

Figure S1. Box plots depicting the relative PSI scores of particular AS events comprised in the final AS signature between low-risk and high-risk subgroups in patients with hepatocellular carcinoma. The ends of the vertical lines (whiskers) represent the outliers of percent spliced in score of particular splicing events among HCC patients. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$. AS, alternative splicing; PSI, percent spliced in; AA, alternate acceptor site; AD, alternate donor site; AP, alternate promoter; ME, mutually exclusive exons; RI, retained intron; ES, exon skip.

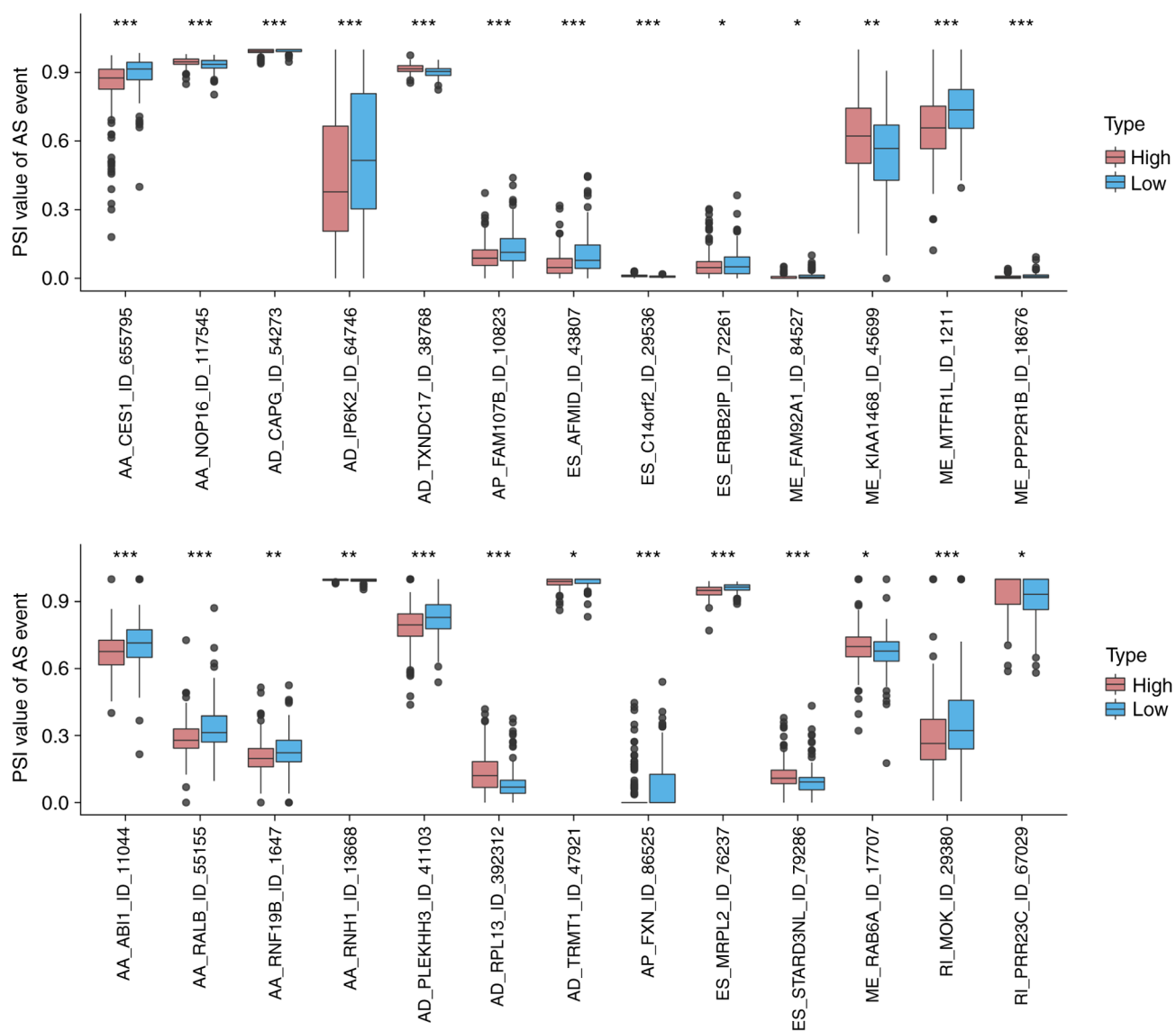


Figure S2. Stratification Cox analysis of the final AS signature. The performance of the final AS signature for hepatocellular carcinoma in predicting overall survival in the cohort stratified by (A) age, (B) sex. AS, alternative splicing; AFP, α -fetoprotein.

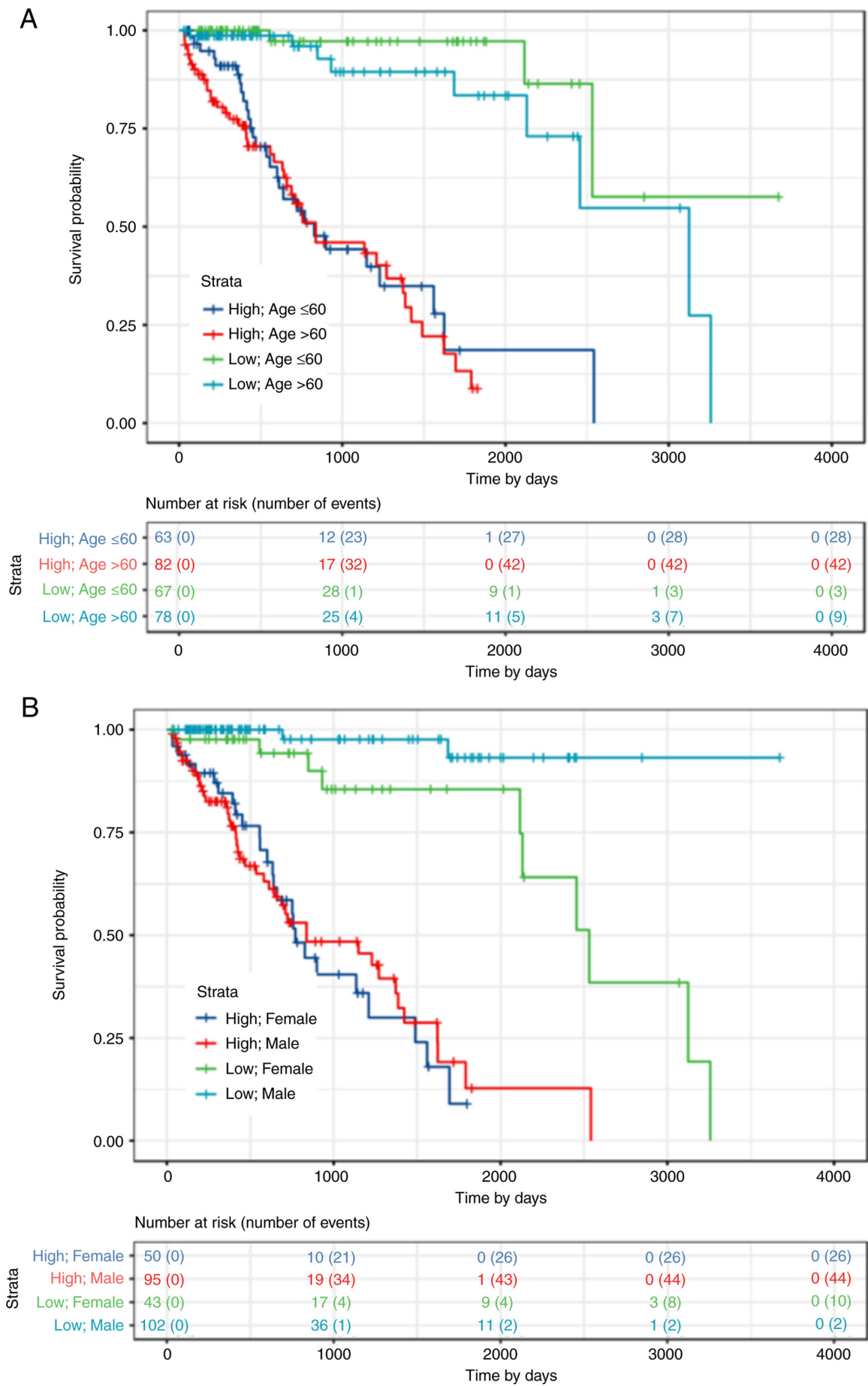


Figure S2. Continued. Stratification Cox analysis of the final AS signature. The performance of the final AS signature for hepatocellular carcinoma in predicting overall survival in the cohort stratified by (C) alcohol consumption history, (D) family cancer history. AS, alternative splicing; AFP, α -fetoprotein.

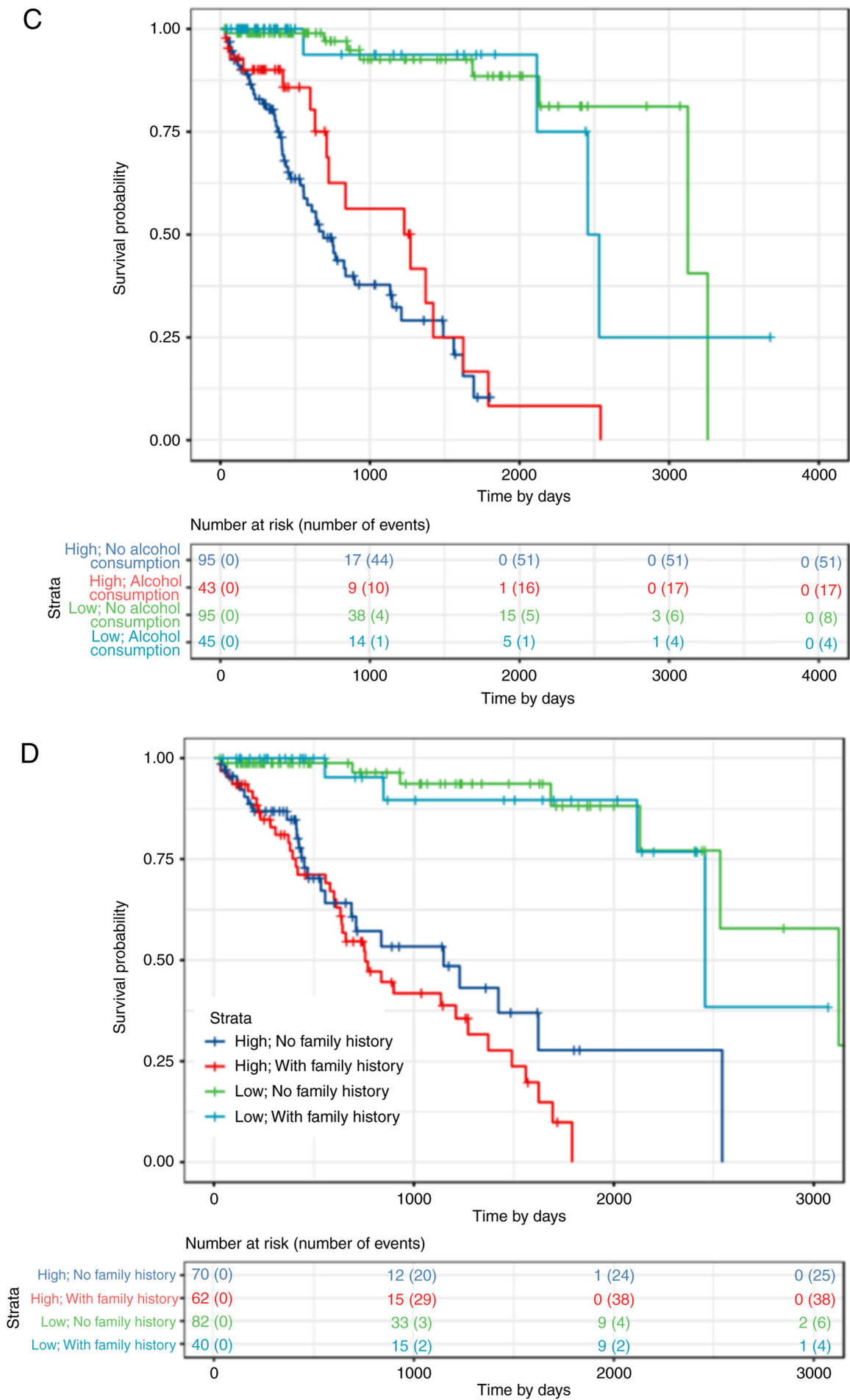


Figure S2. Continued. Stratification Cox analysis of the final AS signature. The performance of the final AS signature for hepatocellular carcinoma in predicting overall survival in the cohort stratified by (E) hepatitis B status, (F) hepatitis C status, AS, alternative splicing; AFP, α -fetoprotein.

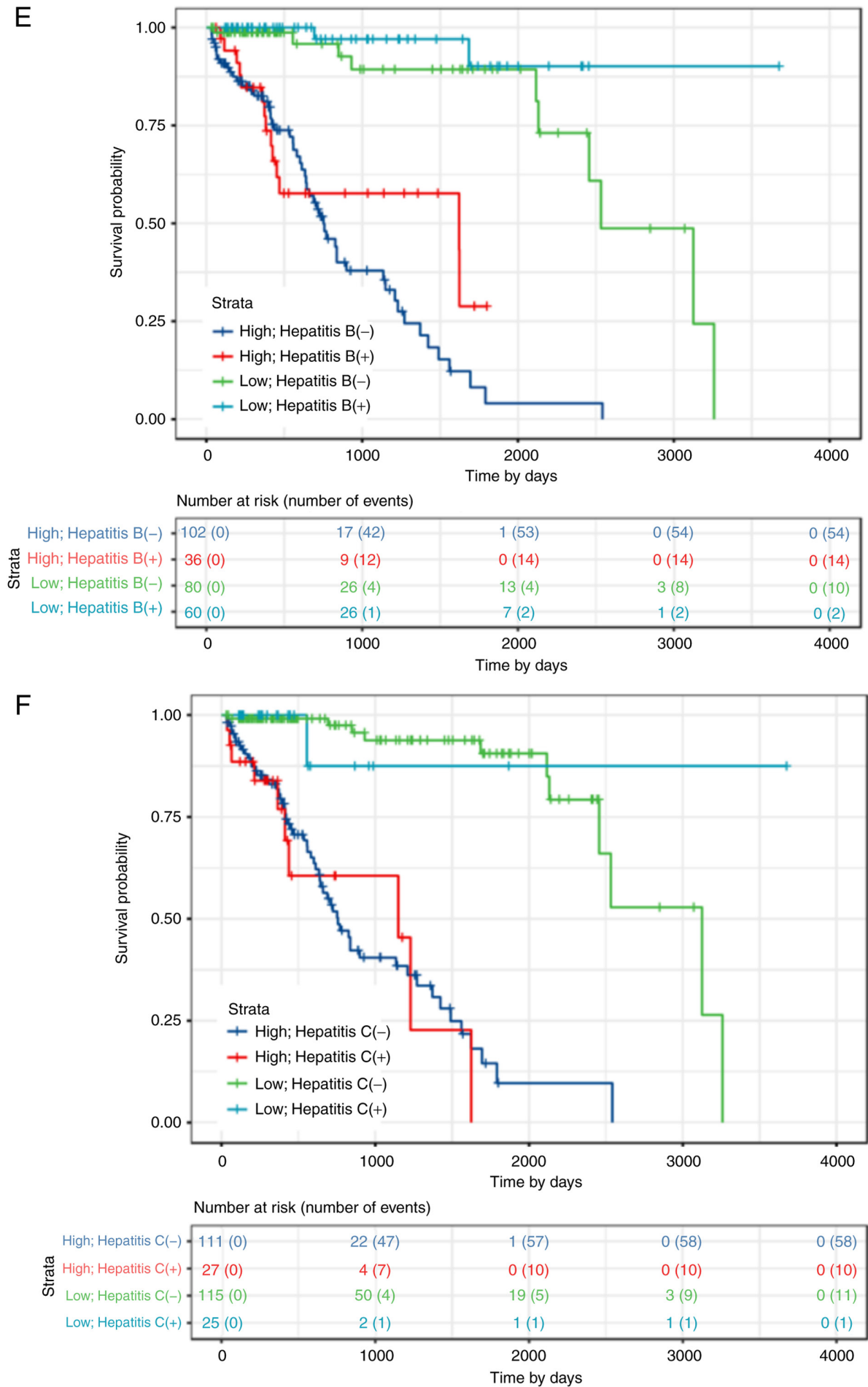


Figure S2. Continued. Stratification Cox analysis of the final AS signature. The performance of the final AS signature for hepatocellular carcinoma in predicting overall survival in the cohort stratified by (G) serum AFP level, (H) residual tumor status. AS, alternative splicing; AFP, α -fetoprotein.

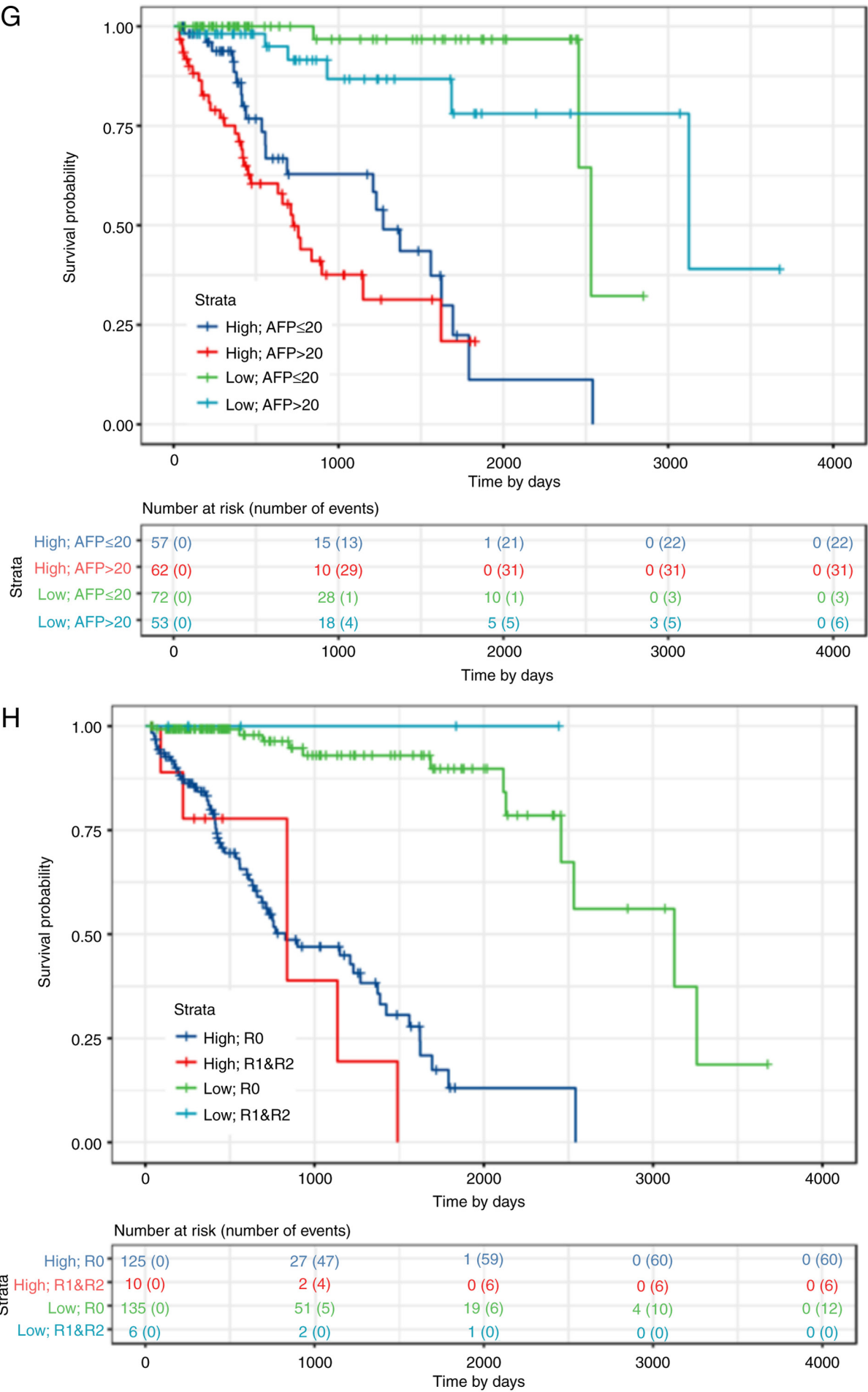


Figure S2. Continued. Stratification Cox analysis of the final AS signature. The performance of the final AS signature for hepatocellular carcinoma in predicting overall survival in the cohort stratified by (I) histologic grade, (J) pathologic stage. AS, alternative splicing; AFP, α -fetoprotein.

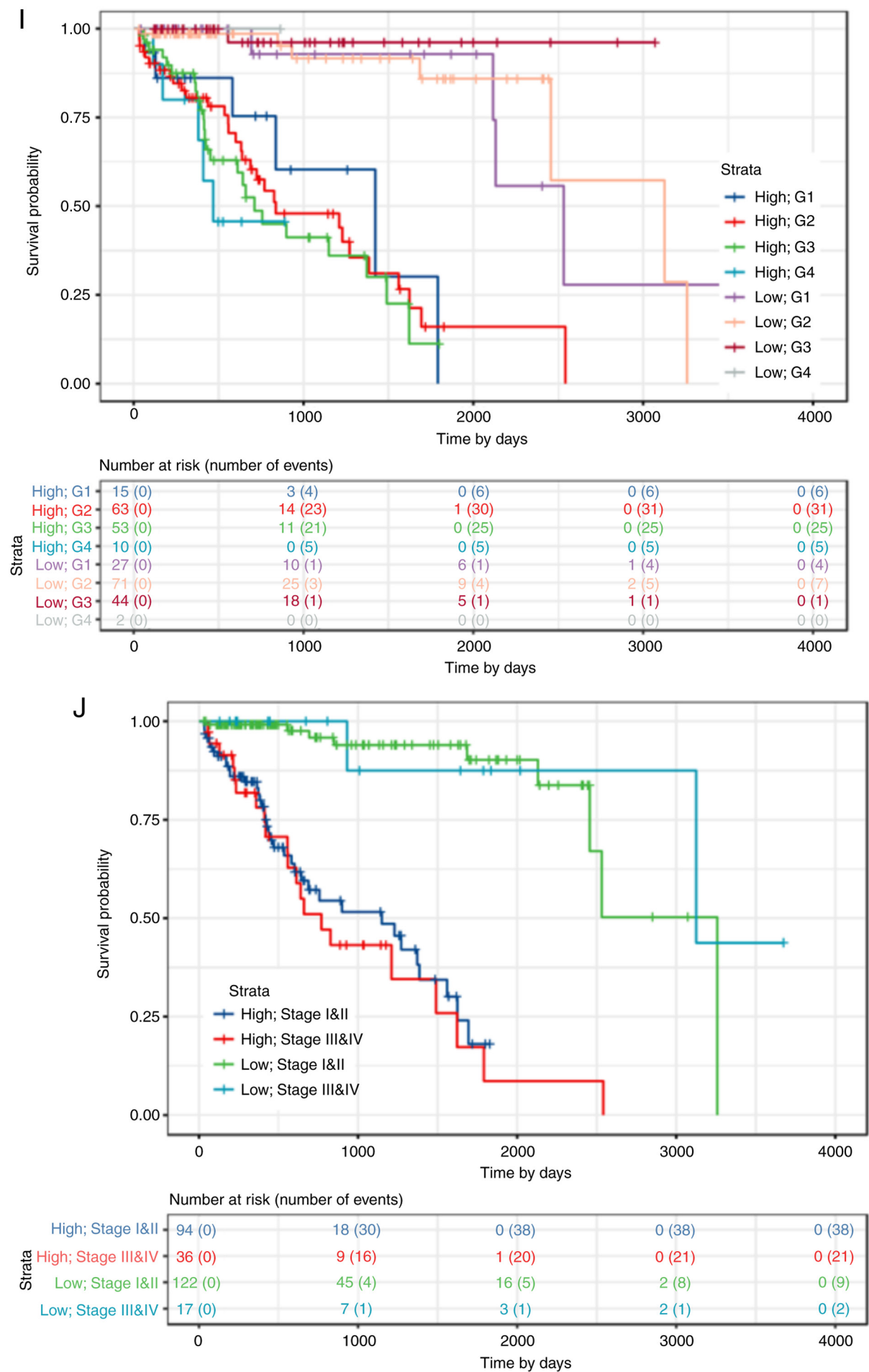


Figure S2. Continued. Stratification Cox analysis of the final AS signature. The performance of the final AS signature for hepatocellular carcinoma in predicting overall survival in the cohort stratified by (K) degree of vascular invasion and (L) Child-Pugh classification. AS, alternative splicing; AFP, α -fetoprotein.

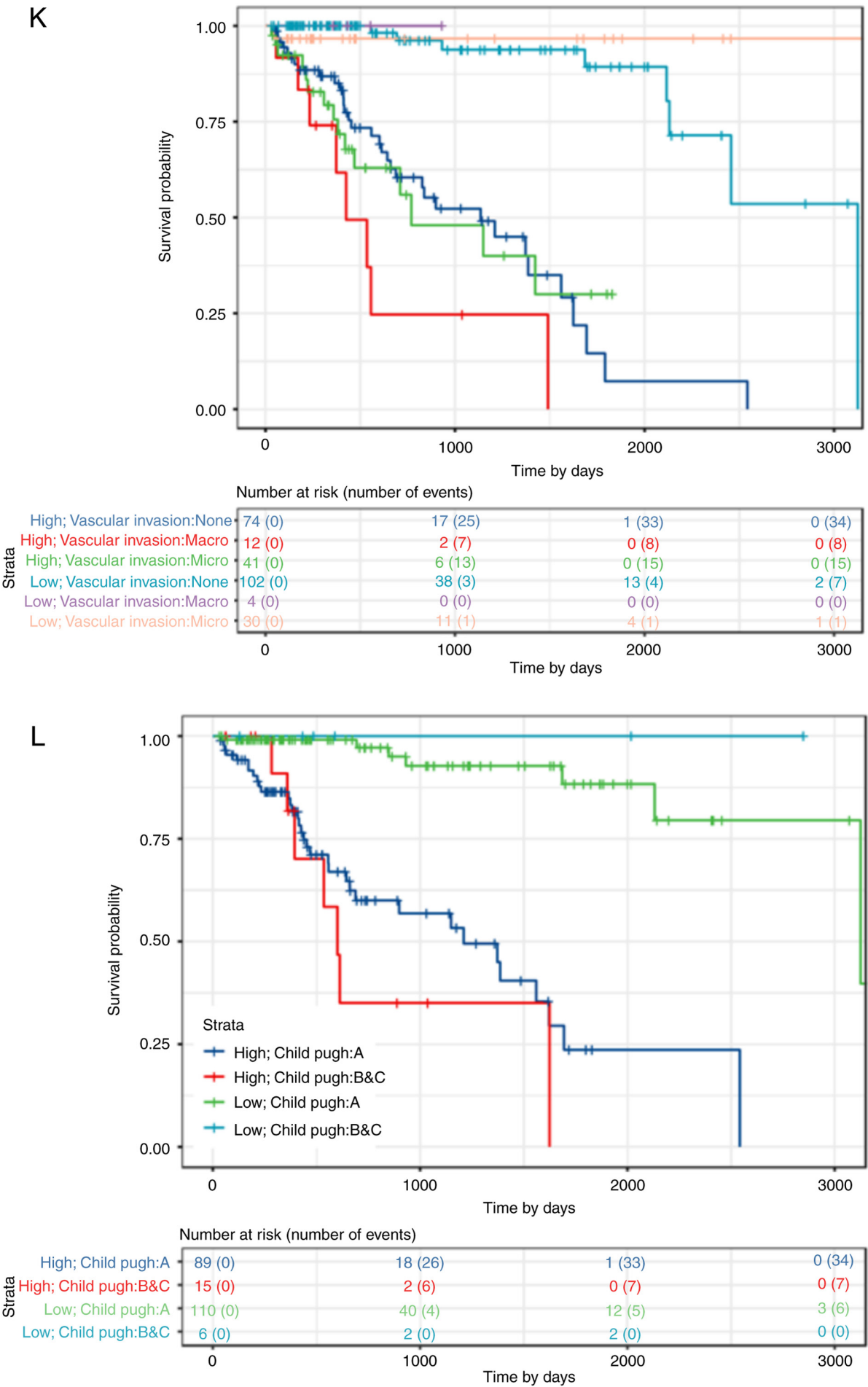


Figure S3. GSVA for SF-AS correlation pairs. (A) Volcano plot shows the GSVA results of GO terms for SF-AS correlation pairs comparing HCC tissue to para-cancerous tissue. (B) Volcano plot shows the GSVA results of pathway analyses for SF-AS correlation pairs in HCC. GSVA, Gene Set Variation Analysis; SF, splicing factor; AS, alternative splicing; GO, Gene Ontology; HCC, hepatocellular carcinoma; FDR, false discovery rate.

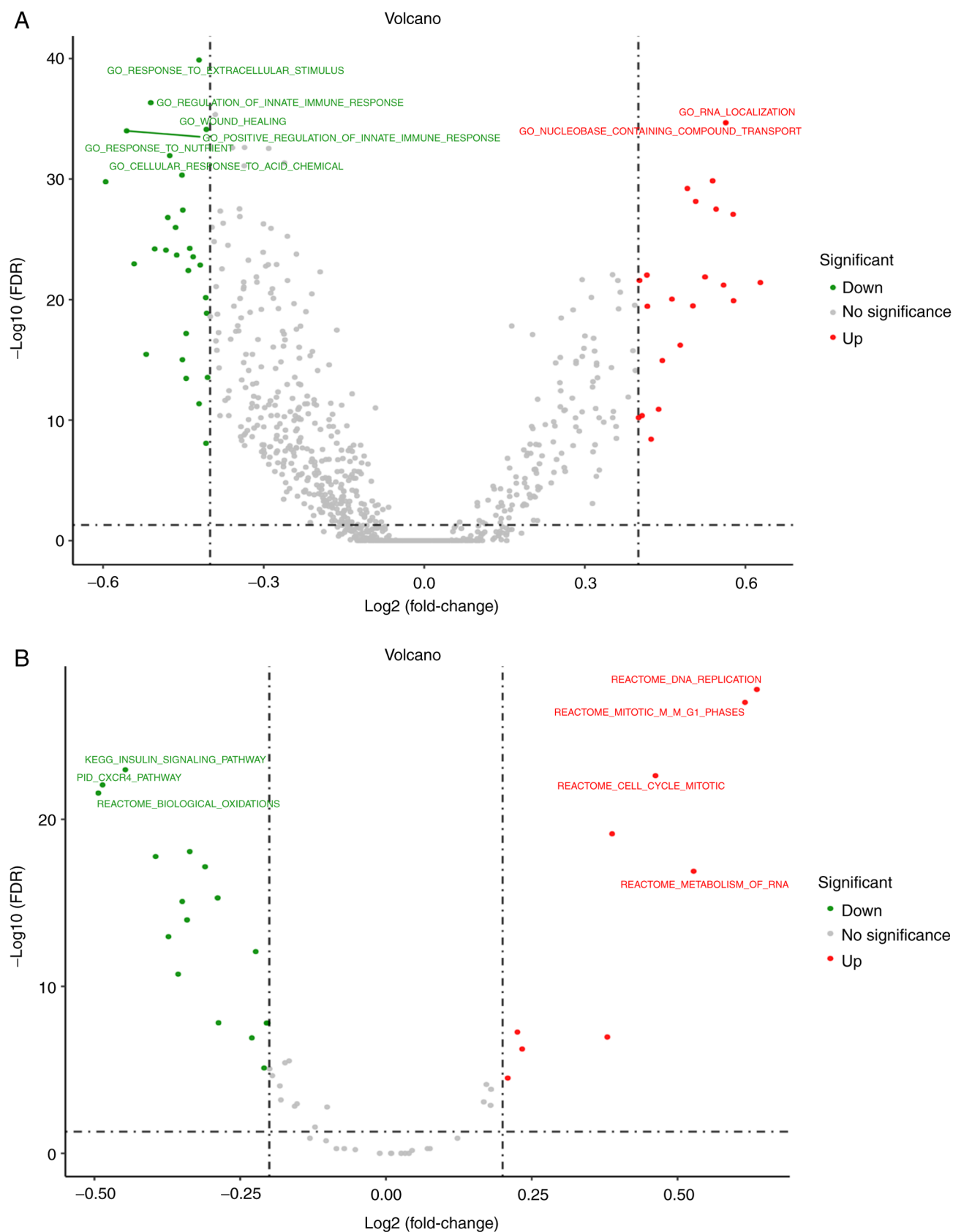


Figure S4. GSVA for SF-AS correlation pairs. Heatmaps show the GSVA results of (A) GO terms and (B) pathways for SF-AS correlation pairs. The red indicates the enrichment score for particular pathway is upregulated in tumor tissues, while the blue indicates downregulation in HCC samples. GSVA, Gene Set Variation Analysis; SF, splicing factor; AS, alternative splicing; GO, Gene Ontology.

