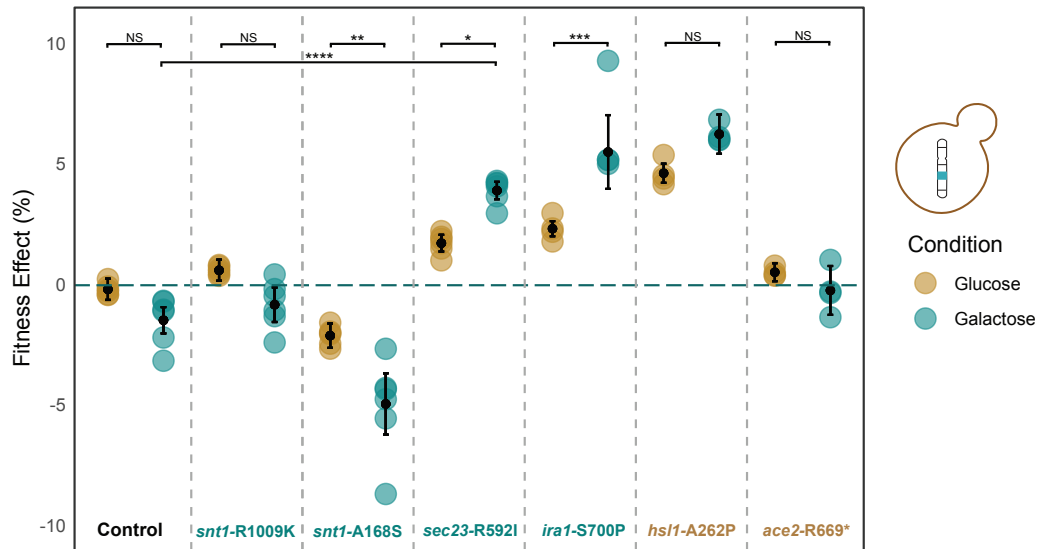
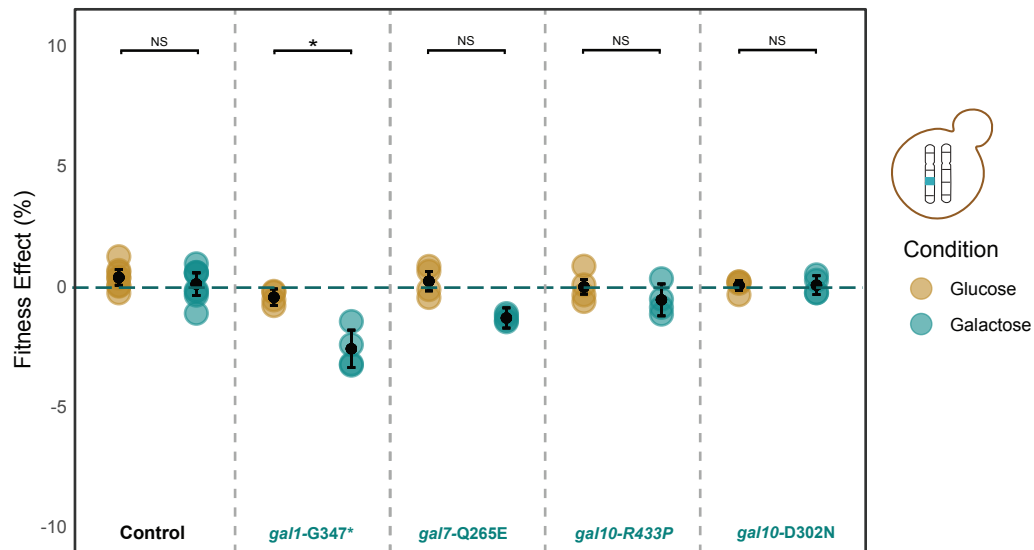


A



B



Supplementary Figure 3. Fitness effect of Galactose-evolved alleles. (A) Average fitness effects of the reconstructed mutations in *snt1* (n=6), *sec23* (n=6), and *ira1* (n=4), *hsl1* (n=4), and *ace2* (n=4) in haploid background. The *sec23* allele has a significant fitness gain in galactose compare to glucose. Asterisk (****) indicates $p < 10^{-8}$, (***) $p < 10^{-4}$, (**) $p < 10^{-3}$, (*) $p < 10^{-2}$, and NS: not significant; one-way ANOVA, tukey's HSD test. The *ira1* allele follows the same effect as *sec23* allele. (B) Average fitness effect of evolved mutations in *gal1* (n=4), *gal7* (n=4), *gal10* (n=4) in heterozygous allele. No fitness advantage from mutations in galactose genes. Error bars are the s.e.m.