



CDB SEMINAR

Speaker: Masanori Mishima

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Title: "Function and regulation of centralspindlin, a kinesin/RhoGAP complex, in cytokinesis."

Date: Friday, December 5

Time: 4:00 P.M. ~ 5:00 P.M.

Place: 7th floor Conference Room, CDB

Summary:

Cytokinesis is the final step of cell division and is important for the proper segregation of genetic materials. The central spindle contains antiparallel microtubule bundles that are important for the progression and completion of cytokinesis in animal cells. It forms between segregating chromosomes during anaphase and is a major component of the midbody in late telophase. I will discuss our experiments that show that a protein complex, centralspindlin, which is made of ZEN-4 (*C. elegans*)/MKLP1 (mammals) kinesin-like protein and CYK-4 (*C. elegans*)/MgcRacGAP (mammals) RhoGAP, has microtubule-bundling activity *in vitro* and is essential for formation of the central spindle *in vivo*.

In addition, we have found that ZEN-4 motor activity is regulated by CDK1 mediated phosphorylation.

Host: Fumio Motegi Developmental Genomics, CDB

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