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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Anand P. Chokkalingam Division of Epidemiology School of Public Health University of California, Berkeley 1995 University Avenue, Suite 460 Berkeley, CA 94704 Phone: 510-642-8375 Fax: 510-643-1735 Email: anandc@berkeley.edu **Supplementary Figure 1.** Significant ($p \le 0.05$) 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 ($p\leq0.05$) 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.

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	ŇO	ŇO	MO	Ň		indo	p-val				
	Vind	Vind	Vind	Vind	Nр	alue all w	NP	me	sit		
	4 >	₽ N	4	P V	ale S	v-q . s	Jle-S	Nai	Poe		
	5-SI	4-SI	3-SI	2-SI	Sing	min amc size	sinç	SNF	Map		
t(12;21) transl	ocations										
it bit						0.044	0.702	rs12680687	91020564	p-value co	lor
						0.044	0.262	rs6470522	91023657	>=.1	
						0.044	0.498	rs7840099 rs1805812	91024534	<.1	
						0.044	0.384	rs709816	91036887	<.01	
						0.044	0.506	rs1805818	91040038	<.001	
			ЦЦП			0.061	0.699	rs3026271	91052428		
						0.061	0.425	rs1805794 rs1063045	91059655		
						0.005	0.494	131003043	31004133		
XRCC4	_								00404554		
	_					0.625	0.781	rs10514246	82401554		
						0.092	0.749	rs2928175	82427381		
						0.092	0.340	rs13180356	82431630		
						0.092	0.835	rs1478483	82437062		
						0.116	0.470	rs10055844	82472851		
				н		0.037	0.355	rs7711825	82557374		
						0.007	0.006	rs1193695	82578842		
						0.007	0.148	rs301276	82583487		
						0.007	0.308	rs301287	82640966		
		╵╵╹┠┝				0.007	0.632	rs16900340	82662675		
						0.011	0.748	rs16900343	82677893		
						0.015	0.354	rs1805377	82684699		
•			_	_	_						
Any structura	I change										
						0.450	0.450	rs10514246	82401554		
						0.221	0.443	rs10474079	82409673		
			ΗЦ			0.119	0.160	rs2928175	82427381		
						0.067	0.067	rs1478483	82431630		
		1111		H		0.119	0.202	rs10055844	82472851		
		пнг				0.078	0.827	rs3734091	82536490		
		INIL				0.019	0.863	rs7711825	82557374		
		шн				0.004	0.004	rs1193695	82578842		
						0.011	0.043	rs301276	82640966		
						0.011	0.588	rs3777018	82662675		
			ЧНН			0.011	0.864	rs16900340	82671818		
						0.011	0.862	rs16900343	82677893		
						0.011	0.538	rs1805377	82684699		
High hyperdip	oloid										
CDKN2A			_				o		1 04050004		
			⊢		H	0.003	0.434	rs2518719	21956221		
				H		0.003	0.004	rs3731246	21961989		
						0.016	0.870	rs4074785	21971583		
Any numerics	lohanna										
CDKN2A	il change										
-						0.001	0.084	rs3731257	21956221		
						0.001	0.006	rs2518719	21960427		
					H	0.002	0.044	rs4074785	21901989		