

Joint Workshop of 2nd JST-SICORP Workshop & 6th Investigative Commission of Ortho – Organogenesis

The aim of this workshop is to present new findings including unpublished data and discuss each other to stimulate research field on mechanisms of homeostasis and its application to organisms, which is expected to play a central role in implementation of health and medical care in the society. It will be mainly discussed on the topics of systemic regeneration, anti-inflammation, and biological defenses arose from environmental sensing in the gut.

This workshop also aims to develop international collaboration through co-organization with Strategic International Collaborative Research Program (SICORP) operated by Japan Science and Technology Agency (JST). We welcome all of you and look forward to having active discussions!

Date 7 (Wed), 8 (Thu), 9 (Fri), December, 2016

Venue Okinawa Institute of Science and Technology (OIST), Seaside House
7542 Onna, Onna Village, Kunigami, Okinawa 904-0411 Japan
Rizzan Sea-Park Hotel
1496 Tancha, Onna Village, Kunigami, Okinawa 904–0496 Japan

Registration fee: 3000 yen (student/ 1000 yen)

Welcome party : 5000 yen

Program

12/7 @ Rizzan Sea-Park Hotel

Reception open 16:00

Plenary Session 18:00 – 18:30

Shinya Ikematsu (National Institute of Technology, Okinawa College)

“Functionality and possibility of the lactic acid bacterium which was found in Okinawa.”

Welcome Party 18:30 – 20:30

12/8 @ OIST Seaside House

Opening remark 9:00 – 9:05

Noriko M Tsuji (AIST)

Morning part 9:05 – 11:30

Session 1 : Food & Microbiome Function for gut health and preemptive medicine

Chair: Cathryn Nagler, Yuji Heike

1. Noriko M Tsuji (AIST) 9:05-9:30

“Functional Food Solutions for Optimal Immune Development”

2. Valerie Verhasselt (University of Nice / France) 9:30-10:15

“Mother-child interaction through breast milk: a critical step for immune system maturation”

3. Elizabeth Forbes-Blom (Malaghan Institute of Medical Research / New Zealand) 10:15-10:45
“A tale of two mice.”

4. Naoki Shimojo (Chiba University) 10:45-11:15
“Staphylococcus aureus colonization and development of atopic dermatitis during infancy.”

5. Lieke van den Elsen (Malaghan Institute of Medical Research / New Zealand) 11:15-11:45
“Targeting gut microbial composition for optimal immune development.”

○ **OIST campus tour and lunch 12:00 – 14:30** / Hiroki Ishikawa (OIST)

□ **Afternoon part 14:30 - 18:30**

Session 2 : Elucidation and intervention of food allergy (14:30-16:45)

Chair: Elizabeth Forbes-Blom, Naoki Shimojo

6. Cathryn Nagler (University of Chicago / USA) 14:30-15:15
“Regulation of allergic sensitization to food by commensal bacteria”.

7. Zijin Guo (RIKEN) 15:15-15:45
“The study about mechanism and therapy of food allergy.”

8. Yosuke Kurashima (University of Tokyo) 15:45-16:15
“Desensitization of Mast Cells Promotes Immune-Tolerance in Oral Immunotherapy”

9. Jun Kunisawa (National Institute of Biomedical Innovation, Health and Nutrition) 16:15-16:45
“Gut Environment in the Regulation of Host Immunity and Its Application to the Human Health Science”

○ **Coffee Break 16:45-17:00**

Session 3 : Links between Immunity and Intestinal microbiota (17:00-18:30)

Chair: Jun Kunisawa, Takahiro Adachi

10. Keiichiro Suzuki (RIKEN) 17:00-17:30
“Intestinal IgA as a factor of symbiosis.”

11-short talk. Shinsaku Okai (Nara Institute of Science and Technology) 17:30-17:45
“High-affinity monoclonal IgA regulates gut microbiota and prevents colitis in mice.”

12-short talk. Fumihito Usui (Nara Institute of Science and Technology) 17:45-18:00
“Monoclonal intestinal IgAs are poly-reactive but recognize a specific amino acid sequence of protein expressed by multiple bacteria.”

13. Ryutaro Fukui (University of Tokyo) 18:00-18:30
“Intestinal commensal bacteria contribute to TLR7-dependent autoimmunity.”

□ **Dinner**

12/9 @ OIST Seaside House

☐ Morning part 9:00 – 11:30

Session 4 : Ortho-metrics and data mining

Chair: Michio Tomura, Noriko M Tsuji

14. Takuji Yamada (Tokyo Institute of Technology) 9:00-9:30
“Effect of high salt concentration food to mouse gut microbiota.”
15. Tadashi Nemoto (AIST) 9:30-10:00
“NMR-metabolic profiling: a visualization and route-finding tool.”
16. Michio Tomura (Osaka Ohtani University) 10:00-10:30
“Tracking effector cells from gut immune system to systemic immune system.”
17. Kun-Yi Hsin (OIST) 10:30-11:00
“Using Computational Approaches to Speed Up Pharma R&D.”
18. Takahiro Adachi (Tokyo Medical and Dental University) 11:00-11:30
“Intravital imaging of gut of Ca²⁺ biosensor transgenic mice: response to foods.”

○ Lunch 11:30-13:00

☐ Afternoon part 13:00 – 17:00

Session 5 : Molecular mechanisms of Development and Homeostasis (13:00-14:30)

Chair: Valerie Verhasselt, Keiichiro Suzuki

19. Naofumi Itoh (Kumamoto University) 13:00-13:30
“Bacterial ribosome incorporation into somatic cells promotes reprogramming towards multipotency without activating cell proliferation.”
20. Masakazu Namihira (AIST) 13:30-14:00
“Epigenetic regulation in mammalian neurogenesis.”
21. Hiroki Ishikawa (OIST) 14:00-14:30
“JUNB is required for generation of pathogenic Th17 cells.”

○ Coffee Break 14:30-14:50

Session 6 : Immunotherapy and bio-modulatory Food Components (14:50-16:50)

Chair: Hiroaki Maeda, Shinya Ikematsu

22. Yohichi Shimma (AIST) 14:50-15:20
“Introduction of AIST and Sugar Chain.”
23. Yuji Heike (St.Luke’s International University) 15:20-15:50
“Patient’s Immune Status and Cancer Treatment”
24. Yoshiko Aihara (Kobe University) 15:50-16:20
“Analysis of gut hormone secretion induced by food compounds.”

25. Ryoki Kobayashi (Nihon University) 16:20-16:50
“Fermented foods enhance oral immune system via gut.”

Closing remark 16:50 – 16:55
Noriko M Tsuji

Committee meeting for Investigative Commission of Ortho – Organogenesis 17:00 – 17:30

Note:

Early registration before the 2nd December is highly appreciated. To register, please inform your affiliation and name to contact address. On-site registration is also available. We are looking forward to many people attending to our workshop, including students.

Contact:

Tomonori Kamiya & Noriko M Tsuji

Investigative Commission of Ortho – Organogenesis
Strategic International Collaborative Research Program (SICORP)
National Institute of Advanced Industrial Science and Technology (AIST), Biomedical Research
Institute
TEL: 029-861-3109 / FAX: 029-861-2338 / E-mail: t-kamiya@aist.go.jp