

**Supplementary Table1** Assessment of the significance of SNP interactions (Trees) by adjusting for the marginal effects of SNPs from which the Trees were composed in replicate WTCCC cohort

	<b>Before control for SNPs</b>		<b>After control for SNPs</b>	
	OR (95%CI)	P value	OR (95%CI)	P value
Tree1	1.68 (1.47-1.92)	<0.0001	1.50 (1.20-1.87)	0.0004
Tree2	0.83 (0.72-0.94)	0.006	1.12 (0.85-1.47)	0.43
Tree3	1.56 (1.36-1.79)	<0.0001	1.13 (0.89-1.42)	0.31
Tree4	0.73 (0.61-0.87)	0.0005	1.15 (0.74-1.80)	0.53