

Oxidized heme disrupts the erythrocyte cytoskeleton, leading to altered PfEMP-1 presentation and impaired cytoadherence.

Increased sickling and biochemical changes in the intracellular environment lead to decreased parasite growth.

Host microRNA translocates into *P. falciparum*, interfering with parasite growth.

Impaired cytoadherence leads to decreased inflammation and decreased rosette formation. Increased HO-1 expression may also decrease local inflammation.

Antibodies destabilize cytoadherence.

Impaired cytoadherence leads to increased splenic clearance.

Increased splenic clearance leads to a more robust humoral and cellular immune response.

