

第 31 回日本免疫毒性学会学術年会プログラム

第 1 日目 9 月 19 日 (木)

平成記念会館メイン会場

9:00 ~ 9:10 開会式

第 31 回日本免疫毒性学会学術年会 年会長 黒田悦史

9:10 ~ 10:30 学生・若手セッション< Y-05 ~ Y-12 >

座長：青木重樹（千葉大学大学院薬学研究院）、佐々木泉（和歌山県立医科大学先端医学研究所）

Y-05 カーボンブラック粒子による肺胞マクロファージでの毒性発現機構の解析

○石原萌宏、古川敦、長田夕佳、鈴木亮

金沢大院・医薬保

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

○Hinata Inoue^{1,2}, Takumi Adachi¹, Etsushi Kuroda¹

¹Department of Immunology, Hyogo Medical University, ²physician-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 Matsuzaka¹, Kazutoshi Sugita², Shiro Miyake³, Tomoki Fukuyama¹

¹Pharmacology lab, Vet Med, Azabu Univ., ²Public Health lab, Azabu Univ., ³Food 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 Zeng¹, Duo Wang², Chieri Murayama³, Junnosuke Morita³, Tomoaki Okuda⁴, Tatsuya Mimura⁵, Yasuhiro Yoshida³

^{1,3}Univ. Occ. Env. Hlth., Dept. of 11st. int. med., ²radi. Manage., ³imm. and para., ⁴Dept. of Applied Chem., Fac. of Sci. and Tech., Keio Univ., ⁵Dept. of opht. Teikyo Univ.

Y-09 MyD88-TRAF6シグナル伝達経路とAhRのクロストーク解析

○箱田涼¹、村瀬渉¹、安田彩夏¹、窪田篤人²、進藤つぐみ²、土田史郎²、小島弘幸^{1,2}、中川宏治^{1,2}

¹北医療大院、薬、²北医療大、薬

- Y-10 I型IFNは鼻腔内投与型アデノウイルスベクターのワクチン効果を減弱させる**
 ○仲谷隼¹、立花雅史^{1,2}、大西里佳¹、清水かほり¹、櫻井文教¹、水口裕之^{1,3,4,5,6}
¹阪大院薬、²立命大生命、³医薬健栄研、⁴阪大MEIセ、⁵阪大先導、⁶阪大CiDER
- Y-11 DNA鎖切断に起因するインターフェロン応答における核酸センサー cGAS, IFI16の役割の探索**
 ○寺越菜央¹、山北啓吾¹、安井学²、本間正充²、杉山圭一²、菅澤薫³、浦聖恵¹、佐々彰¹
¹千葉大学大学院融合理工学府、²国立医薬品食品衛生研究所ゲノム安全科学部、³神戸大学バイオシグナル総合研究センター
- Y-12 有機フッ素化合物（PFAS）によるマウス免疫細胞のサイトカインおよび抗体産生能に及ぼす影響**
 ○村瀬渉¹、窪田篤人²、室本竜太³、久保田彰⁴、吉成浩一⁵、アイツバマイゆふ⁶、小島弘幸^{1,2}
¹北医療大院、薬、²北医療大、薬、³北大院、薬、⁴帯畜大、獣、⁵静岡県大、薬、⁶北大、環境健康セ

<休憩>

10:40 ~ 11:10 一般演題1 < O-01 ~ O-02 >

座長：窪田篤人（北海道医療大学薬学部）

O-01 アデノウイルスベクターを用いた経肺ワクチンによる抗体応答と肺での免疫毒性の連関解析

○平井敏郎^{1,2,3,4}、上田晃樹^{2,3}、柿原真子^{2,3}、高山和雄⁵、吉岡靖雄^{1,2,3,4,6,7,8}

¹阪大、先導、²阪大、微研、³阪大院、薬、⁴阪大、CAMaD、⁵京大、CiRA、⁶微研財団、⁷阪大、MEIセ、⁸阪大、CiDER

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

○Zhuohao Yang¹、Takumi Adachi²、Nobutake Suzuki¹、Mai Yamagishi³、Takashi Funatsu³、Etsushi Kuroda²、Yoshitaka Shirasaki¹

¹RCAST, The University of Tokyo、²Department of Immunology, Hyogo Medical University、³Live Cell Diagnosis, Ltd.

11:10 ~ 11:20 フラッシュプレゼンテーション

11:20 ~ 11:55 日本免疫毒性学会総会（兼評議員会）

11:55 ~ 12:55 ランチョンセミナー<LS-01>

座長：黒田悦史（兵庫医科大学）

LS-01 慢性炎症性疾患としてのアスベスト関連疾患の病態と最新の治療トピックス

○南俊行^{1,2}、多田陽郎²、衿木芳樹^{1,2}、藤本大智^{1,2}、大搦泰一郎^{1,2}、三上浩司^{1,2}、高橋良^{1,2}、栗林康造^{1,2}、木島貴志^{1,2}

¹兵庫医科大学医学部 呼吸器・血液内科学、²兵庫医科大学医学部 胸部腫瘍学特定講座

<休憩>

平成記念会館ポスター会場

13:00 ~ 13:50 ポスター討論（一般）<P-01 ~ P-22>

P-01 Siglec-14によるカーボンナノ材料認識機構

○山口慎一郎、竹村実希、三輪佳蓮、中山勝文
立命館大、薬

P-02 ポリウレタン膜マイクロカプセルの経気道曝露が肺炎症に与える影響

○柳澤利枝、小池英子、藤谷雄二、高澤嘉一、鈴木剛
国立環境研究所

P-03 マイクロプラスチック粒子が自然免疫および獲得免疫を介して気管支喘息に与える影響と粒子生体内局在の可視化

○長尾慧¹、宮坂奈津子¹、大畑良子²、本田晶子³、石川良賀¹、井上健一郎⁴、市瀬孝道¹、高野裕久^{1,2}

¹京大院・地球環境学堂、²京先端大・国際学術、³京大院・工、⁴静岡県立大・看護

P-04 クラブ細胞除去マウスを用いた長期吸入ばく露試験による架橋型ポリアクリル酸の肺障害性の検討

○西田千夏¹、東秀憲¹、友永泰介²、東泰幸³、森本俊規³、佐藤和真²、中村佑生子²、和泉弘人²、矢寺和博³、森本泰夫²

¹産業医科大学 産業生態科学研究所 労働衛生工学、²産業医科大学 産業生態科学研究所 呼吸病態学、³産業医科大学 医学部 呼吸器内科学

P-05 呼吸器と皮膚感作性物質の識別を目指した2ステップDC/T細胞共培養系の開発

○溝口出、片平泰弘、長谷川英哲、善本隆之
東京医科大学 医学総合研究所 免疫制御研究部門

- P-06 胎盤細胞における非晶質ナノシリカの炎症反応と胎盤障害との関連解析**
 ○東阪和馬^{1,2,3}、山本怜奈³、芹澤杏萌³、芳賀優弥^{2,3}、堤 康央^{2,3,4,5}
¹阪大高等共創研、²阪大院薬、³阪大薬、⁴阪大MEIセ、⁵阪大先導
- P-07 重症薬疹患者の臨床的特徴～全国症例ネットワークを用いた解析より～**
 塚越絵里、中村亮介、佐井君江、花尻(木倉) 瑠理、○斎藤嘉朗
 国立医薬品食品衛生研究所
- P-08 HLAと β_2 -microglobulinの結合有無によるHLA発現様式の違いと免疫毒性的意義の考察**
 野中麻衣¹、戸田有紀¹、梅澤啓太郎²、中村亮介^{3,4}、荒川憲昭³、孫雨晨³、三浦ゆり²、伊藤晃成¹、
 ○青木重樹¹
¹千葉大薬、²都健康長寿医セ研・プロテオーム、³国立衛研、⁴帝京大薬
- P-09 HLA クラス I 提示ペプチドの簡便な解析系の開発**
 伊藤蒼^{1,2}、○中村亮介^{1,2,3}、荒川憲昭¹、橋本由弥¹、青木重樹⁴、伊藤晃成⁴、花尻瑠理¹、斎藤嘉朗^{1,2}
¹国立医薬品食品衛生研究所、²岡山大学大学院医歯薬学総合研究科、³帝京大学薬学部、
⁴千葉大学薬学部
- P-10 Non-specific binding of antibodies induces immunogenicity via unintended immune activation**
 ○Eiichi Hashimoto¹, Shohei Kawarada², Shunsuke Ito¹, Nobuo Sekiguchi², Hikaru Koga²,
 Shiho Ohtsu², Jumpei Kiyokawa¹, Hiromi Suzuki¹, Chiyomi Kubo¹
¹Translational Research Division, Chugai Pharmaceutical Co., Ltd, Kanagawa, Japan,
²Research Division, Chugai Pharmaceutical Co., Ltd, Kanagawa, Japan
- P-11 GPC3-Dual抗体のcytokine release減弱におけるCD137シグナルの寄与**
 ○原田麻子、藤澤希望、松下智哉、岩田良香、池上仁
 中外製薬株式会社 Translational Research本部 安全性バイオサイエンス研究部
- P-12 Changes in Expression of Specific mRNA Transcripts in Mouse Testes after Single- or Re-Irradiation**
 ○Ning Qu^{1,2}, Kenta Nagahori², Kaori Suyama², Hayato Terayama^{2,3}, Daisuke Kiyoshima²,
 Shogo Hayashi², Kou Sakabe³, Takayuki Yoshimoto¹
¹Department of Immunoregulation, Institute of Medical Science, Tokyo Medical
 University, ²Department of Anatomy, Division of Basic Medical Science, Tokai University
 School of Medicine, ³Department 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 T lymphocyte as a carrier of adjuvant and antigen**
 ○Koubun Yasuda¹, Miya Fujimoto², Etsushi Kuroda¹
¹Dept Immunol., Hyogo Med Univ, ²Menicon Co., Ltd.
- P-14 Analysis of a novel necroptosis-inducing mucosal adjuvant**
 ○Takumi Adachi¹, Kazufumi Matsushita¹, Koubun Yasuda¹, Masakiyo Nakahira¹, Mai Imasaka², Zhuohao Yang³, Masaki Ohmuraya², Yoshitaka Shirasaki³, Etsushi Kuroda¹
¹Department of Immunology, School of Medicine, Hyogo Medical University, Hyogo, Japan, ²Department of Genetics, School of Medicine, Hyogo Medical University, Hyogo, Japan, ³RCAST, The University of Tokyo, Meguro-ku, Tokyo, Japan
- P-15 Introduction of sugar-modified nucleotides into CpG-containing antisense oligonucleotides inhibits TLR9 activation**
 ○Tokuyuki Yoshida¹, Tomoko Hagihara², Yasunori Uchida¹, Yoshiyuki Horiuchi², Kiyomi Sasaki¹, Takenori Yamamoto¹, Takuma Yamashita¹, Yukihiko Goda¹, Yoshiro Saito¹, Takao Yamaguchi³, Satoshi Obika³, Seiji Yamamoto², Takao Inoue¹
¹NIHS, ²Fuso Pharmaceutical Industries, ³Grad. Sch. Pharm. Sci., Osaka Univ
- P-16 SARS-CoV-2 mRNA ワクチンの新規安全性評価法の開発**
 ○平賀孔、百瀬暖佳、櫻木小百合、野島清子、石井美枝子、今井恵子、前山順一、関洋平、倉光球、水上拓郎
 国立感染症研究所 次世代生物学的製剤研究センター
- P-17 遺伝子バイオマーカーを用いたウサギ発熱試験 *in vitro* 代替法の開発**
 ○佐々木永太¹、前山順一²、浅沼秀樹³、濱口功²、高橋宜聖¹
¹感染研 治療薬・ワクチン開発研究センター、²感染研 次世代生物学的製剤研究センター、³感染研 インフルエンザ・呼吸器系ウイルス研究センター
- P-18 亜鉛欠乏がOVA特異的抗体産生に与える影響**
 ○木戸尊将¹、柳澤裕之²、斎藤三郎²、須賀万智¹
¹東京慈恵会医科大学 医学部 環境保健医学講座、²東京慈恵会医科大学
- P-19 加齢によって産生増大したIL-18はTh17 型気道炎症を増強する**
 ○中平雅清、黒田悦史
 兵庫医科大、医学部、免疫学

P-20 無機ヒ素曝露により肝細胞株Huh7と肝星細胞株LX-2で誘導されるSASP因子の発現比較

○岡村和幸¹、鈴木武博¹、中嶋信美²

¹国立環境研究所、環境リスク・健康領域、²国立環境研究所、生物多様性領域

P-21 Tyk2欠損マクロファージにおける糖化ストレス抵抗性の増強

○室本竜太、美濃口広弥、阿部丈一朗、松田正

北大院薬

P-22 悪性中皮腫の治療奏効に関わるNK細胞の特徴的遺伝子発現動態および腫瘍細胞におけるNKp46リガンド発現

○西村泰光¹、山内明²、亀崎彩紗¹、伊藤達男¹

¹川崎医科大学、衛生学、²川崎医科大学、生化学

13:00 ~ 13:50 ポスター討論（若手） < Y-01 ~ Y-12 >

Y-01 乳酸チタン錯体を用いた新規チタンアレルギーマウスモデルの作製

○齋藤佐英子^{1,2}、黒石智誠¹、江草宏²、菅原俊二¹

東北大院歯、¹口腔分子制御、²分子・再生歯科補綴学

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

○Wei Liu¹, Raga Ishikawa², Akiko Honda¹, Takamichi Ichinose², Binyang Qiu¹,
Oluwatoyin Hannah Owokoniran², Tomonari Matsuda^{1,3}, Hirohisa Takano^{2,4}

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

Y-03 DNA修復の機能不全によるDNA鎖切断を伴わない自然免疫応答メカニズムの解明

○田中陽菜¹、山北啓吾¹、安井学²、本間正充²、杉山圭一²、藤木亮次³、金田篤志^{3,4}、菅澤薫⁵、
浦聖恵¹、佐々彰¹

¹千葉大学大学院融合理工学府、²国立医薬品食品衛生研究所ゲノム安全科学部、³千葉大学大学院医学研究院、⁴千葉大学健康疾患オミクスセンター、⁵神戸大学バイオシグナル総合研究センター

Y-04 *Chlorella sorokiniana*はかび毒のデオキシニバレノールに吸着し、体内吸収を抑制することで、デオキシニバレノール経口曝露により増悪する皮膚アレルギー症状を軽減する

○樋渡哲太¹、松坂怜央¹、大平智春¹、金木真央¹、小川太郎²、中島綾香²、福山朋季¹

¹麻布大学 薬理学研究室、²株式会社ユーグレナ

学生・若手セッション< Y-05 ~ Y-12 > にて口頭発表される内容を、ポスターでもご発表いただきます。学生・若手優秀発表賞は、口頭とポスター両方の内容を考慮して選考されます。

13:55 ~ 14:55 特別講演 1 < SL-01 >

座長：足利太可雄（国立医薬品食品衛生研究所）

SL-01 呼吸器感作性評価法の開発

○善本隆之、片平泰弘、長谷川英哲、溝口出
東京医科大学 医学総合研究所 免疫制御研究部門

<休憩>

15:05 ~ 16:35 シンポジウム 1 < S-01 ~ S-03 >

「環境とアレルギー 最新知見」

座長：柳澤利枝（国立環境研究所）、福山朋季（麻布大学獣医学部）

S-01 環境因子による上皮バリア破壊とアレルギー性炎症

○森田英明^{1,2}

¹国立成育医療研究センター 免疫アレルギー・感染研究部、²国立成育医療研究センター アレルギーセンター

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

○Kiyoshi Hirahara

Department of Immunology, Graduate School of Medicine, Chiba University

S-03 マウスモデルを用いたアレルギー性鼻炎の増悪・防御因子の探索

○松下一史

兵庫医大、医、免疫学

<休憩>

16:45 ~ 17:45 特別講演 2 < SL-02 >

座長：西村泰光（川崎医科大学）

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

○Allison K Ehrlich

Department of Environmental Toxicology, University of California Davis

日本盛 酒蔵通り煉瓦館 花さかり

18:30 ~ 20:30 懇親会

学生・若手優秀発表賞 授賞式

8:50～9:50 一般演題2 < O-03～O-06 >

座長：木戸尊将（東京慈恵会医科大学）、室本竜太（北海道大学大学院薬学研究院）

O-03 ゼブラフィッシュのミクログリア形態を指標とする神経毒性評価手法の開発

○西村有平、弓削瑞葵、白水崇、小岩純子

三重大、医、統合薬理

O-04 クッパー細胞におけるCCL3-CCR5 システムはアセトアミノフェン誘発急性肝障害に有害な作用を持つ

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

Department of Forensic Medicine, Wakayama Medical University.

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.

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

○Shiori Kaji¹, Izumi Sasaki², Satoko Kunimoto³, Emi Tosuji⁴, Takashi Kato⁵, Daisuke Okuzaki⁶, Masayuki Kitano¹, Tsuneyasu Kaisho²

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

9:50～10:50 一般演題3 < O-07～O-10 >

座長：黒石智誠（東北大学大学院歯学研究科）、中山勝文（立命館大学薬学部）

O-07 腹腔常在マクロファージにおけるパイリンインフラマソーム活性化機構の特異性

○塔筋恵実¹、加治汐梨²、佐々木泉³、西山奈央子³、改正恒康³

¹和歌山県立医科大学皮膚科学講座、²和歌山県立医科大学内科学第二講座、³和歌山県立医科大学先端医学研究所生体調節機構研究部

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

○Hideki Hara

Infect Dis, Asahikawa Med Univ

0-09 黄砂粒子による肺の急性炎症のメカニズムに関する検討

○佐川友哉^{1,2}、市瀬孝道¹、本田晶子³、黒田悦史⁴、石川良賀¹、宮坂奈津子¹、長尾慧¹、
奥田知明⁵、高野裕久^{1,6}

¹京大院、地球環境、²京府医大院、免内、³京大院、工、⁴兵医大、免疫、⁵慶應大、理工、⁶京
先端大、国際学術

0-10 Bisphenol A Triggers the Activation of Ocular Immune System and Induces Allergic Airway Inflammation

○Tatsuo Ueda^{1,2}、Takumi Adachi¹、Eiko Koike³、Rie Yanagisawa³、Kenzo Tsuzuki²、
Etsushi Kuroda¹

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

<休憩>

11:05 ~ 12:05 特別講演 3 < SL-03 >

座長：吉岡靖雄（大阪大学微生物病研究所）

SL-03 アジュバント分子発現弱毒生ワクチンによるエイズ予防・治療ワクチンの開発

○保富康宏^{1,2,3,4,5}

¹医薬基盤・健康・栄養研究所、²筑波大学協働大学院、³三重大学大学院医学系研究科、
⁴大阪大学大学院薬学系研究科、⁵東京医科歯科大学大学院医歯学総合研究科

12:05 ~ 12:50 ランチタイム & ビジネスタイム

12:50 ~ 12:55 表彰式

12:55 ~ 13:20 学会賞受賞講演 < AL-01 >

座長：中村亮介（帝京大学薬学部）

**AL-01 環境との相互作用の中で生命を衛る医学の源流：免疫毒性学 — 細分化された研究から統合
的視点をもった研究へ—**

○吉田貴彦

旭川医科大学

13:20 ~ 13:45 奨励賞受賞講演< AL-02 >

座長：中村亮介（帝京大学薬学部）

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.

<休憩>

13:50 ~ 15:20 シンポジウム 2 < S-04 ~ S-06 >

「新しいワクチン・免疫療法の有効性と安全性」

座長：立花雅史（立命館大学生命科学部）、武村直紀（大阪大学大学院薬学研究科）

S-04 CpG ODN-mediated immunoprophylaxis against viral infection

○Kouji Kobiyama^{1,2}

¹Division of Vaccine Science, The Institute of Medical Science, The University of Tokyo,

²International Vaccine Design Center, The Institute of Medical Science, The University of Tokyo

S-05 I型アレルギーに対する免疫療法の最新知見

○土井雅津代

鳥居薬品（株）イノベーションリサーチ部

S-06 重症熱性血小板減少症候群に対する新規mRNAワクチンの非臨床免疫原性及び感染予防効果

○江頭志織^{1,2}、吉川禄助^{3,4}、野草晶子¹、山口綾¹、小野寺宜郷¹、城内直¹、武下文彦¹、黒田悦史²、安田二郎^{3,4}

¹第一三共株式会社、²兵庫医科大学 医学部 免疫学講座、³長崎大学 熱帯医学研究所 新興感染症学分野、⁴長崎大学 高度感染症研究センター 新興ウイルス研究分野

<休憩>

15:30 ~ 16:50 試験法ワークショップ< WS-01 ~ WS-03 >

「免疫原性評価」

座長：松村匠悟（アステラス製薬株式会社）、坂入鉄也（田辺三菱製薬株式会社）

WS-01 バイオ医薬品の免疫原性リスク低減のための規制要件と予測・評価法に関する現状と課題

○石井明子、青山道彦、鈴木琢雄、柴田寛子

国立医薬品食品衛生研究所・生物薬品部

WS-02 バイオ医薬品の免疫原性評価戦略及び事例紹介

○浜村えり、間哲生、後藤浩一、土屋由美

第一三共株式会社 安全性研究所

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

○Eiichi Hashimoto

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

総合討論

16:50 ~ 17:00 年会賞授賞式、閉会式

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 ~ 10:30 Students and Young Scientists Session < Y-05 ~ 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

○Tomohiro 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^{1,2}, Takumi Adachi¹, Etsushi Kuroda¹

¹Department of Immunology, Hyogo Medical University, ²physician-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 Matsuzaka¹, Kazutoshi Sugita², Shiro Miyake³, Tomoki Fukuyama¹

¹Pharmacology lab, Vet Med, Azabu Univ., ²Public Health lab, Azabu Univ., ³Food 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 Zeng¹, Duo Wang², Chieri Murayama³, Junnosuke Morita³, Tomoaki Okuda⁴,
Tatsuya Mimura⁵, Yasuhiro Yoshida³

^{1,3}Univ. Occ. Env. Hlth., Dept. of 11st. int. med., ²radi. Manage., ³imm. and para., ⁴Dept. of Applied Chem., Fac. of Sci. and Tech., Keio Univ., ⁵Dept. of opht. Teikyo Univ.

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

○Ryo Hakota¹, Wataru Murase¹, Ayaka Yasuda¹, Atsuhito Kubota², Tsugumi Shindo², Shirou Tsuchida², Hiroyuki Kojima^{1,2}, Koji Nakagawa^{1,2}

¹Grad. Sch. Pharm. Sci., Health Sci. Univ. Hokkaido., ²Sch. Pharm. Sci., Health Sci. Univ. Hokkaido.

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

○Hayato Nakatani¹, Masashi Tachibana^{1,2}, Rika Onishi¹, Kahori Shimizu¹, Fuminori Sakurai¹, Hiroyuki Mizuguchi^{1,3,4,5,6}

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

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

○Nao Terakoshi¹, Keigo Yamakita¹, Manabu Yasui², Masamitsu Honma², Kei-ichi Sugiyama², Kaoru Sugasawa³, Kiyoe Ura¹, Akira Sassa¹

¹Grad. Sch. Sci., Chiba Univ., ²Div. Genome Safety Sci., Natl. Inst. Health. Sci., ³Biosignal 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 Murase¹, Atsuhito Kubota², Ryuta Muromoto³, Akira Kubota⁴, Kouichi Yoshinari⁵, Yu Ait Bamai⁶, Hiroyuki Kojima^{1,2}

¹Grad. Sch. Pharm. Sci., Health Sci. Univ. Hokkaido, ²Sch. Pharm. Sci., Health Sci. Univ. Hokkaido, ³Grad. Sch. Pharm. Sci., Hokkaido Univ., ⁴Dept. Vet. Med., Obihiro Univ. Agr. Vet. Med., ⁵Sch. Pharm. Sci., Univ. Shizuoka, ⁶Ctr. Env. Health Sci., Hokkaido Univ.

<Break>

10:40 ~ 11:10 Oral Presentation 1 < O-01 ~ O-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^{1,2,3,4}, Koki Ueda^{2,3}, Mako Kakihara^{2,3}, Kazuo Takayama⁵, Yasuo Yoshioka^{1,2,3,4,6,7,8}

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

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

○Zhuohao Yang¹, Takumi Adachi², Nobutake Suzuki¹, Mai Yamagishi³, Takashi Funatsu³, Etsushi Kuroda², Yoshitaka Shirasaki¹

¹RCAST, The University of Tokyo, ²Department of Immunology, Hyogo College of Medicine, ³Live 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^{1,2}, Akio Tada¹, Yoshiki Negi^{1,2}, Daichi Fujimoto^{1,2}, Taiichiro Otsuki^{1,2}, Koji Mikami^{1,2}, Ryo Takahashi^{1,2}, Kozo Kuribayashi^{1,2}, Takashi Kijima^{1,2}

¹Department of Respiratory Medicine and Hematology, Hyogo Medical University,

²Department of Thoracic Oncology, Hyogo Medical University

<Break>

Heisei Memorial Hall, Poster Venue

13:00 ~ 13:50 Poster Discussion Session < P-01 ~ P-22 >

P-01 Siglec-14 recognition of carbon nanomaterials

○Shin-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.

○Rie 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 Nagao¹, Natsuko Miyasaka¹, Ryoko Ohata², Akiko Honda³, Raga Ishikawa¹, Kenichiro Inoue⁴, Takamichi Ichinose¹, Hirohisa Takano^{1,2}

¹Grad. Sch. of Global Environ. Studies, Kyoto Univ., ²Inst. for Int. Acad. Res., Kyoto Univ. of Adv. Sci., ³Grad. Sch. of Eng., Kyoto Univ., ⁴Sch. of Nursing, Shizuoka Pref. Univ.

- P-04 Lung disorder of cross-linked polyacrylic acid in long-term inhalation exposure using club cell-ablated mice**
 ○Chinatsu Nishida¹, Hidenori Higashi¹, Taisuhe Tomonaga², Yasuyuki Higashi³, Toshiki Morimoto³, Kazuma Sato², Yuiko Nakamura², Hiroto Izumi², Kazuhiro Yatera³, Yasuo Morimoto²
¹Department of Environmental Health Engineering, Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan, ²Department of Occupational Pneumology, Institute of Industrial Ecological Sciences, University of Occupational and Environmental Health, Japan, ³Department 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^{1,2,3}, Rena Yamamoto³, Momoe Serizawa³, Yuya Haga^{2,3}, Yasuo Tsutsumi^{2,3,4,5}
¹IACS., Osaka Univ., ²Grad. Sch. Pharm. Sci., Osaka Univ., ³Sch. Pharm. Sci., Osaka Univ., ⁴MEI Ctr, Osaka Univ., ⁵OTRI, 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, ○Yoshiro 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 β_2 -microglobulin binding on immunotoxicity**
 Mai Nonaka¹, Yuki Toda¹, Keitaro Umezawa², Ryosuke Nakamura^{3,4}, Noriaki Arakawa³, Yuchen Sun³, Yuri Miura², Kousei Ito¹, ○Shigeki Aoki¹
¹Grad Sch of Pharm Sci, Chiba Univ, ²Proteome, TMIG, ³Natl Inst Health Sci, ⁴Pharm Sci, Teikyo Univ
- P-09 Development of a Simple Analysis System for HLA Class I-Presented Peptides**
 Aoi Ito^{1,2}, ○Ryosuke Nakamura^{1,2,3}, Noriaki Arakawa¹, Yuya Hashimoto¹, Shigeki Aoki⁴, Kousei Ito⁴, Ruri Kikura-Hanajiri¹, Yoshiro Saito^{1,2}
¹Natl Inst Health Sci, ²Okayama Univ, ³Teikyo Univ, ⁴Chiba Univ.

- P-10 Non-specific binding of antibodies induces immunogenicity via unintended immune activation**
 ○Eiichi Hashimoto¹, Shohei Kawarada², Shunsuke Ito¹, Nobuo Sekiguchi², Hikaru Koga², Shiho Ohtsu², Jumpei Kiyokawa¹, Hiromi Suzuki¹, Chiyomi Kubo¹
¹Translational Research Division, Chugai Pharmaceutical Co., Ltd, Kanagawa, Japan,
²Research 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 Single- or Re-Irradiation**
 ○Ning Qu^{1,2}, Kenta Nagahori², Kaori Suyama², Hayato Terayama^{2,3}, Daisuke Kiyoshima², Shogo Hayashi², Kou Sakabe³, Takayuki Yoshimoto¹
¹Department of Immunoregulation, Institute of Medical Science, Tokyo Medical University, ²Department of Anatomy, Division of Basic Medical Science, Tokai University School of Medicine, ³Department 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 Yasuda¹, Miya Fujimoto², Etsushi Kuroda¹
¹Dept Immunol., Hyogo Med Univ, ²Menicon Co., Ltd.
- P-14 Analysis of a novel necroptosis-inducing mucosal adjuvant**
 ○Takumi Adachi¹, Kazufumi Matsushita¹, Koubun Yasuda¹, Masakiyo Nakahira¹, Mai Imasaka², Zhuohao Yang³, Masaki Ohmuraya², Yoshitaka Shirasaki³, Etsushi Kuroda¹
¹Department of Immunology, School of Medicine, Hyogo Medical University, Hyogo, Japan,
²Department of Genetics, School of Medicine, Hyogo Medical University, Hyogo, Japan,
³RCAST, The University of Tokyo, Meguro-ku, Tokyo, Japan
- P-15 Introduction of sugar-modified nucleotides into CpG-containing antisense oligonucleotides inhibits TLR9 activation**
 ○Tokuyuki Yoshida¹, Tomoko Hagihara², Yasunori Uchida¹, Yoshiyuki Horiuchi², Kiyomi Sasaki¹, Takenori Yamamoto¹, Takuma Yamashita¹, Yukihiko Goda¹, Yoshiro Saito¹, Takao Yamaguchi³, Satoshi Obika³, Seiji Yamamoto², Takao Inoue¹
¹NIHS, ²Fuso Pharmaceutical Industries, ³ 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 Sasaki¹, Jun-ichi Maeyama², Hideki Asanuma³, Isao Hamaguchi², Yoshimasa Takahashi¹
¹Research Center for Drug and Vaccine Development, NIID, ²Research Center for Biological Products in the Next Generation, NIID, ³Center 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**
○Masakiyo 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 Okamura¹, Takehiro Suzuki¹, Nobuyoshi Nakajima²
¹Health and Environmental Risk Division, National Institute for Environmental Studies, ²Biodiversity 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 Nishimura¹, Akira Yamauchi², Ayasa Kamezaki¹, Tatsuo Ito¹
¹Dept. of Hygiene, Kawasaki Medical School, ²Dept. of Biochemistry, Kawasaki Medical School

13:00 ~ 13:50 Poster Discussion Session < Y-01 ~ 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

○Saeko Saito^{1,2}, Toshinobu Kuroishi¹, Hiroshi Egusa², Shunji Sugawara¹

¹Division of Oral Immunology, ²Division 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 Liu¹, Raga Ishikawa², Akiko Honda¹, Takamichi Ichinose², Binyang Qiu¹, Oluwatoyin Hannah Owokoniran², Tomonari Matsuda^{1,3}, Hirohisa Takano^{2,4}

¹Grad. Sch. of Eng., Kyoto Univ., ²Grad. Sch. of Global Environ. Studies, Kyoto Univ., ³Res. Ctr. for Environ. Qual. Mgmt., Kyoto Univ., ⁴Inst. 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 Tanaka¹, Keigo Yamakita¹, Manabu Yasui², Masamitsu Honma², Kei-ichi Sugiyama², Ryoji Fujiki³, Atsushi Kaneda^{3,4}, Kaoru Sugawara⁵, Kiyoe Ura¹, Akira Sassa¹

¹ Grad. Sch. Sci., Chiba Univ., ² Div. Genome Safety Sci., Natl. Inst. Health. Sci., ³Grad. Sch. Med., Chiba Univ., ⁴Health and Disease Omics Center., Chiba Univ., ⁵ 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 Hiwatashi¹, Reo Matuzaka¹, Chiharu Ohira¹, Mao Kaneki¹, Taro Ogawa², Ayaka Nakashima², Tomoki Fukuyama¹

¹Pharmacology lab, Vet Med, Azabu Univ, ²Euglena Co., Ltd.

Heisei Memorial Hall, Main Hall

13:55 ~ 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

<Break>

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

○Hideaki Morita^{1,2}

¹Department of Allergy and Clinical Immunology, National Research Institute for Child Health and Development, ²Allergy 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

○Kiyoshi Hirahara

Department of Immunology, Graduate School of Medicine, Chiba University

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

○Kazufumi Matsushita

Department of Immunology, Hyogo Medical University School of Medicine

<Break>

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.

○Allison 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

Day 2: September 20th (Friday)

Heisei Memorial Hall, Main Hall

8:50 ~ 9:50 Oral Presentation 2 < O-03 ~ O-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

O-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.

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

○Shiori Kaji¹, Izumi Sasaki², Satoko Kunimoto³, Emi Tosuji⁴, Takashi Kato⁵,
Daisuke Okuzaki⁶, Masayuki Kitano¹, Tsuneyasu Kaisho²

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

9:50 ~ 10:50 Oral Presentation 3 < O-07 ~ O-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 Tosuji¹, Shiori Kaji², Izumi Sasaki³, Naoko Nishiyama³ and Tsuneyasu Kaisho³

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

0-08 Inhibition of AIM2 inflammasome improves antimicrobial-resistant *Staphylococcus aureus* infection

○Hideki Hara

Infect Dis, Asahikawa Med Univ

0-09 Study on the mechanism of acute lung inflammation caused by Asian sand dust particles

○Tomoya Sagawa^{1,2}, Takamichi Ichinose¹, Akiko Honda³, Etsushi Kuroda⁴, Raga Ishikawa¹, Natsuko Miyasaka¹, Megumi Nagao¹, Tomoaki Okuda⁵, Hirohisa Takano^{1,6}

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

0-10 Bisphenol A Triggers the Activation of Ocular Immune System and Induces Allergic Airway Inflammation

○Tatsuo Ueda^{1,2}, Takumi Adachi¹, Eiko Koike³, Rie Yanagisawa³, Kenzo Tsuzuki², Etsushi Kuroda¹

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

<Break>

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^{1,2,3,4,5}

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

12:05 ~ 12:50 Lunch Time & Business Time

12:50 ~ 12:55 Awards Ceremony

12:55 ~ 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 ~ 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 ~ 15:20 Symposium 2 < S-04 ~ 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^{1,2}

¹Division of Vaccine Science, The Institute of Medical Science, The University of Tokyo,

²International Vaccine Design Center, The Institute of Medical Science, The University of Tokyo

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

○Katsuyo Ohashi-Doi

Innovation Research Dep. Torii Pharmaceutical Co Ltd.

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

○Shiori Egashira^{1,2}, Rokusuke Yoshikawa³, Shoko Nogusa¹, Aya Yamaguchi¹, Yoshikuni Onodera¹, Nao Jonai¹, Fumihiko Takeshita¹, Etsushi Kuroda², Jiro Yasuda³

¹Daiichi Sankyo Co., Ltd., ²Hyogo Medical University, ³Nagasaki University

<Break>

15:30 ~ 16:50 Workshop < WS-01 ~ 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

○Akiko 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

○Eiichi 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**