

Joint Symposia

Joint Symposium 1

Room A 9:30 ~ 12:00, December 10

JS1. Host-microbe interaction in physiology and pathology: The Japanese Society for Mucosal Immunology (JSMI) and The Society for Mucosal Immunology (SMI) Co-organized Session

Chairpersons: Hiroshi Ohno (RIKEN)
Kiyoshi Takeda (Osaka University)

JS1-1

9:30 ~ 10:00

Manipulation of the microbiota for the treatment of cancer and IBD

Kenya Honda Department of Microbiology and Immunology, Keio University School of Medicine, Tokyo, Japan / Laboratory for Gut Homeostasis, RIKEN Center for Integrative Medical Sciences (IMS), Yokohama, Japan

JS1-2

10:00 ~ 10:30

ILC2s regulate mucosal homeostasis in the stomach

Naoko Satoh-Takayama Laboratory for Intestinal Ecosystem, Center for Integrative Medical Science, RIKEN, Yokohama, Japan

JS1-3

10:30 ~ 11:00

Developmental effects of impaired perinatal microbial colonization

Maria Gloria Dominguez-Bello Biochemistry and Microbiology, Rutgers University, New Brunswick, USA

JS1-4

11:00 ~ 11:30

Perturbing the early life microbiota affects immunologic development and disease

Martin J Blaser Department of Translational Medicine, New York University Langone Medical Center, New York, United States

JS1-5

11:30 ~ 12:00

Prevention of autoimmunity by regulatory T cells induced through interplay between helminth and microbiota

Hajime Hisaeda Department of Parasitology, National Institute of Infectious Diseases, Tokyo, Japan

Joint Symposium 2

Room A 14:10 ~ 16:40, December 10

JS2. Cross talk between immune and nervous system at surface barriers: The Japanese Society for Mucosal Immunology (JSMI) and The Society for Mucosal Immunology (SMI) + US-Japan Immunology Program Co- organized Session

Chairpersons: Masayuki Amagai (Keio University)
Hiroshi Kiyono (The University of Tokyo)

JS2-1

14:10 ~ 14:40

The Neuro-Immune Axis in Chronic Itch

Brian Kim Dermatology, Department of Medicine, Washington University School of Medicine, St. Louis, USA

JS2-2

14:40 ~ 15:10

Imaging of the epidermal nerve dynamics and activity in normal and pruritic dermatitis conditions

Takaharu Okada RIKEN Center for Integrative Medical Sciences, Yokohama, Japan

JS2-3

15:10 ~ 15:40

Nociceptors are Sufficient to Initiate Cutaneous Type-17 Inflammation

Daniel Kaplan Department of Dermatology and Immunology, University of Pittsburgh, Pittsburgh, United States

JS2-4

15:40 ~ 16:10

Interaction between immune cells and peripheral nerves in the skin: neuropeptide PACAP promotes cutaneous dendritic cell functions in contact hypersensitivity

Kenji Kabashima Department of Dermatology, Kyoto University Graduate School of Medicine, Kyoto, Japan

JS2-5

16:10～16:40

Semaphorin 6D reverse signaling controls anti-inflammatory polarization of intestinal macrophages by lipid metabolism

Atsushi Kumanogoh Department of Respiratory Medicine and Clinical Immunology, Osaka University Graduate School of Medicine, Osaka, Japan

Symposia

Symposium 1

Room D 9:30 ~ 12:00, December 10

S1. Tolerance and immune regulation

Chairpersons: Hiroshi Takayanagi (The University of Tokyo)
Shohei Hori (The University of Tokyo)

S1-1

9:30 ~ 10:00

Molecular control of effector regulatory T cell differentiation and tissue accumulation

Shohei Hori Laboratory of Immunology and Microbiology, Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan

S1-2

10:00 ~ 10:30

On the molecular control of thymic epithelial cell development and function

Georg A Hollander University of Oxford, Oxford, United Kingdom

S1-3

10:30 ~ 11:00

Thymic Regulatory T cells arise via two distinct developmental programs that are both required for immune tolerance

Michael A Farrar Center for Immunology, Department of Laboratory Medicine and Pathology, University of Minnesota, Minneapolis, USA

S1-4

11:00 ~ 11:30

Self-Reflection by Tolerogenic Factors: Promiscuous Gene Expression in the Thymus

Hiroyuki Takaba Department of Immunology, The University of Tokyo, Department of Medicine, Bunkyo, Hongo, Japan

S1-5

11:30 ~ 12:00

Molecular targeting of Treg cells for control of immune responses

Shimon Sakaguchi Immunology Frontier Research Center, Osaka University, Osaka, Japan

Symposium 2

Room E 9:30 ~ 12:00, December 10

S2. Humoral immunity and diseases

Chairpersons: Yoshihiro Baba (Kyushu University)
Tomohiro Kurosaki (Osaka University)

S2-1

9:30 ~ 10:00

Epigenetic control of peripheral B cell differentiation, persistence and antigen responsiveness

Stefano Casola IFOM, The FIRC Institute of Molecular Oncology, Milan, Italy

S2-2

10:00 ~ 10:30

The regulation of gene expression in during humoral Immunity

Stephen Nutt Molecular Immunology Division, The Walter and Eliza Hall Institute, Parkville, Australia

S2-3

10:30 ~ 11:00

SHP-1-activating inhibitory B cell co-receptors and autoimmune diseases

Takeshi Tsubata Department of Immunology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan

S2-4

11:00 ~ 11:30

Tet2 and Tet3 regulate B cell tolerance

Shinya Tanaka Division of Immunology and Genome Biology, Department of Molecular Genetics, Medical Institute of Bioregulation, Kyushu University, Fukuoka, Japan

S2-5

11:30 ~ 12:00

Role of CD4⁺CD25⁺LAG3⁺ regulatory T cells in the maintenance of humoral immune tolerance

Tomohisa Okamura Department of Functional Genomics and Immunological Diseases, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan / Max Planck-University of Tokyo Center for Integrative Inflammation, The University of Tokyo, Tokyo, Japan / Department of Allergy and Rheumatology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan

S3. Novel technologies in immunology research: US-Japan Immunology Program Co-organized Session

Chairpersons: Keishi Fujio (The University of Tokyo)
Piero Carninci (RIKEN Center for Integrative Medical Sciences)

S3-1

9:30 ~ 10:00

High-dimensional cellular immune profiling: Asking T cells about what they 'see' in cancer

Evan Newell Vaccine and Infectious Disease Division, Fred Hutchinson Cancer Research Center, Seattle, US / Singapore Immunology Network, Agency for Science Technology and Research, Singapore, Singapore

S3-2

10:00 ~ 10:30

Microbiota-Host Immune Cell Interactions in Autoimmunity

Martin Kriegel Department of Immunobiology, Yale School of Medicine, New Haven, CT, USA

S3-3

10:30 ~ 11:00

An emerging landscape of transcriptional complexity

Piero Carninci RIKEN Center for Integrative Medical Sciences, Yokohama, Japan

S3-4

11:00 ~ 11:30

Recent advances in the study of human inborn errors of immunity

Tsubasa Okano Department of Pediatrics and Developmental Biology, Tokyo Medical and Dental University (TMDU), Tokyo, Japan

S3-5

11:30 ~ 12:00

Functional genomics analysis of synovial fibroblast from rheumatoid arthritis

Keishi Fujio Department of Allergy and Rheumatology, University of Tokyo, Tokyo, Japan

S4. Tumor immunity and cancer immunotherapies

Chairpersons: Hiroyoshi Nishikawa (National Cancer Center)
Andrea Schietinger (Memorial Sloan Kettering Cancer Center)

S4-1

9:30 ~ 10:00

Molecular and epigenetic programs defining tumor-specific T cell dysfunction and therapeutic reprogrammability

Andrea Schietinger Memorial Sloan Kettering Cancer Center, New York, United States

S4-2

10:00 ~ 10:30

Immune suppressive network in tumor microenvironment (TME)

Hiroyoshi Nishikawa Division of Cancer Immunology, National Cancer Center, Tokyo, Japan / Department of Immunology, Nagoya University Graduate School of Medicine, Nagoya, Japan

S4-3

10:30 ~ 11:00

Targeting Regulatory T cells for Therapeutic Gain: Means and Mechanism

Sergio A Quezada UCL Cancer Institute, University College London, London, United Kingdom

S4-4

11:00 ~ 11:30

Harnessing the personalized antitumor T-cell response to treat cancer

Alena Gros Tumor Immunology and Immunotherapy, Vall d'Hebron Institute of Oncology, Barcelona, Spain

S4-5

11:30 ~ 12:00

Novel platform technology of CAR-T cells targeting solid tumors

Koji Tamada Department of Immunology, Yamaguchi University Graduate School of Medicine, Yamaguchi, Japan

S5. Immune response and cell metabolism: US-Japan Immunology Program Co-organized Session

Chairpersons: Yoshihiro Ogawa (Kyushu University)
Takayoshi Suganami (Nagoya University)

S5-1

9:20 ~ 10:05

NLRP3 Inflammasome mediated inflammation in aging

Vishwa D. Dixit Yale University School of Medicine, New Haven, United States

S5-2

10:05 ~ 10:45

Role of dsRNA pathways and miRNA-regulatory machinery in chronic inflammation

Takahisa Nakamura Pediatric Endocrinology, Cincinnati Children's Hospital Medical Center, Cincinnati, USA

S5-3

10:45 ~ 11:10

CD11c-positive macrophages drive obesity-induced liver fibrosis in a murin model of NASH

Michiko Itoh Graduate School of Medical and Dental Sciences, Department of Organ Network and Metabolism, Tokyo Medical and Dental University, Tokyo, Japan

S5-4

11:10 ~ 11:35

Neutrophils in IL-1-mediated adipose tissue inflammation

Yoshinori Nagai Department of Pharmaceutical Engineering, Faculty of Engineering, Toyama Prefectural University, Toyama, Japan / Department of Immunobiology and Pharmacological Genetics, Graduate School of Medicine and Pharmaceutical Sciences for Research, University of Toyama, Toyama, Japan

S5-5

11:35 ~ 12:00

Visualization of immune-brain metabolic competition between brain and lymph nodes by mass spectrometry imaging

Yuki Sugiura Department of Biochemistry, Keio University, School of Medicine, Tokyo, Japan

S6. Autoimmunity

Chairpersons: Kazuhiko Yamamoto (RIKEN)
Soumya Raychaudhuri (Brigham and Women's Hospital)

S6-1

9:30 ~ 10:00

Using genetics and genomics to define pathogenic pathways in rheumatoid arthritis

Soumya Raychaudhuri Center for Data Sciences, Brigham and Women's Hospital, Boston, MA

S6-2

10:00 ~ 10:30

cGAS-STING in Mouse and Human Autoimmunity

Keith Elkon Rheumatology, Department of Medicine & Immunology, University of Washington, Seattle, US

S6-3

10:30 ~ 11:00

The *bona fide* structure of the AIM/IgM-pentamer complex and its involvement in autoimmunity

Toru Miyazaki Laboratory of Molecular Biomedicine for Pathogenesis, Faculty of Medicine, The University of Tokyo, Tokyo, Japan

S6-4

11:00 ~ 11:30

Autoimmune Th17 cells instruct ILC secretion of inflammatory GM-CSF to initiate and augment autoimmune arthritis

Keiji Hirota Laboratory of Integrative Biological Science, Institute for Frontier Life and Medical Sciences, Kyoto, Japan

S6-5

11:30 ~ 12:00

Lymphocyte subset-specific transcriptome analyses revealed the involvement of mitochondria in B cells abnormality of systemic lupus erythematosus (SLE)

Kazuhiko Yamamoto Laboratory for Autoimmune Diseases, Division of Human Immunology, RIKEN Center for Integrative Medical Sciences, Yokohama, Japan / Department of Allergy and Rheumatology, Graduate School of Medicine, the University of Tokyo, Tokyo, Japan

S7. Neuroimmunology and effector T cells

Chairpersons: Masaaki Murakami (Hokkaido University)
Takashi Yamamura (National Institute of Neuroscience, NCNP)

S7-1

9:30 ~ 10:00

Specific neural activations establish gateways for autoreactive T cells to enter the CNS

Masaaki Murakami Division of Molecular Psychoimmunology, Institute for Genetic Medicine, Hokkaido University, Sapporo, Japan

S7-2

10:00 ~ 10:30

Imaging T-cell-mediated autoimmunity of the CNS

Alexander Flügel Institute for Neuroimmunology and Multiple Sclerosis Research, University Medical Center Goettingen, Goettingen, Germany

S7-3

10:30 ~ 11:00

The biochemical dialog between major physiological systems mediated by the immune cells

Sidonia Fagarasan Laboratory for Mucosal Immunity, CENTER for Integrative Medical Sciences (IMS), RIKEN, Yokohama, Kanagawa, Japan

S7-4

11:00 ~ 11:30

Maintenance of regulatory T cell identity at sites of inflammation through epigenetic imprinting

Thomas Korn Klinikum rechts der Isar, Dept. of Neuroimmunology, Technical University of Munich, Munich, Germany / Technical University of Munich, Dept. of Neuroimmunology, Munich Cluster for Systems Neurology, Munich, Germany

S7-5

11:30 ~ 12:00

The switch from acute to chronic neuroinflammation: Role of Eomes-expressing Th cells

Takashi Yamamura Department of Immunology, National Institute of Neuroscience, NCNP, Kodaira, Tokyo, Japan

S8. Innate Immunity

Chairpersons: Kazuyo Moro (RIKEN-IMS)
Takashi Satoh (Osaka university)

S8-1

9:00 ~ 9:30

The roles and mechanisms of SASP in aging and cancer

Eiji Hara Research Institute for Microbial Diseases, Osaka University, Suita, Japan / Immunology Frontier Research Center, Osaka University, Suita, Japan / The Cancer Institute, Japanese Foundation for Cancer Research, Tokyo, Japan

S8-2

9:30 ~ 10:00

The adjuvant activity of MAIT cells and their agonist ligands

Mariolina Salio MRC Human Immunology Unit, Radcliffe Department of Medicine, University of Oxford, Oxford, UK

S8-3

10:00 ~ 10:30

Group 2 innate lymphoid cell and allergic disorders

Kazuyo Moro Laboratory for Innate Immune Systems, RIKEN-IMS, Yokohama, Japan

S8-4

10:30 ~ 11:00

TBD

Frederic Geissmann Memorial Sloan Kettering Cancer Center, Zuckerman Research Center

S8-5

11:00 ~ 11:30

Investigation of the mechanism of fibrosis onset

Takashi Satoh Laboratory of Host Defense, Immunology Frontier Research Center, Osaka university, Osaka, Japan

S9. Mechanism-Guided Therapy of Immunologic Diseases

Chairpersons: Yoshiya Tanaka (University of Occupational and Environmental Health, Japan)
Tsutomu Takeuchi (Keio University School of Medicine)

S9-1

9:05 ~ 9:40

Unravelling the pathways that drive chronicity in rheumatoid arthritis: pathogenetic and biomarker potential

Iain McInnes College of MVLS, University of Glasgow, Glasgow, UK

S9-2

9:40 ~ 10:15

Statistical genetics towards biology of immune-related diseases

Yukinori Okada Department of Statistical Genetics, Osaka University Graduate School of Medicine, Osaka, Japan

S9-3

10:15 ~ 10:50

Biomarkers in the treatment of Rheumatoid Arthritis

Tsutomu Takeuchi Division of Rheumatology, Department of Internal Medicine, Keio University School of Medicine, Tokyo, Japan

S9-4

10:50 ~ 11:25

Control of arthritis and bone loss and by microbiota-derived products- the gut-joint axis

Georg Schett University of Nürnberg-Erlangen, Germany

S10. Epigenetic regulation of immune response

Chairpersons: Ichiro Taniuchi (RIKEN, Center for integrative Medical Sciences)
Naganari Ohkura (Osaka University)

S10-1

9:00 ~ 9:30

Controlling the access to the genomic regulatory information during macrophage activation

Gioacchino Natoli Humanitas University, Milan, Italy

S10-2

9:30 ~ 10:00

Non-coding RNA ThymoD transcription modulates nuclear architecture to specify T-cell fate and inhibits T-cell malignancies

Takeshi Isoda Department of Pediatrics and Developmental Biology, Tokyo Medical and Dental University, Tokyo, Japan

S10-3

10:00 ~ 10:30

Significance of naïve Treg-specific DNA hypomethylation in autoimmune disease susceptibility

Naganari Ohkura Experimental Immunology, IFReC, Osaka University, Suita, Japan

S10-4

10:30 ~ 11:00

Transcriptional and epigenetic programming of CD8 T cell Immunity

Ananda w Goldrath Biological Sciences, Molecular Biology, University of California San Diego, San Diego, USA

S10-5

11:00 ~ 11:30

Epigenetics in the induction and maintenance of effector and memory Th2 cells

Toshinori Nakayama Department of Immunology, Graduate School of Medicine, Chiba University, Chiba, Japan

S11. Dendritic cells and antigen presentation

Chairpersons: Mitsuru Matsumoto (Tokushima University)
Toshiaki Ohteki (Tokyo Medical and Dental University)

S11-1

9:00 ~ 9:30

A conserved population of plasmacytoid dendritic cells displays classical dendritic cell features

Juliana Idoyaga Department of Microbiology and Immunology, Stanford University School of Medicine, Stanford, USA

S11-2

9:30 ~ 10:00

Adaptive differentiation of dendritic cell progenitors in tissue microenvironments

Toshiaki Ohteki Department of Biodefense Research, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan

S11-3

10:00 ~ 10:30

Integrative biology and omics of T cell – DC encounters

Bernard Malissen Centre d'Immunologie de Marseille Luminy, Marseille, France

S11-4

10:30 ~ 11:00

Regulatory CLR for fine-tuning of DC function

Katsuaki Sato Division of Immunology, Department of Infectious Diseases, Faculty of Medicine, University of Miyazaki, Miyazaki, Japan

S11-5

11:00 ~ 11:30

Amelioration of diabetes development in NOD by the transgenic human AIRE expression in DCs

Mitsuru Matsumoto Institute for Enzyme Research, Tokushima University, Tokushima, Japan