

## Program

### Day 1: September 4th (Thursday)

Small Theater, Gifu City Culture Center (Main Venue)

#### 8:55 ~ 9:00 Opening Remarks

The 32nd Annual Meeting of The Japanese Society of Immunotoxicology

President : Tsuyoshi Nakanishi

#### 9:00 ~ 9:45 Students and Young Scientists Session 1 < Y-01 ~ Y-05 >

Chairpersons: Hiroshi Hasegawa (Kobe Pharmaceutical University),  
Akiko Honda (Kyoto University)

##### Y-01 Induction of anti-PEG IgM by daily application of PEG derivative-containing lotion

○Yuri Kim<sup>1</sup>, Haruka Takata<sup>1,2</sup>, Hidenori Ando<sup>1,2</sup>, Tatsuhiko Ishida<sup>1,2</sup>

<sup>1</sup>Dept. of PK and Biopharmaceut., <sup>2</sup>Res. Center for DDS, Inst. of Biomed. Sci., Tokushima Univ.

##### Y-02 The impact of anti-PEG antibodies on anaphylaxis by PEGylated nanoparticles

○Shuto Yamaguchi<sup>1</sup>, Haruka Takata<sup>1,2</sup>, Shingo Kobayashi<sup>1,2</sup>, Hidenori Ando<sup>1,2</sup>,  
Tatsuhiko Ishida<sup>1,2</sup>

<sup>1</sup>Department of Pharmacokinetics and Biopharmaceutics, <sup>2</sup>Innovative Research Center for Drug Delivery System, Institute of Biomedical Sciences, Tokushima University

##### Y-03 Pathological role of CCL28 in atopic dermatitis through the recruiting of IgE antibody-producing cells

○Takayuki Sakai, Kazuhiko Matsuo, Ayaka Yamasita, Ayana Hashimoto, Kanon Tanaka,  
Yuta Hara, Takashi Nakayama

Kindai University Faculty of Pharmacy

##### Y-04 Role of Chemokine CCL28 for the airway epithelial cells in asthma

○Anju Kyushiki, Yuta Hara, Kazuhiko Matsuo, Takashi Nakayama

Div. Chemother., Fac. Pharm., Kindai Univ.

**Y-05 The regulation of basophil activation by Staphylococcal secretory proteins**

○Haruka Sakakibara<sup>1</sup>, Shion Kamada<sup>1</sup>, Rikuto Iwata<sup>1</sup>, Hina Kiriya<sup>1</sup>, Isamu Ogawa<sup>1</sup>,  
Shigeaki Hida<sup>1</sup>, Saotomo Itoh<sup>1,2</sup>

<sup>1</sup>Pharm Sci, Nagoya City Univ, <sup>2</sup>Pharm, Aichi Gakuin Univ

<Break>

**9:50 ~ 10:35 Students and Young Scientists Session 2 < Y-06 ~ Y-10 >**

Chairpersons: Hiroko Shibata (National Institute of Health Sciences),  
Kazuhiko Matsuo (Kindai University)

**Y-06 Impact of Allergen Exposure Patterns on Mast Cell Activation and Allergic Inflammation**

○Sachika Miyashita, Yuka Nagata, Atsushi Furukawa, Ryo Suzuki  
Fac. Pharm. Sci., Kanazawa Univ.

**Y-07 Analysis of adjuvant factors involved in the development of cochineal allergy**

○Aoi Ezawa<sup>1</sup>, Michihiro Takahama<sup>1</sup>, Naoki Takemura<sup>1</sup>, Tatsuya Saitoh<sup>1,2</sup>

<sup>1</sup>Grad Sch Pharm Sci, Univ Osaka, <sup>2</sup>Global Ctr, Med Eng Inform, Univ Osaka

**Y-08 Palmitic acid interferes with the immunotoxicity of myeloid-derived suppressor cells**

○Koyo Sano, Sena Mitsukawa, Momone Shiomi, Masashi Tachibana  
Life Sci., Ritsumeikan Univ.

**Y-09 Myeloid-derived suppressor cell-specific CCR2 down-regulation by HDAC inhibitor**

○Risa Mitsuoka, Koki Maekawa, Toshihiro Ito, Koki Yamada, Masashi Tachibana  
Life Sci., Ritsumeikan Univ.

**Y-10 HMG-CoA reductase inhibitors regulate helper T cell differentiation**

○Satoshi Ishikawa<sup>1</sup>, Haruka Mizuno<sup>1</sup>, Kazuki Sasano<sup>1</sup>, Kanon Murase<sup>1</sup>, Isamu Ogawa<sup>1</sup>,  
Saotomo Itoh<sup>2</sup>, Shigeaki Hida<sup>1</sup>

<sup>1</sup>Pharm Sci, Nagoya City Univ., <sup>2</sup>Pharm Sci, Aichi Gakuin Univ.

<Break>

**10:40 ~ 11:28 Students and Young Scientists Session 3 < Y-11 ~ Y-16 >**

Chairpersons: Atsuhito Kubota (Health Sciences University of Hokkaido),  
Takeshi Susukida (National Institute of Health Science)

**Y-11 Analysis of T cell activation by antiepileptic drugs without specific HLA restriction using a mouse model**

○Satoru Nakada, Kousei Ito, Shigeki Aoki

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

**Y-12 Characterization of CX3CR1 knock-in reporter mice and their application in colitis model**

○Saya Tanaka, Keishi Ishida, Kenjiro Tajimi, Daisuke Matsumaru, Tsuyoshi Nakanishi  
Gifu Pharm. Univ.

**Y-13 Generation and analysis of Siglec-14-transduced mice**

○Ryunosuke Gohara<sup>1</sup>, Shin-Ichiro Yamaguchi<sup>1</sup>, Yamato Aoshima<sup>1</sup>, Masahito Ikawa<sup>2</sup>, and Masafumi Nakayama<sup>1</sup>

<sup>1</sup>Pharm Sci, Ritsumeikan Univ, <sup>2</sup>Res Inst Microb Dis, Osaka Univ

**Y-14 Inflammatory response by sun-aged polypropylenes and environmental model for their risk assessment**

○Yurika Wada<sup>1</sup>, Yoko Iwamoto<sup>1</sup>, Mizuo Kajino<sup>2</sup>, Yasuhiro Ishihara<sup>1</sup>

<sup>1</sup>Grad. Sch. Integr. Sci. Life, Hiroshima Univ, <sup>2</sup>Japan Meteorol. Agency

**Short Presentation < Y-15, Y-16 >**

**Y-15 Development of *in vitro* test method for allergenicity assessment of proteins**

○Yuki Satoda<sup>1</sup>, Saho Mochizuki<sup>1</sup>, Hideyuki Mizumachi<sup>1</sup>, Yutaka Takahashi<sup>1</sup>, Tomoaki Inoue<sup>2</sup>, Yuichi Itou<sup>1</sup>

<sup>1</sup>Safety Science Research Laboratories, Kao Corporation, <sup>2</sup>Frontier Co., Ltd.

**Y-16 Differential Immunomodulatory Effects of Carbon Black Nanoparticles in Allergic Disease Models**

○Kota Watanabe, Atsushi Furukawa, Yuka Nagata, Ryo Suzuki

Fac. Pharm. Sci., Kanazawa Univ.

<Break>

**11:45 ~ 11:55 Flash Presentation**

**11:55 ~ 12:25 General Assembly**

<Break>

13:15 ~ 14:15 Poster Discussion Session < P-01 ~ P-22 >

**P-01 Immunotoxicological Evaluation of 23 PFAS Using Primary Cultured Mouse Splenocytes**

○Atsuhito Kubota<sup>1,2</sup>, Wataru Murase<sup>1</sup>, Ryuta Muromoto<sup>1,2</sup>, Hiroyuki Kojima<sup>1,2</sup>

<sup>1</sup>Grad. Sch. Pharm. Sci., Health Sci. Univ. Hokkaido., <sup>2</sup>Sch. Pharm. Sci., Health Sci. Univ. Hokkaido.

**P-02 Fundamental Study on the Immunotoxic Effects of Indium-Tin Oxide (ITO) Exposure: Mitochondrial Dysfunction in Human T Cell Line MT-2**

○Yasumitsu Nishimura<sup>1</sup>, Nao Maruo<sup>2</sup>, Masamitsu Eitoku<sup>2</sup>, Kazuya Kobiro<sup>3</sup>, Tatsuo Ito<sup>1</sup>, Narufumi Suganuma<sup>2</sup>

<sup>1</sup>Dept. of Hygiene, Kawasaki Medical School, <sup>2</sup>Dept. of Environmental Medicine, Kochi Medical School, <sup>3</sup>Lab. for Structural Nanochemistry, Kochi University of Technology

**P-03 Establishing a functional alveolar macrophage cell line: A valuable platform for elucidating the mechanisms of cell death and for high-throughput screening of environmental toxicants**

○Takumi Adachi<sup>1</sup>, Hinata Inoue<sup>1</sup>, Hiroto Izumi<sup>2</sup> and Etsushi Kuroda<sup>1</sup>

<sup>1</sup>Department of Immunology, Hyogo Medical University School of Medicine, Japan, <sup>2</sup>Department of Occupational Pneumology, Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan

**P-04 *Mycobacterium leprae* evades macrophage immunity to sustain intracellular survival**

○Kazunari Tanigawa<sup>1</sup>, Koichi Suzuki<sup>2</sup>, Ryosuke Nakamura<sup>1</sup>

<sup>1</sup>Pharm Sci, Teikyo Univ, <sup>2</sup>Med Technol, Teikyo Univ.

**P-05 Activation of caspase-11 by Gram-negative bacterial infection and its impact on the pathogenesis**

○Hideki Hara

Infect Dis, Asahikawa Med Univ

**P-06 Inflammatory mediators of mRNA vaccine-induced adverse reactions in mice**

Koyo Honda<sup>1,2</sup>, Naoki Takemura<sup>1</sup>, So-ichiro Fukada<sup>1</sup>, Tatsuya Saitoh<sup>1</sup>, Toshiro Hirai<sup>1,2,3,4</sup>,  
○Yasuo Yoshioka<sup>1,2,3,4,5</sup>

<sup>1</sup>Grad. Sch. Pharm. Sci./<sup>2</sup>RIMD/<sup>3</sup>OTRI/<sup>4</sup>CAMaD, The University of Osaka, <sup>5</sup>BIKEN

- P-07 Zinc deficiency reduces the effectiveness of vaccine**  
 ○Takamasa Kido, Hiroyuki Yanagisawa, Saburo Saito, Machi Suka  
 The Jikei University School of Medicine
- P-08 International trends in regulations regarding immunogenicity and immunotoxicity assessment of biopharmaceuticals**  
 ○Akiko Ishii-Watabe, Hiroko Shibata, Kazuko Nishimura, Michihiko Aoyama, Minoru Tada, Takuo Suzuki, Yoichi Tanaka, Yoshiro Saito  
 Natl Inst Health Sci
- P-09 Study of factors influencing performance of *in vitro* immunogenicity assay**  
 ○Michihiko Aoyama, Takuo Suzuki, Minoru Tada, Akiko Ishii-Watabe  
 Natl Inst Health Sci
- P-10 Study on the effects of repeated dermal and inhalation exposure to toluene diisocyanate and their evaluation methods**  
 ○Eiko Koike, Rie Yanagisawa, Yuji Fujitani, Yoshikatsu Takazawa, Go Suzuki  
 National Institute for Environmental Studies
- P-11 Effects of intratracheal administration to polyurethane microcapsules before and after membrane rupture on pulmonary inflammation and its association with the gut microbiota**  
 ○Rie Yanagisawa, Eiko Koike, Takehiro Suzuki, Yuji Fujitani, Yoshikazu Takazawa, Go Suzuki  
 National Institute for Environmental Studies
- P-12 The role of inflammation and angiogenesis-related molecules in fibrosis induced by particulate matter**  
 Natsuko Miyasaka<sup>1,2</sup>, ○Akiko Honda<sup>1</sup>, Kenichiro Inoue<sup>3</sup>, Kaori Sadakane<sup>4</sup>, Takamichi Ichinose<sup>4</sup>, Raga Ishikawa<sup>5</sup>, Ryoko Ohata<sup>1,2</sup>, Takayuki Kameda<sup>6</sup>, Tomoaki Okuda<sup>5</sup>, Hirohisa Takano<sup>7,8</sup>  
<sup>1</sup>Grad. Sch. of Eng., Kyoto Univ., <sup>2</sup>Res. Collab. Ctr. Kyoto Univ. of Adv. Sci., <sup>3</sup>Sch. of Nursing, Shizuoka Pref. Univ., <sup>4</sup>Nursing and Health Sci., Oita Univ., <sup>5</sup>Facul., of Sci. and Tech., Keio Univ., <sup>6</sup>Grad. Sch. of Energy Sci., Kyoto Univ., <sup>7</sup>Inst. for Int. Acad. Res., Kyoto Univ. of Adv. Sci., <sup>8</sup>Res. Inst. for Coexistence and Health Sci., Kyoto Univ. of Adv. Sci.

- P-13 Environmental particulate matter – blood vessel spatial relationship: 3D analysis using lung tissue clearing technology**  
 ○Megumi Nagao<sup>1,2</sup>, Akiko Honda<sup>1</sup>, Takamichi Ichinose<sup>3</sup>, Natsuko Miyasaka<sup>1,2</sup>, Ryoko Ohata<sup>1,2</sup>, Hirohisa Takano<sup>4,5</sup>  
<sup>1</sup>Grad. Sch. of Eng., Kyoto Univ., <sup>2</sup>Res. Collab. Ctr. Kyoto Univ. of Adv. Sci., <sup>3</sup>Nursing and Health Sci., Oita Univ., <sup>4</sup>Inst. for Int. Acad. Res., Kyoto Univ. of Adv. Sci., <sup>5</sup>Res. Inst. for Coexistence and Health Sci., Kyoto Univ. of Adv. Sci.
- P-14 A method for visualizing environmental microparticles in the same field of view in stained specimens**  
 ○Sakiko Akaji<sup>1</sup>, Tomoya Sagawa<sup>2</sup>, Akiko Honda<sup>3</sup>, Natsuko Miyasaka<sup>3,4</sup>, Kaori Sadakane<sup>5</sup>, Takamichi Ichinose<sup>5</sup>, Hirohisa Takano<sup>6,7</sup>  
<sup>1</sup>Sch. of Nursing, Shizuoka Pref. Univ., <sup>2</sup>Kyoto Pref. Med. Univ., <sup>3</sup>Grad. Sch. of Eng., Kyoto Univ., <sup>4</sup>Res. Collab. Ctr., Kyoto Univ. of Adv. Sci., <sup>5</sup>Nursing and Health Sci., Oita Univ., <sup>6</sup>Inst. for Int. Acad. Res., Kyoto Univ. of Adv. Sci., <sup>7</sup>Res. Inst. for Coexistence and Health Sci., Kyoto Univ. of Adv. Sci.
- P-15 Study of metallothionein 1G transcription suppression mechanism by all-*trans* retinoic acid in human promyeloblastic cell line HL60**  
 ○Tomoki Kimura<sup>1</sup>, Rei Shiota<sup>1</sup>, Hina Hirouchi<sup>1</sup>, Shoko Ogush<sup>2</sup>, Takehiro Nakamura<sup>1</sup>  
<sup>1</sup>Pharm Sci, Setsunan Univ, <sup>2</sup>Tokyo Univ. Pharm. Life Sci
- P-16 Arsenite activates signaling pathways through enhanced sialylation of EGFR**  
 ○Daigo Sumi<sup>1</sup>, Saho Nakahira<sup>1</sup>, Hiroki Taguchi<sup>2</sup>, Ayako Nakayama<sup>1</sup>, Hitomi Fujishiro<sup>1</sup>  
<sup>1</sup>Fac. Pharm. Sci, Tokushima Bunri Univ, <sup>2</sup>Fac. Pharm. Sci, Tohoku Univ
- P-17 The impact of gut microbiota composition on olanzapine-induced weight gain in mice**  
 ○Akira Aoki, Yoshinori Okamoto, Hideto Jinno  
 Fac Pharm, Meijo Univ
- P-18 Possible molecular mechanisms underlying the therapeutic effects of Gosha-jinki-gan in busulfan-induced aspermatogenesis**  
 ○Ning Qu, Satomi Miyakawa, Shota Toda, Yasuhiro Katahira, Izuru Mizoguchi, Takayuki Yoshimoto  
 Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University

**P-19 Individual T-cell chromatin accessibility correlates with cytokine release following ex vivo stimulation with a T-cell engager in cynomolgus monkeys**

○Yoshika Iwata<sup>1</sup>, Yuta Narushima<sup>2</sup>, Asako Harada<sup>1</sup>, Akihisa Sakamoto<sup>2</sup>, Hisashi Ikegami<sup>1</sup>, Masayuki Mishima<sup>1</sup>, Hiromi Suzuki<sup>1</sup>

<sup>1</sup>Translational Research Division, Chugai Pharmaceutical Co., Ltd., <sup>2</sup>Research Division, Chugai Pharmaceutical Co., Ltd.

**P-20 Characterization of  $\beta$ 2-microglobulin-independent HLA class I heavy chain expression on the cell surface**

○Shigeki Aoki<sup>1</sup>, Mai Nonaka<sup>1</sup>, Keitaro Umezawa<sup>2</sup>, Yuri Miura<sup>2</sup>, Kousei Ito<sup>1</sup>

<sup>1</sup>Grad Sch of Pharm Sci, Chiba Univ, <sup>2</sup>TMIG

**P-21 Development and maintenance of strains, storage and supply of small animal models of rare and severe diseases and disorders, and related technologies**

○Haruhiko Kamada, Mayu Kamimura, Mitsuho Sasaki, Kozue Uchio, Osamu Suzuki  
NIBN

**P-22 Effect of the repetitive injection of microbubbles on blood flow imaging**

○Ryo Suzuki, Tadamitsu Shima, Saori Kageyama, Lisa Munakata, Daiki Omata, Kazuo Maruyama

Fac Pharm Sci, Teikyo Univ

**13:15 ~ 14:15 Poster Discussion (Young Researchers) < Y-01 ~ Y-16 >**

**Y-15 Development of *in vitro* test method for allergenicity assessment of proteins**

○Yuki Satoda<sup>1</sup>, Saho Mochizuki<sup>1</sup>, Hideyuki Mizumachi<sup>1</sup>, Yutaka Takahashi<sup>1</sup>, Tomoaki Inoue<sup>2</sup>, Yuichi Itou<sup>1</sup>

<sup>1</sup>Safety Science Research Laboratories, Kao Corporation, <sup>2</sup>Frontier Co., Ltd.

**Y-16 Differential Immunomodulatory Effects of Carbon Black Nanoparticles in Allergic Disease Models**

○Kota Watanabe, Atsushi Furukawa, Yuka Nagata, Ryo Suzuki

Fac. Pharm. Sci., Kanazawa Univ.

The presentations given in the Student & Young Researcher Session < Y-01 ~ Y-16 > will also be displayed in poster format. The Student & Young Researcher Presentation Award will be selected based on the evaluation of both the oral and poster presentations.

<Break>

**Small Theater, Gifu City Culture Center (Main Venue)**

**14:20 ~ 15:20 Tutorial Lecture < TL-01 >**

Chairperson: Tsuyoshi Nakanishi (Gifu Pharmaceutical University)

**TL-01 Mass Spectrometry Imaging -Basics and its applications-**

○Shuichi Shimma<sup>1,2,3</sup>

<sup>1</sup>Graduate School of Engineering, The University of Osaka, <sup>2</sup>OTRI, The University of Osaka, <sup>3</sup>The University of Osaka and Shimadzu Analytical Innovation Research Laboratory

<Break>

**15:25 ~ 16:25 Special Lecture 1 < SL-01 >**

Chairperson: Tsuyoshi Nakanishi (Gifu Pharmaceutical University)

**SL-01 Immunotoxicity Regulation Through Gut Microbiota-Based Strategies**

○Jun Kunisawa

National Institutes of Biomedical Innovation, Health and Nutrition

<Break>

**16:30 ~ 17:30 Special Lecture 2 < SL-02 >**

Chairperson: Yasumitsu Nishimura (Kawasaki Medical School)

**SL-02 Immunotoxicology testing for biotherapeutics: strategies and applications**

○Marie-Soleil Piche

Immunology department, Charles River Laboratories, Senneville, Canada

**HOTEL Grand Vert GIZAN**

**18:30 ~ 20:30 Banquet**

**Award Ceremony for Students and Young Scientists**

## Day 2: September 5th (Friday)

Small Theater, Gifu City Culture Center (Main Venue)

### 8:50 ~ 9:50 Oral Presentation 1 < O-01 ~ O-05 >

Chairpersons: Masafumi Nakayama (Ritsumeikan University),  
Hideki Hara (Asahikawa Medical University)

#### O-01 Impact of chronic social stress on LNP-mRNA vaccine efficacy

○Masakiyo Nakahira, Etsushi Kuroda

Department of Immunology, School of Medicine, Hyogo Medical University

#### O-02 The differential pyrin inflammasome responses between resident peritoneal and bone marrow-derived macrophages

○Izumi Sasaki<sup>1</sup>, Shiori Kaji<sup>2</sup>, Ayano Kurara<sup>1</sup>, Naoko Wakaki-Nishiyama<sup>1</sup>, Mai Yamagishi<sup>3</sup>, Yoshitaka Shirasaki<sup>4</sup>, Daisuke Okuzaki<sup>5</sup>, Tsuneyasu Kaisho<sup>1,6</sup>

<sup>1</sup>Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University, <sup>2</sup>Second Department of Internal Medicine, Wakayama Medical University, <sup>3</sup>Live Cell Diagnosis, <sup>4</sup>Research Center for Advanced Science and Technology, The University of Tokyo, <sup>5</sup>WPI-Immunology Frontier Research Center, The University of Osaka, <sup>6</sup>Industry-Government-Academia Collaboration Promotion Headquarters, Wakayama Medical University

#### O-03 HMGB1 enhances immunosuppressive activity of MDSCs via TLR4 signaling

○Toshihiro Ito<sup>1</sup>, Zhiqi Xie<sup>2</sup>, Masashi Tachibana<sup>1</sup>

<sup>1</sup>Life Sci., Ritsumeikan Univ., <sup>2</sup>Pham., Hangzhou City Univ.

#### O-04 Development of a coculture system of Fc $\gamma$ receptor<sup>+</sup> cell and antibody-targeted cell lines to predict cytokine release syndrome caused by antibody drugs

○Shota Toda<sup>1</sup>, Izuru Mizoguchi<sup>1</sup>, Natsuki Yamaguchi<sup>1</sup>, Eri Horio<sup>1</sup>, Satomi Miyakawa<sup>1</sup>, Yasuhiro Katahira<sup>1</sup>, Miki Igarashi<sup>1</sup>, Ning Qu<sup>1</sup>, Takao Ashikaga<sup>2</sup>, Takayuki Yoshimoto<sup>1</sup>

<sup>1</sup>Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University, <sup>2</sup>Division of Genome Safety Science, National Institute of Health Sciences Center for Biological Safety and Research

#### O-05 Retrospective evaluation of complement activation by antisense oligonucleotides

○Satoko Yoshioka, Yuichiro Amano, Jodi Goodwin

Nonclinical Safety and Pharmacology, Takeda Pharmaceutical Company Limited

<Break>

**9:55 ~ 11:55 Symposium < S-01 ~ S-04 >**

**「Immune toxicity involvement in brain dysfunction」**

Chairpersons: Yuhei Nisihimura (Mie University),  
Masashi Tachibana (Ritsumeikan University)

**S-01 Methylmercury-induced neurological damage mediated by microglial activation and future prospects**

○Gi-Wook Hwang

Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University

**S-02 Oligodendrocyte Toxicology -Beyond Microglia-**

○Yasuhiro Ishihara

Grad. Sch. Integr. Sci. Life, Hiroshima Univ.

**S-03 Assessment of microglial morphology and function using in vivo whole-brain imaging of larval zebrafish**

○Yuhei Nishimura

Department of Integrative Pharmacology, Mie University Graduate School of Medicine

**S-04 Mechanistic insights into brain functional alterations associated with peripheral immune dysregulation**

○Michio Miyajima<sup>1,2</sup>

<sup>1</sup>UTokyo Med, <sup>2</sup>RIKEN

<Break>

**13:00 ~ 14:12 Oral Presentation 2 < O-06 ~ O-11 >**

Chairpersons: Eri Hamamura (Daiichi Sankyo Co., Ltd.),  
Shogo Matsumura (Astellas Pharma Inc.)

**O-06 Neutrophilic Inflammation Induced by PM2.5 Is Partially Dependent on TLR4 Signaling and Correlates with ROS and PAHs**

○Duo Wang<sup>1</sup>, Zirui Zeng<sup>2</sup>, Ryuji Okazaki<sup>1</sup>, Yasuhiro Yoshida<sup>3</sup>

<sup>1</sup>Department of Radiobiology and Hygiene Management, Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan, <sup>2</sup>The First Department of Internal Medicine, School of Medicine, University of Occupational and Environmental Health, Japan, <sup>3</sup>Department of Immunology and Parasitology, School of Medicine, University of Occupational and Environmental Health, Japan

- 0-07 Delayed Effects of Short-Term Repeated Ethanol Administration on the Thymus**  
 ○Hiroshi Hasegawa, Manta Nakajima, Mari Kondo  
 Laboratory of Hygienic Sciences, Kobe Pharmaceutical University
- 0-08 Modeling the maturation process of cultured neurons by Raman spectroscopy and machine learning**  
 ○Kosuke Hashimoto<sup>1</sup>, Otoy Aoyama<sup>2</sup>, Keiichi Koizumi<sup>1,2</sup>  
<sup>1</sup>Research Center for Pre-disease Science, Univ. Toyama, <sup>2</sup>Inst. Nat. Med., Univ. Toyama
- 0-09 Study on the Regulatory Mechanisms of Hepatic Drug-Metabolizing Enzymes by Oncolytic Reovirus**  
 ○Atsushi Kawase<sup>1</sup>, Yanqin Dou<sup>1</sup>, Shoya Oue<sup>1</sup>, Hiroaki Shimada<sup>1</sup>, Ken J. Ishii<sup>3</sup>,  
 Fuminori Sakurai<sup>1,2</sup>  
<sup>1</sup>Graduate School of Pharmacy, Kindai University, <sup>2</sup>Graduate School of Pharmaceutical Sciences, The University of Osaka, <sup>3</sup>The Institute of Medical Science, The University of Tokyo
- 0-10 Study of immunotoxic effects of orally administered titanium dioxide on Peyer's patches in the small intestine of rats**  
 ○Jun-ichi Akagi<sup>1</sup>, Yasuko Mizuta<sup>1</sup>, Mizuho Uneyama<sup>1</sup>, Hirotoshi Akane<sup>1</sup>,  
 Kohei Matsushita<sup>1</sup>, Takeshi Toyoda<sup>1</sup>, Kumiko Ogawa<sup>1,2</sup>  
<sup>1</sup>Div. Pathology, Natl. Inst. Health Sci., <sup>2</sup>Dept. Toxicol., Hoshi Univ.
- 0-11 De novo generation of lineage-stable regulatory T cells promotes immune tolerance to food antigens**  
 ○Ryoji Kawakami<sup>1,2</sup>, Masaya Arai<sup>2</sup>, Shimon Sakaguchi<sup>1,2</sup>  
<sup>1</sup>Institute for Life and Medical Sciences (LiME), Kyoto University, <sup>2</sup>Immunology Frontier Research Center (IFReC), Osaka University

**14:12 ~ 14:20 Awards Ceremony**

**14:20 ~ 14:45 JSIT Award Lecture < AL-01 >**

Chairperson: Yasumitsu Nishimura (Kawasaki Medical School)

**AL-01 Immunotoxicological mechanisms and integrated health risk assessment of allergy and inflammatory immune dysregulation induced by heavy metals, chemicals, and nutrients**

○Hiroyuki Yanagisawa

The Jikei University School of Medicine

**14:45 ~ 15:10 JSIT Young Investigator Award Lecture < AL-02 >**

Chairperson: Ryosuke Nakamura (Teikyo University)

**AL-02 Investigation of unclarified risk factors regulating the onset of HLA-mediated drug-induced immunotoxicity**

○Takeshi Susukida

Section of Host Defences, Graduate School of Medicine and Pharmaceutical Sciences,  
University of Toyama

<Break>

**15:20 ~ 17:20 Workshop < WS-01 ~ WS-04 >**

**「Trends in the development of respiratory sensitization tests and domestic initiatives」**

Chairpersons: Yasuhiro Yoshida (The University of Occupational and Environmental Health),  
Tomoki Fukuyama (Azabu University)

**WS-01 The feature and detection methods of respiratory sensitization induced by chemicals including pesticides**

○Tomoki Fukuyama

Vet Pharm, Azabu Univ

**WS-02 Global trends of in vitro respiratory sensitization tests to the regulatory use and JaCVAM' s efforts**

○Eiko Koike<sup>1</sup>, Takao Ashikaga<sup>2</sup>

<sup>1</sup>Health and Environmental Risk Division, National Institute for Environmental Studies,

<sup>2</sup>Division of Genome Safety Science, National Institute of Health Sciences

**WS-03 Utilization of Reconstructed Human Bronchial Epithelium in In Vitro Evaluation of Respiratory Sensitization Potential of Chemicals**

Honoka Aoshima<sup>1</sup>, Kazushi Matsumura<sup>1</sup>, Ikuya Tanabe<sup>1</sup>, ○Shinkichi Ishikawa<sup>1</sup>,  
Izuru Mizoguchi<sup>2</sup>, Takayuki Yoshimoto<sup>2</sup>, Takao Ashikaga<sup>3</sup>

<sup>1</sup>Scientific Product Assessment Center, R&D Group, Japan Tobacco Inc., <sup>2</sup>Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University, <sup>3</sup>Division of Genome Safety Science, National Institute of Health Sciences

**WS-04 Development of the 3D coculture systems (DCsens and DC/Tsens) capable of accurately predicting chemical respiratory sensitizing potential**

○Izuru Mizoguchi<sup>1</sup>, Shota Toda<sup>1</sup>, Natsuki Yamaguchi<sup>1</sup>, Eri Horio<sup>1</sup>, Yasuhiro Katahira<sup>1</sup>, Miki Igarashi<sup>1</sup>, Satomi Miyakawa<sup>1</sup>, Ning Qu<sup>1</sup>, Takao Ashikaga<sup>2</sup>, Takayuki Yoshimoto<sup>1</sup>

<sup>1</sup>Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University, <sup>2</sup>Division of Genome Safety Science, National Institute of Health Sciences

**17:20 ~ 17:30 Award Ceremony for the Best Presenter of 32nd Annual Meeting**

**Closing Remarks**