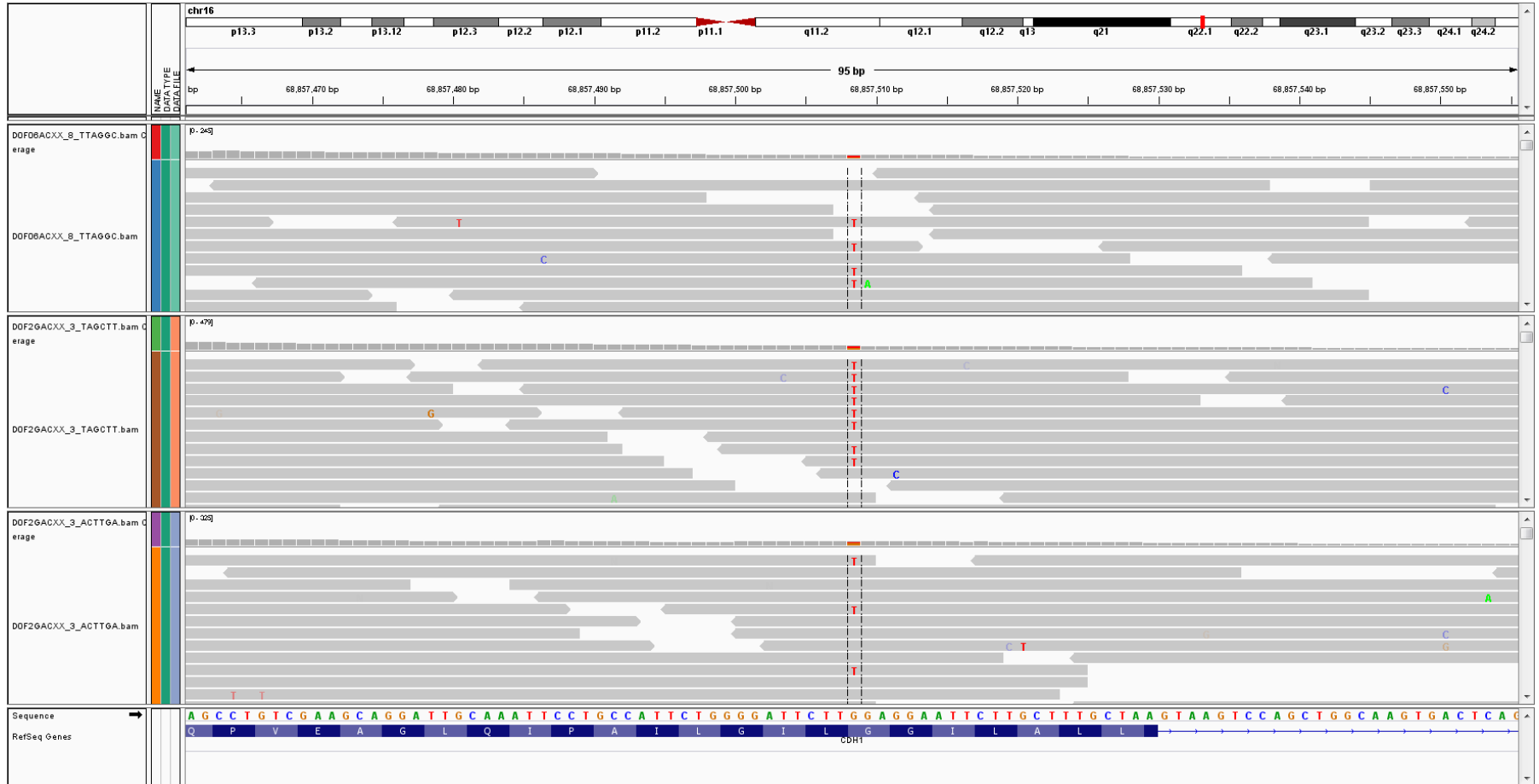
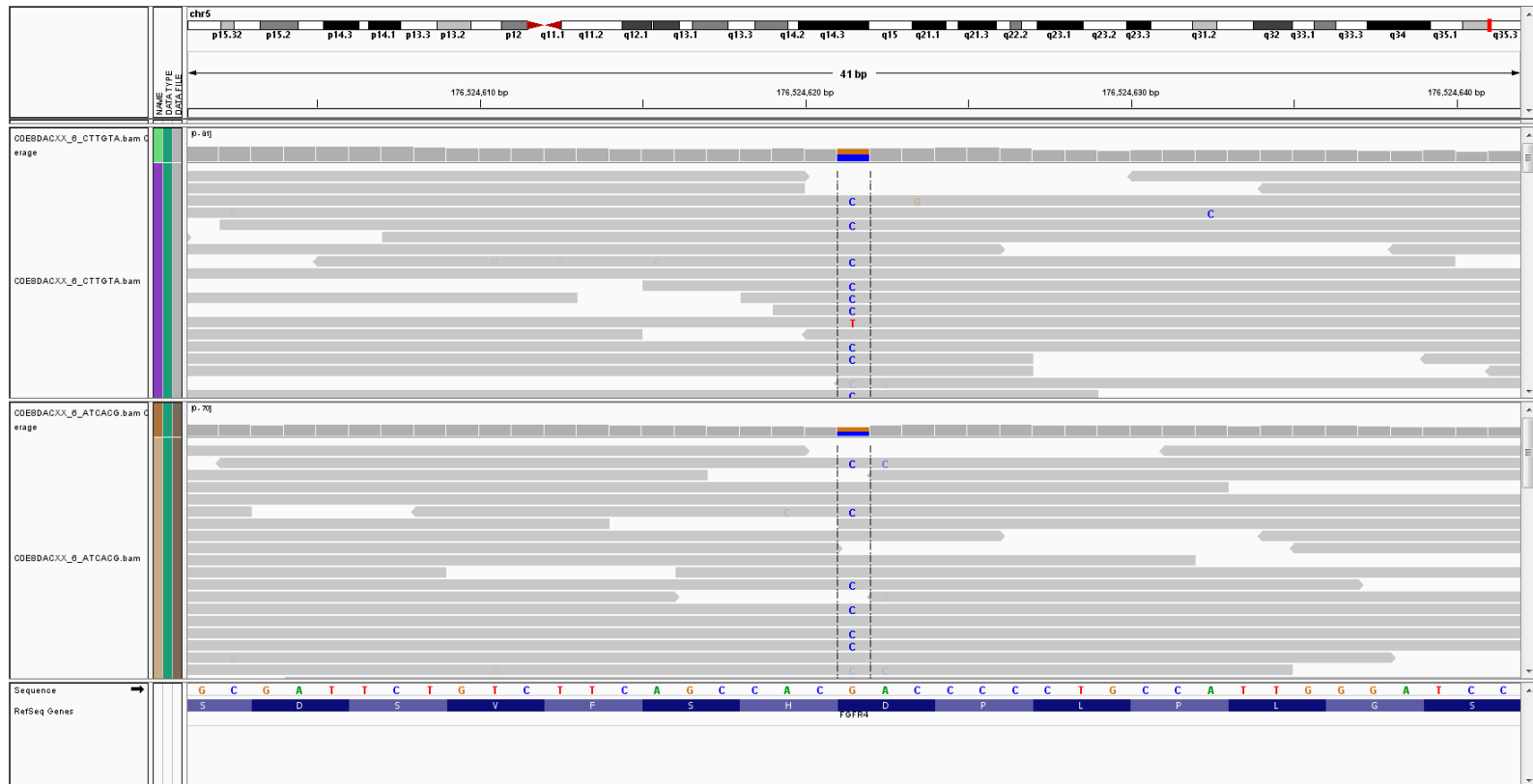


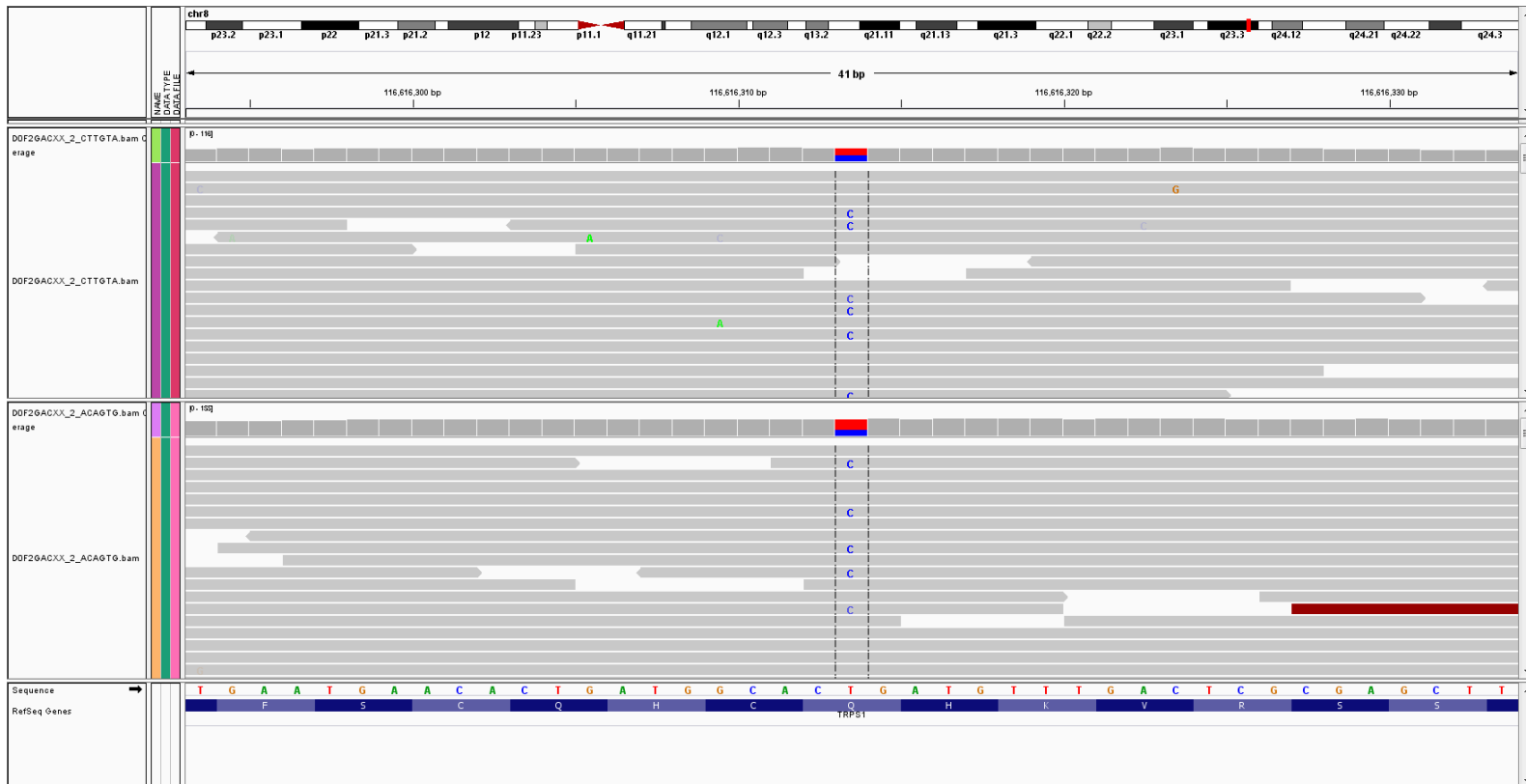
# A) Family 15157- CDH1- chromosome 16, position 68857508



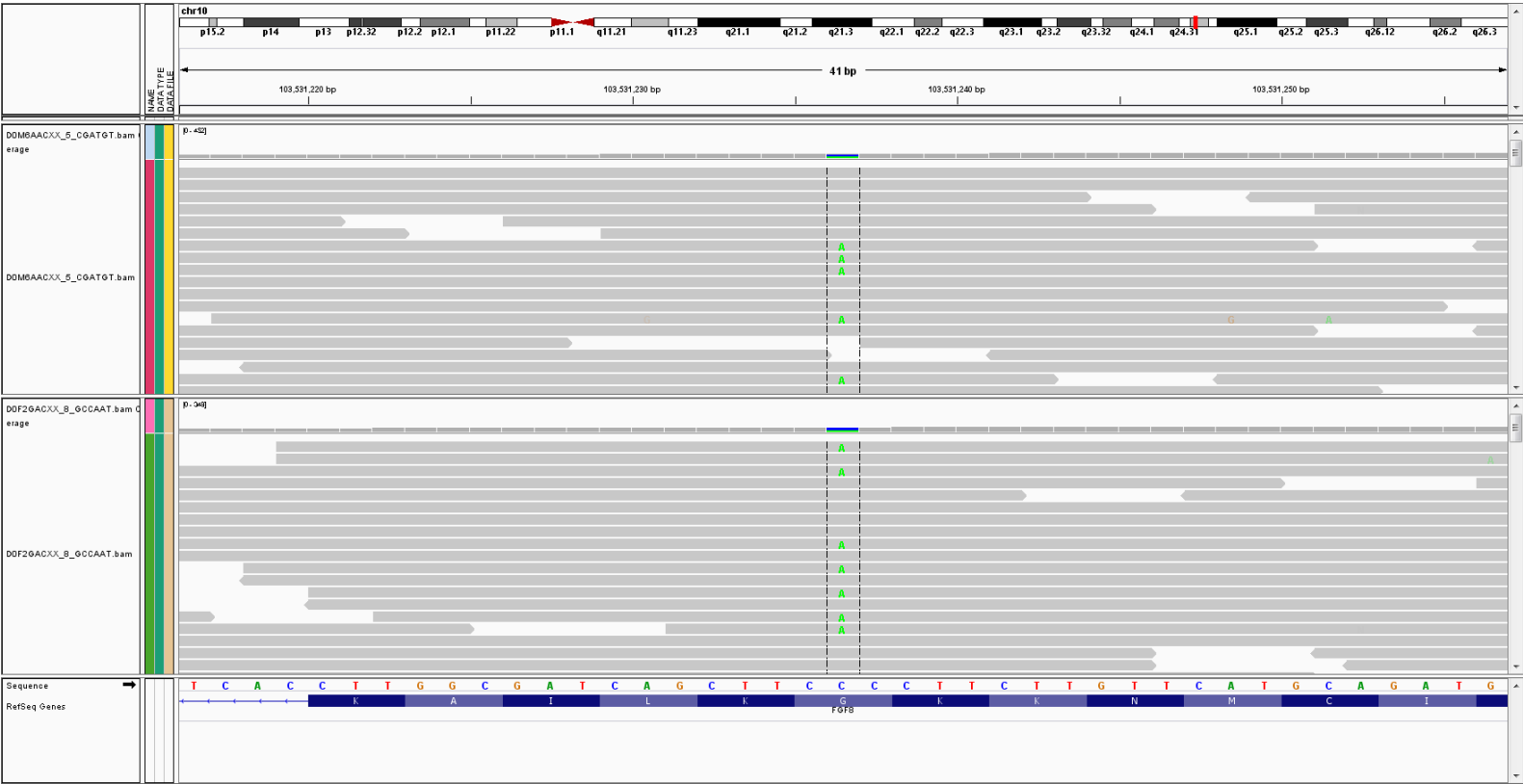
## B) Family 15160- FGFR4- chromosome 5, position 176524621



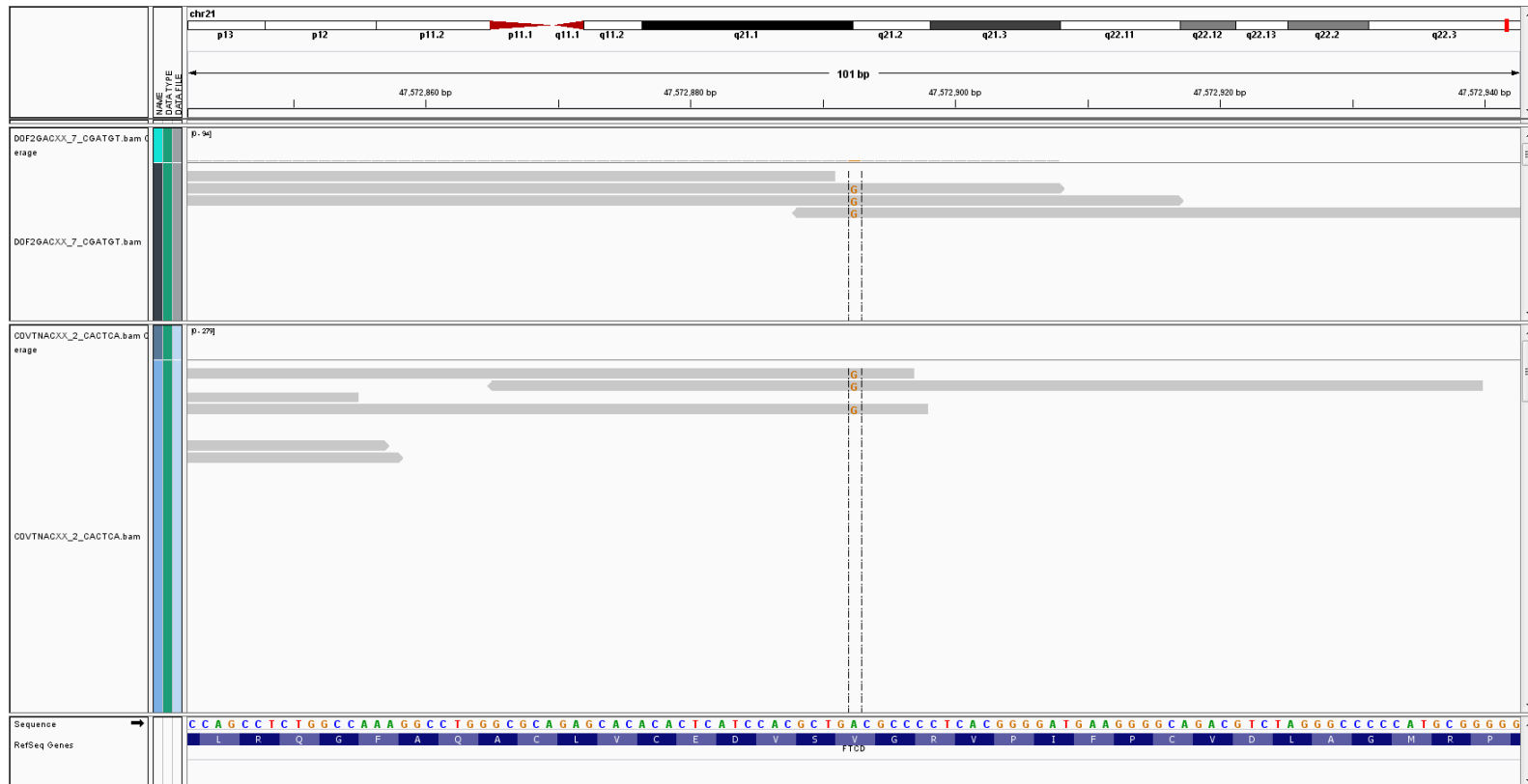
### C) Family 17106 – TRPS1 - chromosome 8, position 116616313



D) Family 25324 – FGF8 - chromosome 10, position 103531236

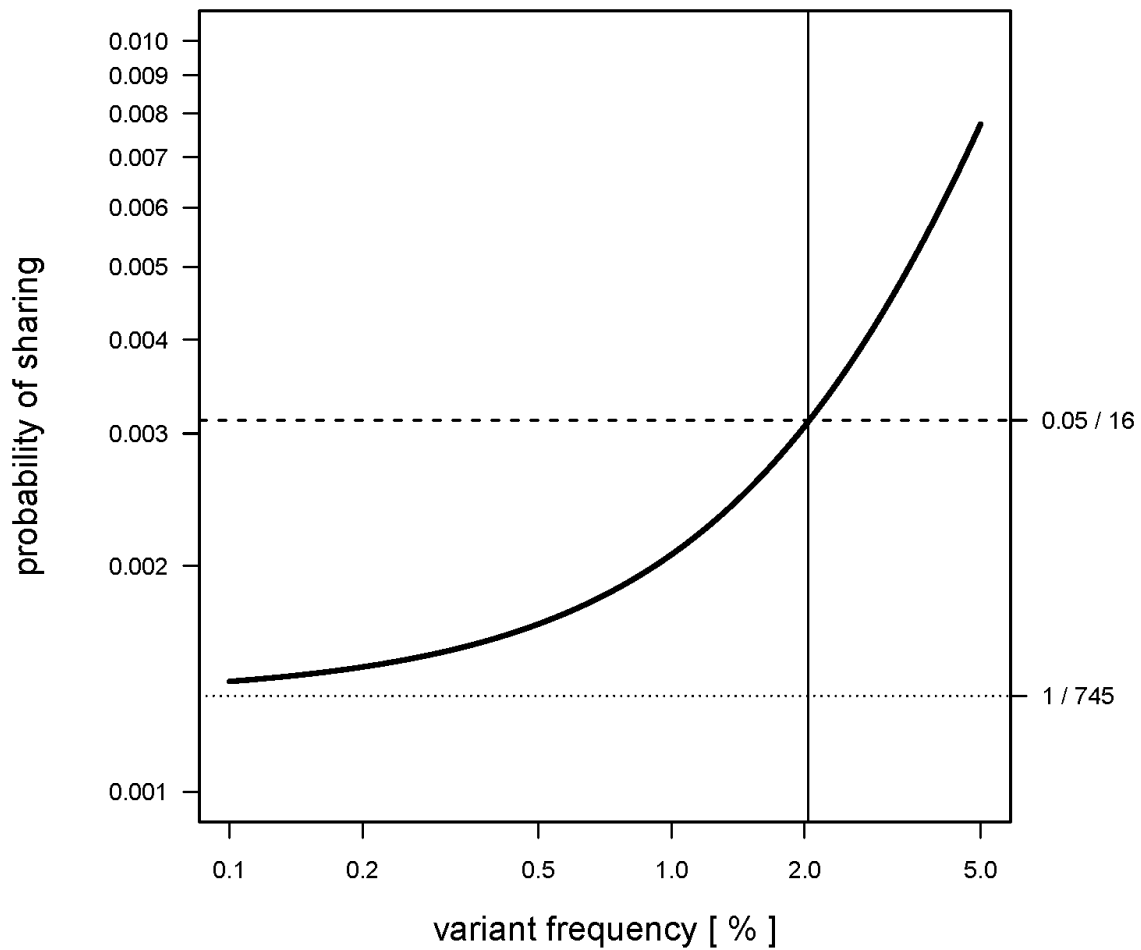


### E) Family 28010 – FTCD - chromosome 21, position 47572892



**Figure S1** Integrative Genomics Viewer display of the five novel SNVs predicted to be damaging shared by all sequenced affected relatives from the same family as listed in Table 2.





**Figure S3** P-value based on IBS sharing. Assuming unrelated founders and Hardy-Weinberg equilibrium, exact IBS sharing probabilities for pedigree members were derived using conditional probabilities under Mendel's laws as a function of variant allele frequency (x-axis). The sharing probabilities calculated under the assumption of no IBS without IBD is  $1/745 = 0.0013$ , indicated by the dotted horizontal line. The multiple comparison corrected significance threshold is  $0.05/16 = 0.0031$  indicated by the dashed horizontal line.

**Tables S1-S2**

Available for download as Excel files at <http://www.genetics.org/lookup/suppl/doi:10.1534/genetics.114.165225/-/DC1>

**Table S1** Novel SNVs predicted to be damaging in 348 candidate genes for oral clefts

**Table S2** Low frequency exonic and splice site SNVs