

TIFR Centre for Interdisciplinary Sciences

21, Brundavan Colony, Narsingi, Hyderabad 500 075

Seminar

Control of DNA Breakage and Repair during Meiosis

Viji V. Subramanian

New York University, NY

Meiosis, a process central to sexual reproduction, requires crossover-mediated linkages between unattached homologous chromosomes to aid their proper assortment. Such crossover events initiate with breaks in the DNA, but how these breaks are preferentially repaired using the distal homologous chromosome rather than the proximal sister chromatid is not well understood. Moreover, how DNA breaks are distributed through the genome to allow proper assortment of both the small and large chromosomes in meiosis is unclear. Errors in DNA repair and chromosome partitioning are the leading cause of infertility, spontaneous fetal loss and birth defects in humans. Despite its clinical significance, we have only a meager understanding of how DNA repair is orchestrated to prevent these errors. My work is aimed to address mechanisms of DNA break and repair that maintain genome integrity using the budding yeast as a model organism.

Thursday, Mar 23rd 2017 4:00 PM (Tea/Coffee at 3:45 PM) Seminar Hall, TCIS