Tata Institute of Fundamental Research
Survey No. 36/P, Gopanpally Village, Serilingampally, Ranga Reddy Dist., Hyderabad – 500 046

Seminar

Lipid-Dependent gating of G Protein Coupled inwardly rectifying Potassium (GIRK) Channels

Yamuna Kalyani Mathiharan

Stanford Medicine, CA

Neurotransmission is a fundamental process responsible for several cognitive functions, it is facilitated by intricate network of proteins including ion channels and G protein-coupled receptors (GPCRs). G protein-coupled inwardly rectifying potassium (GIRK) channels are key players in neurotransmission and the major source of inhibition in brain mediated by upstream GPCRs. Several studies have shown that GIRK channels are modulated upon exposure to drugs of abuse and by alcohol, making them a promising drug target for treating addiction. We have used cryo electron microscopy to elucidate the structural mechanism underlying lipid modulation and gating of GIRK channels to facilitate development of therapeutics for treating neurological diseases.

Wednesday, Oct 11th 2023

4:00 PM (Tea / Coffee 3.45 PM)

Auditorium, TIFR-H