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## CHARACTERISTICS OF THE EFFECT OF EXOGENOUS cAMP ON *C. ALBICANS* MORPHOGENESIS IN STRAINS LACKING NRG1P, RFG1P, OR TUP1P (POSTER)

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The opportunistic human pathogen *Candida albicans* causes both superficial and life threatening systemic infections and is a leading cause of fungal disease in immunocompromised individuals such as those with AIDS. *C. albicans* can grow in different cell shapes, also known as morphologies, including yeast-like cells and a variety of filamentous forms, such as true hyphae and pseudohyphae. Yeast, hyphae and pseudohyphae, have been observed at the sites of *Candida* infection and there is strong evidence that morphogenesis, the transition between yeast and filamentous growth forms, is essential for its virulence. Many studies have implicated the second messenger molecule cAMP in the regulation of morphogenesis due to its role in activating filamentation. Our lab and others have previously characterized the impact of the negative regulators, Nrg1, Rfg1, and Tup1 on the expression of HWP1, a hyphal specific gene. The goal of this project is to characterize whether the addition of exogenous cAMP will increase the expression of HWP1 in the absence of each of the negative regulators as well as test a small molecule derivative of BH3I's effects in conjunction with the exogenous cAMP. This will help us better understand the signal transduction cascade that controls morphogenesis in *C. albicans*.