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## **Seminar**

### **alpha-synuclein aggregation associated with Parkinson's disease**

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Parkinson's disease (PD) is a fatal neurodegenerative movement disorder clinically characterized by the presence of proteinaceous inclusions called Lewy body (LB) and Lewy neuritis (LN) in brain. It has been shown that the main component of these inclusions is special form of a protein ( $\alpha$ -synuclein) aggregate, called amyloid. The in vitro as well as various cellular and animal studies have suggested that  $\alpha$ -synuclein protein aggregation is indeed a pathogenic event causing cell death in PD. Recent studies, however, suggest that soluble oligomeric assemblies of  $\alpha$ -synuclein, which appear in the early stages of its fibrillar assembly, are the most cytotoxic species. Therefore understanding the alpha-synuclein aggregation mechanism and targeting the cytotoxic oligomeric assemblies are crucial steps for the drug development against PD. My talk will be based on our recent biophysical studies on the pathway(s) of alpha-synuclein aggregation.

***Wednesday, May 27th 2015***

***4:00 PM (Tea/Coffee at 3:45 PM)***

***Seminar Hall, TCIS***