

Internal Seminar

Structural characterization of DAD2 protein

Satya Prakash

TCIS, Hyderabad

Solid-state Nuclear Magnetic Resonance spectroscopy (ssNMR) has emerged as a powerful tool in determining the structure and dynamics of molecules. ssNMR can be used to characterize physical and structural properties of proteins in crystalline, viscous, fibrillar and aggregated forms. We use solid-state NMR to address problems in structural and physical biology. Currently we are working on three major objectives in our lab:

- Structural determination of Dad2 protein, which is primarily responsible for mediating the kinetochore-microtubules interactions during mitosis in *Candida albicans*. The structure of Dad2 protein is unknown because of its tendency to form high-molecular weight oligomers. We aim to use solid-state NMR in order to characterize the structure of the oligomers of the Dad2 protein.
- Allosteric communication related structural dynamics of AF6-PDZ domain as function of ligand binding.
- Development of NMR methodologies using ubiquitin and paramagnetic (iron) containing ruberdoxin from *Pyrococcus furiosus*. Here, I present the current advancements in my ongoing research.

Friday, Sep 16th 2016

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

Seminar Hall, TCIS