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

Seminar

Designing peptide/protein-based inhibitors to stop red blood cell invasion by malaria parasites

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Protein-protein interactions (PPIs) play a crucial role in most of the physiological processes. Identifying the interacting interfaces of a disease related PPI and targeting those interfaces with a peptide or small protein is a highly promising strategy for the development of an effective inhibitor. As a therapeutic, a peptide or small protein is more favourable than a small molecule or antibody due to their low production cost, high specificity, low toxicity etc. Besides, the flexibility to conformationally modify the peptides/small proteins either by introducing additional structural restrains or by making them in D-amino acid form, makes them metabolically inert as well as less-immunogenic. We have explored rational design of various peptides or small proteins to inhibit key protein-protein interactions responsible for malaria parasite entry into human red blood cells.

Thursday, Jul 21st 2022

04:00 PM (Tea/Coffee at 3:45 PM)

Auditorium, TIFR-H