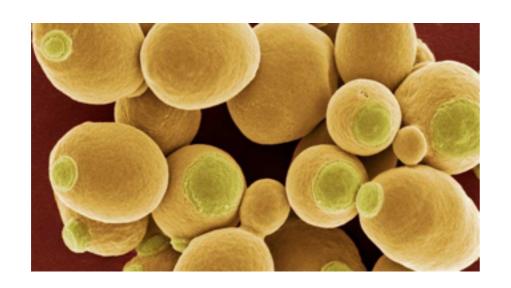
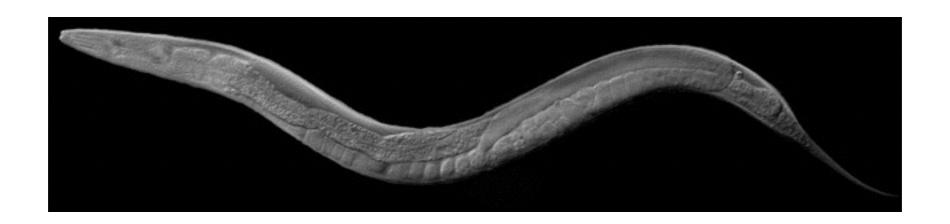
#### **Bio393: Genetic Analysis**

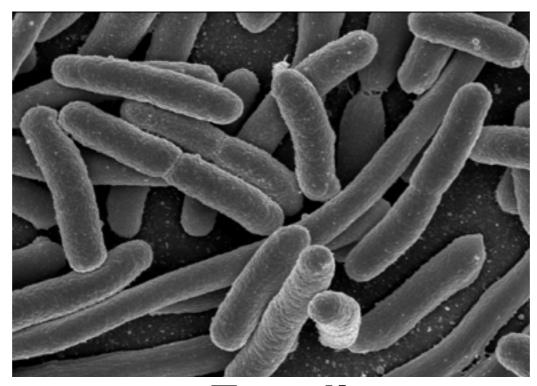
Screens, selections, mutants, dosage







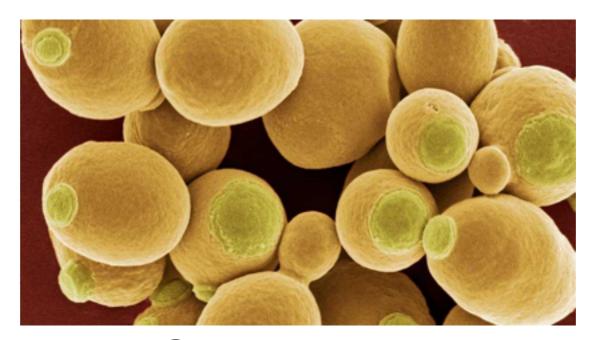
Where do all those mutant strains come from?



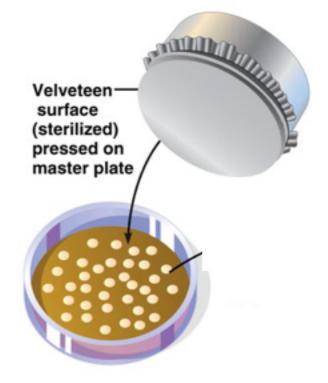
E. coli

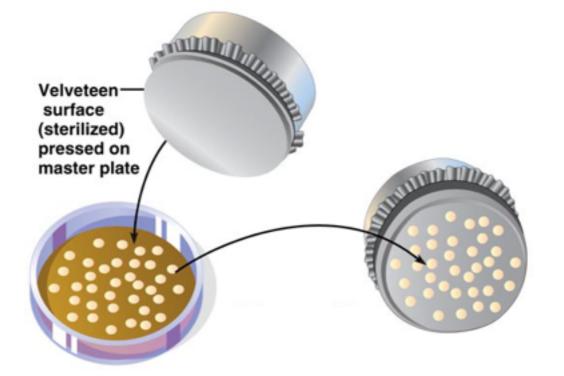


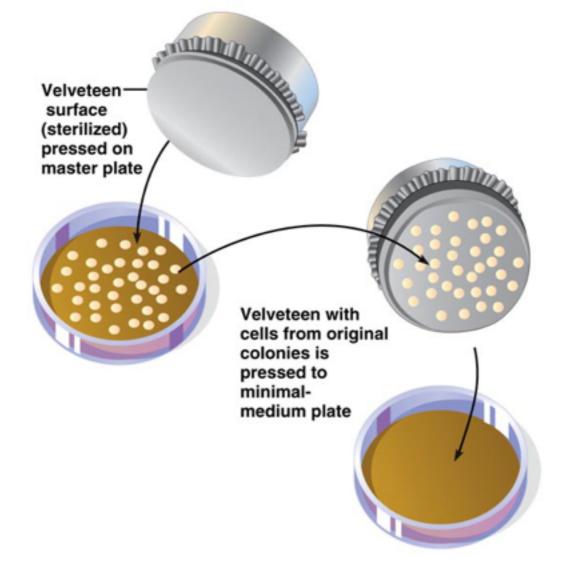
C. elegans

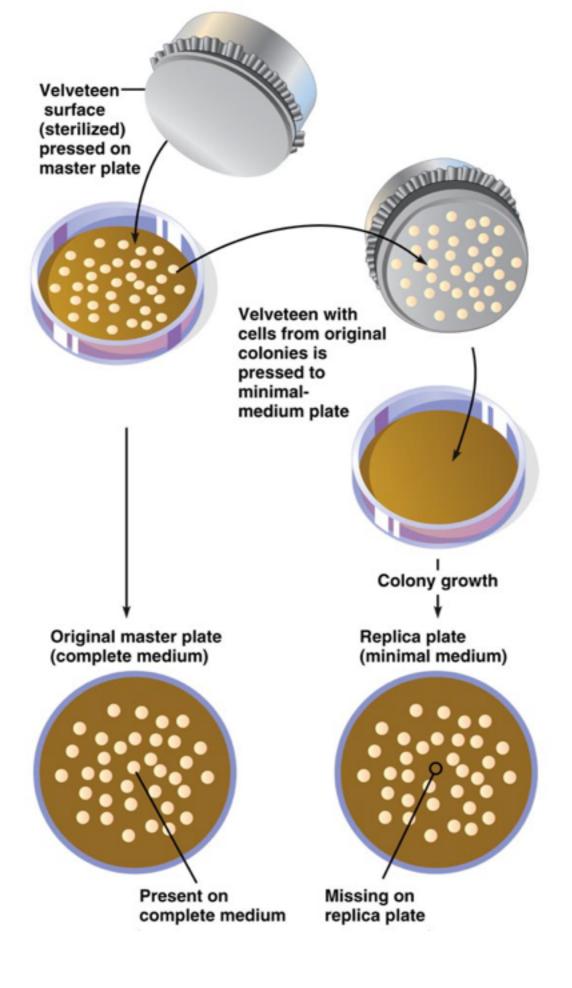


S. cerevisiae







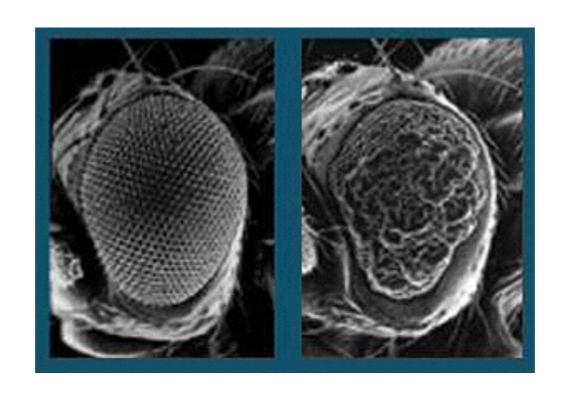




D. melanogaster



D. melanogaster





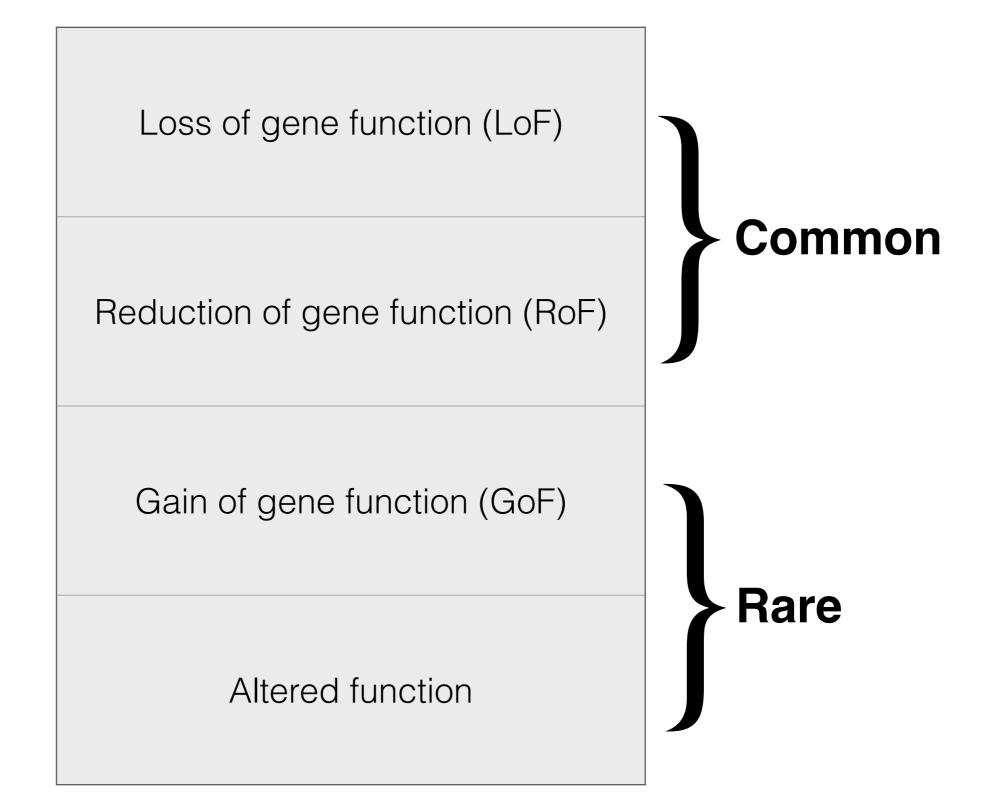
What does a mutation do to gene function?

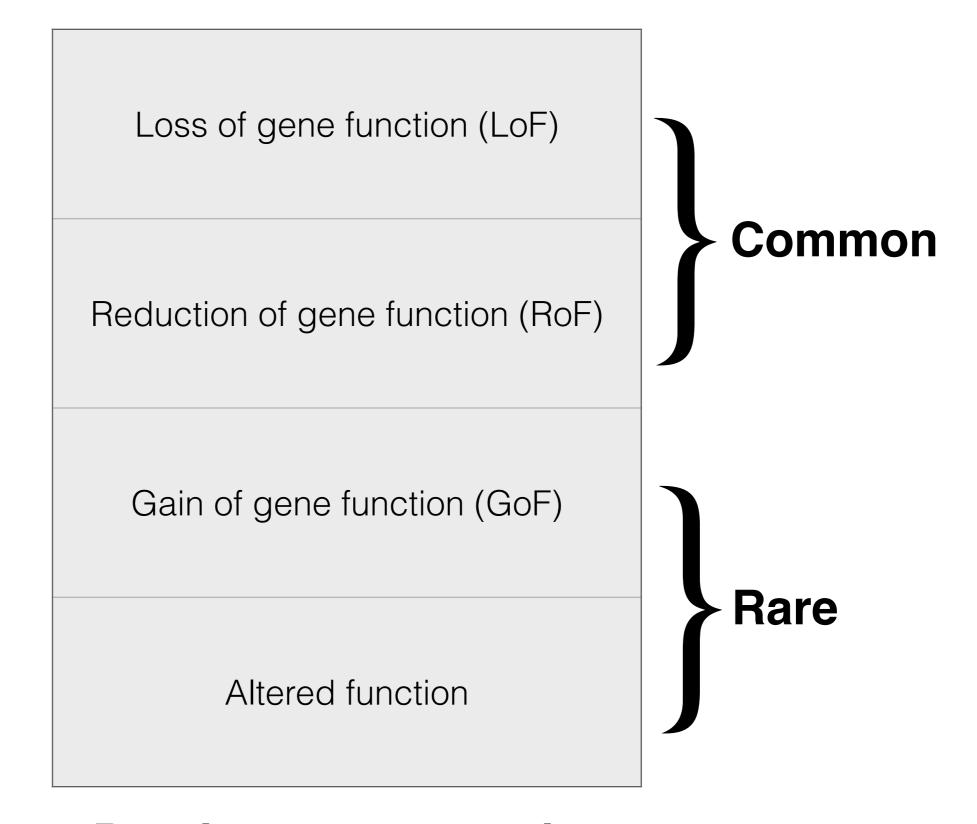
Loss of gene function (LoF)

Reduction of gene function (RoF)

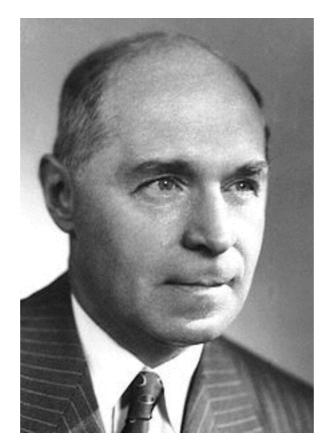
Gain of gene function (GoF)

Altered function





#### Dominant or recessive correlates with mutation type most times



**Hermann Muller** 

Loss of gene function (LoF)	amorph, nullomorph
Reduction of gene function (RoF)	hypomorph
Gain of gene function (GoF)	hypermorph
Altered function	neomorph, antimorph