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

Seminar

Fast protein dynamics and small molecules triggering transmembrane signalling and interfering with aggregation important in neurodegeneration

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MPI for Multidisciplinary Sciences, Göttingen

High power relaxation will be discussed in the context of protein motion and protein/protein recognition. The switching of the two component system sensor CitA is effected by citrate. Transmembrane signalling due to citrate binding will be discussed. Further, we have studied the process of aggregation of α-synuclein on membranes in vitro and identified key time points in the aggregation process, that enable targeted isolation of a so called intermediate I and the fibrillar endpoint. Intermediate I has the characteristics of a toxic oligomer. In addition, we determined the structure of anle138b, a clinical drug candidate bound to fibrils that were grown in the presence of lipids that are doped with anle138b. Comparison of the binding site of anle138b with compounds that bind even tighter to α-synuclein fibrils and might therefore be useful for diagnostics will be discussed.

Monday, Dec 19th 2022

3:30 PM (Tea/Coffee at 3:15 PM)

Auditorium, TIFR-H