## Investigating the impact of an RNA-binding protein on hyphal tip localization of an mRNA in *Candida albicans*Alaijah Rubianes, Class of 2024

Candida albicans is an opportunistic pathogenic fungus that can enter the bloodstream & internal organs, which can lead to life-threatening infections for immunocompromised people [1, 2]. Infection rate is linked to the transformation of budding yeast cells to hyphal cells [3]. Hyphal

binding protein inside the She complex, She2, links certain mRNAs to a motor protein, through the adaptor protein She3. This results in the mRNAs being transported from the mother cell to the daughter cell, where proteins can then be synthesized [5,6].

Although *C. albicans* contains She3 and motor proteins, one distinguishing aspect and *C. albicans* is that the latter fungus does not contain She2 [4]. Therefore, some other mechanism must be used to take transported mRNAs to She3, which is important for the normal hyphal formation and transporting some mRNAs to the hyphal tip [4]. One protein that may replace the function of She2 is Slr1, an RNA

without Slr1.

To visualize the location of *ASH1* mRNA in *C. albicans* cells, we used a technique called fluorescent in situ hybridization (FISH). A fluorescent dye is link[(t)7(h)1.00\text{\$\text{\$Q}\$} prob6(s)-6(c) 7(h)-20(e)7(t)7(i) -6(c) 7(h)-20(e)7(t)7(i) -6(c) 7(h)-20(e)7(t)7(i) -6(c) 7(h)-20(e)7(h)-20

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