

**Analysis of genetic polymorphisms of cytokines, vascular endothelial growth factors (VEGFs) and VEGF receptors in disease manifestations in lymphatic filariasis (Senior Fellowship: Dr. Alexander Debrah)**

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Lymphatic filariasis (LF) affects 120 million people in the tropics while 1.2 billion are at risk. The majority of infected individuals have no or transient pathology while others suffer more severe pathologies including lymphedema of the limbs or hydrocele. It is now known that more people in endemic areas infected with adult worms do not have microfilariae (Mf) in the blood. In these amicrofilaremic worm carriers, immunological mechanisms are believed to be involved in the suppression of the Mf. To develop LF pathology associated SNPs (single nucleotide polymorphisms) as biomarkers for indentifying persons at greater risk of pathology, the following three objectives are proposed for the study: 1) Genotyping of more SNPs associated with latency/patency, 2) Functional characterization of SNPs associated with LF disease, 3) Elucidation of biomarkers focusing on angiogenesis and lymphangiogenesis. It is expected that by the end of the project, more biomarkers will be identified, some of which can be used for diagnosis of pathology patients.

**Projektbeteiligte**

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