

Tentative talk title:

Type II rosetting in malaria immuno-pathobiology: an “immuno-hijack” strategy by the parasite

Presenter:

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Abstract:

Malaria is still a major healthcare burden to mankind. The blood stages of malaria parasites contribute much of the disease pathogenesis. Following substantial modification of infected erythrocyte (IRBC) membrane architecture by the parasites, the cytoadherence properties of IRBC are altered, giving rise to several parasite-derived phenomena, including rosetting phenomenon. Rosette refers to the stable binding of an IRBC to uninfected erythrocytes (URBC), forming a flower-like structure. Besides the classic type I rosettes involving the direct interaction between the parasite-derived rosetting ligand and the host-derived receptor, several host proteins have been demonstrated to mediate the formation of type II rosettes. These include inflammation-associated proteins such as the insulin-like growth factor-binding protein 7 (IGFBP7) and periostin (OSF-2). This presentation will focus on how these proteins intervene the host-parasite interactions, subsequently the pathobiology of malaria.