

# The 105th iCeMS SEMINAR

CeMI Seminar Series 28

**Wed 04 April 2012**  
**10:00-11:00**

Lecturer: **Prof. Dr. Martin Lohse**  
Professor and Chairman of Pharmacology  
Chairman of Rudolf Virchow Center  
University of Würzburg, Germany

## Studying Receptor Activation and Signaling with Optical Methods

Venue: Roof Terrace, 5th Floor of the East Bldg.  
Institute for Frontier Medical Sciences  
Kyoto University

Receptors are prime targets for drugs. Most of them are cell surface proteins and transmit the signals of hormones or neurotransmitters to the cell interior. The binding of a hormone to a specific binding site in the receptor causes a change in its conformation and the activity of its intracellular parts. Prof. Martin Lohse investigates primarily G-protein-coupled receptors and the action of drugs on them. Receptors are generally studied with either biochemical or physiological methods. However, since these methods have very little temporal and almost no spatial resolution, Prof. Lohse is developing new fluorescent microscopy techniques to study receptor activation and signaling in intact cells in real time. He will talk about new technological developments and the results obtained by the novel technology.

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**Hosted by:** iCeMS (Institute for Integrated Cell-Material Sciences), Kyoto University  
**Co-hosted by:** Center for Frontier Medicine, Global COE Program, Kyoto University

