**Tata Institute of Fundamental Research**
Survey No. 36/P, Gopanpally Village, Serilingampally, Ranga Reddy Dist., Hyderabad – 500 046

# Students' Annual Seminar

## Chemical biology approaches for mapping enzyme activity and eliminating toxic protein aggregates

## Pikaso Latua

In the first part of the work seminar, I will talk about the design and development of fluorescence reporters of the arginase I (ARG1) enzyme for live cell imaging applications. ARG1 is highly expressed in tumour associated macrophages (TAMs) and is regarded as a marker of cancer prognosis. The ARG1 enzyme hydrolyses L-arginine into urea and L-ornithine. To date, there have been no probes reported for spatiotemporal imaging of ARG1 activity in live cells. I will discuss the synthesis and characterisation of some model probes to map arginase activity and future directions. In the second part of my work seminar, I will discuss the design and synthesis of two new bifunctional molecules for eliminating amyloid beta (Aβ) oligomers and fibrils that are found in Alzheimer disease (AD) pathology by using chemical and cellular engineering strategies.

***Thursday, Mar 7th 2024***

***14:00 Hrs (Tea / Coffee 13:45 Hrs)***

***Seminar Hall, TIFR-H***