

2012. 8. 25 (土) 10:30-12:00

講演者: Dr. Jennifer Lippincott-Schwartz

National Institute of Child Health and Human Development National Institutes of Health

演題: Navigating the cellular landscape with new optical probes, imaging strategies and technical innovation

場 所: 京都大学 アイセムス本館(東一条北西角)2 階 セミナーホール(A207)

(Seminar Hall [A207] at the iCeMS building, located at the northwest corner of the intersection of Higashiyama-dori and Ichijo-dori)

Emerging visualization technologies are playing an increasingly important role in the study of numerous aspects of cell biology, capturing processes at the level of whole organisms down to single molecules. Photoactivatable fluorescent proteins (PA-FPs) have been particularly fruitful in this regard. They become bright and visible upon being exposed to a pulse of UV light. This allows selected populations of proteins to be pulse-labeled and tracked over time. PA-FPs have further permitted the development of single molecule-based superresolution imaging, which dramatically improves the spatial resolution of light microscopy by over an order of magnitude (10-20 nm resolution), providing molecule scale information on biological events occurring at variable time scales. Here, Dr. Lippincott-Schwartz will discuss the new fluorescent imaging techniques and the ways they are helping researchers navigate through the cell to unravel long-standing biological questions.

After the seminar, an informal meet-the-speaker reception will take place at the Lounge, next to the seminar room. Please join us for more discussion with Dr. Lippincott-Schwartz.

主催:京都大学物質-細胞統合システム拠点(iCeMS=アイセムス)

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