

Lewis L.E., Bain J.M., Lowe C., Gow NAR., Erwig L.P. (2012). *Candida albicans* infection inhibits macrophage cell division and proliferation. *Fungal Genet Biol.* 49(9):679-80.

The pathogenicity of the opportunistic human fungal pathogen *Candida albicans* depends on its ability to inhibit effective destruction by host phagocytes. Using live cell video microscopy, we show here for the first time that *C. albicans* inhibits cell division in macrophages undergoing mitosis. Inhibition of macrophage cell division is dependent on the ability of *C. albicans* to form hyphae, as it is rarely observed following phagocytosis of UV-killed or morphogenesis-defective mutant *Candida*. Interestingly, failed cell division following phagocytosis of hyphal *C. albicans* is surprisingly common, and leads to the formation of large multinuclear macrophages. This raises question as to whether inhibition of macrophage cell division is another virulence attribute of *C. albicans* or enables host macrophages to contain the pathogen.