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"Exploring Amino Acid Code Towards Biomaterials and Biosensors"

Amino acids are building blocks of proteins and govern their structure and function. In certain cases, the peptide sequence promotes misfolding and aggregation leading to a disease. Understanding the folding mechanism is critical for development of new anti-aggregation drugs. Our main misfolding target is tau protein, a causative agent of Alzheimer's Diseases. We aim to develop methods for determining the mechanism of misfolding and its inhibition. The inherent self-assembly of peptide sequences has also been exploited for development of biomaterials. Biomaterials based on labeled peptides may be fabricated through a careful selection of an amino acid sequence and a label (optical or electrochemical). Our aim is to explore these seemingly simple starting building blocks towards functional biomaterials with discrete morphological outcomes and tailored photophysical properties.

Monday, April 20th, 2015

4:00 pm

BO 1059

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