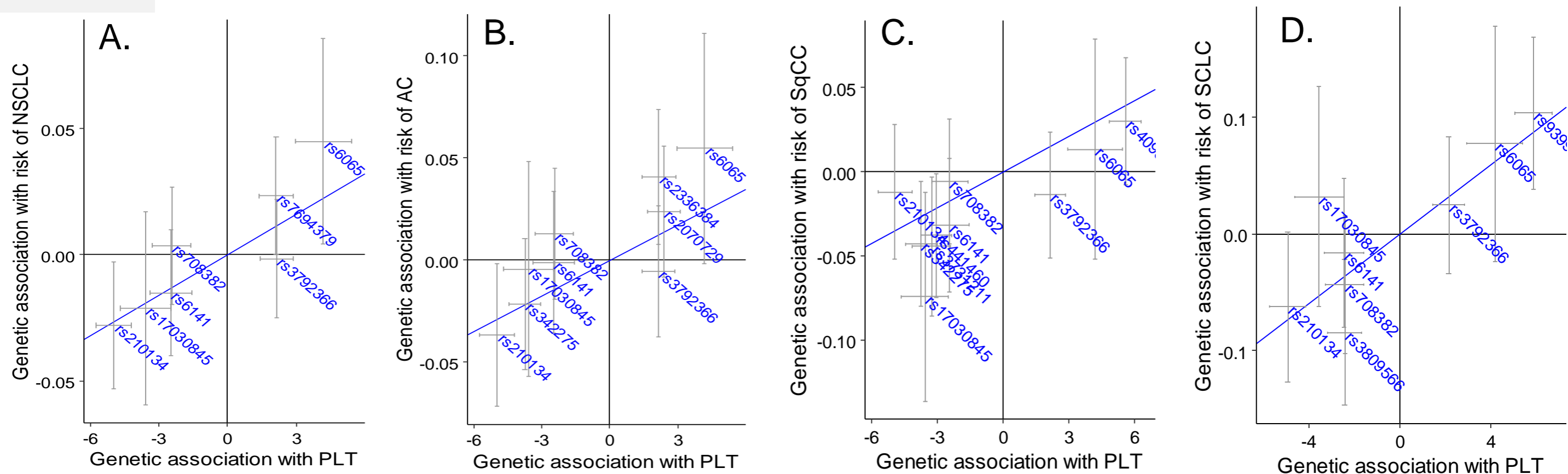
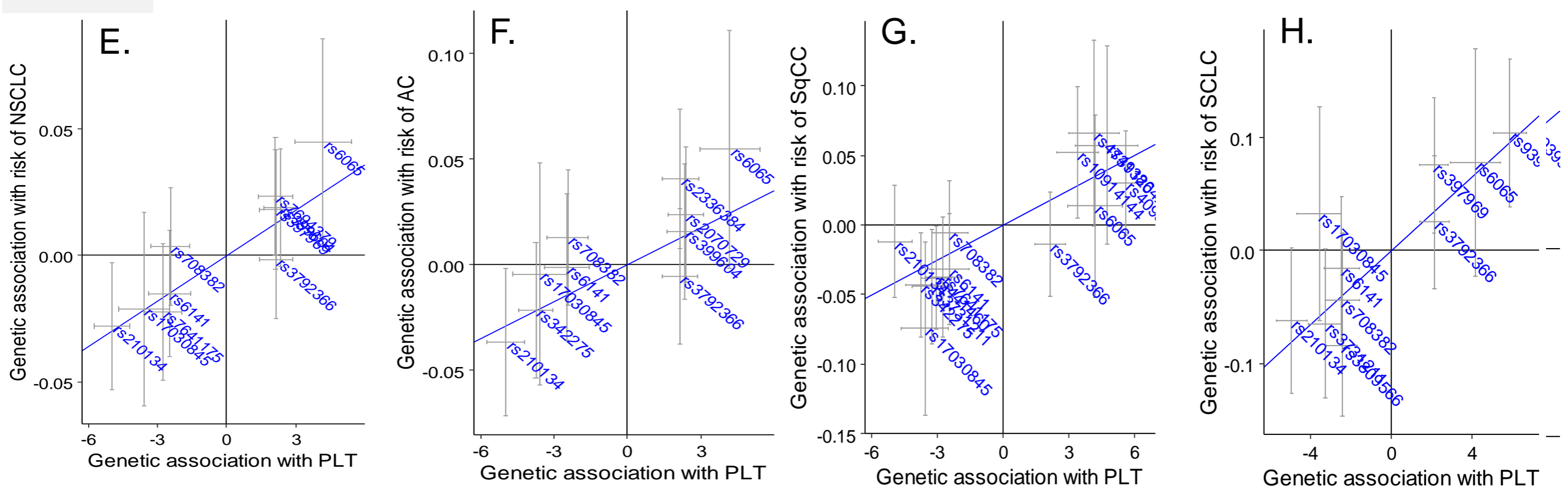


## Panel I:



## Panel II:



**Figure S1. Step forward modeling results.** Step forward modeling was used to add an optimal instrumental variable (IV) each time from the left SNP, adding to the six curated SNPs for multiple IV analysis, until there was no improvement of statistical significance for the test of causal effect. Modeling process was terminated if no added SNP improved  $-\log_{10}(P)$  by 20% (Panel I) or 10% (Panel II). Scatter plots show estimates of the association between each SNP and risk of lung cancer against quantitative relationship of each SNP on platelet count (PLT) for **(A, E)** non-small cell lung cancer (NSCLC), **(B, F)** adenocarcinoma (AC), **(C, G)** squamous cell carcinoma (SqCC), or **(D, H)** small cell lung cancer (SCLC). Slope of the blue dashed line through the plot represents inverse-variance weighted (IVW) regression estimate for causal effect of PLT on lung cancer risk.