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

Students' Annual Webinar

Effect of multi-site phosphorylation on the structure of intrinsically disordered protein

Subinoy Adhikari

Post translation modification (here phosphorylation) of intrinsically disordered protein Ash1 (420-500) in S. cerevisiae, is important for many biological activities. The question we are trying to answer here is, why the overall structure of wild type Ash1 and phosphorylated-Ash1 (pAsh1) does not change, although many IDP's are known to undergo a significant change in structure, after phosphorylation. Also we try to characterise the changes in structural features by monitoring the secondary structure, NMR chemical shifts, Radius of gyration, Contact maps etc., for both the wild type Ash1 and pAsh1, using clustering techniques and Markov State Model.

Friday, Apr 8th 2022

4:00 PM