# INSTITUTE SEMINAR

**Friday, 29 August 2014** **4:00 pm** **Fermion**


Speaker:

**Kanchan Garai**

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Title:

**Reshaping the aggregation landscape of Amyloid-β by endogenous proteins**


Abstract:

Aggregation of amyloid-beta (Aβ) peptide is a pathological hallmark of Alzheimer's disease (AD). Therefore modulating aggregation propensity of Aβ are of considerable interest in amyloid research. Recent observations suggest that two endogenous proteins such as Apolipoprotein E and Transthyretin can alter overall deposition of Aβ in the brain. Our results show that aggregation of Aβ follows multiple alternative pathways such as amorphous aggregation and fibrillar aggregation. Progression of fibrillar aggregation may depend on elongation, secondary nucleation or fragmentation of the fibrils. The modulator proteins affect different pathways leading to different consequences. I will discuss the results from my experiments on the effects of Apolipoprotein E or Transthyretin on the different modes of the aggregation mechanism of Aβ.