129/Sv ES cells injected into C57BL/6 blastocysts

**backcross design scheme**

Mouse strains for gene targeting

- C57BL/6
  - superovulate, mate, remove blastocysts
  - inner cell mass
  - blastocyst

- C57BL/6
  - microinjection

implant injected blastocysts into uterus of pseudo-pregnant foster mother

week 6, pups weaned, save male chimeras for mating

- founder mouse heterozygous, chimeric
  - B6 cells and 129/Sv cells

- ES cells from 129/Sv blastocyst, XY targeted one allele of gene of interest

- intercross to obtain homozygous mutant, heterozygous, and wild type

- backcross to propagate the line and put on inbred background