

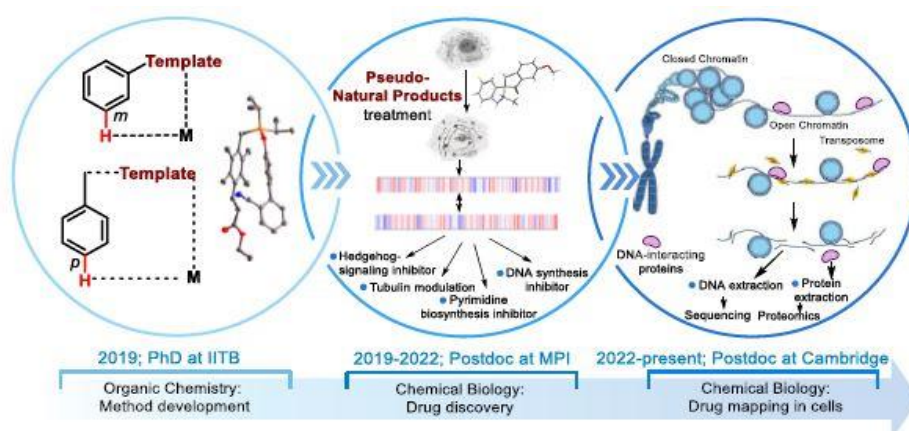
Seminar

Molecular engineering: From directing group designing to drug mapping in genome

Sukdev Bag

University of Cambridge, UK

Achieving the medical promise of a new era in cancer and neurodegenerative research is a profound scientific goal with the potential to address major global health challenges. Drug discovery plays a key role in this effort and demands interdisciplinary expertise across chemistry and biology. My research spans contemporary organic chemistry to drug discovery, chemical biology, and genomics. During my Ph.D. with Prof. Debabrata Maiti (IIT Bombay), I developed novel nitrile- and pyrimidine-based templates for remote C–H functionalisation, enabling selective *para*- and *meta*-activations. In my postdoctoral work with Prof. Herbert Waldmann (Max Planck Institute of Molecular Physiology, Dortmund), I designed and synthesised pseudo-natural products, identifying four new chemotypes through phenotypic screening. Currently, I am working with Prof. Sir Shankar Balasubramanian (University of Cambridge) on mapping drug binding to chromatin in cells.



Tuesday, Aug 5th 2025

11:30 Hrs (Tea / Coffee 11:15 Hrs)

Seminar Hall, TIFRH