TIFR Centre for Interdisciplinary Sciences
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Seminar

Reversible structural fluctuations in a calcium sensor: struggling without NMR

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A central component of calcium signaling is the transition of a calcium sensor from its apo (Ca2+ free) to the holo (Ca2+ saturated) state, which may be routed via plethora of transitory conformations. I shall be sharing my actual experience and how we could make some interesting conclusions, specifically when we did not employ NMR spectroscopy, a tool for every biophysicist. I shall be describing our identification of reversible structural fluctuations locally during hierarchical filling of Ca2+ in caldendrin, a neuronal Ca2+-binding protein of EF-hand superfamily with two functional (EF3 and EF4) and two (EF1 and EF2) atypical, non-binding EF-hand motifs. We propose that a protein may be functional when partially occupied by Ca2+!

Tuesday, April 28th 2015

11:30 AM (Tea/Coffee at 11:15 AM)

Seminar Hall, TCIS