A vaccine dose and a worm's host: Malaria vaccination in a schistosome-endemic region of Malawi

Malaria is of critical public health importance in Sub-Sharan Africa, with a disproportionate burden of malaria infection and mortality in pre-school aged children. A landmark vaccine against malaria caused by *Plasmodium falciparum,* the most pathogenic species of malaria has recently been developed. We present data from a cohort of pre-school aged children in Mangochi District, Malawi included as part of the vaccination pilot study. Prior work by our group has demonstrated that *Schistosoma mansoni and Schistosoma haematobium* are coendemic in this age group. Schistosomes have the potential to impact vaccine efficacy due to the changes within the host's immune system during infection. Additionally, the changes in the immune response to the vaccine, could impact schistosome infection. Here we explore two key questions: 1) Is malaria vaccination efficacy affected by schistosome coinfection? and 2) Does schistosome infection intensity differ in children pre and post malaria vaccination. The fight to reduce malaria deaths has stalled in recent years, and the vaccine promises a new tool in the fight to save lives. We provide an early report on how useful this tool may be in areas where schistosomes are the norm.