

**Table S6. Sex-differences in association signal and heterogeneity in WTCCC diseases**

Disease	prev M:F	association				heterogeneity	
		Autosomes <sup>\$</sup>		HLA <sup>\$</sup>		Autosomes <sup>^\$</sup>	HLA <sup>^\$</sup>
		M P	F P	M P	F P	P	P
AS	2:1	NS	0.08 <sup>#</sup>	<0.001 <sup>#</sup>	0.08 <sup>#</sup>	NS	NS
BD	1:1	NS	NS	-	-	NS	-
CAD	1:1	NS	NS	-	-	NS	-
CD	1:1	NS	NS	NS	0.07 <sup>#</sup>	0.09 <sup>#</sup>	NS
HT	1:1	NS	NS	-	-	NS	-
MS	1:3	NS	NS	NS	NS	NS	<0.001 <sup>#</sup>
RA	1:2	NS	NS	NS	0.08 <sup>#</sup>	NS	NS
T1D	3:2	NS	NS	NS	0.07 <sup>#</sup>	NS	NS
T2D	1:1	NS	NS	-	-	NS	-

Abbreviations: prev ratio in prevalence

<sup>\$</sup> Empirical p-value estimation based on 100 permutations

<sup>^</sup> Cochran test for heterogeneity

<sup>#</sup> Empirical P ≤ 0.1 were replaced with empirical p-values estimated with 1,000 permutations