

Comprehensive Seminar

Dissecting the molecular mechanisms of mammalian DNA replication regulation in the context of oncogene-induced replication stress

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Faithful replication of DNA is essential to preserve genetic information of a cell. Modalities such as DNA damages, non-B DNA structures, transcription collision etc. can cause replication stress, which can lead to genomic instability, if unresolved. Oncogenes perturb the replication dynamics, causing replication stress to provide proliferation advantages to transformed cells. Two-thirds of the pathological driver mutations in cancer are known to stem from replication errors. Oncogene-induced replication stress has been phenotypically linked to de-regulated origin firing, over-replication, under-replication, dysregulation of cell cycle etc., without any mechanistic details. Here, we are trying to investigate the mechanism of control of replication pattern both in normal and in viral-oncogene induction model systems.

Tuesday, Sep 26th 2023

3:00 PM (Tea / Coffee 02:45 PM)

Seminar Hall, TIFR-H