

## **Abstract**

Breaching the vertebrate skin and overcoming the local immunity represents a critical step in the life cycles of many helminths. This bachelor thesis summarized the current knowledge of the skin immune response against schistosomes. Both innate and adaptive immune mechanisms are activated soon after the infection. Despite certain differences *between* mice and humans, complement, granulocytes and especially CD4<sup>+</sup> T-lymphocytes are considered as key players in anti-schistosomal immunity of both species. However, several aspects of the host immune response, such as the initial source of cytokine IL-4, IL-10 or expression pattern of certain co-receptors remain unclear and warrant further research. A comprehensive understanding of the host immune response in the skin as well as the respective parasite immune evasion strategies is needed to boost vaccine development.

**Keywords:** immune response, skin, lymph nodes, helminths, schistosomes