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Candida albicans Plasmid Project

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***Candida albicans* Plasmid Project**

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Candida albicans is a commensal fungus that is highly an important human pathogen that is actively researched due to the high mortality in immunocompromised populations. One roadblock in *C. albicans* research is the lack of molecular tools, in particular replicating plasmids. This project will develop an autonomous replicating plasmid that can replicate and be maintained in *C. albicans.* Our plasmid will have a *C. albicans* specific origin of replication and a segregation mechanism allowing the plasmid to be segregated into the daughter cells. We have previously knocked out Ura3 from a strain of *C. albicans* and our plasmid will express this protein to and in the maintenance of the plasmid in *C. albicans.* Ura3 is a gene that codes for an enzyme in the uracil pathway required for *C. albicans* growth. The plasmid will include a multiple cloning site (MCS) that will allow expression of heterologous proteins. The first protein expressed from our plasmid will be the common reporter green fluorescent protein (GFP).