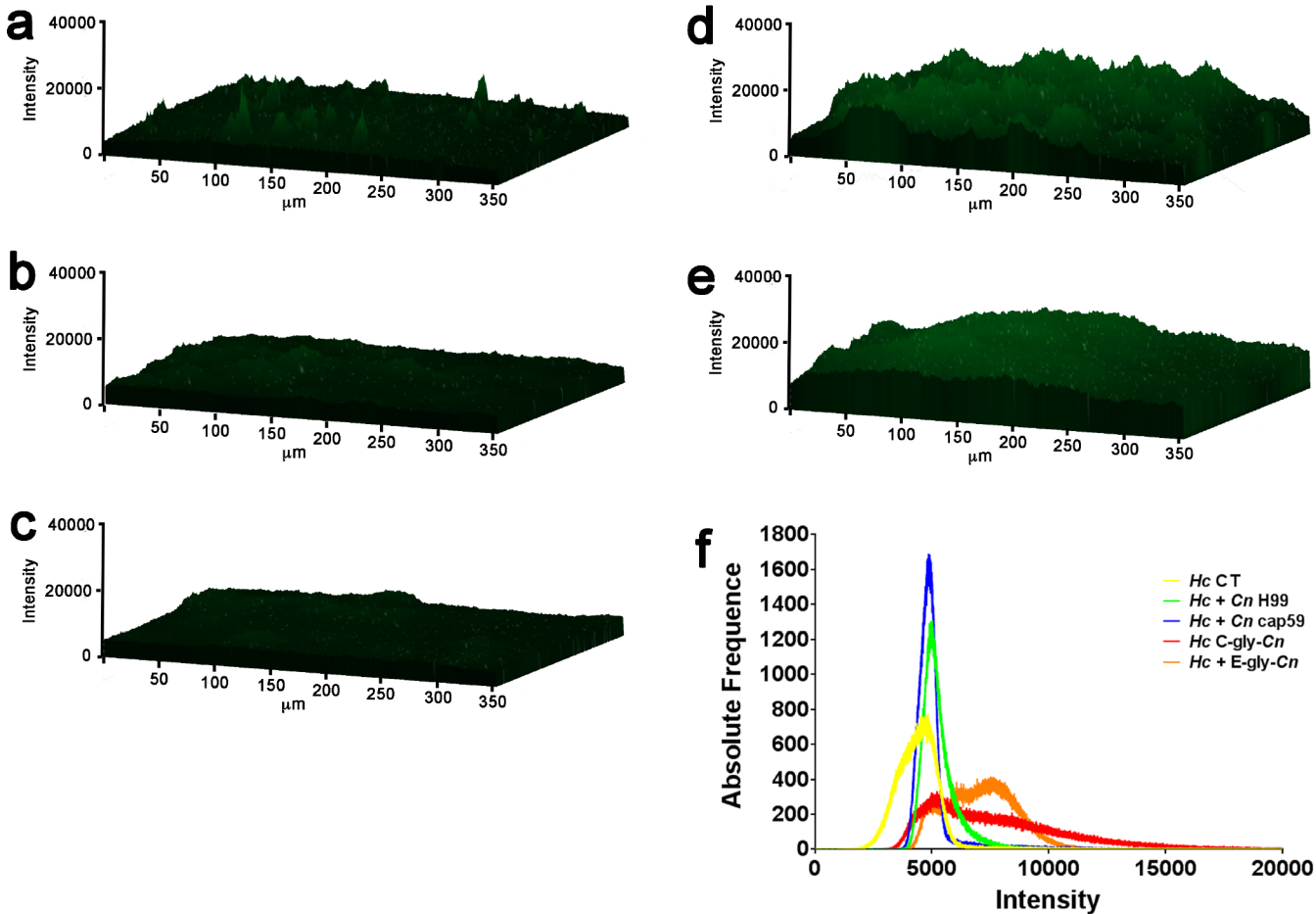


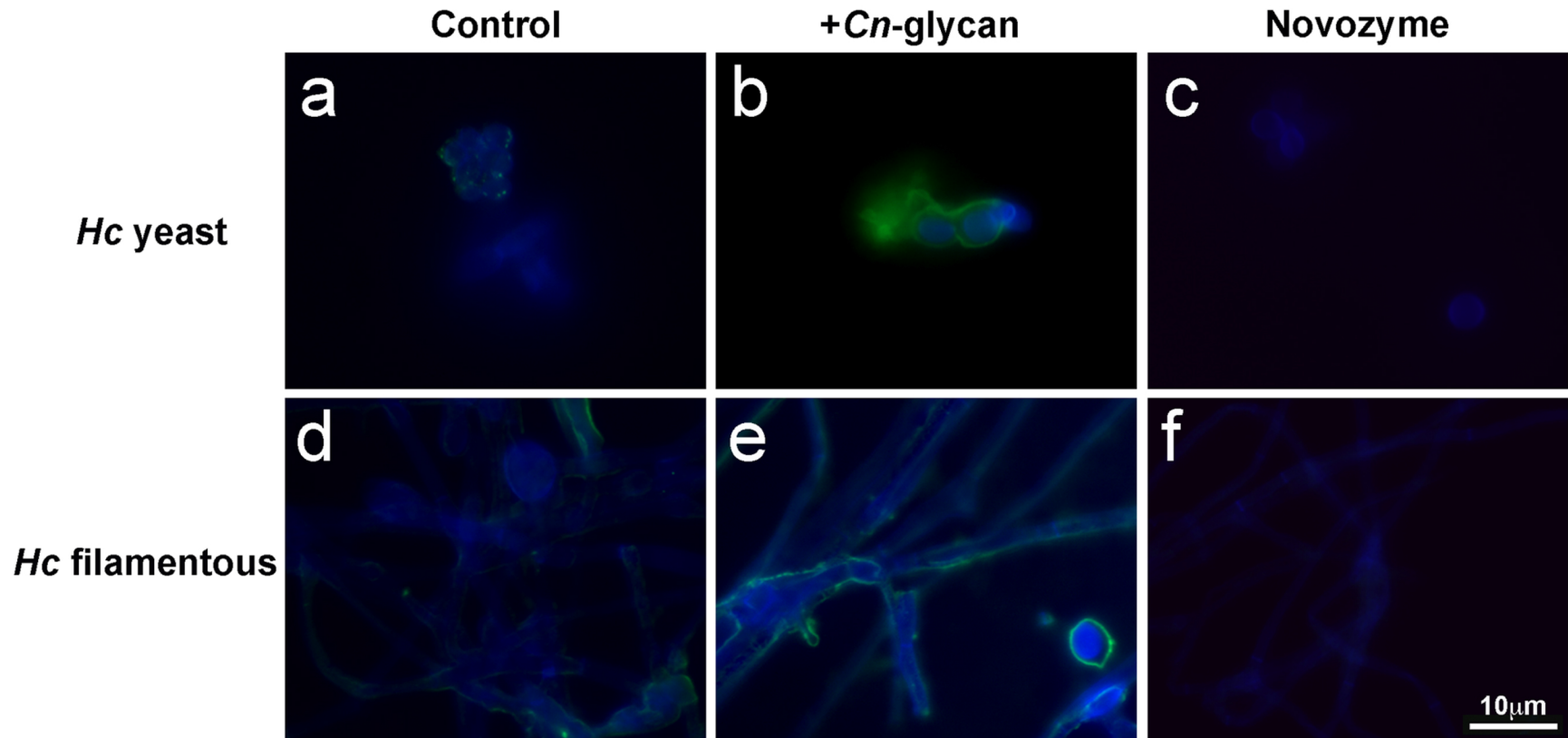
# Enhanced virulence of *Histoplasma capsulatum* through transfer and surface incorporation of glycans from *Cryptococcus neoformans* during co-infection

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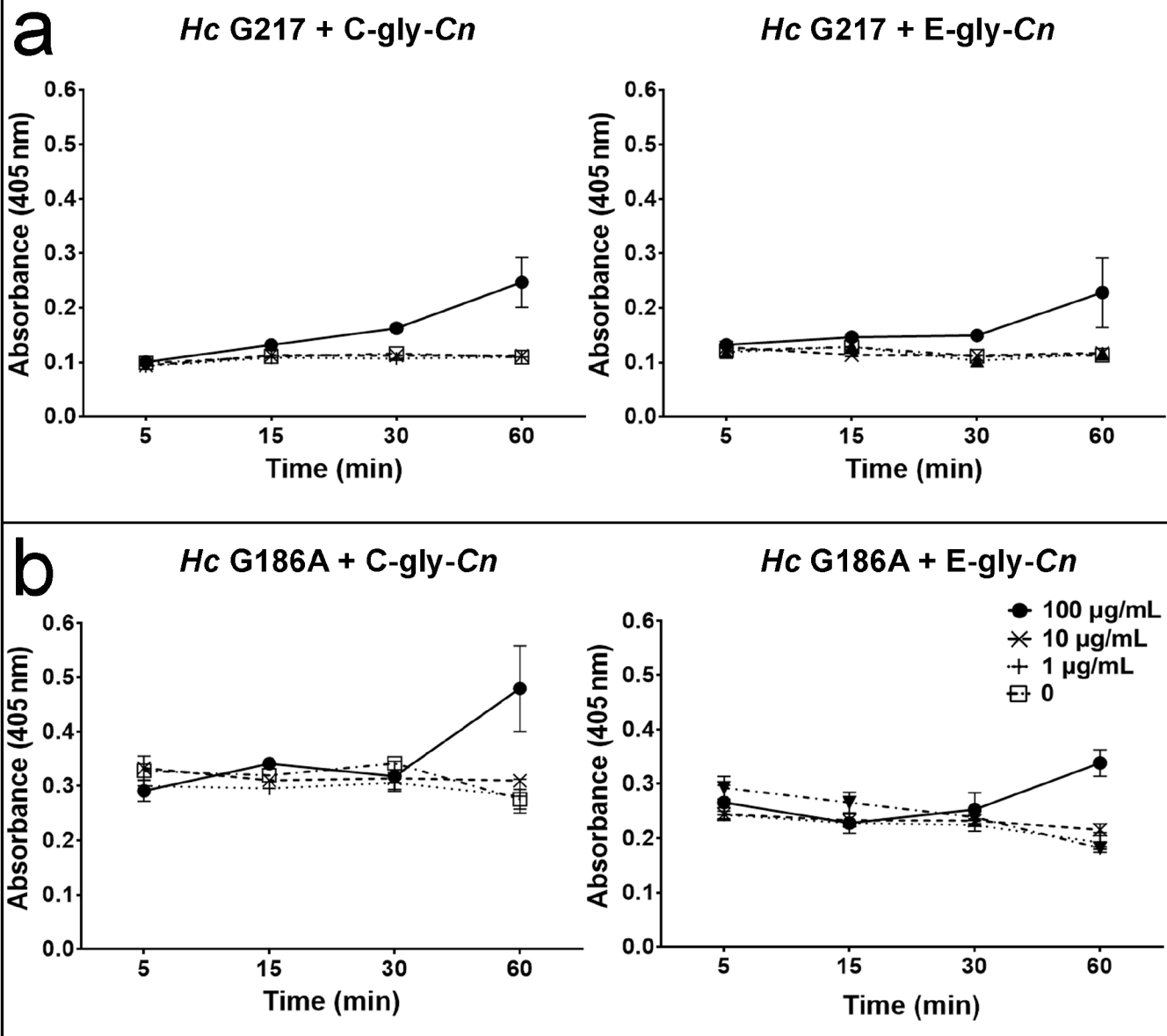
## SUPPLEMENTARY MATERIAL:



**Supplementary Figure 1. Structural determination of pellicles by a 3D-rendering model obtained by Z-stack imaging and deconvolution using Zeiss software. (a) *Hc* GFP; (b) *Hc* GFP + *Cn* H99 (c) *Hc* GFP + *Cn* cap59 (d) *Hc* GFP + C-gly-*Cn* (e) *Hc* GFP + E-gly-*Cn*. (f) Plot displays the frequency of fluorescent areas after imaging analysis and an increase was observed for *Hc* GFP + *Cn* H99, *Hc* GFP + C-gly-*Cn* and *Hc* GFP + E-gly-*C*, displaying the importance of Cn-gly on *Hc* flocculation. *Hc* CT indicates *Hc* alone.**



**Supplementary Figure 2. *Cn*-glycan incorporation occurs in both the filamentous and yeast phase of *Hc*.** Micrograph representations of *Hc* yeast cells (upper row: a, b and c) and hyphae (lower row: d, e and f) labeled with GXM-binding mAb 18B7 and an anti-IgG Alexa 488 conjugate (green) before (a and d) and after (b and e) incubation with *Cn*-glycan. (c and f) Binding of *Cn*-glyc to the *Hc* surface was prevented when cells were pre-incubated with cell wall digesting enzymes (Novozyme). Cells were also labelled with Uvitex (blue) to denote the limits of the fungal cell wall. Scale bar = 10 μm.



**Supplementary Figure 3.** Kinetics of cryptococcal glycan incorporation differed among distinct *Hc* strains with different amounts of  $\alpha$ -1,3-glucans on their surface: (a) G217B, low  $\alpha$ -1,3-glucan producing and (b) G186A high  $\alpha$ -1,3-glucan producing strain. Statistically significant incorporation was observed at incubations longer than 30 min for strain G217B for both C-gly-Cn or E-gly-C, while for G186 strain, difference was observed at 60min for both GXM fractions (\* $p$ <0.05).