

CDB SEMINAR

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KAN Research Institute, Inc.

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Polarized guidance of microtubules at the migrating edges of cells by +TIPs

Summary

During directional cell migration, it's well known that plus ends of microtubules are oriented toward the leading edges of extending lamellae. Recently, an interesting group of MT-associated proteins binding specifically to the ends of growing microtubules, "microtubule plus-end-tracking proteins (+TIPs)", have been revealed to anchor microtubule plus ends to the cell cortex and guide them along the direction of migration. +TIPs include members of structurally unrelated protein families, such as EB1 (end-binding 1) family proteins, cytoplasmic linker proteins CLIP-170 and CLIP-115, CLIP-associating proteins CLASPs, dynactin large subunit p150^{Glued}, spectraplakin ACF7 and adenomatous polyposis coli (APC) tumor suppressor protein. In this talk, I will discuss about the functional synergism or redundancy between +TIPs at the migrating edges of cells.

Host:

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