

# Seminar Series

10<sup>th</sup> May 2013

*Speaker*

**Dr. Santanu Chattopadhyay,**  
Ph. D., Calcutta, India

***Title: “Multiple regulatory roles of the Phosphoproteins of non - segmented - negative sense RNA viruses in Viral Replication”***

**Dr. Santanu Chattopadhyay** received his Bachelor's & Master's degree in Physiology from University of Calcutta and Doctorate (Title of thesis: Genotypes, vacuolating cytotoxin production and antibiotic sensitivity patterns of *Helicobacter pylori*) from National Institute of Cholera and Enteric Diseases, Calcutta.

Most of his Post-doctoral research in Dr. Banerjee's laboratory at Cleveland Clinic involves studying the RNA-dependent RNA polymerase (RdRp)-heterocomplex, which is composed of the L protein (polymerase), and the P protein (co-factor) using vesicular stomatitis virus (VSV) and human parainfluenza virus (HPIV3) as model. His study showed that L protein of HPIV3, when expressed in the absence of P protein, self-interacts non-specifically to form functionally inactive aggregates. However, when the L protein is co-expressed with the P protein, the later protein strongly interacts with the former to prevent its self-interaction and thus restores its polymerase activity. Interestingly, P protein is a highly phosphorylated protein and phosphorylation at different sites possibly regulates the RdRp-activity (transcription and replication) of the L protein. Alongside, he studied biochemical properties of the N-RNA complex (genome RNA encapsidated by N protein) of VSV by using proteolytic cleavages as tool and a cellular kinase that phosphorylate P protein.

**Venue: Auditorium, C.R.Rao Advanced Institute of Mathematics, Statistics and Computer Science (AIMSCS), University of Hyderabad**

**Time: 3.30 PM to 4.30 PM**