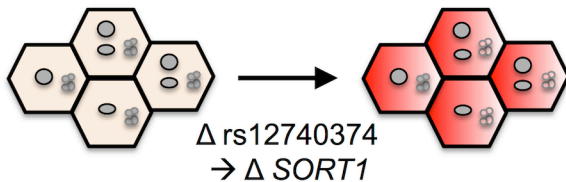


ex vivo genome editing of primary human hepatocytes



start with wild-type mouse

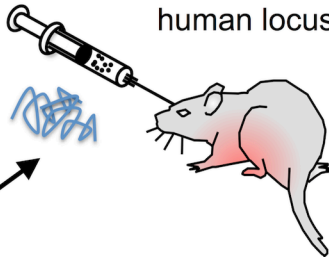


somatic in vivo genome editing of locus-humanized mouse

injection of embryo with human BAC DNA



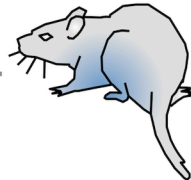
injection of virus with CRISPR-Cas9 to target human locus in liver



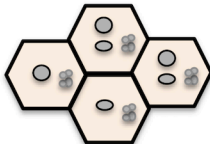
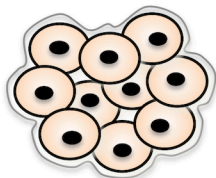
locus-humanized mouse



mouse with altered locus in liver



$\Delta$  rs12740374  
 $\rightarrow$   $\Delta$  SORT1



iPSC-hepatocytes fail to model rs12740374-SORT1 eQTL