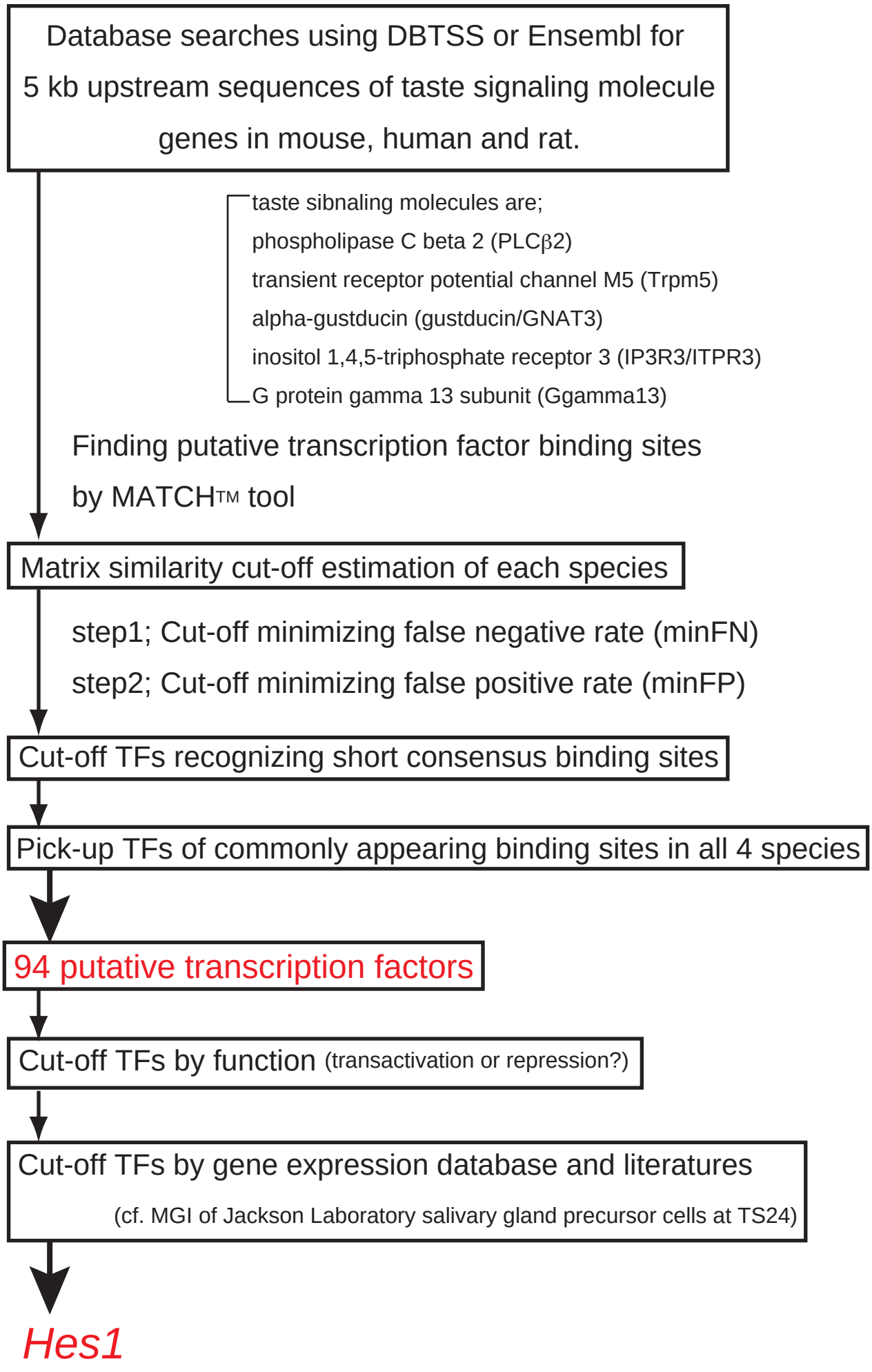
Database searches using DBTSS or Ensembl for
5 kb upstream sequences of taste signaling molecule
genes in mouse, human and rat.
taste sibnaling molecules are;
phospholipase C beta 2 (PLCβ2)
transient receptor potential channel M5 (Trpm5)
alpha-gustducin (gustducin/GNAT3)
inositol 1,4,5-triphosphate receptor 3 (IP3R3/ITPR3)
G protein gamma 13 subunit (Ggamma13)
Finding putative transcription factor binding sites
by MATCH™ tool
Matrix similarity cut-off estimation of each species
step1; Cut-off minimizing false negative rate (minFN)
step2; Cut-off minimizing false positive rate (minFP)
Cut-off TFs recognizing short consensus binding sites
Pick-up TFs of commonly appearing binding sites in all 4 species
94 putative transcription factors
Cut-off TFs by function (transactivation or repression?)
Cut-off TFs by gene expression database and literatures
(cf. MGI of Jackson Laboratory salivary gland precursor cells at TS24)
Hes1