



**Figure S2** Manhattan plot of ~50 kb surrounding the tested upstream regions. (A) XPEHH and (B) the associated  $P$ -values for each tested SNP within ~50 kb surrounding the P450 upstream regions. Each color represents a gene of interest. The tested upstream regions are located in the center and shown in the plus-strand orientation. Dashed lines indicate the threshold for significance ( $P = 10^{-4}$ ).