O-3. Proteomic Dissection of *Plasmodium falciparum* Maurer's cleft Compartments Using SBP1

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Host erythrocyte modifications by malaria parasites, which are essential to their survival and pathogenesis, are facilitated by parasite proteins exported to the host cytoplasm. These exported proteins form a functional trafficking complex in the host cytoplasm to transport virulence determinants to the erythrocyte surface; this complex, Maurer's cleft, is thus essential for malaria virulence. Here, we report a comprehensive map of the interaction network of this trafficking complex. We developed authentic, unbiased, highly sensitive proteomic approaches and systematically determined the proteins that interact with a core component of the complex, SBP1 (skeleton-binding protein 1). SBP1 interactomes revealed numerous exported proteins that have not previously been linked to the protein complex, as well as potential interactors associated with the intracellular trafficking of SBP1. We further identified several host-parasite protein interactions and identified the exported protein MAL8P1.4 as being linked to the virulence of *Plasmodium falciparum* in infected erythrocytes. Our study sheds light on the highly complicated interplay between parasite and host proteins in the host cytoplasm and provides a reliable interaction dataset connecting dozens of exported proteins that are required for the virulence of *P. falciparum*.