

## Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

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## **Supplement**

### ***MS Patients***

#### *UK*

The 833 trio families and 928 sporadic cases employed in this study were recruited from across the UK; the majority were identified and referred by members of the Association of British Neurologists (ABN). All the included individuals who self reported as White gave written informed consent for the study under Multi-Centre Research Ethics Committee (MREC) approval. The diagnosis of MS was made according to the McDonald criteria<sup>1, 2</sup> after review of all available clinical data. In total there are approximately 85,000 patients with MS in the UK (<http://www.atlasofms.org/>) indicating that our study has involved just 2.1% of the prevalent cases. Only trio families where DNA was available for all three individuals were included in the study, and in all but one family, the affected offspring was the index case.

#### *US*

The 707 trio families and 1394 sporadic cases employed in this study were recruited from across the US in collaboration with a network of specialized clinical sites throughout the United States. All subjects gave written informed consent under the UCSF or BWH Institutional Review Boards. Subjects recruited at the two primary collection sites (the UCSF MS Center in San Francisco and Partners Healthcare MS Center at BWH in Boston) were patients who visit these centers for specialized MS care, and were recruited by their neurologists, who were MS specialists. Patients recruited through the network of specialized clinical sites throughout the United States were approached for enrollment by their local neurologist. All MS diagnoses for secondary collection site participants in this study were confirmed by an MS specialist (BWH or UCSF) The diagnosis of MS was made according to the McDonald criteria<sup>1, 2</sup> after review of all available clinical data. At the primary collection sites, a neurological examination was performed on each recruited subject. All subjects included in this study self-reported as Non-Hispanic White. Participation rates cannot be accurately estimated since the number of patients approached to be part of the study is not recorded; however, the vast majority of patients agree to participate and provide a one-time blood donation.

Complete clinical data was available for over 95.0% of patients. Disease course was recorded for patients at entry to study as either relapsing-remitting (RR), secondary progressive (SP), primary progressive (PP), or relapsing-progressive (PR) <sup>4</sup>. Disability was also assessed at entry with the Expanded Disability Status Scale (EDSS) <sup>5</sup>. SPMS was characterized by six months of worsening neurological disability not explained by relapse and measured as a deterioration of either: i) one or more points on the EDSS in patients with an EDSS less than 6, or ii) a one-half point or more for those with an EDSS  $\geq 6$ . PPMS was characterized both by 1) progressive clinical worsening for more than 12 months from symptom onset without any relapses, and 2) abnormal cerebrospinal fluid (CSF) as defined by the presence of two or more oligoclonal bands or elevated IgG index in the CSF. If acute relapses were superimposed on this steadily progressive course, patients were considered to have PRMS. CIS was characterized as the first, well-defined neurological event lasting more than 48 hours, and which involved the optic nerve, spinal cord, brainstem, or cerebellum. In patients presenting with a CIS, the presence of two or more hyper-intense lesions on a T2-weighted MRI sequence was also required for enrollment into the study. A small number of subjects with clinically isolated syndrome (CIS) were included among the US samples used for this study. In the screening trio families, one index case (out of 478 trio families) is diagnosed as CIS; 22 subjects are diagnosed as CIS among the 229 replication trio families; and 63 of the 1,394 sporadic cases of MS included in the replication case/control analysis carry a diagnosis of CIS. Thus, among the US subjects, 86 out of 2,101 subjects (4%) used in this study are diagnosed as CIS at the time of enrollment into the study. For the purpose of the analysis, they were treated as cases of “relapsing-remitting” cases of MS since they represent one tail of the distribution of the demyelinating disease spectrum and a majority of them will go on to have a second attack or show evidence of disease progression.

### ***Controls***

Healthy adult control subjects were recruited through BWH and UCSF, and were comprised of unrelated individuals who self-reported as Non-Hispanic White origin, and with no history of chronic inflammatory disease. In most cases, these subjects were the spouse or friend of a subject with MS who had been recruited into our study.

Affymetrix 500K SNP data for additional UK controls were generously provided by the WTCCC<sup>6</sup>, and were obtained from two sample sources: the 1958 birth cohort (<http://www.b58cgene.sgul.ac.uk/followup.php>) and the UK blood service (UKBS). After application of the same stringent quality control procedures we used in our case data, we ultimately included 1,485 individuals from the 1958 birth cohort and 1,465 from the UKBS. These include 1,447 males and 1,503 females all self reporting as White (for more details of these control cohorts see the report of the original WTCCC study<sup>6</sup>). In addition, Affymetrix 500K SNP data from 1,679 control individuals collected throughout the US as part of a genome-wide association scan in bipolar disorder sponsored by the NIMH (<http://zork.wustl.edu/nimh>) were utilized. Each subject answered a web-based questionnaire. No subjects with bipolar disease were used in our study.

## **Supplemental Methods**

### ***Whole genome scan genotyping***

All samples were genotyped using the Affymetrix GeneChip Human Mapping 500K Array Set (Affymetrix Inc., Santa Clara CA), composed of two arrays, each containing approximately 250,000 SNPs (Nsp I, 262,264 SNPs and Sty I 238,304 SNPs). A restriction enzyme digestion (NspI or StyI) was performed on 250 ng of input DNA. The digested segments were ligated to enzyme-specific adaptors that incorporate a universal PCR priming sequence. PCR amplification using universal primers was performed in a reaction optimized to amplify fragments between 200-1,100 base pairs. A fragmentation step reduced the PCR product to segments of approximately 25-50 bp, which were end-labeled using biotinylated nucleotides and terminal deoxynucleotide transferase. The labeled product was hybridized to a chip, washed, stained and detected using the Affymetrix array plate scanner. Genotyping was performed at the Broad Institute Center for Genotyping and Analysis and at Affymetrix (South San Francisco, CA) on different subsets of the whole sample set. All scanning data were processed at the Broad Institute of Harvard and MIT.

### ***DNA fingerprinting concordance***

Genotype data were based, for each individual sample, on scans from one NspI-digested and one StyI-digested fraction, that were consistent with a genetic fingerprint

generated on each DNA sample at the time of original plating (see above), as well as cross-chip concordance based on the 50 SNPs present on both Nsp and Sty chips (the Affymetrix QC SNPs).

Each pair of Nsp-Sty scans for a given person's genotype data was selected from the pool of all scans for that individual (including samples that were genotyped more than once) that had the highest overall genotyping call rate based on the Bayesian Robust Linear Model with Mahalanobis distance classifier genotype (BRLMM) calling algorithm on the Affymetrix platform: (F. Kuruvilla, T. Green, D. Altshuler, M.J. Daly and S. Gabriel, [http://www.broad.mit.edu/gen\\_analysis/genotyping/brlmm\\_affy\\_ncrr.html](http://www.broad.mit.edu/gen_analysis/genotyping/brlmm_affy_ncrr.html) (2006)) and the highest concordance rates with the fingerprint data.

### ***Quality control***

A total of 1,003 parent-affected child trios were initially identified for genotyping. After tests for DNA quality and quantity and Mendelian errors (using the Sequenom fingerprint SNP results), a total of 960 trios were genotyped using both Affymetrix chips. Results due to systematic errors and families with false paternity were removed. Preliminary analysis uncovered a relationship between the BRLMM-generated quality score (this score is the output for each SNP genotype call by the BRLMM program), and genotypes with Mendelian errors (<1% of genotypes had a quality score >0.3 as defined in [http://www.broad.mit.edu/gen\\_analysis/genotyping/brlmm\\_affy\\_ncrr.html](http://www.broad.mit.edu/gen_analysis/genotyping/brlmm_affy_ncrr.html), but they contributed over 20% of the genotypes with Mendelian errors). Therefore, any genotype with a BRLMM quality score >0.3 was removed. The results then underwent quality control procedures implemented by a software package (WASP; Whole-genome Association Study Pipeline) that included the examination of SNP and sample genotyping efficiency, allele frequencies, checks of Mendelian errors, and sex-assignment discrepancies (based on available chromosome X genotypes), and tests of Hardy-Weinberg Equilibrium. We used the Graphical Representation of Relationships (GRR) program<sup>7</sup> to test for relationships between samples and to detect sample switches, duplications, or contamination. Potential population stratification was examined as follows. From the 334,923 SNPs, we chose 1000 (with >1Mb physical spacing) that had maximal chi-square differences in allele frequency between HapMap populations (500 for the CEU/YRI comparison, and 500 for the CEU/CHB+JPT comparison). The analysis

(using the STRUCTURE program<sup>8</sup>) was seeded with data from unrelated individuals (60 CEU, 60 YRI, 45 CHB, 45 JPT). No significant stratification was observed. Further, we used the results of these analyses to determine if any individual appeared to be of non-European descent. We removed any individual who had a probability of <90%, as given by the Structure program, of having all European-derived parents and grandparents. This procedure removed 34, 21, and 15 individuals from the screening, NIMH, and WTCCC datasets, respectively. All samples were examined for exclusion using the final SNP dataset (334,923 SNPs). These analyses identified 29 trios with problematic data leaving a final set of 931 trios for our primary screen.

### ***SNP exclusion criteria***

To advance to the whole-genome association study, SNPs had to pass the following quality control criteria: not mapping to multiple locations in the genome (3,605 SNPs excluded); a >95% genotype call rate in the total 2,880 (960 trio) samples (58,435 SNPs excluded); allele frequency (MAF) >0.005 in the parents (59,887 SNPs excluded); Hardy Weinberg equilibrium with  $P > 1 \times 10^{-4}$  in parents (16,881 SNPs excluded); >99% genotype call rate if the SNP had a MAF <10% (due to platform-specific observations demonstrating a difficulty in calling rare alleles) (74,492 SNPs excluded); and <10 total Mendelian errors (below the 95% cut-off assuming a binomial distribution for a 0.5% error rate) (13,136 SNPs excluded). In total, 334,923 SNPs survived these exclusion criteria and were included in the analysis.

### ***Additional Control Data***

Affymetrix 500K data from two large control datasets were also included in this study. We used data from 1,679 control individuals collected throughout the US as part of a whole genome association scan in bipolar disorder sponsored by the National Institute of Mental Health (NIMH) (<http://zork.wustl.edu/nimh>), data from 1,485 individuals from the 1958 British Birth Cohort (<http://www.b58cgene.sgu.ac.uk/followup.php>), and from 1,465 individuals from the UK Blood Services (UKBS), obtained through the Wellcome Trust Case Control Consortium (WTCCC).<sup>6</sup> For the WTCCC dataset we had access to raw BRLMM quality scores for the genotype data and were able to use our previously established criteria for genotype and sample inclusions. We did not have the BRLMM

quality scores for the NIMH dataset, but the overall quality was similar to our clean data, suggesting that the residual error rates are similar.

### ***Statistical Analysis***

On the 931 trios that passed quality control, we performed the transmission disequilibrium test (TDT) for all 334,923 SNPs using the Whole-genome Association Study Pipeline (WASP) and PLINK<sup>9</sup>. We also tested for allelic association (1 d.f.) using the affected offspring of the 931 trios and 2431 randomly selected samples from the WTCCC and NIMH studies. The Cochran-Mantel-Haenszel meta-analysis was used to stratify for geographic origin (UK vs. US samples). Additionally, UNPHASED was used to calculate odds ratios for the initial TDT screen, to perform an association analysis of our combined replication dataset, and to generate final estimates of effect size using our entire dataset<sup>10</sup>.

### ***Technical validation and Replication genotyping***

In the replication phase, genotyping was performed using the Sequenom iPLEX<sup>TM</sup> and iPLEX Gold<sup>TM</sup> MassARRAY<sup>®11</sup> genotyping platform. Initially 174 SNP assays were developed, with 22 of these being redundant based on linkage disequilibrium, and serving as internal quality controls and validation SNPs, or ultimately failing Sequenom genotyping quality checks. The remaining 152 SNPs included 12 that were not present on the Affymetrix chips, but they were selected based on location within candidate genes (regions previously identified in other autoimmune diseases) whenever the chip contained no useful proxies. To validate the original data from the screening phase, the 152 SNPs were genotyped in multiplexed pools of 16 to 35 assays, in either the full set of 931 trio families or a subset of approximately 25% of the total. Genotypic concordance across platforms was tested; SNPs showing <97% concordance with the Affymetrix data were dropped from the analysis (n=3). Additionally, SNPs with <90% call rate and excess Mendelian errors were also dropped (n=7). Concordance for the remaining SNPs was 99.6%. SNP selection for the replication stage was made on the basis of a first pass analysis of the screening data at an intermediate stage just before application and final development of the final quality control measures. As a result, some of the SNPs (n=20) included in the first analysis did not meet the selection criteria in the final analysis.

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**Supplemental Table** (see below)

### Searchable GWA

The complete results of the genome-wide association analysis are available to search by SNP id, chromosome, or base pair location on the IMSGC website (<http://www.ims gc.org/results.php>).

**Supplementary Table 1. Results of the 110 SNPs chosen for follow-up analysis.**

Chromosome	Gene	SNP	Minor/Major Allele	MAF	Risk Allele	Screening Phase				Replication Phase		Combined				
						931 Family Trios		Case Subjects from 931 Family Trios vs. 2431 Control Subjects		Combined 2322 Case Subjects, 609 Family Trios, and 2987 Control Subjects		All Samples (1540 Family Trios, 2322 Case Subjects, 5418 Control Subjects)				
						Allelic <i>p</i> value+	odds ratio (95% CI)	Allelic <i>p</i> value++	odds ratio (95% CI)	Allelic <i>p</i> value+	odds ratio (95% CI)	Allelic <i>p</i> value+	odds ratio (95% CI)	Genotypic <i>p</i> value+	odds ratio (95% CI) Heterozygote	odds ratio (95% CI) Homozygote
1p34	ZNF642	rs10789144	A/T	0.47	A	6.64x10 <sup>-5</sup>	1.31 (1.15-1.50)	1.07x10 <sup>-2</sup>	1.15 (1.03-1.29)	4.75x10 <sup>-1</sup>	1.02 (0.96-1.09)	6.91x10 <sup>-3</sup>	1.08 (1.02-1.14)	2.70x10 <sup>-2</sup>	1.08 (0.99-1.19)	1.16 (1.04-1.30)
1p34		rs11211176	G/A	0.45	G	6.48x10 <sup>-6</sup>	1.37 (1.19-1.57)	2.33x10 <sup>-2</sup>	1.13 (1.02-1.26)	1.67x10 <sup>-1</sup>	1.05 (0.98-1.12)	3.14x10 <sup>-5</sup>	1.13 (1.06-1.19)	1.33x10 <sup>-4</sup>	1.15 (1.05-1.26)	1.27 (1.13-1.42)
1p32	FLJ45337	rs17418151	G/C	0.15	G	8.73x10 <sup>-3</sup>	1.29 (1.07-1.55)	6.84x10 <sup>-5</sup>	1.36 (1.17-1.58)	6.31x10 <sup>-1</sup>	1.02 (0.93-1.13)	5.10x10 <sup>-1</sup>	1.03 (0.95-1.12)	8.01x10 <sup>-1</sup>	1.03 (0.94-1.13)	1.05 (0.78-1.40)
1p31	PDE4B	*rs1321172	C/G	0.49	C	8.77x10 <sup>-2</sup>	1.12 (0.98-1.27)	9.57x10 <sup>-3</sup>	1.15 (1.04-1.28)	3.95x10 <sup>-2</sup>	1.07 (1.01-1.14)	6.06x10 <sup>-3</sup>	1.08 (1.02-1.14)	1.42x10 <sup>-2</sup>	1.04 (0.95-1.14)	1.16 (1.05-1.30)
1p22	GFI1	rs11164607	A/C	0.38	A	7.72x10 <sup>-5</sup>	1.33 (1.15-1.55)	7.04x10 <sup>-3</sup>	1.17 (1.04-1.31)	1.03x10 <sup>-1</sup>	1.06 (0.99-1.13)	1.10 x10 <sup>-2</sup>	1.08 (1.02-1.14)	6.85x10 <sup>-3</sup>	1.14 (1.05-1.24)	1.12 (0.99-1.27)
1p22	EVI5	rs4970700	A/G	0.37	A	2.31x10 <sup>-4</sup>	1.30 (1.12-1.51)	8.98x10 <sup>-3</sup>	1.16 (1.04-1.30)	1.59x10 <sup>-1</sup>	1.05 (0.98-1.13)	1.79x10 <sup>-2</sup>	1.07 (1.01-1.14)	1.62x10 <sup>-2</sup>	1.13 (1.04-1.22)	1.11 (0.98-1.26)
1p22	EVI5	rs12743520	A/C	0.28	A	2.13x10 <sup>-3</sup>	1.27 (1.08-1.49)	4.80x10 <sup>-5</sup>	1.29 (1.14-1.45)	6.16x10 <sup>-3</sup>	1.11 (1.03-1.19)	4.78x10 <sup>-5</sup>	1.14 (1.07-1.21)	9.71x10 <sup>-5</sup>	1.18 (1.09-1.28)	1.22 (1.05-1.42)
1p22	EVI5	rs1415296	C/G	0.29	C	6.39x10 <sup>-4</sup>	1.29 (1.11-1.50)	7.17x10 <sup>-5</sup>	1.27 (1.13-1.43)	1.54x10 <sup>-2</sup>	1.10 (1.02-1.18)	3.76x10 <sup>-4</sup>	1.12 (1.05-1.19)	5.35x10 <sup>-4</sup>	1.16 (1.07-1.26)	1.18 (1.01-1.36)
1p22	EVI5	*rs10735781	G/C	0.38	G	2.21x10 <sup>-4</sup>	1.29 (1.12-1.50)	6.05x10 <sup>-3</sup>	1.17 (1.05-1.30)	2.01x10 <sup>-2</sup>	1.08 (1.01-1.16)	3.35x10 <sup>-4</sup>	1.11 (1.05-1.18)	1.68x10 <sup>-4</sup>	1.18 (1.09-1.29)	1.19 (1.05-1.34)
1p22	EVI5	rs11800848	C/A	0.28	C	3.55x10 <sup>-3</sup>	1.25 (1.07-1.45)	2.88x10 <sup>-5</sup>	1.29 (1.15-1.45)	5.30x10 <sup>-3</sup>	1.11 (1.03-1.20)	2.18x10 <sup>-4</sup>	1.12 (1.06-1.20)	4.09x10 <sup>-4</sup>	1.17 (1.08-1.26)	1.19 (1.03-1.39)
1p22	EVI5	rs4847267	C/T	0.38	C	3.61x10 <sup>-4</sup>	1.29 (1.12-1.49)	7.86x10 <sup>-3</sup>	1.16 (1.04-1.30)	5.89x10 <sup>-2</sup>	1.07 (1.00-1.15)	3.62x10 <sup>-3</sup>	1.09 (1.03-1.15)	3.89x10 <sup>-3</sup>	1.15 (1.05-1.25)	1.15 (1.02-1.30)
1p22	EVI5	SNP_A-1931091	A/G	0.28	A	3.66x10 <sup>-4</sup>	1.31 (1.12-1.53)	4.49x10 <sup>-5</sup>	1.28 (1.14-1.44)	9.40x10 <sup>-3</sup>	1.10 (1.02-1.19)	3.00x10 <sup>-4</sup>	1.12 (1.05-1.19)	8.50x10 <sup>-4</sup>	1.15 (1.06-1.25)	1.21 (1.04-1.40)
1p22	EVI5	*rs6680578	T/A	0.38	T	3.46x10 <sup>-4</sup>	1.29 (1.11-1.49)	4.88x10 <sup>-3</sup>	1.17 (1.05-1.31)	1.86x10 <sup>-2</sup>	1.09 (1.01-1.16)	5.00x10 <sup>-4</sup>	1.11 (1.04-1.17)	2.08x10 <sup>-4</sup>	1.19 (1.09-1.29)	1.18 (1.04-1.33)
1p22	RPL5	*rs6604026	C/T	0.29	C	4.45x10 <sup>-4</sup>	1.29 (1.11-1.50)	2.34x10 <sup>-4</sup>	1.25 (1.11-1.40)	9.58x10 <sup>-4</sup>	1.13 (1.05-1.22)	7.94x10 <sup>-6</sup>	1.15 (1.08-1.22)	2.49x10 <sup>-5</sup>	1.18 (1.09-1.28)	1.27 (1.10-1.47)
1p22	FAM69A	rs7514280	T/C	0.28	T	4.50x10 <sup>-4</sup>	1.30 (1.11-1.51)	6.01x10 <sup>-4</sup>	1.23 (1.09-1.39)	2.51x10 <sup>-3</sup>	1.12 (1.04-1.21)	7.08x10 <sup>-5</sup>	1.13 (1.06-1.20)	2.62x10 <sup>-4</sup>	1.16 (1.07-1.25)	1.24 (1.07-1.44)
1p22	FAM69A	rs10874746	T/C	0.35	T	1.09x10 <sup>-5</sup>	1.35 (1.17-1.56)	2.00x10 <sup>-2</sup>	1.14 (1.02-1.28)	2.56x10 <sup>-2</sup>	1.08 (1.01-1.16)	2.07x10 <sup>-4</sup>	1.11 (1.05-1.18)	3.22x10 <sup>-4</sup>	1.16 (1.07-1.26)	1.20 (1.06-1.36)
1p22	FAM69A	rs2811600	C/T	0.37	C	1.71x10 <sup>-5</sup>	1.34 (1.16-1.55)	4.51x10 <sup>-2</sup>	1.12 (1.00-1.25)	8.81x10 <sup>-2</sup>	1.06 (0.99-1.14)	2.28x10 <sup>-3</sup>	1.09 (1.03-1.16)	7.24x10 <sup>-3</sup>	1.12 (1.03-1.21)	1.18 (1.04-1.33)
1p22	FAM69A	SNP_A-1919293	T/A	0.28	T	5.40x10 <sup>-4</sup>	1.29 (1.11-1.50)	6.49x10 <sup>-4</sup>	1.23 (1.09-1.38)	1.89x10 <sup>-3</sup>	1.12 (1.04-1.21)	4.91x10 <sup>-5</sup>	1.13 (1.07-1.21)	1.66x10 <sup>-4</sup>	1.16 (1.07-1.26)	1.24 (1.07-1.44)
1p22	FAM69A	*rs7536563	A/G	0.38	A	2.53x10 <sup>-5</sup>	1.34 (1.16-1.55)	2.48x10 <sup>-2</sup>	1.14 (1.02-1.27)	2.17x10 <sup>-2</sup>	1.08 (1.01-1.16)	9.12x10 <sup>-5</sup>	1.12 (1.06-1.18)	2.44x10 <sup>-4</sup>	1.16 (1.07-1.26)	1.23 (1.09-1.39)

1p22	FAM69A	rs2255723	G/T	0.37	G	1.11x10 <sup>-5</sup>	1.35	4.00x10 <sup>-2</sup>	1.12	1.65x10 <sup>-1</sup>	1.05	9.42x10 <sup>-3</sup>	1.08	2.07x10 <sup>-2</sup>	1.11	1.14
							(1.17-1.56)		(1.01-1.25)		(0.98-1.13)		(1.02-1.14)		(1.02-1.21)	(1.01-1.29)
1p22	FAM69A	rs11164835	A/G	0.37	A	5.36x10 <sup>-5</sup>	1.32	4.97x10 <sup>-2</sup>	1.12	4.77x10 <sup>-2</sup>	1.07	9.70x10 <sup>-4</sup>	1.10	2.02x10 <sup>-3</sup>	1.14	1.18
							(1.14-1.52)		(1.00-1.25)		(1.00-1.15)		(1.04-1.16)		(1.05-1.24)	(1.05-1.34)
1p22	FAM69A	rs9651257	C/T	0.37	C	3.40x10 <sup>-5</sup>	1.33	3.90x10 <sup>-2</sup>	1.12	3.04x10 <sup>-2</sup>	1.08	4.90x10 <sup>-4</sup>	1.11	1.32x10 <sup>-3</sup>	1.14	1.20
							(1.15-1.54)		(1.01-1.25)		(1.01-1.15)		(1.04-1.17)		(1.05-1.24)	(1.06-1.36)
1p22	FAM69A	*rs11164838	T/C	0.43	C	6.01x10 <sup>-5</sup>	1.32	3.28x10 <sup>-3</sup>	1.18	1.30x10 <sup>-2</sup>	1.09	1.91x10 <sup>-4</sup>	1.11	6.69x10 <sup>-4</sup>	1.15	1.25
							(1.15-1.52)		(1.06-1.32)		(1.02-1.16)		(1.05-1.18)		(1.04-1.28)	(1.12-1.40)
1p22	FAM69A	rs12745968	G/A	0.37	G	8.01x10 <sup>-5</sup>	1.31	7.16x10 <sup>-2</sup>	1.11	3.56x10 <sup>-2</sup>	1.08	6.57x10 <sup>-4</sup>	1.10	1.97x10 <sup>-3</sup>	1.13	1.20
							(1.14-1.52)		(0.99-1.24)		(1.00-1.15)		(1.04-1.17)		(1.04-1.23)	(1.06-1.36)
1p22	FAM69A	rs17380908	T/C	0.36	T	5.74x10 <sup>-5</sup>	1.32	7.36x10 <sup>-2</sup>	1.11	2.44x10 <sup>-2</sup>	1.08	2.61x10 <sup>-4</sup>	1.11	7.35x10 <sup>-4</sup>	1.15	1.22
							(1.14-1.53)		(0.99-1.24)		(1.01-1.16)		(1.05-1.18)		(1.06-1.24)	(1.08-1.37)
1p22		rs521428	A/G	0.46	G	2.12x10 <sup>-5</sup>	1.32	1.18x10 <sup>-2</sup>	1.15	2.43x10 <sup>-2</sup>	1.08	1.32x10 <sup>-4</sup>	1.11	5.53x10 <sup>-4</sup>	1.14	1.25
							(1.16-1.51)		(1.03-1.28)		(1.01-1.15)		(1.05-1.18)		(1.03-1.26)	(1.11-1.39)
1p22		rs532834	A/T	0.44	A	1.82x10 <sup>-7</sup>	1.43	2.35x10 <sup>-3</sup>	1.18	1.62x10 <sup>-1</sup>	1.05	1.88x10 <sup>-4</sup>	1.11	8.83x10 <sup>-4</sup>	1.11	1.24
							(1.24-1.64)		(1.06-1.32)		(0.98-1.12)		(1.05-1.17)		(1.02-1.21)	(1.10-1.38)
1p13		rs4838992	G/A	0.15	G	4.26x10 <sup>-3</sup>	1.31	6.17x10 <sup>-4</sup>	1.29	6.35x10 <sup>-1</sup>	1.02	6.54x10 <sup>-2</sup>	1.08	3.43x10 <sup>-2</sup>	1.12	0.96
							(1.08-1.60)		(1.12-1.50)		(0.93-1.12)		(1.00-1.16)		(1.03-1.22)	(0.74-1.24)
1p13	CD58	*rs12044852	A/C	0.08	C	9.71x10 <sup>-4</sup>	1.48	3.01x10 <sup>-5</sup>	1.54	2.06x10 <sup>-3</sup>	1.20	1.90x10 <sup>-5</sup>	1.24	1.18x10 <sup>-4</sup>	1.28	1.58
							(1.17-1.87)		(1.26-1.89)		(1.07-1.35)		(1.12-1.37)		(0.83-1.98)	(1.03-2.42)
1q24	DNM3	rs1011731	G/A	0.40	A	1.62x10 <sup>-2</sup>	1.18	9.58x10 <sup>-5</sup>	1.25	8.69x10 <sup>-1</sup>	0.99	7.77x10 <sup>-1</sup>	1.01	8.01x10 <sup>-1</sup>	1.04	1.02
							(1.03-1.35)		(1.12-1.39)		(0.93-1.06)		(0.95-1.07)		(0.93-1.15)	(0.91-1.15)
1q31		rs2760524	A/G	0.15	G	6.14x10 <sup>-2</sup>	1.19	5.17x10 <sup>-6</sup>	1.42	7.87x10 <sup>-3</sup>	1.13	2.88x10 <sup>-3</sup>	1.12	9.23x10 <sup>-3</sup>	1.22	1.34
							(0.99-1.42)		(1.22-1.65)		(1.03-1.23)		(1.04-1.21)		(0.95-1.56)	(1.05-1.72)
1q41	TAF1A	rs2936040	A/T	0.14	T	1.45x10 <sup>-4</sup>	1.46	4.53x10 <sup>-3</sup>	1.27	3.64x10 <sup>-2</sup>	1.10	9.93x10 <sup>-3</sup>	1.11	1.36x10 <sup>-2</sup>	0.92	1.05
							(1.20-1.78)		(1.08-1.51)		(1.01-1.21)		(1.03-1.20)		(0.69-1.22)	(0.79-1.39)
2p23	ALK	*rs7577363	A/G	0.03	A	1.14x10 <sup>-4</sup>	2.14	1.21x10 <sup>-2</sup>	1.44	3.15x10 <sup>-3</sup>	1.34	7.37x10 <sup>-5</sup>	1.37	3.94x10 <sup>-4</sup>	1.36	2.18
							(1.43-3.20)		(1.08-1.92)		(1.11-1.62)		(1.17-1.61)		(1.16-1.61)	(0.75-6.28)
2p14	MXD1	rs10205487	G/A	0.45	G	5.02x10 <sup>-4</sup>	1.27	1.79x10 <sup>-3</sup>	1.19	8.23x10 <sup>-1</sup>	1.01	2.55x10 <sup>-1</sup>	1.03	5.03x10 <sup>-1</sup>	1.04	1.06
							(1.11-1.46)		(1.07-1.33)		(0.94-1.08)		(0.98-1.09)		(0.96-1.14)	(0.95-1.19)
2p13	DYSF	rs1529409	T/C	0.07	C	1.40x10 <sup>-5</sup>	1.79	2.84x10 <sup>-4</sup>	1.54	1.49x10 <sup>-1</sup>	0.92	6.73x10 <sup>-1</sup>	0.98	8.09x10 <sup>-1</sup>	0.88	0.87
							(1.37-2.32)		(1.22-1.94)		(0.81-1.03)		(0.88-1.08)		(0.56-1.36)	(0.56-1.33)
2p12	CTNNA2	rs2861913	G/A	0.34	A	1.12x10 <sup>-4</sup>	1.32	4.21x10 <sup>-1</sup>	1.05	4.39x10 <sup>-1</sup>	1.03	3.93x10 <sup>-2</sup>	1.06	8.08x10 <sup>-2</sup>	1.02	1.11
							(1.15-1.52)		(0.93-1.18)		(0.96-1.10)		(1.00-1.13)		(0.89-1.16)	(0.97-1.26)
2q14		rs6744496	A/G	0.41	G	1.37x10 <sup>-4</sup>	1.29	3.14x10 <sup>-2</sup>	1.13	1.84x10 <sup>-1</sup>	1.05	2.32x10 <sup>-3</sup>	1.09	6.81x10 <sup>-3</sup>	1.05	1.18
							(1.13-1.46)		(1.01-1.26)		(0.98-1.12)		(1.03-1.15)		(0.94-1.17)	(1.05-1.32)
3p14	FHIT	rs2365045	G/A	0.20	A	8.21x10 <sup>-6</sup>	1.45	8.03x10 <sup>-2</sup>	1.14	4.64x10 <sup>-1</sup>	1.03	1.06x10 <sup>-2</sup>	1.10	3.43x10 <sup>-2</sup>	1.15	1.24
							(1.23-1.71)		(0.98-1.31)		(0.95-1.12)		(1.02-1.17)		(0.93-1.41)	(1.01-1.53)
3q13	CBLB	*rs12487066	C/T	0.27	T	7.65x10 <sup>-3</sup>	1.22	4.09x10 <sup>-5</sup>	1.29	3.53x10 <sup>-2</sup>	1.08	5.44x10 <sup>-3</sup>	1.09	8.16x10 <sup>-3</sup>	1.20	1.26
							(1.05-1.41)		(1.14-1.46)		(1.00-1.16)		(1.03-1.16)		(1.03-1.39)	(1.09-1.47)
4q21		rs1390088	A/C	0.21	A	4.34x10 <sup>-5</sup>	1.39	5.94x10 <sup>-1</sup>	1.04	3.28x10 <sup>-1</sup>	0.96	1.87x10 <sup>-1</sup>	1.05	1.19x10 <sup>-1</sup>	1.01	1.20
							(1.19-1.63)		(0.91-1.18)		(0.88-1.04)		(0.98-1.12)		(0.93-1.09)	(1.01-1.42)
4q21		rs2868879	G/C	0.33	G	2.10x10 <sup>-4</sup>	1.30	1.15x10 <sup>-1</sup>	1.10	7.83x10 <sup>-1</sup>	0.99	1.16x10 <sup>-1</sup>	1.05	2.90x10 <sup>-1</sup>	1.05	1.10
							(1.13-1.49)		(0.98-1.23)		(0.93-1.06)		(0.99-1.11)		(0.97-1.13)	(0.97-1.25)
4q27		rs867883	G/A	0.26	G	1.20x10 <sup>-2</sup>	1.21	5.27x10 <sup>-3</sup>	1.19	7.59x10 <sup>-1</sup>	1.01	9.29x10 <sup>-2</sup>	1.06	5.35x10 <sup>-2</sup>	1.01	1.20
							(1.04-1.41)		(1.05-1.35)		(0.94-1.09)		(0.99-1.12)		(0.93-1.09)	(1.03-1.40)
4q27	TNIP3	rs10518383	G/C	0.25	G	5.93x10 <sup>-3</sup>	1.23	3.65x10 <sup>-3</sup>	1.20	8.35x10 <sup>-1</sup>	1.01	8.68x10 <sup>-2</sup>	1.06	3.21x10 <sup>-2</sup>	1.00	1.22
							(1.06-1.43)		(1.06-1.36)		(0.94-1.09)		(0.99-1.12)		(0.92-1.09)	(1.05-1.42)

4q34		rs4600896	G/A	0.26	G	1.28x10 <sup>-4</sup>	1.34	1.29x10 <sup>-2</sup>	1.17	4.06x10 <sup>-1</sup>	0.97	2.60x10 <sup>-1</sup>	1.04	3.36x10 <sup>-1</sup>	1.06	1.03
							(1.15-1.56)		(1.03-1.32)		(0.90-1.04)		(0.97-1.10)		(0.98-1.15)	(0.89-1.20)
5p15		rs2962694	T/A	0.28	A	1.46x10 <sup>-6</sup>	1.44	1.98x10 <sup>-1</sup>	1.09	7.68x10 <sup>-1</sup>	1.01	8.04x10 <sup>-3</sup>	1.09	2.83x10 <sup>-2</sup>	1.11	1.20
							(1.24-1.67)		(0.96-1.23)		(0.94-1.09)		(1.02-1.16)		(0.95-1.30)	(1.03-1.41)
5p15		rs2963341	G/C	0.13	C	4.84x10 <sup>-5</sup>	1.50	4.92x10 <sup>-2</sup>	1.19	7.79x10 <sup>-1</sup>	0.99	1.05x10 <sup>-1</sup>	1.07	8.61x10 <sup>-2</sup>	1.36	1.42
							(1.23-1.84)		(1.00-1.41)		(0.89-1.09)		(0.99-1.16)		(0.97-1.91)	(1.02-1.98)
5p15		rs13359910	T/C	0.27	C	2.41x10 <sup>-4</sup>	1.34	3.44x10 <sup>-2</sup>	1.15	3.49x10 <sup>-1</sup>	0.96	7.56x10 <sup>-1</sup>	1.01	5.06x10 <sup>-1</sup>	1.09	1.07
							(1.14-1.57)		(1.01-1.30)		(0.89-1.04)		(0.95-1.08)		(0.94-1.28)	(0.92-1.25)
5p15		rs9313264	T/C	0.27	C	1.19x10 <sup>-4</sup>	1.33	3.46x10 <sup>-2</sup>	1.14	2.69x10 <sup>-1</sup>	0.96	7.30x10 <sup>-1</sup>	1.01	3.48x10 <sup>-1</sup>	1.12	1.09
							(1.15-1.55)		(1.01-1.30)		(0.89-1.03)		(0.95-1.08)		(0.96-1.30)	(0.93-1.27)
5p15		rs6555588	G/A	0.27	A	1.01x10 <sup>-4</sup>	1.35	6.35x10 <sup>-2</sup>	1.13	1.78x10 <sup>-1</sup>	0.95	9.92x10 <sup>-1</sup>	1.00	4.22x10 <sup>-1</sup>	1.10	1.06
							(1.16-1.58)		(0.99-1.28)		(0.88-1.02)		(0.94-1.06)		(0.94-1.28)	(0.91-1.24)
5p13	<i>PDZD2</i>	rs6861526	C/T	0.25	C	1.51x10 <sup>-4</sup>	1.34	1.13x10 <sup>-2</sup>	1.17	2.22x10 <sup>-2</sup>	0.92	7.53x10 <sup>-1</sup>	0.99	6.15x10 <sup>-1</sup>	1.01	0.94
							(1.15-1.56)		(1.04-1.32)		(0.85-0.99)		(0.93-1.05)		(0.94-1.10)	(0.80-1.10)
5p13	<i>IL7R</i>	*rs6897932	T/C	0.25	C	5.78x10 <sup>-3</sup>	1.24	1.65x10 <sup>-2</sup>	1.17	2.75x10 <sup>-5</sup>	1.18	2.94x10 <sup>-7</sup>	1.18	1.95x10 <sup>-6</sup>	1.19	1.40
							(1.07-1.44)		(1.03-1.32)		(1.09-1.27)		(1.11-1.26)		(1.01-1.41)	(1.19-1.66)
5q11		rs4301182	C/A	0.11	A	1.19x10 <sup>-4</sup>	1.52	8.53x10 <sup>-1</sup>	0.98	2.67x10 <sup>-1</sup>	0.94	9.98x10 <sup>-1</sup>	1.00	8.40x10 <sup>-2</sup>	0.68	0.71
							(1.22-1.90)		(0.81-1.19)		(0.85-1.04)		(0.92-1.09)		(0.49-0.94)	(0.51-0.98)
5q15		rs7709237	G/A	0.30	G	1.33x10 <sup>-3</sup>	1.26	5.45x10 <sup>-4</sup>	1.23	7.96x10 <sup>-2</sup>	1.07	3.17x10 <sup>-4</sup>	1.12	8.06x10 <sup>-4</sup>	1.08	1.29
							(1.09-1.45)		(1.09-1.38)		(0.99-1.14)		(1.05-1.18)		(1.00-1.17)	(1.13-1.47)
5q23		rs1105769	A/C	0.31	C	1.20x10 <sup>-4</sup>	1.32	3.10x10 <sup>-2</sup>	1.14	4.59x10 <sup>-1</sup>	0.97	2.77x10 <sup>-1</sup>	1.03	5.47x10 <sup>-1</sup>	1.05	1.08
							(1.15-1.53)		(1.01-1.28)		(0.91-1.04)		(0.97-1.10)		(0.91-1.20)	(0.94-1.23)
5q35		rs4976682	T/C	0.10	C	3.27x10 <sup>-3</sup>	1.40	1.31x10 <sup>-3</sup>	1.36	1.58x10 <sup>-1</sup>	1.08	1.01x10 <sup>-1</sup>	1.08	1.63x10 <sup>-1</sup>	0.91	1.01
							(1.12-1.75)		(1.13-1.64)		(0.97-1.20)		(0.99-1.18)		(0.66-1.27)	(0.73-1.39)
5q35	<i>MXD3</i>	rs11949767	A/G	0.24	G	5.29x10 <sup>-7</sup>	1.46	5.46x10 <sup>-5</sup>	1.31	7.96x10 <sup>-2</sup>	1.07	2.74x10 <sup>-3</sup>	1.10	2.29x10 <sup>-3</sup>	0.97	1.11
							(1.26-1.69)		(1.15-1.49)		(0.99-1.15)		(1.04-1.17)		(0.83-1.13)	(0.95-1.29)
5q35		rs6885410	C/A	0.27	A	5.27x10 <sup>-6</sup>	1.40	3.45x10 <sup>-4</sup>	1.25	2.69x10 <sup>-1</sup>	1.04	3.02x10 <sup>-2</sup>	1.07	5.19x10 <sup>-2</sup>	0.99	1.10
							(1.21-1.61)		(1.11-1.42)		(0.97-1.12)		(1.01-1.14)		(0.86-1.14)	(0.95-1.26)
7p14		rs1427658	T/C	0.32	C	1.95x10 <sup>-4</sup>	1.30	1.80x10 <sup>-2</sup>	1.15	5.80x10 <sup>-2</sup>	0.93	8.00x10 <sup>-1</sup>	0.99	9.69x10 <sup>-1</sup>	0.99	0.99
							(1.13-1.50)		(1.02-1.30)		(0.87-1.00)		(0.93-1.05)		(0.88-1.13)	(0.87-1.12)
7q21		rs1509913	C/T	0.42	T	8.03x10 <sup>-5</sup>	1.31	1.37x10 <sup>-1</sup>	1.09	1.13x10 <sup>-1</sup>	1.06	2.11x10 <sup>-3</sup>	1.09	8.65x10 <sup>-3</sup>	1.08	1.19
							(1.14-1.51)		(0.97-1.21)		(0.99-1.13)		(1.03-1.15)		(0.97-1.20)	(1.06-1.33)
7q33		rs2880602	G/T	0.15	G	1.48x10 <sup>-3</sup>	1.34	1.26x10 <sup>-3</sup>	1.27	1.84x10 <sup>-1</sup>	1.07	2.41x10 <sup>-2</sup>	1.09	2.99x10 <sup>-3</sup>	1.16	0.89
							(1.12-1.61)		(1.10-1.47)		(0.97-1.17)		(1.01-1.18)		(1.06-1.26)	(0.68-1.19)
7q33		rs6942866	T/C	0.16	T	2.79x10 <sup>-4</sup>	1.39	1.78x10 <sup>-4</sup>	1.32	1.63x10 <sup>-1</sup>	1.07	2.26x10 <sup>-2</sup>	1.09	6.06x10 <sup>-2</sup>	1.11	1.12
							(1.16-1.66)		(1.14-1.52)		(0.97-1.18)		(1.01-1.18)		(1.01-1.21)	(0.87-1.46)
7q33		rs4389875	C/T	0.16	C	1.79x10 <sup>-4</sup>	1.40	3.34x10 <sup>-4</sup>	1.30	2.54x10 <sup>-1</sup>	1.06	2.89x10 <sup>-2</sup>	1.09	4.26x10 <sup>-2</sup>	1.12	1.04
							(1.17-1.69)		(1.13-1.50)		(0.96-1.16)		(1.01-1.18)		(1.02-1.23)	(0.81-1.35)
8q21		rs4738350	A/G	0.03	G	3.90x10 <sup>-4</sup>	2.13	6.09x10 <sup>-3</sup>	1.75	9.14x10 <sup>-1</sup>	1.01	6.12x10 <sup>-2</sup>	1.19	8.59x10 <sup>-3</sup>	N/A	N/A
							(1.38-3.31)		(1.17-2.61)		(0.82-1.25)		(1.00-1.41)		N/A	N/A
8q24		rs2922350	C/T	0.29	C	2.14x10 <sup>-5</sup>	1.37	2.96x10 <sup>-1</sup>	1.06	3.77x10 <sup>-1</sup>	0.97	3.99x10 <sup>-1</sup>	1.03	4.40x10 <sup>-1</sup>	1.00	1.09
							(1.19-1.58)		(0.95-1.20)		(0.90-1.04)		(0.97-1.09)		(0.92-1.08)	(0.95-1.25)
8q24		rs1868368	C/T	0.29	C	8.52x10 <sup>-5</sup>	1.33	2.65x10 <sup>-1</sup>	1.07	1.70x10 <sup>-1</sup>	0.95	7.19x10 <sup>-1</sup>	1.01	6.12x10 <sup>-1</sup>	0.99	1.06
							(1.16-1.53)		(0.95-1.20)		(0.88-1.02)		(0.95-1.07)		(0.91-1.07)	(0.92-1.22)
9p24	<i>ANKRD15</i>	rs10975130	C/T	0.19	C	2.23x10 <sup>-3</sup>	1.30	1.71x10 <sup>-6</sup>	1.40	1.28x10 <sup>-1</sup>	1.07	1.79x10 <sup>-3</sup>	1.12	6.22x10 <sup>-3</sup>	1.10	1.32
							(1.10-1.54)		(1.22-1.60)		(0.98-1.16)		(1.04-1.20)		(1.01-1.20)	(1.07-1.62)
9p24	<i>ANKRD15</i>	rs2804262	C/A	0.22	C	1.88x10 <sup>-2</sup>	1.21	7.13x10 <sup>-5</sup>	1.30	3.62x10 <sup>-1</sup>	1.04	4.90x10 <sup>-2</sup>	1.07	1.45x10 <sup>-1</sup>	1.07	1.14
							(1.03-1.42)		(1.14-1.48)		(0.96-1.13)		(1.00-1.14)		(0.99-1.16)	(0.95-1.37)

9p24	<i>ANKRD15</i>	*rs10975200	G/A	0.18	G	8.05x10 <sup>-3</sup>	1.26	9.95x10 <sup>-6</sup>	1.37	2.12x10 <sup>-2</sup>	1.11	3.23x10 <sup>-4</sup>	1.14	1.64x10 <sup>-3</sup>	1.14	1.32
							(1.06-1.50)		(1.19-1.58)		(1.02-1.21)		(1.06-1.23)		(1.04-1.24)	(1.07-1.64)
9p24		rs10815070	C/G	0.25	G	6.13x10 <sup>-5</sup>	1.36	7.34x10 <sup>-2</sup>	1.12	7.98x10 <sup>-1</sup>	0.99	1.72x10 <sup>-1</sup>	1.05	2.07x10 <sup>-1</sup>	0.96	1.03
							(1.17-1.59)		(0.99-1.28)		(0.92-1.06)		(0.98-1.11)		(0.82-1.13)	(0.88-1.21)
9q21		rs2047995	C/T	0.23	T	8.71x10 <sup>-5</sup>	1.36	1.13x10 <sup>-2</sup>	1.19	1.71x10 <sup>-1</sup>	0.94	6.54x10 <sup>-1</sup>	1.02	7.39x10 <sup>-1</sup>	0.96	0.99
							(1.16-1.60)		(1.04-1.35)		(0.88-1.02)		(0.95-1.08)		(0.81-1.14)	(0.84-1.18)
9q33	<i>DBC1</i>	*rs10984447	G/A	0.23	A	1.18x10 <sup>-4</sup>	1.36	2.13x10 <sup>-1</sup>	1.09	1.27x10 <sup>-3</sup>	1.14	8.46x10 <sup>-6</sup>	1.17	4.00x10 <sup>-10</sup>	0.77	1.01
							(1.16-1.59)		(0.95-1.24)		(1.05-1.24)		(1.09-1.25)		(0.64-0.91)	(0.85-1.20)
10p15	<i>IL2RA</i>	rs791587	G/A	0.50	A	1.38x10 <sup>-3</sup>	1.24	3.03x10 <sup>-6</sup>	1.29	5.14x10 <sup>-2</sup>	1.07	5.99x10 <sup>-4</sup>	1.10	2.50x10 <sup>-3</sup>	1.08	1.21
							(1.08-1.41)		(1.16-1.44)		(1.00-1.14)		(1.04-1.16)		(0.98-1.18)	(1.09-1.35)
10p15	<i>IL2RA</i>	*rs2104286	C/T	0.25	T	3.25x10 <sup>-3</sup>	1.26	2.85x10 <sup>-4</sup>	1.26	1.49x10 <sup>-4</sup>	1.16	2.16x10 <sup>-7</sup>	1.19	5.92x10 <sup>-8</sup>	0.97	1.22
							(1.08-1.47)		(1.11-1.43)		(1.08-1.25)		(1.11-1.26)		(0.82-1.13)	(1.05-1.43)
10p15	<i>IL2RA</i>	*rs12722489	T/C	0.15	C	1.28x10 <sup>-3</sup>	1.35	9.61x10 <sup>-4</sup>	1.30	4.56x10 <sup>-4</sup>	1.19	2.96x10 <sup>-8</sup>	1.25	1.01x10 <sup>-7</sup>	1.06	1.37
							(1.13-1.62)		(1.11-1.52)		(1.08-1.31)		(1.16-1.36)		(0.80-1.41)	(1.03-1.80)
10q22	<i>UNC5B</i>	rs10823717	G/T	0.47	T	9.91x10 <sup>-5</sup>	1.29	2.93x10 <sup>-2</sup>	1.13	6.68x10 <sup>-1</sup>	0.99	4.03x10 <sup>-1</sup>	1.02	4.31x10 <sup>-2</sup>	1.13	1.06
							(1.13-1.48)		(1.01-1.26)		(0.93-1.05)		(0.97-1.08)		(1.02-1.24)	(0.95-1.19)
10q26		rs7068990	A/G	0.20	G	7.60x10 <sup>-3</sup>	1.25	1.92x10 <sup>-5</sup>	1.34	9.40x10 <sup>-1</sup>	1.00	5.84x10 <sup>-1</sup>	1.02	5.83x10 <sup>-1</sup>	1.10	1.10
							(1.07-1.47)		(1.17-1.54)		(0.93-1.09)		(0.95-1.09)		(0.91-1.32)	(0.91-1.32)
11q13		rs1620013	T/C	0.29	C	1.84x10 <sup>-4</sup>	1.32	7.19x10 <sup>-4</sup>	1.23	1.64x10 <sup>-1</sup>	0.95	9.83x10 <sup>-1</sup>	1.00	9.35x10 <sup>-1</sup>	0.98	0.99
							(1.14-1.52)		(1.09-1.39)		(0.88-1.02)		(0.94-1.06)		(0.86-1.12)	(0.86-1.13)
11q23		rs486394	C/A	0.29	A	2.19x10 <sup>-4</sup>	1.33	4.51x10 <sup>-3</sup>	1.19	6.39x10 <sup>-1</sup>	0.98	2.63x10 <sup>-1</sup>	1.04	8.34x10 <sup>-2</sup>	0.91	0.99
							(1.14-1.54)		(1.06-1.35)		(0.92-1.05)		(0.98-1.10)		(0.79-1.05)	(0.86-1.15)
11q23		rs4938780	T/C	0.29	C	2.60x10 <sup>-4</sup>	1.30	4.07x10 <sup>-4</sup>	1.24	4.55x10 <sup>-1</sup>	0.97	5.89x10 <sup>-1</sup>	1.02	5.07x10 <sup>-1</sup>	0.95	1.00
							(1.13-1.50)		(1.10-1.40)		(0.91-1.04)		(0.96-1.08)		(0.83-1.09)	(0.87-1.14)
11q23	<i>POU2F3</i>	rs6589804	A/G	0.07	A	8.07x10 <sup>-6</sup>	1.85	2.28x10 <sup>-1</sup>	1.13	2.17x10 <sup>-1</sup>	0.93	3.08x10 <sup>-1</sup>	1.06	5.73x10 <sup>-1</sup>	1.06	1.04
							(1.39-2.45)		(0.93-1.37)		(0.81-1.05)		(0.95-1.18)		(0.95-1.19)	(0.59-1.86)
11q23	<i>POU2F3</i>	rs4142654	G/A	0.06	G	5.14x10 <sup>-5</sup>	1.81	8.61x10 <sup>-1</sup>	1.02	1.72x10 <sup>-1</sup>	0.91	6.39x10 <sup>-1</sup>	1.03	8.79x10 <sup>-1</sup>	1.03	1.00
							(1.35-2.44)		(0.83-1.26)		(0.79-1.04)		(0.91-1.16)		(0.91-1.17)	(0.49-2.00)
12p13		rs10771901	T/C	0.43	T	2.92x10 <sup>-2</sup>	1.16	8.30x10 <sup>-4</sup>	1.20	1.35x10 <sup>-1</sup>	1.06	7.29x10 <sup>-2</sup>	1.05	1.38x10 <sup>-1</sup>	1.03	1.12
							(1.01-1.32)		(1.08-1.34)		(0.98-1.13)		(0.99-1.12)		(0.94-1.12)	(1.00-1.26)
12p13	<i>KLRB1</i>	*rs4763655	A/G	0.38	A	4.55x10 <sup>-2</sup>	1.15	2.16x10 <sup>-3</sup>	1.19	1.83x10 <sup>-2</sup>	1.09	6.85x10 <sup>-4</sup>	1.10	2.71x10 <sup>-3</sup>	1.09	1.23
							(1.00-1.32)		(1.07-1.33)		(1.01-1.16)		(1.04-1.17)		(1.00-1.18)	(1.09-1.39)
12p13		rs11053720	G/A	0.13	A	6.07x10 <sup>-4</sup>	1.41	9.46x10 <sup>-2</sup>	1.16	6.66x10 <sup>-1</sup>	0.98	3.83x10 <sup>-1</sup>	1.04	2.25x10 <sup>-1</sup>	0.84	0.90
							(1.16-1.71)		(0.97-1.37)		(0.88-1.08)		(0.96-1.13)		(0.63-1.11)	(0.68-1.19)
12p13		rs4764422	C/T	0.46	T	4.27x10 <sup>-1</sup>	1.06	7.44x10 <sup>-5</sup>	1.25	5.28x10 <sup>-1</sup>	1.02	7.72x10 <sup>-2</sup>	1.05	1.51x10 <sup>-1</sup>	1.02	1.11
							(0.92-1.22)		(1.12-1.40)		(0.95-1.09)		(0.99-1.11)		(0.93-1.13)	(0.99-1.24)
12q24	<i>KSR2</i>	rs4767621	A/G	0.23	G	4.28x10 <sup>-5</sup>	1.40	1.18x10 <sup>-1</sup>	1.11	5.09x10 <sup>-1</sup>	0.97	6.32x10 <sup>-1</sup>	1.02	6.19x10 <sup>-1</sup>	0.95	0.99
							(1.19-1.65)		(0.97-1.27)		(0.90-1.05)		(0.95-1.08)		(0.80-1.12)	(0.84-1.16)
13q12		rs1330730	A/G	0.03	A	5.49x10 <sup>-3</sup>	1.68	3.08x10 <sup>-5</sup>	1.89	8.24x10 <sup>-1</sup>	1.02	3.39x10 <sup>-2</sup>	1.19	1.28x10 <sup>-2</sup>	1.14	4.98
							(1.16-2.44)		(1.39-2.56)		(0.85-1.23)		(1.01-1.39)		(0.97-1.35)	(1.51-16.37)
13q32	<i>HS6ST3</i>	rs3899870	C/G	0.03	G	1.21x10 <sup>-5</sup>	2.64	5.51x10 <sup>-2</sup>	1.49	7.93x10 <sup>-2</sup>	0.83	5.18x10 <sup>-1</sup>	1.06	6.03x10 <sup>-1</sup>	1.85	1.93
							(1.67-4.16)		(0.99-2.23)		(0.67-1.02)		(0.89-1.26)		(0.41-8.41)	(0.42-8.75)
13q32	<i>HS6ST3</i>	rs3899871	A/G	0.03	G	1.74x10 <sup>-5</sup>	2.37	2.93x10 <sup>-2</sup>	1.53	3.29x10 <sup>-1</sup>	0.90	1.01x10 <sup>-1</sup>	1.16	2.54x10 <sup>-1</sup>	1.34	1.55
							(1.58-3.58)		(1.04-2.26)		(0.73-1.11)		(0.98-1.37)		(0.29-6.27)	(0.33-7.22)
13q32	<i>HS6ST3</i>	rs7334107	T/C	0.03	C	3.53x10 <sup>-5</sup>	2.31	2.89x10 <sup>-2</sup>	1.54	2.38x10 <sup>-1</sup>	0.88	1.86x10 <sup>-1</sup>	1.12	3.55x10 <sup>-1</sup>	1.70	1.89
							(1.53-3.49)		(1.04-2.26)		(0.71-1.09)		(0.95-1.33)		(0.37-7.77)	(0.42-8.61)
15q25	<i>HDGFRP3</i>	rs17841157	T/C	0.07	T	5.16x10 <sup>-4</sup>	1.58	7.46x10 <sup>-4</sup>	1.42	1.98x10 <sup>-1</sup>	0.91	9.55x10 <sup>-1</sup>	1.00	9.93x10 <sup>-4</sup>	0.91	2.42
							(1.21-2.06)		(1.15-1.73)		(0.79-1.05)		(0.89-1.13)		(0.80-1.04)	(1.48-3.95)

16p13	<i>KIAA0350</i>	*rs6498169	G/A	0.37	G	2.90x10 <sup>-2</sup>	1.16	6.51x10 <sup>-3</sup>	1.17	1.89x10 <sup>-5</sup>	1.16	3.83x10 <sup>-6</sup>	1.14	2.06x10 <sup>-5</sup>	1.13	1.32
							(1.02-1.33)		(1.04-1.31)		(1.09-1.24)		(1.08-1.21)		(1.04-1.22)	(1.17-1.49)
16q21	<i>CDH11</i>	rs12232421	A/G	0.26	G	1.53x10 <sup>-4</sup>	1.33	3.12x10 <sup>-3</sup>	1.21	9.00x10 <sup>-1</sup>	0.99	2.03x10 <sup>-1</sup>	1.04	3.75x10 <sup>-1</sup>	1.00	1.06
							(1.15-1.55)		(1.07-1.37)		(0.93-1.08)		(0.98-1.11)		(0.86-1.16)	(0.91-1.22)
16q21		rs10500510	G/T	0.20	T	1.41x10 <sup>-4</sup>	1.40	3.07x10 <sup>-3</sup>	1.24	8.24x10 <sup>-1</sup>	0.99	2.14x10 <sup>-1</sup>	1.05	1.20x10 <sup>-1</sup>	0.89	0.97
							(1.17-1.66)		(1.08-1.43)		(0.92-1.08)		(0.98-1.12)		(0.74-1.09)	(0.80-1.17)
16q22	<i>CYB5B</i>	rs4783708	C/T	0.17	T	5.67x10 <sup>-4</sup>	1.36	4.35x10 <sup>-2</sup>	1.17	7.31x10 <sup>-1</sup>	1.02	6.73x10 <sup>-2</sup>	1.07	1.68x10 <sup>-1</sup>	1.13	1.20
							(1.14-1.62)		(1.00-1.36)		(0.93-1.11)		(1.00-1.15)		(0.89-1.44)	(0.95-1.52)
17q25	<i>TTYH2</i>	rs8081928	C/G	0.41	C	1.67x10 <sup>-4</sup>	1.30	4.66x10 <sup>-1</sup>	1.04	4.89x10 <sup>-1</sup>	0.98	8.10x10 <sup>-1</sup>	1.01	9.54x10 <sup>-1</sup>	1.00	1.02
							(1.13-1.49)		(0.93-1.17)		(0.92-1.04)		(0.95-1.06)		(0.92-1.09)	(0.91-1.14)
18p11		rs4797328	C/T	0.28	T	1.93x10 <sup>-5</sup>	1.37	1.09x10 <sup>-3</sup>	1.23	4.09x10 <sup>-1</sup>	0.97	3.93x10 <sup>-1</sup>	1.03	6.58x10 <sup>-1</sup>	1.05	1.07
							(1.18-1.59)		(1.08-1.39)		(0.90-1.04)		(0.97-1.09)		(0.91-1.21)	(0.93-1.23)
18p11	<i>PTPN2</i>	rs16939895	A/G	0.15	G	1.36x10 <sup>-2</sup>	1.25	7.21x10 <sup>-3</sup>	1.23	5.75x10 <sup>-1</sup>	1.03	2.01x10 <sup>-1</sup>	1.05	3.45x10 <sup>-1</sup>	0.97	1.03
							(1.04-1.51)		(1.06-1.44)		(0.94-1.12)		(0.98-1.13)		(0.76-1.23)	(0.81-1.30)
18p11	<i>PTPN2</i>	rs7234029	G/A	0.15	A	1.21x10 <sup>-2</sup>	1.27	2.60x10 <sup>-3</sup>	1.27	9.19x10 <sup>-1</sup>	1.01	4.51x10 <sup>-1</sup>	1.03	3.62x10 <sup>-1</sup>	0.89	0.94
							(1.05-1.54)		(1.09-1.48)		(0.92-1.10)		(0.96-1.11)		(0.70-1.13)	(0.75-1.19)
19p13		rs454453	T/C	0.33	T	6.90x10 <sup>-4</sup>	1.28	6.57x10 <sup>-4</sup>	1.22	1.94x10 <sup>-2</sup>	1.09	3.90x10 <sup>-4</sup>	1.12	1.01x10 <sup>-3</sup>	1.08	1.29
							(1.11-1.48)		(1.09-1.37)		(1.02-1.17)		(1.05-1.19)		(1.00-1.18)	(1.13-1.47)
19p13		rs390821	G/A	0.33	G	7.46x10 <sup>-5</sup>	1.34	1.35x10 <sup>-4</sup>	1.25	1.95x10 <sup>-2</sup>	1.09	6.14x10 <sup>-5</sup>	1.13	2.33x10 <sup>-4</sup>	1.11	1.30
							(1.15-1.55)		(1.11-1.40)		(1.01-1.17)		(1.06-1.19)		(1.02-1.20)	(1.14-1.48)
19p13		rs346172	C/T	0.30	T	2.23x10 <sup>-4</sup>	1.31	1.13x10 <sup>-2</sup>	1.17	2.27x10 <sup>-1</sup>	0.95	4.66x10 <sup>-1</sup>	1.02	2.94x10 <sup>-1</sup>	1.12	1.10
							(1.13-1.53)		(1.04-1.32)		(0.89-1.03)		(0.96-1.09)		(0.97-1.28)	(0.96-1.27)
20p12	<i>PAK7</i>	rs747996	C/G	0.21	G	5.20x10 <sup>-4</sup>	1.33	2.56x10 <sup>-4</sup>	1.29	6.33x10 <sup>-2</sup>	1.08	4.11x10 <sup>-2</sup>	1.07	7.06x10 <sup>-3</sup>	0.88	1.00
							(1.14-1.56)		(1.13-1.48)		(1.00-1.16)		(1.00-1.14)		(0.74-1.04)	(0.84-1.18)
20p12	<i>PAK7</i>	rs17408919	A/C	0.22	C	3.47x10 <sup>-4</sup>	1.33	3.47x10 <sup>-4</sup>	1.28	3.65x10 <sup>-2</sup>	1.09	1.13x10 <sup>-2</sup>	1.09	7.72x10 <sup>-4</sup>	0.87	1.01
							(1.14-1.56)		(1.12-1.46)		(1.01-1.18)		(1.02-1.16)		(0.73-1.03)	(0.85-1.20)
20q11		rs6018946	A/T	0.36	A	3.84x10 <sup>-4</sup>	1.28	2.46x10 <sup>-4</sup>	1.23	6.35x10 <sup>-1</sup>	0.98	1.41x10 <sup>-1</sup>	1.04	2.24x10 <sup>-1</sup>	1.07	1.07
							(1.12-1.48)		(1.10-1.38)		(0.92-1.05)		(0.99-1.11)		(0.99-1.16)	(0.94-1.21)
20q13	<i>CDH22</i>	rs2425764	G/A	0.18	G	2.34x10 <sup>-5</sup>	1.43	2.95x10 <sup>-3</sup>	1.23	2.43x10 <sup>-1</sup>	1.05	1.58x10 <sup>-2</sup>	1.09	1.93x10 <sup>-2</sup>	1.06	1.33
							(1.21-1.69)		(1.07-1.40)		(0.97-1.15)		(1.02-1.17)		(0.97-1.15)	(1.08-1.63)
21q22	<i>LOC732141</i>	rs914148	T/A	0.40	A	1.46x10 <sup>-5</sup>	1.34	1.51x10 <sup>-2</sup>	1.15	2.53x10 <sup>-2</sup>	0.93	9.55x10 <sup>-1</sup>	1.00	8.64x10 <sup>-1</sup>	0.98	0.99
							(1.18-1.53)		(1.03-1.29)		(0.87-0.99)		(0.95-1.06)		(0.88-1.09)	(0.89-1.12)
22q13		rs17000271	C/T	0.03	T	2.06x10 <sup>-5</sup>	2.39	3.70x10 <sup>-1</sup>	1.16	5.38x10 <sup>-1</sup>	1.06	1.34x10 <sup>-1</sup>	1.13	1.05x10 <sup>-1</sup>	2.20	2.34
							(1.58-3.61)		(0.83-1.62)		(0.88-1.27)		(0.97-1.31)		(0.85-5.66)	(0.92-5.98)
Xp21	<i>MAGEB10</i>	rs5926910	A/G	0.47	A	3.75x10 <sup>-5</sup>	1.47	4.54x10 <sup>-1</sup>	1.05	1.28x10 <sup>-2</sup>	0.92	1.54x10 <sup>-1</sup>	0.95	2.56x10 <sup>-1</sup>	0.94	0.92
							(1.22-1.77)		(0.93-1.18)		(0.86-0.97)		(0.91-1.01)		(0.85-1.04)	(0.83-1.02)
Xp21	<i>MAGEB10</i>	rs1368769	T/C	0.47	T	5.63x10 <sup>-5</sup>	1.44	6.30x10 <sup>-1</sup>	1.03	3.85x10 <sup>-2</sup>	0.93	4.10x10 <sup>-1</sup>	0.97	5.07x10 <sup>-1</sup>	0.95	0.95
							(1.21-1.73)		(0.92-1.16)		(0.88-0.99)		(0.93-1.03)		(0.86-1.06)	(0.86-1.05)

\*Indicates SNPs presented within Table 2 of the main document

+The comparison was performed with the use of the program UNPHASED

++The comparison was performed with the use of the Cochran-Mantel-Haenszel test

**Supplementary Table 1:** Results from the final list of 110 SNPs chosen from the screening stage are shown. The data presented here follow a similar format as described for Table 2 in the main document. The top 16 SNPs presented in Table 2 (excluding the HLA-DRB1\*1501-tag (rs3135388)) are indicated with an asterisk. The allele frequencies (MAF denotes minor allele frequency) reported in this table are based on those calculated using only the parents from the 931 trios in the initial screen dataset (n=1862). N/A indicates odds ratios were not calculated since no homozygotes were observed for the rarer allele.