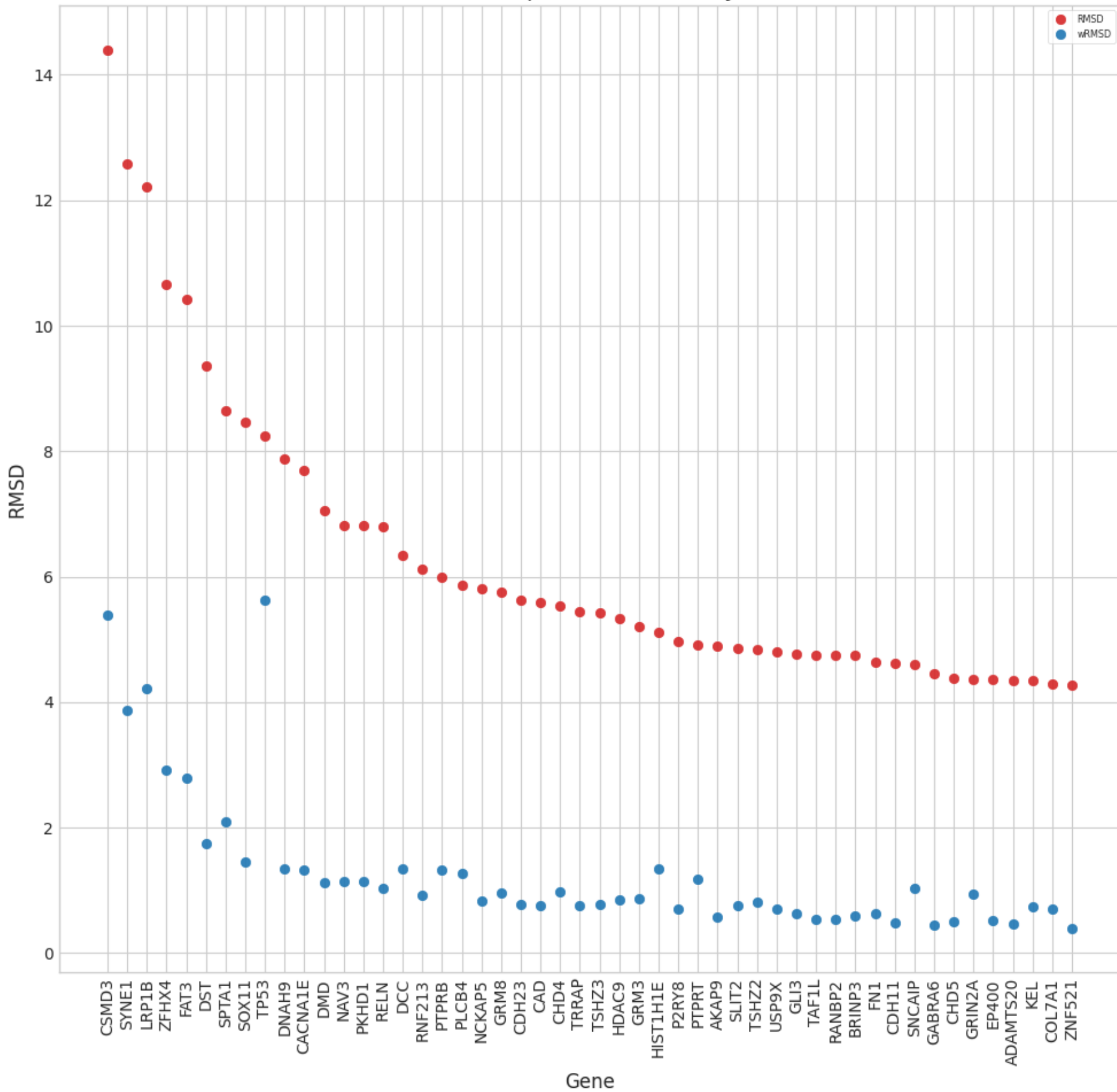


### Root Mean Square Deviation by Gene



### **Supplemental Figure 3 - Summary of gene-level mutation frequencies**

Sum of root-mean-square deviation (RMSD) and weighted RMSD (wRMSD) by gene across thirty three cancer types. The RMSD and wRMSD represent the deviation of a given gene from the diagonal line comparing mutation frequencies between GENIE and TCGA. Mutation frequencies were significantly higher in TCGA for CSMD3 (RMSD 14.4), SYNE1 (RMSD 12.58), and LRP1B (RMSD 12.22) across cancer types. These and numerous other outlier genes have been previously characterized as false-positive findings (Lawrence MS et al. Nature. 2013 Jul 11;499(7457):214–8).