



Figure S8 In both haploid and diploid replicate evolutionary experiments, a small number of genes are repeatedly targeted. Each circle contains the mutations found in an evolved haploid or diploid population. The font size of genes in the Venn diagram for haploids is proportional to the number of mutations in the corresponding gene identified in (Kvitek and Sherlock 2013). The font size of mutations in the Venn diagram for diploids is proportional to the number of strains in which the mutation was found (this study). The overlap between haploid and diploid targets is generally very low with the exception of the *HXT6/7* CNV. The only other shared gene targeted in both haploids and diploids is *SNF3* shown in red. The *HXT6/7* CNV frequency was not estimated in (Kvitek and Sherlock 2013), however from (Kao and Sherlock 2008) we know that it is very frequent and probably found in most populations and thus we included it in the figure with an arbitrary large font size as present in all three populations.