
Seminar

Regulation of kinesin and dynein mediated transport by tubulin post-translational modifications

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Post-translational modifications (PTMs) of proteins provide key nodes for regulation of several important biological processes. The α/β tubulin heterodimer that forms microtubules, undergo unconventional PTMs such as acetylation, de-tyrosination, polyglutamylation and polyglycylation. A long-standing hypothesis in the field is that these tubulin variations arising from multiple PTMs might confer unique interactions with microtubule-associated proteins, including kinesin and dynein motors. To test this, we developed a recombinant tubulin system and engineered different tubulin PTMs. These modified microtubules were used to study the effects on kinesin and dynein motility at single molecule and ensemble level, which provided new insights into regulation of intracellular cargo transport.

Wednesday, Feb 18th 2015

11:30 AM (Tea/Coffee at 11:15 AM)

Seminar Hall, TCIS