

Plenary Lecture I

September 4 (Fri) 14:00 - 15:00 Track 1

Chair: Yoshito Kumagai (Fac. Med., Univ. Tsukuba)

Paper only **PL-1 Identification of target proteins and intracellular signaling for environmental**

chemicals

○ Takashi Uehara

(Grad. Sch. Med. Den. and Pharm. Sci., Okayama Univ.)

Plenary Lecture II

September 5 (Sat) 11:30 - 12:30 Track 1

Chair: Masahiko Satoh (Sch. Pharm., Aichi Gakuin Univ.)

PL-2 Selenium and Arsenic; their roles as toxicants, medicines, and nutrients

○ Seiichiro Himeno^{1,2}

(¹Sch. Pharm., Showa Univ., ²Fac. Pharm. Sci., Tokushima Bunri Univ.)

Educational Lecture

September 4 (Fri) 12:00 - 13:00 Track 1

Chair: Toshiyuki Kaji (Fac. Pharm. Sci., Tokyo Univ. Sci.)

Paper only **EL-1 Food hygiene and safety ---Assurance of food safety and quality control---**

○ Hiroyasu Yamazaki

(retired prof. Fac. Pharm. Sci., Kobe Gakuin Univ.)

Award Lecture

Scientific Award

September 5 (Sat) 13:30 - 14:00 Track 1

Chair: Shuntaro Hara (Sch. Pharm., Showa Univ.)

AL-1 Stress-responsive signaling triggered by internal and external environments and its molecular regulatory mechanisms

○ Atsushi Matsuzawa

(Grad. Sch. Pharm. Sci., Tohoku Univ.)

Kanehara Award

September 5 (Sat) 14:00 - 14:20 Track 1

Chair: Gi-Wook Hwang (Fac. Pharm. Sci., Tohoku Med. Pharm. Univ.)

AL-2 Mechanisms of methylmercury induced neurotoxicity via inductions of inflammatory cytokines in microglia

- Takashi Toyama
(Grad. Sch. Pharm. Sci., Tohoku Univ.)

Forum I : Forefront of Lipid Research in Pharmaceutical Health Science

September 4 (Fri) 9:30 - 11:30 Track 1

Organizer / Chair: Takeshi Kumagai (Sch. Pharm., Kitasato Univ.)

Hiroshi Kuwata (Sch. Pharm., Showa Univ.)

F1-1 *In vivo* roles of highly unsaturated fatty acid-preferring long-chain acyl-CoA synthetase, ACSL4

- Hiroshi Kuwata, Shuntaro Hara
(Sch. Pharm., Showa Univ.)

F1-2 The investigation of the role of prostaglandin F_{2α} in sepsis

- Toko Maehara, Ko Fujimori
(Osaka Univ. Pharm. Sci.)

F1-3 Imaging MS analysis of phospholipids and lipid mediators using AP-MALDI-MS

- Kuniyuki Kano^{1,2,3}, Taiga Iwama², Junken Aoki^{1,2,3}
(¹Grad. Sch. Pharm. Sci., Univ. Tokyo., ²Grad. Sch. Pharm. Sci., Tohoku Univ., ³AMED-LEAP)

F1-4 Identification of phosphorylation sites and the responsible protein kinases of intracellular phospholipase A1

- Naoki Matsumoto, Atsushi Yamashita
(Fac. Pharm. Sci., Teikyo Univ.)

F1-5 Analysis of lipoxytosis suppression mechanism in SMS2 overexpressing cells

- Takeshi Kumagai^{1,2}, Hirotaka Imai^{1,2}
(¹Sch. Pharm., Kitasato Univ., ²AMED-CREST)

Forum II : Regulation of Biological Responses by Novel Reactive Oxygen Species Signaling

September 4 (Fri) 15:30 - 17:30 Track 1

Organizer / Chair: Yoshito Kumagai (Fac. Med., Univ. Tsukuba)

Atsushi Matsuzawa (Grad. Sch. Pharm. Sci., Tohoku Univ.)

F2-1 A polycyclic aromatic hydrocarbon with redox cycle capability: Mechanisms involved in generation of a variety reactive oxygen species and crosstalk in the cellular signaling pathways

○ Yoshito Kumagai
(Fac. Med., Univ. Tsukuba)

F2-2 Regulatory mechanisms of the novel cell death parthanatos induced by reactive oxygen species (ROS) signaling

○ Atsushi Matsuzawa
(Grad. Sch. Pharm. Sci., Tohoku Univ.)

F2-3 Development of fluorescent probes for H₂S and sulfane sulfur and their application to the inhibitor screening

○ Kenjiro Hanaoka
(Grad. Sch. Pharm. Sci., The Univ. Tokyo)

F2-4 Novel mechanism of suppression of lipid peroxidation in heart through the intestine by antibiotics

○ Hirotaka Imai, Tomoko Koumura
(Sch. Pharm. Sci., Kitasato Univ.)

Forum III : Methods of Analysis in Health Science 2020 : Validation of Test Method

September 5 (Sat) 9:00 - 11:00 Track 1

Organizer / Chair: Hiroshi Akiyama (National Institute of Health Sciences)

Yasuyuki Fujiwara (Sch. Pharm., Tokyo Univ. Pharm. and Life Sci.)

F3-1 Validation of analytical methods

○ Rieko Matsuda
(National Institute of Health Sciences)

F3-2 Validation of analytical methods for testing agricultural chemical residues in food

○ Satoru Nemoto
(National Institute of Health Sciences)

F3-3 Validation of the Drinking Water Quality Test Method

○ Norihiro Kobayashi
(National Institute of Health Sciences)

Paper only

F3-4 Validation of microbiological testing methods in regional Institute of Health

○ Ryohei Nomoto
(Kobe Institute of Health)

Forum IV : Up-to-date Research on Pharmaco-Metal Bioscience

September 5 (Sat) 14:50 - 16:50 Track 1

Organizer / Chair: Yasumitsu Ogra (Grad. Sch. Pharm. Sci., Chiba Univ.)

Hitomi Fujishiro (Fac. Pharm. Sci., Tokushima Bunri Univ.)

F4-1 Elucidation of the novel transport mechanism of selenium via selenoprotein P

○ Yoshiro Saito
(Grad. Sch. Pharm. Sci., Tohoku Univ.)

F4-2 Copper accumulation in the brain of a Down syndrome mouse model and its pathophysiological significance

○ Keiichi Ishihara
(Kyoto Pharm. Univ.)

F4-3 Dysfunction of manganese metabolism due to mutations of zinc transporter ZIP8

○ Hitomi Fujishiro¹, Seiichiro Himeno^{1,2}
(¹Fac. Pharm. Sci., Tokushima Bunri Univ., ²Sch. Pharm., Showa Univ.)

F4-4 Development of single cell trapping and handling tool for biometal sciences

○ Tomonari Umemura¹, Motohide Aoki¹, Yanbei Zhu², Akitoshi Okino³, Takao Yasui²
(¹Sch. Life Sci., Tokyo Univ. Pharm. and Life Sci., ²NMIJ, AIST, ³FIRST, Tokyo Tech.,
⁴Grad. Sch. Eng., Nagoya Univ.)

Award Candidates Presentation

Candidates for Young Investigator Award

September 4 (Fri) 9:30 - 10:33 Track 2

Chair: Chika Yamamoto (Fac. Pharm. Sci., Toho Univ.)

- P-036 Increased disruption of redox homeostasis and concomitant protein modification caused by combined exposure to metals with electrophilic property**
○ Hiroto Yamakawa¹, Masahiro Akiyama^{1,2}, Yoshito Kumagai^{1,2}
(¹Grad. Sch. Med Sci., Tsukuba Univ., ²Fac. Medicine., Tsukuba Univ.)
- P-046 Roles of the E3 ubiquitin ligase LINCR as a novel therapeutic target for fulminant inflammatory diseases**
○ Takumi Yokosawa, Yuki Nada, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Grad. Sch. Pharm. Sci., Tohoku Univ.)
- P-048 Analysis of effects of a mutation in C-terminal region of HCV Core protein on endoplasmic reticulum (ER)-membrane protein and ER stress response**
○ Ryoya Sekine, Shusuke Kuge
(Fac. Pharm. Sci., Tohoku Med. Pharm. Univ.)
- P-049 PPAR γ -driven adipogenesis is involved in thymic atrophy induced by triphenyltin, but not tributyltin.**
○ Erina Shiraishi¹, Kyohei Takano¹, Daisuke Matsumaru¹, Akiko Ido¹, Hisamitsu Nagase^{1,2}, Tsuyoshi Nakanishi¹
(¹Gifu Pharm. Univ., ²Gifu Univ. Med Sci.)
- P-051 Arginyltransferase 1 is a key regulator of human immunodeficiency virus type 1 uncoating.**
○ Ryosuke Okano¹, Naoki Kishimoto¹, Nobutoki Takamune², Shogo Misumi¹
(¹Grad. Sch. Pharm. Sci., Kumamoto Univ., ²KIDO)
- P-054 Elucidation of the novel mechanisms by which gefitinib initiates inflammatory side effects**
○ Tomohiro Kagi, Rio Naganuma, Yuto Sekiguchi, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Grad. Sch. Pharm. Sci., Tohoku Univ.)

- P-056 Intracellular behavior of lysosomal hydrolases in lysosomal membrane permeabilization**
○ Ayaka Yabuki¹, Masatsugu Miyara^{1,2,3}, Kanae Umeda¹, Natsumi Okada¹,
Namiko Watanabe¹, Yaichiro Kotake¹
(¹Grad. Sch. Biomed. and Health Sci., Hiroshima Univ., ²Gifu Pharm. Univ., ³JSPS
Research Fellow PD)
- P-076 An unexpected system for adaptive defense against electrophilic stress in out of cell**
○ Yusuke Onose¹, Masahiro Akiyama^{1,2}, Yoshito Kumagai^{1,2}
(¹Grad. Sch. Med Sci., Tsukuba Univ., ²Fac. Med., Tsukuba Univ.)
- P-091 Assessment of mechanism underlying diphenhydramine-induced cardiotoxicity in cardiomyocytes**
○ Erika Morita¹, Seigo Sanoh^{1,2}, Chizuru Imako², Chieri Fujino¹, Yuya Ohtsuki¹,
Masatsugu Miyara^{1,3,4}, Katsuhiko Okuda⁵, Shigeru Ohta^{1,2,6}, Yaichiro Kotake^{1,2}
(¹Grad. Sch. Biomed. Health Sci., Hiroshima Univ., ²Pharm. Sci., Hiroshima Univ.,
³Gifu Pharm. Univ., ⁴JSPS Research Fellow PD, ⁵Asahikawa Med. Univ., ⁶Wakayama
Med. Univ.)

Award Candidates Presentation

Candidates for Rookie of the Year Award

September 4 (Fri) 10:33 - 11:22 Track 2

Chair: Tomoki Kimura (Fac. Sci. and Eng., Setsunan Univ.)

P-007 Nigral AMPA receptor activation plays a key role for age-related Parkinson's syndrome

○ Nana Saeki¹, Ryusuke Nishio², Misa Katahira¹, Satoko Nakajima², Hiroki Morioka², Azusa Takeuchi¹, Haruna Tamano^{1,2}, Atsushi Takeda^{1,2}

(¹Sch. Pharm. Sci., Univ. Shizuoka, ²Grad. Sch. Pharm. Sci., Univ. Shizuoka)

P-011 Establishment of a novel toxicity test for anti-androgenic chemicals using androgen overproducing transgenic mice.

○ Takahiro Hirano¹, Daisuke Matsumaru¹, Keisuke Ito¹, Kyoko Mekada¹, Yasushi Nishioka¹, Hisamitsu Nagase^{1,2}, Tsuyoshi Nakanishi¹

(¹Gifu Pharm. Univ., ²Gifu Univ. Med. Sci.)

P-012 Toxicological assessment of *trans*-fatty acids using novel molecular bases

○ Ryo Ashida, Yuki Nada, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Grad. Sch. Pharm. Sci., Tohoku Univ.)

P-018 Disruption of selenohomeostasis by Se-mercuration of selenoprotein P

○ Runa Kudo, Takashi Toyama, Yoshiro Saito

(Grad. Sch. Pharm. Sci., Tohoku Univ.)

P-019 LAT-1 and MRP-2 as transporters involved in sensory nerve-specific toxicity of methylmercury

○ Kazuhiro Aoki¹, Eiko Yoshida¹, Yo Shinoda², Yasuyuki Fujiwara², Toshiyuki Kaji¹

(¹Fac. Pharm. Sci., Tokyo Univ. Sci., ²Sch. Pharm., Tokyo Univ. Pharm. and Life Sci.)

P-020 Involvement of TNF- α in the neurotoxicity of methylmercury

○ Fumika Katami¹, Eiko Yoshida¹, Yo Shinoda², Yasuyuki Fujiwara², Toshiyuki Kaji¹

(¹Fac. Pharm. Sci., Tokyo Univ. Sci., ²Sch. Pharm., Tokyo Univ. Pharm. and Life Sci.)

P-039 Oral exposure of titanium oxide (IV) nanoparticles promotes liver steatosis

○ Ryo Koike¹, Daisuke Matsumaru¹, Iori Tsubakihara¹, Hisamitsu Nagase^{1,2}, Yasuo Yoshioka³, Yu-ki Tanaka⁴, Yasumitsu Ogura⁴, Tsuyoshi Nakanishi¹

(¹Gifu Pharm. Univ., ²Gifu Univ. Med. Sci., ³Res. Inst. for Microbial Diseases, Osaka Univ., ⁴Grad. Sch. Pharm. Sci., Chiba Univ.)

Oral Session 1

Metals

September 4 (Fri) 15:10 - 15:55 Track 2

Chair: Tomofumi Okuno (Fac. Pharm. Sci., Setsunan Univ.)

01-1 Loss of metalloestrogenic effects of cadmium on long-term estrogen-deprived MCF-7 cells (LTED cells): Involvements of ligand-independently activated ER α

○ Masayo Hirao-Suzuki¹, Shuso Takeda^{1,2}, Narumi Sugihara², Masufumi Takiguchi¹
(¹Fac. Pharm. Sci., Hiroshima Intl. Univ., ² Fac. Pharm. Sci., Fukuyama Univ.)

01-2 Identification of protein reactive with reduced metabolite of selenious acid in rat brain

○ Sakura Yoshida¹, Akinori Yamamoto¹, Hiroshi Masumoto², Eriko Hori¹, Sakiko Ura¹, Takeshi Fuchigami¹, Mamoru Haratake³, Morio Nakayama¹
(¹Grad. Sch. Biomed. Sci., Nagasaki Univ., ²BRSC, Sch. Med., Nagasaki Univ., ³Fac. Pharm. Sci., Sojo Univ.)

01-3 Ablation of selenium binding protein 1 (Selenbp1) alters lipid metabolism and oxidative stress.

○ Yingxia Song¹, Atsushi Kurose¹, Ren-shi Li¹, Tomoki Takeda¹, Yuko Onomura¹, Takayuki Koga², Takumi Ishida³, Yoshitaka Tanaka¹, Yuji Ishii¹
(¹Grad. Sch. Pharm. Sci., Kyushu Univ., ²Daiichi Univ. Pharm., ³Sch. Pharm. Fukuoka, Intl. Univ. Health and Welfare)

Oral Session 2

Foods • Analysis

September 4 (Fri) 16:00 - 17:00 Track 2

Chair: Yoshinori Okamoto (Fac. Pharm., Meijo Univ.)

02-1 Pancreatic morphological deficiencies caused by fetal growth restriction and their exacerbation of male offspring induced by rich nutrition

○ Atsuto Onoda^{1,2}, Mahboba Jabary, Yuma Kitase^{2,3}, Masahiro Hayakawa², Yoshiaki Sato².
(¹Dep. Pharma., Sanyo-Onoda city Univ., ²Cent. Mat-Neonate., Nagoya Univ. Hosp., ³Johns Hopkins Univ.)

02-2 Surveys of natural radionuclide, polonium-210 in foods

○ Keisuke Soga, Kazunari Kondo, Akiko Hachisuka
(National Institute of Health Sciences)

O2-3 Determination of phthalates with gas chromatography/mass spectrometry (GC/MS): Additional method for 16000-33

○ Shinobu Sakai¹, Shin-ichi Tanabe², Hyuntae Kim³, Kazuhide Ito⁴, Maiko Tahara¹, Ikue Saito⁵, Toshiko Tanaka-Kagawa⁶, Hideto Jinno⁷, Yoshiaki Ikarashi¹
(¹NIHS, ²Waseda Univ., ³Yamaguchi Univ., ⁴Kyushu Univ., ⁵Tokyo Metropolitan Institute of Public Health, ⁶Yokohama Univ. Pharm., ⁷Fac. Pharm., Meijo Univ.)

O2-4 Stereoscopic analyses for cloacal development: abnormal endodermal β -catenin signaling causes anorectal malformation

○ Daisuke Matsumaru^{1,2}, Aki Murashima³, Shinichi Miyagawa⁴, Masayo Harada⁵, Gen Yamada², Tsuyoshi Nakanishi¹
(¹Gifu Pharm. Univ., ²Wakayama Med. Univ., ³Iwate Med. Univ., ⁴Tokyo Univ. Sci., ⁵Tokyo Med. and Dent. Univ.)

Oral Session 3

Biochemistry

September 5 (Sat) 9:00 - 9:45 Track 2

Chair: Masashi Sekimoto (Grad. Sch. Environ. Health, Azabu Univ.)

O3-1 Suppressive role of a guanine nucleotide exchange factor FGD1 in cadherin-mediated cell-cell adhesion

○ Toshiyuki Oshima, Eri Ichikawa, Shunsuke Fujirawa, Tomofumi Fujino, Makio Hayakawa
(Sch. Pharm., Tokyo Univ. Pharm. Life Sci.)

O3-2 Role of prostacyclin synthase in cyclophosphamide-induced hemorrhagic cystitis

○ Tsubasa Ochiai¹, Nanako Yoshida¹, Mei Maeda¹, Yuka Sasaki¹, Chieko Yokoyama², Shuntaro Hara¹
(¹Sch. Pharm., Showa Univ., ²Kanagawa Inst. Tech.)

O3-3 Mice lacking Ah receptor in the adipose tissue are resistant to high fat diet-induced adipose tissue inflammation and diabetes.

○ Taira Wada, Yuki Kasakura, Jun Matsubara, Ayaka Yamada, Hirotake Ishii, Yukiko Takasugi, Shigeki Shimba
(Sch. Pharm., Nihon Univ.)

Analysis of the pathogenic mechanism of non-alcoholic fatty liver disease caused by depletion of lysoPI acyltransferase 1 (LPIAT1)

○ Yuki Tanaka¹, Yuta Shimanaka¹, Andrea Caddeo², Hiroyuki Arai³, Stefano Romeo², Nozomu Kono¹, Junken Aoki¹

(¹ Grad. Sch. Pharm. Sci., Univ. Tokyo, ² Dep. Molecular and Clinical Medicine, Univ. Gothenburg, ³ Grad. Sch. Med., Univ. Tokyo)

Oral Session 4**Biochemistry • Preventive Pharmacology**

September 5 (Sat) 10:00 - 11:00 Track 2

Chair: Nozomu Kono (Grad. Sch. Pharm. Sci., Univ. Tokyo)

O4-1 Proteasomal degradation of human Rad17 protein is promoted by the N-terminal destruction box and nuclear translocation

○ Yasunori Fukumoto¹, Masayoshi Ikeuchi², Liang Qu¹, Tyuji Hoshino¹, Yuji Nakayama², Yasumitsu Ogra¹

(¹ Grad. Sch. Pharm. Sci., Chiba Univ., ² Kyoto Pharm. Univ.)

O4-2 Characterization of the retinoic acid receptor (RAR) Orthologue in priapulid worm, *Priapulus caudatus*, an Ecdysozoa.

○ Youhei Hiromori^{1,2}, Elza Fonseca³, Yoshifumi Kaite¹, Raquel Ruivo³, João N. Franco³, Miguel M. Santos³, L. Filipe C. Castro³, Tsuyoshi Nakanishi¹
(¹Gifu Pharm. Univ., ²College of Pharm, Suzuka Med. Sci. Univ., ³CIIMAR, Univ. Porto)

O4-3 Statins attenuate antiviral innate immune responses through inhibiting IRF3-mediated JAK/STAT signaling pathway in macrophages and hyperlipidemic mice

○ Atsushi Koike, Ko Fujimori

(Osaka Univ. Pharm. Sci.)

O4-4 Removal of extracellular vesicles from influenza virus infected eggs reduces the pyrogenic effect of vaccination and increases vaccine immunogenicity.

○ Naoki Kishimoto¹, Takuma Gotanda², Toshimasa Takasaki¹, Nobutoki Takamune³, Ryotarou Mitsumata², Shogo Misumi²

(¹Grad. Sch. Pharm. Sci., Kumamoto Univ., ² Denka Co.,Ltd., ³KIDO)

Oral Session 5

Cellular Responses

September 5 (Sat) 14:50 - 15:35 Track 2

Chair: Yo Shinoda (Sch. Pharm., Tokyo Univ. Pharm. and Life Sci.)

05-1 Induced expression of *Mmp-3*, *-12*, *-13* in the photothrombosis model brain

○ Hiroshi Hasegawa¹, Hirofumi Hohjoh¹, Io Horikawa¹, Kimie Nakagawa¹,
Eri Segi-Nishida²

(¹Lab. Hygienic. Sci., Kobe Pharm. Univ., ²Dep. Biol. Sci., Fac. Ind. Sci. Tech., Tokyo Univ. Sci.)

05-2 *trans*-Fatty acids facilitate DNA damage-induced apoptosis via the two distinct mechanisms

○ Yuto Yamada, Aya Inoue, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Grad. Sch. Pharm. Sci., Tohoku Univ.)

Paper only

05-3 A quantitative proteomics strategy to identify Lipoxytosis regulators Lipo-4 containing E3 ubiquitin ligase complex.

○ Masaki Matsuoka¹, Into Li¹, Yoshio Koder², Hiroataka Imai¹
(¹Sch. Pharm., Kitasato Univ., ²Sch. Sci., Kitasato Univ.)

05-4 Membrane lipid saturation causes EMC6 degradation and EMC dysfunction.

○ Nozomu Kono¹, Yukari Miyagawa¹, Takehiro Suzuki², Naoshi Dohmae²,
Hiroyuki Arai³, Junken Aoki¹

(¹ Grad. Sch. Pharm. Sci., Univ. Tokyo, ² Biomol. Charact. Unit., RIKEN CSRS, ³Grad. Sch. Med., Univ. Tokyo)

Oral Session 6

Cellular Responses • Immunotoxicity • Oxidative Stress

September 5 (Sat) 15:50 - 16:50 Track 2

Chair: Noriyuki Suzuki (Grad. Sch. Pharm. Sci., Chiba Univ.)

06-1 The effect of activated-aryl hydrocarbon receptor on human epidermal growth factor receptor family gene expression in breast cancer cells.

○ Naoya Yamashita^{1,2}, Yuichiro Kanno^{2,3}, Noriko Sanada¹, Kiyomitsu Nemoto²,
Ryoichi Kizu¹

(¹ Fac. Pharm. Sci., Doshisha Women's College of Liberal Arts., ² Fac. Pharm. Sci., Toho Univ., ³ Sch. Pharm. Sci., Univ. Shizuoka)

06-2 Comparative analyses of the molecular mechanisms regulating thymic involutions induced by dietary restriction and glucocorticoid treatments

○ Nurhanani Razali, Hirofumi Hohjoh, Hiroshi Hasegawa
(Lab. Hygienic Sci., Kobe Pharm. Univ.)

06-3 Antiporters regulating redox homeostasis for inside and outside of cell

○ Masahiro Akiyama¹, Takamitsu Unoki², Hanako Aoki³, Yoshito Kumagai¹
(¹Fac. Med. Univ. Tsukuba., ²Basic Med Sci. MIND., ³ Grad. Sch. Med Sci., Tsukuba Univ.)

06-4 Phosphorylation of TAB1 by Src: A new signaling pathway of oxidative stress.

○ Hiroyuki Iwahara¹, Yusuke Iwata¹, Kanako Natori¹, Tatsuhiko Ozawa², Yue Zhou¹, Kiyonao Sada³, Satoru Yokoyama¹, Hiroaki Sakurai¹
(¹Fac. Pharm. Sci., Univ. Toyama., ²Fac. Med., Univ. Toyama., ³Fac. Med., Fukui Univ.)

e-Poster (Poster Session)

Environmental Pollutants

- Paper only **P-001** **Analysis of phosphorus flame retardants in different kinds of house dust**
○ Kanae Bekki¹, Atsuko Araki², Yu Ait bama², Kenichi Azuma³, Reiko Kishi²
(¹National Institute of Public Health, ² Fac. Pharm. Sci., Hokkaido Univ., ³Fac. Pharm., Kindai Univ.)
- Paper only **P-002** **Removal of dyes and metal in textile wastewater by 21 kinds of waste tea leaves.**
○ Takehiro Nakamura, Sayuri Mishima, Tsukine Fujimoto, Fumihiko Ogata, Naohito Kawasaki
(Fac. Pharm., Kindai Univ.)
- P-003** **Autophagy receptor p62 plays a protective role in methylmercury-mediated endoplasmic reticulum stress, autophagy, and proteasomal degradation**
○ Yasukazu Takanezawa, Ryosuke Nakamura, Yuka Ohshiro, Shimpei Uraguch, Masako, Kiyono
(Sch. Pharm., Kitasato Univ.)
- Paper only **P-004** **Involvement of oncostatin M in the TNF receptor 3-mediated methylmercury-induced neuronal cell death in mouse brain**
○ Yohei Tsunoda^{1,2}, Takayuki Hoshi^{1,2,3}, Takashi Toyama¹, Akira Naganuma¹, Yoshiro Saito¹, Gi-Wook Hwang²
(¹Grad. Sch. Pharm. Sci., Tohoku Univ., ²Fac. Pharm. Sci., Tohoku Med. Pharm. Univ., ³JSPS Research Fellow)
- Paper only **P-005** **Study on the hydrolyzability of 2-ethyl-1-hexanol esters**
Yoko Mori¹, Akira Aoki¹, Yoshinori Okamoto¹, Nobumitsu Hanioka², Toshiko Tanaka-Kagawa², Maiko Tahara³, Tsuyoshi Kawakami³, Shinobu Sakai³,
○ Hideto Jinno¹
(¹Fac. Pharm., Meijo Univ., ²Yokohama Univ. Pharm., ³National Institute of Public Health)
- P-006** **Role of aryl hydrocarbon receptor (AHR) to the brain sexual differentiation.**
Haruki Fukumitsu¹, Tomoki Takeda^{1,2}, Kyoko Nishida¹, Yoshitaka Tanaka¹,
○ Yuji Ishii¹
(¹Grad. Sch. Pharm. Sci., Kyushu Univ., ²Japan Bioassay Research Center)

Neural Toxicity

P-007 Nigral AMPA receptor activation plays a key role for age-related Parkinson's syndrome

○ Nana Saeki¹, Ryusuke Nishio², Misa Katahira¹, Satoko Nakajima², Hiroki Morioka², Azusa Takeuchi¹, Haruna Tamano^{1,2}, Atsushi Takeda^{1,2}
(¹Sch. Pharm. Sci., Univ. Shizuoka, ²Grad. Sch. Pharm. Sci., Univ. Shizuoka)

P-008 The mechanism of acrylamide-induced neurite retraction in monoaminergic neurons

○ Harue Sato¹, Cai Zong¹, Benoit Schneider², Makoto Urushitani³, Gaku Ichihara¹
(¹Fac. Pharm. Sci., Tokyo Univ. Sci., ²Univ. Paris, Inserm UMR-S1124, ³Shiga Univ. Med. Sci.)

Endocrine Disruptors

P-009 Possible role of death associated protein-like 1 (Dapl1) in hypothalamus-pituitary-adrenal axis: study using Dapl1-knockout mice

○ Hong-bin Chen¹, Hiroe Sano¹, Ren-shi Li^{1,2}, Yukiko Hattori¹, Tomoki Takeda^{1,3}, Yoshitaka Tanaka¹, Yuji Ishii¹
(¹Grad. Sch. Pharm. Sci., Kyushu Univ., ²China Pharm. Univ., ³Japan Bioassay Research Center)

P-010 Protective functions of complement component 8 γ in liver steatosis induced by triphenyltin

○ Katsuya Yamamoto¹, Daisuke Matsumaru¹, Iori Tsubakihara¹, Akira Aoki¹, Youhei Hiromori², Hisamitsu Nagase³, Tsuyoshi Nakanishi¹
(¹Gifu Pharm. Univ., ²College of Pharm, Suzuka Med. Sci. Univ., ³Gifu Univ. Med. Sci.)

Paper only

P-011 Establishment of a novel toxicity test for anti-androgenic chemicals using androgen overproducing transgenic mice.

○ Takahiro Hirano¹, Daisuke Matsumaru¹, Keisuke Ito¹, Kyoko Mekada¹, Yasushi Nishioka¹, Hisamitsu Nagase^{1,2}, Tsuyoshi Nakanishi¹
(¹Gifu Pharm. Univ., ²Gifu Univ. Med. Sci.)

Foods and Pesticides

P-012 Toxicological assessment of *trans*-fatty acids using novel molecular bases

○ Ryo Ashida, Yuki Nada, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Grad. Sch. Pharm. Sci., Tohoku Univ.)

P-013 Activation of Nrf2 and diminished arsenic level by *Coriandrum sativum* L. leaves hexane extract containing a variety of (E)-2-alkenals

○ Yumi Abiko^{1,2,3}, Hanako Aoki², Miyuki Okada³, Mai Mizokawa⁴, Yoshito Kumagai^{1,2,3}
(¹Fac. Med., Univ. Tsukuba, ²Comp. Human Sci., Univ. Tsukuba, ³Med. Sci., Univ. Tsukuba, ⁴Environ. Sci., Univ. Tsukuba)

P-014 Inhibitory effects on cell proliferation and cell death-inducing activities of constituents from *Hibiscus tiliaceus*

○ Daisuke Imahori, Takahiro Matsumoto, Kaduki Achiwa, Youhei Saito, Naoto Kojima, Masayuki Yamashita, Yuji Nakayama, Tetsushi Watanabe (Kyoto Pharm. Univ.)

Metals

P-015 Effects of repeated administration of gadolinium contrast agents on testis in mice

○ Ryosuke Nakamura, Yasukazu Takanezawa, Yuka Ohshiro, Shimpei Uraguchi, Masako Kiyono
(Sch. Pharm., Kitasato Univ.)

P-016 Transcription of *mer* operon and function of novel *mer* gene in *Pseudomonas* K-62 plasmid pMR68

○ Yuka Ohshiro, Chihiro Yamaoka, Shimpei Uraguchi, Ryosuke Nakamura, Yasukazu Takanezawa, and Masako Kiyono
(Sch. Pharm., Kitasato Univ.)

P-017 Vulnerability of S3-segment of proximal tubule on platinum-containing drugs

○ Hiroki Taguchi¹, Hitomi Fujishiro¹, Seiichiro Himeno², Daigo Sumi¹
(¹Fac. Pharm. Sci., Tokushima Bunri Univ., ²Sch. Pharm., Showa Univ.)

P-018 Disruption of selenohomeostasis by Se-mercuration of selenoprotein P

○ Runa Kudo, Takashi Toyama, Yoshiro Saito
(Grad. Sch. Pharm. Sci., Tohoku Univ.)

P-019 LAT-1 and MRP-2 as transporters involved in sensory nerve-specific toxicity of methylmercury

○ Kazuhiro Aoki¹, Eiko Yoshida¹, Yo Shinoda², Yasuyuki Fujiwara², Toshiyuki Kaji¹
(¹Fac. Pharm. Sci., Tokyo Univ. Sci., ²Sch. Pharm., Tokyo Univ. Pharm. and Life Sci.)

P-020 Involvement of TNF- α in the neurotoxicity of methylmercury

○ Fumika Katami¹, Eiko Yoshida¹, Yo Shinoda², Yasuyuki Fujiwara², Toshiyuki Kaji¹
(¹Fac. Pharm. Sci., Tokyo Univ. Sci., ²Sch. Pharm., Tokyo Univ. Pharm. and Life Sci.)

P-021 Induction of metallothionein isoforms by cadmium in vascular endothelial cells

○ Yusuke Ozaki¹, Tomoya Fujie², Fukuta Takenaka¹, Chika Yamamoto²,
Toshiyuki Kaji¹
(¹Fac. Pharm. Sci., Tokyo Univ. Sci., ²Fac. Pharm. Sci., Toho Univ.)

P-022 Application of laser ablation (LA)-ICP-MS for the screening of bacteria having demethylation activity of methylmercury

○ Kazuaki Takahashi^{1,2}, Yasunori Fukumoto¹, Yasumitsu Ogra¹
(¹Grad. Sch. Pharm. Sci., Chiba Univ., ²JSPS Research Fellow)

P-023 Development of caged selenocompounds for the elucidation of selenium metabolism

○ Moka Hirayama, Chihiro Naito, Noriyuki Suzuki, Yu-ki Tanaka, Yasunori Fukumoto,
Yasumitsu Ogra
(Grad. Sch. Pharm. Sci., Chiba Univ.)

Paper only

P-024 Mechanism involved in methylmercury-induced TNF- α expression via p38 in microglia, and its involvement in neuronal cell death

○ Takayuki Hoshi^{1,2,3}, Takashi Toyama¹, Akira Naganuma¹, Yoshiro Saito¹,
Gi-wook Hwang²
(¹Grad. Sch. Pharm. Sci., Tohoku Univ., ²Fac. Pharm. Sci., Tohoku Med. Pharm. Univ.,
³JSPS Research Fellow)

Paper only

P-025 The effect of molar ratio on adsorption of phosphate ion and pH on preparation of magnesium-iron-aluminum hydroxides.

○ Riku Nagafuji, Takehiro Nakamura, Tomoki Fujiwara, Fumihiko Ogata,
Naohito Kawasaki
(Fac. Pharm., Kindai Univ.)

Paper only

P-026 Production of K-type zeolite for practical application and removal of lead ion

○ Yuhei Kobayashi, Fumihiko Ogata, Takehiro Nakamura, Naohito Kawasaki
(Fac. Pharm., Kindai Univ.)

P-027 Reduction of electrical conductivity using activated bentonites treated with different acids

○ Eri Nagahashi, Fumihiko Ogata, Takehiro Nakamura, Naohito Kawasaki
(Fac. Pharm., Kindai Univ.)

P-028 Fear memory via long-term potentiation is regulated by Zn²⁺ in the amygdala

○ Yudai Ishikawa¹, Ryusei Itoh², Haruna Tamano^{1,2}, Atsushi Takeda^{1,2}
(¹Grad. Sch. Pharm. Sci., Univ. Shizuoka, ²Sch. Pharm. Sci., Univ. Shizuoka)

- P-029 Effect of GGT inhibitor on cadmium-induced cytotoxicity in endothelial cells**
○ Erina Kumano, Keisuke Sato, Ryosuke Tatsunami
(Sch. Pharm., Hokkaido Univ. Sci.)
- P-030 Nucleolin downregulation enhances cadmium cytotoxicity in vascular endothelial cells**
○ Yasuyuki Fujiwara¹, Tsutomu Takahashi¹, Ai Yumoto¹, Yuki Miyazaki¹, Masumi Kosaka¹, Yayoi Tsuneoka¹, Yo Shinoda¹, Toshiyuki Kaji²
(¹Sch. Pharm. Tokyo Univ. Pharm. and Life Sci., ²Fac. Pharm. Sci., Tokyo Univ. Sci.)
- P-031 Effect of sodium arsenite on procoagulant activity in cultured human immune cells.**
○ Tsuyoshi Nakano¹, Yumi Araki¹, Tsutomu Takahashi¹, Chika Yamamoto², Toshiyuki Kaji³, Yasuyuki Fujiwara¹
(¹Sch. Pharm., Tokyo Univ. Pharm. and Life Sci., ²Fac. Pharm. Sci., Toho Univ., ³Fac. Pharm. Sci., Tokyo Univ. Sci.,)
- P-032 Potentiation of cadmium-induced cytotoxicity of endothelial cells by TGF- β_1 and its mechanisms**
○ Tomoya Fujie¹, Masahiro Shimomura², Toshiyuki Kaji², Chika Yamamoto¹
(¹Fac. Pharm. Sci., Toho Univ., ²Fac. Pharm. Sci., Tokyo Univ. Sci.)
- P-033 The cytotoxicity of pentavalent organoantimony compounds is independent of intracellular accumulation**
○ Takato Hara¹, Shihoko Nakano², Yuki Kitamura³, Chika Yamamoto¹, Shuji Yasuike³, Toshiyuki Kaji²
(¹Fac. Pharm. Sci, Toho Univ., ²Fac. Pharm. Sci, Tokyo Univ. Sci., ³Sch. Pharm., Aichi Gakuin Univ.)
- P-034 Titanium dioxide nanoparticle-induced testicular dysfunction in mice**
○ Nobuhiko Miura¹, Hiroki Yoshioka^{2,3}, Katsumi Ohtani⁴
(¹Yokohama Univ. Pharm., ²Kinjo Gakuin Univ., ³Univ. Texas Health Sci. Houston, ⁴Natl. Inst. Occu. Safety Health)
- Paper only P-035 Molecular structure analysis of metallothionein-3 by Raman spectroscopy**
○ Yasuhiro Shinkai^{1,2}, Yunjie Ding², Masahiro Akiyama¹, Sumeet Mahajan³, Yoshito Kumagai^{1,2}
(¹Fac. Med., Univ. Tsukuba, ²Grad. Sch. Comprehensive Human Sci., Univ. Tsukuba, ³Univ. Southampton)

P-036 Increased disruption of redox homeostasis and concomitant protein modification caused by combined exposure to metals with electrophilic property

○ Hiroto Yamakawa¹, Masahiro Akiyama^{1,2}, Yoshito Kumagai^{1,2}
(¹Grad. Sch. Med. Sci., Tsukuba Univ., ²Fac. Medicine., Tsukuba Univ.)

Paper only P-037 Re-analysis of public whole genome bisulfite sequencing data to reveal the effect of cadmium on DNA methylation in metallothionein gene

Shoko Ogushi, ○ Tomoki Kimura
(Fac. Sci. Eng., Setsunan Univ.)

P-038 The effects of food additive grade titanium oxide (IV) on glycolipid metabolism

○ Yuki Takeshita¹, Ryo Koike¹, Daisuke Matsumaru¹, Yasuo Yoshioka², Yu-ki Tanaka³, Yasumitsu Ogura³, Tsuyoshi Nakanishi¹
(¹Gifu Pharm.Univ., ²Res. Inst. for Microbial Diseases, Osaka Univ., ³Grad. Sch. Pharm. Sci., Chiba Univ.)

Paper only P-039 Oral exposure of titanium oxide (IV) nanoparticles promotes liver steatosis

○ Ryo Koike¹, Daisuke Matsumaru¹, Iori Tsubakihara¹, Hisamitsu Nagase^{1,2}, Yasuo Yoshioka³, Yu-ki Tanaka⁴, Yasumitsu Ogura⁴, Tsuyoshi Nakanishi¹
(¹Gifu Pharm.Univ., ²Gifu Univ. Med. Sci., ³Res. Inst. for Microbial Diseases, Osaka Univ., ⁴Grad. Sch. Pharm. Sci., Chiba Univ.)

Oxidative Stress

Paper only P-040 Reactive sulfur species inhibit PDGF-induced vascular smooth muscle cell migration through regulation of focal adhesion formation

○ Shunichi Ishii, Hiroki Fujimori, Mayu Watanabe, Takashi Ashino, Satoshi Numazawa
(Sch. Pharm., Showa Univ.)

Paper only P-041 Mechanism of metabolic adverse reactions by olanzapine and its relationship to the sex difference

○ Natsumi Hattori^{1,2}, Asuka Kaizaki-Mitsumoto^{1,2}, Satoshi Numazawa^{1,2}
(¹Sch. Pharm., Showa Univ., ² Pharmacol. Res. Center, Showa Univ.)

P-042 The various redox regulation of rate-limiting enzyme in glycolysis effects oxidative stress response and anticancer drugs sensitivity

○ Hayato Irokawa, Shin Kato, Satoshi Numasaki, Shusuke Kuge
(Fac. Pharm. Sci., Tohoku Med. Pharm. Univ.)

P-043 Role of a HSP70 co-chaperon BAG-1 on oxidative stress

○ Koki Takeda, Hayato Irokawa, Shusuke Kuge
(Fac. Pharm. Sci., Tohoku Med. Pharm. Univ.)

P-044 Time-dependent change of physiological parameters and cell composition in bronchoalveolar lavage fluid by continuous inhalation of high concentration oxygen in mice

○ Marie Sawa¹, Akira Ushiyama², Kenji Hattori¹, Kazuyuki Ishii¹
(¹ Meiji Pharm. Univ., ²National Institute of Public Health)

P-045 A possible resistance mechanism of human malignant meningioma cells to photodynamic therapy using talaporfin sodium

○ Tsutomu Takahashi¹, Momoko Sakamoto¹, Nanako Saeki¹, Yo Shinoda¹, Jiro Akimoto², Yasuyuki Fujiwara¹
(¹Sch. Pharm. Tokyo Univ. Pharm. and Life Sci., ²Tokyo Med. Univ.)

Immunotoxicity · Infectious Diseases

P-046 Roles of the E3 ubiquitin ligase LINCR as a novel therapeutic target for fulminant inflammatory diseases

○ Takumi Yokosawa, Yuki Nada, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Grad. Sch. Pharm. Sci., Tohoku Univ.)

P-047 The activation of murine mast cells by staphylococcal superantigen-like 12

○ Kim Gwang Dong^{1,2}, Ayaka Urabe¹, Masato Kobayashi¹, Takuma Kitano¹, Haruki Takito¹, Ayana Ogata¹, Hikaru Inoue¹, Kazuhito Hayashi¹, Susumu Ohya², Shigeaki Hida¹, Saotomo Itoh¹
(¹Grad. Sch. Pharm. Sci., Nagoya city Univ., ²Grad. Sch. Med. Sci., Nagoya city Univ.)

P-048 Analysis of effects of a mutation in C-terminal region of HCV Core protein on endoplasmic reticulum (ER)-membrane protein and ER stress response

○ Ryoya Sekine, Shusuke Kuge
(Fac. Pharm. Sci., Tohoku Med. Pharm. Univ.)

Paper only **P-049 PPAR γ -driven adipogenesis is involved in thymic atrophy induced by triphenyltin, but not tributyltin.**

○ Erina Shiraishi¹, Kyohei Takano¹, Daisuke Matsumaru¹, Akiko Ido¹, Hisamitsu Nagase^{1,2}, Tsuyoshi Nakanishi¹
(¹Gifu Pharm. Univ., ²Gifu Univ. Med. Sci.)

P-050 Effect of oxidized olive oil on cutaneous sensitization of contact dermatitis

○ Hirofumi Ogino, Masaya Funakoshi, Ryoma Yamazaki, Tomofumi Okuno, Hitoshi Ueno
(Fac. Pharm. Sci., Setsunan Univ.)

P-051 Arginyltransferase 1 is a key regulator of human immunodeficiency virus type 1 uncoating.

○ Ryosuke Okano¹, Naoki Kishimoto¹, Nobutoki Takamune², Shogo Misumi¹
(¹Grad. Sch. Pharm. Sci., Kumamoto Univ., ²KIDO)

Cellular Responses**P-052 The anti-inflammatory effect of glycation products dihydropyrazines**

○ Madoka Esaki¹, Shunji Itoh², Masaki Yoshida³, Yuu Miyauchi¹, Takumi Ishida⁴, Shinji Takechi¹
(¹Fac. Pharm. Sci., Sojo Univ., ²Grad. Sch. Health Sci., Kansai Univ. Health Sci., ³Fac. Bio-Sci., Nagahama Inst. Bio-Sci. Technol., ⁴Sch. Pharm. at Fukuoka, Intl. Univ. Health and Welfare.)

P-053 Molecular and pathological mechanisms of the *trans*-fatty acid-mediated age-related diseases

○ Yusuke Hirata, Aya Inoue, Ryo Ashida, Takuya Noguchi, Atsushi Matsuzawa
(Grad. Sch. Pharm. Sci., Tohoku Univ.)

P-054 Elucidation of the novel mechanisms by which gefitinib initiates inflammatory side effects

○ Tomohiro Kagi, Rio Naganuma, Yuto Sekiguchi, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Grad. Sch. Pharm. Sci., Tohoku Univ.)

P-055 Mechanism of injury by CD36-mediated fatty acid uptake in renal tubular epithelial cells

○ Yasushi Kawasaki, Mei Kaneko, Miho Karimazawa, Yuki Katsumata, Akinori Sugiyama
(Sch. Pharm., Iwate Med. Univ.)

P-056 Intracellular behavior of lysosomal hydrolases in lysosomal membrane permeabilization

○ Ayaka Yabuki¹, Masatsugu Miyara^{1,2,3}, Kanae Umeda¹, Natsumi Okada¹, Namiko Watanabe¹, Yaichiro Kotake¹
(¹Grad. Sch. Biomed. and Health Sci., Hiroshima Univ., ²Gifu Pharm. Univ., ³JSPS Research Fellow PD)

P-057 The role of RhoJ, a member of Rho GTPase, in TGF- β 1 mediated EMT

○ Misa Nozaki¹, Makoto Nishizuka^{1,2}
(¹Grad. Sch. Sustain. Community Stud., Hirosaki Univ., ²Fac. Agri. and Life Sci., Hirosaki Univ.)

- P-058 Signal transduction in enteroendocrine cells evoked by ethyl ferulate.**
○ Yoko Mori¹, Akira Aoki¹, Yoshinori Okamoto¹, Takashi Isobe², Susumu Ohkawara², Nobumitsu Hanioka², Toshiko Tanaka-Kagawa², Hideto Jinno¹
(¹Fac. Pharm., Meijo Univ., ²Yokohama Univ. Pharm.)
- P-059 Enhanced reactivity of basophils to IgE/antigen stimulation induced by T cell-dependent manner**
○ Takuma Kitano¹, Keitaroh Kishida¹, Yuka Matsui¹, Shinsuke Taki², Saotomo Itoh¹, Shigeaki Hida¹
(¹Grad. Sch. Pharm. Sci. Nagoya City Univ., ²Sch. Med, Shinshu Univ.)
- P-060 Changes of selenoprotein gene expression level in mouse neural cells caused by the oxidative stress**
○ Tomofumi Okuno¹, Yuta Nozaki¹, Tomohiro Arakawa², Hirofumi Ogino¹, Hitoshi Ueno¹
(¹Fac. Pharm. Sci., Setsunan Univ., ²Hamamatsu Univ. Sch. Med.)
- P-061 The mast cell-neutrophil crosstalk regulates allergic responses.**
○ Moeri Nakamura¹, Naohide Hirashima², Ryo Suzuki¹
(¹Fac. Pharm. Sci., Inst. Med. Pharm. Health Sci., Kanazawa Univ., ²Grad. Sch. Pharm. Sci., Nagoya City Univ.)
- P-062 The chemical pollutants, Benzo[a]pyrene, regulate NLRP1 inflammasome-mediated inflammatory responses in lung epithelium cell.**
○ Risa Kohno, Ryo Suzuki
(Fac. Pharm. Sci., Inst. Med. Pharm. Health Sci., Kanazawa Univ.)
- P-063 The Cytotoxic Effects of Metallic Nanoparticle in Alveolar Macrophages**
○ Minami Satake¹, Takafumi Seto^{2,3}, Ryo Suzuki^{1,3}
(¹Fac. Pharm. Sci., Inst. Med. Pharm. Health Sci., Kanazawa Univ., ²Inst. Sci. Eng., Kanazawa Univ., ³CREST)
- P-064 FOXA1 is a factor involved in reducing the toxicity of arsenite**
○ Daigo Sumi¹, Ai Takase¹, Rio Fujinaga¹, Seiichiro Himeno²
(¹Sch. Pharm., Tokushima Bunri Univ., ²Sch. Pharm., Showa Univ.)
- P-065 Regulation of reactive sulfur species-producing enzyme expression by TGF-β1 in vascular endothelial cells**
○ Musubu Takahashi¹, Tomoya Fujie², Akane Takahasshi¹, Chika Yamamoto², Toshiyuki Kaji¹
(¹Fac. Pharm. Sci., Tokyo Univ. Sci., ²Fac. Pharm. Sci., Toho Univ.)

P-066 Induction of a reactive sulfur species-production enzyme CSE by FGF-2 in vascular endothelial cells

○ Ayaka Kubota¹, Musubu Takahashi¹, Tomoya Fujie², Chika Yamamoto², Toshiyuki Kaji¹
(¹Fac. Pharm. Sci., Tokyo Univ. Sci., ²Fac. Pharm. Sci., Toho Univ.)

P-067 Screening of novel potentiating agent of ligand-mediated activation of AhR

○ Naoteru Denta¹, Kentarou Shiina¹, Syunsuke Tomita^{1,2}, Masashi Sekimoto^{1,2}
(¹Sch. Environ. Life Sci., Azabu Univ., ²Grad. Sch. Environ. Health, Azabu Univ.)

P-068 Mechanism of AhR protein degradation by AG1024, an inhibitor for both insulin like growth factor 1 receptor (IGF1R) and insulin Receptor (INSR)

○ Shunsuke Tomita^{1,2}, Kazuho Inaba^{1,2}, Osamu Endo¹, Masashi Sekimoto¹
(¹Sch. Environ. Life Sci., Azabu Univ., ²Grad. Sch. Environ. Health, Azabu Univ.)

P-069 Regulation of EMT related transcriptional factor Snail expression by the deubiquitinating enzyme USP28

○ Haruna Nakamoto, Koichi Sato, Hitomi Tanaka, Manaka Yoshida, Chiharu Miyajima, Yasumichi Inoue, Hidetoshi Hayashi
(¹Grad. Sch. Pharm. Sci., Nagoya City Univ.)

Paper only **P-070**

Autoinflammatory diseases caused by impaired membrane traffic

○ Emari Ogawa¹, Kojiro Mukai², Hiroyuki Arai³, Nozomu Kono¹, Jyunken Aoki¹, Tomohiko Taguchi^{2,4}
(¹Grad. Sch. Pharm. Sci., Univ. Tokyo, ²Grad. Sch. Life Sci., Tohoku Univ., ³Grad. Sch. Med., Univ. Tokyo, ⁴AMED-PRIME)

Paper only **P-071**

Interindividual difference in the expression levels of molecules related to airway hyperreactivity in human trachea and lung

○ Natsumi Cho¹, Ayano Kondo¹, Nozomi Akiyama¹, Ikuo Kawamura¹, Nobuhiko Miura¹, Yoko Mori², Moeko Nagai², Takashi Isobe¹, Susumu Ohkawara¹, Nobumitsu Hanioka¹, Hideto Jinno², Toshiko Tanaka-Kagawa¹
(¹Yokohama Univ. Pharm., ²Fac. Pharm., Meijo Univ.)

Paper only **P-072**

Estrogen receptor α phosphorylated at Ser216 confers inflammatory function to mouse microglia

○ Sawako Shindo, Gi-Wook Hwang, Kiyoshi Nagata
(Fac. Pharm. Sci., Tohoku Med. Pharm. Univ.)

Biochemistry

P-073 Selenium binding protein 1 (Selenbp1) modulates chemical-induced dermatitis.

○ Takayuki Koga¹, Makoto Hiromura¹, Yingxia Song², Tomoki Takeda², Yuji Ishii², Takumi Ishida³, Yuko Kobuke¹, Fumio Soeda¹, Akihisa Toda¹
(¹Daiichi Univ. Pharm., ²Grad. Sch. Pharm. Sci., Kyushu Univ., ³Fac. Pharm. Sci., Sojo Univ.)

P-074 Inhibition of SARS-CoV2 cysteine proteases by selenium-containing compounds

○ Yuya Habuka¹, Takashi Toyama¹, Minkyung Jung², Tomoaki Ida², Masanobu Morita², Mieko Arisawa¹, Takaaki Akaike², Yoshiro Saito¹
(¹Grad. Sch. Pharm. Sci., Tohoku Univ., ²Grad. Sch. Med., Tohoku Univ.)

P-075 The induction of KLF5 gene expression by 3-methylcholanthrene in human hepatocellular HepG2 cells

○ Noriko Sanada¹, Naoya Yamashita¹, Yuichiro Kanno², Kiyomitsu Nemoto³, Ryoichi Kizu¹
(¹Fac. Pharm. Sci., Doshisha Women's Coll. Liberal Arts, ²Sch. Pharm. Sci., Univ. Shizuoka, ³Fac. Pharm. Sci., Toho Univ.)

P-076 An unexpected system for adaptive defense against electrophilic stress in out of cell

○ Yusuke Onose¹, Masahiro Akiyama^{1,2}, Yoshito Kumagai^{1,2}
(¹Grad. Sch. Med Sci., Tsukuba Univ., ²Fac. Med., Tsukuba Univ.)

P-077 Crosstalk of regulation between syndecan-1 and syndecan-4 expressions in vascular endothelial cells

○ Arisa Sato¹, Takato Hara², Chika Yamamoto², Toshiyuki Kaji¹
(¹Fac. Pharm. Sci., Tokyo Univ. Sci., ²Fac. Pharm. Sci., Toho Univ.)

Paper only

P-078 Identification of proteins in the proximity of phosphatidylinositol 4-phosphate (PI4P)

○ Shenwei Ni¹, Kojiro Mukai², Takehiro Suzuki³, Naoshi Dohmae³, Hiroyuki Arai⁴, Tomohiko Taguchi², Nozomu Kono¹, Junken Aoki¹
(¹Grad. Sch. Pharm. Sci., Univ. Tokyo, ²Grad. Sch. Life Sci., Tohoku Univ., ³Biomol. Charact. Unit., RIKEN CSRS, ⁴Grad. Sch. Med., Univ. Tokyo)

Preventive Pharmacology

Paper only

- P-079** **The search for molecules involved in the improvement of urination function in drug-induced menopausal mice based on the effect of an enriched environment**
○ Fumio Soeda, Ichiro Kimura, Sumire Kudo, Aki Sato, Takayuki Koga, Yuko Kobuke, Akihisa Toda
(Daiichi Univ. Pharm.)
- P-080** **Cytotoxic activities against cancer stem cells of isolated compounds from dried aerial parts of *Petasites japonicus***
○ Takahiro Kitagawa, Takahiro Matsumoto, Daisuke Imahori, Youhei Saito, Yuji Nakayama, Eishi Ashihara, Tetsushi Watanabe
(Kyoto Pharm. Univ.)
- P-081** **Increased UCP-1 expression via Akt/mTOR signaling pathway induced by *Alpinia officinarum* rhizome extracts**
○ Akira Aoki, Yoko Mori, Yoshinori Okamoto, Hideto Jinno
(Fac. Pharm., Meijo Univ.)
- P-082** **Influence of metallothionein gene knockout by CRISPR-Cas9 gene editing on differentiation of C2C12 myoblasts into myotubes and skeletal muscle development.**
○ Yoshito Kadota, Takashige Kawakami, Shinya Suzuki
(Fac. Pharm. Sci., Tokushima Bunri Univ.)
- P-083** **Estimation of inter-individual variability of protein requirement by indicator amino acid oxidation method**
○ Kohsuke Hayamizu, Yuma Aoki, Nobuo Izumo, Makoto Nakano
(Yokohama Univ. Pharm.)

Analysis

Paper only

- P-084** **Analysis of 16 mycotoxins contamination in crude drugs that component of a kakkonto formula**
○ Shota Yoshida, Akira Okonogi, Ryuji Takahashi
(Kampo Res. Labs., Kracie Pharma Ltd.)
- P-085** **Cases of chemical analysis to investigate the cause substance of allergic contact dermatitis**
○ Tsuyoshi Kawakami, Maiko Tahara, Yoshiaki Ikarashi
(National Institute of Health Sciences)

P-086 Evaluation of rapid detection kits of stimulants in terms of the false positive responses

○ Suguru Nabeya¹, Noriyuki Suzuki¹, Hirotaro Iwase^{2,3}, Yasumitsu Ogra^{1,2}
(¹Grad. Sch. Pharm. Sci., Chiba Univ., ²Edu. Res. Center Legal Med., Chiba Univ.,
³Grad. Sch. Med., Univ. Tokyo.)

P-087 Rapid and affordable extraction of serum estrogens utilizing a pipette-tip solid-phase extraction system

○ Eri Aizawa, Yoshinori Okamoto, Yoko Mori, Akira Aoki, Hideto Jinno
(Fac. Pharm., Meijo Univ.)

Drug Metabolism

P-088 Focusing on a baculovirus-mammalian cell expression system (bac-mam system) for efficient and safe expressions of drug metabolizing enzyme in HepG2 cells

○ Yuu Miyauchi^{1,2}, Akane Kimura², Madoka Esaki¹, Keiko Fujimoto², Yuko Hirota², Shinji Takechi¹, Peter I. Mackenzie³, Yuji Ishii², Yoshitaka Tanaka²
(¹Fac. Pharm. Sci. Sojo Univ., ²Grad. Sch. Pharm. Sci., Kyushu Univ., ³Flinders Univ. Sch. Med.)

P-089 Comprehensive characterization of rat liver UDP-glucuronosyltransferases: major isoforms participated in mycophenolic acid and acetaminophen glucuronidation

○ Yuka Shimomura¹, Hiroki Oki¹, Ryohei Yamashita¹, Yuu Miyauchi¹, Peter I. Mackenzie², Yoshitaka Tanaka¹, Yuji Ishii¹
(¹Grad. Sch. Pharm. Sci., Kyushu Univ., ²Flinders Univ. Sch. Med.)

P-090 Morphinone, an electrophilic metabolite of morphine, activates the biological defense system in human hepatoma HepG2 cells

○ Kohei Matsuo, Daisuke Aibara, Shigeru Yamano
(Fac. Pharm. Sci., Fukuoka. Univ.)

Paper only

P-091 Assessment of mechanism underlying diphenhydramine-induced cardiotoxicity in cardiomyocytes

○ Erika Morita¹, Seigo Sanoh^{1,2}, Chizuru Imako², Chieri Fujino¹, Yuya Ohtsuki¹, Masatsugu Miyara^{1,3,4}, Katsuhiro Okuda⁵, Shigeru Ohta^{1,2,6}, Yaichiro Kotake^{1,2}
(¹Grad. Sch. Biomed. Health Sci., Hiroshima Univ., ²Pharm. Sci., Hiroshima Univ.,
³Gifu Pharm. Univ., ⁴JSPS Research Fellow PD, ⁵Asahikawa Med. Univ., ⁶Wakayama Med. Univ.)

Paper only

P-092 Interaction of estrogen sulfotransferase SULT1E1 with oxidized LDL and its association with atherosclerosis

○ Akira Sato^{1,2}, Hinako Watanabe¹, Miyuki Yamazaki¹, Eiko Sakurai^{1,2}, Keiichi Ebina^{1,2}
(¹Fac. Pharm., Iryo Sosei Univ., ²Grad. Sch. Life. Sci. Engineer., Iryo Sosei Univ.)

Health Foods

P-093 Production of the thrombolytic enzyme Nattokinase by fermentation of Japanese radish leaves

Yasuhide Yanagisawa¹, ○ Risa Murakami¹, Tatsumi Adachi¹, Sawa Naito²,
Chieko Yatagai², Hiroyuki Sumi²
(¹Pharm. Sci., Chiba Inst. Sci., ²Life Sci., Kurashiki Univ. Sci. and the Arts)

P-094 Comparison of amount of soup eaten with instant noodles

○ Fumitoshi Sakazaki
(Fac. Pharm., Osaka-Ohtani Univ.)

P-095 Analysis of hypoglycemic effect of ginger extracts on diabetic mouse models

○ Honoka Mori, Akira Aoki, Yoko Mori, Yoshinori Okamoto, Hideto Jinno
(Fac. Pharm., Meijo Univ.)

P-096 Safety assessment of L-citrulline oral intake from clinical studies: a systematic review

○ Yui Kuramochi, Ryo Takahashi, Nobuo Izumo, Makoto Nakano, Kohsuke Hayamizu
(Yokohama Univ. Pharm.)

Paper only

P-097 Safety assessment of L-citrulline oral intake from clinical studies: a systematic review

○ Mako Tamura, Rina Ikefuku, Takahiro Uchida, Shiori Kobuna, Nobuo Izumo,
Akihide Sumino, Makoto Nakano, Kohsuke Hayamizu
(Yokohama Univ. Pharm.)

Others

P-098 Researchers' opinion from Global questionnaire survey on standardization of experimental protocol for safety assessment of electromagnetic fields

○ Akira Ushiyama¹, Kenji Hattori², Masateru Ikehata³, Keiji Wada⁴, Yukihiisa Suzuki⁴
(¹Nat. Inst. Public Health., ²Meiji Pharm. Univ., ³Railway Tech. Res. Inst. ⁴Tokyo Metropolitan Univ.)

Paper only

P-099 The amount of harmful chemical compounds in mainstream smoke of heated tobacco products is affected by the heating temperature

○ Yohei Inaba, Shigehisa Uchiyama, Akira Ushiyama
(National Institute of Public Health)

P-100 The *in vivo* assessment of genotoxicity of intermediate frequency magnetic fields used for wireless power transfer system

○ Shin Ohtani¹, Akira Ushiyama², Keiji Wada³, Yukihiisa Suzuki³, Kazuyuki Ishii¹, Kenji Hattori¹

(¹Meiji Pharm. Univ., ²National Institute of Public Health, ³Tokyo Metropolitan Univ.)

Paper only

P-101 Computed estimation of cardiotoxicity on chemical compound in crude drugs and Kampo medicines

○ Takahiro Uchida, Rina Ikefuku, Shiori Kobuna, Mako Tamura, Akihida Sumino, Makoto Nakano, Nobuo Izumo, Hideko Sone, Kohsuke Hayamizu

(Yokohama Univ. Pharm.)