

Seminar

NMR studies on Biomolecular Interactions and Methodologies for Speeding up Resonance Assignment in Proteins

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Protein digestion in insect gut is inhibited by plant protease inhibitors (PIs) that impair larval development, reducing the overall fitness of insect population and their impact on crops. Till date, little is known about the 3D structures of PIs from *Capsicum annuum* (CanPIs), which inhibit *Helicoverpa armigera* gut proteases. Recently, three pepper plant inhibitory repeating domains (IRD7, IRD9 and IRD12; also called CanPIs) are shown to be potent inhibitors. In the first half of my presentation, I will discuss the detailed structural characterization, dynamics and biomolecular interactions of these IRDs using NMR spectroscopy. The second half of my talk would focus on my attempts in development of methods for speeding-up sequence specific resonance assignments in proteins.

Monday, Dec 2nd 2019

11:30 AM (Tea/Coffee at 11:00 AM)

Auditorium, TIFR-H