**Supplemental Material**

# Haplotypes of DNA repair and cell cycle control genes, x-ray exposure, and risk of childhood acute lymphoblastic leukemia

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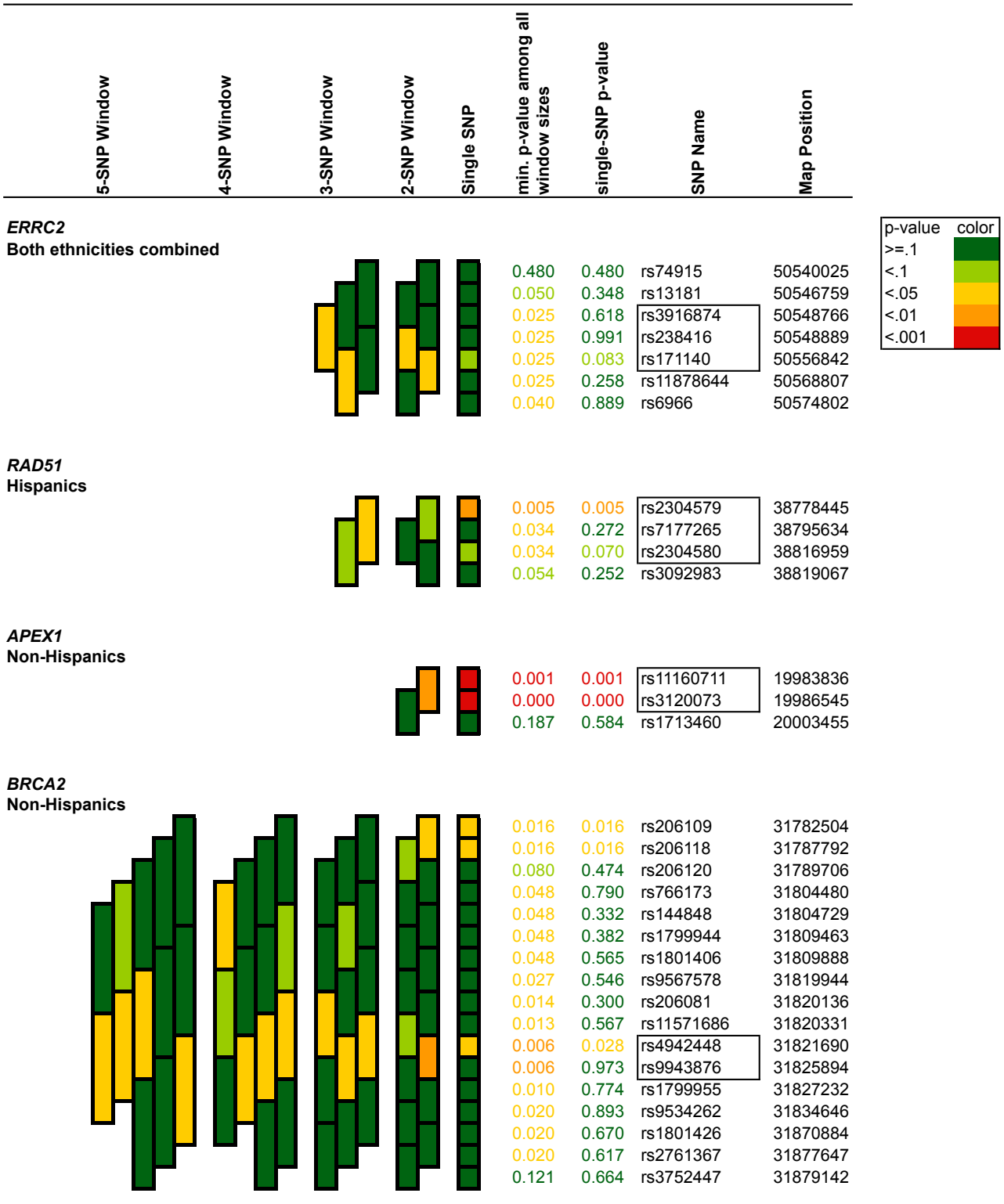
**Supplementary Figure 1.** Significant (p≤0.05) haplotype sliding window results for DNA repair and cell cycle control genes and childhood ALL. Outlined blocks show smallest multi-SNP p-values. These include a 3-SNP haplotype association for *ERCC2* (p=0.025), a 3-SNP haplotype association for *RAD51* among Hispanics (p=0.034), a 2-SNP haplotype association for *APEX1* among non-Hispanics (p=0.001), and a 2-SNP haplotype association for *BRCA2* among non-Hispanics (p=0.006). The risk estimates from haplotype trend regression of these are in Table 2.



**Supplementary Figure 2.** Significant (p≤0.05) haplotype sliding window results for DNA repair and cell cycle control genes and childhood ALL, by disease subtype. Outlined blocks show windows with the smallest multi-SNP p-values. These include: for t(12;21) translocation-positive ALL, a 6-SNP haplotype association for *NBN* (p=0.044) and a 6-SNP haplotype association for *XRCC4* (p=0.007); for any structural changes (including t(12;21) translocations), a 3-SNP haplotype association for *XRCC4* (p=0.011); for high hyperdiploid ALL and ALL with any numerical ploidy changes, the same 2-SNP haplotype window for *CDKN2A* (p=0.003 and 0.001, respectively). Risk estimates from haplotype trend regression of these are in Table 3.