ID: 127 **Determinant of host-specificity in schistosomiasis haematobia.**

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Blood flukes of the genus *Schistosoma* are primary agents of human schistosomiasis. Over 200 million people are estimated to be infected and 779 million are at risk of infection. Of the five species, *S. haematobium*, *S. mansoni* and *S. japonicum* are the most pathogenic. While *S. mansoni* and *S. japonicum* have been well studied in almost all aspects, *S. haematobium* remains the least studied given its high host specificity. In most animal models, it rarely matures at the anatomically correct location and shows highly variable disease manifestation, egg excretion and worm burdens. Few studies have focused on the initial penetration of cercariae in skin. The barrier of the skin may be a key factor in determining host specificity since the ability of parasites to establish in the host depends on successful migration through skin. This study will trace cutaneous migration of cercariae through murine and porcine skin, as models of human skin, to determine efficiency of cercariae penetration and immune responses in the skin. A comparison will be performed with *S. mansoni* to observe differences between the two parasite species.