Plenary Lecture Ⅰ

September 10 (Fri) 11:20-12:20 Track 1/Room C101
Chair: Akira Naganuma (Tohoku Univ.)

PL-1 **Role and its significance of elucidating the mechanism of toxic action in drug safety evaluation**
○ Ikuo Horii
(Pfizer)

Plenary Lecture Ⅱ

September 11 (Sat) 13:00-14:00 Track 1/Room C101
Chair: Toshiyuki Kaji (Fac. Pharm, Sci., Tokyo Univ. Sci.)

PL-2 **Viral genome mutation, immunity and RNA vaccination in Covid19**
○ Tatsuhiko Kodama
(RCAST, University of Tokyo)

Educational Lecture Ⅰ

September 10 (Fri) 14:50-15:50 Track 1/Room C101
Chair: Chika Yamamoto (Fac. Pharm, Sci., Toho Univ.)

EL-1 **Overlooking the history of pharmaceutical sciences and considering the future of pharmaceutical health sciences**
○ Toshiyuki Kaji
(Fac. Pharm, Sci., Tokyo Univ. Sci.)

Educational Lecture Ⅱ

September 11 (Sat) 15:40-16:40 Track 1/Room C101
Chair: Kiyomitsu Nemoto (Fac. Pharm, Sci., Toho Univ.)

EL-2 **Rapid rise of cardio-ankle vascular index may be a trigger of cerebro-cardiovascular events: Proposal of smooth muscle cell contraction theory for plaque rupture**
○ Kazuhiro Shimizu
(Department of Internal Medicine, Toho University Sakura Medical Center)

Award Lectures

Scientific Award

September 11 (Sat) 14:10-14:40 Track 1/Room C101
Chair: Yasuyuki Fujiwara (Sch. of Pharm., Tokyo Univ. of Pharm. and Life Sci.)

AL-1 **Molecular Basis of Viral Infection, Host Response and Prevention & Treatment Strategies**
○ Shogo Misumi
(Fac. Med. & Pharm. Sci., Kumamoto Univ.)

Kanehara Award

September 11 (Sat) 14:40-15:00 Track 1/Room C101
Chair: Akira Toriba (Grad. Sch. Biomed. Sci., Nagasaki Univ.)

AL2-1 **Analysis of selenium metabolic and transport pathway**
○ Sakura Yoshida
(Grad. Sch. Biomed. Sci., Nagasaki Univ.)

September 11 (Sat) 15:00-15:20 Track 1/Room C101
Chair: Shinji Takechi (Fac. Pharm, Sci., Sojo Univ.)

AL2-2 **UDP-Glucuronosyltransferase: modulation of CYP3A4, localization and oligomerization**
○ Yuu Miyauchi
(Fac. Pharm, Sci., Sojo Univ.)

September 11 (Sat) 15:20-15:40 Track 1/Room C101
Chair: Toshiyuki Kaji (Fac. Pharm, Sci., Tokyo Univ. Sci.)

AL2-3 **Application of bioorganometallics research strategy to vascular toxicology research**
○ Tomoya Fujie
(Fac. Pharm, Sci., Toho Univ.)

Forum Ⅰ : Various Problems Related to Health and Nutrition in Japan

September 10 (Fri) 9:10-11:10 Track 1/Room C101
Organizer / Chair: Shuntaro Hara (Sch. Pharm., Showa Univ.)
Kimie Nakagawa (Fac. Pharm. Sci., Kobe Gakuin Univ.)

F1-1 **The role of transcription factors, PGC-1α and FOXO1, on the regulation of skeletal muscle function and the maintenance of health**
○ Shinji Miura
(Sch. Food and Nutritional Sci., Univ. of Shizuoka)

F1-2 **Discovery of protein *N*-pyrrolation and diseases**
○ Koji Uchida[1,2]
([1]Univ. Tokyo, Grad. Sch. Agric. Life Sci., [2]AMED-CREST)

F1-3 **Roles of Vitamin K in Health and Disease**
○ Satoshi Inoue[1,2]
([1]Systems Aging Sci. & Med., Tokyo Metropolitan Inst. of Gerontology, [2]RCGM. Saitama Med. Univ.)

F1-4 **Epidemiology of locomotive syndrome, sarcopenia, and frailty: The Research on Osteoarthritis/Osteoporosis Against Disability (ROAD) study**
○ Noriko Yoshimura
(Department of Preventive Medicine for Locomotive Organ Disorders, 22nd Century Medical and Research Center, The University of Tokyo)

Forum Ⅱ : Synthesis of Organic-inorganic Hybrid Molecules and the Biology Using Them

September 10 (Fri) 16:00-18:00 Track 1/Room C101
Organizer / Chair: Yasuyuki Fujiwara (Sch. of Pharm., Tokyo Univ. of Pharm. and Life Sci.)
Shuji Yasuike (Sch. Pharm., Aichi Gakuin Univ.)

F2-1 **How to explore unknown chemical space?**
○ Masanobu Uchiyama[1,2]
([1]Grad. Sch. Pharm. Sci., The Univ. of Tokyo, [2]RISM., Shinshu Univ.)

F2-2 **Contact points of life science with the chemical properties of organic antimony and bismuth compounds**
○ Shuji Yasuike
(Fac. Pharm. Sci., Aichi Gakuin Univ.)

F2-3 **Organic−inorganic hybrid molecules and beyond**
○ Hiroshi Naka
(Grad. Sch. Pharm. Sci., Kyoto Univ.)

F2-4 **Toxicology of organic-inorganic hybrid molecules for biofunctional analysis**
○ Takato Hara
(Fac. Pharm. Sci., Toho Univ.)

F2-5 **Search of functional organic-inorganic hybrid molecules and analysis of mechanisms underlying the vascular endothelial cell proliferation based on bioorganometallics research strategy**
○ Takehiro Nakamura
(Fac. Pharm., Kindai Univ.)

F2-6 **Challenges and future prospects for bio-organometallics**
○ Toshiyuki Kaji
(Fac. Pharm. Sci., Tokyo Univ. of Sci.)

Forum Ⅲ : Current Researches of Pharmaceutical Health Sciences that Contribute and Didease Prevention and Health Promotion

September 11 (Sat) 9:00-11:00 Track 1/Room C101
Organizer / Chair: Shogo Misumi (Grad. Sch. Pharm. Sci., Kumamoto Univ.)
Naohito Kawasaki (Fac. Pharm., Kindai Univ.)

F3-1 **Formulation and operation of phylaxis manual for COVID-19**
○ Hisashi Iijima
(Drug Information Center, Chiba Pharmaceutical Association)

F3-2 **Antiviral testing methods for SARS-CoV-2**
○ Yasuo Imoto
(Japan Textile Products Quality and Technology Center)

F3-3 **The Role of Vaccines: Past and Future**
○ Masahiko Kikuchi
(Fac. Pharm. Sci., Kumamoto Univ.)

F3-4 **Tracking community infection dynamics of COVID-19 by monitoring SARS-CoV-2 RNA in wastewater**
○ Masaru Ihara
(Grad. Sch. Engineering, Kyoto Univ., RCEQM)

2021 Japan/Korea Joint Symposium on Pharmaceutical Health Science and Environmental Toxicology : Poster Session

e-Poster

PS-01 **Detrimental effects of N-octyl-4-isothiazolin-3-one (OIT) on blood-brain barrier (BBB) function and mitochondrial bioenergetics**

◯ Donghyun Kim, Ok-Nam Bae
(College of Pharmacy Institute of Pharmaceutical Science and Technology, Hanyang University, Ansan, Korea)

PS-02 **A comprehensive toxicological evaluation of *trans*-fatty acids based on the novel molecular mechanisms of their pro-apoptotic functions**

◯ Ryo Ashida, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

PS-03 **Induced procoagulant activity of red blood cells and thrombosis in rats by nanoplastics of polystyrene nanoparticles**

◯ Eun-Hye Kim[1], Han Young Chung[2], Ok-Nam Bae[1]
([1]College of Pharmacy and Institute of Pharmaceutical Science and Technology, Hanyang University, Ansan, Korea, [2]National Research Laboratory of Molecular Microbiology and Toxicology, Department of Agricultural Biotechnology, and Center for Food Safety and Toxicology, Seoul National University, Seoul, Korea)

PS-04 **Imbalance in proteolytic systems caused by mitophagy activation and proteasome inhibition underlies neurotoxicity of pyrethroid pesticide deltamethrin**

◯ Tetsushi Hirano[1], Yoshinori Ikenaka[2], Nobuhiko Hoshi[3], Yoshiaki Tabuchi[1]
([1]Life Science Research Center, Univ. Toyama, [2]Translational Research Unit, Veterinary Teaching Hospital, Fac. Vet. Med., Hokkaido Univ., [3]Lab. Animal Molecular Morphology, Dep. Animal Science, Grad. Sch. Agricultural Science, Kobe Univ.)

PS-05 **Quantitative proteomic analysis in zebrafish larvae exposed to perfluorooctanesulfonic acid (PFOS)**

◯ Eunji Sung[1], Hyojin Lee[2], Ki-Tae Kim[3], Tae Young Kim[4], Sangkyu Lee[1]
([1]College of Pharmacy, Kyungpook National University, 80 Daehakro Bukgu, Daegu, 41566, [2]Department of Environmental Energy Engineering, Seoul National University of Science and Technology, Seoul 01811, Republic of Korea,[3]Department of Environmental Engineering, Seoul National University of Science and Technology, Seoul 01811, Republic of Korea [4]School of Earth Science and Environmental Engineering, Gwangju Institute of Science and Technology, Gwangju 61005, Republic of Korea)

PS-06 **α-Lipoic acid ameliorates maternal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin-produced toxicity in the next generation: recovery effect of α-lipoic acid on sexual immaturity in both male and female offsprings**

◯ Yuan Ming[1], Hiroe Sano[1], Kyoko Nishida[1], Takaaki Nishino[1], Takayuki Koga[2], Tomoki Takeda[1,3], Yoshitaka Tanaka[1], Yuji Ishii[1]
([1]Grad Sch Pharmaceuti Sci., Kyushu Univ., [2]Daiichi University of Pharmacy, [3]Japan Bioassay Research Center)

PS-07 **Exacerbation of asthmatic responses in ovalbumin-sensitized mice model by polyhexamethylene guanidine phosphate**

◯ Ga-Eun Kim, Ji Hyeon Yu, Jung Eun Lim, Ha Ryong Kim
(College of Pharmacy, Daegu Catholic University) Hanako Japan, Han Korea

PS-08 **Protective effect of retinoic acid on cadmium renal toxicity**

◯ Chikage Mori, Jin-Yong Lee, Maki Tokumoto, Masahiko Satoh
(Sch. Pharm., Aichi Gakuin Univ.)

PS-09 **Arsenite influences blood coagulation-fibrinolytic systems *via* Nrf2 pathway activation in cultured vascular component cells**

◯ Tsuyoshi Nakano[1], Tsutomu Takahashi[2], Chika Yamamoto[3], Yasuyuki Fujiwara[2], Toshiyuki Kaji[1]
([1]Fac. of Pharm. Sci., Tokyo Univ. of Sci., [2]Sch. of Pharm., Tokyo Univ. of Pharm. & Life Sci., [3]Fac. of Pharm. Sci., Toho Univ.)

PS-10 **A metabolomics approach to sulforaphane efficacy to second-hand smoking-induced pulmonary damage in mice**

◯ HongYoon Kim[1], Sun Ju Yoo[2], Jung Dae Lee[1], Hyang Yeon Kim[1], Yu Jin Kim[1], Suhkmann Kim[3], Kyu-Bong Kim[1]
([1]College of Pharmacy, Dankook Univ, Republic of Korea, [2]College of Natural Sciences, Dankook Univ, Republic of Korea,[3] Department of Chemistry and Chemistry Institute for Functional Materials, Pusan National University, Republic of Korea)

PS-11 **Prostacyclin exacerbates cyclophosphamide-induced hemorrhagic cystitis**

◯ Tsubasa Ochiai[1], Yuka Sasaki[1], Chieko Yokoyama[2], Hiroshi Kuwata[1], Shuntaro Hara[1]
([1]Sch. of Pharm., Showa Univ., [2]Kanagawa Inst. of Tech.)

PS-12 **Thirteen-week subcutaneous repeated dose toxicity study of butylparaben and its toxicokinetics in rats**

◯ Jin-Sook Bae[1,2], Jung Dae Lee[3], Si-Whan Song[1], Ho-Cheol Shin[2], Yong-Kyu Choi[4], Chan Young Shin[5], Byung-Mu Lee[6], Kyu-Bong Kim[3]

([1]Nonclinical Research Center, Republic of Korea[2]College of Veterinary Medicine, Konkuk University, Republic of Korea[3]College of Pharmacy, Dankook University, Republic of Korea[4]Cosmetics Research Team, Pharmaceuticals and Medical Devices Research Department, National Institute of Food and Drug Safety Evaluation, Ministry of Food and Drug Safety, Republic of Korea[5]Department of Neuroscience, School of Medicine and Center for Neuroscience Research, Konkuk University, Republic of Kore[6]College of Pharmacy, Sungkyunkwan University, Republic of Kore)

PS-13 **Contribution of CAR activation to the chemical-induced non-genotoxic liver cancer in rats**

◯ Takumi Sato[1], Ryota Shizu[1,2], Yoshie Miura[2], Kouichi Yoshinari[1,2]

([1]Grad. Sch. Integ. Pharm. Nutr. Sci., [2]Sch. Pharm. Sci., Univ of Shizuoka)

PS-14 **Transforming growth factor beta-induced FoxO3a Mediates Fibrogenesis in Hepatic Stellate Cells**

◯ Kyu Min Kim[1], Sung Hwan Ki[2]

([1]Department of Biomedical Science, College of Natural Science, Chosun University, Gwangju, South Korea[2]College of Pharmacy, Chosun University, Gwangju, South Korea)

PS-15 **TLR4 pathway-mediated anti-inflammatory effects of DHP-3: an *in vivo* analysis using mice with contact dermatitis**

◯ Madoka Sawai[1], Shunji Itoh[2], Masaki Yoshida[3], Jian-Rong Zhou[4], Yuu Miyauchi[4], Takumi Ishida[1], Shinji Takechi[4]

([1]Sch. Pharm., at Fukuoka. Int. Univ. Health & Welfare., [2]Dept. Health Sci., Grad. Sch. Health Sci., Kansai Univ. Health Sci., [3]Sch. Biosci. Biotech., TUT., [4] Fac. Pharmaceut. Sci., Sojo Univ.)

PS-16 **Cytotoxicity of cigarette smoke condensates from heated tobacco products**

◯ Van Quan Do[1], Yoon-Seok Seo[1], Yong-Hyun Kim[2], Min-Seok Kim[2], Moo-Yeol Lee[1]

([1]College of Pharmacy, Dongguk University, Republic of Korea, [2]Jeonbuk Department of Inhalation Research, Korea Institute of Toxicology, Republic of Korea)

PS-17 **The E3 ubiquitin-protein ligase RNF4 promotes TNF-α-induced cell death triggered by RIPK1**

◯ Tatsuya Shimada, Tomohiro Kagi, Midori Suzuki, Hiromu Komatsu, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa

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

PS-18 **Alginate-coated activated charcoal enhances fecal excretion of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin in mice, with fewer side effects than uncoated one**

◯ Shunsuke Tomita[1], Pinyapach Dungkokkruad[2], Youhei Hiromori[1,3], Keishi Ishida[1], Daisuke Matsumaru[1], Kyoko Mekada[1], Hisamitsu Nagase[1,4], Keiichi Tanaka[2,5], Tsuyoshi Nakanishi[1]

([1] Gifu Pharm. Univ., [2] Osaka Univ., [3]Suzuka Univ. of Med. Sci., [4]Gifu Univ. of Med. Sci. [5]Osaka Ohtani Univ.)

PS-19 **NSAIDs induces hepatic steatosis by inhibiting Chaperone-mediated autophagy via LAMP2A destabilization**

◯ Wonseok Lee, Seung-Hwan Jung, Byung-Hoon Lee

(College of Pharmacy and Research Institute of Pharmaceutical Sciences, Seoul National University, Seoul, Republic of Korea)

PS-20 **Elucidation of formation mechanism and toxicological significance of biogenic mercury selenide nanoparticles in human hepatoma cell, HepG2s**

◯ Yu-ki Tanaka[1], Hana Usuzawa[1], Miyu Yoshida[1], Kazuhiro Kumagai[2], Keita Kobayashi[2], Satoshi Matsuyama[3], Takato Inoue[3], Akihiro Matsunaga[4,5], Mari Shimura[4,5], Jorge Ruiz Encinar[6], José M. Costa-Fernández[6], Yasunori Fukumoto[1], Noriyuki Suzuki[1], Yasumitsu Ogra[1]

([1]Chiba Univ., [2]NMIJ, [3]Osaka Univ., [4]RIKEN SPring-8, [5]NCGM, [6]Univ. Oviedo)

PS-21 **In vitro metabolites of glycyrol in human liver microsomes by liquid chromatography-high resolution mass spectrometry**

◯ Younah Kim, Sangkyu Lee

(BK21 Plus KNU Multi-Omics based Creative Drug Research Team, College of Pharmacy, Kyungpook National University, 80 Daehakro, Bukgu, Daegu, 41566, Korea)

PS-22 **Dynamin inhibitor can inhibit neutrophil extracellular traps (NETs) release in primary neutrophil**

◯ Duo Wang[1], Ryuji Okazaki[1], Yasuhiro Yoshida[2]

([1]Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan [2]Department of Immunology and Parasitology, School of Medicine, University of Occupational and Environmental Health, Japan.)

PS-23 **Tri-substituted organotin compounds are potent exogenous ligands of complement component 8γ**

◯ Katsuya Yamamoto[1], Youhei Hiromori[1,2], Daisuke Matsumaru[1], Keishi Ishida[1], Yuki Takeshita[1], Hisamitsu Nagase[1,3], Tsuyoshi Nakanishi[1]

([1]Gifu Pharm. Univ, [2]Suzuka Univ. of Med. Sci., [3]Gifu Univ. of Med. Sci.)

Award Candidates Presentation

Candidates for Young Investigator Award

September 10 (Fri) 9:10 - 10:10 Track 2
Chair: Shogo Misumi (Grad. Sch. Pharm. Sci., Kumamoto Univ.)

P-016 **Possible effect of death associated protein-like 1 (DAPL1) on testis: A study using DAPL1-null mice and testis-derived I-10 tumor Leydig cells**
◯ Hong-bin Chen[1], Shinako Arizono[1], Ren-shi Li[1,2], Yoshitaka Tanaka[1], Yuji Ishii[1]
([1]Grad. Sch. Pharmaceut. Sci., Kyushu Univ., [2]China Pharmaceutical Univ.)

P-037 **Induction of ZIP8, a ZIP transporter, via NF-κB signaling by activation of IκBα and JNK signaling in cultured vascular endothelial cells exposed to cadmium**
◯ Keisuke Ito[1], Tomoya Fujie[2], Tsuyoshi Nakano[1], Chika Yamamoto[2], Toshiyuki Kaji[1]
([1]Fac. of Pharm. Sci., Tokyo Univ. of Sci., [2]Fac. of Pharm. Sci., Toho Univ.)

P-055 **Analysis of function of cytochrome P450 4X1 in lipoxytosis**
◯ Minami Kawano[1,2], Mayuko Takata[1], Marina Fujino[1], Takeshi Kumagai[1], Hirotaka Imai[1,2]
([1]Sch. of Pharm. Sci., Kitasato Univ., [2]AMED-CREST)

P-057 **Analysis of function of GPx4 in endochondral ossification**
◯ Mayu Ota[1], Shiori Nishikata[1], Wang Zheng[2], Guo Long[2], Shiro Ikegawa[2], Hirotaka Imai[1]
([1]Sch. of Pharm. Sci., Kitasato Univ, [2]Riken, Lab for Bone and Joint Diseases)

P-076 **Reactive sulfur species induced by TGF-β_1-ALK5-Smad2/3/4-ATF4 pathway modulate inhibitory effect of TGF-β_1 on vascular endothelial cell proliferation**
◯ Musubu Takahashi[1], Tomoya Fujie[2], Tsuyoshi Nakano[1], Yasuhiro Shinkai[3], Yoshito Kumagai[3], Chika Yamamoto[2], Toshiyuki Kaji[1]
([1]Fac. of Pharm. Sci., Tokyo Univ. of Sci., [2]Fac. of Pharm. Sci., Toho Univ., [3]Fac. of Med., Univ. of Tsukuba)

P-084 **Aerobic glycolysis in HIV-1 infected cells supports the formation of high-quality viruses**
◯ Towa Abe[1], Naoki Kihsimoto[1] , Norito Yasuoka[1], Nobutoki Takamune[2], Shogo Misumi[1]
([1]Grad. Sch. Pharm. Sci., Kumamoto Univ., [2]KIDO)

P-091 **Role of acyl-CoA synthetase long chain family member 4 in paraquat-induced lung injury**
◯ Yuki Tomitsuka, Hiroshi Kuwata, Shuntaro Hara
(Sch. of pharmacy, Showa Univ.)

P-092 **Novel regulatory mechanisms of the stress-responsive STK11/LKB1-AMPK pathway through ubiquitination**

◯ Reon Kurokawa, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

P-098 **Molecular mechanism of selenium-containing compound Ebselen as a therapeutic agent for COVID-19**

◯ Yuya Habuka[1], Takashi Tomaya[1], Mieko Arisawa[2], Yoshiro Saito[1]
([1]Grad. Sch. Pharm. Sci., Tohoku Univ., [2]Grad. Sch. Agr., Kyushu Univ.)

P-113 **Developing therapeutic strategies for neurodegenerative diseases using the novel parthanatos inhibitor**

◯ Shuhei Hamano, Midori Suzuki, Yukino Asai, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

Award Candidates Presentation

Candidates for Rookie of the Year Award

September 10 (Fri) 10:10 - 10:58 Track 2
Chair: Tomoki Kimura (Fac. Sci. Eng., Setsunan Univ.)

P-001 **Maternal exposure to TCDD elicits disruption of fatty acid metabolism in fetal hypothalamus: possible mechanism involved in the reduced steroidogenesis**
◯ Mana Fujimoto[1], Hiroe Sano[2], Ren-Shi Li[3,4], Hong-Bin Chen[2], Takayuki Koga[4], Tomoki Takeda[2,5], Yoshitaka Tanaka[2], Yuji Ishii[2]
([1]Fac Pharm Sci, Kyushu Univ., [2]Grad Sch Pharm Sci, Kyushu Univ., [3]China Pharm Univ., [4]Daiichi Univ. Pharmacy, [5]Japan Bioassay Research Center)

P-011 **Validation of neuronal differentiation tracer mice for a novel developmental neurotoxicity in vivo evaluation system**
◯ Yoshiki Minamigawa[1], Keishi Ishida[1], Kazuma Mori[1], Kanoko Tatsumi[1], Daisuke Matsumaru[1], Kazuhiro Takuma[2], Tsuyoshi Nakanishi[1]
([1]Gifu Pharm. Univ., [2]Grad. Sch. Dent, Osaka Univ.)

P-050 **Suppression of perlecan expression *via* EGFR/ERK/COX-2/PGI_2 pathway in vascular endothelial cells by lead**
◯ Tohru Tanaka[1], Takato Hara[1], Reina Kumagai[2], Tomoya Fujie[1], Yasuyuki Fujiwara[3], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. Pharm. Sci., Toho Univ, [2]Fac. Pharm. Sci., Tokyo Univ. Sci, [3]Sch. Pharm., Tokyo Univ. Pharm. and Life Sci.)

P-058 **Search for antibiotics that can suppress the lipid peroxidation dependent cardio sudden death in the heart-specific GPx4 deficient mice**
◯ Naoto Syobara[1], Misaki Ito[1,2], Harunobu Kudo[1,2], Tomoko Koumura[1,2], Hirotaka Imai[1,2]
([1]Sch. of Pharm. Sci., Kitasato Univ., [2]AMED-CREST)

P-060 **Reactive persulfides produced by gut bacteria and its effects on the antioxidative capacity in the host**
◯ Jun Uchiyama[1], Masahiro Akiyama[1], Yoshito Kumagai[2], Yun-Gi Kim[1]
([1]Fac. Pharm., Keio Univ., [2]Fac. Med., Tsukuba Univ.)

P-090 **Deletion of AhR prevents liver fibrosis in non-alcoholic steatohepatitis (NASH)**
◯ Akinori Sakai, Mayu Tanabe, Yukiko Takasugi, Taira Wada, Shigeki Shimba
(Dep. Health Sci. Sch. Pharmacy, Nihon Univ.)

P-093 **Effects of selenoprotein P expression on selenium-homeostasis in hepatocytes**

◯ Moeka Natori, Takayuki Ichikawa, Takashi Toyama, Ryohei Tsutsumi, Yoshiro Saito
(Grad. Sch. Pharm. Sci., Tohoku Univ)

P-102 **Podocalyxin is an important molecule for antigen uptake by Microfold cells**

◯ Takafumi Inoue[1], Naoki Kihsimoto[2], Toshimasa Takasaki[2], Nobutoki Takamune[3], Shogo Misumi[2]
([1]Sch. Pharm., Kumamoto Univ, [2]Grad. Sch. Pharm. Sci., Kumamoto Univ., [3]KIDO)

Flash Presentation I

September 10 (Fri) 13:40 - 14:40 Track 1 / Room C101
Chair: Yoshinori Okamoto (Fac. Pharm, Meijo Univ.)

P-002 **Role of aryl hydrocarbon receptor in sexual maturation: reduction of the testis weight in AHR-knockout rats**

◯ Takaaki Nishino[1], Haruki Fukumitsu[1], Tomoki Takeda[1,2], Yoshitaka Tanaka[1], Yuji Ishii[1]
([1]Grad. Sch. Pharmaceut. Sci., Kyushu Univ., [2]Japan Bioassay Research Center)

P-003 **α-Lipoic acid ameliorates maternal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin-produced toxicity in the next generation: recovery effect of α-lipoic acid on sexual immaturity in both male and female offsprings**

◯ Yuan Ming[1], Hiroe Sano[1], Kyoko Nishida[1], Takaaki Nishino[1], Takayuki Koga[2], Tomoki Takeda[1,3], Yoshitaka Tanaka[1], Yuji Ishii[1]
([1]Grad Sch Pharmaceuti Sci., Kyushu Univ., [2]Daiichi University of Pharmacy, [3]Japan Bioassay Research Center)

P-012 **Global transcriptome analysis in low concentration of MPP^+-induced cellular model of Parkinson's disease**

◯ Natsumi Okada, Masatsugu Miyara, Kanae Miyara, Miyuki Kanda, Hidetoshi Tahara, Yaichiro Kotake
(Grad. Sch. of Biomed. and Health Sci., Hiroshima Univ.)

P-013 **Structure-activity relationship between new phenethylamine derivatives and psychostimulant effects**

◯ Soki Ishitani[1], Shota Suyama[1], Shota Umehara[1], Katsuhiro Okuda[2], Shigeru Ohta[1,3], Seigo Sanoh[1,3], Yaichiro Kotake[1]
([1]Grad. Sch. Biomed. Health Sci., Hiroshima Univ., [2]Asahikawa Med. Univ., [3]Wakayama Med. Univ.)

P-014 **Developmental exposure of neonicotinoid pesticides decreased microglial activity and formation of abnormal neural networks**

◯ Kaede Namba[1], Takashi Tominaga[2], Yasuhiro Ishihara[1]
([1]Grad. Sch. Integrated Sci. life, Hiroshima Univ, [2]Inst. Neurosci, Tokushima Bunri Univ.)

P-023 **Induction of a metal transporter ZIP8 expression by methylmercury in vascular endothelial cells and its molecular mechanisms**

◯ Masaki Yoshizawa[1], Keisuke Ito[1], Tsuyoshi Nakano[1], Tomoya Fujie[2], Chika Yamamoto[2], Toshiyuki Kaji[1]
([1]Fac. of Pharm. Sci., Tokyo Univ. of Sci., [2]Fac. of Pharm. Sci., Toho Univ.)

P-025 **Disruption of anti-oxidant system via Se-Mercuration of Selenoprotein P**

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

P-041 **Effect of long-term exposure to low concentrations of cadmium in CT27 human trophoblast stem cells**

◯ Shoko Ogushi[1], Tsuyoshi Nakanishi[2], Tomoki Kimura[1]
([1]Fac. Sci. Eng., Setsunan Univ., [2]Gifu Pharm. Univ.)

P-048 **Induction of metallothionein isoforms by copper(II) bis(diethyldithiocarbamate) in vascular endothelial cells**

◯ Yusuke Ozaki[1], Tomoya Fujie[2], Fukuta Takenaka[1], Misaki Nishio[1], Tsuyoshi Nakano[1], Takato Hara[2], Chika Yamamoto[2], Toshiyuki Kaji[1]
(Fac. of Pharm. Sci., [1]Tokyo Univ. of Sci., [2]Toho Univ.)

P-056 **Analysis of lipoxytosis suppression mechanism in SMS2 overexpressing cells**

◯ Narumi Asato[1], Shogo Yoneyama[1], Takeshi kumagai[2], Hirotaka Imai
([1]Sch. of Pharm.Sci., Kitasato Univ., [2]AMED-CREST)

P-067 **Novel regulatory mechanisms of the MDM2-p53 pathway in DNA damage response**

◯ Tatsuya Shimada, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

P-085 **Development of SARS-CoV-2 infection model and cardiotoxicity assessment of COVID-19 candidate drugs using human iPS cell-derived cardiomyocytes**

◯ Shota Yanagida[1,2], Ayano Satsuka[1], Sayo Hayashi[1], Atsushi Ono[2], Yasunari Kanda[1]
([1]Div. Pharmacol., NIHS, [2]Div. Pharm., Okayama Univ.)

P-099 **Cell death inducing activities of limonoids isolated from *Fortunella crassifolia* and *Citrus junos* on Adriamycin treated cancer cell**

◯ Takahiro Kitagawa, Takahiro Matsumoto, Daisuke Imahori, Masaya Okayama, Mayuka Kobayashi, Tetsushi Watanabe
(Kyoto Pharm. Univ.)

P-111 **Extract of Zingiber zerumbet promote glucagon-like peptide-1 (GLP-1) secretion through TRPA1 activation in a murine enteroendocrine cell line STC-1**

◯ Yoko Mori[1], Manami Kusuki[1], Mizuki Kato[1], Akira Aoki[1], Yoshinori Okamoto[1], Takashi Isobe[2], Susumu Ohkawara[2], Nobumitsu Hanioka[2], Toshiko Tanaka-Kagawa[2], Hideto Jinno[1]
([1]Faculty of Pharmacy, Meijo University, [2]Yokohama University of Pharmacy)

P-120 **Contribution of CAR activation to the chemical-induced non-genotoxic liver cancer in rats**

◯ Takumi Sato, Ryota Shizu[1,2], Yoshie Miura[2], Takuomi Hosaka[1,2], Takamitsu Sasaki[2], Yuichiro Kanno[1,2], Kouichi Yoshinari[1,2]
([1]Grad. Sch. Integ. Pharm. Nutr. Sci., [2]Sch. Pharm. Sci., Univ of Shizuoka)

Flash Presentation II

September 10 (Fri) 13:40 - 14:40 Track 2
Chair: Tomoya Fujie (Fac. Pharm. Sci., Toho Univ.)

P-026 **Methylmercury induces necroptosis via the TNF-α pathway in rat sensory neurons.**

◯ Shigekatsu Kazama[1], Eiko Yoshida[2], Tsuyoshi Nakano[1], Toshiyuki Kaji[1]
([1]Fac. Pharm. Sci., Tokyo University of Science, [2]Cent. Res. Inst. of Elect. Power Ind.)

P-033 **Interaction between cadmium and arsenite in vascular endothelial cells**

◯ Nozomi Sato[1], Hibiki Mitsuzuka[1], Tomoya Fujie[1], Takato Hara[1], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. of Pharm. Sci., Toho Univ., [2]Fac. of Pharm. Sci., Tokyo Univ. of Sci.)

P-035 **TGF-β_1 potentiates oxidative stress-induced cytotoxicity of vascular endothelial cells**

◯ Norimi Konoe[1], Tsubasa Tsuchida[2], Tomoya Fujie[1], Takato Hara[1], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. of Pharm. Sci., Toho Univ., [2]Fac. of Pharm. Sci., Tokyo Univ. of Sci.)

P-045 **Induction of metallothionein isoforms by arsenite and mechanisms underlying the induction**

◯ Misaki Nishio[1], Kozo Sano[2], Yusuke Ozaki[1], Tsuyoshi Nakano[1], Tomoya Fujie[3], Tsutomu Takahashi[2], Yasuyuki Fujiwara[2], Chika Yamamoto[3], Toshiyuki Kaji[1]
([1]Fac. of Pharm. Sci., Tokyo Univ. of Sci., [2]Sch. of Pharm., Tokyo Univ. of Pharm. & Life Sci., [3]Fac. of Pharm. Sci., Toho Univ.)

P-049 **HIF-1α as a molecule that negatively regulates endothelial ZIP8**

◯ Miki Hanabusa, Keisuke Ito, Tsuyoshi Nakano, Toshiyuki Kaji
(Fac. of Pharm. Sci., Tokyo Univ. of Sci.)

P-061 **Characterization of antigen-specific T cells immediately respond to skin sensitization induced by hapten**

◯ Natsumi Noguchi, Erina Shiraishi, Keishi Ishida, Daisuke Matsumaru, Tsuyoshi Nakanishi
(Gifu. Pharm. Univ.)

P-072 **Elucidation of the mechanisms by which tyrosine kinase inhibitors initiate lethal side effects**

◯ Saya Takano, Tomohiro Kagi, Yuto Sekiguchi, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

P-073 **Molecular mechanisms underlying pro-inflammatory effect of *trans*-fatty acids during cellular senescence**

◯ Ryo Ashida, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

P-082 **Regulation of fibrinolytic activity by FGF-2 in vascular endothelial cells**

◯ Moka Uchida[1], Tsuyoshi Nakano[1], Musubu Takahashi[1], Chika Yamamoto[2] Toshiyuki Kaji[1]
([1]Fac. of Pharm. Sci., Tokyo Univ. of Sci., [2]Fac. of Pharm. Sci., Toho Univ.)

P-087 **Role of prostacyclin synthase in negative regulation of inflammatory reactions in mice**

◯ Toshiya Honsawa[1], Tsubasa Ochiai[1], Chieko Yokoyama[2], Hiroshi Kuwata[1], Shuntaro Hara[1]
([1]Sch. of Pharm., Showa Univ., [2]Kanagawa Inst. of Tech.)

P-100 **Induction of cancer cell death via suppression of Hsp105 expression by thesesquiterpenes isolated form *Valeriana fauriei***

◯ Masaya Okayama, Takahiro Matsumoto, Takahiro Kitagawa, Daisuke Imahori, Hayato Yoshikawa, Tetsushi Watanabe
(Kyoto Pharm. Univ.)

P-101 **Conjugation of α-linolenic acid using a seaweed-derived enzyme extract and verification of its effect on cancer cells**

◯ Hisaaki Ito[1], Nanako Yamazaki[1], Tomoyuki Koyama[2], Taro Honma[1], Kayoko Kita[1], Toshihide Suzuki[1]
([1]Fac. of Pharm. Sci., Teikyo Univ., [2]Grad. Sch. of Marine Sci. & Tech., Tokyo Univ. of Marine Sci. & Tech.)

P-109 **Effects of exposure to fipronil on the hippocampus in ICR mice**

◯ Yuri Ando, Cai Zong, Gaku Ichihara
(Department of Pharmaceutical Sciences, Tokyo University of Science)

Oral Session 1

Preventive Pharmacology・Metals

September 10 (Fri) 16:00 - 17:00 Track 2
Chair: Tsuyoshi Nakanishi (Gifu Pharm. Univ.)
Fumihiko Ogata (Fac. Pharm., Kindai Univ.)

O1-1 **Linderapyrone: A Wnt signal inhibitor isolated from *Lindera umbellata***
◯ Takahiro Matsumoto, Takahiro Kitagawa, Daisuke Imahori, Eishi Ashihara, Tetsushi Watanabe
(Kyoto Pharmaceutical University)

O1-2 **Effects of methylglyoxal and L-theanine on the formation of a tight-junction-related protein, claudin-5, in human brain capillary endothelial cell line, hCMEC/D_3**
◯ Yu Mizuno, Yuna Suzuki, Satoru Sakuma, Keiichiro Okuhira
(Fac. Pharm., Osaka Med. Pharmaceut. Univ.)

O1-3 **Study of new approaches to hazard assessment of reproductive and developmental toxicants**
◯ Yumi Namiki, Kosuke Hayamizu, Hideko Sone
(Fac. Pharm. Sci., Univ. Pharm. Yokohama)

O1-4 **Elucidation of the mechanism of silica nanoparticle-induced placental toxicity**
◯ Kazuma Higashisaka, Yuya Haga, Hirofumi Tsujino, Kazuya Nagano, Yasuo Tsutsumi
(Grad. Sch. Pharm. Sci., Osaka Univ.)

O1-5 **Elucidation of formation mechanism and toxicological significance of biogenic mercury selenide nanoparticles in human hepatoma cell, HepG2**
◯ Yu-ki Tanaka[1], Hana Usuzawa[1], Miyu Yoshida[1], Kazuhiro Kumagai[2], Keita Kobayashi[2], Satoshi Matsuyama[3], Takato Inoue[3], Akihiro Matsunaga[4,5], Mari Shimura[4,5], Jorge Ruiz Encinar[6], José M. Costa-Fernández[6], Yasunori Fukumoto[1], Noriyuki Suzuki[1], Yasumitsu Ogra[1]
([1]Chiba Univ., [2] NMIJ, [3]Osaka Univ., [4]RIKEN SPring-8, [5] NCGM, [6]Univ. Oviedo)

Oral Session 2

Drug Metabolism・Immunotoxicity・Infectious Diseases・Analysis

September 10 (Fri) 17:00 - 17:48 Track 2
Chair: Yoshiro Saito (Grad. Sch. Pharm. Sci., Tohoku Univ.)
Seigo Sanoh (Sch. Pharm. Sci, Wakayama Med. Univ.)

O2-1 **Metabolism of volatile organic compounds by aldehyde oxidase in olfactory epithelial**
◯ Naoki Takaoka[1,2], Seigo Sanoh[1,2], Shigeru Ohta[2], Mariam Esmaeeli[3], Silke Leimkühler[3], Mami Kurosaki[4], Mineko Terao[4], Enrico Garattini[4], Yaichiro Kotake[1]
([1]Grad. Sch. Biomed. Health Sci., Hiroshima Univ, [2]Sch. Pharm. Sci, Wakayama Med. Univ, [3]Univ. of Potsdam, [4]Institute di Ricerche Farmacologie "Mario Negri")

O2-2 **The quantification method for determination of pharmacokinetics of vitamin K precursor menadione using UPLC-MS/MS**
◯ Satoshi Asano[1], Kouki Tazima[2], Maya Kamao[3], Yoshitomo Suhara[2], Yoshihisa Hirota[2]
([1]Sys. Eng. and Sci., Grad. Sch. of Eng. and Sci., Shibaura Inst. of Tech., [2]Dept. of Life Sci., Coll. of Sys. Eng., Shibaura Inst. of Tech., [3]Ext. Cent., Kobe Pharm. Univ.)

O2-3 **Characteristics of anti-microbial polyoxometalates, VB2 and VB3**
◯ Katsuyuki Fujinami[1], Katsuaki Dan[2], Toshiko Tanaka-Kagawa[1], Ikuo Kawamura[1]
([1]Yokohama Univ of Pharm, [2]Research Organization of Biological Activity)

O2-4 **Elucidation of Gut Microbiota-Associated Lipids Using Untargeted lipidomics and 16S rRNA Sequence Analyses**
◯ Shu Yasuda[1,2], Nobuyuki Okahashi[2], Makoto Arita[2,3,4]
([1]Sch. Pharm. Sci., Kitasato Univ., [2]RIKEN IMS, [3]Grad. Sch. Pharm. Sci., Keio Univ., [4]Grad. Sch. Med. Life Sci., Yokohama City Univ.)

Oral Session 3

Neural Toxicity・Oxidative Stress・Biochemistry

September 11 (Sat) 10:00 - 10:48 Track 2
Chair: Yaichiro Kotake (Grad. Sch. Biomed. Health Sci., Hiroshima Univ.)
Hitomi Fujishiro (Fac. Pharm. Sci., Tokushima Buri Univ.)

O3-1 **Relationships between behavioral disorder induce by manganese intake and brain estrogen levels**
◯ Yasuhiro Ishihara[1], Ami Oguro[1], Kouichi Itoh[2]
([1]Grad. Sch. Integr. Sci. Life, Hiroshima Univ, [2]Kagawa Sch. Pharm. Sci., Tokushima Bunri Univ.)

O3-2 **Contribution of DHA diols to the beneficial effects of DHA supplementation in the brains of rotenone-induced rat models of Parkinson's disease**

◯ Ami Oguro, Yasuhiro Ishihara, Takeshi Yamazaki
(Grad. Sch of Integrated Sci. for Life, Hiroshima Univ.)

O3-3 **Mutation of SRF coactivator MRTFB, which was found in a patient with autism spectrum disorder, negatively regulates *Arc* and *c-fos* expression and dendritic complexity in cortical neurons**

◯ Daisuke Ihara[1], Yuya Yamazaki[1], Natsumi Satou[1], Mamoru Fukuchi[1,2], Masaaki Tsuda[1], Akiko Tabuchi[1]
([1]Lab. Mol. Neurobiol., Grad. Sch. of Med. and Pharm. Sci., Univ. of Toyama, [2]Lab. Mol. Neurosci., Fac. Pharmacy, Takasaki Univ. of Health and Welfare)

O3-4 **Identification of splicing modulator of STAT3 pre-mRNA and its mechanism through chemical biology**

◯ Miki Kise, Kenji Suzuki, So Masaki
(Dep. Pharmaceut. Sci., Ritsmeikan Univ.)

Oral Session 4

Cellular Responses・Environmental Pollutants

September 11 (Sat) 16:50 - 17:38 Track 1 / Room C101
Chair: Hiroaki Sakurai (Fac. Pharm. Sci., Univ. of Toyama)
Yasuhiro Shinkai (Fac. of Med., Univ. of Tsukuba)

O4-1 **TLR4 pathway-mediated anti-inflammatory effects of DHP-3: an *in vivo* analysis using mice with contact dermatitis**

◯ Madoka Sawai[1], Shunji Itoh[2], Masaki Yoshida[3], Jian-Rong Zhou[4], Yuu Miyauchi[4], Takumi Ishida[1], Shinji Takechi[4]
([1]Sch. Pharm., at Fukuoka. Int. Univ. Health & Welfare., [2]Dept. Health Sci., Grad. Sch. Health Sci., Kansai Univ. Health Sci., [3]Sch. Biosci. Biotech., TUT., [4]Fac. Pharmaceut. Sci., Sojo Univ.)

O4-2 **The difference in inhibition mechanism of mammosphere formation by aryl hydrocarbon receptor agonists in MCF-7 cells**

◯ Naoya Yamashita[1], Arika Yoshizuka[1], Arisa Kase[1], Moeno Ozawa[1], Chiharu Taga[1], Noriko Sanada[1], Yuichiro Kanno[2], Kiyomitsu Nemoto[3], Ryoichi Kizu[1]
([1]Fac. Pharmceut. Sci., Doshisha Women's College of Liberal Arts., [2]Sch. of Pharmaceut. Sci., Univ. of Shizuoka., [3]Fac. Pharmceut. Sci., Toho Univ.)

O4-3 **The evaluation of selectively suppressing proliferation of human prostate cancer cells via androgen receptor by novel platinum complexes**

◯ Tasuku Arai[1], Masako Uemura[2], Seiji Komeda[2], Yoshihisa Hirota[1]
([1]Grad. Sch. of Eng. And Sci., Shibaura Inst. Tech., [2]Fac. Pharm. Sci., Suzuka Univ. Med. Sci.)

O4-4 **Non-canonical phosphorylation of receptor tyrosine kinases by an air pollutant 9,10-phenanthrenequinone**

◯ Nao Yamagishi, Jun-ichiro Takahashi, Yue Zhou, Satoru Yokoyama, Hiroaki Sakurai
(Grad. Sch. Pharm. Sci., Univ. Toyama)

Oral Session 5

Cellular Responses

September 11 (Sat) 16:50 - 17:38 Track 2
Chair: Masako Kiyono (Sch. of Pharm., Kitasato Univ.)
Tsutomu Takahashi (Sch. of Pharm., Tokyo Univ. of Pharm. & Life Sci.)

O5-1 **Role of macrophages in the dietary restriction-induced splenic involution**

◯ Kei Nakayama, Takeshi Yoshida, Hiroshi Hasegawa
(Lab. Hygienic. Sci., Kobe Pharm. Univ.)

O5-2 **Dynamics of microglia and astrocytes in the brain of the photothrombosis mouse model**

◯ Mari Kondo[1], Haruka Okazaki[1], Kei Nakayama[1], Hirofumi Hohjoh[1], Eri Segi-Nishida[2], Hiroshi Hasegawa[1]
([1]Lab. Hygienic. Sci., Kobe Pharm. Univ., [2]Dep. Biol. Sci., Fac. Ind. Sci. Tech., Tokyo Univ. Sci)

O5-3 **Identification of compounds that suppress HCV Core-induced unfolded-protein response**

◯ Ryoya Sekine[1], Marie Suzuki[1], Haruhisa Kikuchi[2,3], Kosuke Ohsawa[2], Takayuki Doi[2], Ryouhei Tsutsumi[2], Yoshiro Saito[2], Hayato Irokawa[1], Kouki Takeda[1], Shusuke Kuge[1]
([1]Fac. Pharm. Sci., Tohoku Med. Pham. Univ., [2]Grad. Sch. Pharm. Sci., Tohoku Univ., [3]Fac. Pharm., Keio Univ.)

O5-4 **Occupational exposure of pharmacists to drugs during the preparation of powder drugs in dispensing pharmacies**

◯ Tsuyoshi Murahashi, Ayaka Suzuki, Shiho Motojima, Toshiyuki Higuchi
(Nihon Pharm. Univ.)

e-Poster (Poster Session)

Environmental Pollutants

P-001 **Maternal exposure to TCDD elicits disruption of fatty acid metabolism in fetal hypothalamus: possible mechanism involved in the reduced steroidogenesis**

◯ Mana Fujimoto[1], Hiroe Sano[2], Ren-Shi Li[3,4], Hong-Bin Chen[2], Takayuki Koga[4], Tomoki Takeda[2,5], Yoshitaka Tanaka[2], Yuji Ishii[2]
([1]Fac Pharm Sci, Kyushu Univ., [2]Grad Sch Pharm Sci, Kyushu Univ., [3]China Pharm Univ., [4]Daiichi Univ. Pharmacy, [5]Japan Bioassay Research Center)

P-002 **Role of aryl hydrocarbon receptor in sexual maturation: reduction of the testis weight in AHR-knockout rats**

◯ Takaaki Nishino[1], Haruki Fukumitsu[1], Tomoki Takeda[1,2], Yoshitaka Tanaka[1], Yuji Ishii[1]
([1]Grad. Sch. Pharmaceut. Sci., Kyushu Univ., [2]Japan Bioassay Research Center)

P-003 **α-Lipoic acid ameliorates maternal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin-produced toxicity in the next generation: recovery effect of α-lipoic acid on sexual immaturity in both male and female offsprings**

◯ Yuan Ming[1], Hiroe Sano[1], Kyoko Nishida[1], Takaaki Nishino[1], Takayuki Koga[2], Tomoki Takeda[1,3], Yoshitaka Tanaka[1], Yuji Ishii[1]
([1]Grad Sch Pharmaceuti Sci., Kyushu Univ., [2]Daiichi University of Pharmacy, [3]Japan Bioassay Research Center)

P-004 **Source evaluation of atmospheric polycyclic aromatic hydrocarbon quinones**

◯ Akira Toriba[1], Chiharu Honma[2], Ning Tang[2,3], Kazuichi Hayakawa[3]
([1]Graduate School of Biomedical Sciences, Nagasaki University, [2]Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, [3]Institute of Nature and Environmental Technology, Kanazawa University)

P-005 **Capture of Airborne Quinones in the Extracellular Space Mediated by Low Molecular Weight Nucleophiles**

◯ Reiko Hirose[1], Yasuhiro Shinkai[1,2], Yusuke Onose[2], Masahiro Akiyama[3], Yoshito Kumagai[1,2]
([1]Fac. Med., Univ. Tsukuba, [2]Grad. Sch. Comp. Human Sci., Univ. Tsukuba, [3]Fac. Pharm., Keio Univ.)

P-006 **Additive or synergistic effect of combined exposure to environmental electrophiles on Nrf2 activation and cytotoxicity in HepG2 cells**

◯ Hanako Aoki[1], Yumi Abiko[1,2], Yoshito Kumagai[1,2]
([1]Grad. Sch. Comp. Human Sci., Univ. Tsukuba, [2]Fac. Med., Univ. Tsukuba)

P-007 **EGFR activation by combined exposure of A431 cells to electrophiles**

◯ Yumi Abiko[1,2], Kohki Kurosawa[2], Hiroto Yamakawa[2], Yoshito Kumagai[1,2]
([1]Fac. Med., Univ. Tsukuba, [2]Grad. Sch. Comp. Human Sci., Univ. Tsukuba)

P-008 **Pulmonary effects of Fe3O4-PEG-PLGA nanoparticles in following pharyngeal aspiration and role of Nrf2**

◯ Harue Sato[1], Cai Zong[1], Stéphanie Devineau[2], Claire McCord[2], Sahoko Ichihara[3], Oliver Brookes[2], Ken Itoh[4], Masayuki Yamamoto[5], Sonja Boland[2], Armelle Baeza-Squiban[2], Gaku Ichihara[1]
([1]Fac. Pharm. Sci., Tokyo Univ. of Sci., [2]Univ. de Paris, BFA, UMR 8251, CNRS, F-75013, [3]Sch. Med., Jichi Med. Univ., [4]Grad. Sch. Med., Hirosaki Univ., [5]Grad. Sch. Med., Tohoku Univ.)

P-009 **Estimated committed effective dose from the natural radionuclide polonium-210 in food**

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

P-010 **Effect of tetrabromobisphenol A (TBBP-A) on the gene expression of lipid metabplism in ST-13 adipocytes**

◯ Masahiro Yamasaki, Shinya Hasegawa, Masahiko Imai, Noriko Takahashi
(Dept. of Health chemistry, Hoshi Univ.)

Neural Toxicity

P-011 **Validation of neuronal differentiation tracer mice for a novel developmental neurotoxicity in vivo evaluation system**

◯ Yoshiki Minamigawa[1], Keishi Ishida[1], Kazuma Mori[1], Kanoko Tatsumi[1], Daisuke Matsumaru[1], Kazuhiro Takuma[2], Tsuyoshi Nakanishi[1]
([1]Gifu Pharm. Univ., [2]Grad. Sch. Dent, Osaka Univ.)

P-012 **Global transcriptome analysis in low concentration of MPP^+-induced cellular model of Parkinson's disease**

◯ Natsumi Okada, Masatsugu Miyara, Kanae Miyara, Miyuki Kanda, Hidetoshi Tahara, Yaichiro Kotake
(Grad. Sch. of Biomed. and Health Sci., Hiroshima Univ.)

P-013 **Structure-activity relationship between new phenethylamine derivatives and psychostimulant effects**

◯ Soki Ishitani[1], Shota Suyama[1], Shota Umehara[1], Katsuhiro Okuda[2], Shigeru Ohta[1,3], Seigo Sanoh[1,3], Yaichiro Kotake[1]
([1]Grad. Sch. Biomed. Health Sci., Hiroshima Univ., [2]Asahikawa Med. Univ., [3]Wakayama Med. Univ.)

P-014 **Developmental exposure of neonicotinoid pesticides decreased microglial activity and formation of abnormal neural networks**

◯ Kaede Namba[1], Takashi Tominaga[2], Yasuhiro Ishihara[1]
([1]Grad. Sch. Integrated Sci. life, Hiroshima Univ, [2]Inst. Neurosci, Tokushima Bunri Univ.)

P-015 **Effects of Methylmercury Exposure on Neuronal Differentiation and Involvement of DNA Methylation**

◯ Hisaka Kurita[1], Suzuna Go[1], Masatake Fujimura[2], Masatoshi Inden[1], Isao Hozumi[1]
([1]Laboratory of Medical Therapeutics and Molecular Therapeutics, Gifu Pharmaceutical University, [2]Basic Medical Sciences, National Institute for Minamata Disease)

Endocrine Disruptors

P-016 **Possible effect of death associated protein-like 1 (DAPL1) on testis: A study using DAPL1-null mice and testis-derived I-10 tumor Leydig cells**

◯ Hong-bin Chen[1], Shinako Arizono[1], Ren-shi Li[1,2], Yoshitaka Tanaka[1], Yuji Ishii[1]
([1]Grad. Sch. Pharmaceut. Sci., Kyushu Univ., [2]China Pharmaceutical Univ.)

P-017 **Repeated exposure to MBP, an active metabolite of bisphenol A, stimulates breast cancer cell proliferation through ERβ activation**

◯ Masayo Hirao[1], Genki Sakai[2], Michitaka Tanaka[1], Narumi Sugihara[2], Masufumi Takiguchi[1], Shuso Takeda[2]
([1]Fac. Pharm. Sci., Hiroshima Intl. Univ., [2]Fac. Pharm. Sci., Fukuyama Univ.)

Metals

P-018 **Discovery of a new metabolic intermediate of selenium, a reduced form of selenosugar A**

◯ Yuka Shibukawa, Yasunori Fukumoto, Rin Kyono, Yuka Maruyama, Yu-ki Tanaka, Noriyuki Suzuki, Yasumitsu Ogra
(Grad. Sch. Pharm. Sci., Chiba Univ.)

P-019 **Comparison of Indolethylamine *N*-methyltransferase and its paralogs in the activity of selenium methylation**

◯ Rin Kyono, Yasunori Fukumoto, Yuka Shibukawa, Yu-ki Tanaka, Noriyuki Suzuki, Yasumitsu Ogra
(Grad. Sch. Pharm. Sci., Chiba Univ.)

P-020 **Distribution and physiological roles of a precursor of urinary selenosugar**

◯ Yuka Maruyama, Noriyuki Suzuki, Yasumitsu Ogra
(Grad. Sch. Pharm. Sci., Chiba Univ.)

P-021 **Molecular mechanism of cellular uptake and utilization of selenium of selenoprotein P via ApoER2 receptor**

◯ Ayako Mizuno, Takashi Toyama, Ryohei Tsutsumi, Yoshiro Saito
(Grad. Sch. Pharm. Sci., Tohoku Univ)

P-022 **Exploration of rat brain proteins that can react with metabolic intermediate of selenious acid**

◯ Sakura Yoshida[1], Akinori Yamamoto[1], Hiroshi Masumoto[2], Takeshi Fuchigami[3], Akira Toriba[1], Mamoru Haratake[4], Morio Nakayama[1]
([1]Grad. Sch. Biomed. Sci., Nagasaki Univ., [2]Biomed. Res. Sprt. Ctr., Nagasaki Univ., [3]Grad. Sch. Med. Sci., Kanazawa Univ., [4]Fac. Pharm. Sci., Sojo Univ.)

P-023 **Induction of a metal transporter ZIP8 expression by methylmercury in vascular endothelial cells and its molecular mechanisms**

◯ Masaki Yoshizawa[1], Keisuke Ito[1], Tsuyoshi Nakano[1], Tomoya Fujie[2], Chika Yamamoto[2], Toshiyuki Kaji[1]
([1]Fac. of Pharm. Sci., Tokyo Univ. of Sci., [2]Fac. of Pharm. Sci., Toho Univ.)

P-024 **RSS-producing enzyme CSE is critical for repressing brain mercury accumulation and adverse effects in methylmercury-exposed mice**

◯ Takamitsu Unoki[1], Masahiro Akiyama[2], Yasuhiro Shinkai[3], Isao Ishii[4], Yoshito Kumagai[3]
([1]Dept. Basic Med. Sci., Nat. Inst. Minamata Dis., [2]Fac. Pharm., Keio Univ., [3]Fac. Med., Univ. of Tsukuba., [4]Health Chem., Showa Pharmaceut. Univ.)

P-025 **Disruption of anti-oxidant system via Se-Mercuration of Selenoprotein P**

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

P-026 **Methylmercury induces necroptosis via the TNF-α pathway in rat sensory neurons.**

◯ Shigekatsu Kazama[1], Eiko Yoshida[2], Tsuyoshi Nakano[1], Toshiyuki Kaji[1]
([1]Fac. Pharm. Sci., Tokyo University of Science, [2]Cent. Res. Inst. of Elect. Power Ind.)

P-027 **Search for downstream factors of TCF3, a transcription factor that reduces methylmercury toxicity**

◯ Himeka Ota[1], Akari Matsushima[1], Sawako Shindo[1], Takashi Toyama[2], Akira Naganuma[2], Gi-Wook Hwang[1,2]
([1]Fac. Pharmaceut. Sci., Tohoku Med. Pharm. Univ., [2]Grad. Sch. Pharm. Sci., Tohoku Univ.)

P-028 **Mechanism of induction of OSM expression by methylmercury via ASK1/JNK/cJun pathway in microglial cell lines**

◯ Ryu Komatsu[1], Kantaro Chiba[1], Sawako Shindo[1], Takashi Toyama[2], Akira Naganuma[2], Gi-Wook Hwang[1,2]
([1]Fac. Pharmaceut. Sci., Tohoku Med. Pharm. Univ., [2]Grad. Sch. Pharm. Sci., Tohoku Univ.)

P-029 **Studies on metal transport mechanism of mercury transporter MerC**

◯ Ikumi Nakayama, Yuka Ohshiro, Shimpei Uraguchi, Ryosuke Nakamura, Yasukazu Takanezawa, Masako Kiyono
(Dept. of public Health, School of pharmacy, Kitasato Univ.)

P-030 **Analysis of proximal tubular dysfunction induced by cadmium metallothionein administration**

◯ Hitomi Fujishiro[1], Rina Takaoka[1], Seiichiro Himeno[1,2], Daigo Sumi[1]
([1]Fac. Pharm. Sci., Tokushima Bunri Univ, [2]Fac. Pharm. Sci., Showa Univ.)

P-031 **Expression of metallothionein-3 and its role in cadmium cytotoxicity of vascular endothelial cells**

◯ Hikaru Fujimori[1], Tomoya Fujie[1], Takato Hara[1], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. Pharm. Sci., Toho Univ, [2]Fac. Pharm. Sci., Tokyo Univ. Sci.)

P-032 **Surpression of integrins expression in vascular endothelial cells by cadmium**

◯ Kentaro Sayama[1], Tomoya Fujie[1], Takato Hara[1], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. of Pharm. Sci., Toho Univ., [2]Fac. of Pharm. Sci., Tokyo Univ. of Sci.)

P-033 **Interaction between cadmium and arsenite in vascular endothelial cells**

◯ Nozomi Sato[1], Hibiki Mitsuzuka[1], Tomoya Fujie[1], Takato Hara[1], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. of Pharm. Sci., Toho Univ., [2]Fac. of Pharm. Sci., Tokyo Univ. of Sci.)

P-034 **Claudin-5 suppresses the detachment of vascular endothelial cells caused by cadmium exposure**

◯ Mayuka Asatsu[1], Takato Hara[1], Tomoya Fujie[1], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. Pharm. Sci., Toho Univ, [2]Fac. Pharm. Sci., Tokyo Univ. Sci)

P-035 **TGF-β_1 potentiates oxidative stress-induced cytotoxicity of vascular endothelial cells**

◯ Norimi Konoe[1], Tsubasa Tsuchida[2], Tomoya Fujie[1], Takato Hara[1], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. of Pharm. Sci., Toho Univ., [2]Fac. of Pharm. Sci., Tokyo Univ. of Sci.)

P-036 **Induction of metallothionein (MT) expression by cadmium in mouse thoracic aorta and perivascular adipose tissue**

◯ Yayoi Tsuneoka, Misaki Yokoyama, Koichiro Tomita, Kaede Kikuchi, Yuki Akui, Tsutomu Takahashi, Yo Shinoda, Yasuyuki Fujiwara
(Sch. of Pharm., Tokyo Univ. of Pharm. and Life Sci.)

P-037 **Induction of ZIP8, a ZIP transporter, via NF-κB signaling by activation of IκBα and JNK signaling in cultured vascular endothelial cells exposed to cadmium**

◯ Keisuke Ito[1], Tomoya Fujie[2], Tsuyoshi Nakano[1], Chika Yamamoto[2], Toshiyuki Kaji[1]
([1]Fac. of Pharm. Sci., Tokyo Univ. of Sci., [2]Fac. of Pharm. Sci., Toho Univ.)

P-038 **Effects of cadmium on the expression of transcription factor HIF-1 and its downstream genes in human renal proximal tubular epithelial cells**

◯ Maki Tokumoto, Ayana Takikawa, Jin-Yong Lee, Masahiko Satoh
(Sch. Pharm., Aichi Gakuin Univ.)

P-039 **Effect of long-term cadmium exposure on the transcription activity and downstream gene expression in the mouse kidney**

◯ Jin-Yong Lee, Maki Tokumoto, Chikage Mori, Ryo Ishii, Masahiko Satoh
(Sch. Pharm., Aichi Gakuin Univ.)

P-040 **The cadmium renal toxicity regulated by PPARδ**

◯ Chikage Mori, Jin-Yong Lee, Maki Tokumoto, Masahiko Satoh
(Sch. Pharm., Aichi Gakuin Univ.)

P-041 **Effect of long-term exposure to low concentrations of cadmium in CT27 human trophoblast stem cells**

◯ Shoko Ogushi[1], Tsuyoshi Nakanishi[2], Tomoki Kimura[1]
([1]Fac. Sci. Eng., Setsunan Univ., [2]Gifu Pharm. Univ.)

P-042 **Adsorption performance on As(III) from aqueous solution using the complex nickel–aluminum hydroxides**

◯ Fumihiko Ogata[1], Yuuka Izutani[1], Yuugo Uematsu[1], Yuhei Kobayashi[1], Megumu Toda[2], Masashi Otani[2], Takehiro Nakamura[1], Naohito Kawasaki[1]
([1]Fac. Pharm., Kindai Univ., [2]Kansai Catalyst Co., Ltd.)

P-043 **Role of transcription factor FOXA1 in arsenic–induced toxicity**

◯ Daigo Sumi[1], Rio Fujinaga[1], Seiichiro Himeno[1,2]
([1]Fac. Pharm. Sci., Tokushima Buri Univ., [2]Fac. Pharm. Sci., Showa Univ.)

P-044 **Synergistic effect of arsenite on photodynamic therapy using talaporfin sodium on human glioblastoma cells**

◯ Tsutomu Takahashi[1], Yuuri Shimizu[1], Kazuna Fujii[1], Yayoi Tsuneoka[1], Yo Shinoda[1], Jiro Akimoto[2], Yasuyuki Fujiwara[1]
([1]Sch. of Pharm., Tokyo Univ. of Pharm. and Life Sci., [2]Tokyo Med. Univ.)

P-045 **Induction of metallothionein isoforms by arsenite and mechanisms underlying the induction**

◯ Misaki Nishio[1], Kozo Sano[2], Yusuke Ozaki[1], Tsuyoshi Nakano[1], Tomoya Fujie[3], Tsutomu Takahashi[2], Yasuyuki Fujiwara[2], Chika Yamamoto[3], Toshiyuki Kaji[1]
([1]Fac. of Pharm. Sci., Tokyo Univ. of Sci., [2]Sch. of Pharm., Tokyo Univ. of Pharm. & Life Sci., [3]Fac. of Pharm. Sci., Toho Univ.)

P-046 **Structure-activity relationships among phenanthroline, its zinc, and rhodium complexes in fibrinolytic activity of vascular endothelial cells**

◯ Moe Takei[1], Megumi Ito[1], Tomoya Fujie[1], Takato Hara[1], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. of Pharm. Sci., Toho Univ., [2]Fac. of Pharm. Sci., Tokyo Univ. of Sci.)

P-047 **Promotion of fibrinolysis of vascular endothelial cells by a zinc-terpyridine complex and the involvement of eNOS**

◯ Yoshiko Otsuka[1], Megumi Ito[1], Tomoya Fujie[1], Takato Hara[1], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. of Pharm. Sci., Toho Univ., [2]Fac. of Pharm. Sci., Tokyo Univ. of Sci.)

P-048 **Induction of metallothionein isoforms by copper(II) bis(diethyldithiocarbamate) in vascular endothelial cells**

◯ Yusuke Ozaki[1], Tomoya Fujie[2], Fukuta Takenaka[1], Misaki Nishio[1], Tsuyoshi Nakano[1], Takato Hara[2], Chika Yamamoto[2], Toshiyuki Kaji[1]
(Fac. of Pharm. Sci., [1]Tokyo Univ. of Sci., [2]Toho Univ.)

P-049 **HIF-1α as a molecule that negatively regulates endothelial ZIP8**

◯ Miki Hanabusa, Keisuke Ito, Tsuyoshi Nakano, Toshiyuki Kaji
(Fac. of Pharm. Sci., Tokyo Univ. of Sci.)

P-050 **Suppression of perlecan expression *via* EGFR/ERK/COX-2/PGI_2 pathway in vascular endothelial cells by lead**

◯ Tohru Tanaka[1], Takato Hara[1], Reina Kumagai[2], Tomoya Fujie[1], Yasuyuki Fujiwara[3], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. Pharm. Sci., Toho Univ, [2]Fac. Pharm. Sci., Tokyo Univ. Sci, [3]Sch. Pharm., Tokyo Univ. Pharm. and Life Sci.)

P-051 **Adsorption capability of Ni-Al type and Ni-Al-Zr type hydroxides for removing of chromium(VI) ion from aqueous media**

◯ Ayako Tabuchi[1], Fumihiko Ogata[1], Megumu Toda[2], Masashi Otani[2], Takehiro Nakamura[1], Naohito Kawasaki[1]
([1]Fac. Pharm., Kindai Univ, [2]Kansai Catalyst Co., Ltd.)

P-052 **Basal research on removal of hazardous heavy metals by waste tea leaves**

◯ Tsukine Fujimoto, Takehiro Nakamura, Fumihiko Ogata, Naohito Kawasaki
(Fac. Pharm. Kindai. Univ.)

Oxidative Stress

P-053 **Analysis of the mechanism of irreversible toxicity by cisplatin in the S3 region of the proximal tubule**

◯ Hiroki Taguchi[1], Hitomi Fujishiro[1], Seiichiro Himeno[1,2], Daigo Sumi[1]
([1]Fac. Pharm. Sci., Tokushima Buri Univ., [2]Fac. Pharm. Sci., Showa Univ.)

P-054 **Relevance between induction of insulin resistance and muscular selenoproteins expressions in NSY mice**

◯ Rio Kakuta[1], Shunya Sado[1], Hirofumi Ogino[1], Koichi Murano[2], Tomofumi Okuno[1], Hitoshi Ueno[1]
([1]Fac. Pharm. Sci., Setsunan Univ, [2]Osaka Institute of Public Health)

P-055 **Analysis of function of cytochrome P450 4X1 in lipoxytosis**

◯ Minami Kawano[1,2], Mayuko Takata[1], Marina Fujino[1], Takeshi Kumagai[1], Hirotaka Imai[1,2]
([1]Sch. of Pharm. Sci., Kitasato Univ., [2]AMED-CREST)

P-056 **Analysis of lipoxytosis suppression mechanism in SMS2 overexpressing cells**

◯ Narumi Asato[1,2], Shogo Yoneyama[1], Takeshi kumagai[1], Hirotaka Imai[1,2]
([1]Sch. of Pharm.Sci., Kitasato Univ., [2]AMED-CREST)

P-057 **Analysis of function of GPx4 in endochondral ossification**

◯ Mayu Ota[1], Shiori Nishikata[1], Wang Zheng[2], Guo Long[2], Shiro Ikegawa[2], Hirotaka Imai[1]
([1]Sch. of Pharm. Sci., Kitasato Univ, [2]Riken, Lab for Bone and Joint Diseases)

P-058 **Search for antibiotics that can suppress the lipid peroxidation dependent cardio sudden death in the heart-specific GPx4 deficient mice**

◯ Naoto Syobara[1], Misaki Ito[1,2], Harunobu Kudo[1,2], Tomoko Koumura[1,2], Hirotaka Imai[1,2]
([1]Sch. of Pharm. Sci., Kitasato Univ., [2]AMED-CREST)

P-059 **Effect of Hsp70 cochaperon BAG-1 on ferroptosis**

◯ Kouki Takeda , Hayato Irokawa, Shusuke Kuge
(Dept. Microbiol., Fac. Pharm. Sci., Tohoku Med. Pharm. Univ.)

P-060 **Reactive persulfides produced by gut bacteria and its effects on the antioxidative capacity in the host**

◯ Jun Uchiyama[1], Masahiro Akiyama[1], Yoshito Kumagai[2], Yun-Gi Kim[1]
([1]Fac. Pharm., Keio Univ., [2]Fac. Med., Tsukuba Univ.)

Immunotoxicity・Infectious Diseases

P-061 **Characterization of antigen-specific T cells immediately respond to skin sensitization induced by hapten**

◯ Natsumi Noguchi, Erina Shiraishi, Keishi Ishida, Daisuke Matsumaru, Tsuyoshi Nakanishi
(Gifu. Pharm. Univ.)

P-062 **Exacerbation of DNFB-induced dermatitis by oxidized olive oil and involvement of Th17 cells**

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

Cellular Responses

P-063 **Size-dependent cytotoxicity of Nickel Nanoparticles in Alveolar Macrophages**

◯ Minami Satake[1,3], Takafumi Seto[2,3], Ryo Suzuki[1,3]
([1]Faculty of Pharmaceutical Sciences, Institute of Medical, Pharmaceutical, and Health Sciences, Kanazawa University, [2]Institute of Science and Engineering, Kanazawa University, [3]CREST)

P-064 **Effects of HMG-CoA Reductase Inhibitor on immune**

◯ Satoshi Ishikawa, Kanon Murase, Takuma Kitano, Saotomo Itoh, Shigeaki Hida
(Grad.Sch. Pharmaceut. Sci. Nagoya-City Univ.)

P-065 **Induction and analysis of *in vitro* mast cell desensitization states using heat-treated or untreated egg white allergens**

◯ Yuka Nagata, Ryo Suzuki
(Fac. Pharm. Sci., Kanazawa Univ)

P-066 **Dynamin inhibitor can inhibit neutrophil extracellular traps (NETs) release in primary neutrophil**

◯ Duo Wang[1], Ryuji Okazaki[1], Yasuhiro Yoshida[2]
([1]Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan, [2]Department of Immunology and Parasitology, School of Medicine, University of Occupational and Environmental Health, Japan)

P-067 **Novel regulatory mechanisms of the MDM2-p53 pathway in DNA damage response**

◯ Tatsuya Shimada, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

P-068 **The mechanism of the anticancer effect against human malignant meningioma cells of natural antifungal product avenaciolide**

◯ Takumi Katsuzawa[1], Kohei Kujirai[1], Tsutomu Takahashi[1], Yayoi Tsuneoka[1], Yasuyuki Fujiwara[1], Shinji Kamisuki[2], Yo Shinoda[1]
([1]Sch. Pharm. Tokyo Univ. of Pharm. and Life Sci, [2]Sch. Veter. Med., Azabu Univ.)

P-069 **Perfluorooctanoic acid stimulates breast cancer cell migration depending on the PPARα-FA2H axis**

◯ Genki Sakai[1], Masayo Hirao[2], Takayuki Koga[3], Masufumi Takiguchi[2], Narumi Sugihara[1], Shuso Takeda[1]
([1]Fac. Pharm. Sci., Fukuyama Univ., [2]Fac. Pharm. Sci., Hiroshima Intl. Univ., [3]Daiichi Univ. Pharm.)

P-070 **Pentacyclic triterpenoid ursolic acid induced induces apoptosis with mitochondrial dysfunction on in adult T-cell leukemia cells**

◯ Mengyue Shen, Yasuhiro Yoshida
(Immu. Med., UOEH, Japan)

P-071 **Effect of genistein on cell proliferation and lipidomic alteration in human breast cancer MDA-MB-231 cells**

Hiroyuki Yamada, ◯ Yoshinori Okamoto, Yoko Mori, Akira Aoki, Hideto Jinno
(Fac. Pharm., Meijo Univ)

P-072 **Elucidation of the mechanisms by which tyrosine kinase inhibitors initiate lethal side effects**

◯ Saya Takano, Tomohiro Kagi, Yuto Sekiguchi, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

P-073 **Molecular mechanisms underlying pro-inflammatory effect of *trans*-fatty acids during cellular senescence**

◯ Ryo Ashida, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

P-074 **Two distinct mechanisms underlying pro-apoptotic action of *trans*-fatty acids in response to DNA damage**

◯ Yusuke Hirata, Yuto Yamada, Aya Inoue, Ryo Ashida, Takuya Noguchi, Atsushi Matsuzawa
(Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

P-075 **Releasing the cell cycle arrest involved in the mitochondrial DNA repair as well as the nuclear DNA repair after low dose UVB irradiation**

◯ Kazuya Kurata, Yoichi Hakoda, Takayuki Iino, Hiroaki Matsushima, Honoka Yamanaka, Kazuyuki Ishii, Kenji Hattori
(Fac. Pharm. Sci., Meiji Pharmaceutical Univ.)

P-076 **Reactive sulfur species induced by TGF-β_1-ALK5-Smad2/3/4-ATF4 pathway modulate inhibitory effect of TGF-β_1 on vascular endothelial cell proliferation**

◯ Musubu Takahashi[1], Tomoya Fujie[2], Tsuyoshi Nakano[1], Yasuhiro Shinkai[3], Yoshito Kumagai[3], Chika Yamamoto[2], Toshiyuki Kaji[1]
([1]Fac. of Pharm. Sci., Tokyo Univ. of Sci., [2]Fac. of Pharm. Sci., Toho Univ., [3]Fac. of Med., Univ. of Tsukuba)

P-077 **A quantitative proteomics strategy to identify Lipoxytosis regulators Lipo-4 interacting proteins**

◯ Masaki Matsuoka[1], Into Li[1], Yoshio Kodera[2], Hirotaka Imai[1]
([1]Kitasato Univ. Sch. of Pharmacy, [2]Kitasato Univ. Sch. of Science)

P-078 **Role of the receptor for advanced glycation end products on dihydropyrazine-mediated cytotoxicity in HeLa cells**

◯ Yuu Miyauchi[1], Madoka Sawai[2], Takumi Ishida[2], Hisao Kansui[3], Shinji Takechi[1]
([1]Lab. Hyg. Chem., Fac. Pharmaceut. Sci., Sojo Univ., [2]Sch. Pharm. at Fukuoka, Int. Univ. Health & Welfare, [3]Lab. Org. Chem., Fac. Pharmaceut. Sci., Sojo Univ.)

P-079 **Autophagy response caused by low level inorganic mercury derived from organomercurial lyase (MerB) mediated intracellular demethylation of methylmercury**

◯ Kohei Ishikawa[1], Yasukazu Takanezawa[1], Ryosuke Nakamura[1], Yuka Ohshiro[1], Shimpei Uraguchi[1], Tatsumi Adachi[2], Masako Kiyono[1]
([1]Dept. of Public Health, School of Pharmacy, Kitasato Univ., [2]Faculty of Pharmacy, Chiba Institute of Science)

P-080 **Variation in the expression of autophagy-related genes following toxic metal exposure**

◯ Kazuma Sakai, Yasukazu Takanezawa, Ryosuke Nakamura, Yuka Ohshiro, Shimpei Uraguchi, Masako Kiyono
(Dept. of public Health, School of pharmacy, Kitasato Univ.)

P-081 **Ouabagenin, an aglycone of cardiotonic steroid ouabain, functions as LXR activator but avoids the increase in the expression of SREBP-1 by inducing the expression of Kruppel-like factor 15**

◯ Tomofumi Fujino, Kouta Sugizaki, Toshiyuki Oshima, Makio Hayakawa
(Tokyo Univ. Pharm. Life Sci.)

P-082 **Regulation of fibrinolytic activity by FGF-2 in vascular endothelial cells**

◯ Moka Uchida[1], Tsuyoshi Nakano[1], Musubu Takahashi[1], Chika Yamamoto[2] Toshiyuki Kaji[1]
([1]Fac. of Pharm. Sci., Tokyo Univ. of Sci., [2]Fac. of Pharm. Sci., Toho Univ.)

P-083 **Actin-binding protein in active vitamin A-induced cell differentiation**

◯ Noriko Takahashi, Daisuke Saito, Shinya Hasegawa, Masahiro Yamasaki, Masahiko Imai
(Lab. of Physiolog. Chem., Inst. of Med. Chem., Hoshi Univ.)

P-084 **Aerobic glycolysis in HIV-1 infected cells supports the formation of high-quality viruses**

◯ Towa Abe[1], Naoki Kihsimoto[1] , Norito Yasuoka[1], Nobutoki Takamune[2], Shogo Misumi[1]
([1]Grad. Sch. Pharm. Sci., Kumamoto Univ., [2]KIDO)

P-085 **Development of SARS-CoV-2 infection model and cardiotoxicity assessment of COVID-19 candidate drugs using human iPS cell-derived cardiomyocytes**

◯ Shota Yanagida[1,2], Ayano Satsuka[1], Sayo Hayashi[1], Atsushi Ono[2], Yasunari Kanda[1]
([1]Div. Pharmacol., NIHS, [2]Div. Pharm., Okayama Univ.)

P-086 **Development of pseudo-cold drink**

◯ Shota Ichikawa, Kazuto Iwanami, Tomofumi Fujino
(Tokyo Univ. Pharm. Life Sci.)

Biochemistry

P-087 **Role of prostacyclin synthase in negative regulation of inflammatory reactions in mice**

◯ Toshiya Honsawa[1], Tsubasa Ochiai[1], Chieko Yokoyama[2], Hiroshi Kuwata[1], Shuntaro Hara[1]
([1]Sch. of Pharm., Showa Univ., [2]Kanagawa Inst. of Tech.)

P-088 **A role of acetoacetyl-CoA synthetase in inflammatory response of mouse macrophage**

◯ Shinya Hasegawa, Reo Morishima, Masahiko Imai, Masahiro Yamasaki, Noriko Takahashi
(Hoshi Univ.)

P-089 **Selenium binding protein 1 regulates suppressive effect of methionine on chemical-induced dermatitis.**

◯ Takayuki Koga[1], Makoto Hiromura[1], Yingxia Song[2], Yuji Ishii[2], Masayo Hirao[3], Shuso Takeda[4], Takumi Ishida[5], Yuko Kobuke[1], Akihisa Toda[1], Fumio Soeda[1]
([1]Daiichi Univ. Pharm., [2]Grad. Sch. Pharmaceut. Sci., Kyushu Univ., [3]Fac. Pharm. Sci., Hiroshima Intl. Univ., [4]Fac. Pharm. Sci., Fukuyama Univ., [5]Sch. Pharm. Fukuoka, Int. Univ. Health & Welfare)

P-090 **Deletion of AhR prevents liver fibrosis in non-alcoholic steatohepatitis (NASH)**

◯ Akinori Sakai, Mayu Tanabe, Yukiko Takasugi, Taira Wada, Shigeki Shimba
(Dep. Health Sci. Sch. Pharmacy, Nihon Univ.)

P-091 **Role of acyl-CoA synthetase long chain family member 4 in paraquat-induced lung injury**

◯ Yuki Tomitsuka, Hiroshi Kuwata, Shuntaro Hara
(Sch. of pharmacy, Showa Univ.)

P-092 **Novel regulatory mechanisms of the stress-responsive STK11/LKB1-AMPK pathway through ubiquitination**

◯ Reon Kurokawa, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

P-093 **Effects of selenoprotein P expression on selenium-homeostasis in hepatocytes**

◯ Moeka Natori, Takayuki Ichikawa, Takashi Toyama, Ryohei Tsutsumi, Yoshiro Saito
(Grad. Sch. Pharm. Sci., Tohoku Univ)

P-094 **Selenoprotein P accelerates proliferation and drug resistance of glioblastoma**

◯ Hikari Sugiura, Takashi Toyama, Yoshiro Saito
(Grad. Sch. Pharm. Sci., Tohoku Univ)

P-095 **The effect of β-hydroxybutyrate on TGF-β1 mediated epithelial mesenchymal transition**

◯ Hiroki Hasui[1], Manami Ogawa[2], Aya Hirashima[2], Sou Masaki[2], Kenji Suzuki[1,2]
([1]Grad. Sch. Pharm. Sci., Ritsumeikan Univ., [2]Fac. Pharm. Sci., Ritsumeikan Univ.)

P-096 **Modulation of glycosaminoglycan modification enzymes expressed in vascular endothelial cells by FGF-2 and TGF-β_1**

◯ Fuwano Horikawa[1], Takato Hara[1], Tomoya Fujie[1], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. Pharm. Sci., Toho Univ, [2]Fac. Pharm. Sci., Tokyo Univ. Sci)

P-097 **Effect of CREB on biglycan expression in vascular endothelial cells**

◯ Junna Hata[1], Miho Ishii[1], Takato Hara[1], Tomoya Fujie[1], Toshiyuki Kaji[2], Chika Yamamoto[1]
([1]Fac. Pharm. Sci., Toho Univ, [2]Fac. Pharm. Sci., Tokyo Univ. Sci)

P-098 **Molecular mechanism of selenium-containing compound Ebselen as a therapeutic agent for COVID-19**

◯ Yuya Habuka[1], Takashi Tomaya[1], Mieko Arisawa[2], Yoshiro Saito[1]
([1]Grad. Sch. Pharm. Sci., Tohoku Univ., [2]Grad. Sch. Agr., Kyushu Univ.)

Preventive Pharmacology

P-099 **Cell death inducing activities of limonoids isolated from *Fortunella crassifolia* and *Citrus junos* on Adriamycin treated cancer cell**

◯ Takahiro Kitagawa, Takahiro Matsumoto, Daisuke Imahori, Masaya Okayama, Mayuka Kobayashi, Tetsushi Watanabe
(Kyoto Pharm. Univ.)

P-100 **Induction of cancer cell death via suppression of Hsp105 expression by thesesquiterpenes isolated form *Valeriana fauriei***

◯ Masaya Okayama, Takahiro Matsumoto, Takahiro Kitagawa, Daisuke Imahori, Hayato Yoshikawa, Tetsushi Watanabe
(Kyoto Pharm. Univ.)

P-101 **Conjugation of α-linolenic acid using a seaweed-derived enzyme extract and verification of its effect on cancer cells**

◯ Hisaaki Ito[1], Nanako Yamazaki[1], Tomoyuki Koyama[2], Taro Honma[1], Kayoko Kita[1], Toshihide Suzuki[1]
([1]Fac. of Pharm. Sci., Teikyo Univ., [2]Grad. Sch. of Marine Sci. & Tech., Tokyo Univ. of Marine Sci. & Tech.)

P-102 **Podocalyxin is an important molecule for antigen uptake by Microfold cells**

◯ Takafumi Inoue[1], Naoki Kihsimoto[2], Toshimasa Takasaki[2], Nobutoki Takamune[3], Shogo Misumi[2]
([1]Sch. Pharm., Kumamoto Univ, [2]Grad. Sch. Pharm. Sci., Kumamoto Univ., [3]KIDO)

P-103 **Effects of cloperastine on micturition function in drug-induced menopausal mice**

◯ Fumio Soeda, Yuri Eto, Akihiro Tashiro, Ichiro Kimura, Sumire Kudo, Aki Sato, Takayuki Koga, Yuko Kobuke, Akihisa Toda
(Daiichi Univ. Pharm.)

Analysis

P-104 **Development of a novel hyphenated technique consisting of HILIC and ICP-MS for the speciation of lipophilic selenometabolites**

◯ Kazuaki Takahashi[1,2], Yasumitsu Ogra[1]
([1]Grad. Sch. Pharm. Sci., Chiba Univ., [2]JSPS Research Fellow)

P-105 **A rapid screening assay for identification of SARS-CoV-2 Delta variant using high-resolution melting analysis**

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

P-106 **Establishment of a reaction system that enables UV detection of cisplatin**

◯ Daigo Sumi, Hiroki Taguchi, Riki NIkadori, Hitomi Fujishiro
(Fac. Pharm. Sci., Tokushima Buri Univ.)

P-107 **Investigation of the effects of mineral crude drugs on kampo medicine**

◯ Masumi Motonaga[1], Narutoshi Nagao[1], Kotaro Tamura[1], Ryo Shimizu[1], Seigo Sanoh[2], Yaichiro Kotake[3], Kazumi Sugihara[1]
([1]Hiroshima Int'l Univ., [2]Sch. Pharm. Sci, Wakayama Med. Univ., [3]Grad. Sch. of Biomed. Sci., Hiroshima Univ.)

Drug Metabolism

P-108 **Functional analysis of the APS-kinase region of PAPS synthase**

◯ Takahito Nishiyama, Momoka Tadokoro, Yasuhiro Kawamori, Tomomi Kitagawa, Tomokazu Ohnuma, Kenichiro Ogura, Akira Hiratsuka
(Tokyo University of Pharmacy and Life sciences)

Foods and Pesticides

P-109 **Effects of exposure to fipronil on the hippocampus in ICR mice**

◯ Yuri Ando, Cai Zong, Gaku Ichihara
(Department of Pharmaceutical Sciences, Tokyo University of Science)

Health Foods

P-110 **Effects of royal jelly-derived two compounds, 10-hydroxy-2-decenoic acid and royalisin-related peptides on anaphylactic shock**

◯ Takahiro Fukase[1], Miyuki Yamazaki[1], Hinako Watanabe[1], Keiichi Ebina[1,2], Akira Sato[1,2]
([1]Fac. Pharm. Sci., Iryo Sosei Univ, [2]Grad. Sch. Life. Sci. Eng., Iryo Sosei Univ.)

P-111 **Extract of Zingiber zerumbet promote glucagon-like peptide-1 (GLP-1) secretion through TRPA1 activation in a murine enteroendocrine cell line STC-1**

◯ Yoko Mori[1], Manami Kusuki[1], Mizuki Kato[1], Akira Aoki[1], Yoshinori Okamoto[1], Takashi Isobe[2], Susumu Ohkawara[2], Nobumitsu Hanioka[2], Toshiko Tanaka-Kagawa[2], Hideto Jinno[1]
([1]Faculty of Pharmacy, Meijo University, [2]Yokohama University of Pharmacy)

Others

P-112 **Gut Microbiota Prevents Sugar Alcohol-induced Diarrhea**

Kouya Hattori, ◯ Masahiro Akiyama, Natsumi Seki, Kyosuke Yakabe, Koji Hase, Yun-Gi Kim
(Fac. Pharm., Keio Univ.)

P-113 **Developing therapeutic strategies for neurodegenerative diseases using the novel parthanatos inhibitor**

◯ Shuhei Hamano, Midori Suzuki, Yukino Asai, Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa
(Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.)

P-114 **Establishment of early diagnosis and novel treatment for abnormal brain development induced by fetal growth restriction**

◯ Atsuto Onoda[1,2], Yuma Kitase[2,3], Ken Tachibana[1], Ken Takeda[1], Masahiro Hayakawa[2], Yoshiaki Sato[2]
([1]Dep. Pharma., Sanyo-Onoda city Univ., [2]Cent. Mat-Neonate., Nagoya Univ. Hosp., [3]Johns Hopkins Univ.)

P-115 **Interindividual difference in the expression levels of glucagon-like peptide-1 receptor in human trachea and lung**

◯ Koichiro Nakashima[1], Naoya Takahashi[1], Ikuo Kawamura[1], Nobuhiko Miura[1], Yoko Mori[2], Manami Kusunoki[2], Mizuki Kato[2], Takashi Isobe[1], Susumu Ohkawara[1], Nobumitsu Hanioka[1], Hideto Jinno[2], Toshiko Tanaka-Kagawa[1]
([1]Yokohama University of Pharmacy, [2]Faculty of Pharmacy, Meijo University)

P-116 **Interindividual difference in the expression levels of molecules related to airway remodeling in human trachea and lung**

◯ Naoya Takahashi[1], Koichiro Nakashima[1], Ikuo Kawamura[1], Nobuhiko Miura[1], Yoko Mori[2], Takashi Isobe[1], Susumu Ohkawara[1], Nobumitsu Hanioka[1], Hideto Jinno[2], Toshiko Tanaka-Kagawa[1]
([1] Yokohama University of Pharmacy., [2]Faculty of Pharmacy, Meijo University)

P-117 **Investigation of the constitutive activation mechanism of androgen receptor variant 7**

◯ Daisuke Yamashita, Ryota Shizu, Hikaru Nishiguchi, Takuomi Hosaka, Yuichiro Kanno, Koici Yoshinari
(Univ of Shizuoka)

P-118 **Association between AHR-mediated inhibition of mammosphere formation and down-regulation ofΔNp63 expression in breast cancer cells**

◯ Kazuki Ota, Yuichiro Kanno, Takuomi Hosaka, Ryota Shizu, Kouichi Yoshinari
(Sch. Pharm. Sci., Univ. Shizuoka)

P-119 **Comparison of AR Activation Mechanisms by Synthetic Steroid YK11 and Selective Androgen Receptor Modulators**

◯ Tomohiro Kosuge, Yuichiro Kanno, Takuomi Hosaka, Ryota Shizu, Kouichi Yoshinari
(Sch. Pharm. Sci, Univ. Shizuoka)

P-120 **Contribution of CAR activation to the chemical-induced non-genotoxic liver cancer in rats**

◯ Takumi Sato, Ryota Shizu[1,2], Yoshie Miura[2], Takuomi Hosaka[1,2], Takamitsu Sasaki[2], Yuichiro Kanno[1,2], Kouichi Yoshinari[1,2]
([1]Grad. Sch. Integ. Pharm. Nutr. Sci., [2]Sch. Pharm. Sci., Univ of Shizuoka)

P-121 **Comparison of harmful chemical compounds generated from heated tobacco product IQOS and compatible heating device**

◯ Yohei Inaba[1], Chihiro Matsumoto[2], Shigehisa Uchiyama[1], Kanae Bekki[1], Akira Ushiyama[1]
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P-122 **Safety assessment of wireless power transfer systems for electric vehicles: *In vivo* genotoxic assessment of high-intensity intermediate frequency magnetic fields exposure**

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