#### Program

#### Day 1: September 19th (Thursday)

#### Heisei Memorial Hall, Main Hall

#### 9:00 ~ 9:10 Opening Remarks

The 31st Annual Meeting of The Japanese Society of Immunotoxicology President : Etsushi Kuroda

9:10  $\sim$  10:30 Students and Young Scientists Session < Y-05  $\sim$  Y-12 >

Chairpersons: Shigeki Aoki (Graduate School of Pharmaceutical Sciences, Chiba University), Izumi Sasaki (Institute of Advanced Medicine, Wakayama Medical University)

# Y-05 Carbon black nanoparticles induce cytotoxic responses in alveolar macrophages OTomohiro Ishihara, Atsushi Furukawa, Yuka Nagata, Ryo Suzuki Fac Pharm Sci, Kanazawa Univ

### Y-06 The novel evaluation approach for the immunotoxicity of environmental particulate matters using a newly developed macrophage line

⊖Hinata Inoue<sup>1,2</sup>, Takumi Adachi<sup>1</sup>, Etsushi Kuroda<sup>1</sup>

<sup>1</sup>Department of Immunology, Hyogo Medical University, <sup>2</sup>physician-scientist training program, Hyogo Medical University

#### Y-07 Antagonistic activity of combined exposure to mycotoxins Nivalenol and Deoxynivalenol on the inflammatory cytokine production in dendritic cells

○Reo Matsuzaka<sup>1</sup>, Kazutoshi Sugita<sup>2</sup>, Shiro Miyake<sup>3</sup>, Tomoki Fukuyama<sup>1</sup> <sup>1</sup>Pharmacology lab, Vet Med, Azabu Univ., <sup>2</sup>Public Health lab, Azabu Univ., <sup>3</sup>Food and Hygiene lab, Azabu Univ.

### Y-08 Co-culture of corneal epithelial cells and neutrophil-like cells induces synergistic production of inflammatory cytokines and chemokines

⊖Zirui Zeng<sup>1</sup>, Duo Wang<sup>2</sup>, Chieri Murayama<sup>3</sup>, Junnosuke Morita<sup>3</sup>, Tomoaki Okuda<sup>4</sup>, Tatsuya Mimura<sup>5</sup>, Yasuhiro Yoshida<sup>3</sup>

<sup>1-3</sup>Univ. Occ. Env. Hlth., Dept. of 11st. int. med., <sup>2</sup>radi. Manage., <sup>3</sup>imm. and para., <sup>4</sup>Dept. of Applied Chem., Fac. of Sci. and Tech., Keio Univ., <sup>5</sup>Dept. of opht. Teikyo Univ.

#### Y-09 Analysis of the crosstalk between MyD88-TRAF6 signaling and AhR

⊖Ryo Hakota<sup>1</sup>, Wataru Murase<sup>1</sup>, Ayaka Yasuda<sup>1</sup>, Atsuhito Kubota<sup>2</sup>, Tsugumi Shindo<sup>2</sup>, Shirou Tsuchida<sup>2</sup>, Hiroyuki Kojima<sup>1,2</sup>, Koji Nakagawa<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.

#### Y-10 Type I IFNs attenuate efficacy of adenovirus vector-based intranasal vaccine

⊖Hayato Nakatani<sup>1</sup>, Masashi Tachibana<sup>1,2</sup>, Rika Onishi<sup>1</sup>, Kahori Shimizu<sup>1</sup>, Fuminori Sakurai<sup>1</sup>, Hiroyuki Mizuguchi<sup>1,3,4,5,6</sup>

<sup>1</sup>Grad Sch Pharm Sci, Osaka Univ, <sup>2</sup>Col Life Sci, Ritsumeikan Univ, <sup>3</sup>NIBIOHN, <sup>4</sup>MEI cent, <sup>5</sup>OTRI, <sup>6</sup>CiDER, Osaka Univ

### Y-11 Uncovering the role of nucleic acid sensors in innate immune responses triggered by DNA strand breaks

○Nao Terakoshi<sup>1</sup>, Keigo Yamakita<sup>1</sup>, Manabu Yasui<sup>2</sup>, Masamitsu Honma<sup>2</sup>, Kei-ichi Sugiyama<sup>2</sup>, Kaoru Sugasawa<sup>3</sup>, Kiyoe Ura<sup>1</sup>, Akira Sassa<sup>1</sup>

<sup>1</sup>Grad. Sch. Sci., Chiba Univ., <sup>2</sup>Div. Genome Safety Sci., Natl. Inst. Health. Sci., <sup>3</sup>Biosignal Res. Ctr., Kobe Univ.

### Y-12 Effects of per- and polyfluoroalkyl substances (PFAS) on *in vitro* cytokine and antibody production in mouse immune cells

⊖Wataru Murase<sup>1</sup>, Atsuhito Kubota<sup>2</sup>, Ryuta Muromoto<sup>3</sup>, Akira Kubota<sup>4</sup>, Kouichi Yoshinari<sup>5</sup>, Yu Ait Bamai<sup>6</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, <sup>3</sup>Grad. Sch. Pharm. Sci., Hokkaido Univ., <sup>4</sup>Dept. Vet. Med., Obihiro Univ. Agr. Vet. Med., <sup>5</sup>Sch. Pharm. Sci., Univ. Shizuoka, <sup>6</sup>Ctr. Env. Health Sci., Hokkaido Univ.

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#### 10:40 ~ 11:10 Oral Presentation 1 < 0-01 ~ 0-02 >

Chairperson: Atsuhito Kubota (School of Pharmaceutical Sciences, Health Sciences University of Hokkaido)

O-01 Pulmonary adenoviral vectors induce persistent non-inflammatory immune responses in lung that correlate with protective antibody responses

⊖Toshiro Hirai<sup>1,2,3,4</sup>, Koki Ueda<sup>2,3</sup>, Mako Kakihara<sup>2,3</sup>, Kazuo Takayama<sup>5</sup>, Yasuo Yoshioka<sup>1,2,3,4,6,7,8</sup>

<sup>1</sup>OTRI, Osaka Univ, <sup>2</sup>RIMD, Osaka Univ, <sup>3</sup>Pharm Sci, Osaka Univ, <sup>4</sup>CAMaD, Osaka Univ, <sup>5</sup>CiRA, Kyoto Univ, <sup>6</sup>BIKEN, <sup>7</sup>MEI, Osaka Univ, <sup>8</sup>CiDER, Osaka Univ

### 0-02 Imaging inflammatory response of mouse alveolar macrophage induced by environmental particulates using Live FluoroSpot

⊙Zhuohao Yang<sup>1</sup>, Takumi Adachi<sup>2</sup>, Nobutake Suzuki<sup>1</sup>, Mai Yamagishi<sup>3</sup>, Takashi Funatsu<sup>3</sup>, Etsushi Kuroda<sup>2</sup>, Yoshitaka Shirasaki<sup>1</sup>

<sup>1</sup>RCAST, The University of Tokyo, <sup>2</sup>Department of Immunology, Hyogo College of Medicine, <sup>3</sup>Live Cell Diagnosis, Ltd.

11:10 ~ 11:20 Flash Presentation

11:20 ~ 11:55 General Assembly

11:55 ~ 12:55 Luncheon Seminar < LS-01 >

Chairperson: Etsushi Kuroda (Hyogo Medical University)

#### LS-01 Current perspectives of asbestos-related disease as chronic inflammatory disorders.

⊖Toshiyuki Minami<sup>1,2</sup>, Akio Tada<sup>1</sup>, Yoshiki Negi<sup>1,2</sup>, Daichi Fujimoto<sup>1,2</sup>, Taiichiro Otsuki<sup>1,2</sup>, Koji Mikami<sup>1,2</sup>, Ryo Takahashi<sup>1,2</sup>, Kozo Kuribayashi<sup>1,2</sup>, Takashi Kijima<sup>1,2</sup>

<sup>1</sup>Department of Respiratory Medicine and Hematology, Hyogo Medical University, <sup>2</sup>Department of Thoracic Oncology, Hyogo Medical University

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#### Heisei Memorial Hall, Poster Venue

#### 13:00 $\sim$ 13:50 Poster Discussion Session < P-01 $\sim$ P-22 >

#### P-01 Siglec-14 recognition of carbon nanomaterials

OShin-Ichiro Yamaguchi, Miki Takemura, Karen Miwa, Masafumi Nakayama Grad. Sch. Pharm. Sci., Ritsumeikan Univ.

- P-02 Effects of intratracheal exposure to polyurethane membrane microcapsules in mice.
  ORie Yanagisawa, Eiko Koike, Yuji Fujitani, Yoshikatsu Takazawa, Go Suzuki
  National Institute for Environmental Studies
- P-03 Effects of microplastic particles on bronchial asthma via innate and acquired immunity and visualization of particle localization

○Megumi Nagao<sup>1</sup>, Natsuko Miyasaka<sup>1</sup>, Ryoko Ohata<sup>2</sup>, Akiko Honda<sup>3</sup>, Raga Ishikawa<sup>1</sup>, Kenichiro Inoue<sup>4</sup>, Takamichi Ichinose<sup>1</sup>, Hirohisa Takano<sup>1,2</sup>
 <sup>1</sup>Grad. Sch. of Global Environ. Studies, Kyoto Univ., <sup>2</sup>Inst. for Int. Acad. Res., Kyoto Univ. of Adv. Sci., <sup>3</sup>Grad. Sch. of Eng., Kyoto Univ., <sup>4</sup>Sch. of Nursing, Shizuoka Pref. Univ.

### P-04 Lung disorder of cross-linked polyacrylic acid in long-term inhalation exposure using club cell-ablated mice

OChinatsu Nishida<sup>1</sup>, Hidenori Higashi<sup>1</sup>, Taisuhe Tomonaga<sup>2</sup>, Yasuyuki Higashi<sup>3</sup>, Toshiki Morimoto<sup>3</sup>, Kazuma Sato<sup>2</sup>, Yuiko Nakamura<sup>2</sup>, Hiroto Izumi<sup>2</sup>, Kazuhiro Yatera<sup>3</sup>, Yasuo Morimoto<sup>2</sup>

<sup>1</sup>Department of Environmental Health Engineering, Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan, <sup>2</sup>Department of Occupational Pneumology, Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan, <sup>3</sup>Department of Respiratory Medicine, University of Occupational and Environmental Health, Japan.

### P-05 Development of a two-step DC/T cell coculture system to discriminate respiratory sensitizers from skin sensitizers

○Izuru Mizoguchi, Yasuhiro Katahira, Hideaki Hasegawa, and Takayuki Yoshimoto Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University

### P-06 Study of the inflammatory response of silica nanoparticles in trophoblast cells

⊖Kazuma Higashisaka<sup>1,2,3</sup>, Rena Yamamoto<sup>3</sup>, Momoe Serizawa<sup>3</sup>, Yuya Haga<sup>2,3</sup>, Yasuo Tsutsumi<sup>2,3,4,5</sup>

<sup>1</sup>IACS., Osaka Univ., <sup>2</sup>Grad. Sch. Pharm. Sci., Osaka Univ., <sup>3</sup> Sch. Pharm. Sci., Osaka Univ., <sup>4</sup>MEI Ctr, Osaka Univ., <sup>5</sup>OTRI., Osaka Univ.

### P-07 Clinical characteristics of patients with severe cutaneous adverse reactions - An analysis from a national case collection network

Eri Tsukagoshi, Ryosuke Nakamura, Kimie Sai, Ruri Kikura-Hanajiri, OYoshiro Saito Natl Inst Health Sci

### P-08 Consideration of the impact of the differences in HLA expression patterns due to the presence or absence of $\beta_2$ -microglobulin binding on immunotoxicity

Mai Nonaka<sup>1</sup>, Yuki Toda<sup>1</sup>, Keitaro Umezawa<sup>2</sup>, Ryosuke Nakamura<sup>34</sup>, Noriaki Arakawa<sup>3</sup>, Yuchen Sun<sup>3</sup>, Yuri Miura<sup>2</sup>, Kousei Ito<sup>1</sup>, OShigeki Aoki<sup>1</sup>

<sup>1</sup>Grad Sch of Pharm Sci, Chiba Univ, <sup>2</sup>Proteome, TMIG, <sup>3</sup>Natl Inst Health Sci, <sup>4</sup>Pharm Sci, Teikyo Univ

P-09 Development of a Simple Analysis System for HLA Class I-Presented Peptides
 Aoi Ito<sup>1,2</sup>, ORyosuke Nakamura<sup>1,2,3</sup>, Noriaki Arakawa<sup>1</sup>, Yuya Hashimoto<sup>1</sup>, Shigeki Aoki<sup>4</sup>,
 Kousei Ito<sup>4</sup>, Ruri Kikura-Hanajiri<sup>1</sup>, Yoshiro Saito<sup>1,2</sup>
 <sup>1</sup>Natl Inst Health Sci, <sup>2</sup>Okayama Univ, <sup>3</sup>Teikyo Univ, <sup>4</sup>Chiba Univ.

### P-10 Non-specific binding of antibodies induces immunogenicity via unintended immune activation

○Eiichi Hashimoto<sup>1</sup>, Shohei Kawarada<sup>2</sup>, Shunsuke Ito<sup>1</sup>, Nobuo Sekiguchi<sup>2</sup>, Hikaru Koga<sup>2</sup>, Shiho Ohtsu<sup>2</sup>, Jumpei Kiyokawa<sup>1</sup>, Hiromi Suzuki<sup>1</sup>, Chiyomi Kubo<sup>1</sup>

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

#### P-11 T-cell activation by CD137 contributes to decreased cytokine release of CD3/CD137 T-cell engager, GPC3-Dual

⊖Asako Harada, Nozomi Fujisawa, Tomochika Matsushita, Yoshika Iwata, Hisashi Ikegami

Chugai Pharmaceutical Co., Ltd.

#### P-12 Changes in Expression of Specific mRNA Transcripts in Mouse Testes after Singleor Re-Irradiation

○Ning Qu<sup>1,2</sup>, Kenta Nagahori<sup>2</sup>, Kaori Suyama<sup>2</sup>, Hayato Terayama<sup>2,3</sup>, Daisuke Kiyoshima<sup>2</sup>, Shogo Hayashi<sup>2</sup>, Kou Sakabe<sup>3</sup>, Takayuki Yoshimoto<sup>1</sup>

<sup>1</sup>Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University, <sup>2</sup>Department of Anatomy, Division of Basic Medical Science, Tokai University School of Medicine, <sup>3</sup>Department of Environmental Preventive Medicine (Yamada Bee Company, Inc.), Center for Preventive Medical Sciences, Chiba University

## P-13 Self-assembling peptide CK2 contributes to the induction of antigen-specific cytotoxic Tlymphocyte as a carrier of adjuvant and antigen

○Koubun Yasuda<sup>1</sup>, Miya Fujimoto<sup>2</sup>, Etsushi Kuroda<sup>1</sup> <sup>1</sup>Dept Immunol., Hyogo Med Univ, <sup>2</sup>Menicon Co., Ltd.

#### P-14 Analysis of a novel necroptosis-inducing mucosal adjuvant

⊖Takumi Adachi<sup>1</sup>, Kazufumi Matsushita<sup>1</sup>, Koubun Yasuda<sup>1</sup>, Masakiyo Nakahira<sup>1</sup>, Mai Imasaka<sup>2</sup>, Zhuohao Yang<sup>3</sup>, Masaki Ohmuraya<sup>2</sup>, Yoshitaka Shirasaki<sup>3</sup>, Etsushi Kuroda<sup>1</sup>

<sup>1</sup>Department of Immunology, School of Medicine, Hyogo Medical University, Hyogo, Japan, <sup>2</sup>Department of Genetics, School of Medicine, Hyogo Medical University, Hyogo, Japan, <sup>3</sup>RCAST, The University of Tokyo, Meguro-ku, Tokyo, Japan

## P-15 Introduction of sugar-modified nucleotides into CpG-containing antisense oligonucleotides inhibits TLR9 activation

⊙Tokuyuki Yoshida<sup>1</sup>, Tomoko Hagihara<sup>2</sup>, Yasunori Uchida<sup>1</sup>, Yoshiyuki Horiuchi<sup>2</sup>, Kiyomi Sasaki<sup>1</sup>, Takenori Yamamoto<sup>1</sup>, Takuma Yamashita<sup>1</sup>, Yukihiro Goda<sup>1</sup>, Yoshiro Saito<sup>1</sup>, Takao Yamaguchi<sup>3</sup>, Satoshi Obika<sup>3</sup>, Seiji Yamamoto<sup>2</sup>, Takao Inoue<sup>1</sup> <sup>1</sup>NIHS, <sup>2</sup>Fuso Pharmaceutical Industries, <sup>3</sup> Grad. Sch. Pharm. Sci., Osaka Univ

### P-16 Development of new method for the evaluation of the safety and quality control of SARS-Cov-2 mRNA vaccine

⊖Kou Hiraga, Haruka Momose, Sayuri Sakuragi, Kiyoko Nojima, Mieko Ishii, Keiko Imai, Junichi Maeyama, Yohei Seki, Madoka Kuramitsu, Takuo Mizukami

Research Center for Biological Products in the Next Generation, National Institute of Infectious Diseases

#### P-17 Development of an *In Vitro* Alternative Method for Rabbit Pyrogen Test Using Genetic Biomarkers

⊖Eita Sasaki<sup>1</sup>, Jun-ichi Maeyama<sup>2</sup>, Hideki Asanuma<sup>3</sup>, Isao Hamaguchi<sup>2</sup>, Yoshimasa Takahashi<sup>1</sup>

<sup>1</sup>Research Center for Drug and Vaccine Development, NIID, <sup>2</sup>Research Center for Biological Products in the Next Generation, NIID, <sup>3</sup>Center for Influenza and Respiratory Virus Research, NIID

#### P-18 Effect of OVA-specific antibody production in the zinc deficiency

○Takamasa Kido, Hiroyuki Yanagisawa, Saburo Saito, Machi Suka The Jikei University School of Medicine

### P-19 Augmentation of Th17 cells-mediated airway inflammation by aging-related IL-18 production

OMasakiyo Nakahira, Etsushi Kuroda Department of Immunology, Hyogo Medical University

#### P-20 Comparison of gene expression levels of SASP factors between hepatoma cell line Huh-7 and hepatic stellate cell line LX-2 by arsenite exposure

⊖Kazuyuki Okamura<sup>1</sup>, Takehiro Suzuki<sup>1</sup>, Nobuyoshi Nakajima<sup>2</sup>

<sup>1</sup>Health and Environmental Risk Division, National Institute for Environmental Studies, <sup>2</sup>Biodiversity Division, National Institute for Environmental Studies

#### P-21 Enhanced resistance to glycative stress in Tyk2-deficient macrophages

○Ryuta Muromoto, Hiroya Minoguchi, Joichiro Abe, Tadashi Matsuda Grad. Sch. Pharm. Sci., Hokkaido Univ.

## P-22 Characteristic gene expression kinetics of NK cells involved in treatment response to malignant mesothelioma and NKp46 ligand expression in tumor cells

○Yasumitsu Nishimura<sup>1</sup>, Akira Yamauchi<sup>2</sup>, Ayasa Kamezaki<sup>1</sup>, Tatsuo Ito<sup>1</sup> <sup>1</sup>Dept. of Hygiene, Kawasaki Medical School, <sup>2</sup>Dept. of Biochemistry, Kawasaki Medical School

#### 13:00 $\sim$ 13:50 Poster Discussion Session < Y-01 $\sim$ Y-12 >

(Posters for Students and Young Scientist Session are also included in this session)

# Y-01 Novel titanium-allergy mouse model using water-soluble Ti-lactic acid complex OSaeko Saito<sup>1,2</sup>, Toshinobu Kuroishi<sup>1</sup>, Hiroshi Egusa<sup>2</sup>, Shunji Sugawara<sup>1</sup> <sup>1</sup>Division of Oral Immunology, <sup>2</sup>Division of Molecular and Regenerative Prosthodontics,

Tohoku University Graduate School of Dentistry

#### Y-02 Differential Impacts of Various Environmental Particles on Bronchus-Associated Lymphoid Tissue Formation in Asthmatic Mice Model

⊖Wei Liu<sup>1</sup>, Raga Ishikawa<sup>2</sup>, Akiko Honda<sup>1</sup>, Takamichi Ichinose<sup>2</sup>, Binyang Qiu<sup>1</sup>, Oluwatoyin Hannah Owokoniran<sup>2</sup>, Tomonari Matsuda<sup>1,3</sup>, Hirohisa Takano<sup>2,4</sup>

<sup>1</sup>Grad. Sch. of Eng., Kyoto Univ., <sup>2</sup>Grad. Sch. of Global Environ. Studies, Kyoto Univ., <sup>3</sup>Res. Ctr. for Environ. Qual. Mgmt., Kyoto Univ., <sup>4</sup>Inst. for Int. Acad. Res., Kyoto Univ. of Adv. Sci.

### Y-03 Mechanism of innate immun response without DNA strand breaks due to dysfunctional DNA repair

⊖Hina Tanaka<sup>1</sup>, Keigo Yamakita<sup>1</sup>, Manabu Yasui<sup>2</sup>, Masamitsu Honma<sup>2</sup>, Kei-ichi Sugiyama<sup>2</sup>, Ryoji Fujiki<sup>3</sup>, Atsushi Kaneda<sup>34</sup>, Kaoru Sugasawa<sup>5</sup>, Kiyoe Ura<sup>1</sup>, Akira Sassa<sup>1</sup>

<sup>1</sup> Grad. Sch. Sci., Chiba Univ., <sup>2</sup> Div. Genome Safety Sci., Natl. Inst. Health. Sci., <sup>3</sup>Grad. Sch. Med., Chiba Univ., <sup>4</sup>Health and Disease Omics Center., Chiba Univ., <sup>5</sup> Biosignal Res. Ctr, Kobe Univ.

### Y-04 Deoxynivalenol detoxification by *Chlorella sorokiniana* leads to inhibitory effects on the Deoxynivalenol induced allergic contact dermatitis symptoms in a mouse model.

⊖Tetta Hiwatashi<sup>1</sup>, Reo Matuzaka<sup>1</sup>, Chiharu Ohira<sup>1</sup>, Mao Kaneki<sup>1</sup>, Taro Ogawa<sup>2</sup>, Ayaka Nakashima<sup>2</sup>, Tomoki Fukuyama<sup>1</sup>

<sup>1</sup>Pharmacology lab, Vet Med, Azabu Univ, <sup>2</sup>Euglena Co., Ltd.

#### Heisei Memorial Hall, Main Hall

#### $13:55 \sim 14:55$ Special Lecture 1 < SL-01 >

Chairperson: Takao Ashikaga (National Institute of Health Sciences)

#### SL-01 Development of methods for assessing respiratory sensitizing potential

○Takayuki Yoshimoto, Yasuhiro Katahira, Hideaki Hasegawa, Izuru Mizoguchi Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University

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#### 15:05 ~ 16:35 Symposium 1 < S-01 ~ S-03 >

#### [Environment and Allergy: Latest Findings]

Chairpersons: Rie Yanagisawa (National Institute for Environmental Studies), Tomoki Fukuyama (Department of Veterinary Medicine, Azabu University)

### S-01 Environmental factors that disrupt the epithelial barrier, leading to allergic inflammation

OHideaki Morita<sup>1,2</sup>

<sup>1</sup>Department of Allergy and Clinical Immunology, National Research Institute for Child Health and Development, <sup>2</sup>Allergy Center, National Center for Child Health and Development

### S-02 Molecular and cellular mechanisms through which tissue-resident memory T cells drive refractory disease formation

OKiyoshi Hirahara

Department of Immunology, Graduate School of Medicine, Chiba University

### S-03 Exploration of prevention/exacerbation factors for allergic rhinitis using mouse models

OKazufumi Matsushita

Department of Immunology, Hyogo Medical University School of Medicine

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#### 16:45 ~ 17:45 Special Lecture 2 < SL-02 >

Chairperson: Yasumitsu Nishimura (Kawasaki Medical School)

#### SL-02 Regulation of Intestinal Macrophage and CD4 T Cell Differentiation in Autoimmunity: The Role of Aryl Hydrocarbon Receptor-Microbiome Interactions.

OAllison K Ehrlich

Department of Environmental Toxicology, University of California Davis

Nihonsakari Sakagura Dori Rengakan Hanasakari

18:30 ~ 20:30 Banquet Award Ceremony for Students and Young Scientists

#### Heisei Memorial Hall, Main Hall

#### 8:50 ~ 9:50 Oral Presentation 2 < 0-03 ~ 0-06 >

Chairpersons: Takamasa Kido (The Jikei University School of Medicine), Ryuta Muromoto (Faculty of Pharmaceutical Sciences, Hokkaido University)

#### O-03 Development of a novel image analysis of microglia in zebrafish to assess neurotoxicity of chemicals

⊖Yuhei Nishimura, Mizuki Yuge, Takashi Shiromizu, Junko Koiwa

Department of Integrative Pharmacology, Mie University Graduate School of Medicine

### 0-04 CCL3-CCR5 axis in Kupffer cells plays a detrimental role in acetaminophen-induced acute liver injury

⊖Yuko Ishida, Yumi Kuninaka, Mizuho Nosaka, Akihiko Kimura, Naofumi Mukaida, Toshikazu Kondo

Department of Forensic Medicine, Wakayama Medical University, Wakayama, Japan

### O-05 Study of the effect of 15-hydroxyprostaglandin dehydrogenase inhibition on acetaminophen-induced acute liver injury

⊖Hiroaki Shimada, Akito Yokotobi, Atsushi Kawase, Fuminori Sakurai Biopharm, Kindai Univ.

#### 0-06 Immunological characterization of peritoneal exudate cells in liver cirrhosis patients

⊖Shiori Kaji<sup>1</sup>, Izumi Sasaki<sup>2</sup>, Satoko Kunimoto<sup>3</sup>, Emi Tosuji<sup>4</sup>, Takashi Kato<sup>5</sup>, Daisuke Okuzaki<sup>6</sup>, Masayuki Kitano<sup>1</sup>, Tsuneyasu Kaisho<sup>2</sup>

<sup>1</sup>Second Department of Internal Medicine, Wakayama Med Univ, <sup>2</sup>Department of Immunology, Institute of Advanced Medicine, Wakayama Med Univ, <sup>3</sup>Department of Nephrology, Wakayama Med Univ, <sup>4</sup>Department of Dermatology, Wakayama Med Univ, <sup>5</sup>Department of Rheumatology and Clinical Immunology, Wakayama Med Univ, <sup>6</sup>WPI-Immunology Frontier Research Center, Osaka Univ

#### 9:50 $\sim$ 10:50 Oral Presentation 3 < 0.07 $\sim$ 0.10 >

Chairpersons: Toshinobu Kuroishi (Tohoku University Graduate School of Dentistry), Masafumi Nakayama (College of Pharmaceutical Sciences, Ritsumeikan University)

### O-07 The specificity of pyrin inflammasome activation in murine resident peritoneal macrophages

○Emi Tosuji<sup>1</sup>, Shiori Kaji<sup>2</sup>, Izumi Sasaki<sup>3</sup>, Naoko Nishiyama<sup>3</sup> and Tsuneyasu Kaisho<sup>3</sup>

<sup>1</sup>Department of Dermatology, Wakayama Medical Univ (WMU), <sup>2</sup>Second Department of Internal Medicine, WMU, <sup>3</sup>Department of Immunology, Institute of Advanced Medicine, WMU

### O-08 Inhibition of AIM2 inflammasome improves antimicrobial-resistant Staphylococcus aureus infection

⊖Hideki Hara Infect Dis, Asahikawa Med Univ

### O-09 Study on the mechanism of acute lung inflammation caused by Asian sand dust particles

⊖Tomoya Sagawa<sup>1,2</sup>, Takamichi Ichinose<sup>1</sup>, Akiko Honda<sup>3</sup>, Etsushi Kuroda<sup>4</sup>, Raga Ishikawa<sup>1</sup>, Natsuko Miyasaka<sup>1</sup>, Megumi Nagao<sup>1</sup>, Tomoaki Okuda<sup>5</sup>, Hirohisa Takano<sup>1,6</sup>

<sup>1</sup>Grad. Sch. of Global Environ. Studies, Kyoto Univ., <sup>2</sup>Infl. and Immun., Grad. Sch. of Med. Sci., Kyoto Pref. Univ. of Med., <sup>3</sup>Grad. Sch. of Eng., Kyoto Univ., <sup>4</sup>Dep. of Immun., Sch. of Med., Hyogo Med. Univ., <sup>5</sup>Facul., of Sci. and Tech., Keio Univ., <sup>6</sup>Inst. for Int. Acad. Res., Kyoto Univ. of Adv. Sci.

#### O-10 Bisphenol A Triggers the Activation of Ocular Immune System and Induces Allergic Airway Inflammation

⊖Tatsuo Ueda<sup>1,2</sup>, Takumi Adachi<sup>1</sup>, Eiko Koike<sup>3</sup>, Rie Yanagisawa<sup>3</sup>, Kenzo Tsuzuki<sup>2</sup>, Etsushi Kuroda<sup>1</sup>

<sup>1</sup>Department of immunology, Hyogo Medical University, <sup>2</sup>Department of Otorhinolaryngology-Head and Neck Surgery, Hyogo Medical University, <sup>3</sup>Health and Environmental Risk Division, National Institutes for Environmental Studies

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#### 11:05 ~ 12:05 Special Lecture 3 < SL-03 >

Chairperson: Yasuo Yoshioka (Research Institute for Microbial Diseases, Osaka University)

### SL-03 Development of AIDS prevention and treatment vaccines using live attenuated vaccines expressing adjuvant molecules

⊖Yasuhiro Yasutomi<sup>1,2,3,4,5</sup>

<sup>1</sup>National Institutes of Biomedical Innovation, Health and Nutrition, <sup>2</sup>School of Integrative and Global Majors, University of Tsukuba, <sup>3</sup>Mie University Graduate School of Medicine, <sup>4</sup>Osaka University Graduate School of Pharmaceutical Science, <sup>5</sup>Tokyo Medical and Dental University Graduate School of Medical and Dental Science

#### 12:05 $\sim$ 12:50 Lunch Time & Business Time

#### 12:50 $\sim$ 12:55 Awards Ceremony

#### 12:55 $\sim$ 13:20 JSIT Award Lecture < AL-01 >

Chairperson: Ryosuke Nakamura (Faculty of Pharmacology, Teikyo University)

AL-01 Immunotoxicology; the origins of medicine that protects lives in interaction with environment – From segmented research to research with an integrated perspective –

⊖Takahiko Yoshida Asahikawa Medical University

#### $13:20 \sim 13:45$ JSIT Young Investigator Award Lecture < AL-02 >

Chairperson: Ryosuke Nakamura (Faculty of Pharmacology, Teikyo University)

AL-02 Molecular mechanisms of pathogen sensors-mediated cytokine production from innate immune cells

⊖Izumi Sasaki

Department of Immunology, Institute of Advanced Medicine, Wakayama Medical University.

<Break>

#### $13:50 \sim 15:20$ Symposium $2 < S-04 \sim S-06 >$

#### **|** The Efficacy and Safety of New Vaccines and Immunotherapies **|**

Chairpersons: Masashi Tachibana (Department of Biomedical Sciences, College of Life Sciences, Ritsumeikan University), Naoki Takemura (Graduate School of Pharmaceutical Sciences, Osaka University)

#### S-04 CpG ODN-mediated immunoprophylaxis against viral infection

⊖Kouji Kobiyama<sup>1,2</sup>

<sup>1</sup>Division of Vaccine Science, The Institute of Medical Science, The University of Tokyo, <sup>2</sup>International Vaccine Design Center, The Institute of Medical Science, The University of Tokyo

#### S-05 Disease modifying treatments: Allergy immunotherapy for type-1 allergy

OKatsuyo Ohashi-Doi

Innovation Research Dep. Torii Pharmaceutical Co Ltd.

### S-06 Preclinical immunogenicity and protective efficacy of new mRNA vaccines against SFTS

○Shiori Egashira<sup>1,2</sup>, Rokusuke Yoshikawa<sup>3</sup>, Shoko Nogusa<sup>1</sup>, Aya Yamaguchi<sup>1</sup>, Yoshikuni Onodera<sup>1</sup>, Nao Jonai<sup>1</sup>, Fumihiko Takeshita<sup>1</sup>, Etsushi Kuroda<sup>2</sup>, Jiro Yasuda<sup>3</sup> <sup>1</sup>Daiichi Sankyo Co., Ltd., <sup>2</sup>Hyogo Medical University, <sup>3</sup>Nagasaki University

#### <Break>

#### $15:30 \sim 16:50$ Workshop < WS-01 $\sim$ WS-03 >

[Immunogenicity Assessment]

Chairpersons: Shogo Matsumura (Astellas Pharma Inc.), Tetsuya Sakairi (Mitsubishi Tanabe Pharma Corporation)

### WS-01 Current status and issues in prediction and evaluation of immunogenicity of biopharmaceuticals

OAkiko Ishii-Watabe, Michihiko Aoyama, Takuo Suzuki, Hiroko Shibata Division of Biological Chemistry and Biologicals, National Institute of Health Sciences

### WS-02 Strategy and case studies for assessing immunogenicity of biopharmaceuticals

○Eri Hamamura-Yasuno, Tetsuo Aida, Koichi Goto, Yoshimi Tsuchiya Medicinal Safety Research Laboratories, Daiichi Sankyo Co., Ltd.

### WS-03 Immunogenicity assessment and de-immunization strategy of engineered therapeutic antibodies

OEiichi Hashimoto

Translational Research Division, Chugai Pharmaceutical Co., Ltd, Kanagawa, Japan

#### Discussion

#### 16:50 ~ 17:00 Award Ceremony for the Best Presenter of 31st Annual Meeting Closing Remarks