ESM Table 2. Quality control of the genotyping results in stage 1.

	HK 1		HK 2				SH	
	Controls	Cases	Diseased Controls			Cases	Controls	Cases
			Epilepsy	Eczema	Non-hypertension			
Number of SNPs on chromosomes 1 – 22 before QC	541,224	541,224	460,992	576,857	492,147	576,498	334,157	334,157
Stepwise exclusion criteria:								
Step 1: Monomorphic SNPs	58,440	57,680	0	53,422	194	51,746	25,397	24,237
Step 2: SNPs with 100% missing genotype	78	78	0	112	0	0	2	0
Step 3: SNPs with MAF < 5% and their call rate is < 99%	3,050	3,132	118	894	250	2,476	1,388	3,468
Step 4: SNPs with MAF ≥ 5% and their call rate is < 95%	2,000	2,591	0	1,546	70	2,037	630	2,926
Step 5: SNPs with overall MAF < 1%	9,656	9,967	81	26,447	1,311	27,618	236	214
Step 6: SNPs without HWE ($P < 1\times10^{-4}$)	463	458	54	598	19	575	12,281	12,486
Step 7: SNPs with different MAF between diseased control cohorts ($P < 1\times10^{-4}$)	--	--	47	47	47	--	--	--
Number of SNPs on chromosome 1 – 22 after QC	467,537	467,318	460,692	493,791	490,256	492,046	294,223	290,826