Characterization of the Effects of Exogenous Camp Combined 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 lifethreatening systemic infections and is a leading cause of fungal disease in immunocompromised individuals. C. *albicans* can grow in different cell shapes, or 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 virulence. Many studies have implicated cAMP in the regulation of morphogenesis. cAMP acts to activate 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 oHWP1 in the absence of each of the negative regulators. This will help us better understand the signal transduction cascade that controls morphogenesis in C. *albicans*.