

Project 18: Cutaneous defense against *Candida albicans*: modulation of chemokine-driven antimicrobial immune response

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Abstract

During local inflammatory responses to invading microbial threats, the unique interaction between pathogens and cells of the immune system shapes the immune response. Especially, chemokines play an outstanding role in defining the local cellular infiltration and, subsequently, contribute to clearance of the microbial triggers. An organ-specific signature of chemokines regulates the recruitment of pathogen-specific leukocytes. In cutaneous infection models (*C. albicans*, *S. aureus*), we will investigate the function of a defined set of chemokine receptors (wildtype versus *Ccr6*^{-/-}, *Ccr8*^{-/-}, *Ccr10*^{-/-} mice). Moreover, we aim to analyze whether *C. albicans* or *S. aureus* might potentiate autoimmune-dominated or allergic immune responses in experimental models for psoriasis and atopic dermatitis, respectively. Finally, we will verify the relevance of the identified CCR/CCL networks in human skin biopsies from *Candida* intertrigo, Psoriasis intertriginosa and atopic eczema.