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***Candida albicans* – The pathway to epithelial damage**

Candida albicans is a commensal of mucosal surfaces, but as an opportunistic fungal pathogen it can readily cause diseases in humans, ranging from superficial to life-threatening systemic infections. One of the key virulence factors of this organism is its ability to switch from growth in a yeast form to a filamentous hyphal growth form, which can invade epithelia and cause tissue damage.

One of the most highly expressed genes during hyphal growth is ECE1 (extent of cell elongation 1), a gene of yet unknown function. Mutants lacking this gene show an interesting phenotype, as they are able to adhere to host cells and invade them like the wild type, but fail to cause cell damage. The phenotype of the *ece1Δ* mutant indicates, that the gene product of ECE1 is not required for the formation of hyphae, but does have an important role in the destruction of epithelial cells. Therefore, elucidation of the functional role of the Ece1 protein will give new insight into the pathway to epithelial damage.

Publications

Höfs S, Mogavero S, Hube B (2016) Interaction of *Candida albicans* with host cells: virulence factors, host defense, escape strategies, and the microbiota. *J Microbiol* 54(3), 149-169. [Details PubMed](#)

Supervisor

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Start of PhD

November 1, 2011

Doctoral Disputation

August 25, 2016