1056-92-385 **Jeremy J Thibodeaux*** (jthibodeaux@uco.edu), University of Central Oklahoma, Mathematics and Statistics, 100 N University Dr., Edmond, OK 73034. *Seeking Optimal Treatment Strategies for Malaria Infection.* Preliminary report.

The malaria parasite inhibits erythropoiesis in two major ways. The first, and obvious way, is the preying upon erythrocytes. But it has been recently discovered that a toxic by-product of digested hemoglobin, called hemozoin, inhibits the development of erythroid precursors. A mathematical model accounting for both of these effects will be presented along with model predictions concerning combined treatments for both of the effects of malaria infection on the erythropoietic system. (Received September 03, 2009)