

Seminar

Lessons from S. pombe: Unveiling new insights into conserved features of 3D genome

Sahana Holla

NIH, MD

The capacity to organise chromatin both functionally and spatially within the nucleus is fundamental to eukaryotic genomes. Principal mechanisms governing 3D nuclear organisation include chromosome folding, compartmentalisation, and peripheral tethering. The mechanisms chromatin interplay of these with modifications shapes the epigenetic landscape of the cell, defining its function and identity. My talk will delve into elucidating the molecular mechanisms and functional significance of two such 3D organisational features employing the fission yeast S. pombe, an exemplary model system for investigating epigenetic gene silencing and 3D genome organisation. Finally, I will present my future goal of leveraging the powerful genetic system provided by the S. pombe, alongside mammalian models, to uncover regulatory mechanisms and the functional implications of genome organisational features during development and diseases such as cancer.

Tuesday, Apr 30th 2024 16:00 Hrs (Tea / Coffee 15:45 Hrs) Auditorium, TIFR-H