The *C. albicans* ALS gene family encodes proteins that are homologous to *S. cerevisiae* alpha-agglutinin:

**But these proteins bind the yeast to us for commensal and pathological relationships.** With Drs. Nand Gaur and Steve Klotz, we are dissecting how the various domains of these proteins interact with human host proteins and with other fungal and bacterial proteins. These interactions facilitate invasion of the host and colony formation and formation of microbial biofilms that are resistant to anti-fungal treatments. Therefore, interfering with these processes will help fight fungal infections, which actually kill many patients with chronic conditions such as AIDS and leukemia.

**Als proteins bind to many mammalian proteins** (coated on the brown-gold beads in this picture) then cause the yeast to stick to each other. The binding causes a conformational change, which results in increased fluorescence by ANS, a dye that binds to hydrophobic regions of proteins.

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The Ig-like (green) and TC (blue) and TRR regions (purple) participate in this binding and yeast aggregation.