

## Appendix

### List of Principal Investigators of IFRcC, RIMD, CiDER, and CAMaD (Laboratory List of the Program)

<b>ARASE Hisashi</b>	<b>Immunochemistry:</b> Research on the mechanism of immune disorders as well as new therapies for immune diseases based on new findings on MHC
<b>Sujin KANG</b>	<b>Immune regulation:</b> Research on the mechanisms of autoimmune disease and related cytokine signaling pathways
<b>TAKEDA Kiyoshi</b>	<b>Mucosal Immunology:</b> Research on the mechanisms for the maintenance of intestinal homeostasis to reveal the pathogenesis of inflammatory bowel diseases (IBD)
<b>YAMAMOTO Masahiro</b>	<b>Immunoparasitology:</b> Exploration of host defense systems and pathogenesis using the apicomplexan protozoan parasite <i>Toxoplasma gondii</i> as a model
<b>YAMASAKI Sho</b>	<b>Molecular Immunology:</b> Research on the mechanism for regulation of immune responses through C-type lectin receptors in physiological and pathological settings
<b>MATSUOKA-NAKAMURA Yumi</b>	<b>Cutaneous Allergy and Host Defense:</b> Research on the relationship between the indigenous bacterial flora in chronic inflammatory skin diseases such as atopic dermatitis and the pathogenic bacteria that cause inflammation
<b>FUJIMOTO Manabu</b>	<b>Cutaneous Immunology:</b> Research on skin homeostasis for new clinical treatments
<b>MORO Kazuyo</b>	<b>Innate Immune Systems:</b> Research on the mechanisms for differentiation, signaling and activation of ILC2 and also partner cell types
<b>James Badger WING</b>	<b>Human Single Cell Immunology:</b> Exploration of the diversity of Tregs and consequences of Treg impairment in a variety of settings such as autoimmunity and cancer
<b>OKUZAKI Daisuke</b>	<b>Human Immunology (Single Cell Genomics):</b> Construction of single immune cell database
<b>HOSEN Naoki</b>	<b>Cellular Immunotherapy:</b> Development of CAR-T cell therapy targeting antigens in various types of cancers
<b>KAMADA Nobuhiko</b>	<b>Microbiology and Immunology:</b> Research on the mechanisms by which commensal microbiota cause/exacerbate disease
<b>ISHII Masaru</b>	<b>Immunology and Cell Biology:</b> Elucidation of the complex system for bone homeostasis in vivo and other biological phenomena by bio-imaging
<b>SUZUKI Kazuhiro</b>	<b>Immune Response Dynamics:</b> Research on the interactions between the nervous and immune systems through immune cell trafficking controlled by neural inputs
<b>Daron STANDLEY</b>	<b>Systems Immunology:</b> Analysis of immune repertoire sequence data and post-transcriptional regulation of immune responses
<b>ISE Wataru</b>	<b>Regulation of Host Defense:</b> Research on the mechanisms of immune memory in human and underlying long-term survival of plasma cells
<b>ITAKA Keiji</b>	<b>Clinical Biotechnology:</b> Development of innovative medical technologies based on the science of biomaterials, DDS, and molecular biology

<b>KOBAYASHI Takeshi</b>	<b>Virology:</b> Research on the molecular mechanisms underlying Reoviridae virus replication and pathogenesis, and developing novel vaccine vectors
<b>IIDA Tetsuya</b>	<b>Bacterial Infections:</b> Research on the mechanism underlying bacterial infection and pathogenesis
<b>IKAWA Masahiro</b>	<b>Experimental Genome Research:</b> Research on the mechanisms underlying mammalian reproductive systems through genetic manipulation of animal models
<b>ISHITANI Tohru</b>	<b>Homeostatic Regulation:</b> Research on cell-cell communication and behavior supporting tissue homeostasis and molecular systems controlling embryonic development, organogenesis, regeneration, aging, and disease
<b>IWANAGA Shiroh</b>	<b>Molecular Protozoology:</b> Research on stage-specific gene expression regulated by parasites
<b>NAKAMURA Shota</b>	<b>Pathogen Detection and Identification:</b> Development of new methodologies for the detection of all types of pathogens using NGS based technologies
<b>WATANABE Tokiko</b>	<b>Molecular Virology:</b> Research on the mechanisms of host adaptation, replication, and pathogenicity of viruses
<b>KOTANI Ai</b>	<b>Cellular and Molecular Biology:</b> Development of novel therapies for refractory infectious and hematopoietic tumors
<b>TSUKAMOTO Kentaro</b>	<b>Bacterial Zoonoses:</b> Understanding the mechanism of Bartonella infection and pathogenesis, and angiogenic factor produced by Bartonella
<b>NAKATANI Yoichiro</b>	<b>Medical Evolutionary Genomics:</b> Examining genome evolution and its relationship with human health and disease
<b>YAMASAKI Shotaro</b>	<b>RNA Informatics:</b> Elucidating the mechanism underlying gene expression regulation by analyzing messenger RNA (mRNA)
<b>KAMIMOTO Kenji</b>	<b>Systems Biomedical Science:</b> Unravelling the circuits of cells and genes from large-scale and complex data
<b>TAGUCHI Atsushi</b>	<b>Bacterial Physiology:</b> Clarifying the physiological roles of molecular factors involved in key biological processes in pathogenic bacteria

References:

(1) Immunology Frontier Research Center (IFReC)

<https://www.ifrec.osaka-u.ac.jp/en/laboratory/>

(2) Research Institute of Microbial Diseases (RIMD)

<http://www.biken.osaka-u.ac.jp/en/laboratories/>

(3) Center for Infectious Diseases Education and Research (CiDER)

<https://www.cider.osaka-u.ac.jp/researchers/>

(4) Center for Advanced Modalities and DDS (CAMaD)

<https://www.camad.osaka-u.ac.jp/en/members/>