

IEIIS-16

SCIENTIFIC PROGRAM

Tuesday, October 12

International Conference Room & Online

JST

12:45- Opening Remark (IEIIS-16)
Koichi Fukase (Osaka University)

Plenary Session 1 (Chair: Kiyoshi Takeda), Presentation language: English

13:00-13:50 PL-1
Hiroshi Kiyono (The University of Tokyo)
Intestinal Commensal Bacteria for Mucosal Homeostasis and Vaccine Immunity

13:50-14:00 Break

Oral Session 1 (Chair: Holger Heine), Presentation language: English

14:00-14:30 IL-1
Kensuke Miyake (The University of Tokyo)
RNA metabolism and RNA-sensing in the endosomal compartment

14:30-15:00 IL-2
Judith Hellman (University of California, San Francisco)
The Endocannabinoid & Endovanilloid Systems in Inflammation and Sepsis

15:00-15:30 IL-3
Jin-ichi Inokuchi (Tohoku Medical and Pharmaceutical University)
GM3 Ganglioside in Insulin Resistance and Inflammation

15:30-15:45 Break

Oral Session 2 (Chair: Masahito Hashimoto), Presentation language: English

15:45-16:15 IL-4

Sho Yamasaki (Osaka University)

Learning from mycobacteria to cope with pandemic

16:15-16:45 IL-5

Alla Zamyatina (University of Natural Resources and Life Sciences)

Differential modulation of TLR4-mediated responses with synthetic disaccharide lipid A mimetics

16:45-17:15 IL-6

Francesco Peri (University of Milano-Bicocca)

Synthetic, glycolipid-based TLR4 agonists as vaccine adjuvants

17:15-17:30 Break

Plenary Session 2 (Chair: Koichi Fukase), Presentation language: English

17:30-18:20 PL-2

Antonio Molinaro (University of Naples Federico II)

LPS FROM MICROBIOTA: THE CHEMISTRY MATTERS

Award Session 1 (Chair: Koichi Fukase), Presentation language: English

18:20-

HONORARY LIFETIME MEMBERSHIP Ceremony 1

Martine Caroff (LPS-BioSciences, Paris-Saclay University)

Koichi Fukase (Osaka University)

Wednesday, October 13

International Conference Room & Online

JST

Oral Session 3 (Chair: Manabu Kinoshita, Jason Barker), Presentation language: English

09:30-10:00 IL-7

Irshad Chaudry (The University of Alabama at Birmingham)

ESTROGENS FOR THE TREATMENT OF TRAUMA HEMORRHAGE,
TBI AND COVID-19

【16th Meeting of the International Endotoxin and Innate Immunity Society】

10:00-10:30 IL-8

Joji Kotani (Kobe University)

Challenge to elucidate a mechanism of post-intensive care syndrome after sepsis

10:30-11:00 IL-9

Douglas Golenbock (University of Massachusetts Medical School)

Interferon epsilon expression is required for infection with *Neisseria gonorrhoeae*

11:00-11:30 IL-10

Liwu Li (Virginia Tech University)

Mechanisms for Innate Immune Memory Dynamics

11:30-12:00 IL-11

Mingfang Lu (Fudan University)

A highly conserved host lipase deacylates oxidized phospholipids and ameliorates acute lung injury

12:00-13:15 Break

Oral Session 4 (Chair: Tsuyoshi Sugiyama) , Presentation language: English

13:15-13:30 OL-1

Yoshihisa Fujinami (Kobe University)

Malocclusion is associated with ADL loss and reduction of neutrophils and T cells

13:30-13:45 OL-2

Koji Hosomi (National Institutes of Biomedical Innovation, Health, and Nutrition)

Effective and safe adjuvant activity of *Alcaligenes* LPS and its synthetic lipid A for nasal vaccine

Award Session 2 (Chair: Koichi Fukase), Presentation language: English

13:45-14:15 AL-1, Theresa L. Gioannini Women in Science Award

Sachiko Akashi-Takamura (Aichi Medical University)

Role of TLRs-associated molecules

【16th Meeting of the International Endotoxin and Innate Immunity Society】

Only Online

Poster Session

15:00-16:30 Poster Viewing

16:30-18:30 Poster Presentation

Presentation language: English (IEIIS session), English or Japanese (JEIIS session)

Thursday, October 14

International Conference Room & Online

JST

Award Session 3 (Chair: Jack Levin, Koichi Fukase), Presentation language: English

09:00-09:30 Frederik B. Bang Award Ceremony
Jerrold P. Weiss (University of Iowa)

HONORARY LIFETIME MEMBERSHIP Ceremony 2
Jerrold P. Weiss (University of Iowa)

Alois H. Nowotny Award Ceremony
Nilofer Qureshi (University of Missouri-Kansas City)

Award Session 4 (Chair: Isao Nagaoka), Presentation language: English

09:30-10:00 AL-2, Alois H. Nowotny Award

Nilofer Qureshi (University of Missouri-Kansas City)

STRUCTURE/FUNCTION OF LPS & IT'S ROLE IN MODULATION OF
PROTEASOME'S PROTEASES DURING INFLAMMATION & TOLERANCE

10:00-10:30 Break

【16th Meeting of the International Endotoxin and Innate Immunity Society】

Oral Session 5 (Chair: Amy G. Hise), Presentation language: English

10:30-11:00 IL-12

Egil Lien (University of Massachusetts)

Raver1 controls splicing of RIPK1 RNA and regulates cell death and inflammation mediated by caspase-8

Plenary Session 3 (Chair: Amy Hise), Presentation language: English

11:00-11:50 PL-3

Gabriel Núñez (University of Michigan)

Host-Microbiota Interactions in Health and Disease

11:50-13:15 Break

JEIIS Oral Session (Chair: Kazuyoshi Kawahara, Koichi Fukase),

Presentation language: English or Japanese

13:10- Opening Remark (JEIIS-26)

Joji Kotani (Kobe University)

13:15-13:45 IL-13

Tomoharu Shimizu (Shiga University of Medical Science)

Current status of polymyxin B-immobilized fiber column for treatment of severe sepsis and septic shock

13:45-14:15 IL-14 (JEIIS Award Lecture)

Tatsuya Yamazaki (Aichi Medical University)

Antibody Gene Transfer for Passive-immunization and Vaccine Adjuvant against Influenza Virus

14:15-14:30 OL-3

Yuko Ono (Kobe University)

Thermal burn injury increases STAT3 signaling pathway activation, following to induce skeletal muscle atrophy in mice

14:30-14:45 OL-4

Takeshi Ono (National Defense Medical College)

Lipopolysaccharide preconditioning augments phagocytosis of malaria-parasitized red blood cells by bone marrow-derived macrophages in the liver, thereby increasing the murine survival after *Plasmodium yoelii* infection

14:45-15:00 OL-5

Haruki Yamaura (Osaka University)

Chemical synthesis and immunological function of gut symbiotic bacterial lipid A and its analogs

15:00-15:30 Break

Oral Session 6 (Chair: Jun Kunisawa, Sachiko Takamura), Presentation language: English

15:30-16:00 IL-15

Kiyoshi Takeda (Osaka University)

Regulation of intestinal homeostasis

16:00-16:30 IL-16

William Agace (Lund University)

The small and large intestine contain transcriptionally related mesenchymal stromal cell subsets that derive from embryonic Gli1+ mesothelial cells

16:30-17:00 IL-17

Akira Andoh (Shiga University of Medical Science)

The role of the gut microbiota in the pathogenesis of inflammatory bowel disease

17:00-17:30 IL-18

Francesca Granucci (University of Milano-Bicocca)

Diversified responses of dendritic cells to inflammatory stimuli

Oral Session 7 (Chair: Koichi Fukase), Presentation language: English

17:30-17:45 OL-6

Johann Sieverding (Research Center Borstel Leibniz Lung Center)

Functional studies of innate immune signaling pathways and their modulation in response to exposure to cowshed-associated microbiota

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17:45-18:00 OL-7

Susu M. Zughailer (Qatar University)

ApoM binds endotoxin potentially contributing to neutralization and clearance by HDL

18:00-18:15 OL-8

Andra B. Schromm (Research Center Borstel - Leibniz Lung Center)

Inflammation control by membrane active peptides: A novel mechanism targeting host cell membrane domains

Friday, October 15

Only Online

JST

Oral Session 8 (Chair: Hongpeng Jia), Presentation language: English

09:00-09:15 OL-9

Masafumi Saito (Kobe University)

CX3CR1^{high} macrophage and Treg in the brain may help to improve anxiety-like behavior in the septic mice

09:15-09:30 OL-10

Kari Ann Shirey (University of Maryland School of Medicine)

Novel Neuroendocrine Role in the Host Response to Influenza Infection

09:30-09:45 OL-11

Michiko Ishikawa (Hyogo College of Medicine)

Endogenous IL-18 improved female survival in septic model mice

09:45-10:00 OL-12

Alexandra M. Vlk (University of Maryland School of Medicine)

Contribution of the D298G/N397I TLR4 SNPs to a Murine Model of Ulcerative Colitis

10:00-10:15 OL-13

Courtney E. Chandler (University of Maryland-Baltimore)

Defining the host cardiac phospholipid and cardiolipin response to endotoxemia

10:15-10:30 Break

Oral Session 9 (Chair: Kazuya Kabayama), Presentation language: English

10:30-10:45 OL-14

Scott M. Baliban (University of Maryland School of Medicine)

Parenteral vaccination with a candidate core glycolipid vaccine elicits protective immunity against nontyphoidal Salmonella infection in mice

10:45-11:00 OL-15

Takashi Kato (Wakayama Medical University)

Interstitial Lung Disease and abnormal STING activation in COPA V242G heterozygous variant mice

11:00-11:15 OL-16

Robert Ernst (University of Maryland-Baltimore)

Novel Synthetic Lipid A-based Molecules for Use as Vaccine Adjuvants

11:15-11:30 OL-17

Izumi Sasaki (Wakayama Medical University)

Critical roles of IRE1 in cholera toxin-induced interleukin-1 β production from resident peritoneal macrophages

11:30-11:45 OL-18

Richard D. Smith (University of Maryland Baltimore)

A direct from urine specimen lipid-based MALDI-TOF MS diagnostic for Gram-negative pathogens

11:45- Closing Remark (IEIIS-16)

Koichi Fukase (Osaka University)

Amy G. Hise (Case Western Reserve University)

12:00-12:50 Break

【16th Meeting of the International Endotoxin and Innate Immunity Society】

12:50- Opening Remark (ISMMS-7)
Koichi Fukase (Osaka University)

ISMMS Session 1 (Chair: Keiko Shimamoto, Toshiki Nokami), Presentation language: English

13:00-13:30 IL-19

Yukari Fujimoto (Keio University)
Glycoconjugates as modulators of innate immune balance

13:30-14:00 IL-20

Go Hirai (Kyushu University)
Efficient Synthetic Strategy for C-linked α -Galactosylceramide Analogues

13:30-14:00 IL-21

Hiroshi Tanaka (Tokyo Institute of Technology)
Chemical Synthesis of Fragments of Biologically Important Polysaccharides

14:30-15:00 IL-22

Wei-Chieh Cheng (Academia Sinica)
Design, synthesis, and functional studies of bacterial cell wall components

15:00-15:30 Break

ISMMS Session 2 (Chair: Takayuki Doi), Presentation language: English

15:30-16:00 IL-23

Xuewei Liu (Nanyang Technical University)
Synthetic Biohybrid Peptidoglycan Oligomers Enable Pan-bacteria-specific
Metabolic Labeling and Active Targeting

16:00-16:30 IL-24

Jeroen Codee (Leiden University)
Of sugars and phosphates: synthesis and application of well-defined bacterial
oligosaccharide structures and mimetics

16:30- Closing Remark (ISMMS-7)
Koichi Fukase (Osaka University)

Poster Presentations

- P-1** Masahiro Nakashima (National Defense Medical College)
Pioglitazone reinforces liver innate immunity against bacterial infection via functional regulation of recruited macrophages in old mice
- P-2** Hiromi Miyazaki (National Defense Medical College)
Mitochondrial agents protect burn-injured mice from bacterial infection by affecting the function of Kupffer cells
- P-3** Riyoko Tamai (Ohu University)
Alendronate augments lipid A-induced release of IL-1 α and IL-1 β via activation of ASC but not caspase-11
- P-4** Hiroyuki Tada (Tohoku University)
Proteolysis of PAI-1 by *P. gingivalis* gingipains leading to delayed wound healing responses in endothelial cells
- P-5** Daisuke Yamanaka (Tokyo University of Pharmacy and Life Sciences)
Deletion of β -1,6-glucan on the Zymosan surface attenuates the dectin-1-dependent NF- κ B activation
- P-6** Nicole Reisinger (BIOMIN Research Center)
Oral administration of lipopolysaccharides (LPS) combined with coconut oil increases endotoxin translocation and affects plasma miRNA profile in piglets
- P-7** Mohammad Ibtehad Alam (Nagasaki University)
Comparison of cytotoxic effects of dental calculus and periodontopathic bacteria on HSC-2 oral epithelial cells
- P-8** Tomoya Uto (Osaka University)
Synthesis and function of gut-associated lymphoid-tissue-resident *Alcaligenes faecalis* lipooligosaccharide partial structure
- P-9** Yoshiyuki Adachi (Tokyo University of Pharmacy and Life Sciences)
Activation of the innate immune response by Japanese cedar pollen depends on the interaction between 1,3-beta-glucan and dectin-1
- P-10** Hersa Milawati (Osaka University)
Cancer immune therapy by antibody-recruiting using metabolic labeling
- P-11** Hyojik Yang (University of Maryland, Baltimore)
Structural analysis of lipid A from Gram-negative bacteria by FLATn
- P-12** Ruofang Hu (Osaka University)
Synthesis and function of *Helicobacter pylori* peptidoglycan fragments

- P-13** Naoya Kojima (Tokai University)
Carbohydrate-dependent phagocytosis of oligomannose-coated liposomes induce IL-12 production from mononuclear phagocytes
- P-14** Kazuyoshi Kawahara (Kanto Gakuin University)
Modification of lipid A structure of *E. coli* by two palmitoyltransferase genes from *Campylobacter jejuni*
- P-15** Keita Ito (Osaka University)
Immunological Evaluation of Co-Assembling Vaccine of Lipidated-Peptide Antigens and Lipophilic Adjuvants for the Breast Cancer therapy
- P-16** Takanori Matsumaru (Keio University)
Synthesis and signaling activity of b-mannosyloxymannitol glycolipids through innate immune receptor Mincle
- P-17** Mayu Higashi (Osaka University)
Development and evaluation of α -ray nuclide labeled antibodies
- P-18** Tatiana Kondakova (LPS-BioSciences)
Comparison of different LPS structures correlated to their LAL response
- P-19** Toshinori Fujie (Osaka University)
Chemical synthesis and function of *Campylobacter jejuni* lipid As
- P-20** Kazunari Ueki (Keio University)
Potential endogenous glycolipids as NKT cell modulators
- P-21** Davie Kenneth (Osaka University)
Innate immune function of chemically synthesized monophosphoryl lipid As from *Alcaligenes faecalis*
- P-22** Sho Noguchi (Kanto Gakuin University)
Solubilization and cytokine-inducing activity of three types of peptidoglycan from lactic acid bacteria
- P-23** Hitoshi Ogaki (Osaka University)
Solubilization and cytokine-inducing activity of three types of peptidoglycan from lactic acid bacteria
- P-24** Daniel Joseph Prantner (University of Maryland School of Medicine)
Activation of AMPK Alters Classical Activation of Mouse Macrophages, Potentially through Regulation of HIF-1 α

- P-25** Koki Mayusumi (Osaka University)
Development and application of antibodies labeled with alpha-emitting radionuclides
- P-26** Taketo Inoue (Hyogo College of Medicine)
IL-18 levels and TM3 mouse Leydig cell apoptosis during LPS-induced acute inflammatory conditions
- P-27** Shunji Tokoro (Gifu University of Medical Science)
Toll-like receptor 4 potentiates pathogen-specific secretory IgA production in intestinal infection with Enterohemorrhagic *Escherichia coli* adhering to the host epithelial cell
- P-28** Hiroaki Hemmi (Wakayama Medical University)
Analysis of innate immune cells in proteasome subunit mutant mice

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IEIIS 2021 Program

JST	October 12 (Tue)		October 13 (Wed)		October 14 (Thu)		October 15 (Fri)
	Hybrid	Only Online	Hybrid	Only Online	Hybrid	Only Online	Only Online
9:00							
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13:00	Opening (IEIIS) Plenary Session PL1 Prof. Hiroshi Kiyono						
13:30	Break						
14:00	Oral Session 1 IL1-3 Prof. Kensuke Miyake Prof. Judith Hellman Prof. Jin-ichi Inokuchi						
14:30	Break						
15:00	Oral Session 2 IL4-6 Prof. Sho Yamasaki Prof. Alla Zamyatina Prof. Francesco Peri						
15:30	Break						
16:00	Oral Session 3 IL7-11 Prof. Irshad Chaudry Prof. Joji Kotani Prof. Douglas Golenbock Prof. Liwu Li Prof. Mingfang Lu						
16:30	Break						
17:00	Plenary Session PL2 Prof. Antonio Molinaro						
17:30	Award Session 1 Prof. Martine Caroff Prof. Koichi Fukase						
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