CDB SEMINAR

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European Molecular Biology Laboratory (EMBL)

Monday, December 18, 2017

16:00~17:00 Seminar Room A7F

Correlative light-electron microscopy reveals how nuclear pore assembles at nano-meter resolution.

Summary

The nuclear pore complex (NPC) is the largest non-polymeric protein complex in eukaryotic cells and spans the double membrane of the nucleus (nuclear envelope; NE) to mediate nucleocytoplasmic transport. In mammalian cells, NPCs and the NE disassemble at the beginning of mitosis and their rapid reformation during mitosis exit is essential for establishing a functional nucleus in the daughter cell. How thousands of NPCs assemble into the reforming NE had remained unclear. Recently we have established a novel correlative light and electron microscopy (CLEM) method, which allowed us to resolve for the first time the dynamic process of postmitotic NE and NPC assembly in situ in human cells at nano-meter resolution.

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