



**TIFR Centre for Interdisciplinary Sciences,
Narsingi, Hyderabad 500075**

Seminar

When Stores Have No Calcium CRAC Open For a Refill

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In practically every cell, cross-linking of cell surface tyrosine kinase or G-protein coupled receptors initiates a cascade of signaling events that result in the release of calcium ions from intracellular stores. The depletion of calcium stores activates a specific pathway for calcium entry across the plasma membrane (PM), known as “store-operated calcium entry” (SOCE). SOCE is a highly ubiquitous process that regulates a variety of physiological phenomena such as gene expression, secretion, cell migration and cell death. Loss-of-function mutations in CRAC channel components are associated with severe immune-deficiencies and defects in skeletal muscle and bone development. My lab has uncovered major molecular players in SOCE. I will discuss our previous and recent findings towards understanding the molecular basis of its activation and identification of unexpected physiological roles for SOCE using mouse models.

Wednesday, Dec 11th 2013

4:00 PM (Tea/Coffee at 3:30 PM)

Seminar Hall, TCIS