Program

Keynote Address

January 30 (Thursday) 15:10 〜 16:10 Room 1 [Main Hall]
Chair: Keisuke Izumi (Dept. of Mol. and Environ. Pathol., Inst. of Health Biosciences, The Univ. of Tokushima Grad. Sch.)

SL Using Science to Understand Mode of Action and Improve Risk Assessment  155
○ James A. Swenberg
Department of Environmental Sciences and Engineering, Gillings School of Global Public Health, University of North Carolina

30th Anniversary Address

January 31 (Friday) 11:15 〜 12:00 Room 1 [Main Hall]
Chair: Kunitoshi Mitsumori (Food Safety Commission, Cabinet Office, Government of Japan)

AL The Progress of the Japanese Society of Toxicologic Pathology: Thinking about the function of toxicologic pathology in genomic era  156
○ Shoji Fukushima Japan Bioassay Research Center, JISHA

Educational series

January 31 (Friday) 14:10 〜 15:10 Room 1 [Main Hall]
Chair: Yuji Oishi (Drug Safety Research Labs., Astellas Pharma Inc.)

INHAND Follow-up: Reproductive System

ES1 INHAND of the female reproductive tract: topics and issues  157
○ Midori Yoshida
Division of Pathology, National Institute of Health Sciences

ES2 INHAND nomenclature for male reproductive system  158
○ Hitoshi Kandori
Drug Safety Research Laboratories, Takeda Pharmaceutical Company Limited
Symposium

January 30 (Thursday) 10:25 〜 12:00 Room 1 [Main Hall]
Chair: Makoto Shibutani (Laboratory of Veterinary Pathology, Tokyo University of Agriculture and Technology)
Takuji Tanaka (The Tohkai Cytopathology Institute, Cancer Research and Prevention)

Recent Advances in Approaches to Capture Developmental Neurotoxicity

SY-1  OECD Test Guideline 426 on developmental neurotoxicity study .......................... 159
Makoto Ema
Research Institute of Science for Safety and Sustainability, National Institute of Advanced Industrial Science and Technology (AIST)

SY-2  Neurogenesis as a New Target of Developmental Neurotoxicity .......................... 160
Makoto Shibutani
Tokyo University of Agriculture and Technology, Graduate School, Institute of Agricultural Science, Division of Animal Life Science

SY-3  Delayed neurobehavioral toxicity induced by early exposure of neuroactive xenobiotics 161
Kentaro Tanemura1, Katsuhide Igarashi2, Jun Kanno2
1Laboratory of Animal Reproduction and Development, Tohoku University,
2Division of Cellular & Molecular Toxicology, National Institute of Health Sciences

SY-4  Autism model animal induced by prenatal thalidomide ......................... 162
Masaaki Narita, Michiru Ida-Eto, Takeshi Ohkawara
Department of Anatomy 2, Mie University Graduate School of Medicine
Workshop I

January 31 (Friday)  8:20 〜 9:30

Room 1 [ Main Hall ]
Chair : Satoru Takahashi (Department of Experimental Pathology Tumor Biology, Nagoya City University Graduate School of Medical Sciences)
Jyoji Yamate (Veterinary Pathology, Osaka Prefecture University)

Environment & Cancer

WS1-1  Effects of cell proliferation on the mutagenicity of estragole, a hepatocarcinogen  163
Yuji Ishii¹, Shinji Takasu¹, Ken Kuroda¹, Kohei Matsushita¹, Yuh Yokoo¹, Aki Kijima¹,
Takehiko Nohmi², Kumiko Ogawa¹, Takashi Umemura¹
¹Division of Pathology, NIHS, ²Biological Safety Research Center, NIHS

WS1-2  Mammary carcinogenesis and organ-specific differences in the sensitivity to leptin resistance
induced by high fat diet  163
Toshio Imai¹, Naoki Uchiya¹, Gen Fujii², Michihiro Mutoh², Mami Takahashi¹
¹Central Animal Division, National Cancer Center Research Institute,
²Division of Cancer Prevention Research, National Cancer Center Research Institute

WS1-3  Molecular mechanisms underlying OTA-induced mutagenesis in p53-deficient mice  164
Ken Kuroda¹, Daisuke Hibi¹, Yuji Ishii¹, Shinji Takasu¹, Aki Kijima¹, Kohei Matsushita¹,
Kenichi Masumura², Yukio Kodama³, Kumiko Ogawa¹, Takashi Umemura¹
¹Division of Pathology, National Institute of Health Sciences,
²Division of Genetics and Mutagenesis, National Institute of Health Sciences,
³Division of Toxicology, National Institute of Health Sciences

WS1-4  CCL3 as a possible serum biomarker for asbestos exposure and malignant mesothelioma  164
Hiroyuki Tsuda¹, Jiegou Xu¹, David B. Alexander¹, Takeshi Tokuyama², Ikuji Usami⁶,
Yoshimitsu Hayashi⁵, Tetsuya Oguri⁵, Satoru Takahashi⁶, Masumi Suzui⁷
¹Nagoya City University, Nanotoxicology Project, ²Department of Internal Medicine, Saiseikai Chuwa Hospital,
³Department of Respiratory Medicine, Asahi Rosai Hospital,
⁴Department of Medicine, Nagoya City Koseiin Medical Welfare Center,
⁵Department of Medical Oncology and Immunology, Nagoya City University Graduate School of Medical Sciences,
⁶Department of Experimental Pathology Tumor Biology, Nagoya City University Graduate School of Medical Sciences,
⁷Department of Molecular Toxicology, Nagoya City University Graduate School of Medical Sciences
### Workshop II

**January 31 (Friday)  9:35 ~ 11:05**  
Room 1 [ Main Hall ]

Chair: Katsumi Imaida (Oncopathology, Faculty of Medicine, Kagawa University)  
Masami Suzuki (Research Division, Chugai Pharmaceutical Co., Ltd)

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
</table>
| WS2-1    | Evaluation of pulmonary and mesothelial lesions of mice exposed to highly dispersed multiwall carbon nanotube by a newly developed Taquann inhalation system | Jun Kanno, Yuhji Takahashi  
Division of Cellular and Molecular Toxicology, Biological Safety Research Center, National Institute of Health Sciences |
| WS2-2    | Size- and shape-dependent pleural translocation, deposition and fibrogenesis by MWCNT dosed to the rat lung | Jegou Xu, David B. Alexander, Mitsuru Futakuchi, Takamasa Numano, Katsumi Fukamachi, Masumi Suzui, Hiroyuki Tsuda  
1) Laboratory of Nanotoxicology Nagoya City Univ.  
2) Dept. of Molecular Toxicology Nagoya City Univ. Graduate School of Medical Sciences |
| WS2-3    | Effects of multi-wall carbon nanotube administered by repeated intratracheal spraying in rats | Yoshimitsu Sakamoto, Akio Ogata, Katsuhiro Yuzawa, Yoshikazu Kubo, Hiroshi Ando, Akemichi Nagasawa, Hiroshi Takahashi, Norio Yano, Tetsuji Nishimura  
2) Teikyo Heisei Univ.  
4) CERI  
5) Tokyo Univ. Agricul. |
| WS2-4    | Alveolar hyperplasia like lesions induced by intra tracheal spray of carbon black particles | Mitsuru Futakuchi, Jegou Xu, Yoshiyuki Inoue, Mineo Takatsuki, Hiroyuki Tsuda  
1) Dept. of Molecular Toxicology, Graduate School of Medical Sciences, Nagoya City University  
2) Laboratory of Nanotoxicology Project, Nagoya City University  
3) Chemical Evaluation and Research Institute |
| WS2-5    | On Environmental Carcinogens : From an Era of Risk Evaluation to an Era of Risk Management | Okio Hino  
Department of Pathology and Oncology, International Environmental Carcinogenesis Prevention Center, Juntendo University School of Medicine |
Chair: Hirofumi Nagai (Drug Safety Research Laboratories, Takeda Pharmaceutical Company Limited)
Hideki Wanibuchi (Department of pathology, Osaka City University Medical School)

O-05  Possible mechanisms underlying exacerbation of osmotic nephrosis caused by preexisting kidney injury ...................................................... 173
○Kohei Matsushita1, Shinji Takasu1, Yuji Ishii1, Ken Kuroda2, Aki Kijima1, Keisuke Kitaura2, Makoto Sato2, Satoshi Matsumoto3, Kumiko Ogawa1, Takashi Umemura1

O-06  Profile of carcinogenicity by intrapulmonary instillation of multiwall carbon nanotubes .... 173
○Masumi Suzui1, Takamasa Numano1, Masaki Fujioka, Min Gi, Mitsuaki Kitano, Hideki Wanibuchi
1Department of Molecular Toxicology, Graduate School of Medical Sciences and Medical School, Nagoya City University, 2Nanomaterial Toxicology Project, Nagoya City University
**Oral Presentation II**

**January 30 (Thursday) 13:15 ~ 15:00**

**Room 1 [ Main Hall ]

Chair : Midori Yoshida (National Institute of Health Sciences, Division of Pathology)
Naoki Yoshimi (Department of Pathology and Oncology, Graduate School of Medicine, University of the Ryukyus)

**O-07 ** Identification of optineurin-binding proteins in podocytes of rat glomeruli .............................. 174

* Akane Kashimura^1, Ko Kadowaki^1, Go Sugahara^2, Kyoei Yasuno^2, Junichi Kamiie^3,
  Kinji Shirota^1,^2

^1Laboratory of Veterinary Pathology, Azabu University, ^2Research Institute of Biosciences, Azabu University

**O-08 ** Pathological analysis of islet in cynomolgus monkey fed high-fat diet .............................. 174

* Ryosuke Kobayashi^1, Hiroyuki Ishii^2, Naoki Yamada^1, Hiroki Kokushima^1,
  Tetsuro Kurotaki^1, Takuya Doi^1, Junko Sato^1, Yumi Wako^1, Minoru Tsuchitani^2

^1Pathology Department, Nonclinical Research Center, Mitsubishi Chemical Medience Corporation,
^2Safety Assessment Division, Nonclinical Research Center, Mitsubishi Chemical Medience Corporation

**O-09 ** Modulatory effects of deoxycholic acid on colon carcinogenesis in mice .............................. 175

* Toshiya Kuno^1, Takuji Tanaka^2, Aya Naiki^1, Shinya Sato^1, Shugo Suzuki^1,
  Satoru Takahashi^1


**O-10 ** Functional characterization of Lgr5-expressing cells in microadenomas and macroscopic
tumors in the colon of Apc^Min/+ mice .............................. 175

* Akihiro Hirata^1, Toshiya Kuno^2,^3, Manabu Takamatsu^2, Yuichiro Hatano^2, Hiroyuki Tomita^2,
  Akira Hara^2

^1Division of Animal Experiment, Life Science Research Center, Gifu University,
^2Department of Tumor Pathology, Gifu University Graduate School of Medicine,
^3Department of Experimental Pathology and Tumor Biology, Nagoya City University Graduate School of Medicine

**O-11 ** Studies on the mechanism of bladder tumor promotion of propolis in rat bladder .............................. 176

* Masaki Fujioka, Min Gi, Shotaro Yamano, Eri Shimomura, Kurumi Mishima, Satoki Fukunaga,
  Hideki Wanibuchi

Department of pathology Osaka city university graduate school of medicine

**O-12 ** The long-term study of potassium octatitanate fibers (TISMO) in the left thoracic cavity in A/J female mice .............................. 176

* Masanao Yokohira, Sosuke Kishi, Yuko Nakano, Keiko Yamakawa, Fumiko Ninomiya,
  Shohiei Kanie, Katsumi Imaida

Oncopathology, Faculty of Medicine, Kagawa University
O-13 A serum tumor marker for preclinical trials of pancreas cancer model
Katsumi Fukamachi1, Mitsuru Futakuchi1, Hiroyuki Tsuda2, Masumi Suzui1
1Department of Molecular Toxicology, Nagoya City University Graduate School of Medical Sciences,
2Nanotoxicology Project, Nagoya City University

O-14 * Intratracheal instillation methods and the distribution of administered material in the lung of the rat
Yasuko Hasegawa-Baba1, Hisayo Kubota1, Midori Yoshida2, Muneyuki Miyagawa1
1National Institute of Occupational Safety and Health, Japan, Health Effects Research Group,
2National Institute of Health Sciences, Division of Pathology

O-15 * Elucidation of molecular markers for early detection of prostatic carcinogens in rats
Shugo Suzuki1,2, Shinya Sato1,3, Aya Naiki1, Toshiya Kuno1, Satoru Takahashi1
3Pathol. Div., Nagoya City West Med. Ctr.

O-16 * Time-course changes of a pulmonary biomarker SP-D in rat lung injury models
Kazuyoshi Kumagai1, Sanae Takada1, Yoshikazu Nezu1, Kyohei Yasuno1,
Megumi Miyamoto1,2, Syunsuke Takada1, Koichi Yabe1, Yoshiro Tani2, Yoshimi Tsuchiya3
Wataru Takasaki1
1Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.,
2Biologics Pharmacology Research Laboratories, Daiichi Sankyo Co., Ltd., 3Daiichi Sankyo India Pharma Prv. Ltd.
E2012-induced cataract and its predictive biomarkers

- Kyoko Nakano-Ito, Etsuko Ohta, Akira Inomata, Yoshikazu Taketa, Aya Goto, Yuki Seki, Kazuhiro Hayakawa, Jiro Sonoda, Satoru Hosokawa, Toyohiko Aoki, Kazuo Tsukidate

*1Drug Safety, Eisai Co., Ltd., 2Preclinical Safety Research Laboratories, Sunplanet Co., Ltd.

The disorder of dorsal root ganglion in paclitaxel-induced peripheral neuropathy in rats

- Hitomi Hayashi, Eiji Ichimura, Kimiko Fuchigami, Yuuji Okuda, Hirohumi Yokoyama, Aiko Azegami, Kazuya Okamoto

Pharmaceutical Research Laboratories, Nippon Kayaku Co., Ltd.

Effect of Developmental Exposure to Iminodipropionitrile on the Neurogenesis in the Hippocampal Dentate Gyrus in Mice

- Liyun Wang, Ayako Shiraki, Megu Itahashi, Hajime Abe, Tomoaki Murakami, Kazuhiko Suzuki, Toshinori Yoshida, Makoto Shibutani

*1Laboratory of Veterinary Pathology, Tokyo University of Agriculture and Technology, *2Pathogenetic Veterinary Science, United Graduate School of Veterinary Sciences, Gifu University, *3Laboratory of Veterinary Toxicology, Tokyo University of Agriculture and Technology

Detection of Aberration in Neuronal/Glial Development Induced by Repeated-oral Doses of 6-Propyl-2-thiouracil (PTU) in the Framework of 28-day Toxicity Study


Effect of Iminodipropionitrile (IDPN) on Neurogenesis in the Hippocampal Dentate Gyrus in Rat Offspring

- Megu Itahashi, Liyun Wang, Ayako Shiraki, Reiko Morita, Takeshi Tanaka, Tomoaki Murakami, Kazuhiko Suzuki, Toshinori Yoshida, Makoto Shibutani

*1Laboratory of Veterinary Pathology, Tokyo University of Agriculture and Technology, *2Pathogenetic Veterinary Science, United Graduate School of Veterinary Sciences, Gifu University, *3Laboratory of Veterinary Toxicology, Tokyo University of Agriculture and Technology

Histological evaluation of cerebral microhemorrhage in Tg2576 mice following treatment with specific anti-amyloid β antibodies

- Aya Goto, Akira Inomata, Kyoko Nakano-Ito, Jiro Sonoda, Kazuhiro Hayakawa, Etsuko Ohta, Yoshikazu Taketa, Yuki Seki, Satoru Hosokawa, Kazuo Tsukidate

Tsukuba Drug Safety, Global Drug Safety, Biopharmaceutical Assessments Core Function Unit, Eisai Co., Ltd.
Nerve • Sensory

Chair: Keisuke Kitaura (Sef. Res. Cent., Otsuka Pharmaceutical Co., Ltd.)
Katsuhiko Yoshizawa (Pathology II, Kansai Medical University)

P-07 * Gene expression kinetics during development of myelin lesions in myelin mutant rats
○Yukako Shimotsuma, Miyuu Tanaka, Takeshi Izawa, Jyoji Yamate, Mitsuru Kuwamura
Laboratory of Veterinary Pathology Osaka Prefecture University

P-08 The effect of rotenone administration on the spinal cord pathology of SOD1<sup>G93A</sup> transgenic mice
○Mizue Ogawa, Shunsuke Nomura, Kazuyuki Uchida, Hiroyuki Nakayama
Dept. of Veterinary Pathology, the Univ. of Tokyo

P-09 * Plasmacytoma with systemic metastasis in two Miniature Pigs
○Miyuu Tanaka<sup>1</sup>, Takeshi Izawa<sup>1</sup>, Kayo Kusuda<sup>2</sup>, Norihiko Kitamura<sup>3</sup>, Terumasa Shimada<sup>3</sup>, Jyoji Yamate<sup>1</sup>, Mitsuru Kuwamura<sup>1</sup>
<sup>1</sup>Veterinary Pathology, Osaka prefecture University, <sup>2</sup>Misaki Park,
<sup>3</sup>Veterinary Medical Center, Osaka Prefecture University

P-10 Histopathological changes in the Bovine Corneal Opacity and Permeability (BCOP) assay: Effects of the concentration and exposure time of the test substance
○Masatoshi Furukawa<sup>1</sup>, Kouta Itoh<sup>1</sup>, Masumi Rokukawa<sup>1</sup>, Takashi Sakakibara<sup>1</sup>, Satoshi Sasaki<sup>1</sup>, Takeo Hiraga<sup>2</sup>, Hajime Kojima<sup>3</sup>, Masao Matsuura<sup>1</sup>
<sup>1</sup>Safety Research Institute for Chemical Compounds Co., Ltd.,
<sup>2</sup>Department of Veterinary Medicine, Rakuno Gakuen University, <sup>3</sup>National Institute of Health Sciences

P-11 Multiple system atrophy in long-term professional painter: a case report
○Yusa Nagai, Koto Fujiishi, Riko Kitazawa, Sohei Kitazawa
Department of Molecular Pathology, Ehime University Graduate School of Medicine

P-12 * A Spontaneous Oligodendroglioma at Lumbar Portion of the Spinal Cord in a Young BrilHan:WIST@Jcl (GALAS) Rat
○Shuji Takeda, Hiroyuki Asano, Ryo Ihara, Keiko Ogata, Masahiko Kushida
Environmental Health Science Laboratory, Sumitomo Chem Co., Ltd.

P-13 * Eosinophilic Cytoplasmic Inclusions of Hippocampus Pyramidal Neuron in Göttingen Minipigs
○Naoki Yamada, Ryosuke Kobayashi, Shino Kumabe, Yuki Tomonari, Takuya Doi, Yumi Wako, Minoru Tsuchitani
Pathology Department, Nonclinical Research Center, Mitsubishi Chemical Medience Corporation
Respiratory

Chair: Hiroshi Onodera (Pharmaceutical and Medical Devices Agency (PMDA))
Fumio Furukawa (DIMS Institute of Medical Science, Inc.)

P-14 * Toxicity of multi-wall carbon nanotube by single intratracheal instillation to C57BL6/J mice and F344 rats, 52 weeks study .................................................. 185
○Sosuke Kishi¹, Yuko Nakano¹, Keiko Yamakawa¹, Masanao Yokohira¹, Fumiko Ninomiya¹,
Kousuke Saaq², Katsumi Imaida¹
¹Onco-Pathol, Fac. Med, Kagawa Univ., ²Tomakomai City Hospital

P-15 Activation of Erk1/2 and Dusp6 expression on NNK-induced lung carcinogenesis in A/J mice ................................................................. 186
○Keiko Yamakawa¹, Masanao Yokohira¹, Sosuke Kishi¹, Yuko Nakano¹, Fumiko Ninomiya¹,
Shohei Kanie¹, Kosuke Saaq¹,², Katsumi Imaida¹
¹Onco-Pathology, Faculty of Medicine, Kagawa University, ²Tomakomai City Hospital

P-16 Nasal Lesion in Rats and Mice Exposed to n-Butyl Glycidyl Ether by Inhalation for 13 Weeks ............................................................... 186
○Kenji Takanobu¹, Taku Katagiri¹, Yumi Umeda¹, Hideki Senoh¹, Kasuke Nagano²,
Shigetoshi Aiso¹, Shoji Fukushima¹
¹Japan Bioassay Research Center, Japan Industrial Safety and Health Association,
²Nagano Toxicologic-Pathologic Consulting

P-17 Nasal Cavity Carcinogenicity in Rats and Mice Exposed to n-Butyl Glycidyl Eter by Inhalation for Two Years ........................................... 187
○Taku Katagiri¹, Kenji Takanobu¹, Hideki Senoh¹, Yumi Umeda¹, Kasuke Nagano²,
Shigetoshi Aiso¹, Syouji Fukushima¹
¹Japan Industrial Safety & Health Association Japan Bioassay Research Center,
²Nagano Toxicologic-Pathologic Consulting

P-18 Nasal Lesion in Rats Exposed to Acrylic Acid for 13 Weeks and 104 Weeks ............................................................. 187
○Yumi Umeda¹, Hideki Senoh¹, Kenji Takanobu¹, Taku Katagiri¹, Shigetoshi Aiso¹,
Kasuke Nagano², Shoji Fukushima¹
¹Japan Bioassay Research Center, Japan Industrial Safety and Health Association,
²Nagano Toxicologic-Pathologic Consulting

P-19 Effects of Intratracheally Instilled Magnetite Nanoparticles in Fischer 344 Rats Initiated with N-Bis(2-hydroxypropyl)nitrosamine (DHPN) .................................................. 188
○Yukie Tada¹, Norio Yano¹, Hiroshi Takahashi¹, Katsuhiko Yuzawa¹, Hiroshi Ando¹, Yoshikazu Kubo¹,
Akemichi Nagasawa¹, Fujifumi Kihoko¹, Motoaki Houjou¹, Akiko Inomata¹, Akio Ogata¹, Dai Nakae¹,²
¹Department of Pharmaceutical and Environmental Sciences, Tokyo Metropolitan Institute of Public Health,
²Tokyo University of Agriculture
Respiratory • Blood

Chair: Akihiro Hirata (Division of Animal Experiment, Life Science Research Center, Gifu University)
Hiroshi Maeda (Drug Safety Research Laboratories, Tokyo Pathology Center)

P-20 * Chronic toxicopathological changes in lungs of F344 rats after single intratracheal instillation of quartz particle ........................................... 188
  ○ Yuko Nakano1), Masanao Yokohira1), Keiko Yamakawa1), Sosuke Kishi1), Fumiko Ninomiya1).
  Shohei Kanie1), Kousuke Saoo1,2), Katsumi Imaida1)
  1) Onco-pathology, Faculty of Medicine, Kagawa University, 2) Tomakomai Hospital

P-21 Histopathological Examination of Nasal Cavity in Microminipigs ......................... 189
  ○ Koshirou Katoku, Kazufumi Kawasaki, Azusa Kobayashi, Takafumi Oshikata, Mikio Mitsuishi, Takeshi Kanno, Masao Hamamura
  Pathology Department, Nonclinical Research Center, Mitsubishi Chemical Medience Corporation

P-22 * Accumulation of pigmented macrophages associated with vascular lesions in the lung of cynomolgus monkeys .................................................. 189
  ○ Tetsuya Ide1), Yutaka Nakahara1), Hikaru Mitori1), Shunji Nakatsuji1), Yuji Oishi2).
  Masahiro Matsumoto1)
  1) Toxicologic Pathology, Drug Safety Research Labs., Astellas Pharma Inc.,
  2) Drug Safety Research Labs., Astellas Pharma Inc.

P-23 The Relationship between Endothelin-1 expression and progression of Pulmonary Hypertension in Monocrotaline-Induced Pulmonary Arterial Hypertension in Rats ................. 190
  ○ Katsuhiro Miyajima, Kaoru Toyoda, Kochi Kakimoto, Yuzu Yasui, Yusuke Kenmochi,
  Akiko Nakamura, Eriko Taniai, Hideaki Yokoyama, Katsunori Ryoke, Akemi Takahashi,
  Toshiyuki Shoda, Shoichiro Sugai
  JAPAN TOBACCO INC. Toxicology Research Laboratories, Central Pharmaceutical Research Institute

P-24 Malaria in Cynomolgus Monkeys Used in Toxicity Studies in Japan ......................... 190
  ○ Etsuko Ohta1), Yuko Nagayama1), Akira Inomata1), Aya Goto1), Yuki Seki1), Yoshikazu Takeita1),
  Kyoko Nakano-Ito1), Kazuhiro Hayakawa2), Jiro Sonoda1), Satoru Hosokawa1),
  Kazuo Tsukidate1)
  1) Tsukuba Drug Safety Eisai Co., Ltd., 2) Preclinical Safety Research Laboratories Sunplanet Co., Ltd.

P-25 * Histopathological Examination on Eosinophilic Substance in the Spleen of Rabbits ................................. 191
  ○ Azusa Kobayashi, Kazufumi Kawasaki, Takafumi Oshikata, Koshirou Katoku,
  Mikio Mitsuishi, Takeshi Kanno, Masao Hamamura
  Pathology Department, Nonclinical Research Center, Mitsubishi Chemical Medience Corporation
### Blood • Circulation • Digestive tract

**Chair:** Satoru Hosokawa (Drug Safety, Eisai Co., Ltd.)
Masanao Yokohira (Oncopathology, Faculty of Medicine, Kagawa University)

<table>
<thead>
<tr>
<th>P-26</th>
<th>Acquisition of MYD88 L265P mutation during treatment of diffuse large B-cell lymphoma of parotid gland</th>
<th>191</th>
</tr>
</thead>
<tbody>
<tr>
<td>○Koto Fujiiishi, Yusa Nagai, Riko Kitazawa, Sohei Kitazawa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of Molecular Pathology, Ehime University Graduate School of Medicine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P-27 *</th>
<th>A spontaneous atriocaval mesothelioma in a Sprague-Dawley rat</th>
<th>192</th>
</tr>
</thead>
<tbody>
<tr>
<td>○Ryuichi Nakamura, Shinori Takata, Tomonari Nishimura, Taehito Ochiai, Hiroyuki Ogawara</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asubio Pharma Co., Ltd.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P-28 *</th>
<th>Pathological analysis for cardiotoxicity in colchicine-treated rats</th>
<th>192</th>
</tr>
</thead>
<tbody>
<tr>
<td>○Ryota Tochinai(^1), Katsuya Suzuki(^1), Yuriko Nagata(^1), Minoru Ando(^1), Chie Hata(^1),</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tomo Suzuki(^1), Kazumi Uchida(^1), Shoichi Kado(^1), Kimiyuki Kaneko(^1), Masayoshi Kuwahara(^2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(^1)Yakult central institute for microbiological research, Safety research department,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(^2)Department of Comparative Pathophysiology, Graduate School of Agricultural and Life Sciences, The University of Tokyo</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P-29 *</th>
<th>DNA methylation and protein expression in tumor suppressor genes of squamous cell carcinoma of the forestomach in alloxan-induced diabetic rats</th>
<th>193</th>
</tr>
</thead>
<tbody>
<tr>
<td>○Yui Terayama, Tomoya Sano, Tetsuro Matsuura, Isao Narama, Kiyokazu Ozaki</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department of Pathology, Faculty of Pharmaceutical Sciences, Setsunan University</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P-30 *</th>
<th>Mouse Colon Cancer Model Using BP and DSS:Effect of duration of the interval between BP and DSS treatments on colorectal carcinogenesis</th>
<th>193</th>
</tr>
</thead>
<tbody>
<tr>
<td>○Yuki Seki(^1), Jiro Sonoda(^1), Atsushi Hakura(^1), Naoki Koyama(^1), Aya Goto(^1), Yoshikazu Taketa(^1),</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etsuko Ohta(^1), Kyoko Nakano-Ito(^1), Akira Inomata(^1), Kazuhiro Hayakawa(^2), Satoru Hosokawa(^1),</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kazuo Tsukidate(^1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(^1)Tsukuba Drug Safety Eisai Co., Ltd., (^2)Preclinical Safety Research Laboratories Sunplanet Co., Ltd.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P-31</th>
<th>Modifying effect of alkannin in AOM-DSS-induced inflammation related mice colon carcinogenesis</th>
<th>194</th>
</tr>
</thead>
<tbody>
<tr>
<td>○Shigeyuki Sugie, Takuji Tanaka</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Oral and Maxillofacial • Digestive tract

**Chair:** Toshio Imai (Central Animal Division, National Cancer Center Research Institute)
Hisanori Uehara (Department of Molecular and Environmental Pathology Institute of Health Biosciences, The University of Tokushima)

<table>
<thead>
<tr>
<th>P-32 *</th>
<th>Participation of NRF2 in KBrO(_3)-induced small intestinal carcinogenesis in mice</th>
<th>194</th>
</tr>
</thead>
<tbody>
<tr>
<td>○Yuh Yokoo, Aki Kijima, Shinji Takasu, Yuji Ishii, Kumiko Ogawa, Takashi Umemura</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divisions of pathology, National Institute of Health Sciences</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
P-33 * Effect of 20% caloric restriction on azoxymethane-induced intestinal carcinogenesis in F344 and congenic F.Z-leprhfa rats ................................. 195
○Hitomi Umemoto, Keisuke Izumi
Dept. of Mol. and Environ. Pathol., Inst. of Health Biosciences, The Univ. of Tokushima Grad. Sch.

P-34 * Effects of dietary MTBITC on NMBA-induced esophageal carcinogenesis in rats ........... 195
○Isamu Suzuki1,2, Young-Man Cho1, Takeshi Toyoda1, Jun-ichi Akagi1, Akiyoshi Nishikawa2, Kumiko Ogawa1
1)Division of Pathology, National Institute of Health Sciences,
2)Biological Safety Research Center, National Institute of Health Sciences

P-35 Suppression of AOM + DSS-induced mouse colon tumorigenesis with coffee and its ingredients ................................................................. 196
○Tetsuya Tsukamoto1, Yuka Kiriyama1, Takuji Tanaka2
1)Department of Diagnostic Pathology, Fujita Health University School of Medicine,
2)The Tokai Cytopathology Institute, Cancer Research and Prevention

P-36 KAD rats are susceptible to 4-NQO-induced tongue carcinogenesis .......................... 196
○Takuji Tanaka1,2, Shigeyuki Sugie3, Toshiya Kuno4
3)Dept. Pathology, Murakami Memorial Hosp., Asahi Univ.,

P-37 * The relationship between salivary gland dysfunction and dental caries development in alloxan-induced diabetic rats ........................................ 197
○Taiki Nishimoto1, Yasushi Kodama1, Tetsuro Matsuura2, Kiyokazu Ozaki2,
Yoshikiko Taniguchi1
1)Laboratory of Clinicopathological Therapeutics, Graduate School of Pharmaceutical Sciences, Hiroshima International University,
2)Department of Pathology, Faculty of Pharmaceutical Sciences, Setsunan University

Digestive tract • Liver

Chair: Katsumi Fukamachi (Department of Molecular Toxicology Nagoya City University Graduate School of Medical Sciences)
Toru Hoshiya (BoZo Research Center Inc.)

P-38 * Analysis of histogenesis of duodenal carcinomas induced in rats after treatment with azoxymethane ................................................................. 197
○Yoh Kikuchihara1, Nobuhiko Onda2, Mizuho Kato1, Masayuki Kimura1, Tomoaki Murakami3, Kazuhiko Suzuki3, Toshinori Yoshida1, Makoto Shibutani1
1)Lab. Vet. Pathol., Tokyo Univ. Agricol. Technol, 2)Olympus corporation,

P-39 * Cystic Intestinal Duplications (Enterocysts) in Three Young Rats .................................. 198
○Yoshihide Ueda, Masaru Tsuboi, Mai Kubota, Yasufumi Ota, Shigeaki Takami, Masayo Hosoi,
Runiko Miyajima, Kazushige Hasegawa, Atsushi Shiga, Isao Narama
Public Interest Incorporated Foundation BioSafety Research Center (BSRC)
Detecting and Quantifying Liver Pathologies Using Compact, High-Resolution 3D MRI-Based Histology

Yael S Schiffenbauer, Catherine Tempel Brami, Rinat Abramovitch, Tali Lanton, Jonathan H Axelrod, Eitan Galun, Abraham Nyska, Robert Maronpot

Aspect Imaging, Israel; Hadassah Hebrew University Medical Center, Ein Karem, Jerusalem, Israel

Consultant in Toxicologic Pathology, Timrat, & Tel Aviv University, Israel

Maronpot Consulting, LLC, Raleigh, NC, USA

LC-MS/MS and in vitro functional analyses of potential molecular candidates as cancer biomarkers and novel molecular targets in hepatocarcinogenesis

Anna Kakehashi, Naomi Ishii, Masaki Fujioaka, Min Wei, Hideki Wanibuchi

Department of Pathology, Osaka City University Graduate School of Medicine, Osaka, Japan

Specificity Assessment of Aberrant Cell Cycle Regulation at the Initial Phase of Carcinogen Treatment Showing High Cell Proliferation Activity in Rats

Masayuki Kimura, Reiko Morita, Hajime Abe, Takeshi Tanaka

Tomoki Murakami, Kazuhiro Suzuki, Toshinori Yoshida, Makoto Shibutani


Characterization of Green Tea Extract-induced Hepatotoxicity in Rats

Yuko Emoto, Katsuhiko Yoshizawa, Yuichi Kinoshita, Takashi Yuri, Yutaka Yoshikawa, Kazutoshi Sayama, Airo Tsubura

Pathology II, Kansai Medical University, Kobe Women’s University, Faculty of Agriculture, Shizuoka University

Analysis of Calpain1 and Calpastatin expression in the liver of mice fed high fat diet after thioacetamide administration

Makoto Shirai, Toshihiko Makino, Kiyonori Kai, Munehiro Teranishi

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

Involvement of CAR in Liver Hypertrophy Induced by Gingko Biloba Extract

Jun Maeda, Kaoru Inoue, Ryohei Ichimura, Tomomi Morikawa, Yuko Ogawa

Division of Pathology, National Institute of Health Sciences, Laboratory of Comparative Toxicology, School of Veterinary Medicine, Azabu University, Division of Toxicology, National Institute of Health Sciences

Mitochondrial function contributes to the coumarin-induced hepatocellular damage of rat

Yasuhiro Tanaka, Wataru Fujii, Yoshinori Kitagawa, Kiyokazu Ozaki

Sanitory Business Expert Limited, Department of Pathology, Setsunan University
### Poster Presentation II

**January 31 (Friday) 13:00 ~ 14:00**  
Room 2 [ Exhibit Room 1~5 ]

#### Liver

**Chair:** Junko Sato (Nonclinical Research Center, Mitsubishi Chemical Medience Corporation)  
Tetsuya Tsukamoto (Department of Diagnostic Pathology, Fujita Health University School of Medicine)

**P-47 * Involvement of CAR in the process of hepatocellular hypertrophy and hepatocarcinogenesis of PPAR alpha activators in mice**  
○ Kaoru Inoue1), Daisetsu Suzuki1), Yuko Ogawa2), Jun Maeda1), Ryohei Ichimura1)  
Miwa Takahashi1), Yukio Kodama1), Midori Yoshida1)  
1) Division of Pathology, National Institute of Health Sciences,  
2) Laboratory of Comparative Toxicology, Azabu University,  
3) Division of Toxicology, National Institute of Health Sciences

**P-48 Hepatotoxicity and metabolism of 1,2-dichloropropane in male Syrian**  
○ Min G, Shotaro Yamano, Masaki Fujioka, Anna Kakemushi, Eri Shimomura, Masayui Kanki, Hideki Wanibuchi  

**P-49 * A 90-Day Repeated Oral Dose Toxicity Study of Piperonyl Butoxide in F344 Rats**  
○ Aki Kijima, Yuji Ishii, Shinji Takasu, Kouhei Matsushita, Ken Kuroda, Yuh Yokoo, Takashi Umemura, Kumiko Ogawa  
Division of Pathology, NHIS

**P-50 * Granulomatous Nephritis Consistent with Malakoplakia in a Cynomolgus Monkey**  
○ Yoshikazu Taketa1), Akira Inomata1), Jiro Sonoda1), Kazuhiro Hayakawa2), Kyoko Nakano-Ito1), Etsuko Ohta1), Yuki Seki1), Aya Goto1), Satoru Hosokawa1)  
1) Tsukuba Drug Safety, Eisai Co., Ltd., 2) Preclinical Safety Research Laboratories, Sunplanet Co., Ltd.

---

**P-51 Histopathological examination of early change of liver proliferative lesions induced by tocotrienol in rats**  
○ Kenichiro Kasahara1), Ryosuke Ando1), Toru Hoshiya1), Kazutoshi Tamura1), Kumiko Ogawa2), Akiyoshi Nishikawa2)  
1) BoZo Research Center Inc., 2) National Institute of Health Science

**P-52 * Macrophage depletion delays hepatic fibrosis induced in rats by thioacetamide (TAA)**  
○ Hossain M Golbar, Alexandra Bondoc, Kavindra Wijesundera, Anusha Tennakoon, Chisa Katou-Ichikawa, Miyyuu Tanaka, Takeshi Izawa, Mitsuru Kuwamura, Jyoji Yamate  
Osaka Prefecture University, Veterinary Pathology

**P-53 * Characterization of hepatic stellate cells (HSCs) in terms of epithelial-mesenchymal transition in normal and cirrhotic rat livers**  
○ Anusha Tennakoon, Takeshi Izawa, Kavindra Wijesundera, Hossain M. Golbar, Miyyuu Tanaka, Mitsuru Kuwamura, Jyoji Yamate  
Laboratory of Veterinary Pathology, Osaka Prefecture University
P-54 * Inflammatory changes in a diet-induced hepatosteatosis model: Histopathological characteristics of the CDAHFD hepatosteatosis model .......................... 205
○Etsuko Fujii, Tsuneo Ito, Masaki Yamazaki, Atsuhiko Kato, Masami Suzuki
Research Division, Chugai Pharmaceutical Co., Ltd.

P-55 * Evaluation of drug-induced hepatocellular hypertrophy in mice using histopathological image analysis .......................... 206
○Yoshiji Asaoka, Naoko Imura, Mayu Mutsuga, Tomoya Miyoshi, Yuko Togashi,
Yohei Miyamoto
Toxicology and Pharmacokinetics Laboratories, Pharmaceutical Research Laboratories, Toray Industries, Inc.

P-56 * General toxicity and liver carcinogenicity in gpt delta rats treated with diethylnitrosamine compared to background strain .......................... 206
○Shinji Takasu, Yuji Ishii, Kohei Matsushita, Ken Kuroda, Aki Kijima, Yuh Yokoo,
Takehiko Nohmi, Kumiko Ogawa, Takashi Umemura

P-57 Pathological changes of the liver in rats with dietary iron overload/deficiency .......................... 207
○Takeshi Izawa, Rena Miyagi, Takashi Horiuchi, Mitsuuru Kuwamura, Jyoji Yamate
Laboratory of Veterinary Pathology, Osaka Prefecture University

P-58 * EHREN-induced rat hepatoblastoma with multilineage differentiation potential for embryonic foregut driven organs .......................... 207
○Shotaro Yamano, Kiyokazu Ozaki, Shuji Takeda, Masahiko Kushida, Takeshi Izawa,
Jyoji Yamate, Akihiro Hirata, Masaki Fujioka, Min Gi, Hideki Waniuchi
1) Department of pathology, Osaka City University Graduate School of Medicine,
2) Department of Pathology, Faculty of Pharmaceutical Sciences, Setsumo University,
3) Environmental Health Science Laboratory, Sumitomo Chem Co., Ltd.,
4) Department of Veterinary Pathology, College of Agriculture, Osaka Prefecture University,
5) Division of Animal Experiment, Life Science Research Center, Gifu University

P-59 * Study for the vacuolation found in the pancreatic acinar cells of a cynomolgus monkey .......................... 208
○Seiji Miyoshi, Hirofumi Hatakeyama, Yoshihiro Takei, Shiho Suyama, Hiroe Inagaki,
Haruko Koizumi, Tetsuyo Kajimura, Hijiri Iwata, Akihito Shimoi
1) Ina Research Inc., 2) LunaPath LLC
P-60 * Threshold Dose of Rat Liver Tumor Promoting Effect of Omeprazole through Dietary Administration ........................................... 208
○Reiko Morita¹,², Masayuki Kimura¹,², Hajime Abe¹,², Megu Itahashi¹,², Ayako Shiraki¹,²,
Tomoaki Murakami³, Kazuhiko Suzuki³, Toshinori Yoshida¹, Makoto Shibutani¹,
Kunitoshi Mitsumori¹
¹Laboratory of Veterinary Pathology, Tokyo University of Agriculture and Technology,
²United Graduate School of Veterinary Sciences, Gifu University,
³Laboratory of Veterinary Toxicology, Tokyo University of Agriculture and Technology

P-61 * Evaluation of in vivo mutagenicity of DMA⁴ and iAs⁵ in gpt delta rats .................. 209
○Eri Shimomura, Masaki Fujioka, Min Gi, Shotaro Yamano, Anna Kakehashi, Masahiko Kushida,
Hideki Wanibuchi
Department of pathology, Osaka city university graduate school of medicine

P-62 * Expression pattern of γ H2AX, a biomarker for DNA double-strand breaks, in urinary bladders of chemical-treated rats ........................................... 209
○Takeshi Toyoda¹, Young-Man Cho¹, Jun-ichi Akagi¹,², Yasuko Mizuta¹, Isamu Suzuki¹,
Kumiko Ogawa¹

Urinary

Chair : Shigeyuki Sugie (Department Pathol. Murakami Memorial Hospital Asahi University Sch. Dentistry)
Mikinori Torii (Drug Developmental Research Laboratories, Shionogi & Co., Ltd.)

P-63 Renal developmental impairment induced by repeated administration of gentamicin in juvenile rats .......................................................... 210
○Kiyonori Kai, Testuya Ohsawa, Katsumi Fujita, Yasuko Kato, Kumi Honda, Satoko Sato,
Noriyo Niino, Kazumi Ito, Munehiro Teranisi, Wataru Takasaki
Daiichi Sankyo Co., Ltd., Medical Safety Research Laboratories

P-64 Time-Sequence Study of Renal Lesions in SHR/NDmcr-cp(cp/cp) Rats .................. 210
○Kaoru Toyoda¹, Kochi Kakimoto¹, Katsuhiro Miyajima¹, Yuzo Yasui¹, Yusuke Kenmochi¹,
Akiko Nakamura¹, Eriko Taniai¹, Akemi Takahashi¹, Toshiyuki Shoda¹, Koji Inagaki²,
Kenji Fukui², Yoshifumi Miyakawa²
¹Japan Tobacco Inc. Central Pharmaceutical Research Institute, Toxicology Research Laboratories,
²Japan Tobacco Inc. Central Pharmaceutical Research Institute, Biological/Pharmacological Research Laboratories

P-65 * Salt intake deteriorates kidney lesions in Spontaneously Diabetic Torii-Lepr/fa (SDT fatty) rat ................................................................. 211
○Yusuke Kenmochi¹, Yoshikai Katsuda², Mimi Maki², Takeshi Ohta², Kaoru Toyoda¹,
Katsuhiro Miyajima¹, Yuzo Yasui¹, Akiko Nakamura¹, Eriko Taniai¹, Akemi Takahashi¹,
Kochi Kakimoto¹, Yoshifumi Miyakawa², Toshiyuki Shoda¹
¹Toxicology Research Laboratories, Japan Tobacco Inc., Central Pharmaceutical Research Institute,
²Biological/Pharmacological Research Laboratories, Japan Tobacco Inc., Central Pharmaceutical Research Institute
P-66 Hormone induced prostatic hyperplasia in C57BL mice ................................. 211
○Nariaki Fujimoto1, Jun Kanno2
1RIRBM, Hiroshima Univ, 2Div. Toxicology, NIHS

P-67 * Morphometrical investigation on Gender Difference in Wistar and SD Rats Kidney Glomeruli: Especially strain difference study .............................................. 212
○Keisei Kimura1, Tomoo Inomata1, Hiroyuki Takahashi2, Tomoko Muto3, Noriko Oyama3, Masahiro Ikegami2, Shin Wakui4
1Department of Laboratory Animal Science, Azabu University School of Veterinary Medicine, 2Department of Pathology, The Jikei University School of Medicine, 3Drug Safety Testing Center, 4Department of Toxicology, Azabu University School of Veterinary Medicine

Urinary • Mammary gland • Category

Chair: Hijiri Iwata (Laboratory of Toxicologic Pathology, LunaPath LLC)
Min Gi (Department of pathology, Osaka city university graduate school of medicine)

P-68 * Feline Infectious Peritonitis-like Renal Legion in a Ferret Infected with Coronavirus ........... 212
○Yuta Fujii, Kaoru Toyosawa, Izumi Matsumoto, Mami Kouchi, Tomoaki Tochitani, Toru Yamada, Hitoshi Funabashi
Preclinical Research Laboratories, Dainippon Sumitomo Pharma Co., Ltd.

P-69 Experimental pathological study on uranium decorporation effect of sodium bicarbonate in rats ........................................................... 213
○Yasushi Ohmachi, Tomomi Imamura, Mizuyo Ikeda, Mariko Yajima, Eriko Shishikura, Eunjoo Kim, Osamu Kurihara, Kazuo Sakai
Research Program for Radiation Dosimetry, Research Center for Radiation Emergency Medicine, National Institute of Radiological Sciences

P-70 Soymilk and Lactobacillus casei Shirota prevent the development of mammary tumor induced by PhIP in rats ...................................................... 213
○Shoichi Kado1, Chiki Kaga1, Akimitsu Takagi1, Mitsuyoshi Kano1, Ikuo Kato1, Kouji Miyazaki1, Yasuo Ohashi2, Masakazu Toi3
1Yakult central institute for microbiological research, Safety research department , 2Department of bioinformatics, School of Public Health Tokyo University, 3Department of Breast Surgery, Kyoto University

P-71 Influence of delayed effect on LH surge and kiss1 expression after neonatal exposure to EE ...................................................... 214
○Ryohei Ichimura1, Miwa Takahashi1, Tomomi Morikawa1, Pramod Dhakal1, Kaoru Inoue1, Jun Maeda1, Midori Yoshida1, Gen Watanabe2
1Division of Pathology, National Institute of Health Sciences, 2Laboratory of Veterinary Physiology, Department of Veterinary Medicine, Faculty of Agriculture, Tokyo University of Agriculture and Technology
P-72  Lack of modifying effect of 3-MCPD fatty acid esters on mammary carcinogenesis in SD rats ......................................................... 214
○Young-Man Cho¹, Yasuko Mizuta¹, Isamu Suzuki¹, Takeshi Toyoda¹, Junichi Akagi¹,
Akiyoshi Nishikawa², Kumiko Ogawa¹

P-73  Enhancement of mammary carcinoma induction by high fat diet in c-Ha-ras proto-oncogene transgenic rats ........................................... 215
○Mie Magaki¹, Takamasu Ohnishi¹, Hiroyuki Tsuda²
¹Hyogo University Faculty of Health Science, ²Nagoya City University

P-74  Background data on developmental parameters during gestation period in rats .......................................................... 215
○Satoshi Furukawa¹, Seigo Hayashi¹, Masayoshi Abe¹, Souichiro Hagio¹, Kota Irie¹,
Yusuke Kuroda¹, Izumi Ogasa¹, Akihiko Sugiyama²
²Biological Research Laboratories, Nissan Chemical Industries, Ltd.

P-75  Sertoli cell aggregations observed in the seminiferous tubules of C57BL/6J mice ................................................................. 216
○Akiko Nakamura, Kochi Kakimoto, Katsuhiro Miyajima, Yuzo Yasui, Yusuke Kenmochi,
Kaoru Toyoda, Eriko Tanai, Akemi Takahashi, Toshiyuki Shoda
Toxicology Research Laboratories, Central Pharmaceutical Research Institute, Japan Tobacco Inc.

P-76  Ovarian Germ Cell Tumors with Unusual Histopathological Feature in Two Mice ................................................................. 216
○Masayo Hosoi, Yasufumi Ota, Yoshihide Ueda, Shigeaki Takami, Rumiko Miyajima,
Kazushige Hasegawa, Atushi Shiga, Isao Narama
Public interest incorporated foundation Biosafety Research Center (BSRC)

P-77  Pathology of Nodular Lesions in the Epididymis of Mice ............................................................................................................. 217
○Atsushi Shiga, Yasufumi Ota, Yoshihide Ueda, Shigeaki Takami, Masayo Hosoi,
Rumiko Miyajima, Kazushige Hasegawa, Isao Narama
Public Interest Incorporated Foundation, Biosafety Research Center (BSRC)

P-78  Morphological features of rat ovary changes induced by short-term treatment with cytotoxic anticancer drugs ......................... 217
○Tomo Suzuki¹, Isamu Oosuga¹, Ryota Tochinai¹, Yuriko Nagata¹, Chie Hata¹,
Minoru Ando¹, Kazumi Uchida¹, Toshihide Kobayashi¹, Midori Yoshida², Shoichi Kado¹,
Kimiyuki Kaneko¹
¹Safety Research Department, Yakult Central Institute for Microbiological Research,
²Division of Pathology, Biological Safety Research Center, National Institute of Health Sciences
P-79 * The importance of capsule formation/growth beyond the capsule as a malignancy diagnostic feature of Islet tumor in rats .......................... 218
○Kaori Nishihara¹, Yuko Yamaguchi¹, Mizuho Takagi¹, Shino Kumabe², Masako Imaoka³,
Midori Yoshida¹, Junko Sato⁴
¹BoZo Research Center, ²Nonclinical Research Center, Mitsubishi Chemical Medience Corporation,
³Kasai RD Center, Daichi Sankyo Co., Ltd., ⁴Division of Pathology, National Institute of Health Science

Endocrine・Skin・Musculoskeletal

Chair: Kaoru Toyosawa (Preclinical Research Laboratories, Dainippon Sumitomo Pharma Co., Ltd.)
Kazuo Hakoi (Tokushima Research Center, Taiho Pharmaceutical Co., Ltd.)

P-80 * Immunohistochemical analyses of pancreatic stellate cells (PSCs) and myofibroblasts (MFs) in developing rat pancreas and canine pancreatic fibrosis .......................... 218
○Ai Hashimoto, Takeshi Izawa, Miyuu Tanaka, Hossain M. Golbar, Kavindra Wijesundera,
Mitsuru Kuwamura, Jyoji Yamate
Laboratory of Veterinary Pathology, Graduate School of Life and Environmental Sciences, Osaka Prefecture University

P-81 Lesion in femoral metaphysis in Jcl:CB6F1-Tg rasH2 mice .......................... 219
○Yuko Yamaguchi, Tubasa Saito, Tomomi Nakazawa, Muzuho Takagi, Mariko Nagatani,
Kazutoshi Tamura, Toru Hoshiya
BoZo Research Center Inc.

P-82 * Age-related pathological changes of the skeletal muscles in the mdx mouse and exploratory analyses of glycosaminoglycans in these tissues .......................... 219
○Kei Kubota, Aisuke Nii, Daisuke Morita, Atsushi Watanabe, Shino Ito, Yuka Minamisawa,
Ikue Kitazawa, Takatoshi Kubo
Medicinal Safety & Pharmacokinetics Dept., Central Research Lab., Seikagaku Co.

P-83 * Effect of hyperbaric oxygen to mouse skin tumors that occurred by two-stage chemical carcinogenesis .......................... 220
○Hiroshi Doguchi¹, Yukinori Akazawa², Reika Takamatsu¹, Masanao Saio¹, Naoki Yoshimi¹
¹Department of Pathology and Oncology, Graduate School of Medicine, University of the Ryukyus,
²Department of Otorhinolaryngology, Head and Neck Surgery, Graduate School of Medicine, University of the Ryukyus

P-84 * Development of two-Stage ultra-short−term carcinogenicity model using rasH2 mice−investigation of low-dose DMBA .......................... 220
○Mayuko Suguro¹, Mayumi Kawabe¹, Takamasa Numano¹, Kouji Urano², Hideki Tsutsumi²,
Fumio Furukawa¹
¹DIMS Institute of Medical Science, Inc., ²Central Institute for Experimental Animals,
³Department of Molecular Toxicology, Graduate School of Medical Sciences and Medical School, Nagoya City University
<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
<th>Institutions</th>
</tr>
</thead>
</table>
| P-85    | The histomorphometric analysis of the femoral growth plate in dietary restricted young rats | ○Chihiro Noguchi\(^1\), Kenta Matsue\(^1\), Yutaka Nakanishi\(^1\), Fumiko Asanuma\(^2\), Hiroto Miyata\(^3\), Minoru Sasaki\(^1\), Syunсуke Tsutsumи\(^1\), Yasushi Sato\(^1\)  
\(^1\)Drug Safety and Pharmacokinetics Laboratories Taisho Pharmaceutical Co., Ltd.  
\(^2\)Regulatory Affairs Division Taisho Pharmaceutical Co., Ltd.  
\(^3\)Prescription Drug Pharmacovigilance Division Taisho Pharmaceutical Co., Ltd. |
| P-86    | Hyperplastic Lesions in Thymic Medulla in Jic:CB6F1-Tg rasH2 Mice     | ○Tsubasa Saito, Yuko Yamaguchi, Keita Matsushima, Hiroshi Edamoto, Seiki Yamakawa, Kazutoshi Tamura, Toru Hoshiya  
BoZo Research Center Inc. |
| P-87    | Thymoma in Wistar Hannover rat - characteristics and causes           | ○Yumi Wako, Yuki Tomonari, Shino Kumabe, Hiroko Kokoshima, Tetsuro Kurotaki, Junko Sato, Takuya Doi, Minoru Tsuchitani  
Pathology Department, Nonclinical Research Center, Mitsubishi Chemical Medience Corporation |
| P-88    | Spontaneous Thymoma Observed in 52-Week Background Study of Sprague-Dawley rats | ○Myoung Jun Kim\(^1\), Mi Ju Lee\(^1\), Byeong Woo Ahn\(^3\), Jae-Min Moon\(^1\), Sun Hee Park\(^3\), Yong-Hoon Lee\(^1\), Duyeol Kim\(^1\), Chang Geon Kim\(^1\), Ho-Song Jang\(^3\), Jin Seok Kang\(^2\), Jongkoo Kang\(^1\)  
\(^1\)Biototoxtech. co. ltd, \(^2\)Namseoul University, \(^3\)Department of veterinary pathology, Chungbuk National University, \(^4\)Department of Laboratory Animal medicine, Chungbuk National University |
| P-89    | Hyperplasia of Subcapsular Thymic Epithelial Cell in the Thymus of a Cynomolgus Monkey | ○Yuichi Murakami\(^1\), Takahisa Noto\(^1\), Kenjiro Tsubota\(^1\), Yuji Oishi\(^2\), Shunji Nakatsuji\(^1\), Masahiro Matsumoto\(^1\)  
\(^1\)Toxicologic Pathology, Drug Safety Research Labs., Astellas Pharma Inc.  
\(^2\)Drug Safety Research Labs., Astellas Pharma Inc. |
| P-90    | Accumulation of Mott cells in the spleen in a CB6F1-TgrasH2 mouse     | ○Tomoya Sano, Hisashi Anayama, Yuuichi Takai, Takeshi Watanabe, Ryo Fukuda  
Takeda Pharmaceutical Company Limited, Drug Safety Research Laboratories |
P-91 90-day Repeated Dose Toxicity and Genotoxicity Tests of Evodia officinalis  224

○Duyeol Kim¹, Yong-Hoon Lee¹, Sun Hee Park¹, Mi Ju Lee¹, Myoung Jun Kim¹,
Ho-Song Jang¹, Hye-Yeong Lee¹, Mi-Young Lee¹, Beom Seok Han², Woo-Chan Son³,
Ji Hyeon Seok⁴, Jong Kwon Lee⁴, Jayoung Jeong⁴, Jin Seok Kang⁴, Jongkoo Kang¹,⁶
¹Bioticotech Co.Ltd., Department of pathology,
²Hoseo Toxicity Research Center, Hoseo University Biomedical Laboratory Science,
³Pathology Department, Asan Medical Center,
⁴Toxicological Research Division, National Institute of Food and Drug Safety Evaluation, Korea Food and Drug Administration,
⁵Department of Biomedical Laboratory Science, Namseoul University,
⁶Department of Laboratory Animal medicine, College of Veterinary medicine, Chungbuk National University

P-92 * Evaluation of carcinogenesity of DPAA in a rat medium-term multi-organ carcinogenicity bioassay  224

○Mai Okumura, Masaki Fujioka, Min Gi, Shotaro Yamano, Kurumi Mishima, Yoshiyuki Tago,
Hideki Wanibuchi
Department of Pathology, Osaka city university graduate school of Medicine

Toxicity test • Basic data

Chair: Kinji Shirota (Laboratory of Veterinary Pathology, Azabu University)
Shin-mo Hayashi (Global Regulatory Affairs, San-Ei Gen F.F.I., Inc.)

P-93 * Single Dose and 13-Week Repeated Toxicity Studies of Acanthopanax divaricatus var. albeofructus in F344 rats  225

○Mi Ju Lee¹, Myoung Jun Kim¹, Sun Hee Park¹, Yong-Hoon Lee¹, Duyeol Kim¹,
Ho-Song Jang¹, Chang Geon Kim¹, Jung Min Lee¹, Hye-Yeong Lee¹, Jin Seok Kang²,
Jongkoo Kang³
¹Bioticotech Co., Ltd., ²Namseoul University, ³Chungbuk National University

P-94 * Establishment and characterization of a transplantable tumor line (RMM) and cell lines (RMM-C and RMM-A1) from a malignant amelanotic melanoma in F344 rats  225

○Alexandra Bondoc, Chisa Katou-Ichikawa, Hossain M Golbar, Miyuu Tanaka, Takeshi Izawa,
Mitsuru Kuwamura, Jyoji Yamate
Osaka Prefecture University Veterinary Pathology

P-95 Confirmation study of the combined repeated-dose toxicity and genotoxicity assay using gpt delta rats in F344 and SD strain  226

○Jun-ichi Akagi¹,², Young-Man Cho¹, Takeshi Toyoda¹, Saeko Onami¹, Yasuko Mizuta¹,
Isamu Suzuki¹, Takehiko Nohmi³,⁴, Akiyoshi Nishikawa³, Kumiko Ogawa¹
The 30th Annual Meeting of the Japanese Society of Toxicologic Pathology

Luncheon Seminar I
January 30 (Thursday) 12:05 ~ 13:05 Room 1 [ Main Hall ]
Chair: Michito Takahashi (Pathology Peer Review Center)
Co-sponsor: Hunting-Ton Life Science Inc.

LS1 Background pathology and histology of the Göttingen Minipig
Dianne M Creasy  Huntingdon Life Sciences

Luncheon Seminar II
January 31 (Friday) 12:10 ~ 12:50 Room 1 [ Main Hall ]
Chair: Teranishi Munehiro (Daiichi Sankyo Co., Ltd. Med. Safety Res. Labs.)
Organizer: Japanese Society of Toxicologic Pathology

Draft OECD pathology peer review guidance

LS2-1 Overview of the draft OECD pathology peer review guidance
Hiroshi Onodera
Pharmaceuticals and Medical Devices Agency

LS2-2 JSTP Correspondences to the draft OECD pathology peer review guidance
Yuji Oishi
Astellas Pharma Inc. Drug Safety Res. Labs.