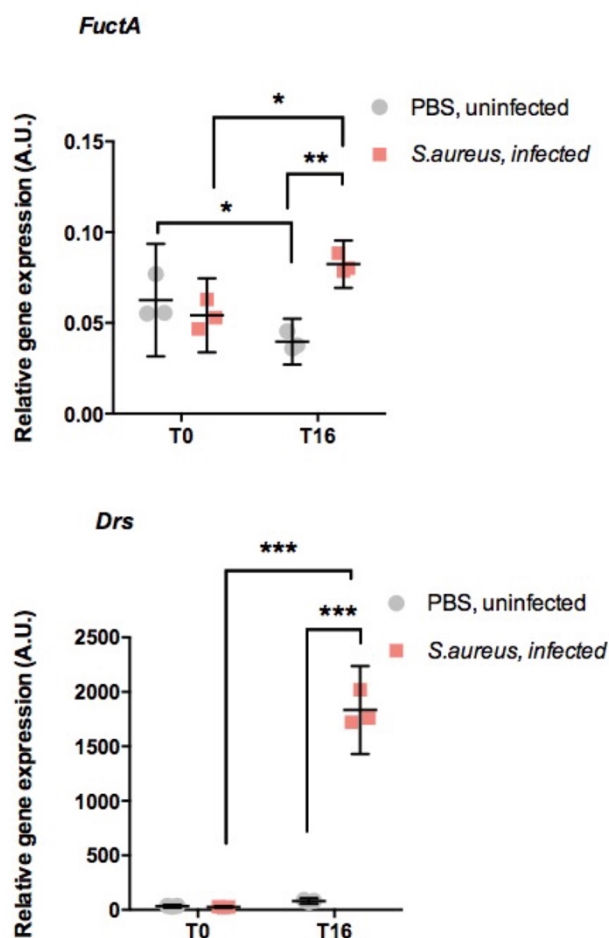
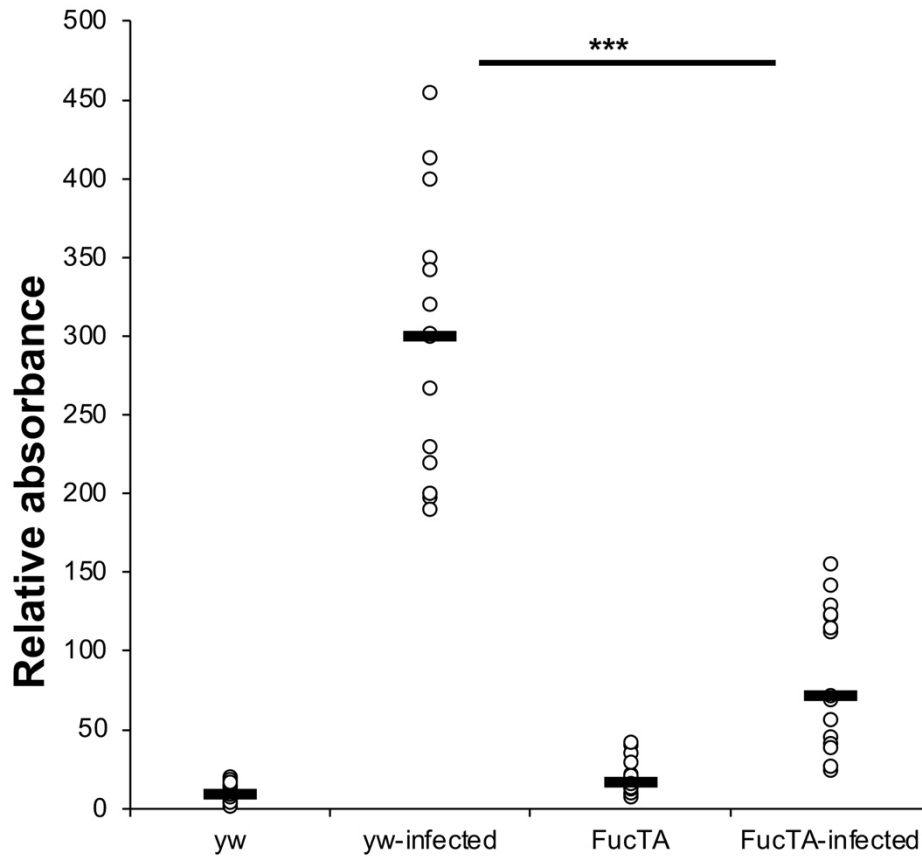


**Fig. S1: FucTA is needed for flies to survive *C. albicans* infection.** **A.** Flies homozygous for the FucTA mutant allele exhibited the same phenotype of susceptibility to *C. albicans* infection as the *c564-GAL4<UAS-FucTA<sup>RNAi</sup>* flies when compared to the VDRC genetic background (used as “wild type” control). **B.** This was rescued when the transposable element in *FucTA<sup>f03774</sup>* was precisely excised.



**Fig. S2. *FucTA* transcription is induced by *S. aureus* infection.** *FucTA*: Following *S. aureus* infection of  $w^{1118}$  flies, the levels of the *FucTA* transcript were significantly induced between T0 and T16 (hours) (\* $p < 0.01$ ), while at T16 *FucTA* gene expression was significantly higher than flies injected with sterile PBS (\*\* $p < 0.001$ ). *FucTA* transcription was significantly lower in T16 compared to T0 in PBS-injected flies (\* $p < 0.01$ ). To ascertain that infection was productive, we assayed expression of the AMP gene *drosomycin* (**Drs**). *S. aureus* infection induced a robust activation of *drosomycin* expression compared to controls at T16 (\*\* $p < 0.0001$ ). Each dot is the average of 5 flies and the experiment was repeated three times (Student's t-test was used for comparisons).



**Fig. S3. *FucTA*<sup>f03774</sup> infected flies have a lower level of hemolymph melanisation.** Flies homozygous for the *FucTA*<sup>f03774</sup> mutant allele exhibited a significantly lower level of melanisation in their hemolymph compared to *yw* controls (\*\*\*) 30mins after they were infected with *S. aureus*. Each dot represents the average melanisation of 15 flies (n=15X10 independent experiments for each genotype/treatment). Student's t-test was used for comparisons.

**Table S1. Infection survival data for RNAi screen (*C. albicans*)**

[Click here to download Table S1](#)

**Table S2. Infection survival data for RNAi screen (*S. aureus*)**

[Click here to download Table S2](#)

**Table S3. RNAi Screen Target Highlights**

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**Table S4. Infection survival data for Fuc-TA-RNAi (CG6869).**

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