

Seminar

On-demand detachable N-terminal solubility tags for chemical protein synthesis

Arighna Sarkar

TIFR, Hyderabad

Proteins, the crucial biomolecules of nature, govern most of the cellular processes. Understanding their structure and function requires them to be produced in quantitative amounts. Chemical protein synthesis is a unique methodology to obtain synthetic proteins wherein small peptide segments are joined together, in solution, to produce larger polypeptides, which are ultimately folded into functional proteins. The challenge though comes when certain peptide segments become impossible to handle in aqueous condition because of their hydrophobicity. In this talk, I will discuss about our efforts to tackle such problems by introducing Solubility Tags targeting the peptide N-terminus. The chemistry developed to make the tags, its attachment and detachment processes and finally its compatibility with Native Chemical Ligation procedures will be discussed.

Wednesday, Mar 6th 2024

12:00 Hrs (Tea / Coffee 11:45 Hrs)

Auditorium, TIFR-H