TIFR Centre for Interdisciplinary Sciences
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Seminar

Cell cycle regulator & coordinator: From tumor suppressor protein to centrosome

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Cell division is regulated by tumor suppressor proteins and coordinated via mitotic spindle formation by cell organelle known as centrosome. Any defects in cell cycle regulators and coordinators could lead to human diseases e.g. cancers. This emphasizes the need to understand the molecular mechanisms underlying the role of tumor suppressor proteins and centrosome organization in cell functioning. On the same lines, during my doctoral research, I identified novel translation targets of tumor suppressor protein, Pdcd4. This work led us to a new paradigm of translation suppression and recognition of specific mRNAs by Pdcd4. Additionally, in my postdoctoral research, I was involved in investigating the role of centrosome-associated proteins, Bld10 (fly orthologue of human Cep135) and CG7337 (fly orthologue of human Wdr62) in microtubule-organizing activity of centrosomes at interphase, in fruit fly's neural stem cells. This enabled us to understand the importance of intrinsic centrosome asymmetry in centrosome positioning and thereby regulating division axis of stem cell.

Tuesday, Dec 8th 2015

4:00 PM (Tea/Coffee at 3:45 PM)

Seminar Hall, TCIS