



# Centre for Biosystems Science and Engineering

## Anchors weigh in on cytoplasmic dynein regulation

4:00 PM, 4th July 2016,

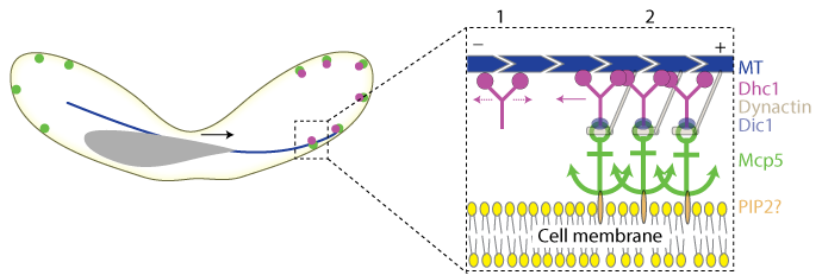
Seminar Hall, MRDG, Biological Sciences Building.

### Dr. Vaishnavi Ananthanarayanan

INSPIRE Faculty Fellow, BSSE,  
IISc.

Several key processes in the cell, such as vesicle transport and spindle positioning, are mediated by the motor proteins kinesin and cytoplasmic dynein, which move along the microtubule cytoskeleton.

In the first part of the talk, the speaker will introduce the cytoskeleton and associated proteins and what has been learnt from in vivo experiments on the regulation of cytoplasmic dynein.



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In the second part of the talk, the speaker will discuss ongoing projects in the lab relating to modulation of dynein activity via anchor proteins and in mammalian cells, where the functions of cytoplasmic dynein vary with cell cycle stages. The talk will end with a discussion on some recent results where the hypothesis that dynein activity is in a default inactive state until bound to cargo is tested.

### About the speaker

Dr. Vaishnavi obtained B.E (Hons.) in Computer Science and M.Sc. (Hons.) in Biological Sciences from BITS, Pilani. She pursued her PhD in Biophysics at the Max Planck Institute of Molecular Cell Biology and Genetics during which she worked on Dynein dynamics during meiotic nuclear oscillations of fission yeast. She was awarded the Innovative Young Biotechnologist Award in 2014 and SERB Early Career Research Award in 2015. She is currently an INSPIRE faculty fellow at the Center for Bio Systems Science and Engineering.