

**The Fourth Bizan Immunology Symposium at University of Tokushima (BISUT4)
“Immune System Development, Deviation, and Regulation”**

Date:

Thursday 29 January and Friday 30 January 2015

Venue:

Fujii Memorial Hall, Kuramoto Campus, University of Tokushima

Guest speakers:

Hisashi Arase (Osaka)

Isaac Chiu (Boston)

Sidonia Fagarasan (Yokohama)

Yoshinori Fukui (Fukuoka)

Kenya Honda (Tokyo)

Yoichiro Iwakura (Tokyo)

Gabriel Núñez (Michigan)

Takashi Saito (Yokohama)

Jonathan Sprent (Sydney)

Host organizers:

Naozumi Ishimaru (Graduate School of Oral Sciences)

Taku Okazaki (Institute for Genome Research)

Mitsuru Matsumoto (Institute for Enzyme Research)

Yoshiyuki Minegishi (Institute for Genome Research)

Tohru Sakai (Graduate School of Nutrition and Bioscience)

Yousuke Takahama (Institute for Genome Research)

Tetsuo Yamazaki (Graduate School of Pharmaceutical Sciences)

Koji Yasutomo (Graduate School of Medical Sciences)

Contact:

Immunology Program at the University of Tokushima [iPUT]

3-18-15 Kuramoto, Tokushima 770-8503, Japan

Phone: +81-88-633-9452

E-mail: takahama@genome.tokushima-u.ac.jp

Sponsored by:

Strategic Project for Innovative Research “iPUT”, University of Tokushima

Co-sponsored by:

MEXT Scientific Research on Analysis and Synthesis of Multidimensional Immune Organ Network

Joint Usage Research Center, Institute for Enzyme Research, University of Tokushima

Thursday 29 January

13:00-13:10 *Opening remarks by Yousuke Takahama*

Session 1. TCR-MHC and immune system

Chaired by Tetsuo Yamazaki

13:10-13:40 Jonathan Sprent (Sydney)
TCR tuning and self tolerance

13:40-14:10 Takashi Saito (Yokohama)
Spacial regulation of T cell activation at Immune synapse

14:10-14:30 Yousuke Takahama (Tokushima)
Positive selection conditions TCR responsiveness in T cells

14:30-15:00 Hisashi Arase (Osaka)
Cellular misfolded proteins complexed with MHC class II molecules are targets for autoimmune diseases

Short talks 1

Chaired by Il-mi Okazaki

15:00-15:10 Kyoko Masuda (Kyoto)
Segregation of $\gamma\delta$ T cell progenitors prior to TCR β chain gene rearrangement independently of TCR-mediated signals

15:10-15:20 Izumi Ohigashi (Tokushima)
Adult thymus medullary epithelium is maintained and regenerated by lineage restricted cells rather than bipotent progenitors

15:20-15:30 Erdenezaya Odkhuu (Aichi)
The search for endogenous ligand of RP105/MD1 receptor complex on B cells

Group photo & coffee

Session 2. Autoimmune mechanisms

Chaired by Mitsuru Matsumoto

- 16:00-16:30 Yoshinori Fukui (Fukuoka)
A novel mechanism controlling Aire protein expression in the thymus
- 16:30-16:50 Mitsuru Matsumoto (Tokushima)
Transgenic Aire expression at the ectopic sites to elucidate the unique function of Aire
- 16:50-17:20 Yoichiro Iwakura (Tokyo)
Pathogenic mechanisms of rheumatoid arthritis revealed by animal models
- 17:20-17:40 Koji Yasutomo (Tokushima)
Genetic dissection of autoinflammatory disorders

Short talks 2

Chaired by Tohru Sakai

- 17:40-17:50 Aoi Akitsu (Tokyo)
IL-1 receptor antagonist-deficient mice develop autoimmune arthritis due to an intrinsic defect in IL-17-producing gamma delta T cells
- 17:50-18:00 Yumiko Nishikawa (Tokushima)
Dysregulation of IgE homeostasis in hyper-IgE syndrome
- 18:00-18:10 Lynett Danks (Tokyo)
RANKL expressed on synovial fibroblasts is primarily responsible for bone erosions during joint inflammation
- 18:10-18:20 Il-mi Okazaki (Tokushima)
Genetic reconstitution of autoimmune diseases in mice.

Dinner at Isuien (19:00-21:00)

Hosted by Sumihare Noji, Vice President, University of Tokushima

MC by Naozumi Ishimaru

Friday 30 January

Session 3. Inflammation and regulation

Chaired by Koji Yasutomo

- 09:00-09:30 Gabriel Núñez (Michigan)
Sensing pathogenic and commensal bacteria via the inflammasomes in the gut
- 09:30-10:00 Sidonia Fagarasan (Yokohama)
Regulation of gut microbiota by Foxp3+ T cells and IgA
- 10:00-10:20 Yoshiyuki Minegishi (Tokushima)
Molecular mechanisms and therapeutic approaches to hyper-IgE syndrome

Coffee

Session 4. Immune defense

Chaired by Taku Okazaki

- 10:40-11:10 Isaac Chiu (Boston)
The role of nociceptive sensory neurons in neuro-immune modulation and host defense
- 11:10-11:40 Kenya Honda (Tokyo)
Regulation of T cells by the gut microbiota
- 11:40-12:00 Taku Okazaki (Tokushima)
Regulation of autoimmunity by immuno-inhibitory receptors
- 12:00-12:20 Tetsuo Yamazaki (Tokushima)
Manipulation of the ER: a novel strategy against protein deposition disease

Short talks 3

Chaired by Yoshiyuki Minegishi

- 12:20-12:30 Takashi Kanaya (Yokohama)
IL-22BP affects the properties of the follicle-associated epithelium of Peyer's patches through inhibiting IL-22 signaling
- 12:30-12:40 Takahiro Furukawa (Tokushima)
Delta1 regulates CD4T cell survival

12:40-12:50 Hiroshi Kawano (Tokushima)
Aire expression in medullary thymic epithelial cells is conditional

12:50-13:00 Tomoyuki Kondo (Tokushima)
Crosstalk between tumor immunity and autoimmunity

13:00-13:10 Tohru Sakai (Tokushima)
Soy isoflavone regulates immune responses

Lunch with students (13:30-14:30)

Organized by Yasusei Kudo & Kensuke Takada