

2026

4.15 (wed.)

12:10

12:50

12:10-12:15

◆ Introduction

12:15-12:40

◆ Seminar  
(Presentation)

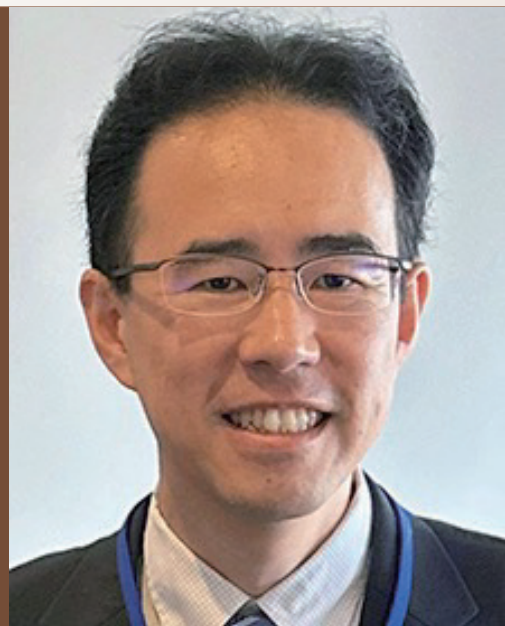
12:40-12:50

◆ Q&amp;A

Online  
(Zoom)Scan here for  
Registration ▶▶[https://us02web.zoom.us/webinar/register/WN\\_uPtJ-ycXQdG0yfcCw2RlhA](https://us02web.zoom.us/webinar/register/WN_uPtJ-ycXQdG0yfcCw2RlhA)

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# Understanding Neural Circuits with Tissue Clearing Techniques

**Key Words**

Neuroscience

Neural Circuit

Brain Function

fluorescence imaging

Tissue Clearing

Microscopy

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Professor Takeshi Imai is a Distinguished Professor at the Graduate School of Medical Sciences at Kyushu University. His research focuses on neuroscience, particularly sensory information processing, the development of neural circuits, and their plasticity. He is also a leader in the field of tissue clearing and fluorescence imaging of neural circuits. After earning his PhD in Science from Graduate School of Science at the University of Tokyo, he served as a team leader at RIKEN before joining Kyushu University in 2017. He conducts cutting-edge research aimed at elucidating the fundamental principles by which neural circuits acquire functions during development.

Our minds reside in the brain. However, how the brain functions and how its diverse functions are acquired during development remain major mysteries in the life sciences. The brain contains a vast number of neurons that form intricate connections to create electrical circuits, enabling a variety of cognitive processes. Elucidating these neuronal connections should therefore help us solve these mysteries, but this has traditionally been a difficult task. In this lecture, I will introduce a technique that makes the brain transparent and uses fluorescence to study neural circuits. I will also discuss some of the principles underlying the construction of neural circuits that have been revealed using these techniques.