Candida albicans iron acquisition within the host.

Almeida RS, Wilson D, Hube B (2009) *Candida albicans* iron acquisition within the host. *FEMS Yeast Res* 9(7), 1000-1012.

Abstract

As a commensal and opportunistic pathogen, Candida albicans possesses a range of determinants that contribute to survival, persistence and virulence. Among this repertoire of fitness and virulence attributes are iron acquisition factors and pathways, which allow fungal cells to gain this essential mineral in the iron-poor environment of the host. The aim of this review is to present the strategies used by C. albicans to exploit host iron reservoirs and their impact on C. albicans pathogenicity. Because iron in the human host is mostly linked to host proteins, pathogens such as C. albicans must possess mechanisms to gain iron from these proteins. Here, we introduce the most important groups of human proteins, including haemoglobin, transferrin, lactoferrin and ferritin, which contain iron and that are potential iron sources for invading microorganisms. We then summarize and discuss the known and proposed strategies by which C. albicans exploits or may exploit iron from host proteins and compare these with strategies from other pathogenic microorganisms.

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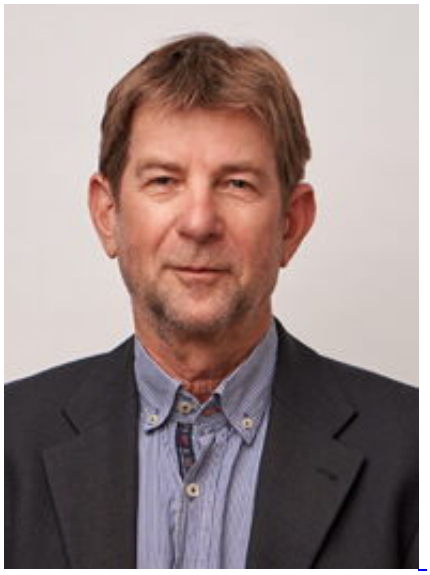

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