TIFR Centre for Interdisciplinary Sciences, Narsingi, Hyderabad 500075

Seminar

cAMP dependent protein kinase A (PKA): New insights from an old kinase

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Abstract: cAMP-dependent protein kinase A (PKA) is ubiquitously expressed in mammalian cells and regulates various cellular processes. Using *in vitro* and cell culture studies, we show that cis-autophosphorylation of Ser^{338} occurs cotranslationally, and is critical for processing and maturation of PKA-C. In wild type S49 lymphoma cells, we show that cAMP inhibits Ser^{338} phosphorylation and leads to insolubility and improper maturation of PKA-C and provide a mechanism for the apoptosis resistant phenotype of kin minus lymphoma cells.

We revisited role of metal ions in assisting phospho-transfer. We show that all divalent metal ions assist in phospho-transfer reaction using two different protein kinases. Our data also suggests that metal ions do not affect the rate of phospho-transfer but instead just serves as carriers of ATP into and out of the active site of protein kinase.

***Date*: Thursday, February 21st 2013**
***Time*: 11:30AM (Tea/Coffee at 11:15AM)**
***Venue*: Conference Hall, TCIS**

All are cordially invited