

Supplementary Table 6. Association between SNPs and risk of breast cancer by length of estrogen exposure among European American or African American women in WCHS using race-specific cutoffs.

Gene	SNP	Coded/ reference allele	Race	Estrogen exposure status	Allele frequency in cases	Allele frequency in controls	Heterozygotes OR(95%CI) ^a	Homozygotes OR(95%CI) ^a	Per allele OR(95%CI) ^a	P for trend
<i>ESR1</i>	rs1801132	C/G	EA	Long ^b	0.25	0.16	1.55 (1.09-2.21)	5.43 (1.95-15.15)	1.78 (1.32-2.39)	0.0002
				Short	0.23	0.19	1.20 (0.83-1.75)	2.06 (0.97-4.39)	1.32 (0.99-1.75)	0.06
			AA	Long	0.10	0.11	0.83 (0.56-1.23)	4.41 (0.46-41.93)	0.94 (0.65-1.35)	0.72
				Short	0.15	0.11	1.49 (0.99-2.23)	0.81 (0.18-3.67)	1.34 (0.93-1.92)	0.14
<i>ESR1</i>	rs2046210	A/G	EA	Long	0.41	0.35	1.17 (0.82-1.65)	1.88 (1.09-3.24)	1.30 (1.02-1.67)	0.03
				Short	0.40	0.35	0.88 (0.61-1.29)	1.66 (0.98-2.81)	1.16 (0.91-1.48)	0.18
			AA	Long	0.63	0.64	1.15 (0.73-1.81)	1.14 (0.71-1.81)	1.05 (0.84-1.31)	0.67
				Short	0.64	0.64	1.04 (0.61-1.78)	0.76 (0.44-1.30)	0.83 (0.65-1.06)	0.14
<i>ESR1</i>	rs3020314	G/A	EA	Long	0.36	0.28	1.62 (1.15-2.29)	2.72 (1.47-5.06)	1.64 (1.26-2.12)	0.0002
				Short	0.36	0.28	1.46 (1.01-2.11)	1.54 (0.87-2.72)	1.28 (1.00-1.64)	0.05
			AA	Long	0.72	0.72	1.01 (0.56-1.83)	0.97 (0.54-1.76)	0.98 (0.77-1.25)	0.86
				Short	0.71	0.72	0.66 (0.35-1.26)	0.73 (0.38-1.38)	0.96 (0.74-1.26)	0.72

Abbreviations: OR, odds ratio; 95%CI, 95% confidence interval; EA, European American; AA, African American; Code allele/reference allele, the minor allele of each SNP in EA controls is defined as coded allele, whereas the other allele is defined as reference allele; allele frequencies of the coded alleles are shown. P for trend, p value for linear trend.

^a Adjusted for age at diagnosis (continuous), education (less than high school, high school, college and graduate school), family history of breast cancer (yes, no), history of benign breast disease (yes, no), menopausal status (premenopausal, postmenopausal), number of full pregnancies (continuous), breast feeding (yes, no, nulliparous) , Hormone Replacement Therapy (HRT, yes, no), body mass index (continuous) and proportion of European ancestry (continuous).

^b Stratified by length of lifetime estrogen exposure using race-specific cutoffs (longer or shorter than the median: 396 months in EA and 375 months in AA).