

The 13th Awaji International Forum on Infection and Immunity in Nara

Program

September 23, Tuesday

- 13:00 **Opening Remarks**
- 13:15 - 14:00 **Review Talk 1**
Chair: Yoshiharu Matsuura, Osaka University, Japan
- RT1 **Yusuke Yanagi**, Kyushu University, Japan
 Virus entry: receptor attachment and membrane fusion
- 14:00 - 17:35 **Session 1: Invasion of Pathogens**
Chairs: Wenhui Li, National Institute of Biological Sciences, Beijing, China
 Masao Matsuoka, Kyoto University, Japan
- 14:00 S1-1 **Yasuko Mori**, Kobe University, Japan
 The mechanism of human herpesvirus-6 infection
 – entry process into host cells –
- 14:30 S1-2 **Wenhui Li**, National Institute of Biological Sciences, Beijing, China
 Viral entry of HBV and HDV: where are we now?
- 15:00 S1-3(P-09) **Masami Wada**, Osaka University, Japan
 HCV infection inhibits autophagy through lipidation of LC3
- 15:15 S1-4 **Hirokazu Arimoto**, Tohoku University, Japan
 Endogenous nitrated nucleotide is a key mediator of autophagy and innate
 defense against bacteria
- 15:45 – 16:05 *Coffee Break*
- 16:05 S1-5 **Pierre L. Goossens**, Institut Pasteur, France
 Imaging *Bacillus anthracis* infection
- 16:35 S1-6(P-35) **Eiko Matsuo**, Kobe University, Japan
 The essential interaction of VP6 protein with VP3 for recruitment of
 the replicase complex into orbivirus particle.
- 16:50 S1-7 **Bart L. Haagmans**, The Erasmus Medical Center, the Netherlands
 MERS: emergence of a novel coronavirus
- 17:20 S1-8(P-29) **Akihiro Ishii**, Hokkaido University, Japan
 Discovery of novel nairovirus, leopards hill virus, which causes
 hemorrhagic gastroenteritis and severe hepatic disease in mice.
- 19:00 – 21:00 *Welcome Party - Hotel Nikko Nara*

September 24, Wednesday

9:00 – 9:45

Review Talk 2

Chair: Yasuhiko Horiguchi, Osaka University, Japan

RT2

B. Brett Finlay, The University of British Columbia, Canada

Microbiota-pathogen interplay in enteric infectious diseases

9:45 - 12:35

Session 2: Host and Pathogen Interaction I

Chairs: Herbert W. Virgin, Washington University School of Medicine, USA

Hiroshi Kiyono, Tokyo University, Japan

9:45

S2-1

Herbert W. Virgin, Washington University School of Medicine, USA

Gene-microbe interactions that regulate the virome, immunity and disease pathogenesis

10:15

S2-2

Gregory F. Sonnenberg, Weill Cornell Medical College, USA

Regulation of host-commensal bacteria relationships in human health and disease

10:45 – 11:05

Coffee Break

11:05

S2-3

Kiyoshi Takeda, Osaka University, Japan

Regulation of gut homeostasis through segregation of microbiota and colonic epithelia

11:35

S2-4

Hiroshi Ohno, RIKEN, Japan

The role of gut microbial short-chain fatty acids in host defense and the immune system

12:05

S2-5(P-76) **Kotaro Kiga**, The University of Tokyo, Japan

Epigenetic silencing of miR-210 increases the proliferation of gastric epithelium during chronic *Helicobacter pylori* infection

12:20

S2-6(P-65) **Mayo Yasugi**, Osaka Prefecture University, Japan

Bile acids accelerate sporulation via Spo0A activation in *Clostridium perfringens*

12:35 - 14:30

Lunch Break & Poster Session

14:30 - 17:35

Session 3: Innate Immunity

Chairs: Gabrielle Belz, Walter and Eliza Hall Institute, Australia

Takashi Fujita, Kyoto University, Japan

14:30

S3-1

Gabrielle Belz, Walter and Eliza Hall Institute, Australia

The wiring and maintenance of innate lymphoid cells

15:00

S3-2

Shizuo Akira, Osaka University, Japan

Regnase-1, a ribonuclease essential to the inflammatory and

- immune responses
- 15:30 S3-3(P-92) **Tartey Sarang**, Kyoto University, Japan
Akirin2 is critical for inducing inflammatory genes by bridging I κ B- ζ ; and the SWI/SNF complex
- 15:45 – 16:05 *Coffee Break*
- 16:05 S3-4 **James Vince**, Walter and Eliza Hall Institute, Australia
Regulation of apoptosis, necroptosis, NLRP3 inflammasome activation and systemic inflammation by IAP proteins
- 16:35 S3-5 **Ajay Chawla**, University of California, San Francisco, USA
Type 2 immunity regulates acclimatization to environmental cold
- 17:05 S3-6 **Yumiko Imai**, Akita University, Japan
Lipid metabolic pathways control the pathology of severe influenza virus infection

September 25, Thursday

9:00 – 9:45 **Review Talk 3**

Chair: Hitoshi Kikutani, Osaka University, Japan

RT3 **David Tarlinton**, Walter and Eliza Hall Institute, Australia
Plasma cell development and persistence; in sickness and in health

9:45 - 12:35 **Session 4: Acquired Immunity**

Chairs: Daniel Gray, Walter and Eliza Hall Institute, Australia
Osamu Takeuchi, Kyoto University, Japan

- 9:45 S4-1 **Hitoshi Kikutani**, Osaka University, Japan
Generation and selection of virus-reactive and self-reactive B cells
- 10:15 S4-2 **Yoshimasa Takahashi**, National Institute of Infectious Diseases, Japan
B cell pathways for protective memory responses against influenza virus infection
- 10:45– 11:05 *Coffee Break*
- 11:05 S4-3(P-88) **Yasuyuki Tashiro**, Tokyo University of Science, Japan
The generation of high-affinity and low-affinity IgM⁺ memory B cells and their distinct roles in secondary IgM antibody response to T-dependent antigen
- 11:20 S4-4 **Johannes F. Scheid**, The Rockefeller University, USA
Isolation and application of HIV specific antibodies from patients with broadly neutralizing serum activity

- 11:50 S4-5 **Daniel Gray**, Walter and Eliza Hall Institute, Australia
How apoptosis controls regulatory T cell differentiation and homeostasis
- 12:20 S4-6(P-108) **James B Wing**, Osaka University, Japan
Regulatory T-cells control antigen-specific Tfh expansion and humoral immune responses via CTLA-4
- 12:35 - 14:30 *Lunch Break & Poster Session*
- 14:30 - 15:15 **Review Talk 4**
Chair: Shizuo Akira, Osaka University, Japan
- RT4 **Tadamitsu Kishimoto**, Osaka University, Japan
IL-6: a new era for the treatment of autoimmune inflammatory disease
- 15:15 - 17:35 **Session 5: Vaccines and Therapy**
Chairs: Barney S. Graham, National Institutes of Health, USA
Jun Kunisawa, National Institute of Biomedical Innovation, Japan
- 15:15 S5-1 **Barney S. Graham**, National Institutes of Health, USA
RSV Vaccine development: a new paradigm for rational immunogen design
- 15:45 S5-2 **Sujan Shresta**, La Jolla Institute for Allergy and Immunology, USA
Influence of antibodies and T cells on dengue disease outcome
- 16:15 – 16:35 *Coffee Break*
- 16:35 S5-3 **Tetsuro Matano**, National Institute of Infectious Diseases, Japan
Depletion of vaccine-induced CD107a⁻ CD4⁺ T cells following AIDS virus infection
- 17:05 S5-4 **Sho Yamasaki**, Kyushu University, Japan
Recognition of bacterial adjuvants through C-type lectin receptors
- 19:00 - 21:30 *Banquet - Restaurant "Half Time" (Nara National Museum)*

September 26, Friday

- 9:00 – 9:45 **Review Talk 5**
Chair: Toshihiro Horii, Osaka University, Japan
- RT5 **Alan F. Cowman**, Walter and Eliza Hall Institute, Australia
Moving in and renovating: invasion and remodeling of the human erythrocyte by the malaria parasite

9:45 - 12:35

Session 6: Host and Pathogen Interaction II

Chairs: John Boothroyd, Stanford University, USA

Osamu Kaneko, Nagasaki University, Japan

9:45 S6-1 **Cevayir Coban**, Osaka University, Japan

Imaging malaria immunopathology

10:15 S6-2(P-45) **Chisa Sasaoka**, Ehime University, Japan

Characterization of Plasmodium falciparum MAS170 as novel malaria blood-stage vaccine candidate

10:30 – 10:50 *Coffee Break*

10:50 S6-3 **John C. Boothroyd**, Stanford University, USA

Home-invaders with a party agenda: how some strains of *Toxoplasma* sedate the dog, rearrange the furniture and then turn up the music!

11:20 S6-4 **Masahiro Yamamoto**, Osaka University, Japan

NFAT4 activation by the *Toxoplasma gondii* polymorphic effector protein GRA6 maximizes the parasite virulence in a strain-specific manner

11:50 S6-5 **Luis Enjuanes**, Spanish National Centre for Biotechnology, Spain

SARS and MERS coronaviruses virulence and protection

12:20 S6-6(P-24) **Kouji Sakai**, National Institute of Infectious Diseases, Japan

The host protease TMPRSS2 is essential for influenza A virus pathogenicity

12:35 - 13:30 *Lunch Break*

13:30 – 15:15 Session 7: Escape from Host Defense

Chairs: Greg Towers, University College London, UK

Tatsuo Shioda, Osaka University, Japan

13:30 S7-1 **Elizabeth L. Hartland**, The University of Melbourne, Australia

Death receptors and bacterial diarrhoea

14:00 S7-2 **Greg J. Towers**, University College London, UK

HIV-1 evasion of innate immune detection and unclocking as a new paradigm for the prevention and treatment of viral infection

14:30 S7-3 (P-11) **Leo Uchida**, Nagasaki University, Japan

Dengue virus conceals double-stranded RNA in intracellular membrane to escape from interferon response.

14:45 S7-4 **Yasushi Kawaguchi**, The University of Tokyo, Japan

Evasion of CD8⁺ T cells mediated by proteins kinases encoded by herpes simplex virus 1

15:15

Closing Remarks