

The 70th iCeMS SEMINAR

CeMI Seminar Series 21

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16:00-17:00

Quantum dots — a promising label for long-term tracking of virus invasion

Lecturer: **Prof. Dai-Wen Pang**
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Venue: Institute for Frontier Medical Sciences
East Building 5F, Roof Terrace

Viral infections are a very complicated and multistep process. Single-virus tracking (SVT) technique is a powerful approach to dynamically visualize the process for viruses to infect their host cells. Semiconductor quantum dots (QDs) have unique optical properties such as superior photostability and high fluorescence luminance compared to organic dyes and fluorescent proteins, making them very attractive label candidates for long-term single-virus tracking of the whole infection process into host cells. Based on the unique properties and high labeling efficiency of QDs, the long-time single-virus tracking technique was developed in single live cells. It has been directly and dynamically observed that viruses were transported into a perinuclear area and anchored in the microtubule-organizing center (MTOC).

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