

New trends in immunology by analyzing dynamics of immune system

Masaru ISHII, MD, PhD

Professor, Osaka University Graduate School of Medicine
/ Graduate School of Frontier Biosciences
/ WPI Immunology Frontier Research Center (IFReC)

March 9, 2018 (Fri) 17:00 – 18:00

Juzen Memorial Studio, Medical Library

Dr. Ishii is one of the leaders of *in vivo* imaging with 2-photon microscopy. He has established new experimental methods, such as "intravital 2-photon imaging of bone tissues *in vivo*", with which he has revealed a novel regulatory mechanism on osteoclastogenesis by controlling the movement of osteoclast precursors. In this seminar, he will talk about his latest findings and perspectives on immunology research by using his novel techniques.

References:

- Furuya M, et al., Direct cell-cell contact between mature osteoblasts and osteoclasts dynamically controls their functions *in vivo*. **Nat Commun.** 9:300, 2018.
- Maeda H, et al., Real-time intravital imaging of pH variation associated with cell osteoclast activity and motility using designed small molecular probe. **Nat Chem Biol.**, 12(8):579-85, 2016.
- Nishikawa K, et al., Dnmt3a regulates osteoclast differentiation by coupling to an S-adenosyl methionine-producing metabolic pathway. **Nat Med.**, 21(3):281-7, 2015.

Contact : Rikinari HANAYAMA (076-265-2727)

Organizer : Nano Life Science Institute (NanoLSI)

Co-sponsor : The Juzen Medical Society