences Research Center, Faculty of Pharmacy and Pharmaceutical Sciences, Tehran Medical Sciences, Islamic Azad University, Tehran, Iran</p>	Poster Session
S3-6	17:15	<p>Integration of epidemiology and biology towards developing biomarkers: Current solutions to environmental mutagenesis and carcinogenesis</p> <p><u>Birajalaxmi DAS</u></p> <p>Bhabha Atomic Research Centre, Trombay, India</p>	Author Index

Program	S3-7	17:30	A New Generation of Environmental Medicine: Toxicogenomic Approach for Predicting the Potential Biomarkers of Environmental Diseases for Future Health Care <u>Young Rok SEO</u> Department of Life Science, Dongguk University, Korea
Program(JPN)	S3-8	17:45	The Future of “Genes and Environment”, in Academia: A Focus on Our Journal and Research <u>Masami YAMADA</u> ^{1,2} ¹ Department of Applied Chemistry, National Defense Academy, ² Division of Genetics and Mutagenesis, National Institute of Health Sciences
Keynote Lecture	16:00 - 17:00 <1F Session Room>		
Award Lecture	Platform Session 4 Methodology and new technology 1 Presentation 10 min, Discussion 2 min		
Symposium	Chairpersons: Katsuyoshi HORIBATA (National Institute of Health Sciences) Chihae YANG (Molecular Networks GmbH, Germany)		
Workshop	O-4-1 (P-46)	16:00	An evaluation of γH2AX focus induction in TK6 cells can be an initial follow-up approach after positive results in the Ames test; an optional part of a collaborative study by MMS <u>Akira TAKEIRI</u> ¹ , Kaori MATSUZAKI ² , Kenji TANAKA ¹ , Kumiko OGAWA ³ , Manabu YASUI ⁴ , Masamitsu HONMA ⁴ , Masayuki MISHIMA ² ¹ Res. Div., Chugai Pharmaceutical Co., Ltd., ² TR Div., Chugai Pharmaceutical Co., Ltd., ³ Div. Pathol., NIHS, ⁴ Div. Genetics & Mutag., NIHS
Special Program	O-4-2 (P-53)	16:12	Establishing a Novel PIG-A Gene Mutation Assay in TK6 Cells <u>Yan CHANG</u> , Ruowan LI, Pengcheng HUANG, Changhui ZHOU Shanghai Innostar Bio-tech Co. Ltd./National Shanghai Center for New Drug Safety Evaluation and Research, China
Platform Session	O-4-3 (P-59)	16:24	The variation and reproducibility of the raw data for the RBC <i>Pig-a</i> Assay and PIGRET Assay <u>Satsuki CHIKURA</u> , Takafumi KIMOTO, Yuki OKADA, Kumiko OKADA, Rie MORISHIMA, Daishiro MIURA Toxicology Research Department, Teijin Institute for Bio-medical Research, Teijin Pharma Limited
Poster Session	O-4-4 (P-60)	16:36	The human PIG-A study on a population of Chinese workers exposed to lead <u>Yiyi CAO</u> ¹ , Tuanwei WANG ² , Jing XI ¹ , Xinyue YOU ¹ , Weiyong LIU ¹ , Zhaolin XIA ² , Yang LUAN ¹ ¹ School of Public Health, Shanghai Jiao Tong University School of Medicine, China, ² School of Public Health, Fudan University
Author Index	O-4-5 (P-61)	16:48	The potential use of the human PIG-A mutation assay as a biomarker for oesophageal cancer <u>Rachel LAWRENCE</u> ¹ , Hasan HABOUBI ¹ , Lucy SWITENBANK ¹ , Lucy NICHOLS ¹ , Lisa WILLIAMS ² , Shareen DOAK ¹ , Gareth JENKINS ¹ ¹ Swansea University Medical School, United Kingdom, ² Singleton Hospital's Endoscopy Department

17:00 - 18:00 (1F Session Room)

Platform Session 5 Methodology and new technology 2 Presentation 10 min, Discussion 2 min

Chairpersons: Akira TAKEIRI (Chugai Pharmaceutical Co., Ltd)
Yan CHANG (National Shanghai Center for New Drug Safety Evaluation and Research, China)

- O-5-1** 17:00 **Improving performance of structural alerts for the in vitro mutagenicity endpoint using proprietary data**
(P-69)
Rachael E. TENNANT¹, Martyn L. CHILTON¹, Robert S. FOSTER¹, Adrian FOWKES¹, Laura GIBSON¹, Crina I. HEGHES¹, Steven KANE¹, Meekee KOK¹, Alun J. MYDEN¹, Martin P. PAYNE¹, David J. PONTING¹, JPMA TF-1²
¹Lhasa Limited, United Kingdom, ²JPMA
- O-5-2** 17:12 **Verification of DNA adduct formation derived from chemical compounds by DNA/RNA adductome methods and in silico: ab initio calculation analyses**
(P-72)
Toshihide TAKESHITA¹, Hiroki SAKAGAMI¹, Masanori TACHIKAWA^{1,2}, Robert A KANALY¹
¹Graduate School of Nanobioscience, Yokohama City University,
²School of Data Science, Yokohama City University
- O-5-3** 17:24 **Characterization of genome-wide mutations by chemical mutagens using a novel, highly accurate genome sequencing method**
(P-73)
Shoji MATSUMURA¹, Hirayuki SATO², Yuki OTSUBO¹, Junichi TASAKI¹, Naohiro IKEDA¹, Osamu MORITA¹
¹R&D, Safety Science Research, Kao Corporation,
²R&D, Analytical Science Research, Kao Corporation
- O-5-4** 17:36 **A new strategy for the detection of ultra-low frequency mutations with whole genome sequencing**
(P-74)
Xinyue YOU^{1,2}, Yang LUAN¹, Mikihiro NAITO², Chie FURIHATA², Masamitsu HONMA³, Takayoshi SUZUKI²
¹School of Public Health, Shanghai Jiao Tong University School of Medicine, China,
²Division of Molecular Target and Gene Therapy Products, National Institute of Health Sciences, Japan,
³Division of Genetics and Mutagenesis, National Institute of Health Sciences, Japan
- O-5-5** 17:48 **Applications of the nanopore sequencer (MinION) for mutation research**
(P-77)
Takayoshi SUZUKI¹, Xinyue YOU^{1,2}, Chie FURIHATA¹, Kahoko NISHIKAWA³
¹Division of Molecular Target & Gene Therapy Products, National Institute of Health Sciences,
²Shanghai Jiao Tong University School of Medicine, ³Faculty of Commerce, Chuo Univ.

18:30 - 20:30 (Star Hall, 2F Josui Kaikan)

Banquet

Program

Program(JPN)

Keynote Lecture

Award Lecture

Symposium

Workshop

Special Program

Platform Session

Poster Session

Author Index

8:45

Registration

9:00 - 12:00 <2F Main Hall>

Workshop

ICH-M7 QSAR/Expert Judgment Workshop - iGenotox Challenge Prediction – Part I: QSAR prediction and expert judgment for Ames mutagenicity

Chairpersons: Kiyohiro HASHIMOTO (Takeda Pharmaceutical Co., Ltd)
Masamitsu HONMA (National Institute of Health Sciences)

9:00

Introduction:

Ames/QSAR International Challenge Project

Masamitsu HONMA

Division of Genetics and Mutagenesis, National Institute of Health Sciences

W1-1

9:15

Actions of PhiAS-Contract research and consultation support of ICH M7/QSAR for pharmaceutical companies-

Tsukasa KIKUNO, Kimiyoshi KITAMURA

Pharmaceutical Impurities Safety Assessment Research Institute, Co., Ltd.

W1-2

9:35

Overview of expert review judgments with 20 substances

Masayuki MISHIMA

Translational Research Div, Chugai Pharmaceutical

9:45

Case studies of the expert judgment

Seiichiro KURASHIGE

Research Institute, EA Pharma Co., Ltd.

Yuzo ABE

Process Technology Research Lab., DaiichiSankyo Co., Ltd.

W1-3

10:00

Undertaking expert review under the ICH M7 guideline

Chris BARBER

Lhasa Limited, United Kingdom

W1-4

10:30

Effective expert review strategy for ICH M7 assessments

Roustem D SAIKHOV, Suman CHAKRAVARTI

MultiCASE Inc, USA

11:00

Break

W1-5

11:15

Handling out-of-domain and indeterminate results as part of ICH M7 recommended (Q)SAR analyses. A Leadscope perspective

Manuela PAVAN¹, Kevin CROSS², Glenn MYATT², Donald P. QUIGLEY²

¹Innovatune srl, Italy, ²Leadscope, Inc

W1-6

11:45

Combining Evidence Within and Beyond the Confines of (Q)SAR to Predict Mutagenicity

Chihae YANG¹, James F. RATHMAN², Mark T.D. CRONIN³

¹Molecular Networks GmbH, Germany, ²Ohio State University, ³Liverpool John Moores University

12:00 - 13:30	〈2F Main Hall〉		Program Program(JPN) Keynote Lecture Award Lecture Symposium Workshop Special Program Platform Session Poster Session Author Index
Workshop	ICH-M7 QSAR/Expert Judgment Workshop - iGenotox Challenge Prediction – Part II: Control of impurities in pharmaceuticals by purge factor Chairpersons: Junichi FUKUCHI (Pharmaceuticals and Medical Device Agency) Masayuki MISHIMA (Chugai Pharmaceutical Co., Ltd)		
	12:00	Introduction Junichi FUKUCHI Pharmaceuticals and Medical Device Agency, Japan	
W2-1	12:05	Control strategy for potential mutagenic impurities in the synthesis of drug substance, Sakuramil mock case study <u>Yusuke NAGATO</u> Bio Science & Engineering Laboratory, FUJIFILM Corporation	
W2-2	12:25	Case Study: The Use of Purge Factor to Evaluate Regulatory Starting Material <u>Hiroshi IWAMURA</u> Chugai Pharma Manufacturing Co., Ltd., Quality Development Department	
W2-3	12:45	Use of Mirabilis based purge calculations to understand MI related risk and control strategy options – case study examples (including management of N-Nitrosamines) <u>Andrew TEASDALE</u> AstraZeneca, England	
	13:25	Concluding Remarks Kiyohiro HASHIMOTO Takeda Pharmaceutical Co., Ltd, Japan	
9:00 - 11:30	〈1F Session Room〉		
Symposium 4	Exposure and Health Risk of Air Pollutants in Asia Chairpersons: Kazuichi HAYAKAWA (Institute of Nature and Environmental Technology, Kanazawa University) Yasunobu AOKI (Center for Health and Environmental Risk Research, National Institute for Environmental Studies)		
	9:00	Introduction	
S4-1	9:05	Recent Trends in Air Pollution Caused by Polycyclic Aromatic Hydrocarbons and Nitropolycyclic Aromatic Hydrocarbons in Japan <u>Kazuichi HAYAKAWA</u> Institute of Nature and Environmental Technology, Kanazawa University, Japan	
S4-2	9:30	Changes in the Sources and Chemical Compositions of PM2.5 in the process of Air Quality Improvement in China <u>Min HU</u> College of Environmental Sciences and Engineering, Peking University, China	
S4-3	9:55	Ambient air pollution and population health in China <u>Haidong KAN</u> School of Public Health, Fudan University, China	

Program	S4-4	10:20	Air Pollution and its Impact on Human Health <u>Beerappa RAVICHANDRAN</u> ¹ , Kalaiselvi KANNAN ² , Dhananjayan VENUGOPAL ¹ , Somnath SEN ¹ , Mala AMBIKAPATHY ³ , Panjakumar KARUNAMOORTHY ¹ , Avinash Shivaji GAIKWAD ¹ , Shridhar Jagannath KONDHALKAR ¹ ¹ Industrial Hygiene & Toxicology Division, ICMR- Regional Occupational Health Centre (S)-NIOH, Bangalore, India, ² Department of Environmental Science, PSG College of Arts and Science, Coimbatore, ³ BioStatistics Division, ICMR- Regional Occupational Health Centre (S)-NIOH, Bangalore, India
Program(JPN)	S4-5	10:45	<i>In vivo</i> mutagenicity of airborne particles in ambient air in urban area <u>Yasunobu AOKI</u> Center for Health and Environmental Risk Research, National Institute for Environmental Studies, Japan
Keynote Lecture		11:10	General discussion
		11:45 - 13:09	<1F Session Room>
Award Lecture	Platform Session 6	Carcinogenic effect and others	Presentation 10 min, Discussion 2 min
			Chairpersons: Kei-ichi SUGIYAMA (National Institute of Health Sciences) Nan MEI (National Center for Toxicological Research, USA)
Symposium	O-6-1 (P-112)	11:45	Carcinogenic Potential of Fluorinated Estrogens in Mammary Tumorigenesis <u>Yoshinori OKAMOTO</u> ¹ , Hideto JINNO ¹ , Shinji ITOH ² , Shinya SHIBUTANI ³ ¹ Faculty of Pharmacy, Meijo University, ² Faculty of Pharmacy, Hokkaido University of Science, ³ Department of Pharmacological Sciences, State University of New York at Stony Brook
Workshop	O-6-2 (P-113)	11:57	Development and validation of new transgenic hairless albino mice for potential reduction or refinement of animals used for photocarcinogenesis studies <u>Mugimane G MANJANATHA</u> ^{1,2,3} , Sharon SHELTON ¹ , Ying CHEN ¹ , Shobhan GADDAMEEDHI ² , Mary BOUDREAU ³ ¹ Division of Genetic and Molecular Toxicology, USFDA National Center for Toxicological Research, Jefferson, AR, USA, ² Washington State University, Spokane, WA, USA, ³ Division of Biochemical Toxicology, USFDA National Center for Toxicological Research, USA
Special Program	O-6-3 (P-114)	12:09	Genotoxicity of colibactin-producing <i>E. coli</i> isolated from a Japanese colorectal cancer patient <u>Ai UESHIMA</u> ¹ , Yuuta HISATOMI ¹ , Yoshimitsu ODA ¹ , Yuta TSUNEMATSU ² , Michio SATO ² , Yuichiro HIRAYAMA ² , Noriyuki MIYOSHI ³ , Yuji IWASHITA ⁴ , Yuko YOSHIKAWA ^{3,5} , Haruhiko SUGIMURA ⁴ , Takashi YAGI ¹ , Keiji WAKABAYASHI ⁶ , Kenji WATANABE ² , Masanobu KAWANISHI ¹ ¹ Graduate School of Science and Radiation Research Center, Osaka Prefecture University, ² Department of Pharmaceutical Sciences, University of Shizuoka, ³ Graduate School of Nutritional and Environmental Sciences, University of Shizuoka, ⁴ Department of Tumor Pathology, Hamamatsu University School of Medicine, ⁵ School of Veterinary Medicine, Faculty of Veterinary Science, Nippon Veterinary and Life Science University, ⁶ Graduate Division of Nutritional and Environmental Sciences, University of Shizuoka
Platform Session	O-6-4 (P-116)	12:21	<i>In vivo</i> genotoxicity and carcinogenicity of furan derivatives in the liver of gpt delta rats using a GPG model <u>Shinji TAKASU</u> ¹ , Takuma TSUCHIYA ¹ , Yuji ISHII ¹ , Aki KIJIMA ¹ , Kumiko OGAWA ¹ , Takashi UMEMURA ^{1,2} ¹ Division of Pathology, National Institute of Health Sciences, ² Faculty of Animal Health Technology, Yamazaki University of Animal Health Technology
Poster Session			
Author Index			

O-6-5 12:33 **Integrative Study on Protective Mechanism of Visible Red Light against Ultraviolet B-induced Skin Damage in Human Dermal Fibroblasts**
 (P-127) Hyun Soo KIM¹, Yeo Jin KIM¹, Su Ji KIM¹, Doo Seok KANG¹, Nam Gook KEE¹, Hyoung-June KIM², Young Rok SEO¹
¹Institute of Environmental Medicine, Department of Life Science, Dongguk University Biomed Campus, Korea,
²Bioscience Research Institute, Amorepacific Corporation R&D Center, Korea

O-6-6 12:45 **Detection of *de novo* germline mutations in DNA repair-deficient mice lines**
 (P-132) Mizuki OHNO¹, Kunihiko SAKUMI², Noriko TAKANO³, Kosuke TESHIMA⁴, Kyoko HIDAKA⁵, Yoshimichi NAKATSU¹, Teruhisa TSUZUKI^{1,6}
¹Dept. of Medical Biophysics and Radiation Biology, Faculty of Medical Science, Kyushu University,
²Dev. of Neurofunc. Genomics, Med. Inst. of Bioreg., Kyushu Univ,
³Faculty of Design, Kyushu Univ., ⁴Dept. of Biol., Faculty of Science, Kyushu Univ.,
⁵Univ. of Kitakyushu, ⁶Kyushu Univ.

O-6-7 12:57 **Harmful effects of autophagy on human bronchial epithelial cells induced by fine particulate matter**
 (P-83) Hao SUN, Qingtao MENG, Shenshen WU, Xiaobo LI, Rui CHEN
 School of Public Health, Southeast University, China

14:30 - 15:15 <2F Main Hall> *Japanese

General Meeting & Awards Ceremony

15:15 - 16:15 <2F Main Hall> *Japanese

Award Lecture

Chairperson: Masamitsu HONMA (National Institute of Health Sciences)

JEMS Award 2019

AW 15:15 **The mechanisms of mutations induced by damaged DNA and DNA precursors and their prevention systems**
Hiroyuki KAMIYA
 Graduate School of Biomedical and Health Sciences, Hiroshima University

JEMS Encouragement Award 2019

EA-1 15:45 **Evaluation of genotoxic carcinogenicity using machine learning**
Hiroshi HONDA
 Kao Corporation, R&D - Safety Science Research

EA-2 16:00 **Understanding of in vivo genotoxicity by means of analyses for sequential events such as DNA adduct formation and reporter gene mutations**
Yuji ISHII
 Division of Pathology, National Institute of Health Sciences

Special Program (Japanese session) Where Should JEMS Go?

Chairpersons: Atsushi HAKURA (Eisai Co., Ltd.)
Madoka NAKAJIMA (Hamamatsu University School of Medicine)

	16:15	Introduction
Program(JPN)	16:17	SP-1 We move to a new era "The Japanese Environmental Mutagen and Genome Society" <u>Masamitsu HONMA</u> Division of Genetics and Mutagenesis, National Institute of Health Sciences
Keynote Lecture	16:27	SP-2 Activities at the early years (around 1972) of JEMS and a special topic of genetic toxicity of AF-2 <u>Yasumoto KIKUCHI</u> ^{1,2} ¹ Department of Human Genetics, National Institute of Genetics, Mishima, ² Central Research Division, Takeda Chemical Industries Ltd, Osaka
Award Lecture	16:52	SP-3 What I think for the development of JEMS <u>Atsushi HAKURA</u> Global Drug Safety, Eisai Co., Ltd.
Symposium	16:58	SP-4 No more subject for mutation research? <u>Takayoshi SUZUKI</u> Division of Molecular Target & Gene Therapy Products, National Institute of Health Sciences
Workshop	17:04	SP-5 A future direction of research on environmental mutagens: Sciences for genome safety <u>Takehiko NOHMI</u> National Institute of Health Sciences
Special Program	17:10	SP-6 Post environmental-mutagen research -Toward clarification of toxicological significance and precise risk assessment- <u>Hiroshi HONDA</u> Kao Corporation, R&D - Safety Science Research
Platform Session	17:16	SP-7 Consider the impact of the Japanese Environmental Mutagen Society ~Issues to work on / things we specialize in~ <u>Yukari TOTSUKA</u> National Cancer Center Research Institute
Poster Session	17:22	Discussion
Author Index	17:57	Conclusion <u>Masamitsu HONMA</u> Division of Genetics and Mutagenesis, National Institute of Health Sciences

8:45

Registration

9:00 - 10:00 〈2F Poster Session Room〉

Poster Session Core time for even numbers

10:00 - 12:00 〈2F Main Hall〉

Symposium 5 Molecular Mechanisms of Genome Mutation

Chairpersons: Isao KURAOKA (Fukuoka University Faculty of Science)
Orlando D. SCHÄRER (Institute for Basic Science, Center for Genomic Integrity, Korea)

S5-1 10:00 DNA polymerase theta is a key influencer of unique cancer mutational signatures

Kei-ichi TAKATA^{1,2}, Taejoo HWANG², Shelley REH³, Yerkin DUNBAYEV¹,
Kevin M MCBRIDE³, Semin LEE², Richard D WOOD³

¹Center for Genomic Integrity (CGI), Institute for Basic Science (IBS), Republic of Korea,

²School of Life Science, UNIST, Republic of Korea,

³Department of Epigenetics & Molecular Carcinogenesis, The University of Texas MD Anderson Cancer Center, USA

S5-2 10:24 Identification of a novel genome instability disorder caused by a loss of genotoxin removal in the absence of DNA repair deficiency

Minoru TAKATA

Radiation Biology Center, Graduate School of Biostudies, Kyoto University

S5-3 10:48 Mechanisms of Human Nucleotide Excision Repair: Insights Into a Complex Molecular Machine

Orlando D. SCHÄRER, Jung-Eun YEO, Hyun Suk KIM, Arnold GROEHLER IV,
Mihyun KIM, Buyong JUNG, Jihyeon YANG

Center for Genomic Integrity, Institute for Basic Science, Korea

Program

Program(JPN)

Keynote Lecture

Award Lecture

Symposium

Workshop

Special Program

Platform Session

Poster Session

Author Index

Program	S5-4	11:12	<p>Cancer patient-derived mutations in SLX4 revealed its new functions in the maintenance of genome stability</p> <p><u>Arato TAKEDACHI</u>^{1,2,3}, Emmanuelle DESPRAS⁴, Zdenka HASANOVA², Sarah SCAGLIONE², Raphael GUÉROIS⁵, Stéphane AUDEBERT², Luc CAMOIN², Patrick REVY⁸, Isabelle CALLEBAUT⁹, Valeria NAIM¹⁰, François BERTUCCI², Daniel BIRNBAUM², Arturo LONDOÑO-VALLEJO^{6,7}, Patricia KANNOUCHE⁴, Pierre-Henri GAILLARD²</p> <p>¹Department of Chemistry, Faculty of Science, Fukuoka University, ²Centre de Recherche en Cancérologie de Marseille, CRCM, Inserm, CNRS, Aix-Marseille Université, Institut Paoli-Calmettes, Marseille, France, ³Inovation, F-75013 Paris, France, ⁴UMR 8200, Université Paris Sud, Equipe labellisée Ligue contre le Cancer, Gustave Roussy, Villejuif, France, ⁵Institute for Integrative Biology of the Cell (I2BC), CEA, CNRS, Univ. Paris-Sud, Université Paris-Saclay, 91198, Gif-sur-Yvette cedex, France, ⁶Institut Curie, PSL Research University, CNRS, UMR3244, F-75005, Paris, France, ⁷Sorbonne Universités, UPMC Univ Paris 06, CNRS, UMR3244, F-75005, Paris, France, ⁸INSERM Unité Mixte de Recherche (UMR) 1163, Laboratory of Genome Dynamics in the Immune System, Equipe labellisée Ligue contre le Cancer, Paris, France, Paris Descartes- Sorbonne Paris Cité University, Imagine Institute, Paris, France, ⁹Sorbonne Université, Muséum National d'Histoire Naturelle, UMR CNRS 7590, IRD, Institut de Minéralogie, de Physique des Matériaux et de Cosmochimie, IMPMC, 75005 Paris, France, ¹⁰UMR 8200, Université Paris Sud, Gustave Roussy, Villejuif, France</p>
Program(JPN)	S5-5	11:36	<p>Manipulation of genomic mutation using genome-editing technology</p> <p><u>Keiichiro SUZUKI</u></p> <p>Institute for Advanced Co-Creation Studies, Osaka University</p>
Keynote Lecture	10:00 - 12:00		〈1F Session Room〉
Award Lecture	Symposium 6		<p>Risk Assessment of Low-Dose Irradiation -Current Situation in Fukushima and Other Asian Cities-</p> <p>Chairpersons: Takayoshi SUZUKI (National Institute of Health Sciences) Yoshihisa MATSUMOTO (Tokyo Institute of Technology, Institute of Innovative Research)</p>
Symposium	S6-1	10:00	<p>De novo germline mutations and their phenotypic effects on future generations</p> <p><u>Arikuni UCHIMURA</u>^{1,2}, Yasunari SATOH¹</p> <p>¹Molecular Biosciences, RERF, ²Graduate School of Frontier Biosciences, Osaka University</p>
Workshop	S6-2	10:30	<p>The Fukushima Daiichi Nuclear Power Plant Accident: What affected animals told and would tell us</p> <p><u>Manabu FUKUMOTO</u>^{1,2}, Masatoshi SUZUKI³</p> <p>¹RIKEN Center for Advanced Intelligence Project, Japan, ²IDAC, Tohoku University, Japan, ³IRIDeS, Tohoku University</p>
Special Program	S6-3	11:00	<p>Risk assessment in human population exposed to low dose radiation: A challenging task for radiation protection science</p> <p><u>Birajalaxmi DAS</u></p> <p>Bhabha Atomic Research Centre, Trombay, India</p>
Platform Session	S6-4	11:30	<p>Thyroid ultrasound examinations for children in Fukushima prefecture after the nuclear accident</p> <p><u>Tomotaka SOBUE</u></p> <p>Graduate School of Medicine, Osaka University</p>
Poster Session	12:00 - 12:15		〈2F Main Hall〉
Author Index	The Best Presentation Awards Ceremony & Closing Remarks		

Poster View Time: November 18 (Mon), 12:00 - November 20 (Wed), 12:00

Poster Discussion: November 18 (Mon), 15:00 - 16:00 [Core time for odd number]
November 20 (Wed), 9:00 - 10:00 [Core time for even number]

DNA adduct and repair

- P-1 Comparison analysis of backbones between 8-oxoG added DNA and intact DNA enclosed with water molecules by using an accelerated quantum chemical calculation**
Ai SUZUKI¹, Akira SASSA², Manabu YASUI³, Masamitsu HONMA³
¹New Industry Creation Hatchery Center, Tohoku University, ²Graduate school of Science, Chiba University, ³National Institute of Health Sciences
- P-2 A pyrimidine ring-opened product from the oxidative DNA damage 5-formyl-2'-deoxyuridine**
(O-1-1) Hiroshi KASAI, Yuya KAWASAKI, Kazuaki KAWAI
Department of Environmental Oncology, Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan
- P-3 The DNA damage and mutations induced by heavy ion beam**
Hiroaki TERATO¹, Yuka TOKUYAMA², Kanae MORI², Ryoichi HIRAYAMA³
¹Advanced Science Research Center, Okayama University, ²Analytical Research Center for Experimental Sciences, Saga University, ³National Institute of Radiological Sciences, National Institutes for Quantum and Radiological Science and Technology
- P-4 Elucidation of oxidative DNA damage mechanisms induced by morin**
Yurie MORI¹, Shinya KATO², Yutaka FUJISAWA³, Shiho OHNISHI³, Hatasu KOBAYASHI¹, Shosuke KAWANISHI³, Mariko MURATA¹, Shinji OIKAWA¹
¹Department of Environmental and Molecular Medicine, Mie University, ²Radioisotope Facilities for Medical Science, Mie University, ³Faculty of Pharmaceutical Sciences, Suzuka University of Medical Science
- P-5 How does TDP1 exert in DNA-protein cross-links repair mechanism?**
Toshiaki NAKANO^{1,2}, Shoukamy MAHMOUD², Masataka TSUDA², Hiroyuki SASANUMA³, Shin-ichiro MASUNAGA⁴, Shunichi TAKEDA³, Hiroshi IDE², Tadayoshi BESSHO⁵, Keizo TANO⁴
¹Kansai Photon Sci. Inst., QST, ²Dep. Math. Life Sci., Grad. Sch. Sci., Hiroshima Univ, ³Dep. Rad. Genet., Grad. Sch. Med., Kyoto Univ, ⁴Div. Rad. Life Sci., Inst. Integr. Rad. Nucl. Sci., Kyoto Univ, ⁵The Eppley Institute, University of Nebraska Medical Center
- P-6 Evaluation of genotoxicity, cytotoxicity and antimicrobial activity of the four metabolites from the red alga *Laurencia nipponica***
Miyu SHINKE¹, Kensuke KANEKO², Takashi KAMADA³, Tatsufumi OKINO⁴, Ayumi YAMAMOTO¹
¹National Institute of Technology (KOSEN), Hachinohe College, ²Graduate School of Pharmaceutical Sciences, Kyoto University, ³Faculty of Science and Technology, Shizuoka Institute of Science and Technology, ⁴Faculty of Environmental Earth Science, Hokkaido University
- P-7 Evaluation of *in vitro* Comet assay using human lymphoblast TK6 cells as follow-up approaches for positive results in the Ames test: optional work of a Collaborative Study by MMS**
Mika YAMAMOTO¹, Naoko OTANI¹, Manabu YASUI², Kumiko OGAWA³, Masamitsu HONMA²
¹Drug Safety Research Lab., Astellas Pharma Inc., ²Div. Genetics & Mutag., NIHS, ³Div. Pathol., NIHS
- P-8 Genotoxic effects of In-related chemicals in human colon adenocarcinoma cells**
Shih-Wei TAN, Tomonari MATSUDA
Department of Environmental Engineering, Kyoto University

- P-9 Genotoxicity and mutagenicity of two myeloperoxidase-mediated metabolites of 1,3-butadiene**
Wei-Feng TANG¹, Jiong-Han LI¹, Yi-Yi CAO², Jing XI², Xin-Yu ZHANG², Yang LUAN²
¹Institute of Environmental Pollution and Health, School of Environmental and Chemical Engineering, Shanghai University, Shanghai, China,
²School of Public Health, Hongqiao International Institute of Medicine, Shanghai Jiao Tong University School of Medicine, Shanghai, China
- P-10 γ -H2AX analysis for assessment of the genotoxicity of respirable crystalline silica**
Tatsushi TOYOOKA¹, Jingbo ZHANG^{1,2}, Yonggang QI^{1,3}, Maromu YAMADA¹, Mitsutoshi TAKAYA¹, Rui-sheng WANG¹, Shigeki KODA¹
¹National Institute of Occupational Safety and Health, Japan, ²Shanghai Pulmonary Hospital, ³Kitasato University
- P-11 Actin disruption causes DNA double strand breaks**
Tetsuya FUKUDA¹, Tatsushi TOYOOKA², Yukako KOMAKI¹, Yuko IBUKI¹
¹Graduate Division of Nutritional and Environmental Sciences, University of Shizuoka,
²National Institute of Occupational Safety and Health
- P-12 Study on DNA damage property of 4-Chloro-*o*-toluidine**
Hiroki KASHIWAGI, Tatsushi TOYOOKA, Shigeki KODA, Rui-Sheng WANG
National Institute of Occupational Safety and Health, Japan
- P-13 G6PD deficiency enhance the hematopoietic damage in mice induced by benzene**
Tong WANG, Mengying ZHANG, Hong ZHANG, Boshen WANG, Rongli SUN, Lihong YIN, Yuepu PU, Juan ZHANG
Key Laboratory of Environmental Medicine Engineering, Ministry of Education, School of Public Health, Southeast University, China
- P-14 Analysis of urinary bladder carcinogen *o*-toluidne metabolites forming DNA adduct**
Yuya TAJIMA¹, Takeshi TOYODA², Yuichiro HIRAYAMA¹, Tsutomu HASHIDUME¹, Kohei MATSUSHITA², Kumiko OGAWA², Kenji WATANABE¹, Yukari TOTSUKA³, Keiji WAKABAYASHI¹, Noriyuki MIYOSHI¹
¹University of Shizuoka, ²National Institute of Health Sciences, ³National Cancer Center Research Institute
- P-15 Identification of DNA adducts by liquid chromatography coupled with tandem mass spectrometry using a chemical compound library of DNA adducts**
Yuji IWASHITA¹, Ippei OHNISHI^{1,2}, Shunsuke OHTSUKA^{1,3}, Yoshitaka MATSUSHIMA⁴, Yukari TOTSUKA⁵, Shioto SUZUKI², Hiroki MORI³, Keisuke INABA², Keigo MATSUMOTO², Shohachi SUZUKI², Shinichiro MIYAZAKI³, Toshikazu KANAI³, Takachika OZAWA³, Fumihiko TANIOKA², Haruhiko SUGIMURA¹
¹Department of Tumor Pathology, Hamamatsu University School of Medicine, ²Iwata City Hospital, ³Hamamatsu Medical Center, ⁴Tokyo University of Agriculture, ⁵National Cancer Center Research Institute
- P-16 Comparative γ -H2AX analysis for assessment of the genotoxicity of four chemicals implicated in bladder cancer**
(O-2-5)
Yonggang QI^{1,2}, Tatsushi TOYOOKA², Hyogo HORIGUCHI¹, Shigeki KODA², Rui-Sheng WANG²
¹Department of Hygiene, Kitasato University School of Medicine, Japan,
²National Institute of Occupational Safety and Health, Japan
- P-17 Urinary metabolites of estradiol, melatonin, 8-OHdG and bed time in young women**
Kayoko SHIMOI^{1,2}, Akane YAMADA¹, Hikari SHIBATA¹, Reina MATSUDA¹, Yuko SAITO², Michiko T YASUDA³
¹Sch. of Food and Nutritional Sciences, University of Shizuoka,
²Grad. Sch. of Integrated Pharmaceutical and Nutritional Sciences, University of Shizuoka,
³Dept. of Life Studies, Sugiyama Jogakuen University
- P-18 Chromatin dynamics regulating DNA lesion recognition in nucleotide excision repair**
(O-1-5)
Masayuki KUSAKABE¹, Fumika KURIHARA^{1,2}, Kanako KUSAO^{1,2}, Masayuki YOKOI^{1,2}, Wataru SAKAI^{1,2}, Kaoru SUGASAWA^{1,2}
¹Biosignal Research Center, Kobe University, ²Graduate School of Science, Kobe University

- P-19** **OGG1-knockdown increases large deletions but decreases untargeted substitutions induced by 8-oxo-7,8-dihydroguanine**
Yudai ZAIMA, Tetsuya SUZUKI, Hiroyuki KAMIYA
 Graduate School of Biomedical and Health Sciences, Hiroshima University
- P-20** **Mechanisms of mutagenicity of ω -3 fatty acid peroxidation products**
Petr GRÚZ¹, Masatomi SHIMIZU^{1,2}, Masami YAMADA³, Kei-ichi SUGIYAMA¹, Masamitsu HONMA¹
¹Division of Genetics and Mutagenesis, National Institute of Health Sciences, Japan,
²Faculty of Healthcare, Division of Medical Nutrition, Tokyo Healthcare University,
³Department of Applied Chemistry, National Defense Academy
- P-21** **Rev3l disruption leads to intestinal tumor development in medaka fish**
Yoshihiro FUJIKAWA¹, Tomoko FUJIWARA¹, Ayuko SATO², Tsutomu SHIMURA³, Seiji KODAMA⁴,
Tohru TSUJIMURA², Takeshi TODO¹
¹Radioisotope Research Center, Institute of Radiation Sciences, Osaka University,
²Department of Pathology, Hyogo College of Medicine, ³National Institute of Public Health,
⁴Graduate School of Science, Osaka Prefecture University
- P-22** **Repair of topoisomerase 2 covalent cleavage complexes by tyrosyl-DNA phosphodiesterase 2 (TDP2)**
 (O-2-2) Masataka TSUDA¹, Kaito KITAMASU¹, Toshiaki NAKANO², Hiroshi IDE¹
¹Program of Mathematical and Life Sciences, Graduate School of Integrated Sciences for Life, Hiroshima University,
²DNA Damage Chemistry Research Group, National Institutes of Quantum and Radiological Science and Technology
- P-23** **Analysis of mutation spectrum for Aristolochic acid**
Natsuki NIITSUMA, Masami YAMADA
 National Defense Academy of Japan
- P-24** **Construction of mutagen assay considering transcription coupled DNA repair(TCR)**
Kohei SHIBATA, Kazuhiro SHIIZAKI
 Graduate of School of Life Science, Toyo University
- P-25** **Alternate processing pathways of a single ribonucleotide incorporated into DNA and its consequences in human cells**
 (O-2-1) Akira SASSA¹, Haruto TADA², Ayuna TAKEISHI¹, Kaho HARADA¹, Kazuma NAKATANI¹,
Masataka TSUDA³, Hiroyuki SASANUMA⁴, Shunichi TAKEDA⁴, Kaoru SUGASAWA²,
Manabu YASUI⁵, Masamitsu HONMA⁵, Kiyoe URA¹
¹Graduate School of Science, Chiba University, ²Biosignal Research Center, Kobe University,
³Graduate School of Integrated Science for Life, Hiroshima University,
⁴Graduate School of Medicine, Kyoto University,
⁵Division of Genetics and Mutagenesis, National Institute of Health Sciences
- P-26** **Nucleotide excision repair disruption by dibromoacetonitrile**
 (O-1-4) Yukako KOMAKI, Yuko IBUKI
 Graduate Division of Nutritional and Environmental Sciences, University of Shizuoka
- P-27** **Mechanistic insight of unique mutations caused by a ribonucleotide embedded into DNA**
Ayuna TAKEISHI¹, Manabu YASUI², Hiroyuki SASANUMA³, Shunichi TAKEDA³,
Kaoru SUGASAWA⁴, Masamitsu HONMA², Kiyoe URA¹, Akira SASSA¹
¹Graduate School of Science and Engineering, Chiba University,
²The Division of Genetics and Mutagenesis, National Institute of Health Sciences,
³Department of Radiation Genetics, Graduate School of Medicine, Kyoto University,
⁴Biosignal Research Center, Kobe University
- P-28** **DNA polymerase kappa counteracts inflammation-induced mutagenesis in multiple organs of mice**
Atsushi HAKURA¹, Hajime SUI², Jiro SONODA³, Tomonari MATSUDA⁴, Takehiko NOHMI⁵
¹Global Drug Safety, Eisai Co., Ltd., ²Hatano Research Institute, Food and Drug Safety Center,
³GLP, Eisai Co., Ltd., ⁴Research Center for Environmental Quality Management, Kyoto University,
⁵Biological Safety Research Center, National Institute of Health Sciences

- P-29** **FTO's roles in DNA damage response and underlying mechanism**
(O-2-3) Weiyang LIU¹, Manabu YASUI², Akira SASSA³, Yiyi CAO¹, Jing XI¹, Xinyue YOU¹, Masamitsu HONMA², Yang LUAN¹
¹School of Public Health, Shanghai Jiao Tong University School of Medicine, China,
²Division of Genetics and Mutagenesis, National Institute of Health Sciences,
³Graduate School of Science, Chiba University
- P-30** **Disruption of DNA damage response (DDR) and chromosomal aberration: EGFP-MDC1 foci formation-inhibition assay**
(O-2-4) Sou ARAKI, Tomonari MATSUDA
Graduate School of Engineering, Kyoto University
- P-31** **T7endonuclease1 cleaves UV-induced DNA lesion**
Kazuki MATSUBARA, Isao KURAOKA
Department of chemistry, Faculty of Science, Fukuoka University
- P-32** **Functional analysis of Endonuclease/exonuclease/phosphatase family domain containing 1 protein**
(O-1-3) Shota UEDA, Isao KURAOKA
Faculty of Science, Fukuoka University
- P-33** **Acidic condition delays nucleotide excision repair**
Yuko IBUKI, Tetsuya FUKUDA, Yukako KOMAKI
Graduate Division of Nutritional and Environmental Sciences, University of Shizuoka
- P-34** **The excision of 8-oxo-G due to hOGG1 BER Enzyme**
Vladimir SYCHROVSKY¹, Jakub SEBERA¹, Yoshikazu HATTORI², Daichi SATO², David REHA³, Takashi KOHNO⁴, Chojiro KOJIMA⁵, Yoshiyuki TANAKA²
¹The Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic, Czech Republic,
²Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Japan,
³Center for Nanobiology and Structural Biology, ASC, Czech Republic,
⁴Division of Genome Biology, National Cancer Center Research Institute, Japan,
⁵Graduate School of Engineering, Yokohama National University, Japan
- P-35** **Function of each TLS polymerase in mutagenesis by various mutagens**
Naoko NAKATANI¹, Kodai FUKUMOTO¹, Akane TAKENOKUCHI¹, Takeji TAKAMURA², Takashi YAGI¹, Masanobu KAWANISHI¹
¹Department of Biology, Graduate School of Science, Osaka Prefecture University,
²Department of Applied Chemistry, Kanagawa Institute of Technology
- P-36** **Inosine-specific ribonuclease activity of human endonuclease V isoforms**
Mayu KAWASAKI, isao KURAOKA
Department of Chemistry, Faculty of Science, Fukuoka University
- P-37** **Abasic site analog in lagging strand template induces mutations more frequently than that in leading strand template**
(O-1-2) Tetsuya SUZUKI^{1,2}, Yuri KATAYAMA², Hiroyuki KAMIYA^{1,2}
¹Graduate School of Biomedical and Health Sciences, Hiroshima University,
²School of Pharmaceutical Sciences, Hiroshima University
- P-38** **DNA double strand break repair function for low dose-rate radiation and Dose-Rate/Inverse-Dose-Rate Effect**
Hisayo TSUCHIYA¹, Kaima TSUKADA¹, Mikio SHIMADA^{1,2}, Junya KOBAYASHI³, Yoshihisa MATSUMOTO^{1,2}
¹Tokyo Institute of Technology, School of environment and society, Graduate in Nuclear Engineering,
²Tokyo Institute of Technology, Institute of Innovative Research, Laboratory for Advanced Nuclear Energy,
³Radiation Biology Center, Kyoto University
- P-39** **TRAIIP regulates Histone H2B monoubiquitination in DNA damage response pathways**
Joorak LEE, Kibeom PARK
Department of Biological Sciences, UNIST, Korea

Methodology and new technology

- P-40** **Test performance evaluation of the miniaturized Ames test relative to the conventional method**
Yoko INOUE, Ryoko MATSUYAMA, Sachiko KITAMOTO
Sumitomo Chemical Co., Ltd.
- P-41** **Further improvement of high through-put fluctuation Ames test (Part XIV)**
Hajime SUI, Kumiko KAWAKAMI, Misato SOEDA, Takeharu TAKIZAWA, Megumi SHIINA
Hatano Research Institute, Food and Drug Safety Center
- P-42** **Comparison of *Salmonella typhimurium* tester strains TA97 and TA97a with TA1537**
Yuka SAKAI¹, Toru ISHII¹, Yasunori TAKAHASHI¹, Yasuyoshi MIURA¹, Toshiro FUKUSHIMA¹,
Masayuki KATO², Kei-ichi SUGIYAMA³
¹Scientific Product Assessment Center, R&D group, Japan Tobacco Inc., ²CMIC Pharma Science Co., Ltd.,
³Division of Genetics and Mutagenesis, National Institute of Health Sciences
- P-43** **Revisiting the Bacterial Mutagenicity Assays (Ames test); Summary Report by a Workgroup of the International Workshops on Genotoxicity Testing Genetic Toxicology (IWGT)**
Masayuki KATO¹, Atsushi HAKURA², Kei-ichi SUGIYAMA³
¹CMIC Pharma Science Co., Ltd., ²Eisai Co., Ltd., ³National Institute of Health Sciences
- P-44** **Development of yeast-based reporter assay system to detect ligands of human xenobiotic receptor, constitutive androstane receptor (CAR)**
Sayoko ITO-HARASHIMA¹, Kazuhiro SHIIZAKI^{1,2}, Masanobu KAWANISHI¹, Takashi YAGI¹
¹Graduate School of Science, Osaka Prefecture University, ²Graduate School of Life Sciences, Toyo University
- P-45** **Prediction of Chemical Toxicity based on a High-throughput Assay by Automated Phenotypic Profiling of *C. elegans***
Guojun LI¹, Shan GAO¹, Yun LOU¹, Weiyang CHEN², Haiming JING¹, Nan ZHANG¹,
Wenjing ZHANG¹, Gaochao HAN¹, Junyu NING¹, Yingxin ZENG¹, Bo XIAN³
¹Beijing Key Laboratory of Diagnostic and Traceability Technologies for Food Poisoning, Beijing Center for Disease Prevention and Control/Beijing Center of Preventive Medicine Research, Beijing, China,
²Qilu University of Technology, Jinan,
³Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai
- P-46** **An evaluation of γ H2AX focus induction in TK6 cells can be an initial follow-up approach after positive results in the Ames test; an optional part of a collaborative study by MMS**
(O-4-1) Akira TAKEIRI¹, Kaori MATSUZAKI², Kenji TANAKA¹, Kumiko OGAWA³, Manabu YASUI⁴,
Masamitsu HONMA⁴, Masayuki MISHIMA²
¹Res. Div., Chugai Pharmaceutical Co., Ltd., ²TR Div., Chugai Pharmaceutical Co., Ltd., ³Div. Pathol., NIHS,
⁴Div. Genetics & Mutag., NIHS
- P-47** **Evaluation of TK gene mutation assay as follow-up approaches with 10 chemicals for positive results in the Ames test: Collaborative Study by MMS**
Manabu YASUI¹, Takayuki FUKUDA², Akiko UKAI¹, Jiro MANIWA³, Haruna YAMAMOTO⁴,
Takashi IMAMURA⁵, Saori FUJISHIMA⁶, Naoko OTANI⁷, Kazunori NARUMI⁸, Kaori MATSUZAKI⁹,
Yuki OKADA¹⁰, Munehiro NAKAGAWA¹¹, Maya UEDA¹², Kentaro MISAKI¹³, Jun ADACHI¹⁴,
Kumiko OGAWA¹⁵, Masamitsu HONMA¹
¹Div. Genetics & Mutag., NIHS, ²BoZo R.C., ³AstraZeneca KK., ⁴Japan Tobacco Inc., ⁵Ina Res. Inc., ⁶CERI,
⁷Astellas Pharma, ⁸YAKULT HONSHA, ⁹Chugai Pharm., ¹⁰Teijin Pharma, ¹¹LSI Medience, ¹²ANPYO,
¹³Univ. Shizuoka, ¹⁴Lab. Proteome Res., NIBIOHN, ¹⁵Div. Pathol., NIHS.
- P-48** **Verification of the chemical compound which was a conflict result in a micronucleus test and chromosomal aberration test -part-2-**
Toshitaka TAKAHASHI, Kumiko KAWAKAMI, Hajime SUI
Hatano Reserch Institute, Food and Drug Safety Center
- P-49** **Examination of the micronucleus test in T24 human bladder carcinoma cells**
Yu YAMAZEKI¹, Riku KANAUCHI², Aiko NAGANO², Robert A KANALY¹, Toshihide TAKESHITA¹
¹Department of Life and Environmental System Science, Yokohama City University Graduate School of Nanobioscience,
²Department of International Integrated Sciences, Yokohama City University

Program

Program(JPN)

Keynote Lecture

Award Lecture

Symposium

Workshop

Special Program

Platform Session

Poster Session

Author Index

- P-50** **Comparison of three cell lines used in the in vitro micronucleus assay with tobacco products**
 Haruna YAMAMOTO¹, Kaori SHIBUYA¹, Toshiro FUKUSHIMA¹, Toshio SOFUNI²,
 Tsuneo HASHIZUME¹
¹Japan tobacco inc., ² Genotoxic Consulting Services
- P-51** **A novel extension of the ToxTracker genotoxicity assay identifies aneugenic and clastogenic properties of chemicals**
 Inger BRANDSMA, Remco DERR, Nynke MOELIJKER, Giel HENDRIKS
 Toxys, The Netherlands
- P-52** **Developing more sophisticated in vitro tools to detect genotoxic and non-genotoxic carcinogens**
 Gareth JENKINS, Kate CHAPMAN, Eleanor WILDE, Jatin VERMA, Kulsoom SHAH,
 Leanne STANNARD, George JOHNSON, Shareen DOAK
 In Vitro Toxicology Group, Swansea University, UK
- P-53** **Establishing a Novel PIG-A Gene Mutation Assay in TK6 Cells**
 (O-4-2) Yan CHANG, Ruowan LI, Pengcheng HUANG, Changhui ZHOU
 Shanghai Innostar Bio-tech Co. Ltd./National Shanghai Center for New Drug Safety Evaluation and Research, China
- P-54** **New strain of *gpt* delta transgenic rat is homozygous for transgene and highly improved packaging efficiency**
 Kenichi MASUMURA¹, Tomoko ANDO¹, Akiko UKAI¹, Sho FUJIWARA², Toshiro SUZUKI²,
 Shigeo YOKOSE², Hisayosi TAKAGI², Takehiko NOHMI³, Masamitsu HONMA¹
¹Division of Genetics and Mutagenesis, National Institute of Health Sciences (NIHS), ²Japan SLC, Inc.,
³Division of Pathology, NIHS
- P-55** **Response to the Issues Raised at the 7th IWGT Meeting: Effect of Aging on the Repeated Dose Liver Micronucleus Assay**
 Miyuki SHIGANO, Kiyoko NAKADATE, Hironao TAKASAWA, Shuichi HAMADA
 LSI Medience Corporation
- P-56** ***In vivo* genotoxicity assessment of multi-wall carbon nanotubes using lung micronucleus assay**
 Katsuyoshi HORIBATA¹, Hironao TAKASAWA², Yuhji TAQUAHASHI³, Satoshi YOKOTA³,
 Shuichi HAMADA², Masamitsu HONMA¹
¹Division of Genetics and Mutagenesis, National Institute of Health Sciences, ²LSI Medience Corporation,
³Division of Cellular and Molecular Toxicology, National Institute of Health Sciences
- P-57** **Characterization of Benzo[a]pyrene and Colchicine Responded in an in vivo Multi-endpoints Genotoxicity Assessment Platform Using Repeat-dosing Approach**
 Zhu ZENG^{1,2}, Jiao HUO^{1,2}, Xuejiao ZHU^{1,2}, Ruirui LI^{1,2}, Rui WU^{1,2}, Yunjie LIU^{1,2}, Zihao PENG^{1,2},
 Jinyao CHEN^{1,2}, Lishi ZHANG^{1,2}
¹West China School of Public Health and Healthy Food Evaluation Research Center, Sichuan University, Chengdu,
 Sichuan, China,
²Food Safety Monitoring and Risk Assessment Key Laboratory of Sichuan Province, Chengdu, Sichuan, China
- P-58** **Integration of Micronucleus, Comet, and Pig-a Gene Mutation Endpoints into Rat 15-day Repeat-treatment Studies: Proof-of-principle with Auramine O**
 Changhui ZHOU, Wen TONG, Pengcheng HUANG, Yan CHANG
 Shanghai Innostar Bio-tech Co. Ltd./National Shanghai Center for New Drug Safety Evaluation and Research, China
- P-59** **The variation and reproducibility of the raw data for the RBC *Pig-a* Assay and PIGRET Assay**
 (O-4-3) Satsuki CHIKURA, Takafumi KIMOTO, Yuki OKADA, Kumiko OKADA, Rie MORISHIMA,
 Daishiro MIURA
 Toxicology Research Department, Teijin Institute for Bio-medical Research, Teijin Pharma Limited
- P-60** **The human PIG-A study on a population of Chinese workers exposed to lead**
 (O-4-4) Yiyi CAO¹, Tuanwei WANG², Jing XI¹, Xinyue YOU¹, Weiyang LIU¹, Zhaolin XIA², Yang LUAN¹
¹School of Public Health, Shanghai Jiao Tong University School of Medicine, China,
²School of Public Health, Fudan University

- P-61** **The potential use of the human PIG-A mutation assay as a biomarker for oesophageal cancer**
(O-4-5) Rachel LAWRENCE¹, Hasan HABOUBI¹, Lucy SWITHENBANK¹, Lucy NICHOLS¹,
Lisa WILLIAMS², Shareen DOAK¹, Gareth JENKINS¹
¹Swansea University Medical School, United Kingdom, ²Singleton Hospital's Endoscopy Department
- P-62** **Measuring Tumour response to chemotherapy using a blood based biomarker**
Lucy J SWITHENBANK¹, Rachel LAWRENCE¹, Sarah GWYNNE², Shareen DOAK¹,
Gareth JENKINS¹
¹Swansea University, Institute of Life Science, Swansea, Wales, UK,
²ABM University NHS Trust Department of Oncology, Swansea, UK
- P-63** **A novel blood based biomarker for pancreatic cancer**
Lucy NICHOLS¹, Lucy SWITHENBANK¹, Rachel LAWRENCE¹, Shareen DOAK¹,
Bilal AL-SARIREH², Gareth JENKINS¹
¹In Vitro Toxicology Group, Swansea University Medical School, Swansea University, United Kingdom,
²General Surgery, Morriston Hospital, Heol Mas Eglwys, Swansea
- P-64** **xenoBiotic: Ames Mutagenicity Predictor**
Toshihiko SAWADA¹, Tomohiro HASHIMOTO¹, Hiroaki WASADA¹, Shinzo KAGABU²
¹Faculty of Regional Studies, Gifu University, ²Professor Emeritus, Gifu University
- P-65** **Development of a new in silico prediction system for Ames mutagenicity, YosAI, in drug discovery**
Naoki KOYAMA¹, Megumi IKEMORI², Atsushi HAKURA¹, Suman K CHAKRAVARTI³,
Roustem D SAIKHOV³, Naoki TORITSUKA¹, Shoji ASAKURA¹
¹Global Drug Safety, Eisai Co., Ltd., ²Planning & Operation. hhc Data Creation Center, Eisai Co., Ltd.,
³MultiCASE Inc.
- P-66** **In silico genotoxicity assessment of flavoring substances using StarDrop**
Toshio KASAMATSU¹, Aili KITAZAWA¹, Simie TAJIMA², Masahiro KANEKO², Masamitsu HONMA¹
¹National Institute of Health Sciences, Division of Genetics and Mutagenesis, ²HULINKS
- P-67** **Improvement of Decision Making for Genotoxic Carcinogens: Assessment of Genotoxicity Based on Weight of Evidence Approaches**
Chihae YANG¹, Mark T.D. CRONIN², James F. RATHMAN³
¹Molecular Networks GmbH, Germany, ²Liverpool John Moores University, ³Ohio State University
- P-68** **CISOC-PSMT and Its Applications**
Jianhua YAO, WenLi XU, Shuyang JIANG, Jia LI, Jing HU
Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, China
- P-69** **Improving performance of structural alerts for the in vitro mutagenicity endpoint using proprietary data**
(O-5-1) Rachael E. TENNANT¹, Martyn L. CHILTON¹, Robert S. FOSTER¹, Adrian FOWKES¹,
Laura GIBSON¹, Crina I. HEGHES¹, Steven KANE¹, Meekee KOK¹, Alun J. MYDEN¹,
Martin P. PAYNE¹, David J. PONTING¹, JPMA TF-1²
¹Lhasa Limited, United Kingdom, ²JPMA
- P-70** **Improving the predictive performance of in silico aromatic amine mutagenicity alerts through the analysis of proprietary data**
Rachael E. TENNANT
Lhasa Limited, United Kingdom
- P-71** **Exploring Metal Oxide Nanomaterials QSAR Modeling and Identification of Key Features Contributing to the Cytotoxicity**
Ting ZHANG, Jiali YING, Ying MA, Daming WU, Meng TANG
Key Laboratory of Environmental Medicine and Engineering, Ministry of Education; School of Public Health, Southeast University, Nanjing, China

- P-72** **Verification of DNA adduct formation derived from chemical compounds by DNA/RNA adductome methods and *in silico*: *ab initio* calculation analyses**
 Toshihide TAKESHITA¹, Hiroki SAKAGAMI¹, Masanori TACHIKAWA^{1,2}, Robert A KANALY¹
¹Graduate School of Nanobioscience, Yokohama City University, ²School of Data Science, Yokohama City University
- P-73** **Characterization of genome-wide mutations by chemical mutagens using a novel, highly accurate genome sequencing method**
 Shoji MATSUMURA¹, Hirayuki SATO², Yuki OTSUBO¹, Junichi TASAKI¹, Naohiro IKEDA¹, Osamu MORITA¹
¹R&D, Safety Science Research, Kao Corporation, ²R&D, Analytical Science Research, Kao Corporation
- P-74** **A new strategy for the detection of ultra-low frequency mutations with whole genome sequencing**
 Xinyue YOU^{1,2}, Yang LUAN¹, Mikihiko NAITO², Chie FURIHATA², Masamitsu HONMA³, Takayoshi SUZUKI²
¹School of Public Health, Shanghai Jiao Tong University School of Medicine, China, ²Division of Molecular Target and Gene Therapy Products, National Institute of Health Sciences, Japan, ³Division of Genetics and Mutagenesis, National Institute of Health Sciences, Japan
- P-75** **A method enabling sensitive analysis of mutation profile of Ames-positive mutagens using genome sequencing**
 Yuki OTSUBO, Shoji MATSUMURA, Naohiro IKEDA, Osamu MORITA
 R&D - Safety Science Research, Kao Corporation
- P-76** **Using FFPE RNA-Seq with 10 marker genes to evaluate genotoxicity of rat hepatocarcinogens: 2-acetylaminofluorene and *p*-cresidine**
 Chie FURIHATA¹, Xinyue YOU², Takeshi TOYODA³, Kumiko OGAWA³, Takayoshi SUZUKI¹
¹Division of Molecular Target and Gene Therapy Products, National Institute of Health Sciences, ²Shanghai Jiao Tong University School of Medicine, ³Division of Pathology, National Institute of Health Sciences
- P-77** **Applications of the nanopore sequencer (MinION) for mutation research**
 Takayoshi SUZUKI¹, Xinyue YOU^{1,2}, Chie FURIHATA¹, Kahoko NISHIKAWA³
¹Division of Molecular Target & Gene Therapy Products, National Institute of Health Sciences, ²Shanghai Jiao Tong University School of Medicine, ³Faculty of Commerce, Chuo Univ.
- P-78** **Detection of DNA adducts by nanopore sequencing using deep learning**
 Hanako ONO¹, Momoko NAGAI¹, Daichi NARUSHIMA¹, Ryuji HAMAMOTO², Yukari TOTSUKA³, Mamoru KATO¹
¹National Cancer Center Research Institute, Department of Bioinformatics, ²National Cancer Center Research Institute, Division of Molecular Modification and Cancer Biology, ³National Cancer Center Research Institute, Division of Carcinogenesis and Prevention (Environmental Carcinogenesis and Cancer Prevention Group)
- P-79** **Whole genome sequencing analysis elucidates associations between environmental factors and human cancer development**
 Keita IWAMURA^{1,2}, Haruna SHIMADA¹, Tomonari MATSUDA³, Mamoru KATO⁴, Asmaa ELZAWAHRY⁴, Momoko NAGAI⁴, Osamu ENDO², Yukari TOTSUKA¹
¹Division of Carcinogenesis & Prevention, National Cancer Center Research Institute, Tokyo, Japan, ²Laboratory of Environmental Hygiene, School of Life and Environmental Science, Azabu University, Kanagawa, Japan, ³Research Center for Environmental Quality Management, Kyoto Univ., Shiga, Japan, ⁴Department of Bioinformatics, National Cancer Center Research Institute, Tokyo, Japan
- P-80** **Evaluation of regulatory genotoxicology studies using a multifunctional image analysis system**
 Christine MARCHAND¹, Christian SCHUNCK², Andreas ZELLER¹
¹Roche Non-Clinical Safety, Basel, Switzerland, ²MetaSystems GmbH, Altflusheim, Germany
- P-81** **Study on cytotoxicity of chemical exposure and amount of deformation of cell nucleus measured from fluorescence image**
 Kenji TAKESHITA
 UBE Scientific Analysis Laboratory, Inc.

Environment and risk

- P-82** **What have we known about air pollution and metabolism?**
(O-3-2) Cuiqing LIU^{1,2}, Ran LI^{1,2}, Qing SUN^{1,2}, Rucheng CHEN^{1,2}, Guoqing ZHANG¹, Junyao ZHU¹, Weijia GU^{1,2}, Lu ZHANG^{1,2}, Sin Man LAM³, Guanghou SHUI³, Lung-Chi CHEN^{2,4}, Qinghua SUN⁵, Sanjay RAJAGOPALAN⁶
¹Division of Toxicology, College of Public Health, Zhejiang Chinese Medical University, China,
²Joint China-US Research Center for Environment and Pulmonary Diseases, Zhejiang Chinese Medical University, Hangzhou, China,
³State Key Laboratory of Molecular Developmental Biology, Beijing, China
⁴Institute of Genetics and Developmental Biology, Chinese Academy of Sciences,
⁵Department of Environmental Medicine, New York University School of Medicine, New York, USA,
⁶College of Public Health, The Ohio State University, Columbus, Ohio, USA,
⁶Division of Cardiovascular Medicine Harrington Heart and Vascular Institute, Case Western Reserve University
- P-83** **Harmful effects of autophagy on human bronchial epithelial cells induced by fine particulate matter**
(O-6-7) Hao SUN, Qingtao MENG, Shenshen WU, Xiaobo LI, Rui CHEN
School of Public Health, Southeast University, China
- P-84** **Evaluation of fullerene soot induced genotoxicity and DNA methylation in human peripheral blood mononuclear cells and tobacco BY-2 cells**
(O-3-3) Abhishek SADHU¹, Ilika GHOSH¹, Yuji MORIYASU¹, Anita MUKHERJEE², Maumita BANDYOPADHYAY³
¹Graduate School of Science and Engineering, Saitama University, Saitama, Japan,
²Cell Biology and Genetic Toxicology Laboratory, Centre of Advanced Study, Department of Botany, University of Calcutta, West Bengal, India,
³Plant Molecular Cytogenetics Laboratory, Centre of Advanced Study, Department of Botany, University of Calcutta, West Bengal, India
- P-85** **Withdrawal**
- P-86** **Indoor VOCs exposures and risk of childhood acute leukemia: a case-control study in Shanghai**
Yan ZHANG¹, Yu GAO¹, Xiaodan YU², Weiyue WANG³, Hui WANG⁴, Ying TIAN³
¹Department of Environmental Health, School of Public Health, Shanghai Jiao Tong University School of Medicine, Shanghai, China,
²Department of Developmental and Behavioral Pediatrics, Shanghai Children's Medical Center, Shanghai Jiao Tong University School of Medicine, Shanghai, China,
³MOE and Shanghai Key Laboratory of Children's Environmental Health, Xin Hua Hospital Affiliated to Shanghai Jiao Tong University School of Medicine, Shanghai, China,
⁴School of Public Health, Shanghai Jiao Tong University School of Medicine, Shanghai, China
- P-87** **Maternal exposure to nonylphenol during pregnancy and lactation induces microglial cell activation and pro-inflammatory cytokine production in offspring hippocampus**
Weijia GU
Basic Medical College, Zhejiang Chinese Medical University, China
- P-88** **Depressive behavior induced by nonylphenol and its effect on the expression of ER- α and ER- β in nerve cells of rats**
Weihong XU, Jie YU, Shengnan LI, Jie XU
School of Public Health, Zunyi Medical University, China
- P-89** **Low-dose toxic actions and potential mode of actions of bisphenol A: a systematic review integrated with bioinformatic analysis**
Xiaomeng LI¹, Jiuming YAN¹, Yuan JIN², Jinyao CHEN¹, Lishi ZHANG¹
¹West China School of Public Health/West China Fourth Hospital and Healthy Food Evaluation Research Center, Sichuan University, Chengdu, China,
²School of Public Health, Qingdao University, Qingdao, China
- P-90** **Chlorination of bisphenol A changed histone acetylation and DNA damage response**
Takashi SHINDO, Yukako KOMAKI, Yuko IBUKI
Graduation Division of Nutritional and Environmental Sciences, University of Shizuoka

- P-91** **Deregulation of autophagy is involved in kidney toxicity of arsenite and fluoride exposure during gestation to puberty in rat offspring**
Xiaoyan YAN¹, Xiaolin TIAN^{1,2}, Jing FENG³, Nisha DONG¹, Jiaxin XIE¹, Meng LI¹, Penghui LIU¹, Yannan ZHAO¹, Yulan QIU¹
¹School of Public Health, Shanxi Medical University, China,
²College of Animal Science and Veterinary Medicine, Shanxi Agricultural University,
³Shanxi Key Laboratory of Experimental Animal and Human Disease Animal Models, Shanxi Medical University
- P-92** **Effect of molybdate on hepatic steatosis in mice**
Seungwoo LEE¹, Ki-Hoan NAM², Doug-Young RYU¹
¹Research Institute for Veterinary Science, College of Veterinary Medicine, Seoul National University, Korea,
²Laboratory Animal Resource Center, Korea Research Institute of Bioscience and Biotechnology
- P-93** **Aging Induced by Copper in *Caenorhabditis elegans***
(O-3-4) Ying ZHANG, Chao ZHAO, Hu ZHANG, Qiang LU, Jingjing ZHOU, Yuepu PU, Lihong YIN
Southeast University, China
- P-94** **The Role of CCM3 Gene in Lead-induced Vascular Toxicity and its Mechanism Study**
Yun HE¹, Zhiqiang ZHAO¹, Xinxia LIU², Chunmei GONG³, Xiaoli LIU³, Xiaoyan OU¹, Xiaolin SU¹, Jingli CHEN¹, Chen XIAO¹, Jieyi LIU¹
¹Department of Toxicology, School of public Health, Sun Yat-sen University, China,
²Zhongshan Center for Disease Control and Prevention, Zhongshan, Guangdong, China,
³Laboratory Research Institution, Shenzhen Center for Chronic Disease Control, Shenzhen, Guangdong, China
- P-95** **Reproductive toxicity induced by endosulfan isomers and the sulfate metabolite in *Caenorhabditis elegans***
An XU, Hua DU, Jingjing WANG
Hefei Institutes of Physical Science, CAS, China
- P-96** **Metabolic activation of carcinogenic heterocyclic amines by canine liver S9**
Masashi SEKIMOTO, Kimika KANESHIMA, Moeka NAMIKI, Namiki TAKAHASHI, Osamu ENDO
School of Life and Environmental Science, AZABU UNIVERSITY
- P-97** **Genotoxic activities of river water extracts in Kanagawa prefecture using the umu test**
(O-3-5) Takeji TAKAMURA¹, Shuya SAKAMOTO¹, Yoshimitsu ODA²
¹Department of Applied Chemistry, Kanagawa Institute of Technology, ²Osaka Shin-Ai College
- P-98** **A novel biodegradation route of microcystin-LR under anaerobic condition by enrichment bacteria community**
Qin DING, Kaiyan LIU, Rongli SUN, Juan ZHANG, Lihong YIN, Yuepu PU
Key Laboratory of Environmental Medicine Engineering of Ministry of Education of China, School of Public Health, Southeast University, China
- P-99** **Establishment of ligand assay yeasts expressing juvenile hormone receptor of the European honey bee *Apis mellifera***
Erika SANO¹, Sayoko ITO-HARASHIMA¹, Masahiro OGAWA², Takahiro KYOYA², Megumi TERADA², Masanobu KAWANISHI¹, Takashi YAGI¹
¹Graduate School of Science, Osaka Prefecture University,
²Life Science Research Institute, Kumiai Chemical Industry Co. Ltd.
- P-100** **The effects of pubertal fenvalerate exposure on rat's enzymes activity of testis and sex hormone levels**
Rong SHI¹, Yi HU², Ping kang LIU¹, Yu GAO¹, Jun yi ZHOU¹
¹Department of Environmental Health School of Public Health Shanghai Jiaotong University, China,
²Children's Hospital of Shanghai Jiaotong University
- P-101** **Glyburide attenuates ozone-induced pulmonary inflammation and injury via blocking NLRP3 inflammasome**
Min GAO, Li HUANG, Hua SHAO, Shuyin DUAN, Jiacheng ZHU, Xiaohui CHEN, Yajuan ZHU, Yue BA, Chunyang LI, Qiao ZHANG, Feifei FENG
College of Public Health, Zhengzhou University, Zhengzhou, Henan, China

- P-102 3,3'-Diindolylmethane induces anti-human gastric cancer**
 Yang YE¹, Fen YE¹, Xue LI¹, Jianwei ZHOU², Wenrong XU³, Rongzhu LU¹, Shuhan MIAO⁴
¹Department of Preventive Medicine and Public Health Laboratory Science, School of Medicine, Jiangsu University, China,
²Department of Molecular Cell Biology and Toxicology, Cancer Center, School of Public Health, Nanjing Medical University,
³Key Laboratory of Medical Science and Laboratory Medicine of Jiangsu Province, School of Medicine, Jiangsu University,
⁴Department of Health Care, Zhenjiang Fourth Peoples Hospital and Zhenjiang Women and Childrens Hospital
- P-103 Effects of Fructus Mume Carbon on antioxidative and hypoglycemic activities**
 (O-3-1) Yun-Shan LI, Kazuaki KAWAI, Hiroshi KASAI, Yuko OOTSUYAMA
 Dept. Environ. Oncol., Univ. Occup. Environ. Health, Japan
- P-104 Genotoxicity assessment of food flavoring substances used in Japan**
 Masamitsu HONMA¹, Manabu YASUI¹, Kei-ichi SUGIYAMA¹, Kenichi MASUMURA¹, Katsuyoshi HORIBATA¹, Masami YAMADA^{1,2}
¹Division of Genetics and Mutagenesis, National Institute of Health Sciences,
²Department of Applied Chemistry, National Defense Academy
- P-105 Genotoxicity Assessment of Perillaldehyde, a Flavouring Agent Derived from Perilla, Commonly Used in Asia**
 Cheryl A. HOBBS¹, Sean TAYLOR², Carol BEEVERS³, Melvin LLOYD³, Rachael BOWEN³, Lucinda LILLFORD³, Robert MARONPOT⁴, Shim-mo HAYASHI⁵
¹Toxicology Program, Integrated Laboratory Systems, Inc., Research Triangle Park, NC, USA,
²International Organization of the Flavor Industry, Washington, DC, USA,
³Covance Laboratories Ltd, Harrogate, North Yorkshire, England, ⁴Maronpot Consulting LLC, Raleigh, NC, USA,
⁵Japan Flavor and Fragrance Materials Association, Tokyo, Japan
- P-106 Pyrrolizidine Alkaloids Mode of Action: Examining differences in dose response of adduct formation and micronuclei**
 (O-3-7) Tianyi ZHANG, Ashley ALLEMANG, Cathy LESTER, Peter STOFFOLANO, Ken WEHMEYER, Catherine MAHONY, Stefan PFUHLER
 The Procter & Gamble Company, Singapore
- P-107 Determination of genotoxicity threshold for ENU and EMS based on an in vivo multi-endpoint genotoxicity assessment platform in rats**
 (O-3-6) Xuejiao ZHU^{1,2}, Jiao HUO^{1,2}, Zhu ZENG^{1,2}, Ruirui LI^{1,2}, Rui WU^{1,2}, Yunjie LIU^{1,2}, Zihao PENG^{1,2}, Jinyao CHEN^{1,2}, Lishi ZHANG^{1,2}
¹West China School of Public Health and Healthy Food Evaluation Research Center, Sichuan University, Chengdu, Sichuan, China,
²Food Safety Monitoring and Risk Assessment Key Laboratory of Sichuan Province, Chengdu, Sichuan, China
- P-108 Residual radiation carried down by black rain and its contribution to elongate lifespan and reduce cancer**
 Shizuyo SUTOU
 School of Pharmacy, Shujitsu University
- P-109 Genotoxicity and biocompatibility of poly (lactic-co-glycolic acid) encapsulated surface modified superparamagnetic iron oxide nanoparticles (SPION) in Swiss albino mice**
 Ilika GHOSH^{1,3}, Yasuko KANEKO¹, Swarupa GHOSH², Manoswini CHAKRABARTI³, Anita MUKHERJEE³
¹Graduate School of Science and Engineering, Saitama University, Japan,
²School of Life Science and Biotechnology, Adamas University, West Bengal, India,
³Cell Biology and Genetic Toxicology Laboratory, Centre of Advanced Study, Department of Botany, University of Calcutta, India

Carcinogenic effect and others

- P-110 Poly(ADP-ribose) glycohydrolase (PARG) silencing suppresses benzo(a)pyrene induced cell transformation is associated with ubiquitin-proteasome pathway**
 Haiyan HUANG, Yingbin FU, Wenjuan DAI, Zhuoying ZENG, Yanxia DEN, Zhixiong ZHUANG
 Key Laboratory of Modern Toxicology of Shenzhen, Shenzhen Center for Disease Control and Prevention, China

- P-111 Antimutagenicity of tea like-extract of *Actinidia arguta* (sarunashi) and its chemopreventive effects on DMH-DSS induced aberrant crypt foci in mice**
Sakae ARIMOTO-KOBAYASHI^{1,2}, Yusuke SAIKI², Hirono NAKAJIMA², Akira KAJIYAMA¹, Yukari NAGASAWA²
¹Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University, ²Faculty of Pharmaceutical Sciences, Okayama University
- P-112 Carcinogenic Potential of Fluorinated Estrogens in Mammary Tumorigenesis**
(O-6-1) Yoshinori OKAMOTO¹, Hideto JINNO¹, Shinji ITOH², Shinya SHIBUTANI³
¹Faculty of Pharmacy, Meijo University, ²Faculty of Pharmacy, Hokkaido University of Science, ³Department of Pharmacological Sciences, State University of New York at Stony Brook
- P-113 Development and validation of new transgenic hairless albino mice for potential reduction or refinement of animals used for photocarcinogenesis studies**
(O-6-2) Mugimane G MANJANATHA^{1,2,3}, Sharon SHELTON¹, Ying CHEN¹, Shobhan GADDAMEEDHI², Mary BOUDREAU³
¹Division of Genetic and Molecular Toxicology, USFDA National Center for Toxicological Research, Jefferson, AR, USA, ²Washington State University, Spokane, WA, USA, ³Division of Biochemical Toxicology, USFDA National Center for Toxicological Research, USA
- P-114 Genotoxicity of colibactin-producing *E. coli* isolated from a Japanese colorectal cancer patient**
(O-6-3) Ai UESHIMA¹, Yuuta HISATOMI¹, Yoshimitsu ODA¹, Yuta TSUNEMATSU², Michio SATO², Yuichiro HIRAYAMA², Noriyuki MIYOSHI³, Yuji IWASHITA⁴, Yuko YOSHIKAWA^{3,5}, Haruhiko SUGIMURA⁴, Takashi YAGI¹, Keiji WAKABAYASHI⁶, Kenji WATANABE², Masanobu KAWANISHI¹
¹Graduate School of Science and Radiation Research Center, Osaka Prefecture University, ²Department of Pharmaceutical Sciences, University of Shizuoka, ³Graduate School of Nutritional and Environmental Sciences, University of Shizuoka, ⁴Department of Tumor Pathology, Hamamatsu University School of Medicine, ⁵School of Veterinary Medicine, Faculty of Veterinary Science, Nippon Veterinary and Life Science University, ⁶Graduate Division of Nutritional and Environmental Sciences, University of Shizuoka
- P-115 Withdrawal**
- P-116 *In vivo* genotoxicity and carcinogenicity of furan derivatives in the liver of gpt delta rats using a GPG model**
(O-6-4) Shinji TAKASU¹, Takuma TSUCHIYA¹, Yuji ISHII¹, Aki KIJIMA¹, Kumiko OGAWA¹, Takashi UMEMURA^{1,2}
¹Division of Pathology, National Institute of Health Sciences, ²Faculty of Animal Health Technology, Yamazaki University of Animal Health Technology
- P-117 The mechanism of PI3K/AKT signaling pathway in the malignant transformation of Het-1A cells**
Yue MA, Ying ZHANG, Lihong YIN, Yuepu PU
School of Public Health, Southeast University, China
- P-118 Effects of acetaldehyde on histone tail**
Riku TSUTSUMI, Ryousuke SHIKASHO, Ayaka OGURA, Isao KURAOKA, Narumi SHIOI
Department of chemistry, Faculty of Science, Fukuoka University
- P-119 Mechanism of radiation induced tumorigenesis using *Apc*^{Min/+} mice**
Megumi SASATANI, Kenji KAMIYA
Research Institute for Radiation Biology and Medicine, Hiroshima University
- P-120 Withdrawal**
- P-121 Analysis of epigenetic effects of the mycotoxin Fumonisin B1 using FLO assay**
Kei-ichi SUGIYAMA¹, Hiroko FURUSAWA¹, Mawo KINOSHITA¹, Kaoru SATO², Masamitsu HONMA¹
¹Division of Genetics and Mutagenesis, National Institute of Health Sciences, ²Division of Pharmacology, National Institute of Health Sciences

- P-122** **Genome-wide microRNA expression profiling in the testis of male rat offspring after embryonic exposure to low dose Bisphenol A**
 Mingyue MA, Lin MA, Haiyang YU, Dan LI, Yumin ZHANG, Xiucong PEI, Zhiwen DUAN
 Department of Toxicology, School of Public Health, Shenyang Medical College, China
- P-123** **The effect of dextran sulfate sodium on cell morphology, gene expression, and activities of transcription regulators**
 Kengo IKEBATA, Tomonari MATSUDA
 Department of Environmental Engineering of the Graduate School of Engineering, Kyoto University
- P-124** **Withdrawal**
- P-125** **The Role and Regulation Mechanism of YTHDF1 Mediated m6A in Malignant Transformation of Bronchial Epithelial Cells**
 Siyi XU¹, Jing SUI¹, Wenjuan WU¹, Tong LIU¹, Sheng YANG¹, Yuepu PU¹, Lihong YIN¹, Geyu LIANG¹, Xiang ZHANG², Ling HUANG², Jinmei HU², Yanqiu ZHANG²
¹Department of Occupational and Environmental Health, School of Public Health, Southeast University, China, ²Taizhou Center for Disease Control and Prevention
- P-126** **Glibenclamide attenuates B(a)p and LPS-induced inflammation-related lung tumorigenesis in non-diabetes mice by inhibiting the activation of NLRP3 inflammasome**
 Hua SHAO, Li HUANG, Min GAO, Shuyin DUAN, Chunyang LI, Qiao ZHANG, Feifei FENG
 Division of Toxicology, College of Public Health, Zhengzhou University, China
- P-127** **Integrative Study on Protective Mechanism of Visible Red Light against Ultraviolet B-induced Skin Damage in Human Dermal Fibroblasts**
 Hyun Soo KIM¹, Yeo Jin KIM¹, Su Ji KIM¹, Doo Seok KANG¹, Nam Gook KEE¹, Hyoung-June KIM², Young Rok SEO¹
¹Institute of Environmental Medicine, Department of Life Science, Dongguk University Biomed Campus, Korea, ²Bioscience Research Institute, Amorepacific Corporation R&D Center, Korea
- P-128** **Antimutagenic components in *Spatholobus suberectus* Dunn against carcinogenic N-methyl-N-nitrosourea**
 Keiko INAMI¹, Yoshihisa ASADA², Ayaka TANIGAWA², Takumi HARADA², Yuta OKAYAMA¹, Noriko USUI¹, Masataka MOCHIZUKI^{1,2}
¹Sanyo-Onoda City University, ²Tokyo University of Science
- P-129** **Structures and antimutagenic effects of sesquiterpenoids from the aerial parts of *Petasites japonicus***
 Takahiro MATSUMOTO¹, Saki OHTA¹, Yu MATSUI¹, Tomoe OHTA², Tatsusada YOSHIDA², Daisuke IMAHORI¹, Wei ZHANG¹, Tetsushi WATANABE¹
¹Kyoto Pharmaceutical University, ²Faculty of Pharmaceutical Sciences, Nagasaki International University
- P-130** **Morin protects nanoparticles-induced toxicity**
 Rajaguru PALANICHAMY¹, Jenifer ARULDHAS¹, Pugalenthi VELAN¹, Subramanian NATESAN²
¹Dept. of Biotechnology, Anna University-BIT Campus, Tiruchirappalli, India, ²Dept. of Pharmaceutical Sciences, Anna University-BIT Campus, Tiruchirappalli
- P-131** **Low dose-rate internal Cesium-137 radiation exposure may contribute little to carcinogenesis and transgenerational effects.**
 Hiroo NAKAJIMA¹, Katsuko UNO², Yoshiaki YAMAGUCHI¹, Takeshi TODO¹, Yoshiharu YONEKURA¹, Atsushi SHINOHARA¹
¹ Institute for Radiation Sciences. Osaka University, ²Louis Pasteur Center for Medical Research
- P-132** **Detection of *de novo* germline mutations in DNA repair-deficient mice lines**
 Mizuki OHNO¹, Kunihiko SAKUMI², Noriko TAKANO³, Kosuke TESHIMA⁴, Kyoko HIDAHA⁵, Yoshimichi NAKATSU¹, Teruhisa TSUZUKI^{1,6}
¹Dept. of Medical Biophysics and Radiation Biology, Faculty of Medical Science, Kyushu University, ²Dev. of Neurofunc. Genomics, Med. Inst. of Bioreg., Kyushu Univ, ³Faculty of Design, Kyushu Univ., ⁴Dept. of Biol., Faculty of Science, Kyushu Univ., ⁵Univ. of Kitakyushu, ⁶Kyushu Univ.

- P-133** **Alternations in gut microbiota profiles associated with benzene induced hematotoxicity**
Rongli SUN, Kai XU, Yunqiu PU, Shaungbin JI, Linling YU, Jiahui JI, Juan ZHANG, Lihong YIN, Yuepu PU
 Key Laboratory of Environmental Medicine Engineering of Ministry of Education, School of Public Health, Southeast University, China
- P-134** **Comparative study on gene expression profiles between hematopoietic stem cells and peripheral blood stem cells after benzene exposure**
Kai XU, Rongli SUN, Shuangbin JI, Yunqiu PU, Linling YU, Juan ZHANG, Lihong YIN, Yuepu PU
 Occupational and Environmental Health, School of Public Health, Southeast University, China
- P-135** **The role of MDM2-MDMX mediated P53 oscillations in DNA damage-induced cell fate decisions**
Hidehiko KAWAI, Hiroyuki KAMIYA
 Graduate School of Biomedical and Health Sciences (Pharmaceutical Sciences), Hiroshima University
- P-136** **Collaborative study of thresholds for mutagens: use of suspended cells for detection of hormetic responses by cell proliferation**
Kana KOMATSU¹, Shizuyo SUTOU², Akiko KOEDA¹, Toshiyuki SHIRAGIKU³, Hiroshi SEKI⁴, Toshiyuki KUDO²
¹Ina Research Inc., ²School of Pharmacy, Shujitsu University, ³Tokushima Research Institute, Otsuka Pharmaceutical Co., Ltd., ⁴Safety Studies Section, BML Inc.
- P-137** **The substrate DNA sequence preferences of snake venom phosphodiesterase**
Yoshifumi ZAITSU, Narumi SHIOI, Isao KURAOKA
 Fukuoka University, Faculty of science, Department of Chemistry
- P-138** **TK6 genome profile: comprehensive reference data for genotoxicity studies**
Fumio KASAI¹, Noriko HIRAYAMA¹, Takayoshi SUZUKI², Arihiro KOHARA¹
¹JCRB Cell Bank, National Institutes of Biomedical Innovation, Health and Nutrition, ²Division of Molecular Target and Gene Therapy Products, National Institute of Health Sciences