# Immune modulation in Schistosoma mansoni infections and effects on immune responses to childhood immunisation (Senior Fellowship: Dr. Robert Tweyongyere)

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Despite significant efforts towards the mass treatment of schistosomiasis in Uganda, prevalence remains high in fishing communities; particularly in the island communities of Lake Victoria, which are physically difficult to reach and socially marginalised. These communities are also under-served in the provision of childhood immunisations. Immunisation is a key strategy in the control and prevention of infectious diseases, but the efficacy of some vaccines is lower in tropical countries and in rural than urban environments. One of several hypotheses that has been advanced, which is the focus of this proposal, is that chronic helminth infection induces type 2 and regulatory immune responses to unrelated antigens which inhibit the type 1 immune responses required for protective immunity to many viral or bacterial pathogens. The proposed project seeks to examine this hypothesis among children likely to be infected with helminths particularly S. mansoni. Considering that Schistosoma mansoni infection is associated with induction of strong Th2 and immune modulation profiles that could influence immune responses to non-schistosome antigens, this study aims to explore and elucidate the impact of S. mansoni infection and its treatment on the efficacy of childhood immunization focusing on responses to measles and human papilloma virus (HPV) immunization.

**Projektbeteiligte**

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