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

# Seminar

## A tale of two rhoptries: Unique organelles enabling Plasmodium invasion into host cells

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### University of Georgia, GA

Malaria has the dubious distinction of being one of the oldest known and deadliest diseases of humans, and it continues to have a devastating impact on human health. Clinical disease is a direct consequence of the remarkable ability of parasites from the genus *Plasmodium* to grow and thrive in human red blood cells (RBCs). The malaria parasites are unique in their ability to invade and then completely remodel RBCs into a cell specialised for their growth and development. Our group is interested in understanding HOW *Plasmodium falciparum* sets up its niche within the RBC. In this talk, I will focus on the role of proteins that localise to two unique club-shaped organelles known as rhoptries. The talk will describe our discovery of a rhoptry protein, RON11, which was the first gene identified to function in the de novo biogenesis of rhoptries as well as another rhoptry protein that we show is required for forming the intraerythrocytic niche during invasion.

***Friday, Jun 13th 2025***

***16:00 Hrs (Tea / Coffee 15:45 Hrs)***

***Auditorium, TIFRH***