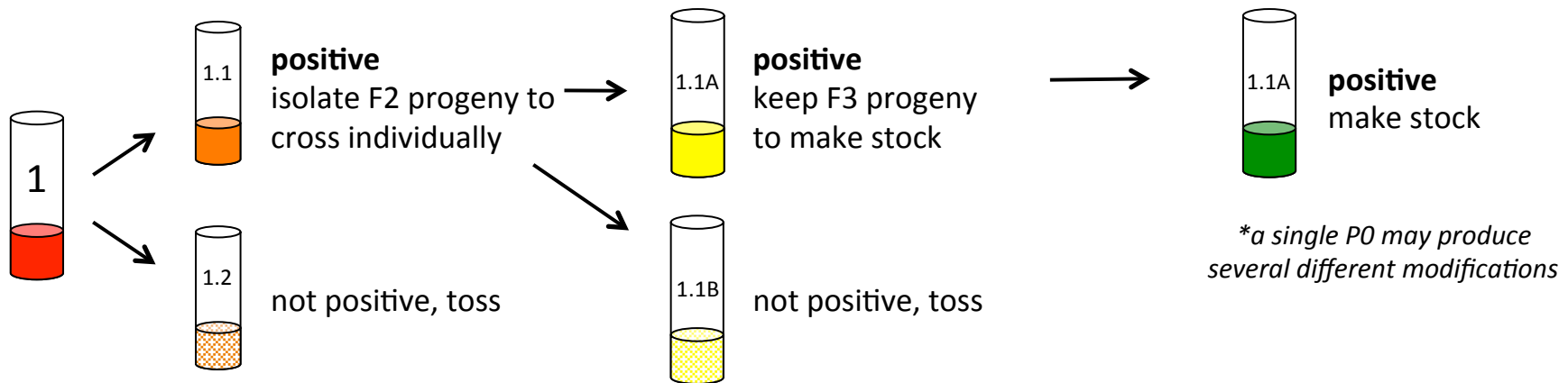
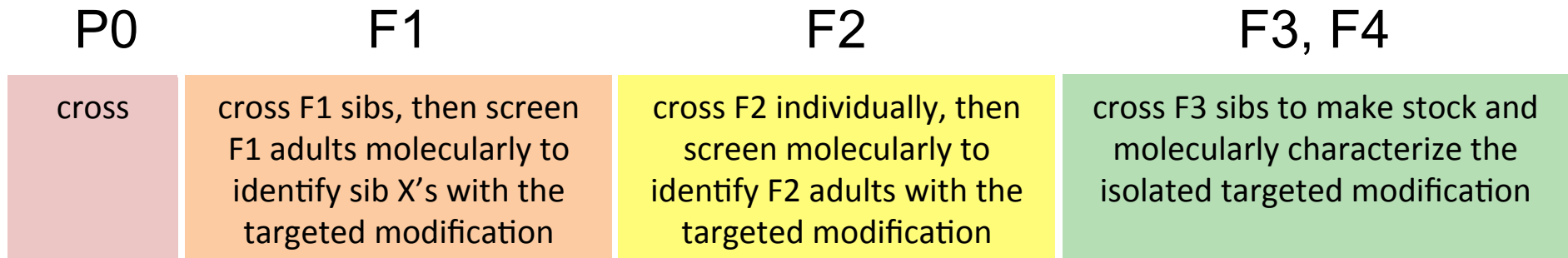


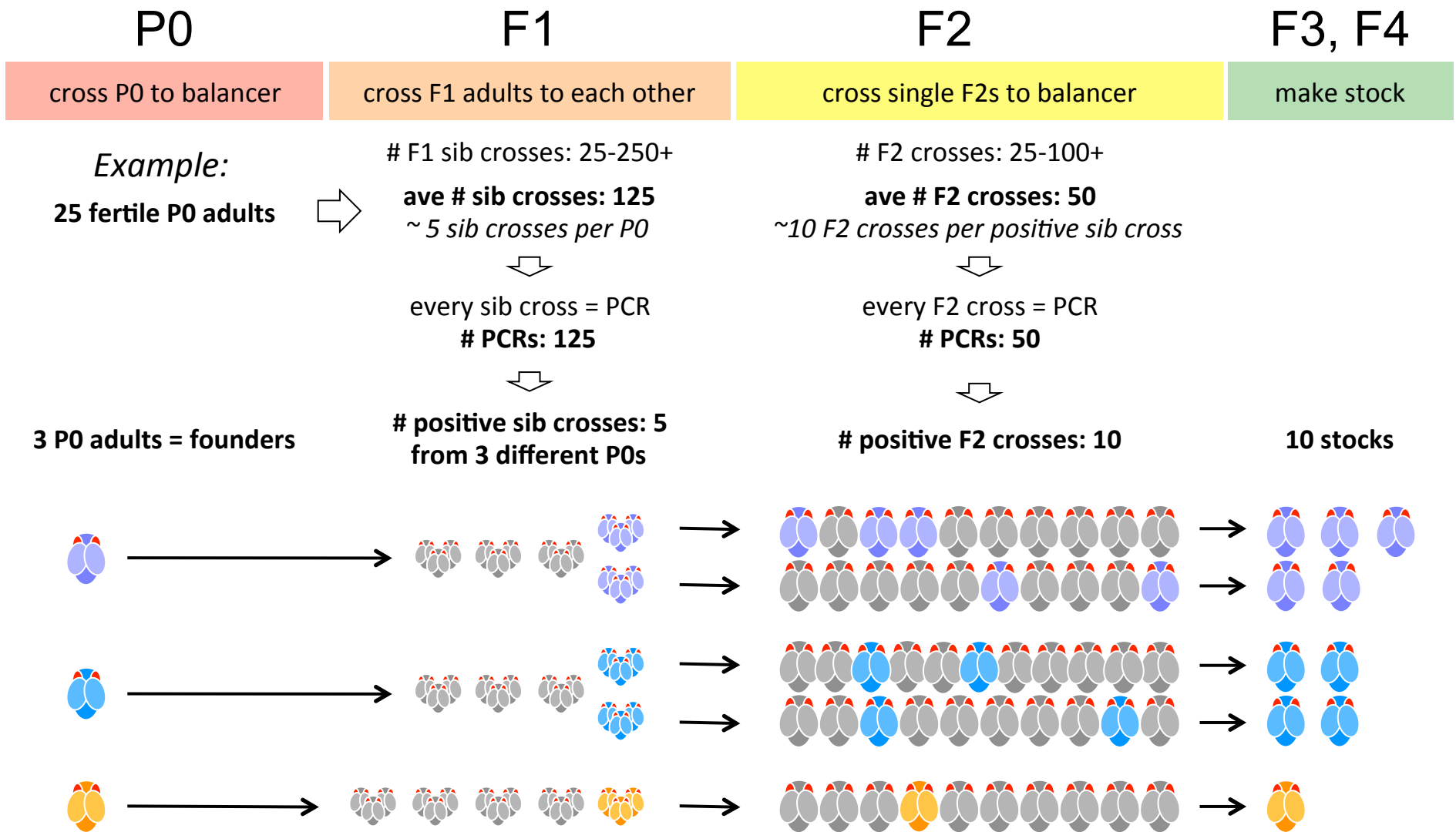
Molecular identification of ssODN-introduced designer mutations



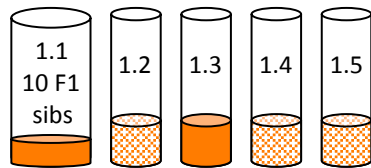
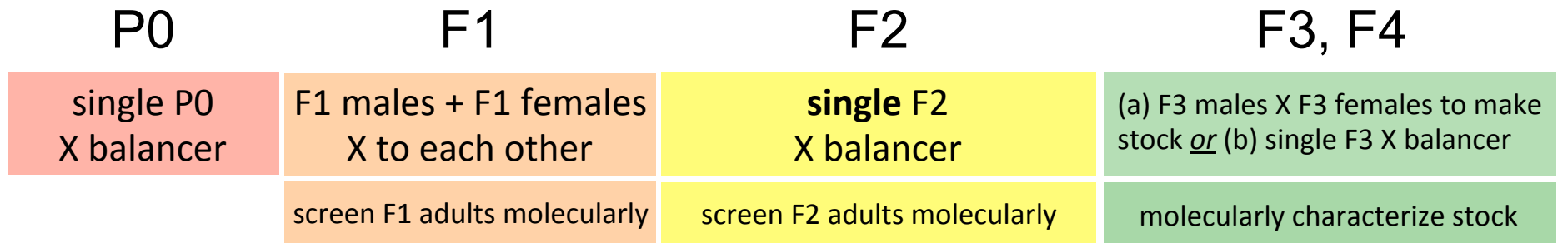
note: when targeting X-linked genes, it is important to only use F1 flies that inherit an X chromosome from the injected P0 parent

note: it is also possible to cross F2 males to a known allele of the targeted gene and phenotypically screen in F3 (e.g. screen for lethality or other phenotype)

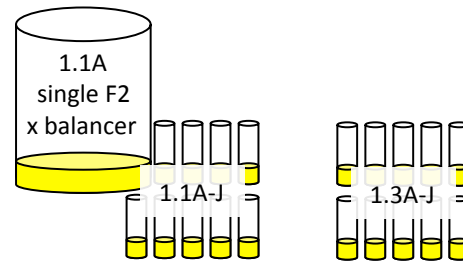
Molecular identification of ssODN-introduced designer mutations



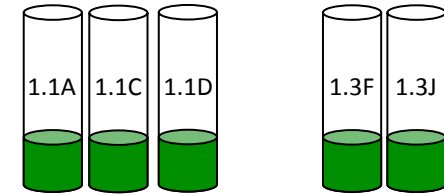
Molecular identification of ssODN-introduced designer mutations



positive hit
 negative



10 single F2 crosses



P0 mosaic germline:

germline: + or *?

example: targeting
a gene on II chrom

F1 genotypes:

+ or *?/CyO
+ or *?/Sp

possible F2 genotypes:

*?/CyO or Sp
 ?/?
 *?/+
 +/CyO or Sp = toss
 +/+ = toss
 Sp/CyO = toss

F3 genotypes (not all listed):

*?/CyO → make stock
 + or *?/CyO or Sp → X Sp/CyO to make stock