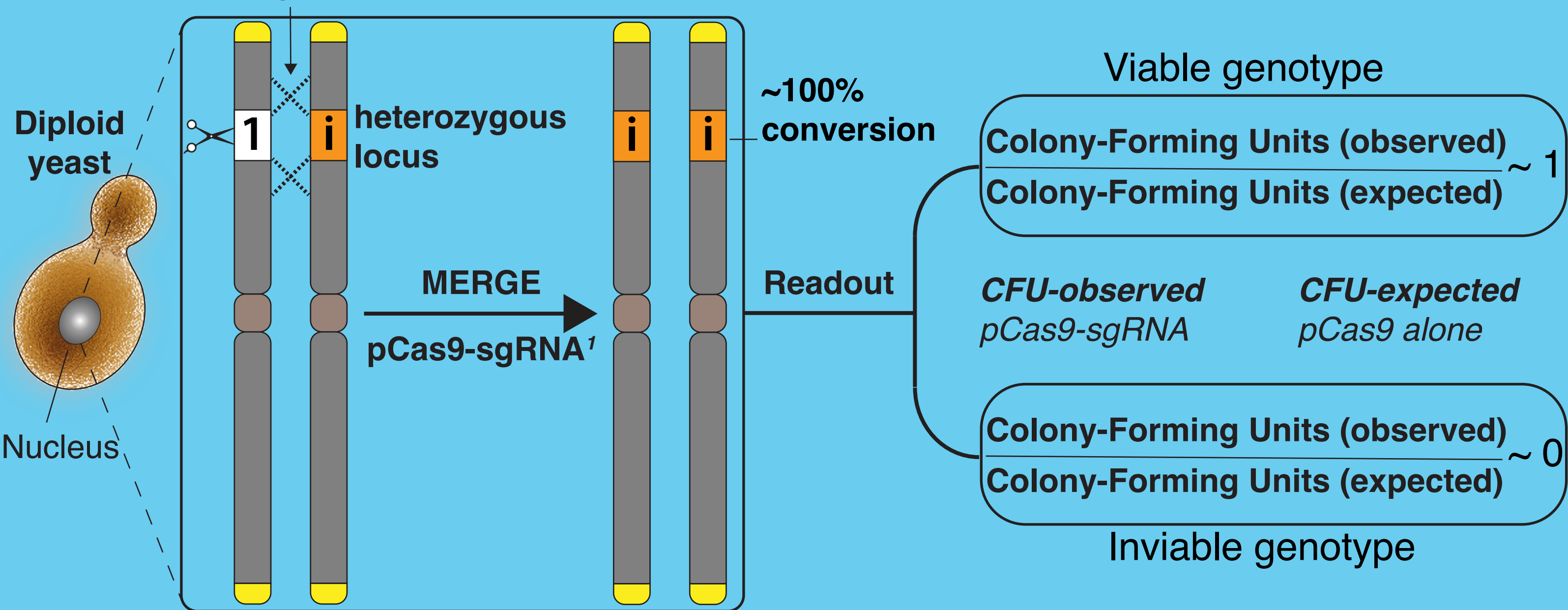
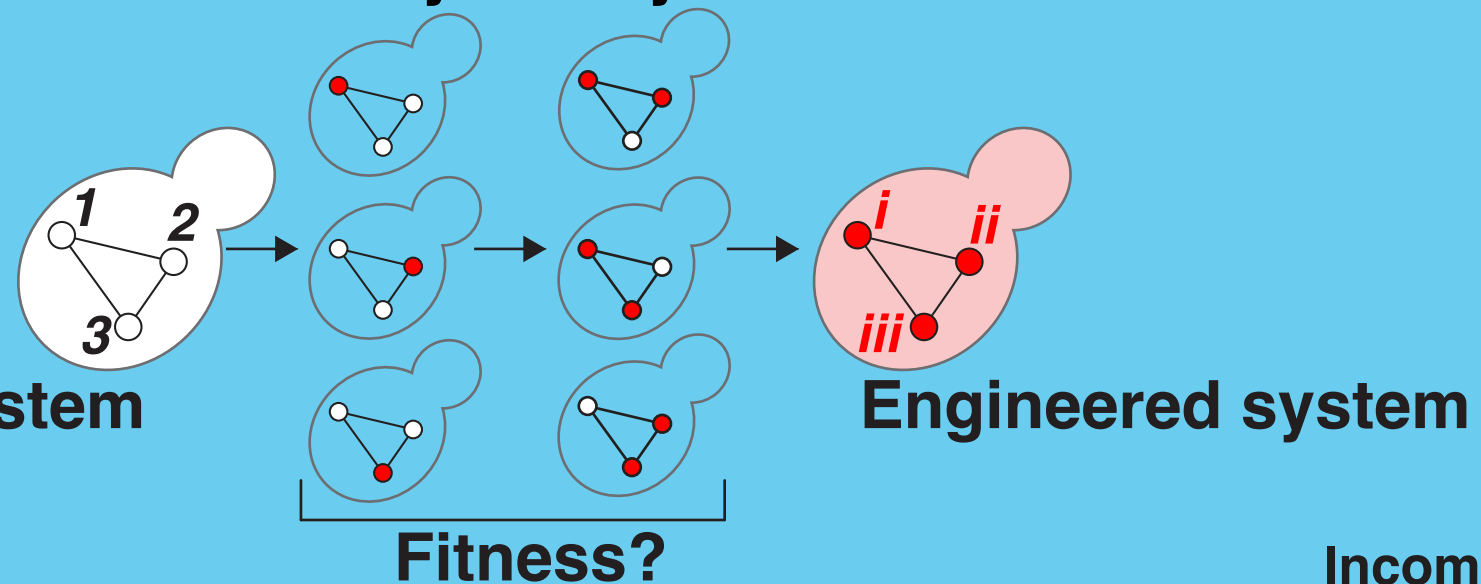


Markerless Enrichment & Recombination of Genetically Engineered Loci (MERGE)

Homology Directed Repair
(between homologous chromosomes)



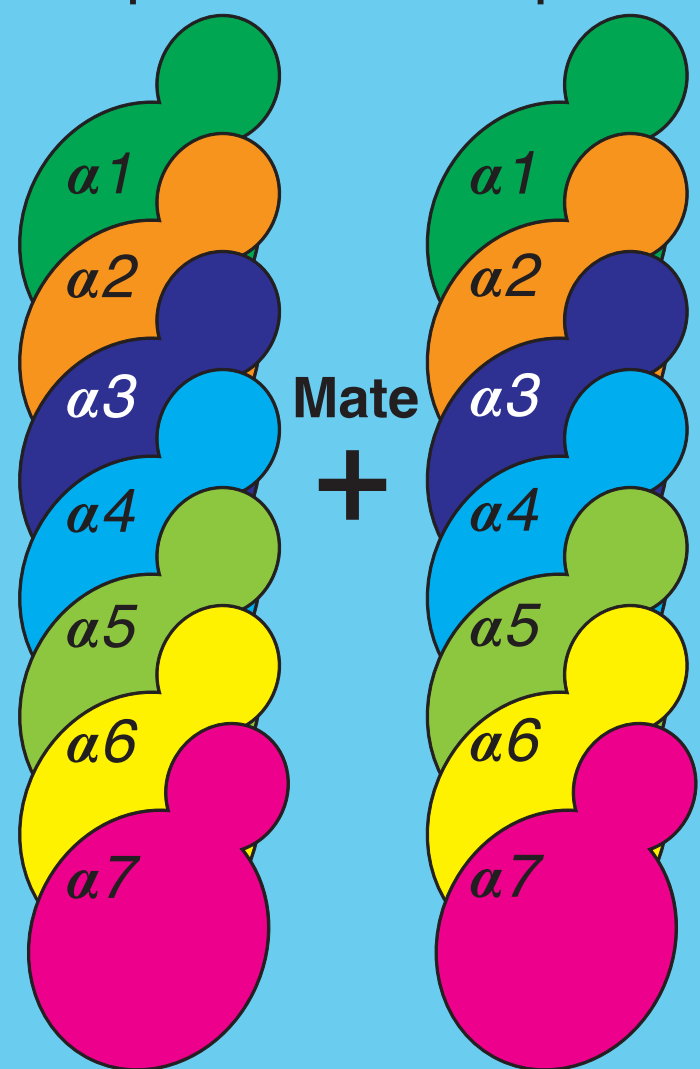
Fitness landscape of hybrid human-yeast system



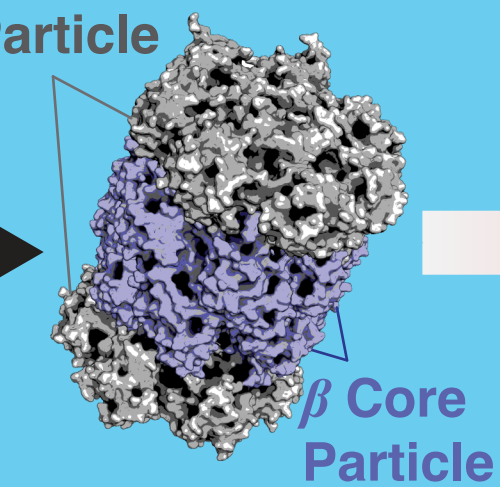
Single-humanized α -proteasome yeast

MAT a Haploid

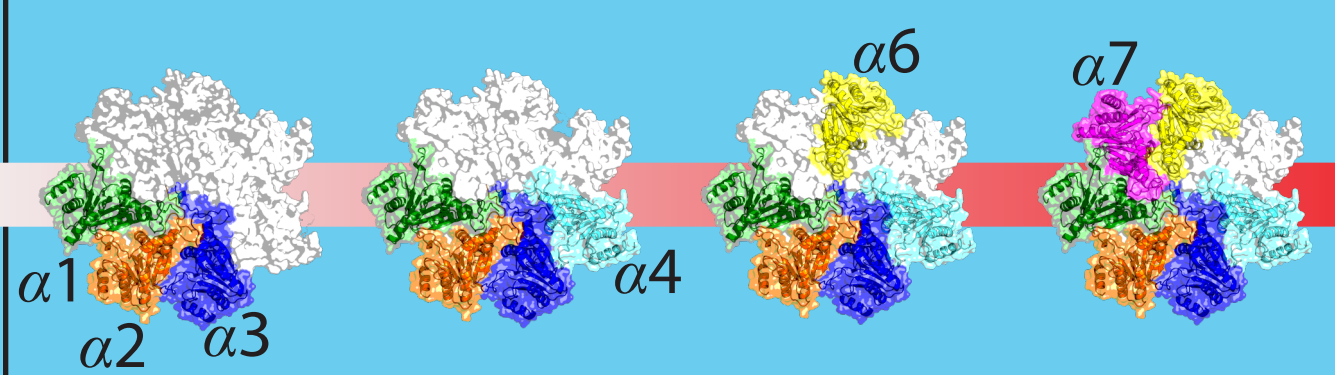
MAT a Haploid



α Core Particle

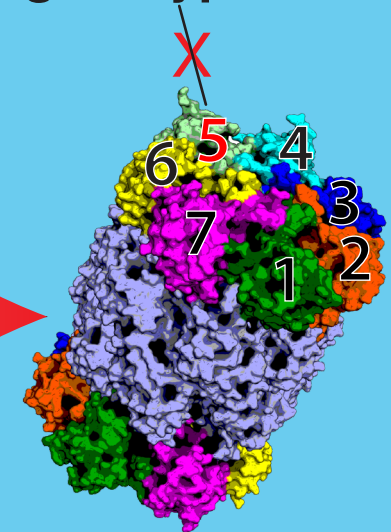


Path of humanized yeast α -proteasome core



MERGE

Incompatible genotype



Humanized α -proteasome core (6 of 7 genes)