FIRST Program: AKIRA Project

International Symposium

TCUID2013

Towards Comprehensive Understanding of Immune Dynamism

Date: November 18-20, 2013

Venue: Icho Kaikan & Taniguchi Memorial Hall
Osaka University, Suita, Osaka, Japan

http://akira-pj.lserp.osaka-u.ac.jp/TCUID2013/ TCUID2013 GO!

Registration Fee: Free
Registration Deadline: October 15, 2013
Poster Submission Deadline: October 4, 2013

Call for Papers for Poster Presentations

TCUID 2013 calls for papers for poster presentations at the Poster Session on November 19, 2013. Applicants are requested to submit an abstract online at the symposium website by October 4, 2013.
The abstracts will be reviewed by the TCUID 2013 Program Committee, and 30 posters will be selected. A notification of the result will be sent to the presenting authors by e-mail by October 10, 2013.
How to prepare or poster presentations will be announced on the website.
Young scientists are eligible for being a presenting author, and only presenting authors are allowed to sign up for abstract submissions.

Organized by FIRST Program: AKIRA Project
Funding Program for World-Leading Innovative R&D on Science and Technology
"Comprehensive understanding of immune dynamism: toward manipulation of immune responses" (Core Researcher: Prof. Shizuo AKIRA, Osaka University)

Co-organized by WPI-IFReC
WPI-Immunology Frontier Research Center, Osaka University

Supported by
Cabinet Office, Government of Japan (pending)
Japan Society for the Promotion of Science (JSPS) (pending)

Contact:
TCUID 2013 Office
Support Office for Large-Scale Education and Research Projects
Osaka University
Bldg. B (2F) of Office for University-Industry Collaboration
2-1 Yamadaoka, Suita, Osaka 565-0871, Japan
TEL: +81-6-6879-4786 FAX: +81-6-6879-4308
E-mail: tcuid2013-rep@ml.office.osaka-u.ac.jp

FIRST PROGRAM

FIRST Program
AKIRA Project

OSAKA UNIVERSITY

wpi

WPI Osaka University
iFReC

Scope

Studying the immune dynamics is important for understanding and controlling immune functions. This requires combining conventional immunology and new techniques.

TCUID 2013 aims to advance our comprehensive understanding of the dynamic mechanisms regulating innate and acquired immunity through presentations and discussions of research findings achieved by using a variety of techniques including imaging and systems biology. There will be a particular focus on real-time spatiotemporal observations of immune cellular and molecular dynamics and reactions by world-leading researchers with expectation of significantly advancing immunology.

This symposium is also held as the final symposium of the research project "Comprehensive understanding of immune dynamism: toward manipulation of immune responses" 〔Core Researcher: Prof. Shizuo AKIRA, Osaka University〕 (AKIRA Project) selected for the "Funding Program for World-Leading Innovative R&D on Science and Technology (FIRST Program)" by the Council for Science and Technology Policy (chaired by the Prime Minister of Japan) of the Cabinet Office, Government of Japan.

The AKIRA Project produced a lot of fruitful results from the intensive research in the past 4 years, including interdisciplinary research between immunology, imaging, structural biology and systems biology.

In this symposium, 6 speakers from the AKIRA Project, 2 speakers from WPI-IFReC, and 9 invited speakers from abroad will present their outstanding integrated research regarding comprehensive understanding of immune dynamism.

Program

Monday, November 18, 2013 at Taniguchi Memorial Hall

13:45-14:30 Registration
14:30-17:30 Young Researchers' Workshop

Tuesday, November 19, 2013 at Icho Kaikan

8:45- 9:30 Registration
9:30- 9:40 Opening Remarks
9:40- 9:50 Guest's Speech
9:50-11:50 Session 1: Immunology 1
Myung-Shik LEE
(Sungkyunkwan Medical Samsung Seoul Hospital, Korea)
Role of Paneth Cells and *Akkermansia* in Metaboinflammation of Obesity
Thirumala-Devi KANNEGANTI
(St. Jude Children's Research Hospital, USA)
Regulators of Inflammatory Responses
Kensuke MIYAKE (The University of Tokyo, Japan)
Mechanisms Regulating Nucleic Acid Sensing Toll-like Receptors
11:50-13:10 Lunch Break
13:10-14:10 Session 2: Immunology 2
Masahiro YAMAMOTO (Osaka University, Japan)
Selective and Strain-specific NFAT4 Activation by the *Toxoplasma gondii* Polymorphic Dense Granule Protein GRA6
Cevayir COBAN (Osaka University, Japan)
A New Gateway to Cerebral Malaria Pathogenesis
14:10-14:25 Coffee Break
14:25-15:35 Session 3: Systems Biology
Kenta NAKAI (The University of Tokyo, Japan)
Analyses of Transcriptional Changes over Time in Stimulated Dendritic Cells through Systems Biology
Grégoire ALTAN-BONNET
(Memorial Sloan-Kettering Cancer Center, USA)
From Local Signals to Global Responses: Self-organization of T Lymphocyte Activation through Cytokine Communications
15:35-15:50 Coffee Break
15:50-17:00 Session 4: Structural Biology
Fuyuhiko INAGAKI (Hokkaido University, Japan)
Structural Biology of Innate Immunity
Stefan J. RIEDL
(Sanford-Burnham Medical Research Institute, USA)
Mechanism and Regulation of Cell Signaling by Death Domains
17:00-18:20 Poster Session
18:30-20:30 Reception

Wednesday, November 20, 2013 at Icho Kaikan

9:00-10:40 Session 5: Biological Imaging 1
Masaru ISHII (Osaka University, Japan)
Intravital Multiphoton Imaging Revealing Bone and Immune Cell Dynamics *in Vivo*
Joji FUJISAKI (Columbia University, USA)
***In Vivo* Imaging of Immune Privilege of the Hematopoietic Stem Cell Niche**
Nicholas I. SMITH (Osaka University, Japan)
Label Free Measurement of Inflammasome Induction and RNA Regulation Pathways
10:40-10:55 Coffee Break
10:55-12:05 Session 6: Biological Imaging 2
Kazuya KIKUCHI (Osaka University, Japan)
Design Strategy of *in Vivo* Imaging Probes with Tunable Chemical Switches
Erik M. SHAPIRO (Michigan State University, USA)
Monitoring Immune Cell Infiltration Using MRI-based Cell Tracking
12:05-13:20 Lunch Break
13:20-14:10 Special Lecture: Immunology
Michael RETH (The University of Freiburg, Max Planck Institute of Immunobiology and Epigenetics, Germany)
Mapping the Lymphocyte Surface: a Nanoscale Study
14:10-14:25 Coffee Break
14:25-15:35 Session 7: Immunology 3
Mark S. SUNDRUD
(The Scripps Research Institute, Florida, USA)
Identifying and Regulating Pathogenic T Cell Subsets in Autoimmunity
Shizuo AKIRA (Osaka University, Japan)
NLRP3 Inflammasome and Microtubule Acetylation
15:35-15:45 Closing Remarks

*The program is subject to change.

Icho Kaikan, Osaka University