Genome-wide association meta-analysis identifies new endometriosis risk loci

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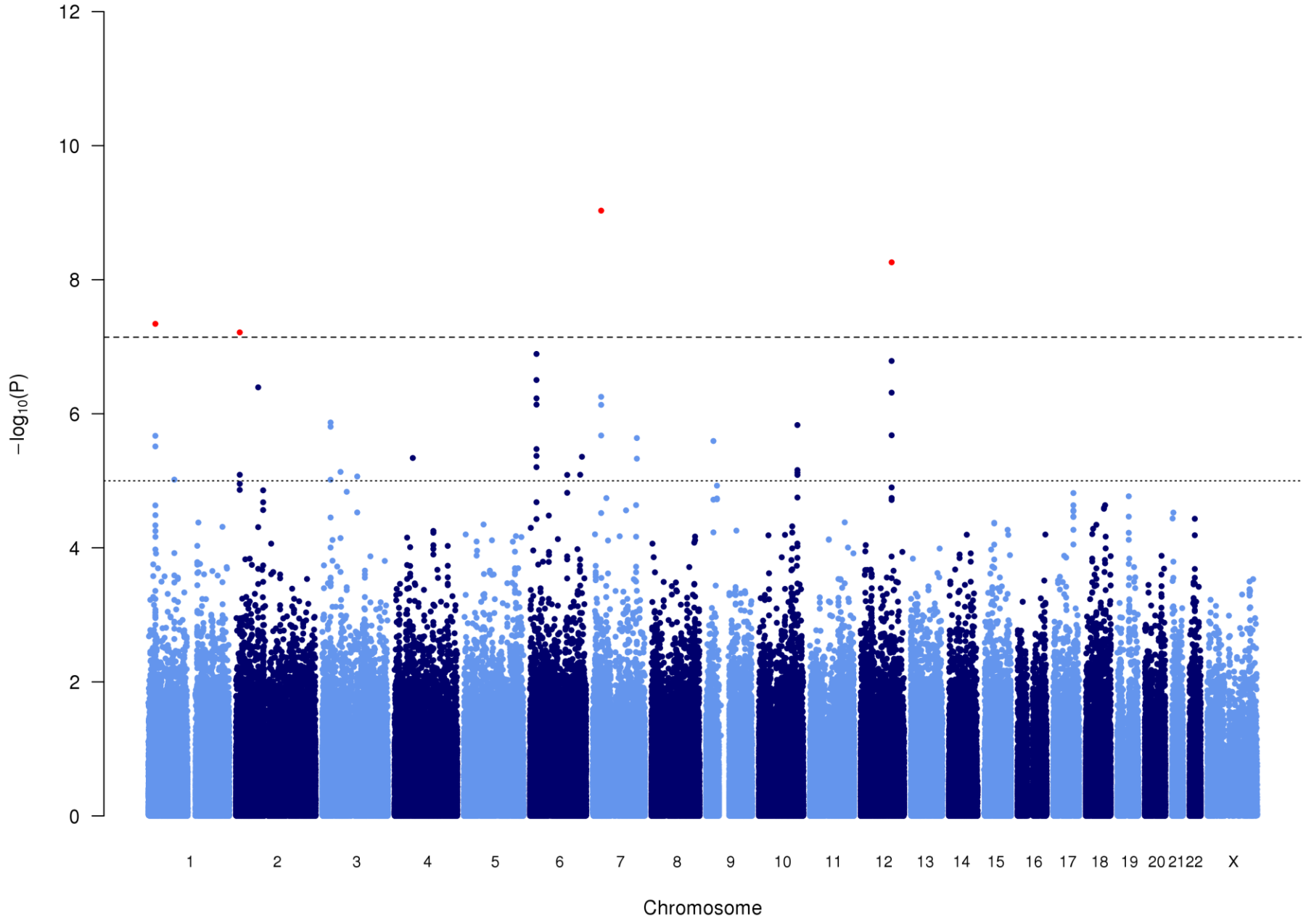

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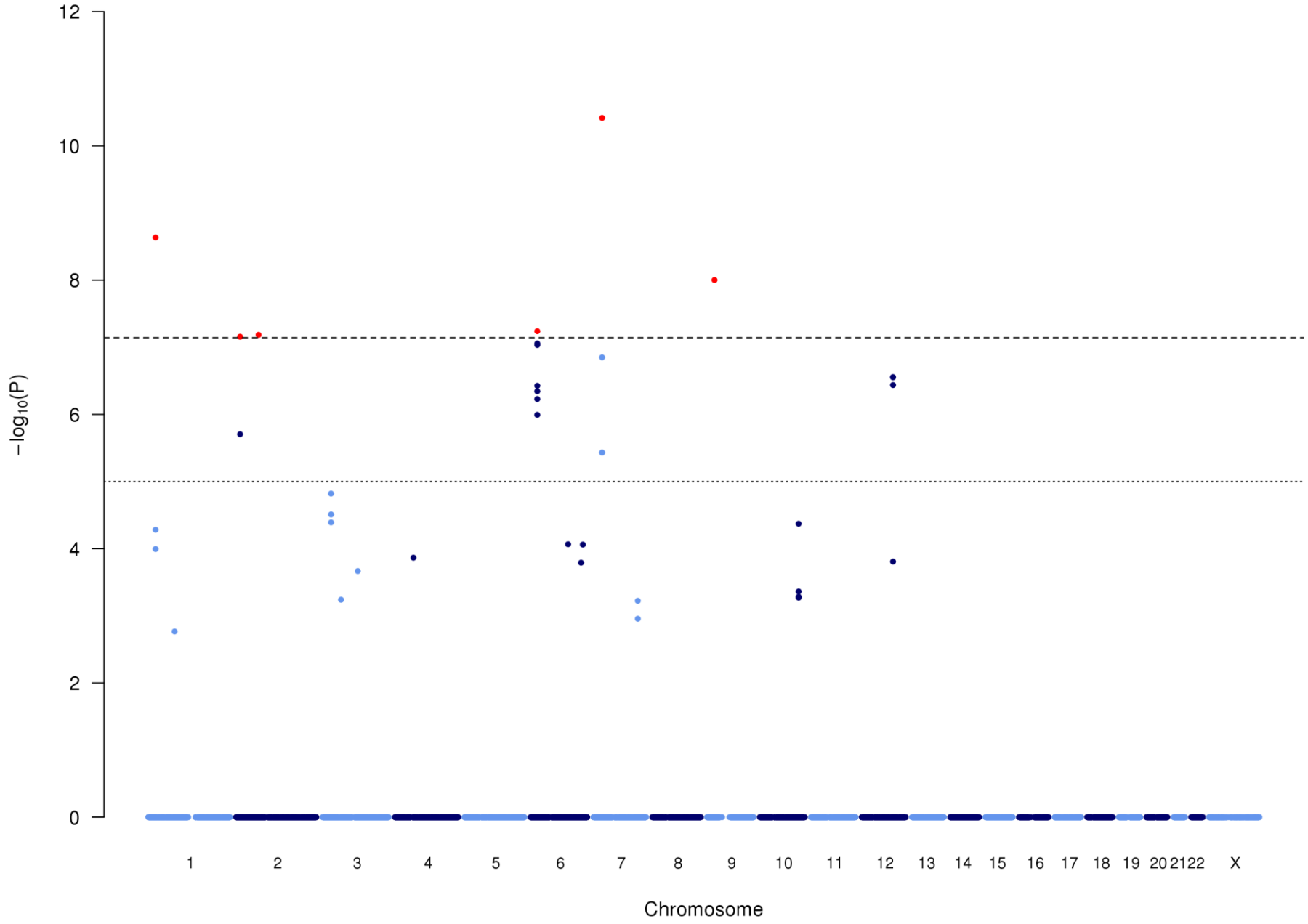
Supplementary Figure 1: Manhattan plot of the all cases endometriosis GWA meta-analysis results, SNPs (red symbols) on chromosomes 1, 2, 7 and 12 surpassed our *significant* association threshold (dashed line), with another 34 SNPs showing *suggestive* association (dotted line).



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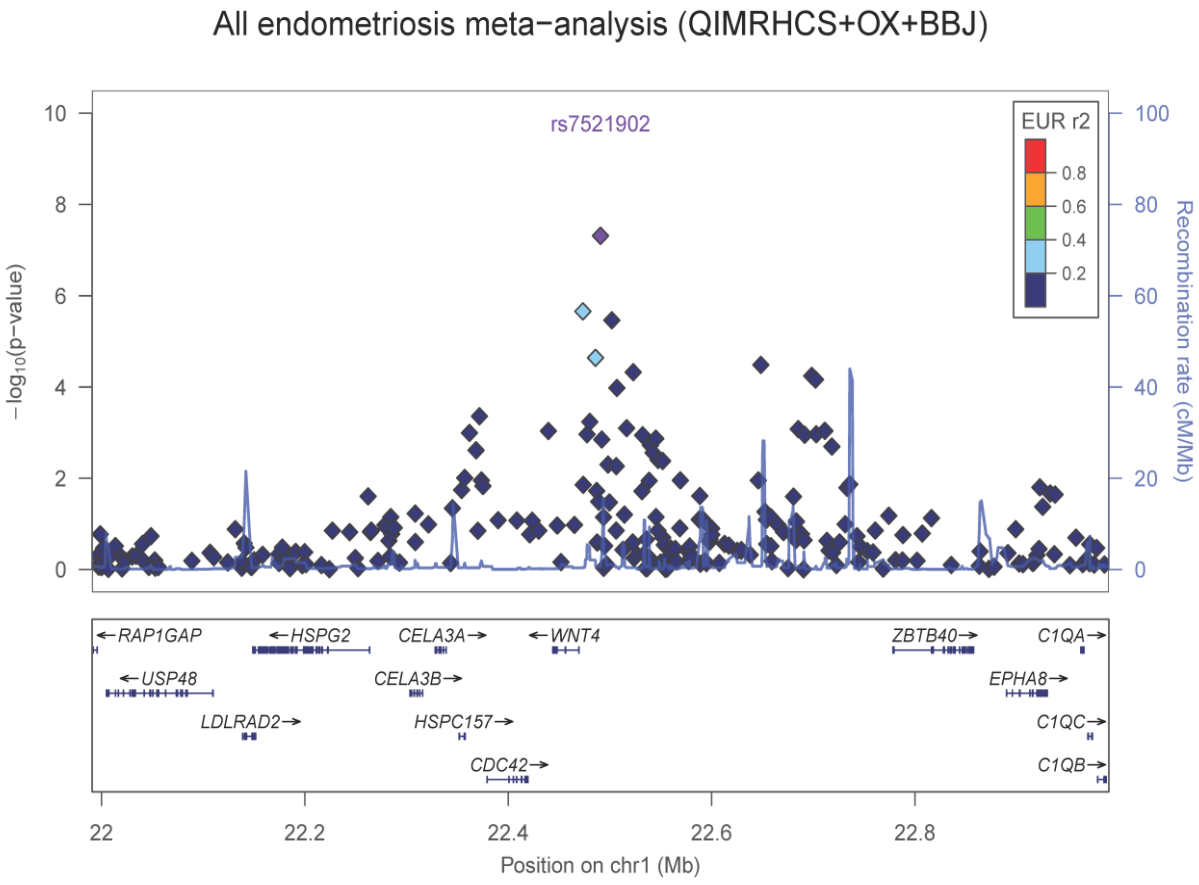
Supplementary Figure 2: Manhattan plot of the Stage B cases endometriosis GWA meta-analysis results, SNPs (red symbols) on chromosomes 1, 2, 6, 7 and 9 reach *significant* association (dashed line), with another 13 SNPs showing *suggestive* association (dotted line).

Supplementary Figure 3: Association plot from the GWA meta-analysis across 1p36.12

a



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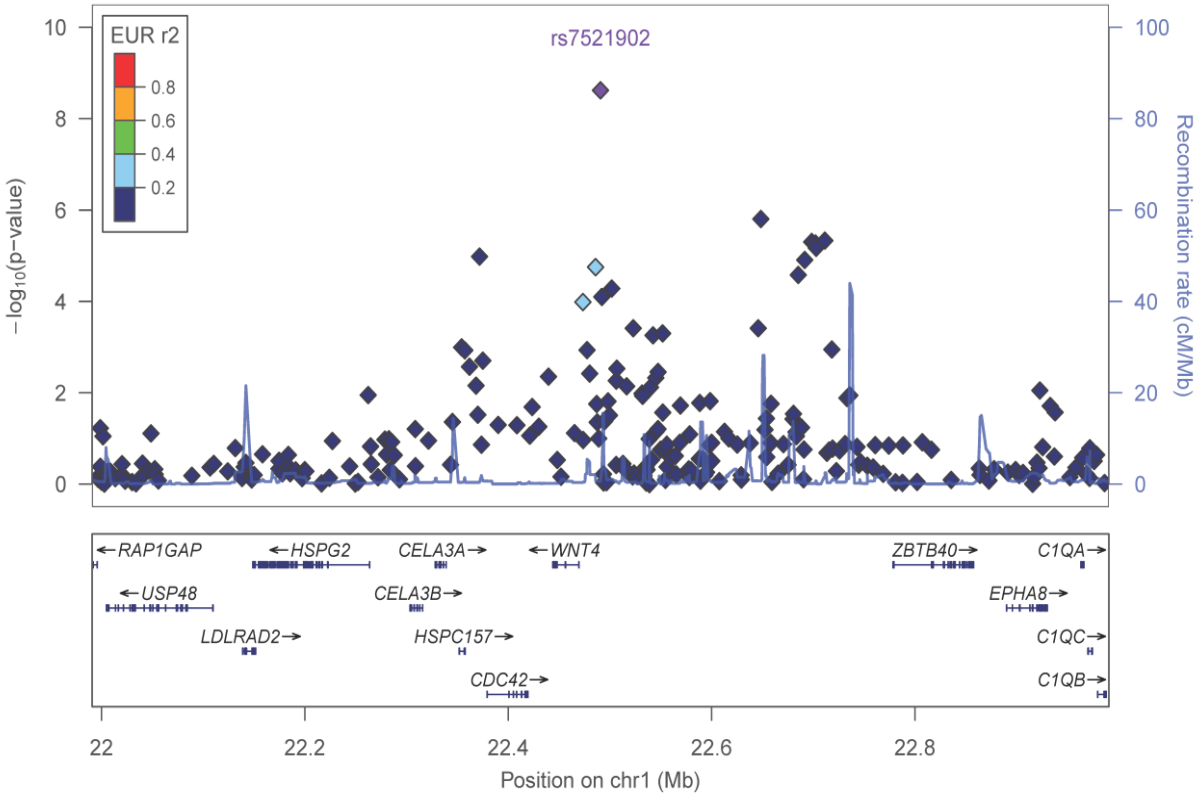

Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 1p36.12 region. Diamond symbols represent genotyped SNPs. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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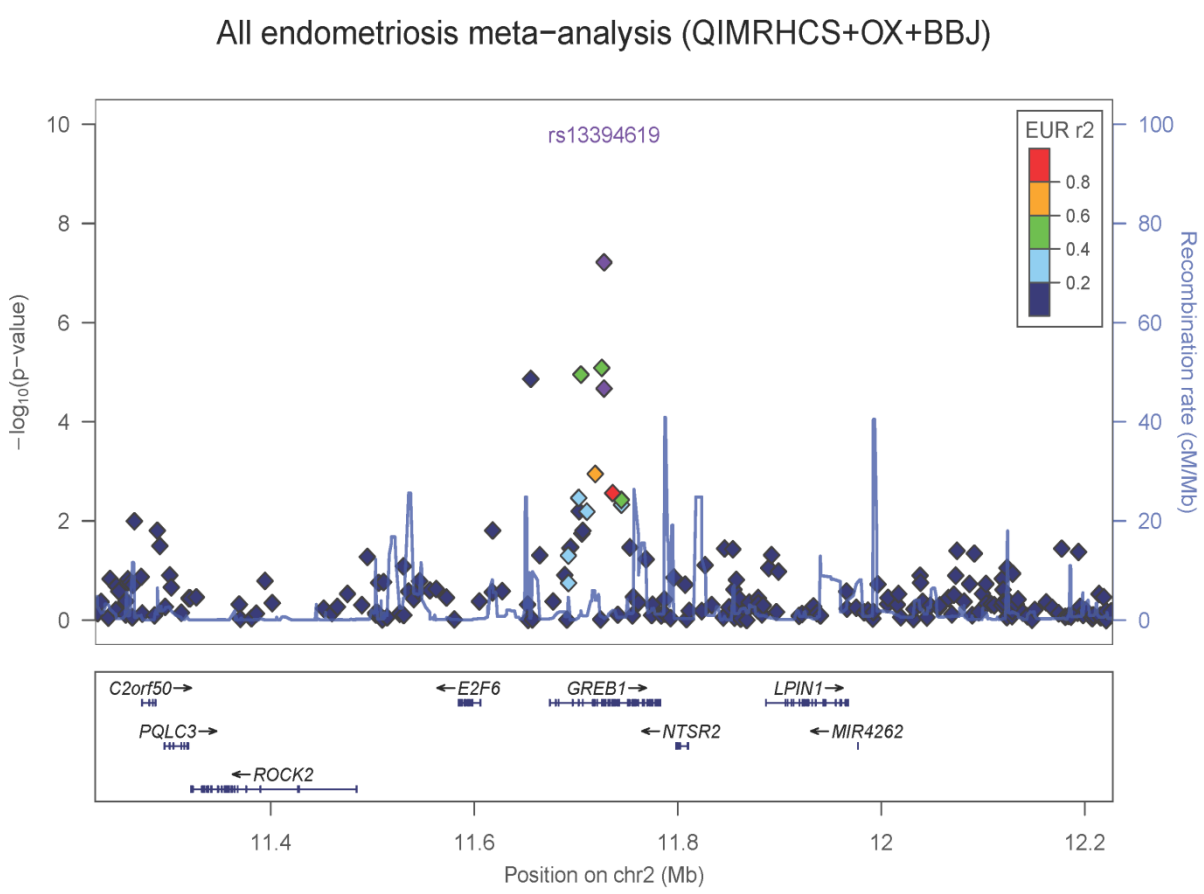
Supplementary Figure 4: Association plot from the GWA meta-analysis across 2p25.1

a



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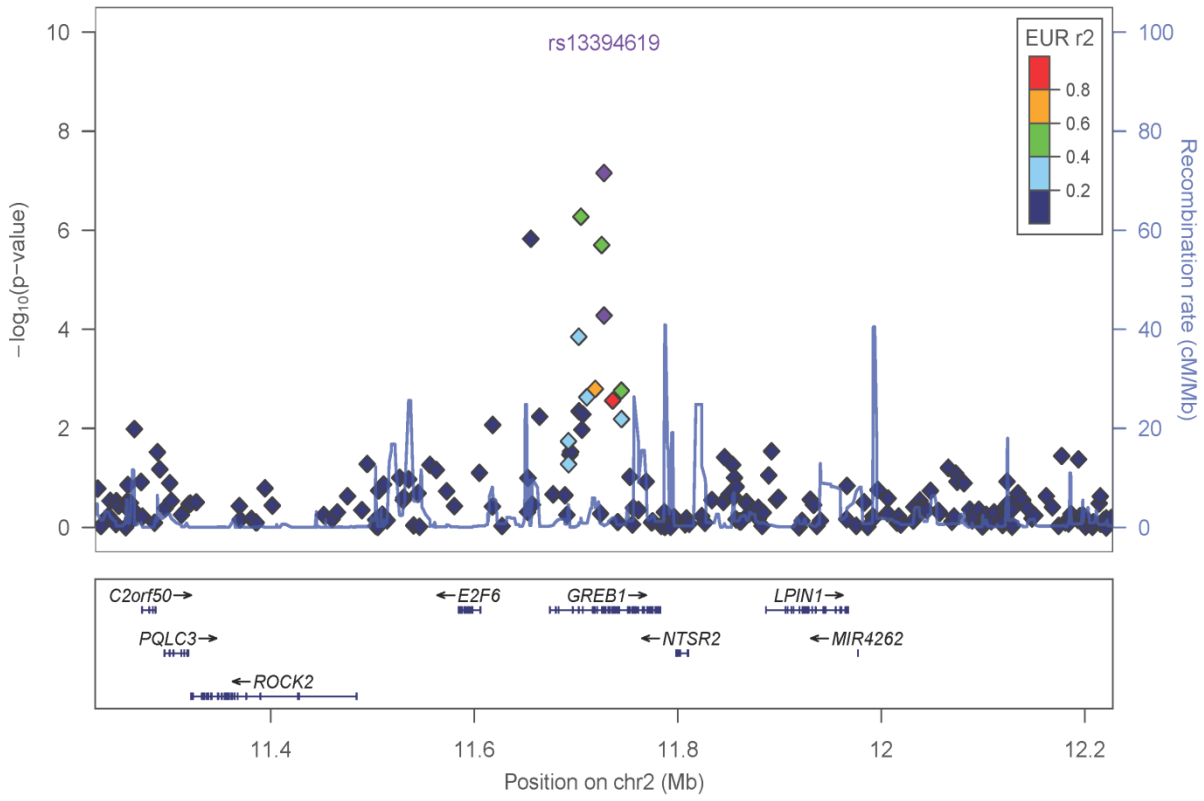

Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 2p25.1 region. Diamond symbols represent genotyped SNPs. The most significant genotyped SNP is represented by a purple diamond—the lower and upper diamonds indicate the meta-analysis *P* value before and after combining the QIMRHCS+OX+BBJ *P* value with the Adachi et al (2010) published *P* values. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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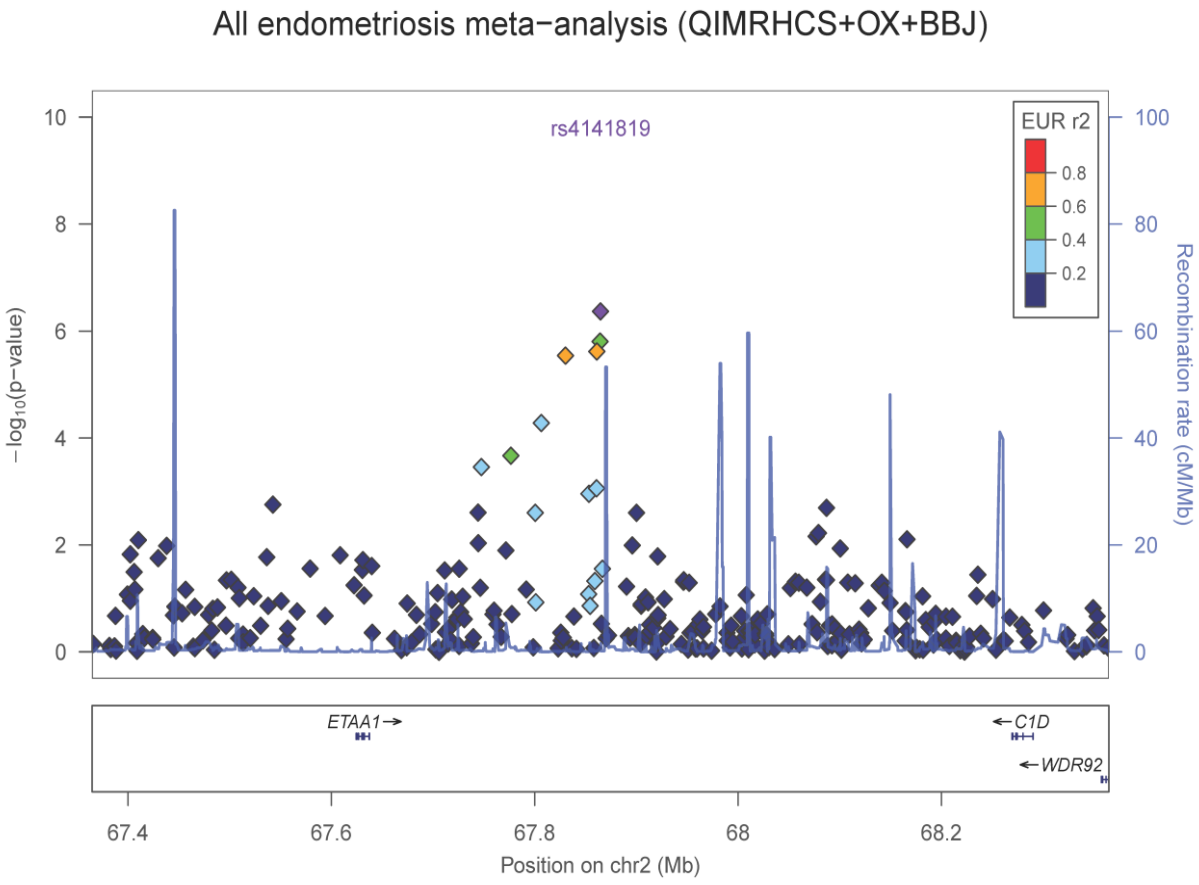
Supplementary Figure 5: Association plot from the GWA meta-analysis across 2p14

a



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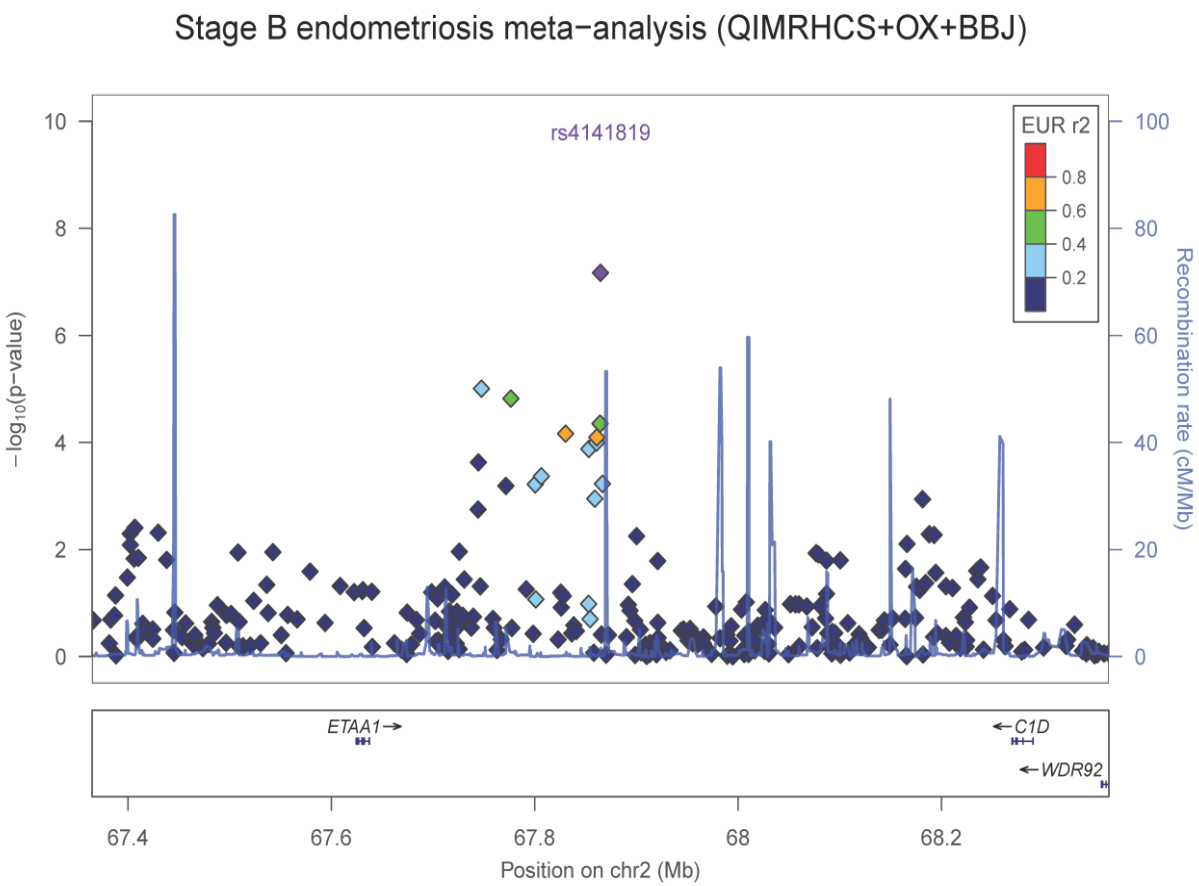

Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 2p14 region. Diamond symbols represent genotyped SNPs. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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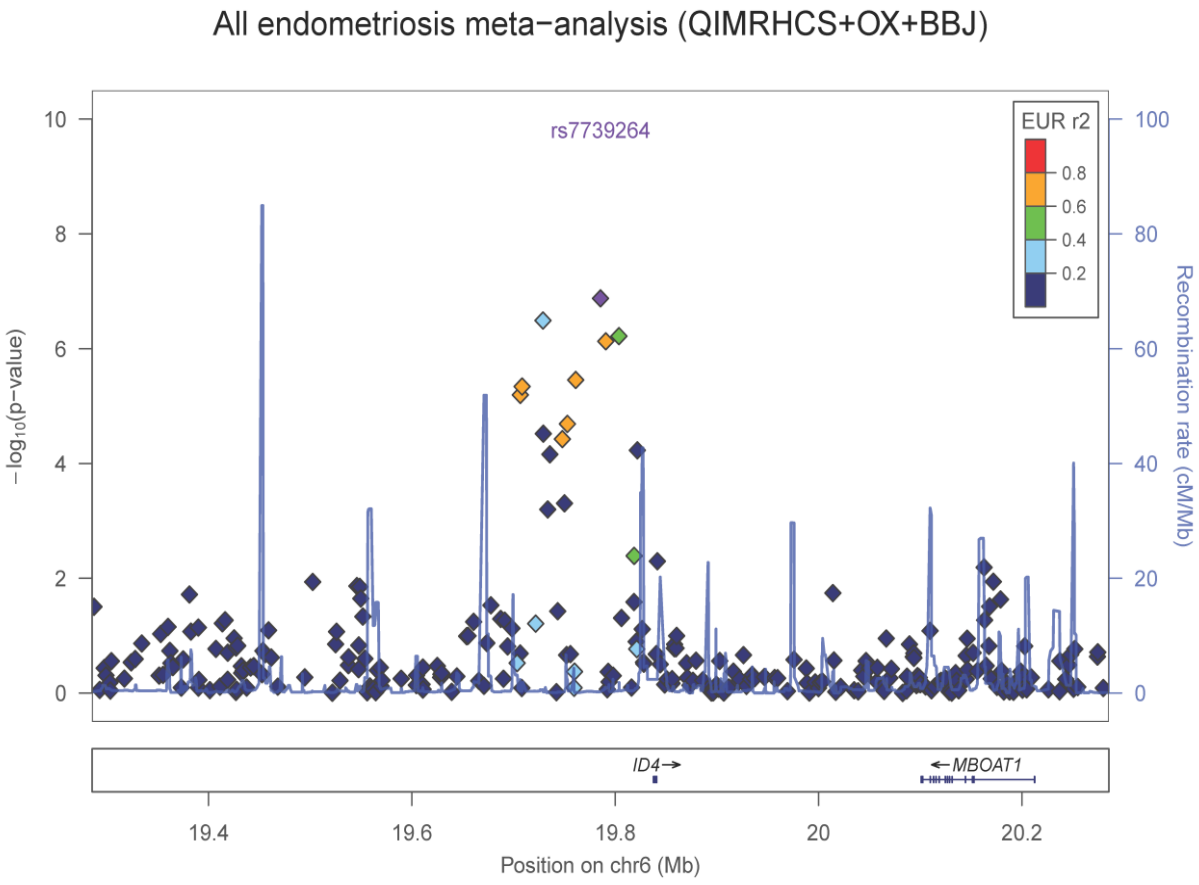
Supplementary Figure 6: Association plot from the GWA meta-analysis across 6p22.3

a



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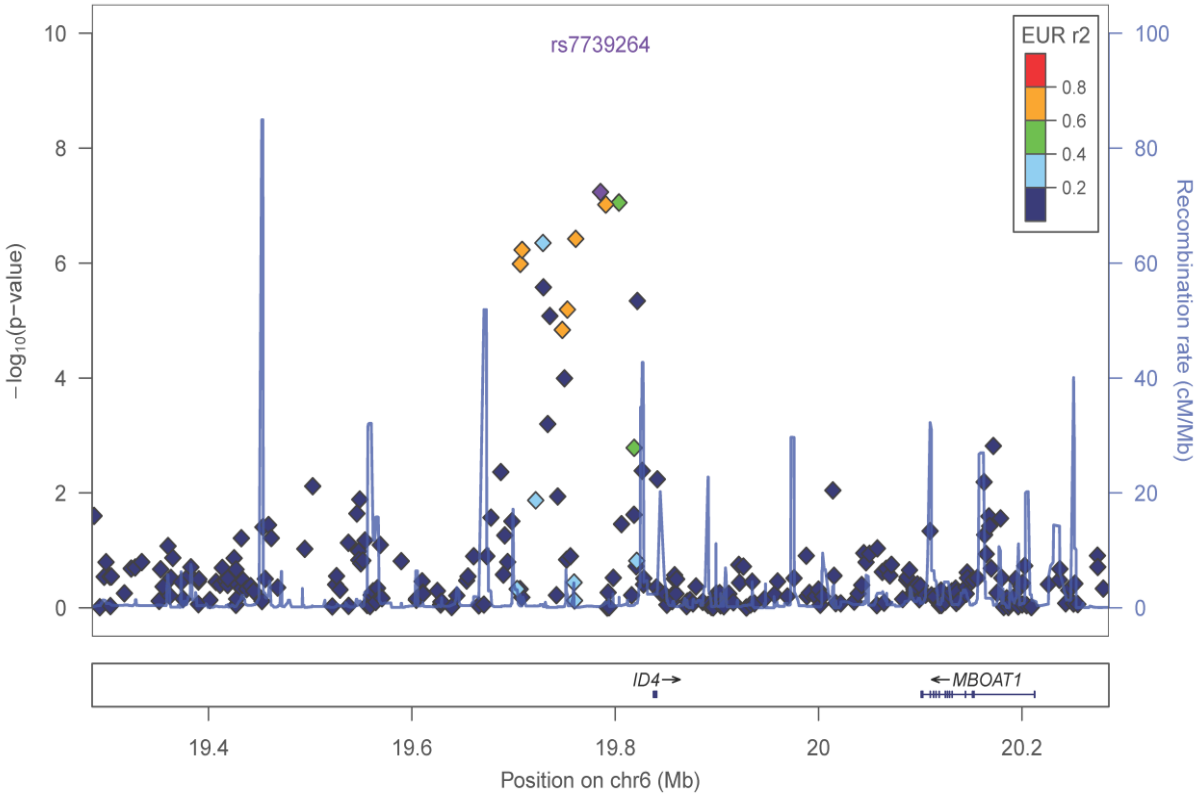

Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 6p22.3 region. Diamond symbols represent genotyped SNPs. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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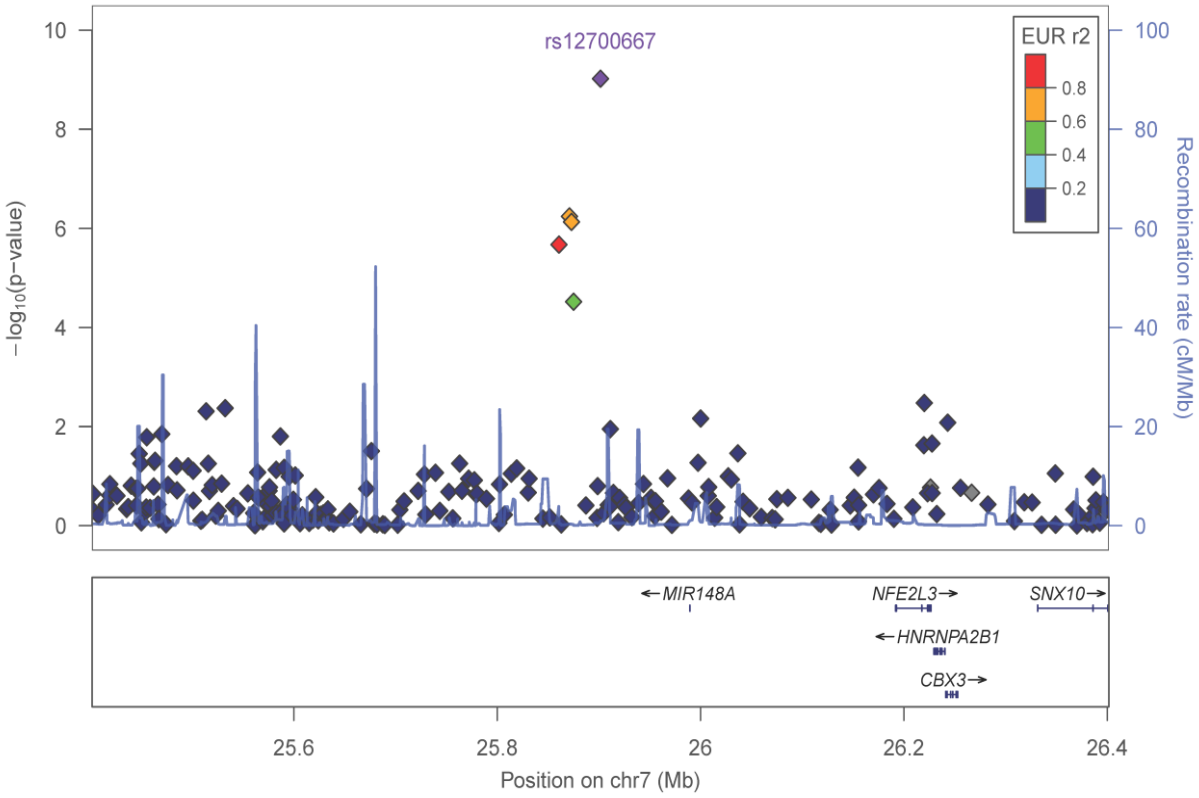
Supplementary Figure 7: Association plot from the GWA meta-analysis across 7p15.2

a



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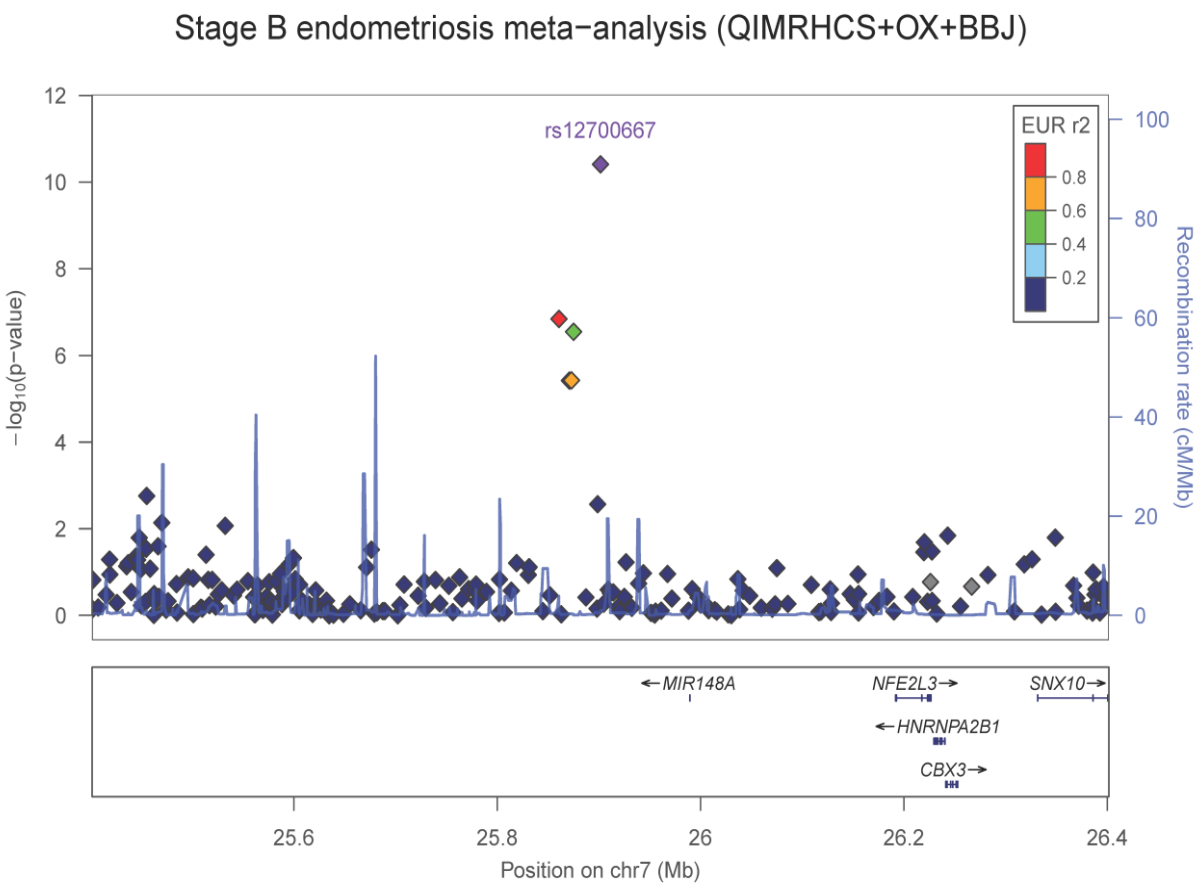

Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 7p15.2 region. Diamond symbols represent genotyped SNPs. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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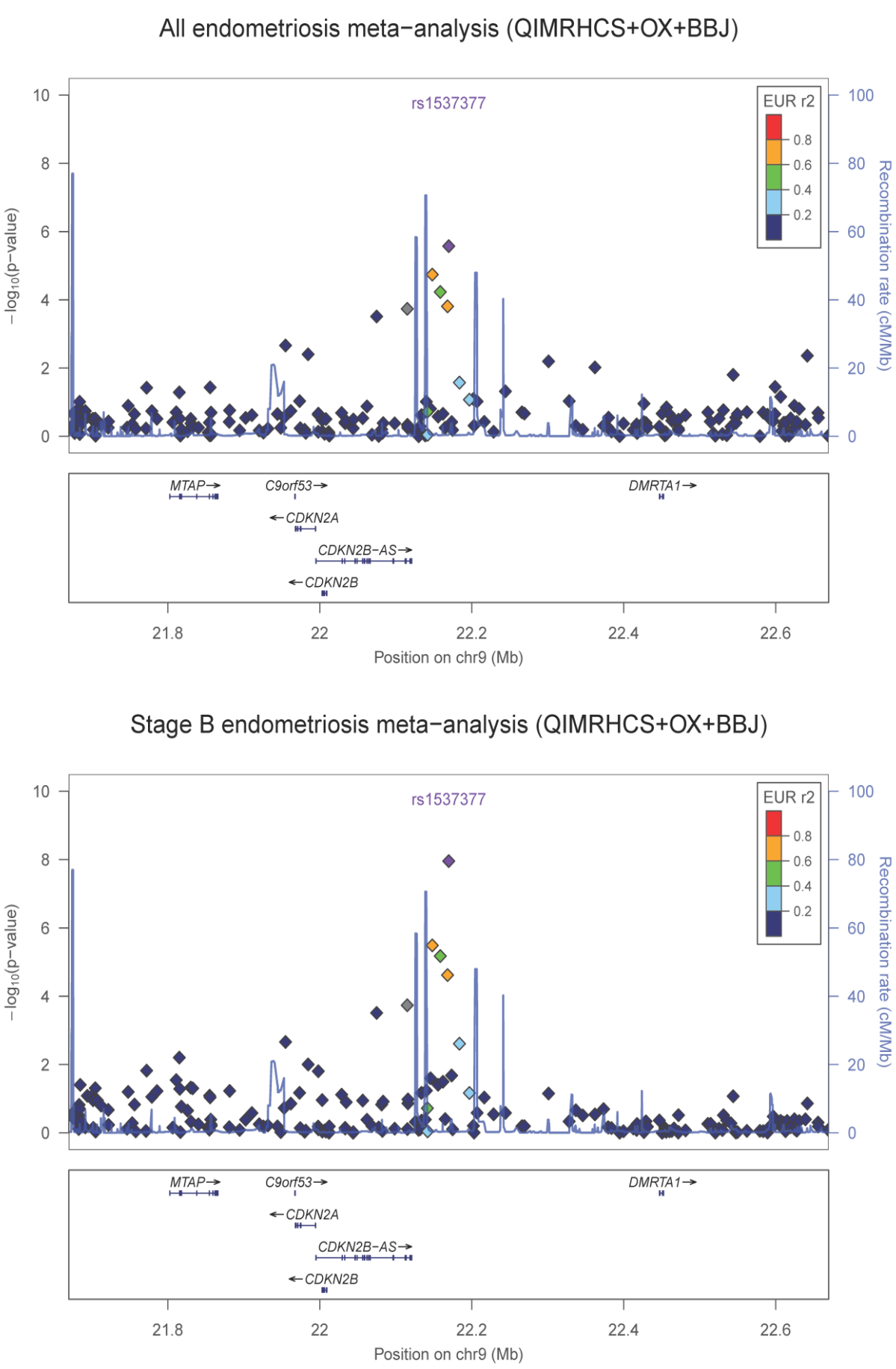
Supplementary Figure 8: Association plot from the GWA meta-analysis across 9p21.3



Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 9p21.3 region. Diamond symbols represent genotyped SNPs. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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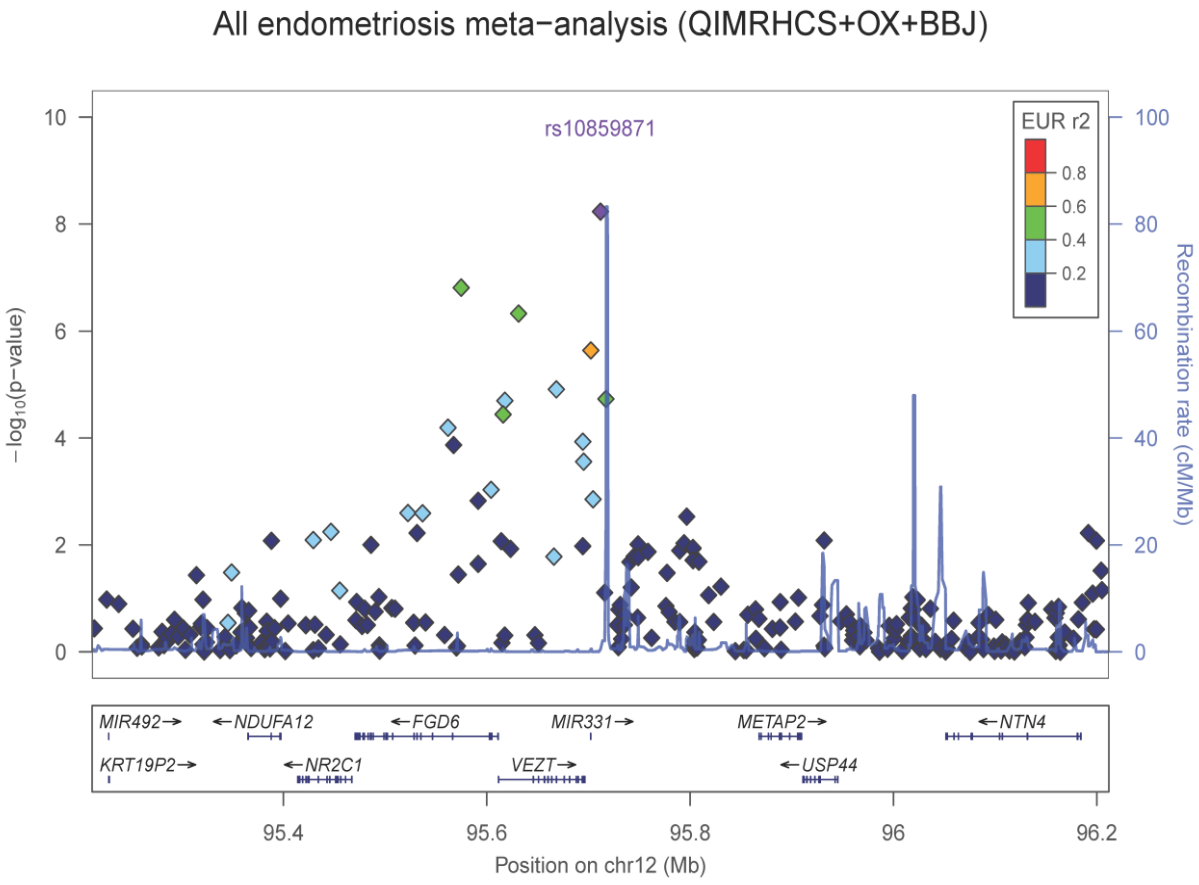
Supplementary Figure 9: Association plot from the GWA meta-analysis across 12q22

a



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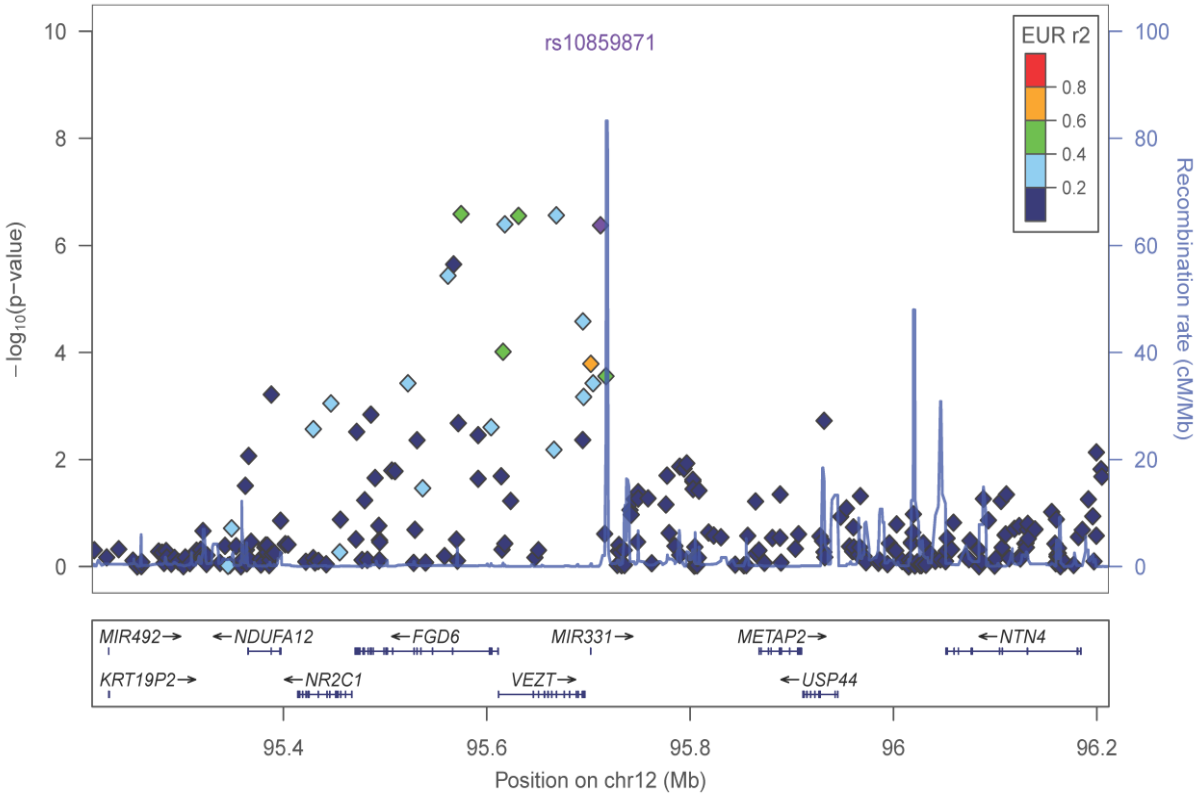

Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 12q22 region. Diamond symbols represent genotyped SNPs. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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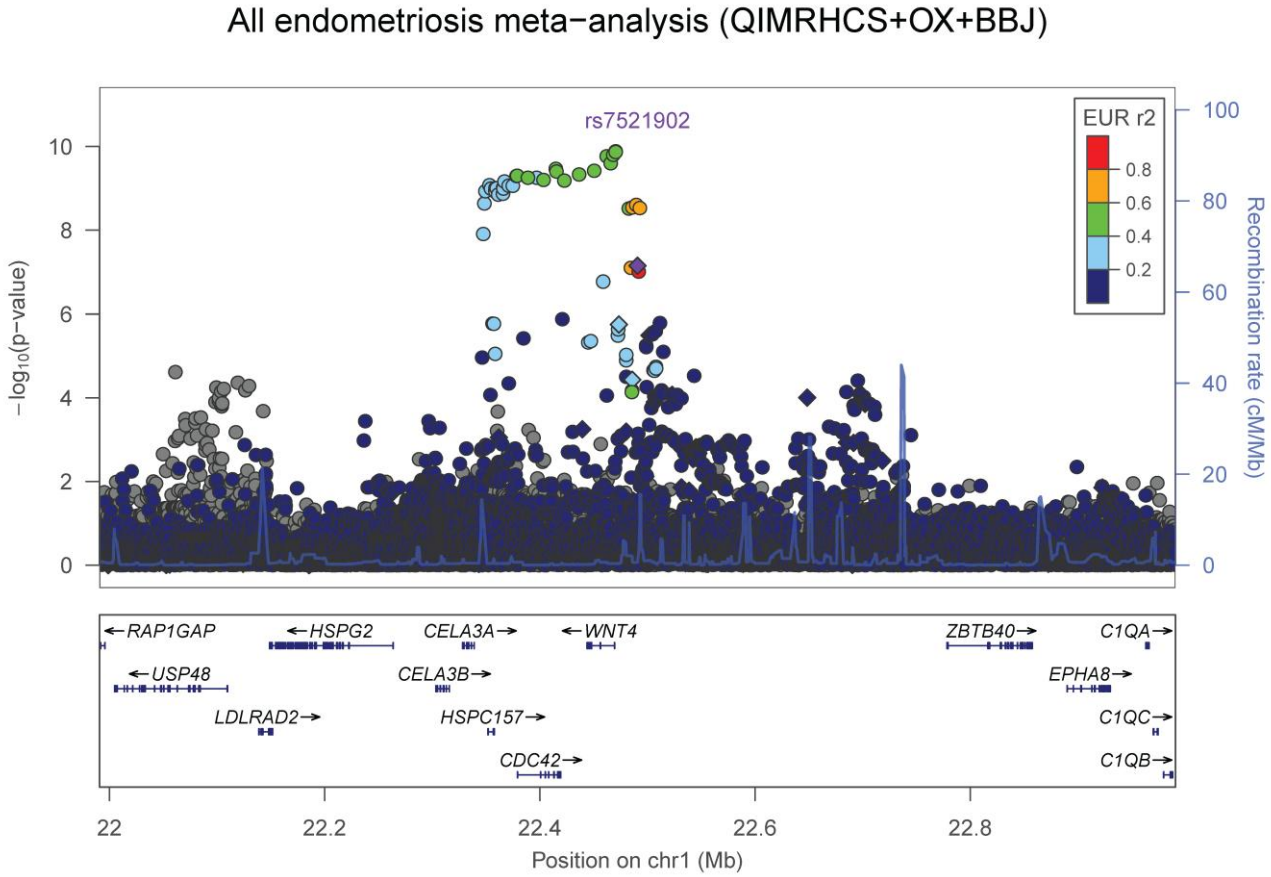
Supplementary Figure 10: Association plot from the GWA meta-analysis across 1p36.12

a



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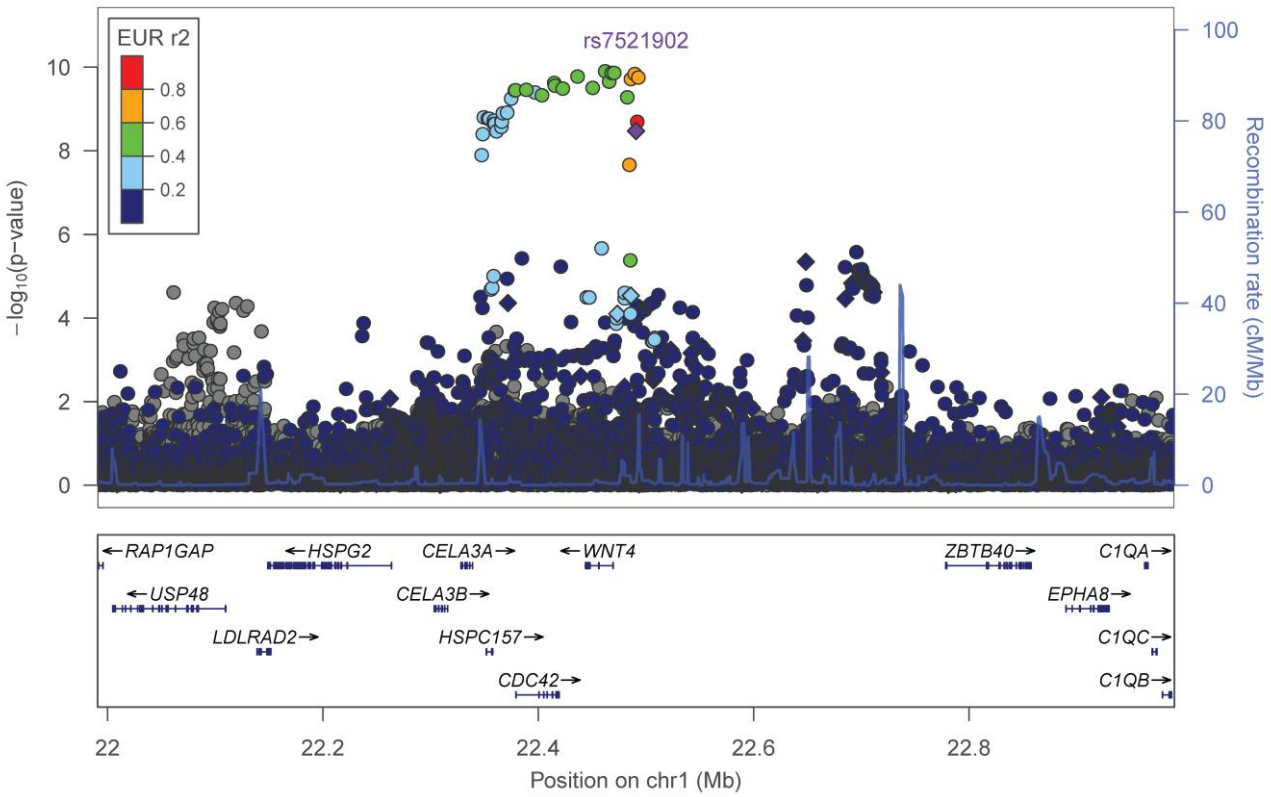
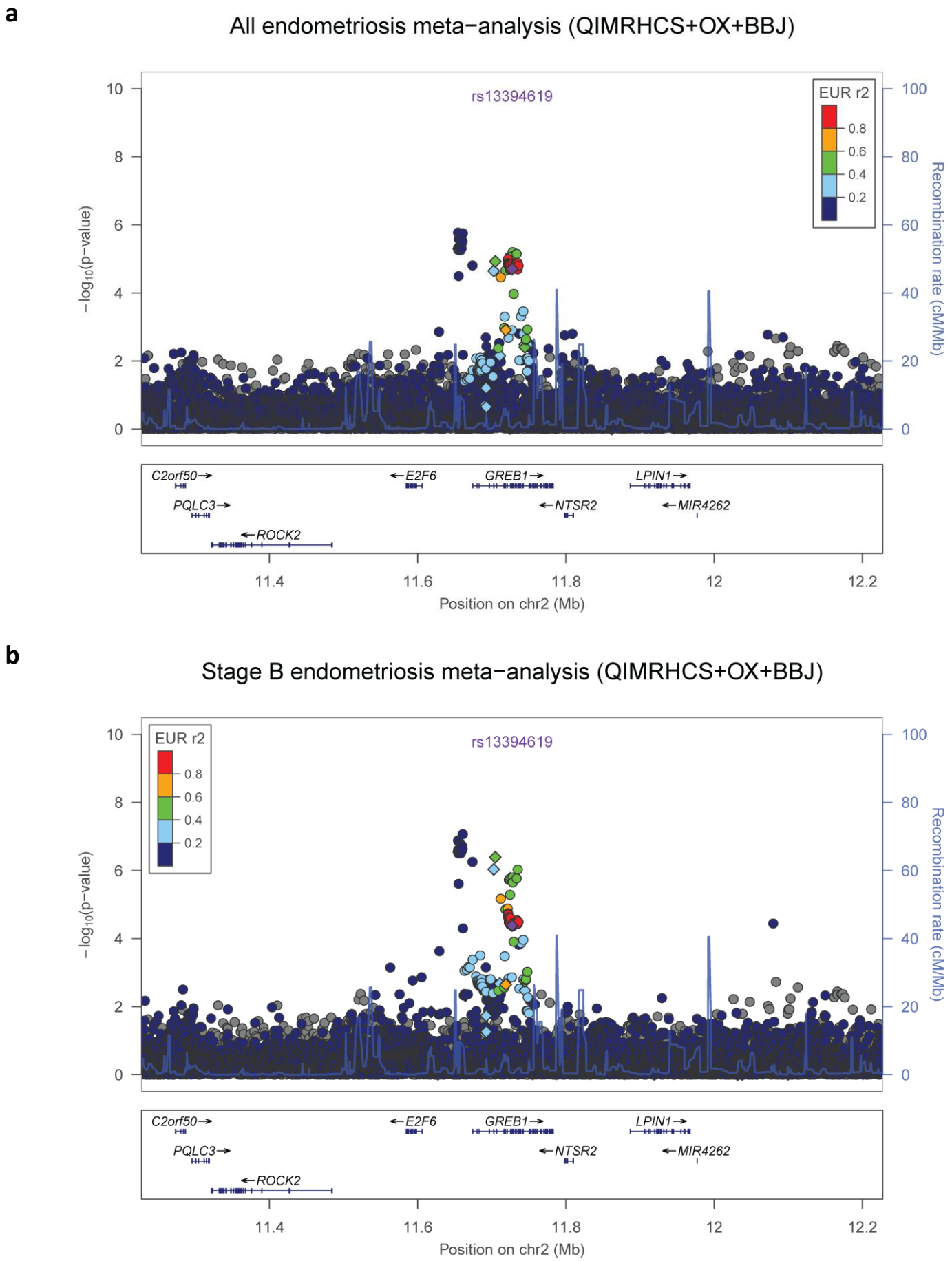


Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 1p36.12 region following imputation using the 1000 Genomes Project reference panel. Diamond and circle symbols represent genotyped and imputed SNPs, respectively. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

Supplementary Figure 11: Association plot from the GWA meta-analysis across 2p25.1



Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 2p25.1 region following imputation using the 1000 Genomes Project reference panel. Diamond and circle symbols represent genotyped and imputed SNPs, respectively. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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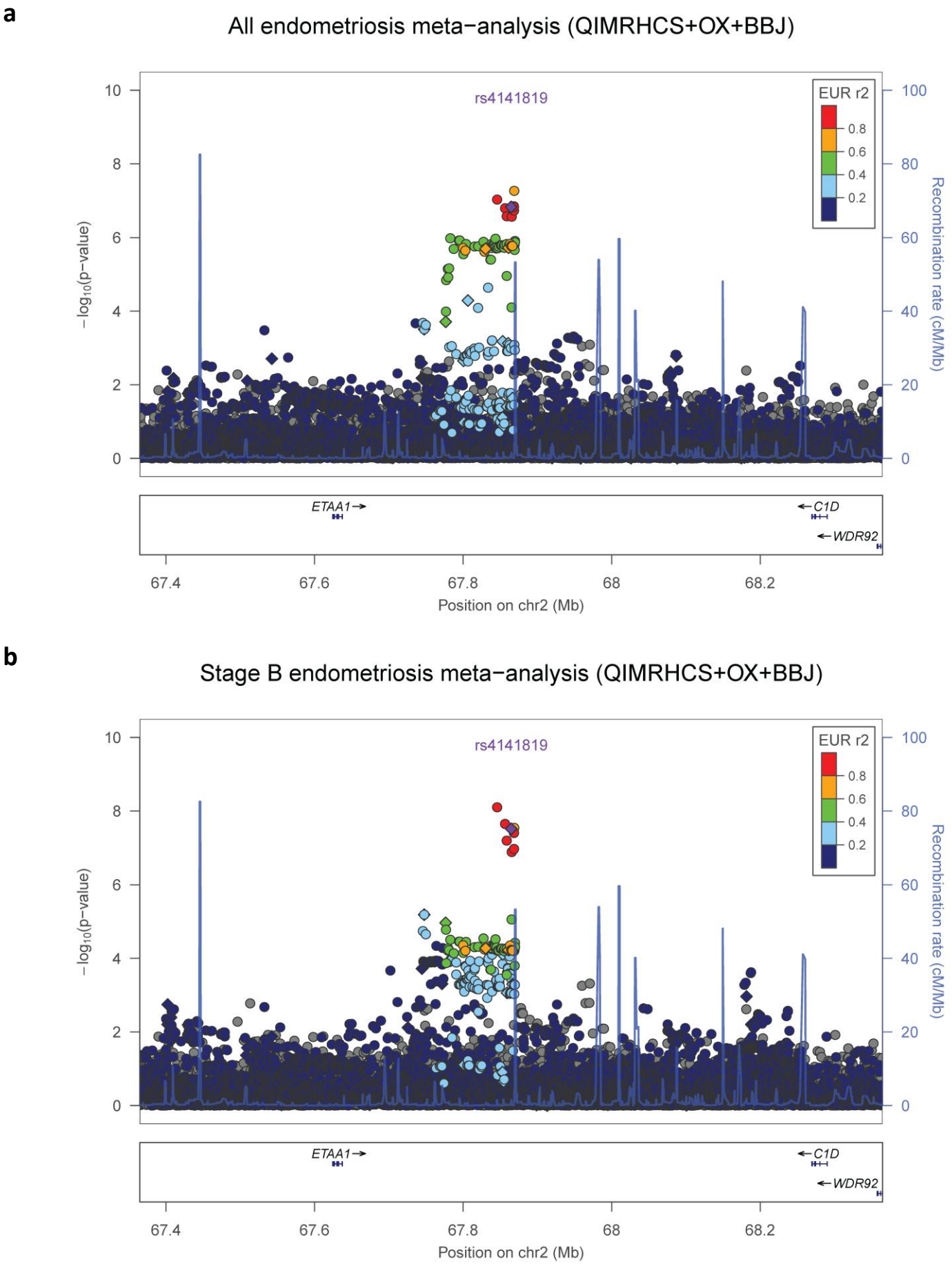
Supplementary Figure 12: Association plot from the GWA meta-analysis across 2p14



Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 2p14 region following imputation using the 1000 Genomes Project reference panel. Diamond and circle symbols represent genotyped and imputed SNPs, respectively. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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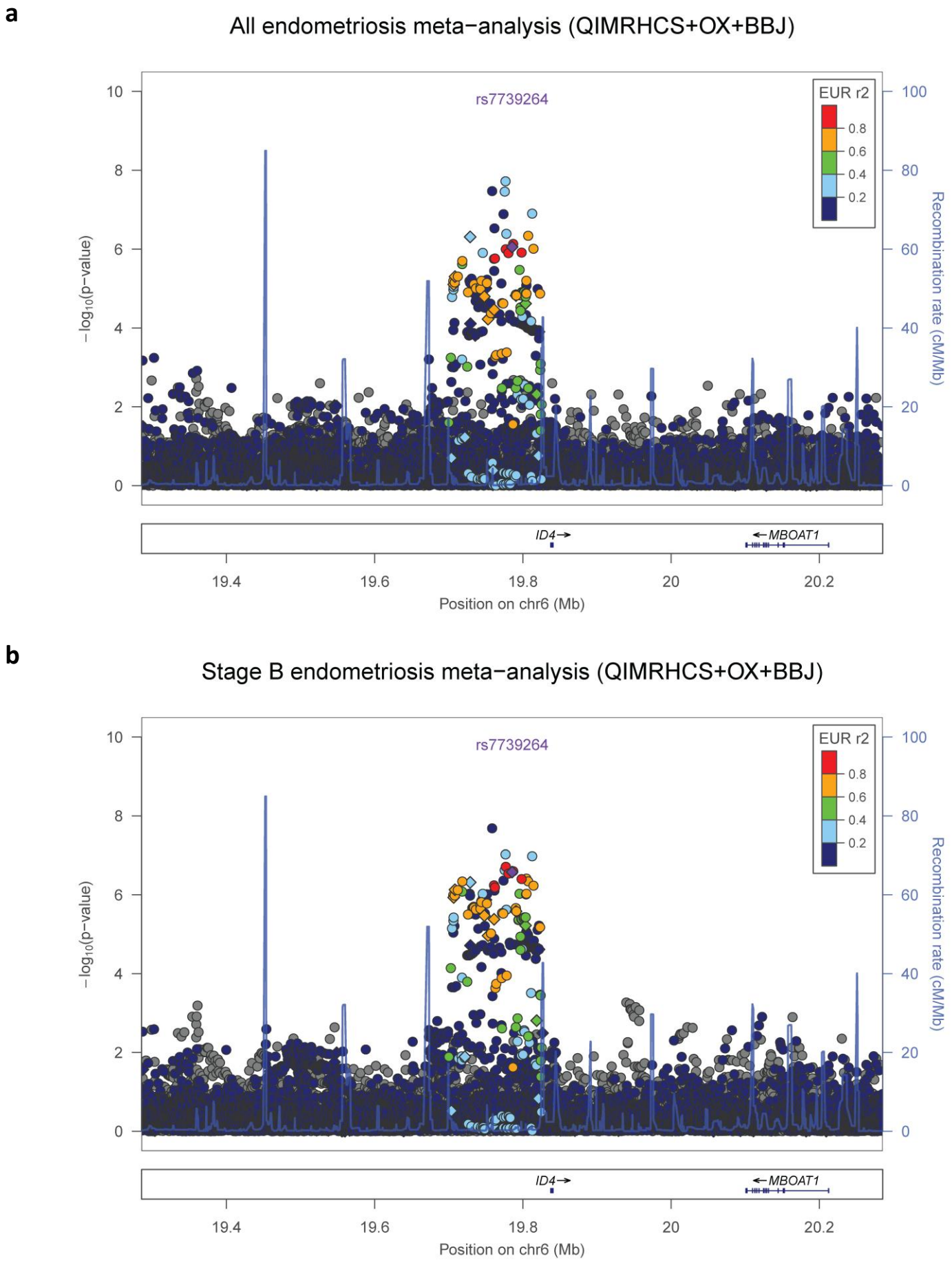
Supplementary Figure 13: Association plot from the GWA meta-analysis across 6p22.3



Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 6p22.3 region following imputation using the 1000 Genomes Project reference panel. Diamond and circle symbols represent genotyped and imputed SNPs, respectively. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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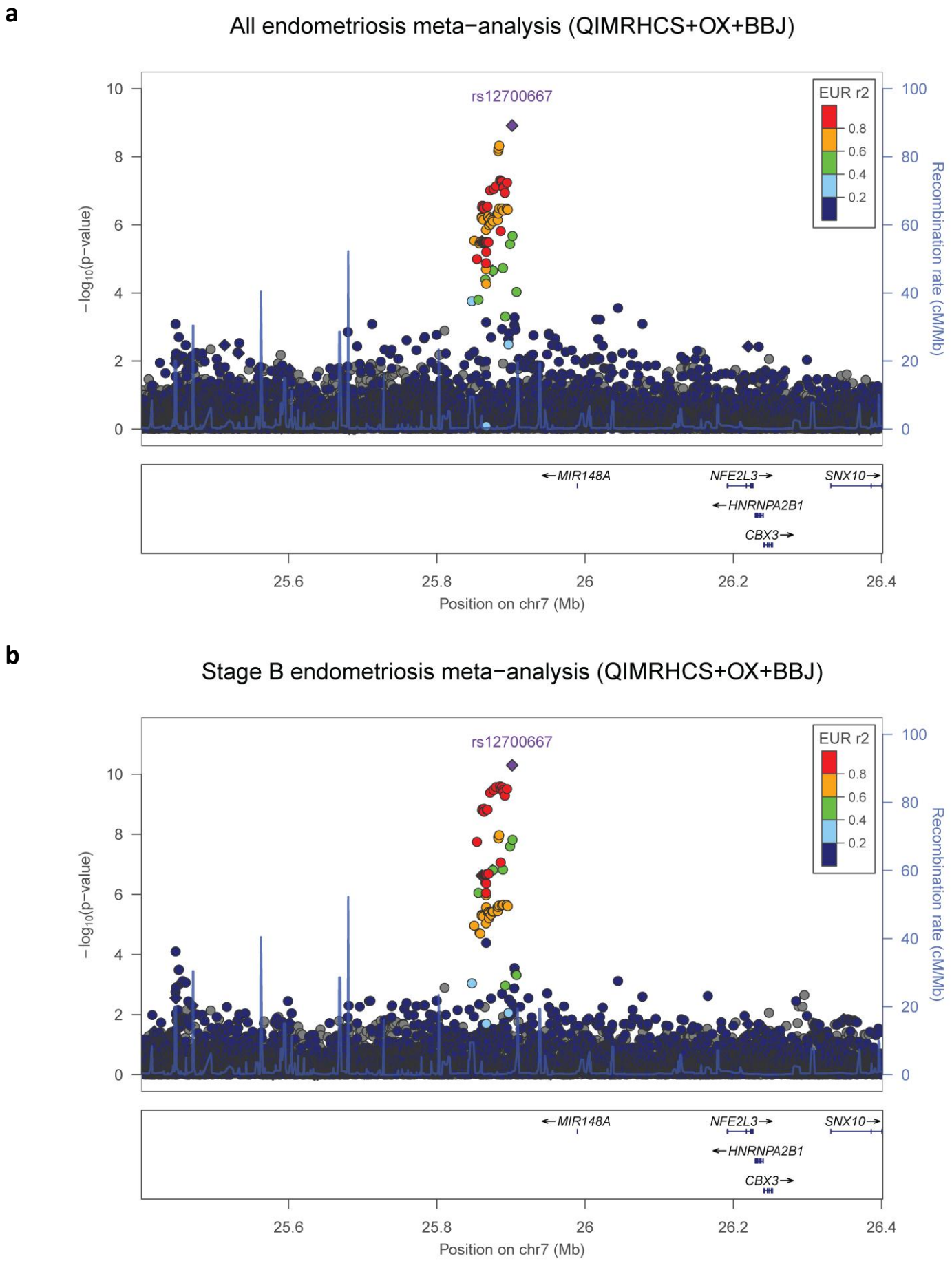
Supplementary Figure 14: Association plot from the GWA meta-analysis across 7p15.2



Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 7p15.2 region following imputation using the 1000 Genomes Project reference panel. Diamond and circle symbols represent genotyped and imputed SNPs, respectively. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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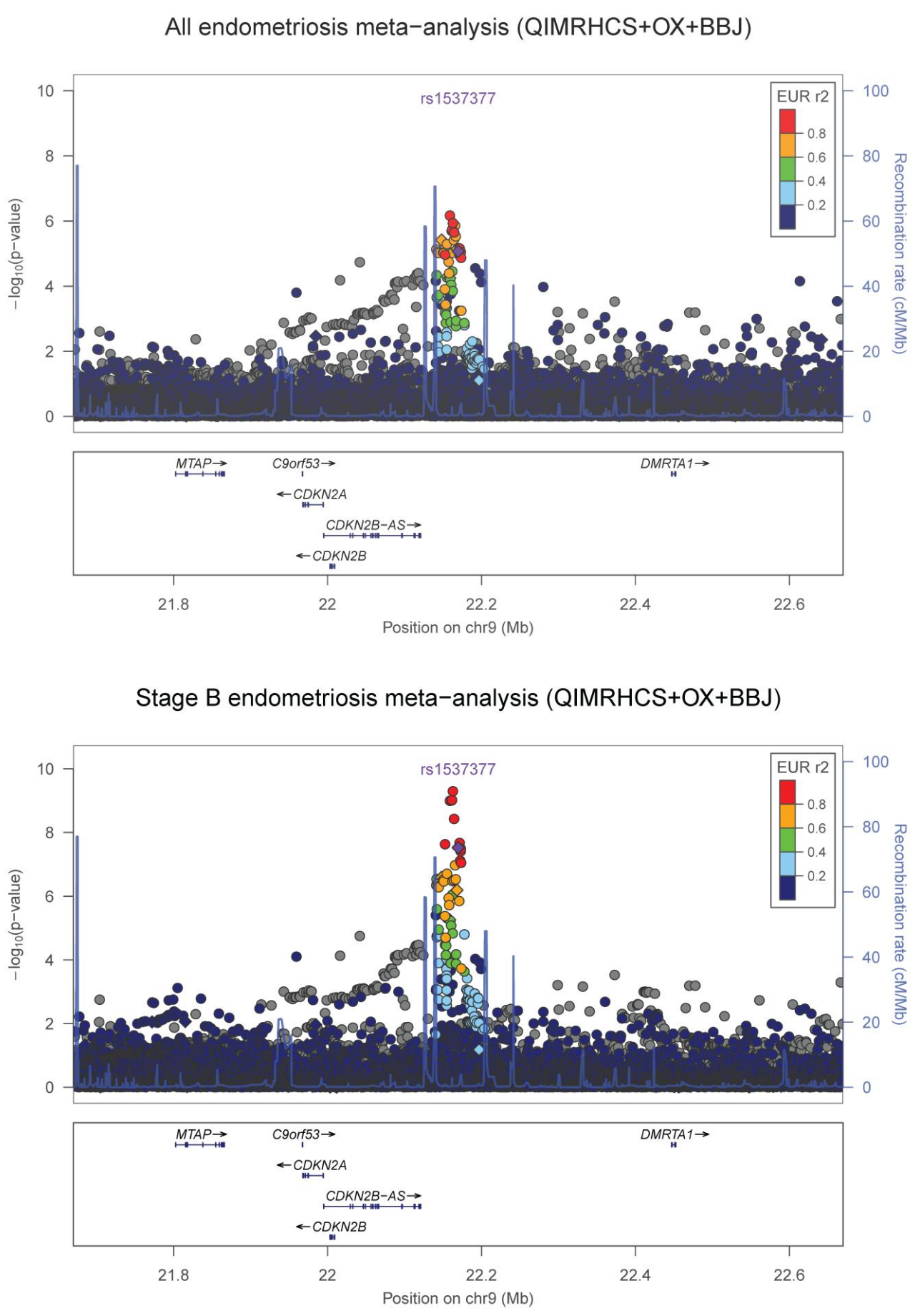
Supplementary Figure 15: Association plot from the GWA meta-analysis across 9p21.3



Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 9p21.3 region following imputation using the 1000 Genomes Project reference panel. Diamond and circle symbols represent genotyped and imputed SNPs, respectively. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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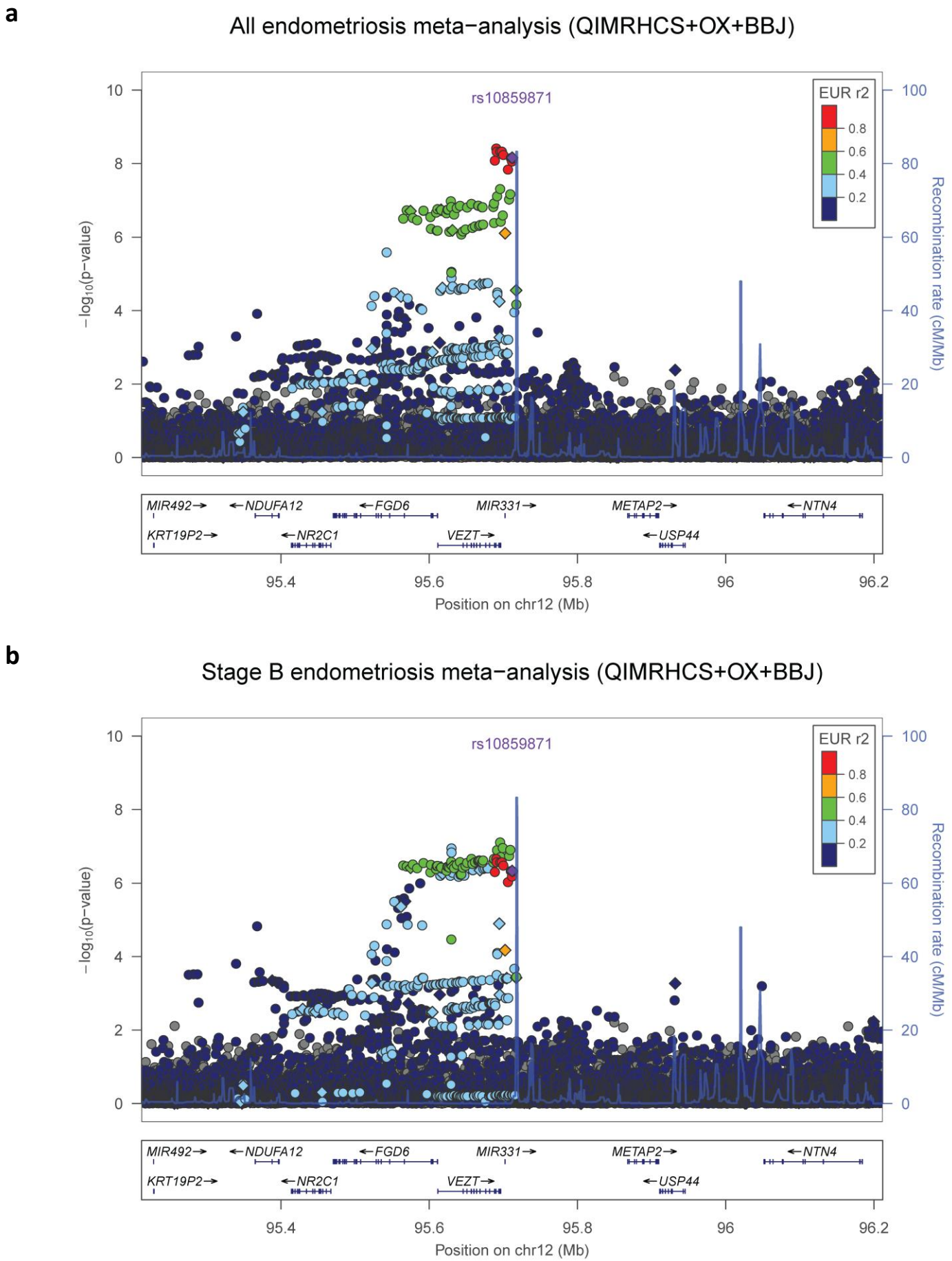
Supplementary Figure 16: Association plot from the GWA meta-analysis across 12q22



Evidence for association with all **(a)** and stage B **(b)** endometriosis from the GWA meta-analysis across the 12q22 region following imputation using the 1000 Genomes Project reference panel. Diamond and circle symbols represent genotyped and imputed SNPs, respectively. The most significant genotyped SNP is represented by a purple diamond. All other SNPs are color coded according to the strength of LD with the top genotyped SNP (as measured by r^2 in the European 1000 Genomes data).

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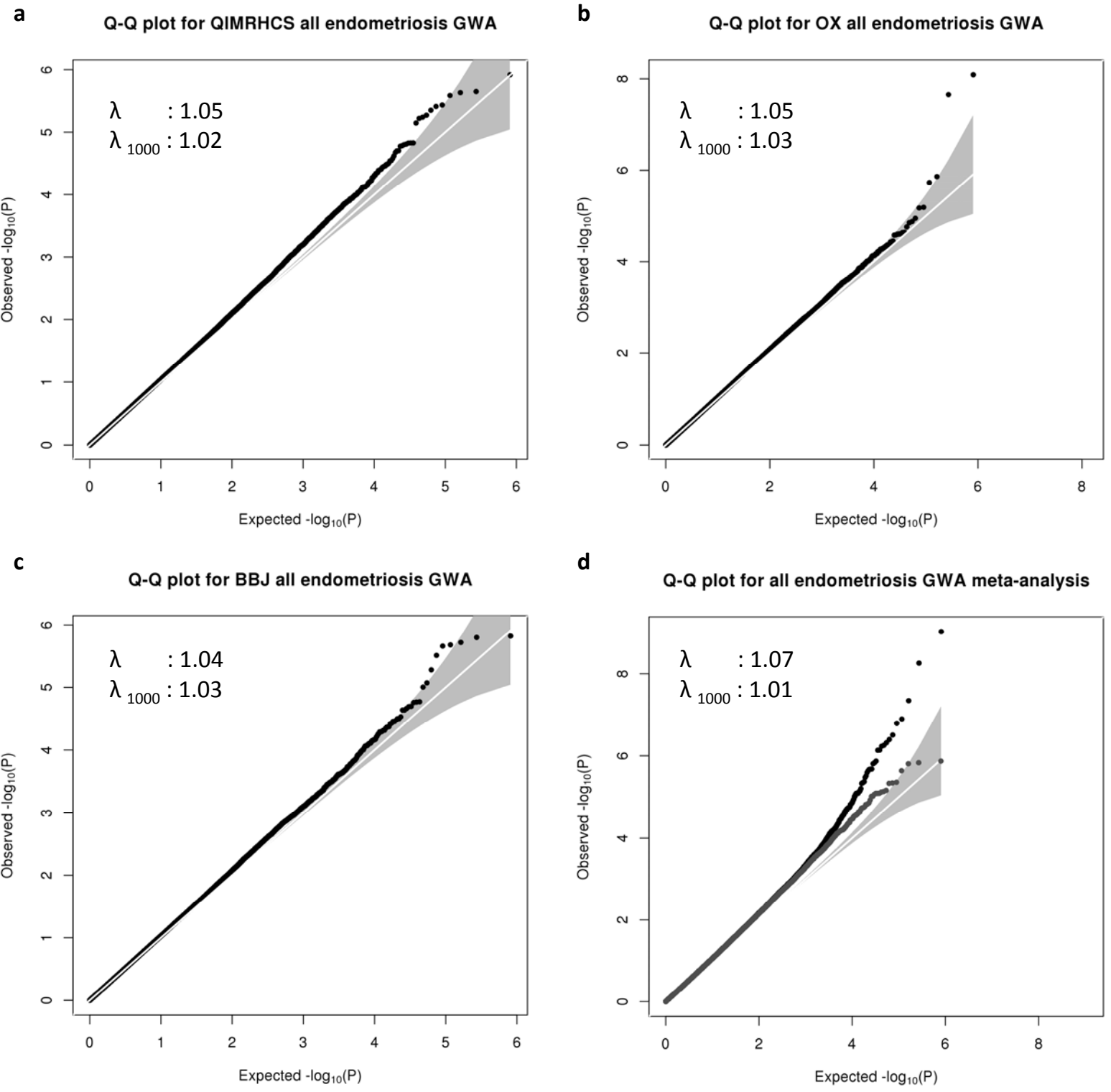
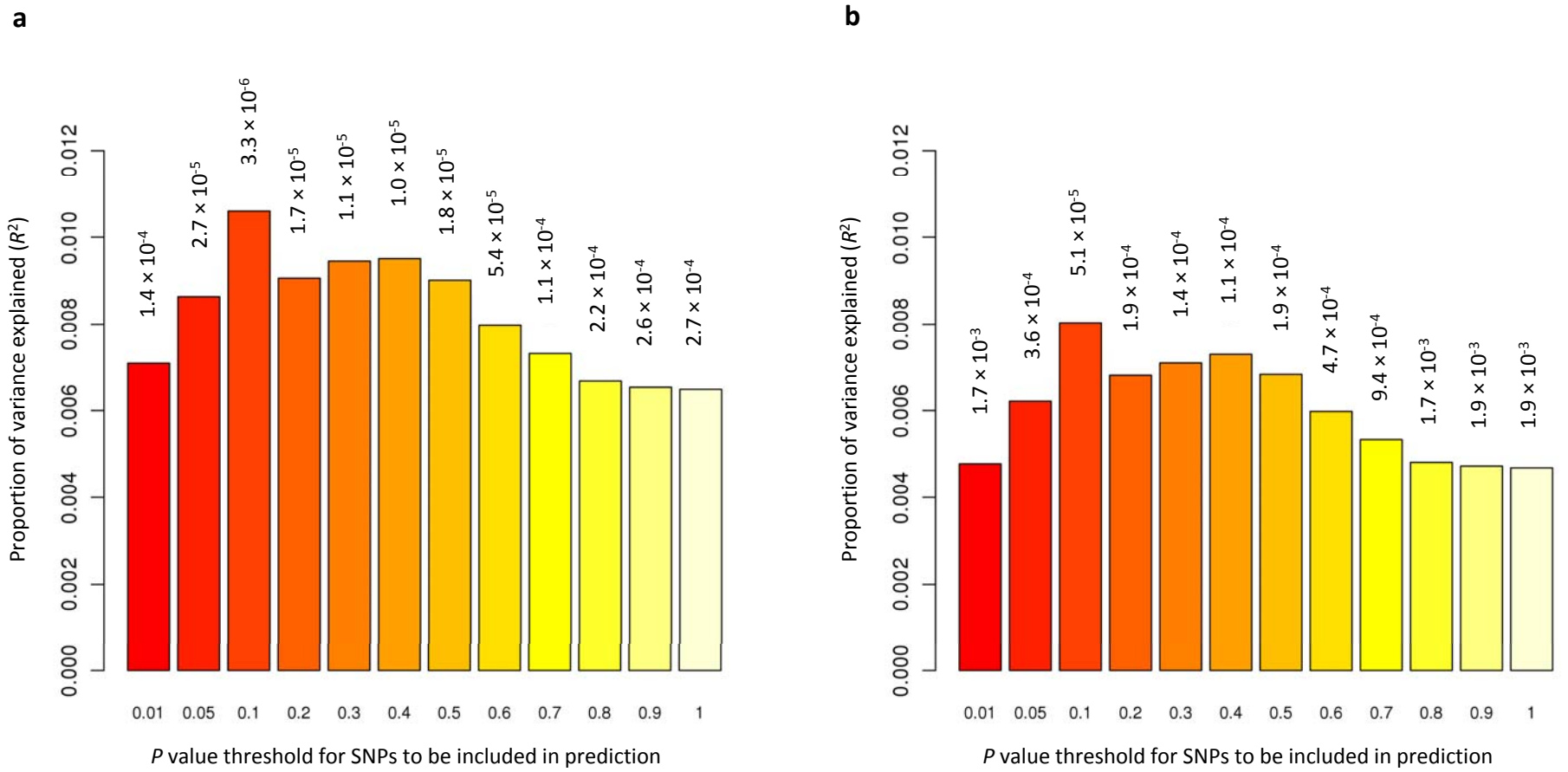
Supplementary Figure 17: Q-Q plots for the individual and meta-analysis GWA studies



Q-Q plots for the individual QIMRHCS **(a)**, OX **(b)**, BBJ **(c)** GWA studies and the GWA meta-analysis **(d)** including all SNPs (black data points) and after excluding all SNPs within +/- 2500 kb of the seven implicated SNPs listed in Table 1 (dark grey data points). Q-Q plots were constructed by ranking the *P* values from smallest to largest (the 'order statistics') and plotting them against their expected values under the null hypothesis of no association (sampled from the known chi-squared distribution). Deviations above the line of equality (drawn in white) indicate a preponderance of smaller *P* values. To aid interpretation we have also calculated 95% confidence envelopes (shaded grey in all Q-Q plots). These are formed by calculating, for each order statistic, the 2.5th and 97.5th centiles of the distribution of the order statistic under random sampling and the null hypothesis. The genomic inflation factors (λ) are also shown, defined as the ratio of the median of the empirically observed distribution of the test statistic to the expected median, thus quantifying the extent of the bulk inflation. The raw genomic inflation factor (λ), and the λ for an equivalent study of 1000 cases and 1000 controls (λ_{1000}) indicate these data have no undetected sample duplications, unknown familial relationships, systematic technical bias or gross (uncorrected) population stratification.

Supplementary Figure 18: Polygenic prediction analysis



Allele-specific score prediction for endometriosis, using the QIMRHCS+OX population as the discovery dataset and the BBJ population as the target dataset. The variance explained in the target dataset on the basis of allele-specific scores derived in the discovery dataset for twelve significance thresholds ($P < 0.01$, $P < 0.05$, $P < 0.1$, $P < 0.2$, $P < 0.3$, $P < 0.4$, $P < 0.5$, $P < 0.6$, $P < 0.7$, $P < 0.8$, $P < 0.9$, $P < 1.0$, plotted left to right). The y-axis indicates Nagelkerke's pseudo R^2 representing the proportion of variance explained. The number above each bar is the *P* value for the target dataset prediction analysis (i.e. R^2 significance). Prediction was performed using all GWA meta-analysis SNPs **(a)** and after excluding all SNPs within +/- 2500 kb of the seven implicated SNPs listed in Table 1 **(b)**. These figures show that the results were not driven by a few highly associated regions, indicating a substantial number of common variants underlie endometriosis risk.

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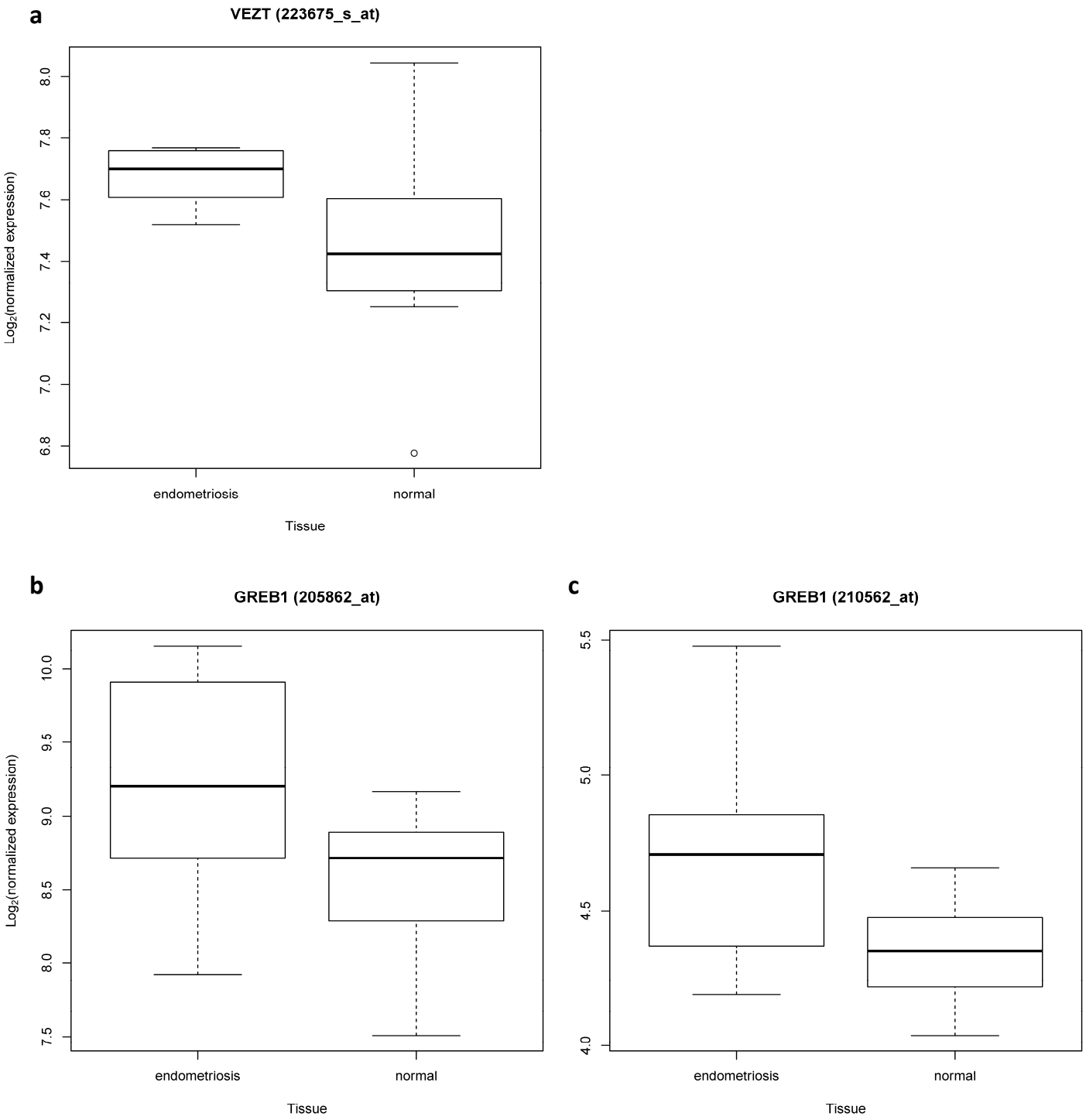
Supplementary Figure 19: Differentially expressed *VEZT* and *GREB1* gene probes



Box plots for the differentially expressed *VEZT* **(a)** and *GREB1* **(b-c)** probes. Expression values were obtained from the GEO database. Mean expression levels in endometriosis tissue were compared to levels in normal tissue using Welch two-sample t-tests on quantile normalized, $\log_2$-transformed expression data. Differential gene expression was detected for the *VEZT* (223675_s_at) and *GREB1* (205862_at and 210562_at) probes, producing *P* values of 0.05, 0.03 and 0.02, respectively.

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Supplementary Table 1: All and Stage B association results for suggestive SNPs

					QIMRHCS (all)			QIMRHCS (stage B)			OX (all)			OX (stage B)			BBJ			Meta-analysis (all)				Meta-analysis (stage B)					
Chr	**SNP**	**Position**	**RA**	**OA**	**RAF_{case}**	**OR (95%CI)**	**P_{all}**	**RAF_{case}**	**OR (95%CI)**	**P_{stageB}**	**RAF_{case}**	**OR (95%CI)**	**P_{all}**	**RAF_{case}**	**OR (95%CI)**	**P_{stageB}**	**RAF_{case}**	**OR (95%CI)**	**P_{all}**	**FE OR (95%CI)**	**FE P_{all}**	**Direction**	**HetPVal**	**FE OR (95%CI)**	**FE P_{stageB}**	**Direction**	**HetPVal**	**RE2 OR (95%CI)**	**RE2 P_{stageB}**
1	rs7515106	22473410	C	T	0.241	1.15 (1.05-1.27)	2.4E-03	0.251	1.22 (1.08-1.37)	2.1E-03	0.245	1.20 (1.08-1.35)	1.7E-03	0.235	1.14 (0.96-1.33)	1.3E-01	0.867	1.16 (1.00-1.35)	5.3E-02	1.18 (1.10-1.25)	2.1E-06	+++	8.5E-01	1.18 (1.09-1.28)	1.0E-04	+++	7.9E-01		
1	rs7521902	22490724	A	C	0.265	1.16 (1.06-1.27)	8.8E-04	0.283	1.28 (1.13-1.44)	5.8E-05	0.259	1.12 (1.00-1.26)	4.9E-02	0.266	1.16 (0.99-1.35)	6.1E-02	0.570	1.25 (1.12-1.39)	3.8E-05	1.18 (1.11-1.25)	4.6E-08	+++	3.6E-01	1.24 (1.16-1.33)	2.3E-09	+++	6.1E-01		
1	rs742356	22501846	G	A	0.265	1.11 (1.01-1.22)	2.3E-02	0.272	1.15 (1.02-1.30)	2.3E-02	0.278	1.18 (1.05-1.32)	4.2E-03	0.268	1.12 (0.96-1.30)	1.5E-01	0.561	1.18 (1.06-1.32)	2.1E-03	1.15 (1.09-1.22)	3.1E-06	+++	5.9E-01	1.16 (1.08-1.23)	5.2E-05	+++	8.5E-01		
1	rs12744944	80278733	A	G	0.456	1.10 (1.01-1.19)	2.0E-02	0.450	1.07 (0.96-1.19)	2.0E-01	0.468	1.23 (1.11-1.36)	5.4E-05	0.473	1.25 (1.09-1.44)	1.2E-03	0.017	1.27 (0.82-1.95)	2.9E-01	1.15 (1.08-1.22)	9.6E-06	+++	2.0E-01	1.14 (1.05-1.24)	1.7E-03	+++	1.8E-01		
2	rs12470971	11725241	G	A	0.672	1.09 (1.00-1.18)	5.4E-02	0.682	1.14 (1.01-1.27)	2.9E-02	0.690	1.18 (1.05-1.30)	3.7E-03	0.705	1.25 (1.09-1.45)	2.6E-03	0.526	1.19 (1.06-1.32)	1.6E-03	1.14 (1.08-1.20)	8.1E-06	+++	3.3E-01	1.18 (1.10-1.27)	2.0E-06	+++	5.6E-01		
2	rs13394619*	11727507	G	A	0.538	1.10 (1.02-1.19)	1.7E-02	0.538	1.10 (0.99-1.22)	7.3E-02	0.551	1.14 (1.02-1.25)	1.6E-02	0.566	1.20 (1.05-1.37)	8.6E-03	0.485	1.16 (1.04-1.28)	6.8E-03	1.15 (1.09-1.20)	6.1E-08	+++	1.0E-01	1.18 (1.11-1.25)	7.0E-08	+++	1.5E-01		
2	rs4141819	67864675	C	T	0.331	1.18 (1.08-1.27)	2.3E-04	0.364	1.35 (1.20-1.52)	1.1E-07	0.343	1.16 (1.05-1.30)	4.6E-03	0.334	1.12 (0.97-1.30)	1.2E-01	0.226	1.15 (1.01-1.30)	4.1E-02	1.16 (1.10-1.23)	4.0E-07	+++	9.6E-01	1.22 (1.14-1.32)	6.5E-08	+++	6.3E-02	1.20 (1.06-1.37)	5.9E-08
3	rs10510551	24927203	C	T	0.484	1.10 (1.02-1.19)	1.6E-02	0.493	1.15 (1.03-1.27)	1.2E-02	0.503	1.18 (1.06-1.30)	1.2E-03	0.513	1.23 (1.08-1.41)	3.2E-03	0.219	1.15 (1.01-1.32)	3.4E-02	1.14 (1.08-1.20)	9.6E-06	+++	5.4E-01	1.16 (1.09-1.25)	1.5E-05	+++	7.1E-01		
3	rs4858692	25075167	T	C	0.653	1.20 (1.11-1.31)	6.0E-06	0.665	1.27 (1.14-1.42)	2.3E-05	0.642	1.12 (1.01-1.24)	3.7E-02	0.639	1.10 (0.96-1.27)	1.7E-01	0.938	1.07 (0.86-1.33)	5.3E-01	1.16 (1.09-1.24)	1.3E-06	+++	3.9E-01	1.18 (1.09-1.28)	4.1E-05	+++	1.9E-01		
3	rs1603995	25075530	T	C	0.653	1.20 (1.11-1.30)	7.2E-06	0.666	1.27 (1.14-1.42)	2.3E-05	0.641	1.11 (1.00-1.23)	4.7E-02	0.639	1.10 (0.96-1.27)	1.9E-01	0.940	1.10 (0.88-1.36)	4.0E-01	1.16 (1.09-1.23)	1.6E-06	+++	4.2E-01	1.19 (1.10-1.29)	3.1E-05	+++	2.2E-01		
3	rs9311552	55216779	T	C	0.568	1.16 (1.08-1.26)	1.5E-04	0.559	1.12 (1.01-1.25)	3.4E-02	0.554	1.08 (0.98-1.19)	1.3E-01	0.563	1.12 (0.98-1.29)	1.0E-01	0.608	1.13 (1.01-1.25)	3.1E-02	1.13 (1.07-1.19)	7.4E-06	+++	5.3E-01	1.12 (1.05-1.20)	5.8E-04	+++	1.0E+00		
3	rs12635480	104575864	A	C	0.033	1.48 (1.16-1.87)	1.4E-03	0.031	1.39 (1.01-1.91)	4.1E-02	0.032	1.19 (0.89-1.59)	2.3E-01	0.031	1.16 (0.78-1.73)	4.5E-01	0.110	1.33 (1.11-1.59)	2.1E-03	1.34 (1.18-1.52)	8.6E-06	+++	5.3E-01	1.32 (1.14-1.52)	2.2E-04	+++	7.8E-01		
4	rs4241991	55931246	A	G	0.788	1.14 (1.04-1.26)	4.6E-03	0.798	1.22 (1.07-1.38)	3.2E-03	0.797	1.20 (1.06-1.36)	3.1E-03	0.785	1.12 (0.95-1.32)	1.8E-01	0.767	1.15 (1.01-1.30)	3.0E-02	1.16 (1.09-1.24)	4.6E-06	+++	8.0E-01	1.17 (1.08-1.26)	1.4E-04	+++	7.1E-01		
6	rs1016251	19706761	G	A	0.500	1.10 (1.02-1.19)	1.4E-02	0.520	1.19 (1.08-1.33)	8.9E-04	0.510	1.18 (1.06-1.30)	1.8E-03	0.518	1.20 (1.05-1.39)	7.0E-03	0.764	1.16 (1.03-1.32)	1.6E-02	1.14 (1.08-1.20)	6.3E-06	+++	5.8E-01	1.19 (1.11-1.27)	1.0E-06	+++	9.1E-01		
6	rs9366312	19708481	A	G	0.501	1.11 (1.03-1.20)	9.7E-03	0.522	1.21 (1.09-1.34)	4.5E-04	0.510	1.17 (1.06-1.29)	1.9E-03	0.518	1.21 (1.05-1.38)	7.2E-03	0.763	1.16 (1.03-1.31)	1.7E-02	1.14 (1.08-1.20)	4.3E-06	+++	6.5E-01	1.19 (1.11-1.28)	5.9E-07	+++	8.7E-01		
6	rs9356708	19729003	G	T	0.337	1.18 (1.09-1.28)	1.4E-04	0.357	1.28 (1.15-1.43)	1.0E-05	0.336	1.11 (1.00-1.23)	4.5E-02	0.330	1.09 (0.93-1.25)	2.9E-01	0.360	1.18 (1.05-1.32)	3.9E-03	1.16 (1.10-1.22)	3.1E-07	+++	6.9E-01	1.19 (1.11-1.28)	4.5E-07	+++	1.7E-01		
6	rs6916251	19761215	C	T	0.451	1.10 (1.02-1.19)	1.2E-02	0.467	1.18 (1.05-1.32)	2.7E-03	0.460	1.15 (1.04-1.28)	4.6E-03	0.475	1.22 (1.06-1.41)	3.5E-03	0.731	1.19 (1.06-1.33)	3.5E-03	1.14 (1.08-1.20)	3.4E-06	+++	5.5E-01	1.19 (1.11-1.28)	3.7E-07	+++	9.0E-01		
6	rs7739264	19785588	T	C	0.545	1.14 (1.06-1.24)	7.5E-04	0.563	1.23 (1.11-1.37)	1.2E-04	0.556	1.18 (1.07-1.30)	1.3E-03	0.566	1.23 (1.07-1.41)	3.6E-03	0.772	1.17 (1.04-1.33)	1.1E-02	1.16 (1.10-1.23)	1.3E-07	+++	8.8E-01	1.21 (1.13-1.30)	5.8E-08	+++	8.3E-01		
6	rs2223361	19790809	T	C	0.455	1.12 (1.03-1.21)	5.9E-03	0.467	1.18 (1.06-1.31)	2.8E-03	0.462	1.16 (1.05-1.28)	3.3E-03	0.481	1.25 (1.10-1.44)	1.1E-03	0.732	1.20 (1.07-1.35)	2.1E-03	1.15 (1.09-1.21)	7.3E-07	+++	5.6E-01	1.20 (1.12-1.29)	9.2E-08	+++	7.6E-01		
6	rs6907340	19803768	T	C	0.394	1.13 (1.04-1.23)	2.6E-03	0.405	1.18 (1.06-1.32)	2.2E-03	0.391	1.12 (1.01-1.24)	3.5E-02	0.406	1.19 (1.04-1.37)	1.4E-02	0.710	1.24 (1.11-1.39)	2.3E-04	1.15 (1.09-1.22)	5.9E-07	+++	3.4E-01	1.21 (1.13-1.29)	8.8E-08	+++	8.3E-01		
6	rs9487982	113111808	C	T	0.902	1.14 (1.00-1.28)	5.6E-02	0.903	1.15 (0.97-1.37)	1.1E-01	0.901	1.23 (1.04-1.45)	1.3E-02	0.896	1.16 (0.93-1.45)	1.7E-01	0.928	1.45 (1.19-1.75)	1.5E-04	1.22 (1.12-1.33)	8.2E-06	+++	1.1E-01	1.25 (1.12-1.41)	8.6E-05	+++	1.8E-01		
6	rs1890100	152638209	A	G	0.312	1.11 (1.02-1.20)	1.9E-02	0.316	1.12 (1.00-1.26)	4.6E-02	0.345	1.25 (1.12-1.39)	3.8E-05	0.352	1.29 (1.11-1.48)	5.8E-04	0.020	1.16 (0.78-1.72)	4.7E-01	1.16 (1.09-1.24)	8.1E-06	+++	2.2E-01	1.18 (1.08-1.29)	1.6E-04	+++	3.5E-01		
6	rs16900375	158144402	A	G	0.026	1.22 (0.94-1.57)	1.3E-01	0.021	0.97 (0.67-1.39)	8.5E-01	0.026	1.35 (0.98-1.85)	6.7E-02	0.027	1.37 (0.89-2.10)	1.5E-01	0.225	1.31 (1.15-1.49)	7.2E-05	1.29 (1.16-1.45)	4.4E-06	+++	8.5E-01	1.27 (1.13-1.43)	8.7E-05	-++	2.9E-01		
7	rs7798431	25860812	G	A	0.775	1.18 (1.08-1.28)	5.4E-04	0.796	1.33 (1.16-1.52)	1.7E-05	0.787	1.19 (1.05-1.33)	5.3E-03	0.807	1.35 (1.14-1.59)	6.9E-04	0.504	1.11 (1.00-1.23)	5.6E-02	1.16 (1.09-1.23)	2.1E-06	+++	6.4E-01	1.22 (1.14-1.32)	1.4E-07	+++	5.0E-02	1.25 (1.09-1.43)	1.1E-07
7	rs1055144	25871109	C	T	0.826	1.19 (1.09-1.32)	4.7E-04	0.835	1.28 (1.11-1.47)	6.5E-04	0.836	1.23 (1.09-1.41)	1.4E-03	0.846	1.33 (1.11-1.61)	2.3E-03	0.518	1.12 (1.01-1.25)	4.0E-02	1.18 (1.10-1.25)	5.6E-07	+++	4.4E-01	1.20 (1.11-1.30)	3.7E-06	+++	1.5E-01		
7	rs10282436	25873110	G	T	0.825	1.19 (1.09-1.32)	4.4E-04	0.835	1.28 (1.11-1.47)	5.2E-04	0.835	1.23 (1.08-1.41)	1.9E-03	0.845	1.33 (1.11-1.61)	2.5E-03	0.518	1.11 (1.00-1.23)	4.3E-02	1.18 (1.10-1.25)	7.4E-07	+++	4.6E-01	1.20 (1.11-1.30)	3.7E-06	+++	1.5E-01		
7	rs12700667	25901639	A	G	0.769	1.23 (1.13-1.35)	5.4E-06	0.788	1.38 (1.22-1.57)	6.3E-07	0.776	1.19 (1.06-1.34)	3.5E-03	0.798	1.35 (1.14-1.60)	4.2E-04	0.221	1.22 (1.07-1.39)	3.6E-03	1.22 (1.14-1.30)	9.3E-10	+++	9.1E-01	1.31 (1.21-1.42)	3.8E-11	+++	3.6E-01		
7	rs7809057	134607676	A	G	0.550	1.13 (1.05-1.22)	1.7E-03	0.547	1.12 (1.01-1.24)	3.6E-02	0.561	1.20 (1.09-1.33)	2.9E-04	0.564	1.22 (1.06-1.39)	5.2E-03	0.168	1.08 (0.93-1.25)	3.0E-01	1.15 (1.08-1.21)	2.3E-06	+++	4.3E-01	1.14 (1.06-1.22)	6.0E-04	+++	4.7E-01		
7	rs6973420	134618710	A	G	0.549	1.13 (1.05-1.22)	2.1E-03	0.545	1.11 (1.00-1.24)	4.9E-02	0.559	1.20 (1.09-1.33)	3.5E-04	0.563	1.22 (1.06-1.40)	4.8E-03	0.165	1.06 (0.92-1.23)	4.0E-01	1.14 (1.08-1.21)	4.7E-06	+++	3.8E-01	1.13 (1.05-1.21)	1.1E-03	+++	3.9E-01		
9	rs1537377	22169700	C	T	0.424	1.12 (1.04-1.22)	3.0E-03	0.452	1.27 (1.14-1.41)	1.6E-05	0.436	1.15 (1.04-1.28)	4.9E-03	0.457	1.27 (1.10-1.45)	1.0E-03	0.410	1.14 (1.02-1.27)	1.9E-02	1.14 (1.08-1.20)	2.5E-06	+++	9.3E-01	1.22 (1.14-1.30)	1.0E-08	+++	3.4E-01		
10	rs1572396	117325021	C	T	0.721	1.15 (1.06-1.25)	1.0E-03	0.732	1.22 (1.08-1.37)	1.2E-03	0.740	1.20 (1.08-1.35)	9.9E-04	0.737	1.19 (1.02-1.39)	2.9E-02	0.192	1.11 (0.97-1.28)	1.2E-01	1.16 (1.10-1.23)	1.5E-06	+++	6.6E-01	1.18 (1.09-1.27)	4.3E-05	+++	6.4E-01		
10	rs2769422	117393524	T	C	0.759	1.16 (1.06-1.27)	1.0E-03	0.764	1.20 (1.06-1.35)	4.2E-03	0.771	1.20 (1.06-1.34)	2.9E-03	0.767	1.16 (0.99-1.36)	6.5E-02	0.478	1.08 (0.97-1.20)	1.6E-01	1.14 (1.08-1.21)	8.2E-06	+++	4.1E-01	1.14 (1.06-1.22)	5.4E-04	+++	4.4E-01		
10	rs2804250	117396288	C	T	0.759	1.16 (1.06-1.27)	1.0E-03	0.764	1.19 (1.05-1.35)	4.2E-03	0.771	1.19 (1.06-1.35)	2.7E-03	0.766	1.16 (0.99-1.37)	6.5E-02	0.480	1.08 (0.97-1.20)	1.5E-01	1.15 (1.08-1.22)	7.6E-06	+++	4.1E-01	1.14 (1.05-1.22)	5.2E-04	+++	4.5E-01		
10	rs2769417	117398195	G	A	0.759	1.16 (1.06-1.27)	1.1E-03	0.764	1.19 (1.05-1.35)	4.4E-03	0.771	1.19 (1.06-1.35)	3.0E-03	0.767	1.16 (0.99-1.37)	6.6E-02	0.480	1.09 (0.98-1.20)	1.3E-01	1.15 (1.08-1.22)	6.9E-06	+++	4.6E-01	1.14 (1.06-1.22)	4.3E-04	+++	4.9E-01		
12	rs10777670	95574831	A	G	0.197	1.17 (1.06-1.30)	1.7E-03	0.203	1.22 (1.07-1.40)	2.8E-03	0.196	1.20 (1.05-1.36)	5.4E-03	0.207	1.28 (1.08-1.51)	4.7E-03	0.364	1.20 (1.07-1.34)	1.7E-03	1.19 (1.11-1.27)	1.6E-07	+++	9.6E-01	1.22 (1.13-1.32)	2.8E-07	+++	8.2E-01		
12	rs10859856	95631276	C	T	0.497	1.12 (1.04-1.20)	4.3E-03	0.509	1.18 (1.06-1.32)	2.2E-03	0.496	1.14 (1.03-1.27)	1.0E-02	0.503	1.18 (1.02-1.35)	2.0E-02	0.500	1.20 (1.09-1.33)	6.1E-04	1.15 (1.09-1.20)	4.8E-07	+++	5.5E-01	1.19 (1.11-1.27)	2.8E-07	+++	9.5E-01		
12	rs11107973	95702385	C	T	0.391	1.14 (1.05-1.23)	1.8E-03	0.393	1.15 (1.03-1.28)	1.4E-02	0.389	1.15 (1.03-1.27)	1.0E-02	0.382	1.11 (0.96-1.28)	1.4E-01	0.402	1.15 (1.03-1.28)	1.3E-02	1.14 (1.08-1.20)	2.1E-06	+++	9.9E-01	1.14 (1.06-1.22)	1.6E-04	+++	9.2E-01		
12	rs10859871	95711876	C	A	0.332	1.16 (1.06-1.27)	4.2E-04	0.335	1.18 (1.05-1.32)	3.9E-03	0.332	1.19 (1.06-1.32)	1.6E-03	0.333	1.19 (1.03-1.37)	1.7E-02	0.373	1.22 (1.09-1.37)	5.2E-04	1.18 (1.12-1.25)	5.5E-09	+++	8.0E-01	1.19 (1.11-1.28)	3.7E-07	+++	9.2E-01		

Chr = Chromosome
SNP = SNP rsID
Position = February 2009 Genome Reference Consortium Human Build 37 (GRCh37/hg19) bp position
RA = risk allele
OA = other allele
RAF_{case} = risk allele frequency in cases
OR (95%CI) = risk allele odds ratio and its 95% confidence interval
P_{all} = association p-value including all available endometriosis cases
P_{stageB} = association p-value excluding cases with minimal (rAFS I-II) and unknown endometriosis stage cases where detailed stage data was available
FE = fixed effect model meta-analysis
Direction = RA effect direction in QIMRHCS, OX and BBJ GWA data, respectively
HetPVal = Cochran's Q between-study (effect) heterogeneity test p-value
RE2 = Han and Eskin's (2011) random effects model meta-analysis [only provided for SNPs with nominal evidence for effect heterogeneity (HetPVal < 0.1)]

* = GWA meta-analysis *P* values for rs13394619 include results published in Adachi et al. (2010), consisting of $P = 6.1 \times 10^{-4}$ ($RAF_{case} = 0.517$, $RAF_{control} = 0.414$) and $P = 1.0 \times 10^{-2}$ (RAFcase = 0.488, RAFcontrol = 0.429) obtained in their 500K and 6.0 case-control cohorts, respectively.

Supplementary Table 2: Stage B (case) versus Stage A (pseudo control) association results for suggestive SNPs

					QIMRHCS		OX		QIMRHCS+OX				
					stage A	stage B	stage A	stage B	Meta-analysis of stage B (case) versus stage A (pseudo control)				
Chr	SNP	Position	RA	OA	RAF	RAF	RAF	RAF	FE OR (95%CI)	FE P_{all}	Direction	HetPVal	$RAF_{stageB} > RAF_{stageA}$
1	rs7515106	22473410	C	T	0.236	0.251	0.250	0.235	1.04 (0.92-1.17)	5.16E-01	+-	2.3E-01	Y
1	rs7521902	22490724	A	C	0.253	0.283	0.264	0.266	1.12 (1.00-1.26)	4.91E-02	++	2.9E-01	Y
1	rs742356	22501846	G	A	0.261	0.272	0.288	0.268	1.01 (0.90-1.14)	8.01E-01	+-	2.3E-01	Y
1	rs12744944	80278733	A	G	0.459	0.450	0.459	0.473	**0.99 (0.89-1.10)**	8.23E-01	-+	4.2E-01	**N**
2	rs12470971	11725241	G	A	0.665	0.682	0.652	0.705	1.13 (1.01-1.26)	3.33E-02	++	1.9E-01	Y
2	rs13394619	11727507	G	A	0.537	0.538	0.523	0.566	1.05 (0.95-1.16)	3.44E-01	++	1.6E-01	Y
2	rs4141819	67864675	C	T	0.310	0.364	0.336	0.334	1.19 (1.07-1.33)	1.31E-03	+-	4.8E-02	Y
3	rs10510551	24927203	C	T	0.477	0.493	0.502	0.513	1.06 (0.96-1.18)	2.49E-01	++	8.8E-01	Y
3	rs4858692	25075167	T	C	0.645	0.665	0.658	0.639	1.04 (0.94-1.16)	4.26E-01	+-	1.8E-01	Y
3	rs1603995	25075530	T	C	0.645	0.666	0.655	0.639	1.05 (0.94-1.17)	3.66E-01	+-	2.0E-01	Y
3	rs9311552	55216779	T	C	0.575	0.559	0.554	0.563	**0.96 (0.87-1.07)**	4.89E-01	-+	4.0E-01	**N**
3	rs12635480	104575864	A	C	0.034	0.031	0.034	0.031	**0.91 (0.68-1.21)**	5.16E-01	--	1.0E+00	**N**
4	rs4241991	55931246	A	G	0.782	0.798	0.802	0.785	1.05 (0.92-1.19)	4.71E-01	+-	1.7E-01	Y
6	rs1016251	19706761	G	A	0.486	0.520	0.492	0.518	1.14 (1.02-1.26)	1.51E-02	++	7.8E-01	Y
6	rs9366312	19708481	A	G	0.486	0.522	0.492	0.518	1.14 (1.03-1.27)	1.16E-02	++	7.3E-01	Y
6	rs9356708	19729003	G	T	0.324	0.357	0.330	0.330	1.12 (1.00-1.24)	4.62E-02	+-	2.4E-01	Y
6	rs6916251	19761215	C	T	0.441	0.467	0.445	0.475	1.12 (1.01-1.24)	3.67E-02	++	9.1E-01	Y
6	rs7739264	19785588	T	C	0.532	0.563	0.537	0.566	1.13 (1.02-1.25)	1.88E-02	++	9.5E-01	Y
6	rs2223361	19790809	T	C	0.446	0.467	0.442	0.481	1.11 (1.00-1.23)	4.38E-02	++	5.5E-01	Y
6	rs6907340	19803768	T	C	0.386	0.405	0.368	0.406	1.10 (0.99-1.23)	6.38E-02	++	5.0E-01	Y
6	rs9487982	113111808	C	T	0.900	0.903	0.911	0.896	**0.98 (0.83-1.17)**	8.37E-01	+-	3.1E-01	**N**
6	rs1890100	152638209	A	G	0.310	0.316	0.302	0.352	1.08 (0.97-1.21)	1.70E-01	++	1.2E-01	Y
6	rs16900375	158144402	A	G	0.030	0.021	0.029	0.027	**0.75 (0.54-1.04)**	8.85E-02	--	4.7E-01	**N**
7	rs7798431	25860812	G	A	0.762	0.796	0.758	0.808	1.25 (1.10-1.41)	4.75E-04	++	5.0E-01	Y
7	rs1055144	25871109	C	T	0.820	0.835	0.822	0.846	1.13 (0.99-1.30)	7.57E-02	++	6.7E-01	Y
7	rs10282436	25873110	G	T	0.819	0.835	0.821	0.845	1.14 (0.99-1.30)	6.38E-02	++	6.9E-01	Y
7	rs12700667	25901639	A	G	0.756	0.788	0.752	0.798	1.23 (1.09-1.39)	1.08E-03	++	5.7E-01	Y
7	rs7809057	134607676	A	G	0.551	0.547	0.537	0.564	1.02 (0.92-1.13)	7.51E-01	-+	2.9E-01	Y
7	rs6973420	134618710	A	G	0.551	0.545	0.532	0.563	1.01 (0.92-1.12)	7.79E-01	-+	2.2E-01	Y
9	rs1537377	22169700	C	T	0.405	0.452	0.422	0.457	1.20 (1.08-1.33)	6.35E-04	++	6.7E-01	Y
10	rs1572396	117325021	C	T	0.714	0.732	0.752	0.737	1.05 (0.93-1.17)	4.46E-01	+-	2.3E-01	Y
10	rs2769422	117393524	T	C	0.755	0.764	0.782	0.767	1.02 (0.90-1.15)	7.98E-01	+-	3.2E-01	Y
10	rs2804250	117396288	C	T	0.755	0.764	0.782	0.766	1.02 (0.90-1.15)	8.08E-01	+-	3.1E-01	Y
10	rs2769417	117398195	G	A	0.755	0.764	0.782	0.767	1.02 (0.90-1.15)	7.98E-01	+-	3.2E-01	Y
12	rs10777670	95574831	A	G	0.192	0.203	0.176	0.207	1.11 (0.97-1.26)	1.18E-01	++	4.1E-01	Y
12	rs10859856	95631276	C	T	0.489	0.509	0.494	0.503	1.07 (0.97-1.19)	1.77E-01	++	7.2E-01	Y
12	rs11107973	95702385	C	T	0.389	0.393	0.400	0.382	**0.99 (0.89-1.10)**	8.84E-01	+-	4.4E-01	**N**
12	rs10859871	95711876	C	A	0.330	0.335	0.331	0.333	1.02 (0.91-1.14)	7.24E-01	++	9.0E-01	Y

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Chr = Chromosome
SNP = SNP rsID
Position = February 2009 Genome Reference Consortium Human Build 37 (GRCh37/hg19) bp position
RA = risk allele
OA = other allele
RAF = risk allele frequency
FE = fixed effect model meta-analysis
OR (95%CI) = risk allele odds ratio and its 95% confidence interval
FE P_{all} = FE association p-value including all available endometriosis cases
Direction = RA effect direction in QIMRHCS, OX and BBJ GWA data, respectively
HetPVal = Cochran's Q between-study (effect) heterogeneity test p-value
RE2 = Han and Eskin's (2011) random effects model meta-analysis [only provided for SNPs with nominal evidence for effect heterogeneity (HetPVal ≤ 0.1)]
$RAF_{stageB} > RAF_{stageA}$ = Whether the RAF was greater (Y) or less (N) in stage B cases compared to stage A cases

Supplementary Table 3: VEGAS gene-based association results for all genes with combined $P \leq 0.05$

					QIMRHCS+OX				BBJ				QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
1	WNT4	22316384	22342106	19	1000000	105.54	8.5E-05	rs7515106	1.6E-05	1000000	130.11	7.0E-06	rs7542242	1.9E-06	5.0E-09
12	VEZT	94135652	94220697	31	1000000	147.21	1.0E-04	rs10859871	2.3E-06	1000000	144.47	7.7E-04	rs3185701	3.1E-04	5.7E-07
2	GREB1	11591692	11700363	36	1000000	112.62	1.3E-03	rs13407457	1.1E-05	100000	103.97	3.3E-03	rs4669751	9.5E-04	2.5E-05
19	EHD2	52908412	52938203	13	1000000	71.00	3.7E-04	rs1862485	5.2E-05	100000	39.77	2.2E-02	rs13346368	5.8E-03	7.1E-05
22	MTMR3	28609157	28756857	17	1000000	96.10	8.8E-04	rs7291756	4.5E-05	100000	51.01	1.5E-02	rs5752973	2.8E-03	8.9E-05
1	MRPL9	149998746	150002664	15	100000	66.90	5.8E-03	rs6696250	4.2E-03	100000	62.80	4.9E-03	rs1521177	3.1E-03	1.5E-04
1	OAZ3	150005754	150010430	17	100000	64.53	7.8E-03	rs6696250	4.2E-03	100000	68.06	3.9E-03	rs1521177	3.1E-03	1.7E-04
1	CDC42	22251706	22292023	12	100000	37.58	2.2E-02	rs4654783	5.4E-03	1000000	68.23	1.4E-03	rs2501279	1.7E-05	2.0E-04
1	ELA3A	22200735	22211622	15	100000	31.13	5.6E-02	rs760923	6.6E-03	1000000	73.64	3.8E-04	rs2501279	1.7E-05	2.3E-04
15	SLC30A4	43561969	43602294	5	1000000	39.10	2.4E-04	rs8042811	5.7E-04	100000	12.50	7.3E-02	rs2453531	2.0E-02	2.3E-04
1	ALX3	110404519	110414845	17	100000	40.02	4.1E-02	rs11576956	5.6E-03	1000000	80.76	9.0E-04	rs7545139	4.9E-04	3.0E-04
16	CLEC16A	10945942	11183539	72	1000000	311.75	1.3E-03	rs11647724	2.0E-04	100000	161.05	3.5E-02	rs17673553	8.1E-04	3.2E-04
11	OR1S2	57727251	57728229	21	1000000	116.22	4.2E-04	rs2218868	7.0E-07	100000	42.68	7.6E-02	rs2443443	2.4E-02	3.7E-04
1	FAM40A	110378763	110398786	15	100000	36.91	4.3E-02	rs11576956	5.6E-03	100000	79.99	1.3E-03	rs7545139	4.9E-04	4.1E-04
10	ATRNL1	116843113	117698486	92	1000000	383.17	7.7E-04	rs1572396	3.9E-06	100000	175.48	6.0E-02	rs180671	2.2E-03	4.1E-04
1	TDRKH	150010664	150029634	19	100000	62.03	1.3E-02	rs6696250	4.2E-03	100000	66.78	6.5E-03	rs1521177	3.1E-03	4.3E-04
11	OR9Q2	57714538	57715483	23	1000000	119.45	4.7E-04	rs2218868	7.0E-07	100000	45.49	8.0E-02	rs2443443	2.4E-02	4.4E-04
1	TNRC4	149941453	149955914	12	1000000	82.26	1.4E-03	rs1211981	6.9E-04	100000	29.20	4.6E-02	rs12758387	1.6E-02	4.7E-04
19	GLTSCR2	52940619	52952127	10	1000000	70.96	1.9E-04	rs1862485	5.2E-05	1000	17.36	1.3E-01	rs10423006	8.7E-03	4.8E-04
1	WNT3A	226261374	226315584	11	100000	37.15	2.0E-02	rs708121	2.1E-03	100000	47.22	4.7E-03	rs3121310	2.1E-04	4.9E-04
1	PRUNE	149247596	149274813	15	100000	39.76	1.9E-02	rs2902810	3.9E-03	100000	55.74	4.9E-03	rs4451553	1.2E-03	4.9E-04
2	IL1A	113247962	113259442	18	100000	67.92	1.2E-02	rs4849124	1.5E-03	100000	77.64	9.1E-03	rs7577241	1.6E-03	5.4E-04
1	AHCYL1	110328830	110367887	21	100000	53.41	2.7E-02	rs390923	1.8E-03	1000000	78.09	3.9E-03	rs7545139	4.9E-04	5.9E-04
1	SNX27	149851285	149938183	20	1000000	115.03	6.5E-04	rs12122920	2.8E-04	100000	38.06	8.5E-02	rs12758387	1.6E-02	5.9E-04
1	FAM63A	149234172	149245957	16	100000	40.06	2.2E-02	rs2902810	3.9E-03	100000	56.12	5.4E-03	rs4451553	1.2E-03	6.2E-04
1	LOC440567	16006243	16006781	6	100000	25.83	7.4E-03	rs938295	1.8E-03	100000	22.84	1.7E-02	rs2271545	6.1E-03	6.3E-04
1	TNFRSF9	7902493	7923474	9	100000	27.63	1.1E-02	rs679563	3.8E-03	100000	29.16	1.2E-02	rs664673	8.6E-05	6.4E-04
13	ZIC5	99413275	99422179	30	100000	74.32	1.5E-02	rs9585279	9.4E-04	100000	79.15	9.1E-03	rs9585276	1.8E-04	6.6E-04
1	BNIPL	149275657	149286698	10	100000	29.61	7.9E-03	rs2902810	3.9E-03	100000	29.71	1.8E-02	rs1722784	5.5E-03	6.9E-04
7	BET1	93458935	93471626	9	100000	27.32	1.7E-02	rs7794610	8.1E-03	100000	27.59	8.9E-03	rs9641128	3.4E-03	7.6E-04
11	PGR	100405564	100505754	30	1000000	121.28	7.2E-04	rs660541	2.7E-05	100000	59.32	9.9E-02	rs11224580	1.6E-02	7.8E-04
8	ANGPT1	108330885	108579430	89	1000	117.83	2.1E-01	rs4305876	3.6E-03	1000000	365.99	1.6E-04	rs1433168	3.8E-05	8.8E-04
4	TLR10	38450646	38460984	20	1000000	116.95	5.1E-04	rs11096957	2.4E-04	1000	31.36	1.3E-01	rs12233656	3.2E-03	9.1E-04
22	ASCC2	28514600	28564254	18	100000	80.95	1.2E-02	rs12485243	9.0E-05	100000	69.18	1.6E-02	rs5752973	2.8E-03	9.3E-04
14	C14orf106	44742142	44792146	10	1000000	69.27	7.6E-04	rs1951478	6.0E-04	1000	18.48	1.1E-01	rs1252951	4.5E-02	9.4E-04
18	KCNG2	75724655	75760804	12	100000	34.81	1.6E-02	rs2115998	2.3E-03	100000	37.51	1.3E-02	rs3902996	1.8E-03	9.7E-04
22	UCRC	28493357	28496402	20	100000	94.16	8.1E-03	rs12485243	9.0E-05	100000	71.17	2.4E-02	rs140149	1.0E-02	9.8E-04
22	ZMAT5	28456944	28492969	27	100000	116.06	5.6E-03	rs12485243	9.0E-05	100000	75.52	3.3E-02	rs140149	1.0E-02	9.9E-04
1	ARF1	226336983	226353536	10	100000	27.84	4.0E-02	rs3121310	1.1E-02	100000	48.67	4.6E-03	rs3121310	2.1E-04	1.0E-03
6	C6orf211	151815114	151832925	13	1000000	65.68	2.7E-03	rs6933660	1.8E-04	100000	31.91	6.1E-02	rs6557142	3.5E-03	1.1E-03
3	PLCL2	16901672	17107102	44	100000	116.83	2.7E-02	rs983545	7.0E-03	100000	159.30	8.2E-03	rs2347655	1.5E-03	1.1E-03
4	KLF3	38342184	38379524	24	100000	70.66	1.0E-02	rs13149231	2.2E-04	100000	58.01	2.3E-02	rs17500878	2.0E-03	1.2E-03
6	RMND1	151767681	151815009	16	100000	64.44	9.7E-03	rs6933660	1.8E-04	100000	48.03	2.5E-02	rs6557142	3.5E-03	1.2E-03
20	C20orf114	31334601	31361345	17	100000	34.41	7.4E-02	rs6141378	6.4E-03	100000	67.24	2.4E-03	rs11698045	1.7E-05	1.3E-03
11	MCAM	118684443	118693050	18	100000	55.12	5.2E-03	rs2249466	2.0E-03	100000	39.10	4.5E-02	rs7122785	7.7E-03	1.3E-03
2	IL1B	113303807	113310827	17	100000	57.03	1.9E-02	rs4849124	1.5E-03	100000	56.69	1.5E-02	rs6746923	5.2E-03	1.3E-03
1	ANXA9	149221122	149234738	15	100000	29.65	7.3E-02	rs3820539	6.9E-03	100000	66.15	2.6E-03	rs4451553	1.2E-03	1.3E-03
16	TIGD7	3288832	3291401	9	100000	17.48	7.4E-02	rs757108	1.9E-02	100000	34.58	2.6E-03	rs224215	8.3E-04	1.3E-03
17	UBE2G1	4119260	4216718	10	100000	34.90	1.0E-02	rs4508454	4.6E-03	100000	29.55	2.8E-02	rs11078506	6.4E-03	1.4E-03
13	RAB20	109973413	110012072	46	1000	60.21	2.0E-01	rs4771699	1.4E-02	1000000	146.92	4.1E-04	rs7317733	6.9E-05	1.5E-03
2	CKAP2L	113211914	113238725	18	100000	48.05	3.8E-02	rs10496444	2.6E-03	100000	76.58	7.7E-03	rs7577241	1.6E-03	1.5E-03
1	LINGO4	150039388	150044506	19	100000	43.90	3.9E-02	rs8480	6.5E-03	100000	58.98	8.1E-03	rs1521177	3.1E-03	1.6E-03
10	PBLD	69712422	69762690	13	100000	53.15	1.2E-02	rs1867568	2.2E-03	100000	44.07	2.8E-02	rs1867568	1.9E-02	1.6E-03
9	CTSL1	89530793	89536204	30	100000	108.11	1.2E-02	rs3128506	2.6E-03	100000	71.71	2.8E-02	rs2274611	3.6E-03	1.6E-03
22	HORMAD2	28806452	28903062	15	100000	50.71	6.6E-03	rs9614152	6.6E-04	100000	35.60	4.7E-02	rs5753037	3.0E-03	1.7E-03
10	HNRNPH3	69761773	69772959	11	100000	46.23	9.6E-03	rs1867568	2.2E-03	100000	33.13	3.6E-02	rs1867568	1.9E-02	1.7E-03
9	CTSL3	89577649	89591619	27	100000	77.90	1.8E-02	rs7467327	4.6E-03	100000	61.61	2.1E-02	rs2274611	3.6E-03	1.7E-03
7	C7orf60	112246437	112367168	12	1000	14.59	2.5E-01	rs7797689	9.5E-03	1000000	95.38	2.9E-04	rs10246678	6.4E-04	1.8E-03
2	EGR4	73371564	73374181	7	1000	12.30	1.2E-01	rs6711843	1.2E-02	100000	35.07	1.8E-03	rs7609407	3.5E-04	1.8E-03
12	NAV3	76749199	77130921	108	100000	200.70	2.2E-02	rs1020461	2.8E-03	100000	196.46	1.9E-02	rs2619062	7.1E-03	1.9E-03
21	CXADR	17807200	17861137	23	100000	55.72	1.7E-02	rs2248003	5.9E-04	100000	54.49	2.4E-02	rs2776068	6.0E-04	1.9E-03
11	OR9Q1	57547928	57705614	50	1000000	184.33	2.6E-03	rs2218868	7.0E-07	100000	89.89	9.7E-02	rs2513725	3.8E-03	1.9E-03
10	RUFY2	69773280	69837057	12	100000	48.86	7.2E-03	rs1867568	2.2E-03	100000	30.55	5.0E-02	rs1867568	1.9E-02	1.9E-03
9	FANCC	96901156	97119812	20	1000	31.42	1.8E-01	rs356685	1.1E-02	1000000	123.49	7.6E-04	rs10761374	2.2E-04	1.9E-03
21	C21orf58	46545474	46568213	17	100000	52.21	1.5E-02	rs2839182	2.6E-04	100000	47.67	2.9E-02	rs2839232	7.5E-03	2.0E-03
11	CBL	118582199	118684069	19	100000	54.29	6.2E-03	rs2249466	2.0E-03	100000	38.56	5.9E-02	rs7122785	7.7E-03	2.0E-03
14	BTBD6	104786052	104788474	4	100000	9.10	9.8E-02	rs3784230	6.6E-02	100000	23.38	2.9E-03	rs2010787	1.8E-03	2.1E-03
4	KDR	55639405	55686519	27	1000000	142.38	1.4E-05	rs4241991	5.0E-05	1000	22.70	5.5E-01	rs4241991	3.0E-02	2.1E-03
2	KCNS3	17923425	17977706	31	100000	82.64	8.7E-03	rs1564004	2.7E-03	100000	62.70	4.7E-02	rs13382709	3.5E-03	2.1E-03
22	C22orf31	27784659	27787907	21	100000	81.28	2.8E-03	rs4823002	5.3E-04	1000	37.92	1.1E-01	rs2179129	2.6E-02	2.2E-03
12	CAPRIN2	30753752	30798715	11	100000	51.16	5.8E-03	rs12146709	1.6E-03	100000	27.38	7.0E-02	rs2434118	4.3E-02	2.3E-03
22	CABP7	28446343	28457820	25	100000	87.00	8.8E-03	rs11090577	5.8E-04	100000	57.29	5.2E-02	rs131285	1.6E-02	2.3E-03
3	KLHDC6	129124591	129189204	25	1000000	106.73	6.0E-04	rs2053016	1.3E-05	1000	31.82	2.2E-01	rs2195914	3.3E-02	2.4E-03
1	SETDB1	149165511	149203837	12	1000	21.47	1.3E-01	rs3754211	4.5E-02	100000	64.69	2.0E-03	rs4451553	1.2E-03	2.4E-03
4	TLR1	38474270	38482807	17	1000000	104.98	5.4E-04	rs11096957	2.4E-04	1000	22.86	2.4E-01	rs6531673	2.7E-02	2.4E-03
1	GUK1	226394604	226403275	9	100000	29.00	3.7E-02	rs849749	1.1E-02	100000	33.69	1.4E-02	rs12142165	7.9E-03	2.4E-03
11	OR9I1	57642547	57643492	26	100000	113.34	3.3E-03	rs2218868	7.0E-07	1000	47.79	1.1E-01	rs2513725	3.8E-03	2.6E-03
8	RHPN1	144522399	144537533	18	1000000	79.37	4.9E-04	rs2450749	3.0E-04	1000	22.54	2.6E-01	rs879740	5.5E-02	2.6E-03
6	ID4	19945595	19948894	24	100000	63.15	6.5E-03	rs2223361	7.0E-05	100000	42.36	7.2E-02	rs6907340	2.3E-04	2.7E-03

					QIMRHCS+OX				BBJ					QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
6	FAM46A	82512165	82519147	26	100000	53.39	4.8E-02	rs1291465	7.9E-03	100000	66.98	1.2E-02	rs194627	8.0E-04	2.8E-03
6	SPATS1	44418463	44452882	24	100000	43.68	1.0E-01	rs4714784	1.4E-02	100000	86.08	4.0E-03	rs4413612	5.1E-04	2.8E-03
2	GALM	38746742	38815031	18	100000	35.60	6.2E-02	rs1997377	2.9E-02	100000	54.88	8.9E-03	rs3097714	1.2E-03	2.8E-03
14	BRF1	104746667	104838374	7	1000	12.16	1.5E-01	rs3784230	6.6E-02	1000000	31.81	2.1E-03	rs2010787	1.8E-03	2.9E-03
7	ZNRF2	30290447	30373833	9	100000	24.21	2.5E-02	rs6961625	3.9E-02	100000	27.37	2.6E-02	rs7776608	6.5E-03	2.9E-03
12	FGD6	93994655	94135371	34	100000	103.57	2.6E-02	rs10777670	2.7E-05	100000	100.24	2.6E-02	rs10859856	6.1E-04	3.0E-03
7	CALD1	134114710	134306012	69	1000000	244.02	4.0E-04	rs7809057	2.6E-06	1000	78.69	3.0E-01	rs6976760	3.6E-03	3.0E-03
1	MLLT11	149298774	149307597	8	100000	32.00	2.4E-03	rs2902810	3.9E-03	1000	14.36	1.4E-01	rs3738480	2.1E-02	3.0E-03
11	USP2	118731134	118757646	19	100000	49.21	1.2E-02	rs2249466	2.0E-03	100000	38.27	5.3E-02	rs7122785	7.7E-03	3.1E-03
13	TMTC4	100054090	100125104	23	1000	38.76	1.4E-01	rs9518092	1.6E-02	1000000	98.67	2.8E-03	rs1055705	9.1E-04	3.2E-03
7	THSD7A	11380695	11838349	181	100000	352.16	8.9E-03	rs1859218	4.0E-03	100000	265.50	7.1E-02	rs6975177	2.0E-03	3.3E-03
2	AMMECR1	128335675	128358904	13	100000	27.24	7.1E-02	rs11685164	3.5E-02	100000	50.66	8.8E-03	rs2109315	1.7E-03	3.3E-03
16	TXNL4B	70676256	70685015	8	100000	22.87	3.5E-02	rs10492814	1.9E-02	100000	28.73	2.1E-02	rs10492814	4.7E-03	3.3E-03
20	ZCCHC3	226203	228963	21	1000000	96.48	3.4E-04	rs6048226	9.2E-05	1000	23.27	3.3E-01	rs1997793	6.2E-02	3.4E-03
16	HPR	70654625	70668646	10	100000	30.74	2.2E-02	rs10492814	1.9E-02	100000	30.01	3.5E-02	rs10492814	4.7E-03	3.4E-03
11	PANX1	93501741	93554785	20	100000	46.54	5.0E-02	rs4073612	3.5E-03	100000	61.58	1.4E-02	rs1046173	3.8E-04	3.4E-03
3	IFT57	109362348	109424107	14	100000	52.74	1.3E-02	rs7648181	5.5E-04	100000	35.08	5.6E-02	rs327154	6.3E-03	3.5E-03
14	RIN3	92049877	92225087	75	1000	70.78	5.4E-01	rs12896830	2.7E-02	1000000	235.62	4.5E-05	rs7151686	6.2E-04	3.6E-03
13	LATS2	20445175	20533722	26	1000	26.17	4.0E-01	rs945664	6.5E-02	1000000	145.76	1.9E-04	rs9552328	3.2E-04	3.6E-03
1	WNT9A	226175319	226202222	13	100000	29.86	4.3E-02	rs681239	1.0E-02	100000	34.41	1.9E-02	rs681239	7.5E-03	3.6E-03
5	AP3B1	77333905	77626284	48	1000000	167.65	1.1E-03	rs10043750	8.5E-05	1000	59.88	2.3E-01	rs837019	2.7E-02	3.6E-03
1	LASS2	149204272	149214064	11	1000	15.64	2.1E-01	rs3754211	4.5E-02	100000	57.85	1.3E-03	rs4451553	1.2E-03	3.6E-03
6	PRIM2	57290380	57621335	18	1000000	104.84	2.1E-04	rs1741916	3.7E-05	1000	18.76	4.0E-01	rs13219670	1.4E-01	3.6E-03
1	GJC2	226404175	226414150	9	100000	26.04	4.4E-02	rs849749	1.1E-02	100000	30.17	1.8E-02	rs12142165	7.9E-03	3.7E-03
20	ZFP64	50133956	50241931	41	100000	64.18	9.3E-02	rs2208198	2.2E-03	100000	101.70	6.8E-03	rs6068066	1.4E-03	3.7E-03
1	C1orf56	149286882	149290495	8	100000	26.59	4.9E-03	rs2902810	3.9E-03	1000	14.54	1.2E-01	rs3738480	2.1E-02	3.8E-03
3	IQCB1	122971299	123036616	15	100000	48.63	2.7E-02	rs6438678	1.5E-02	100000	45.68	3.2E-02	rs6766694	2.0E-02	3.8E-03
1	HIST3H2BE	226712430	226712882	10	100000	37.16	9.6E-03	rs493950	1.8E-03	100000	22.47	7.7E-02	rs3795816	2.9E-03	3.8E-03
1	HIST3H2A	226711687	226712183	10	100000	37.16	9.5E-03	rs493950	1.8E-03	100000	22.47	7.8E-02	rs3795816	2.9E-03	3.9E-03
3	SEC61A1	129253901	129273216	9	1000000	66.41	6.5E-04	rs981446	6.2E-04	1000	11.01	2.9E-01	rs7650365	4.2E-02	3.9E-03
19	GLTSCR1	52803264	52898346	12	100000	28.30	4.5E-02	rs10411441	3.2E-04	100000	36.28	1.9E-02	rs13346368	5.8E-03	3.9E-03
8	MTMR7	17199910	17315207	71	100000	109.29	9.8E-02	rs1003299	2.2E-02	100000	185.59	7.0E-03	rs13271465	9.9E-05	4.0E-03
4	TMPRSS11	68601510	68678182	11	100000	57.59	5.8E-03	rs3860691	1.2E-03	1000	22.24	1.1E-01	rs10030708	5.2E-02	4.0E-03
6	RUNX2	45404031	45626797	40	100000	94.66	1.8E-02	rs2677108	3.7E-04	100000	77.13	4.9E-02	rs1928532	2.4E-03	4.0E-03
11	OR1S1	57738792	57739770	18	100000	51.84	2.4E-02	rs1451319	5.6E-04	100000	45.06	3.8E-02	rs2443443	2.4E-02	4.1E-03
8	TOP1MT	144462902	144488425	12	1000000	66.71	1.0E-03	rs2450749	3.0E-04	1000	15.75	2.5E-01	rs724037	5.7E-02	4.1E-03
16	DEXI	10930248	10943758	20	100000	72.14	3.1E-03	rs12931878	2.1E-03	1000	32.19	1.6E-01	rs12923849	1.9E-02	4.1E-03
16	IQCK	19635278	19776360	15	100000	38.03	4.2E-02	rs4782279	4.7E-03	100000	40.86	2.2E-02	rs4782286	6.3E-03	4.1E-03
3	RUVBL1	129282492	129325332	9	1000000	66.03	6.9E-04	rs981446	6.2E-04	1000	11.00	3.0E-01	rs7650365	4.2E-02	4.1E-03
5	SH3TC2	148341905	148422930	24	100000	81.59	7.1E-03	rs36077	2.4E-04	100000	41.91	9.9E-02	rs1036190	1.1E-02	4.1E-03
6	TRIM10	30227702	30236690	37	100000	92.79	2.2E-02	rs9261535	5.1E-03	100000	83.38	4.4E-02	rs2517598	1.2E-03	4.2E-03
11	MFRP	118716835	118722580	19	100000	48.50	1.3E-02	rs2249466	2.0E-03	100000	35.72	7.0E-02	rs7122785	7.7E-03	4.3E-03
11	RNF26	118710446	118713232	19	100000	48.50	1.3E-02	rs2249466	2.0E-03	100000	35.72	7.0E-02	rs7122785	7.7E-03	4.3E-03
1	C1orf35	226355050	226357645	6	100000	18.58	3.6E-02	rs849749	1.1E-02	100000	20.27	2.8E-02	rs7512209	1.9E-02	4.3E-03
15	CYP19A1	49287545	49418087	55	100000	103.43	6.0E-02	rs2289105	1.5E-03	100000	135.52	1.5E-02	rs767199	6.4E-03	4.3E-03
6	C6orf195	2567970	2580297	38	100000	89.02	1.2E-02	rs1254722	1.5E-03	100000	68.92	7.3E-02	rs1254722	3.1E-03	4.4E-03
1	MRPL55	226361002	226363636	6	100000	18.58	3.6E-02	rs849749	1.1E-02	100000	20.27	2.9E-02	rs7512209	1.9E-02	4.4E-03
1	RORC	150045170	150070972	24	100000	44.62	7.6E-02	rs8480	6.5E-03	100000	64.29	1.2E-02	rs1521177	3.1E-03	4.4E-03
1	CDC42SE1	149290070	149298749	9	100000	32.03	3.5E-03	rs2902810	3.9E-03	1000	14.90	1.6E-01	rs3738480	2.1E-02	4.4E-03
3	ARHGEF3	56736485	57088376	90	100000	176.63	1.7E-02	rs2133884	3.2E-04	100000	143.89	5.8E-02	rs11130558	5.7E-04	4.5E-03
2	CENPO	24869836	24896288	17	100000	75.06	1.8E-03	rs2278485	1.1E-03	1000	22.11	2.1E-01	rs1344840	3.6E-02	4.5E-03
11	C1QTNF5	118714861	118716791	19	100000	48.50	1.3E-02	rs2249466	2.0E-03	100000	35.72	7.1E-02	rs7122785	7.7E-03	4.5E-03
1	C1orf69	226420051	226436581	8	100000	24.16	4.8E-02	rs947087	2.9E-02	100000	26.55	2.1E-02	rs12142165	7.9E-03	4.5E-03
4	GABRG1	45732543	45820839	8	100000	38.53	1.4E-02	rs1391174	7.6E-03	100000	24.07	6.9E-02	rs993677	3.9E-02	4.7E-03
22	KREMEN1	27799105	27872808	28	100000	75.26	1.3E-02	rs727892	1.3E-03	100000	49.57	7.3E-02	rs2179129	2.6E-02	4.7E-03
5	C5orf22	31568129	31590922	20	100000	39.77	8.0E-02	rs10520987	5.5E-03	100000	53.66	1.2E-02	rs10520987	2.7E-03	4.7E-03
1	DDR2	160868851	161016871	32	1000	51.13	1.1E-01	rs7553831	9.4E-03	100000	119.56	7.0E-03	rs10917577	4.4E-04	4.7E-03
6	F13A1	6089309	6265923	90	100000	141.49	4.8E-02	rs986158	1.7E-03	100000	157.05	2.3E-02	rs9502429	1.8E-03	4.9E-03
18	CDH19	62322300	62422196	18	100000	47.35	1.8E-02	rs537578	1.6E-03	100000	37.34	6.0E-02	rs2187025	1.5E-02	4.9E-03
10	DNMBP	101625323	101759666	25	1000000	216.68	2.1E-04	rs7896859	5.1E-06	1000	20.29	4.5E-01	rs2862928	6.1E-03	4.9E-03
3	TR2IT1	127773311	127810088	26	100000	97.90	5.6E-03	rs2363029	1.9E-03	1000	42.82	1.3E-01	rs9815125	3.1E-02	5.0E-03
6	C6orf1	34322134	34324882	2	100000	13.45	5.1E-03	rs1776897	1.8E-03	1000	4.31	1.4E-01	rs1776897	1.4E-01	5.0E-03
2	POLR2D	128320704	128332174	12	1000	22.11	1.1E-01	rs11685164	3.5E-02	100000	44.31	8.0E-03	rs2109315	1.7E-03	5.0E-03
1	TRIM17	226662263	226670977	10	100000	47.68	4.6E-03	rs493950	1.8E-03	1000	18.01	1.5E-01	rs11581974	1.1E-01	5.1E-03
22	NF2	28329544	28424589	27	100000	102.15	3.2E-03	rs11090577	5.8E-04	1000	39.21	1.8E-01	rs140120	1.6E-02	5.1E-03
22	ZNRF3	27609889	27783475	45	100000	130.27	7.6E-03	rs4823002	5.3E-04	1000	70.28	1.1E-01	rs2179129	2.6E-02	5.1E-03
1	LHX9	196148257	196165896	16	1000000	68.53	1.2E-03	rs1499602	2.4E-04	1000	19.08	2.8E-01	rs435062	1.7E-02	5.2E-03
2	OBFC2A	192251502	192259906	11	100000	38.18	9.2E-03	rs4592792	3.3E-03	100000	19.96	1.0E-01	rs4386269	1.9E-03	5.2E-03
20	SOX12	254238	258867	22	1000000	81.49	6.1E-04	rs6048226	9.2E-05	1000	23.65	3.5E-01	rs1997793	6.2E-02	5.2E-03
3	EEFSEC	129355002	129610179	29	1000000	131.72	1.4E-03	rs2687720	8.4E-04	1000	34.80	2.7E-01	rs9855048	2.0E-02	5.2E-03
7	PRKAG2	150884133	151205249	101	100000	149.64	6.8E-02	rs2727552	6.7E-03	100000	171.37	1.7E-02	rs4549696	1.2E-03	5.2E-03
1	RHOU	226937491	226949034	13	100000	37.79	1.7E-02	rs728370	3.8E-03	100000	29.10	6.6E-02	rs2295256	2.2E-02	5.2E-03
13	SLITRK5	87122870	87129871	9	100000	18.71	8.8E-02	rs11618638	1.2E-02	100000	32.84	1.2E-02	rs979969	7.5E-03	5.3E-03
11	OR8G5	123639932	123640973	13	100000	67.72	3.5E-03	rs2466605	3.6E-03	1000	19.82	1.8E-01	rs2466616	2.8E-02	5.4E-03
6	MDGA1	37708261	37773744	65	100000	111.93	5.1E-02	rs1738457	3.7E-04	100000	124.66	2.5E-02	rs4714085	1.6E-03	5.5E-03
12	IGF1	101313774	101398508	22	1000	35.01	1.4E-01	rs1980236	2.2E-02	100000	90.76	5.9E-03	rs2162679	6.9E-04	5.5E-03
1	ELA3B	22176004	22188434	14	1000	20.14	1.9E-01	rs760923	6.6E-03	1000000	48.49	3.3E-03	rs2473277	9.5E-05	5.5E-03
2	LOC16518(	29057667	29128600	43	100000	93.95	2.7E-02	rs6742719	6.9E-03	100000	79.80	4.9E-02	rs11684613	3.8E-03	5.5E-03
10	ZNF239	43371798	43390072	13	100000	31.38	3.8E-02	rs2393938	3.0E-03	100000	34.55	3.5E-02	rs2393938	2.7E-03	5.6E-03
18	ZCCHC2	58341637	58396798	22	100000	75.33	4.7E-03	rs7238925	1.7E-04	1000	33.33	1.6E-01	rs12454191	6.8E-02	5.6E-03

					QIMRHCS+OX				BBJ					QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
12	IPO8	30673188	30740018	11	100000	49.49	1.0E-02	rs12146709	1.6E-03	1000	22.34	1.0E-01	rs12146709	5.0E-02	5.7E-03
2	E2F6	11501951	11523748	14	100000	47.74	6.5E-03	rs13407457	1.1E-05	1000	22.15	1.4E-01	rs4260216	1.2E-03	5.7E-03
6	HMGA1	34312627	34321986	2	100000	13.45	4.9E-03	rs1776897	1.8E-03	1000	4.31	1.6E-01	rs1776897	1.4E-01	5.7E-03
16	IL32	3055313	3059669	16	100000	30.40	9.0E-02	rs12919933	4.1E-02	100000	46.75	1.3E-02	rs10431961	8.7E-03	5.7E-03
4	CNGA1	47632750	47649483	13	1000000	78.46	7.8E-04	rs6832334	2.9E-04	1000	14.70	3.4E-01	rs6832334	1.2E-01	5.7E-03
12	DCN	90063165	90100937	14	100000	35.23	4.5E-02	rs1797297	4.7E-03	100000	44.61	3.1E-02	rs10859110	9.3E-03	5.8E-03
19	SLC6A16	54484703	54520286	12	100000	45.02	1.0E-02	rs354000	8.2E-04	1000	22.76	1.1E-01	rs659555	7.0E-02	5.8E-03
12	BLOC1S1	54396086	54399754	6	100000	28.24	3.3E-03	rs3759097	1.5E-03	1000	9.06	2.0E-01	rs772254	2.8E-02	5.8E-03
3	LOC20081(	127130807	127138572	1	1000	0.94	3.6E-01	rs4340655	3.3E-01	1000000	11.33	7.0E-04	rs4340655	7.6E-04	6.0E-03
22	PIK3IP1	30007578	30018474	10	100000	25.47	5.3E-02	rs9680708	4.8E-03	100000	29.65	2.7E-02	rs1034587	6.4E-03	6.1E-03
2	COBLL1	165249503	165406174	37	100000	117.91	7.8E-03	rs13017482	1.7E-03	1000	59.98	1.3E-01	rs355910	5.7E-03	6.1E-03
15	C15orf48	43510054	43512939	4	1000000	21.35	2.4E-03	rs1153831	1.7E-03	1000	5.26	2.4E-01	rs1153831	1.2E-01	6.2E-03
19	SLC25A41	6377047	6384790	14	100000	28.89	5.1E-02	rs2075755	1.3E-02	100000	34.33	2.8E-02	rs6510896	7.9E-04	6.2E-03
3	RPL32	12851443	12858081	18	1000	26.34	1.9E-01	rs3732680	2.2E-02	100000	57.58	4.1E-03	rs7629133	2.4E-04	6.2E-03
13	STARD13	32575306	32757878	84	1000	121.47	1.4E-01	rs770266	6.4E-03	100000	193.14	6.7E-03	rs2858821	1.1E-02	6.2E-03
14	YY1	99774854	99814557	7	100000	23.21	2.3E-02	rs1059264	8.2E-03	100000	16.44	6.2E-02	rs2757526	6.1E-03	6.3E-03
1	RP11-68I18	149309703	149359022	12	100000	55.70	5.1E-03	rs4970998	3.7E-03	1000	20.80	1.7E-01	rs7554936	2.1E-02	6.3E-03
1	RCSD1	165865953	165942110	51	1000	67.44	1.8E-01	rs10800319	9.2E-03	100000	125.04	4.4E-03	rs7514408	6.4E-04	6.4E-03
12	RDH5	54400487	54404756	7	100000	28.44	6.8E-03	rs3759097	1.5E-03	1000	11.17	1.5E-01	rs772254	2.8E-02	6.4E-03
13	MPHOSPH8	19105879	19144640	9	1000000	67.81	1.4E-03	rs3742147	1.0E-03	1000	10.12	3.0E-01	rs9579660	1.0E-01	6.5E-03
4	NPFFR2	73116384	73232642	8	100000	23.07	4.4E-02	rs13107347	5.1E-03	100000	23.35	3.5E-02	rs12510838	1.2E-02	6.5E-03
11	HEPHL1	93394025	93487022	27	100000	57.17	7.6E-02	rs4073612	3.5E-03	100000	73.12	1.9E-02	rs2511380	5.7E-04	6.6E-03
11	OR8G1	123625632	123640966	16	100000	76.65	3.7E-03	rs2466605	3.6E-03	1000	24.86	2.1E-01	rs2466616	2.8E-02	6.6E-03
1	HIST3H3	226679168	226679649	9	100000	44.58	5.2E-03	rs493950	1.8E-03	1000	14.68	1.7E-01	rs11581974	1.1E-01	6.6E-03
2	ADCY3	24895541	24995559	28	100000	123.34	3.3E-03	rs2278485	1.1E-03	1000	38.07	2.2E-01	rs1344840	3.6E-02	6.7E-03
4	ODZ3	183482130	183961171	132	100000	222.42	2.0E-02	rs17322306	1.6E-03	100000	180.42	7.6E-02	rs12504411	3.5E-03	6.7E-03
8	SOX7	10618687	10625432	22	100000	46.55	6.5E-02	rs718742	5.8E-03	100000	70.27	2.4E-02	rs6989370	9.0E-03	6.8E-03
20	C20orf96	199523	219390	28	1000000	119.04	7.8E-04	rs6048226	9.2E-05	1000	27.54	3.7E-01	rs1997793	6.2E-02	6.8E-03
15	KIAA0101	62444263	62460755	3	100000	16.02	5.4E-03	rs7165405	7.0E-03	1000	4.69	1.7E-01	rs4776494	3.7E-02	6.8E-03
19	SIX5	50959883	50964152	7	100000	27.59	8.3E-03	rs8109951	1.7E-03	1000	12.60	1.4E-01	rs8109951	3.3E-02	6.8E-03
16	ZNF263	3273487	3281460	11	1000	18.25	1.4E-01	rs757108	1.9E-02	100000	34.48	8.4E-03	rs224215	8.3E-04	6.9E-03
11	OR10Q1	57751963	57752923	18	100000	47.78	3.7E-02	rs1451319	5.6E-04	100000	43.88	4.6E-02	rs2443443	2.4E-02	7.1E-03
9	FBP2	96360823	96395896	23	100000	51.47	6.8E-02	rs10119223	2.3E-02	100000	67.76	2.4E-02	rs2993961	2.5E-03	7.1E-03
18	LAMA3	19523559	19789027	32	100000	129.28	3.6E-03	rs1154244	2.5E-04	1000	41.76	2.2E-01	rs2337191	7.3E-02	7.1E-03
2	TEKT4	94900958	94906295	1	100000	6.48	1.1E-02	rs11164111	1.1E-02	1000	2.60	1.2E-01	rs11164111	1.1E-01	7.1E-03
6	AARS2	44374440	44389041	25	1000	40.21	1.3E-01	rs4714784	1.4E-02	100000	74.58	1.0E-02	rs4413612	5.1E-04	7.2E-03
10	SIRT1	69314432	69348149	11	100000	52.11	8.4E-03	rs4379726	3.6E-03	1000	18.70	1.4E-01	rs10997881	5.6E-02	7.2E-03
6	ZDHHC14	157722544	158014965	40	100000	119.37	8.4E-03	rs628389	3.2E-04	1000	57.29	1.4E-01	rs16900375	6.9E-05	7.2E-03
4	NOLA1	110956114	110965342	11	100000	27.02	6.9E-02	rs4698795	2.7E-02	100000	33.80	2.4E-02	rs10029485	4.3E-03	7.2E-03
1	TRIM11	226647999	226661140	13	100000	59.11	4.6E-03	rs3795814	1.5E-03	1000	20.14	2.0E-01	rs11581974	1.1E-01	7.3E-03
6	GSTA2	52723139	52736283	17	100000	38.96	3.3E-02	rs2224198	5.9E-03	100000	34.00	5.3E-02	rs9463826	1.5E-02	7.3E-03
17	SPECC1	19930926	20158659	15	100000	63.28	1.4E-02	rs2107565	3.0E-03	1000	31.32	1.1E-01	rs4925088	1.5E-02	7.4E-03
9	CHCHD9	81196013	81196770	21	100000	46.88	4.3E-02	rs12551528	8.9E-03	100000	46.79	4.2E-02	rs2378377	1.5E-03	7.4E-03
5	SLC25A46	110102652	110126385	10	100000	30.79	3.7E-02	rs193436	2.4E-02	100000	25.21	4.8E-02	rs3843243	1.9E-02	7.4E-03
4	STK32B	5104427	5553626	140	1000	124.74	6.0E-01	rs16836654	6.0E-03	1000000	389.07	1.1E-04	rs878544	1.8E-04	7.5E-03
6	FYN	112089177	112301320	58	100000	116.73	4.3E-02	rs1726131	2.6E-03	100000	124.24	4.3E-02	rs9387033	1.8E-03	7.5E-03
19	SLC25A23	6391074	6410781	15	100000	29.91	5.8E-02	rs2075755	1.3E-02	100000	34.96	3.1E-02	rs6510896	7.9E-04	7.6E-03
18	TTC39C	19826734	19966989	43	100000	97.11	3.0E-02	rs1154244	2.5E-04	100000	78.32	6.1E-02	rs1565082	6.5E-03	7.7E-03
4	SLC25A31	128871023	128914897	8	1000	12.24	1.9E-01	rs6858855	5.4E-02	100000	49.59	5.3E-03	rs1380154	3.9E-03	7.7E-03
15	PLDN	43666708	43689201	19	100000	63.53	6.6E-03	rs8042811	5.7E-04	1000	29.74	1.7E-01	rs3825946	5.1E-02	7.7E-03
9	C9orf79	89687591	89693634	13	100000	49.53	9.2E-03	rs10868668	8.1E-04	1000	21.47	1.4E-01	rs10780878	2.6E-02	7.7E-03
16	ZSCAN10	3078895	3082862	14	100000	27.91	8.3E-02	rs12919933	4.1E-02	100000	37.35	2.1E-02	rs10431961	8.7E-03	7.7E-03
6	ZBTB2	151726942	151754370	24	100000	73.09	1.2E-02	rs3823310	2.5E-03	1000	39.86	1.2E-01	rs6557131	1.6E-02	7.8E-03
12	ARL6IP4	122030832	122033413	2	100000	13.74	6.7E-03	rs940904	5.0E-03	1000	3.34	1.7E-01	rs937564	1.5E-01	7.8E-03
7	STEAP2	89678935	89704928	18	100000	51.65	4.4E-02	rs10226014	8.3E-03	100000	48.77	4.4E-02	rs6465236	3.4E-03	7.9E-03
16	DHX38	70685115	70704312	10	100000	25.12	4.6E-02	rs10492814	1.9E-02	100000	28.13	4.3E-02	rs10492814	4.7E-03	8.1E-03
19	MYO1F	8491996	8548307	17	100000	28.00	1.1E-01	rs12460069	6.2E-03	100000	43.70	1.6E-02	rs2287863	4.6E-03	8.2E-03
20	C20orf151	60418687	60435984	21	1000	34.09	1.3E-01	rs6061231	1.1E-02	100000	63.06	1.2E-02	rs8125731	7.8E-04	8.3E-03
1	DPH2	44208239	44211630	14	1000	11.04	5.1E-01	rs6429644	9.9E-02	1000000	90.85	3.3E-04	rs2486013	3.8E-04	8.3E-03
12	OGFOD2	122025306	122030541	2	100000	13.74	6.5E-03	rs940904	5.0E-03	1000	3.34	1.8E-01	rs937564	1.5E-01	8.3E-03
2	SGPP2	222997565	223131861	30	1000	37.87	2.3E-01	rs4416206	3.0E-02	100000	82.49	4.0E-03	rs4673017	7.3E-04	8.3E-03
10	HIF1AN	102285630	102303671	12	100000	38.10	5.1E-02	rs2495726	2.1E-02	100000	40.02	4.0E-02	rs2495726	1.2E-02	8.4E-03
9	FBP1	96405237	96442352	32	100000	67.77	5.9E-02	rs10993282	1.7E-02	100000	76.50	3.5E-02	rs2993961	2.5E-03	8.5E-03
21	PCNT	46568463	46690110	25	100000	50.09	8.8E-02	rs914249	1.8E-03	100000	79.73	2.2E-02	rs2839262	5.1E-03	8.5E-03
8	PINX1	10660293	10734709	34	100000	77.21	5.5E-02	rs718742	5.8E-03	100000	94.66	3.8E-02	rs6989370	9.0E-03	8.5E-03
18	PQLC1	75763474	75812605	16	100000	36.66	5.2E-02	rs2115998	2.3E-03	100000	39.18	4.1E-02	rs3902996	1.8E-03	8.6E-03
7	TMEM168	112193022	112217714	8	1000	5.48	4.5E-01	rs821785	2.3E-01	1000000	87.33	5.9E-04	rs1227158	4.5E-04	8.7E-03
11	OR8G2	123600607	123601522	19	100000	81.56	5.6E-03	rs2466605	3.6E-03	1000	27.49	2.0E-01	rs2466616	2.8E-02	8.7E-03
6	TRAF3IP2	111986835	112034014	27	100000	73.37	1.8E-02	rs1794819	8.4E-03	1000	45.55	1.1E-01	rs2075966	7.4E-03	8.7E-03
1	UBL4B	110456584	110458092	23	100000	48.90	5.6E-02	rs11576956	5.6E-03	100000	55.48	3.8E-02	rs3754443	1.6E-03	8.8E-03
11	OR8D1	123684945	123685872	10	100000	32.15	2.5E-02	rs2512167	3.6E-03	100000	21.51	8.1E-02	rs539802	3.4E-02	8.8E-03
3	PARP15	123779138	123838226	42	100000	77.42	5.4E-02	rs867782	2.1E-03	100000	80.37	4.1E-02	rs2036342	3.8E-03	8.9E-03
17	AXIN2	60955144	60988227	19	100000	63.56	3.4E-03	rs1468329	7.3E-05	1000	22.64	2.6E-01	rs12452196	4.3E-02	8.9E-03
6	UBE2J1	90093062	90119338	24	100000	46.52	6.7E-02	rs1065657	1.4E-02	100000	56.96	3.2E-02	rs1998576	1.1E-02	8.9E-03
1	B4GALT2	44217452	44229427	18	1000	13.41	5.5E-01	rs6429644	9.9E-02	1000000	101.05	2.6E-04	rs2486013	3.8E-04	8.9E-03
1	MPZL1	165957831	166026684	39	1000	50.78	1.9E-01	rs13374598	1.0E-02	100000	105.69	6.8E-03	rs7514408	6.4E-04	9.0E-03
1	SPRR2E	151332234	151333625	8	1000	11.57	2.1E-01	rs428913	1.1E-01	100000	33.76	5.7E-03	rs6693927	1.2E-03	9.0E-03
3	SOX14	138966268	138967086	17	1000	24.33	1.8E-01	rs1442583	1.6E-02	100000	49.59	7.7E-03	rs1350286	4.9E-04	9.0E-03
19	MEGF8	47521600	47574761	7	1000	8.44	2.9E-01	rs1206032	1.3E-01	100000	43.51	2.8E-03	rs1206028	4.1E-03	9.0E-03
16	CIITA	10878555	10926341	26	1000000	80.17	2.9E-03	rs12931878	2.1E-03	1000	30.59	2.8E-01	rs12923849	1.9E-02	9.1E-03

					QIMRHCS+OX				BBJ				QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
1	ATP6V0B	44213188	44216559	15	1000	11.31	5.0E-01	rs6429644	9.9E-02	1000000	92.01	4.2E-04	rs2486013	3.8E-04	9.1E-03
19	TMEM145	47509316	47521054	5	1000	5.48	3.5E-01	rs1206032	1.3E-01	100000	32.51	1.6E-03	rs1206028	4.1E-03	9.1E-03
6	BAK1	33648300	33656048	25	100000	61.69	2.0E-02	rs5745568	6.5E-04	100000	44.36	1.0E-01	rs3748079	1.9E-02	9.2E-03
11	THRSP	77452554	77457045	18	1000	25.36	2.2E-01	rs624350	1.7E-02	100000	67.29	5.4E-03	rs10899440	8.3E-05	9.3E-03
2	FAM82A1	38031109	38147784	37	100000	154.08	1.2E-03	rs2373327	2.1E-05	1000	38.33	3.9E-01	rs336037	1.9E-02	9.3E-03
3	CAND2	12813170	12851301	22	1000	30.37	2.0E-01	rs3732680	2.2E-02	100000	61.25	6.8E-03	rs7629133	2.4E-04	9.3E-03
3	COL6A6	131761867	131878578	17	100000	37.01	5.9E-02	rs925180	3.9E-02	100000	36.87	3.9E-02	rs7614116	9.3E-03	9.3E-03
1	GRIK3	37033714	37272431	36	100000	77.51	1.8E-02	rs539335	2.0E-03	1000	54.92	1.1E-01	rs3767065	9.9E-03	9.4E-03
11	NDUFC2	77457043	77468913	17	1000	24.88	2.1E-01	rs624350	1.7E-02	100000	65.66	5.7E-03	rs10899440	8.3E-05	9.4E-03
12	KRT84	51057862	51065684	33	100000	72.97	5.7E-02	rs928993	7.4E-03	100000	84.78	4.1E-02	rs12311316	3.0E-03	9.4E-03
14	KCNK10	87720998	87863004	52	100000	102.54	2.3E-02	rs422107	3.5E-03	100000	80.90	9.3E-02	rs8011787	4.9E-03	9.5E-03
22	PATZ1	30051789	30072249	10	1000	19.24	1.1E-01	rs9680708	4.8E-03	100000	32.40	1.8E-02	rs1034587	6.4E-03	9.6E-03
6	PLN	118976134	118988280	12	100000	37.79	2.8E-02	rs9481825	4.4E-03	100000	27.83	8.2E-02	rs12190763	1.5E-02	9.6E-03
18	CABYR	19972952	19995562	23	100000	52.20	5.7E-02	rs8083625	8.2E-03	100000	56.10	4.2E-02	rs1565082	6.5E-03	9.7E-03
11	GTF2H1	18300718	18345153	18	100000	34.13	7.8E-02	rs10741739	1.4E-02	100000	45.20	3.0E-02	rs7112492	4.2E-03	9.7E-03
6	TRAM2	52470158	52549821	43	1000	66.07	1.3E-01	rs6901147	6.3E-03	100000	103.69	1.6E-02	rs1266788	2.1E-04	9.7E-03
1	TUFT1	149779404	149822683	15	100000	47.58	8.6E-03	rs12122920	2.8E-04	1000	21.58	1.8E-01	rs1196357	7.9E-02	9.8E-03
2	IRS1	227304276	227371750	28	100000	47.93	7.5E-02	rs10933155	1.2E-02	100000	58.98	3.2E-02	rs11683087	1.5E-03	9.9E-03
22	C22orf30	30402241	30438731	14	100000	39.10	4.4E-02	rs5998074	4.6E-03	100000	33.64	5.6E-02	rs5998114	1.3E-02	9.9E-03
19	RFX2	5944174	6061664	24	100000	71.44	9.1E-03	rs671892	2.9E-03	1000	34.91	1.8E-01	rs11880033	1.0E-02	9.9E-03
3	PIK3R4	131880467	131948386	15	100000	38.87	3.2E-02	rs925180	3.9E-02	100000	27.91	7.4E-02	rs7614116	9.3E-03	9.9E-03
1	PGLYRP3	151536961	151549818	22	1000	29.77	2.3E-01	rs2916229	3.2E-02	100000	75.68	5.5E-03	rs821426	7.0E-05	1.0E-02
6	C6orf97	151856919	151984021	52	100000	118.44	2.2E-02	rs6933660	1.8E-04	100000	85.93	1.0E-01	rs6557142	3.5E-03	1.0E-02
19	SEPW1	52973653	52979755	14	1000000	69.60	7.6E-04	rs1862485	5.2E-05	1000	12.76	4.6E-01	rs12974444	5.1E-02	1.0E-02
13	PSPC1	19175008	19255083	12	100000	63.41	4.2E-03	rs3742147	1.0E-03	1000	15.27	2.6E-01	rs9579660	1.0E-01	1.0E-02
19	CCDC9	52451631	52467050	4	100000	11.75	4.2E-02	rs4804036	3.8E-02	100000	10.55	6.1E-02	rs4804045	3.9E-03	1.0E-02
1	KIFAP3	168157093	168310503	16	100000	51.83	1.4E-02	rs12131740	1.4E-03	1000	25.39	1.4E-01	rs6670818	6.1E-02	1.0E-02
17	MEOX1	39073283	39094788	27	100000	62.19	3.5E-02	rs575873	1.8E-03	100000	54.75	7.1E-02	rs536652	8.0E-03	1.0E-02
2	FOXN2	48395298	48459938	9	100000	45.57	7.4E-03	rs4274640	5.6E-04	1000	13.47	2.0E-01	rs4316980	9.0E-02	1.0E-02
21	LSS	46432787	46473119	23	100000	76.34	1.4E-02	rs2839182	2.6E-04	1000	36.28	1.4E-01	rs2839179	7.9E-03	1.0E-02
21	C21orf57	46530694	46542093	12	100000	37.65	2.2E-02	rs2839182	2.6E-04	1000	25.57	1.0E-01	rs2839179	7.9E-03	1.0E-02
2	SFRS7	38824244	38832005	10	100000	28.26	5.2E-02	rs1997377	2.9E-02	100000	29.03	4.9E-02	rs3097714	1.2E-03	1.0E-02
1	SLC44A5	75440403	75849387	54	1000	61.65	3.3E-01	rs12401888	1.6E-02	1000000	213.67	2.3E-03	rs6593575	8.6E-04	1.0E-02
2	NOL10	10628344	10747563	44	100000	118.90	1.5E-02	rs4668687	1.4E-03	1000	72.17	1.3E-01	rs2463460	3.5E-03	1.0E-02
9	TMEM38B	107496645	107577265	16	1000000	89.89	4.4E-04	rs3817141	6.3E-05	1000	12.19	5.2E-01	rs3126472	1.4E-01	1.0E-02
4	NPAL1	47713547	47733837	16	100000	56.80	5.7E-03	rs1348023	5.3E-04	1000	22.52	2.3E-01	rs17470528	1.1E-02	1.0E-02
22	LDOC1L	43267113	43272669	27	100000	58.89	5.6E-02	rs133753	2.0E-02	100000	57.65	4.7E-02	rs133778	9.8E-03	1.1E-02
1	ELAVL4	50347224	50439643	13	100000	58.83	3.5E-03	rs6588376	4.0E-04	1000	15.25	2.9E-01	rs11583200	1.4E-02	1.1E-02
4	MFSD8	129061026	129106554	3	1000	2.49	4.5E-01	rs748630	2.5E-01	1000000	26.65	9.0E-04	rs748630	1.8E-03	1.1E-02
17	MRPL38	71406318	71413069	9	100000	20.34	9.0E-02	rs2290771	4.2E-02	100000	30.80	2.8E-02	rs2290771	9.8E-03	1.1E-02
19	KHSRP	6364118	6375822	12	100000	26.95	4.7E-02	rs2075755	1.3E-02	100000	27.45	5.8E-02	rs6510896	7.9E-04	1.1E-02
6	EPHA7	94007859	94185993	50	1000	68.02	1.8E-01	rs13200697	8.0E-03	100000	121.42	9.7E-03	rs631175	1.4E-03	1.1E-02
1	C1orf53	196138399	196143120	12	1000000	67.81	6.5E-04	rs1499602	2.4E-04	1000	9.50	4.9E-01	rs6699938	3.8E-02	1.1E-02
17	TRIM65	71396635	71404649	9	100000	20.34	9.0E-02	rs2290771	4.2E-02	100000	30.80	2.9E-02	rs2290771	9.8E-03	1.1E-02
1	APOBEC4	181882033	181889071	9	100000	25.34	4.7E-02	rs10911412	1.2E-02	100000	24.92	5.9E-02	rs1926839	2.3E-03	1.1E-02
12	TSFM	56462802	56477634	8	100000	26.98	2.5E-02	rs2277326	1.7E-02	1000	15.58	1.0E-01	rs10783853	3.9E-02	1.1E-02
4	CDKN2AIP	184602782	184606043	18	100000	65.74	3.3E-03	rs17074740	1.1E-03	1000	20.52	3.0E-01	rs6552667	1.9E-02	1.1E-02
9	MTAP	21792634	21855969	24	1000	34.51	1.8E-01	rs10757257	2.9E-02	100000	91.17	9.8E-03	rs2282245	4.0E-03	1.1E-02
1	GNAT2	109947411	109957228	11	100000	22.77	7.8E-02	rs7537507	4.3E-03	100000	31.34	3.5E-02	rs865774	6.1E-03	1.1E-02
20	C20orf94	10363950	10552027	44	100000	108.35	1.3E-02	rs6133922	9.8E-05	1000	64.62	1.6E-01	rs6108653	6.7E-03	1.1E-02
1	SPRR2B	151309340	151310708	8	1000	10.06	2.5E-01	rs582345	1.4E-01	100000	35.28	5.1E-03	rs6693927	1.2E-03	1.1E-02
1	PAPPA2	174698929	175078593	56	1000	51.82	4.9E-01	rs240104	1.4E-02	1000000	213.40	6.9E-04	rs726252	1.7E-03	1.1E-02
6	TRIM40	30212488	30224491	47	100000	96.83	5.0E-02	rs9261535	5.1E-03	100000	96.77	5.7E-02	rs2517598	1.2E-03	1.1E-02
2	HS1BP3	20681044	20714345	39	1000	47.03	2.7E-01	rs11694519	1.9E-03	100000	104.81	4.7E-03	rs9085	5.6E-04	1.1E-02
20	DEFB132	186376	189735	28	1000000	116.30	1.5E-03	rs6048226	9.2E-05	1000	27.68	4.0E-01	rs1997793	6.2E-02	1.1E-02
2	FBXO41	73335307	73351551	11	1000	18.59	1.3E-01	rs6711843	1.2E-02	100000	33.75	1.9E-02	rs7609407	3.5E-04	1.1E-02
1	HP1BP3	20941757	20985768	15	1000	17.02	3.5E-01	rs12036633	1.3E-02	100000	60.25	2.4E-03	rs2320590	3.5E-04	1.2E-02
19	CHST8	38804700	38956254	49	1000	61.06	2.0E-01	rs369298	8.1E-03	100000	99.12	9.3E-03	rs3810361	4.5E-04	1.2E-02
5	ZNF346	176382302	176426351	7	1000	11.55	1.7E-01	rs6556301	6.6E-03	100000	23.58	1.3E-02	rs402511	5.9E-03	1.2E-02
19	MBD3L1	8814331	8814995	17	100000	65.35	4.8E-03	rs3752140	3.7E-03	1000	20.76	2.7E-01	rs2967764	2.7E-02	1.2E-02
17	TRIM47	71381839	71386251	10	100000	20.32	9.6E-02	rs2290771	4.2E-02	100000	30.34	2.9E-02	rs2290771	9.8E-03	1.2E-02
6	FLJ43752	33661860	33669093	25	100000	62.18	2.1E-02	rs5745568	6.5E-04	1000	44.30	1.2E-01	rs3748079	1.9E-02	1.2E-02
1	ADAMTSL4	148788521	148800036	14	100000	35.39	2.5E-02	rs11204666	4.0E-03	1000	23.80	1.1E-01	rs4971041	9.4E-03	1.2E-02
12	IQSEC3	56802	150755	29	100000	62.47	2.7E-02	rs9668025	4.5E-03	1000	48.05	1.0E-01	rs495360	1.2E-02	1.2E-02
19	C19orf52	10900423	10901916	6	100000	21.25	1.9E-02	rs2163800	1.0E-02	1000	11.18	1.3E-01	rs12459603	1.7E-02	1.2E-02
2	HOXD1	176761552	176763881	12	1000	20.32	1.4E-01	rs6714226	6.8E-03	100000	34.89	1.7E-02	rs11885329	5.7E-03	1.2E-02
8	SH2D4A	19215486	19297596	38	100000	79.52	2.9E-02	rs6586830	5.1E-03	100000	61.09	9.6E-02	rs13265589	8.2E-03	1.2E-02
1	RRP15	216525251	216577948	22	100000	38.18	7.0E-02	rs10863388	7.3E-04	100000	43.33	4.3E-02	rs12563602	2.5E-03	1.2E-02
3	TMEM111	9980635	10003522	8	1000	4.14	5.2E-01	rs279545	1.6E-01	1000000	73.73	6.3E-04	rs279545	9.1E-05	1.2E-02
2	TRPM8	234490781	234592905	92	100000	139.12	9.4E-02	rs11563204	9.3E-03	100000	160.97	3.1E-02	rs1003756	3.7E-03	1.2E-02
19	MGC33407	8668750	8670172	14	100000	29.97	3.9E-02	rs7253377	4.7E-03	100000	26.16	7.8E-02	rs2967674	9.7E-03	1.2E-02
1	SPRR2A	151295219	151296612	9	1000	15.14	1.6E-01	rs2339491	3.5E-02	100000	35.64	1.4E-02	rs6693927	1.2E-03	1.2E-02
17	SMARCE1	36037505	36057629	10	100000	33.28	2.7E-02	rs7223332	1.2E-02	1000	21.01	1.1E-01	rs608517	4.6E-03	1.2E-02
8	TRIB1	126511744	126519826	31	100000	101.48	2.3E-03	rs4559257	6.8E-04	1000	33.29	3.7E-01	rs4870939	2.3E-03	1.2E-02
1	SLC6A9	44234741	44269721	23	1000	13.75	7.6E-01	rs6429644	9.9E-02	1000000	120.86	5.0E-05	rs2486013	3.8E-04	1.2E-02
16	ZNF205	3102563	3110519	13	100000	32.49	5.4E-02	rs2741900	1.6E-02	100000	30.27	5.9E-02	rs909410	2.8E-02	1.2E-02
19	GTF2F1	6330579	6344291	11	100000	25.78	4.9E-02	rs2075755	1.3E-02	100000	26.37	6.5E-02	rs6510896	7.9E-04	1.2E-02
4	INTU	128773569	128857380	12	1000	23.29	1.4E-01	rs6858855	5.4E-02	100000	46.58	1.9E-02	rs769293	4.9E-03	1.2E-02
16	SOX8	971808	976980	21	1000	32.39	1.6E-01	rs6600235	2.3E-02	100000	68.63	1.5E-02	rs3751667	1.1E-03	1.3E-02
15	GOLGA8B	32604591	32613203	1	100000	5.57	1.8E-02	rs2879515	1.8E-02	1000	2.07	1.4E-01	rs2879515	1.5E-01	1.3E-02

					QIMRHCS+OX				BBJ				QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
1	AMPD2	109963981	109976200	11	100000	23.21	7.0E-02	rs7537507	4.3E-03	100000	29.14	4.6E-02	rs865774	6.1E-03	1.3E-02
1	CSF1	110254755	110273878	28	100000	65.11	1.6E-02	rs390923	1.8E-03	1000	39.43	1.5E-01	rs1999713	2.7E-02	1.3E-02
16	THOC6	3014093	3017752	12	1000	19.65	1.2E-01	rs12917910	4.1E-02	100000	33.46	2.3E-02	rs10431961	8.7E-03	1.3E-02
20	OSBPL2	60246974	60304664	20	100000	66.71	9.0E-03	rs6142990	1.9E-03	1000	28.39	2.1E-01	rs944895	8.7E-03	1.3E-02
1	RABGAP1L	172395256	173193950	40	100000	103.45	5.5E-02	rs170768	2.7E-02	100000	98.70	6.0E-02	rs1793316	1.3E-02	1.3E-02
1	UAP1	160797919	160836257	18	1000	23.20	2.4E-01	rs6684509	6.0E-02	100000	64.81	7.2E-03	rs10917577	4.4E-04	1.3E-02
6	ENPP5	46235720	46246676	22	100000	68.03	1.5E-02	rs9472709	1.4E-02	1000	34.49	1.6E-01	rs2235882	9.3E-03	1.3E-02
19	TEAD2	54535666	54557526	10	100000	42.56	1.2E-02	rs11671438	5.3E-04	1000	16.06	1.9E-01	rs659555	7.0E-02	1.3E-02
11	RAB1B	65792631	65801539	9	100000	21.57	4.8E-02	rs523583	1.9E-02	100000	20.19	6.8E-02	rs556595	1.6E-02	1.3E-02
16	RSL1D1	11835555	11852943	6	100000	11.78	8.9E-02	rs13339523	2.2E-02	100000	15.09	3.6E-02	rs13339523	1.2E-02	1.3E-02
13	ZMYM5	19309592	19335773	14	100000	67.16	7.4E-03	rs3783036	4.0E-03	1000	22.29	2.4E-01	rs9578226	1.1E-01	1.3E-02
11	CNIH2	65802271	65808259	8	100000	18.54	6.1E-02	rs523583	1.9E-02	100000	19.12	5.5E-02	rs556595	1.6E-02	1.3E-02
7	NPY	24290333	24298002	33	1000	59.47	1.0E-01	rs16083	3.8E-03	100000	76.98	3.1E-02	rs16480	2.6E-03	1.3E-02
11	YIF1A	65808626	65813214	7	100000	15.76	6.7E-02	rs523583	1.9E-02	100000	17.62	4.9E-02	rs556595	1.6E-02	1.3E-02
1	SPRR2D	151278824	151280218	9	1000	18.57	1.3E-01	rs2339491	3.5E-02	100000	34.41	2.1E-02	rs6693927	1.2E-03	1.3E-02
14	SLC25A29	99827205	99842613	6	100000	15.69	4.4E-02	rs1059264	8.2E-03	100000	12.95	7.4E-02	rs8021068	4.2E-02	1.3E-02
19	PPP5C	51542133	51585945	24	100000	59.32	1.8E-02	rs11880808	2.9E-03	1000	36.06	1.5E-01	rs2072491	2.4E-02	1.3E-02
1	PGLYRP4	151569220	151587646	19	1000	24.59	2.5E-01	rs2916229	3.2E-02	100000	66.56	7.0E-03	rs821426	7.0E-05	1.3E-02
12	NECAP1	8126150	8141634	17	100000	57.92	5.8E-03	rs7842	3.1E-03	1000	20.98	2.7E-01	rs2889630	1.8E-02	1.3E-02
16	HP	70646008	70652456	9	100000	24.38	4.6E-02	rs10492814	1.9E-02	100000	22.75	7.2E-02	rs10492814	4.7E-03	1.3E-02
7	STEAP1	89621624	89632077	13	100000	30.35	8.1E-02	rs11563564	2.2E-02	100000	40.20	4.1E-02	rs6465236	3.4E-03	1.3E-02
11	KLC2	65781823	65791907	9	100000	21.57	5.0E-02	rs523583	1.9E-02	100000	20.19	6.8E-02	rs556595	1.6E-02	1.3E-02
21	MCM3AP	46479475	46529664	20	100000	78.95	1.0E-02	rs2839182	2.6E-04	1000	29.64	2.1E-01	rs2839179	7.9E-03	1.3E-02
16	IRF8	84490274	84513712	46	100000	110.26	1.7E-02	rs305082	1.4E-03	1000	65.27	1.5E-01	rs880365	2.0E-03	1.3E-02
1	OBSCN	226462483	226633198	28	100000	93.91	1.0E-02	rs3795814	1.5E-03	1000	40.50	2.1E-01	rs12142165	7.9E-03	1.3E-02
18	ADNP2	75967902	75999219	17	100000	50.66	1.8E-02	rs7233553	7.6E-04	1000	28.25	1.5E-01	rs9967045	5.5E-02	1.3E-02
20	MKKS	10333832	10362866	22	1000000	110.33	2.0E-04	rs6133922	9.8E-05	1000	14.72	6.6E-01	rs16991555	8.6E-02	1.3E-02
12	CD63	54405496	54409177	8	100000	28.44	1.1E-02	rs3759097	1.5E-03	1000	12.07	2.0E-01	rs772254	2.8E-02	1.3E-02
18	ST8SIA5	42513078	42591037	48	1000	47.02	4.6E-01	rs435202	3.1E-03	1000000	145.41	1.3E-03	rs619376	2.4E-04	1.3E-02
5	SEPP1	42835738	42847781	9	1000	17.83	1.3E-01	rs230819	4.0E-02	100000	33.38	2.4E-02	rs1035516	2.5E-02	1.3E-02
3	FGF12	193342421	193928066	85	1000	112.91	1.4E-01	rs4687332	4.4E-03	100000	141.25	2.1E-02	rs2692699	2.3E-04	1.4E-02
19	RSHL1	50990807	51010417	10	100000	34.93	1.4E-02	rs8109951	1.7E-03	1000	17.04	1.8E-01	rs8109951	3.3E-02	1.4E-02
20	L3MBTL	41576466	41603949	21	1000	25.22	2.7E-01	rs6030939	4.2E-02	100000	65.69	6.0E-03	rs3205	6.7E-04	1.4E-02
2	AGBL5	27127994	27146994	5	100000	15.13	5.8E-02	rs2011616	2.4E-02	100000	14.92	6.1E-02	rs2011616	3.0E-02	1.4E-02
3	SENP2	186786724	186831579	6	100000	16.87	4.8E-02	rs6807927	8.5E-03	100000	14.79	7.3E-02	rs9864104	3.4E-02	1.4E-02
19	SYMPK	51010539	51058388	17	100000	50.98	1.5E-02	rs8109951	1.7E-03	1000	24.82	1.7E-01	rs8109951	3.3E-02	1.4E-02
1	SPRR1B	151270302	151272000	10	100000	23.35	1.0E-01	rs1611760	2.9E-02	100000	34.59	3.2E-02	rs6693927	1.2E-03	1.4E-02
12	CLEC4A	8167494	8182470	14	100000	35.94	3.7E-02	rs2889630	6.5E-03	100000	26.15	9.2E-02	rs2889630	1.8E-02	1.4E-02
12	SUDS3	117298740	117340223	20	100000	36.88	8.8E-02	rs12316703	3.6E-03	100000	46.27	3.9E-02	rs1106349	1.6E-02	1.4E-02
19	PAFAH1B3	47493024	47498563	2	1000	2.00	3.7E-01	rs3826706	1.6E-01	1000000	12.95	2.7E-03	rs1206028	4.1E-03	1.4E-02
19	CD37	54530488	54535673	7	100000	29.84	1.2E-02	rs183049	1.0E-02	1000	10.59	2.0E-01	rs659555	7.0E-02	1.4E-02
20	LAMA5	60317515	60375763	14	100000	42.85	1.9E-02	rs6061231	1.1E-02	1000	22.33	1.5E-01	rs944895	8.7E-03	1.4E-02
22	LIMK2	29938249	30006066	17	1000	35.32	1.1E-01	rs9680708	4.8E-03	100000	48.93	3.2E-02	rs1034587	6.4E-03	1.4E-02
12	CTDSP2	56499976	56527014	6	100000	20.91	3.1E-02	rs2277326	1.7E-02	1000	12.38	1.1E-01	rs10783853	3.9E-02	1.4E-02
1	SRP9	224032153	224044787	24	1000	35.08	1.7E-01	rs3753658	7.8E-03	100000	58.63	1.6E-02	rs17571004	5.2E-04	1.4E-02
6	GABRR2	90023957	90081686	40	100000	86.83	2.9E-02	rs9353653	6.4E-03	100000	64.22	1.1E-01	rs1998576	1.1E-02	1.4E-02
3	EAF2	123036723	123088063	14	100000	34.67	5.8E-02	rs6438678	1.5E-02	100000	35.02	6.4E-02	rs6795182	2.5E-02	1.4E-02
12	CDKN1B	12761575	12766570	24	100000	67.23	1.0E-02	rs3759217	3.1E-04	1000	32.58	2.2E-01	rs716990	4.0E-02	1.4E-02
1	SH2D5	20918811	20931720	18	1000	23.43	2.4E-01	rs12036633	1.3E-02	100000	51.59	8.7E-03	rs12121807	5.3E-04	1.4E-02
2	EHD3	31310706	31344764	48	100000	108.93	1.6E-02	rs13386745	9.0E-05	1000	69.75	1.7E-01	rs4952053	3.4E-04	1.5E-02
21	TRPM2	44597911	44687392	22	100000	55.81	1.8E-02	rs1785469	1.4E-03	1000	32.52	1.6E-01	rs2838568	1.1E-02	1.5E-02
1	NMNAT2	181484001	181654360	38	100000	74.01	7.8E-02	rs2276879	1.5E-02	100000	73.84	4.8E-02	rs1330224	3.6E-03	1.5E-02
16	GPRC5B	19777793	19803652	8	1000	10.46	2.4E-01	rs4782286	9.9E-02	100000	29.99	8.7E-03	rs4782286	6.3E-03	1.5E-02
7	RSPH10B2-	5932302	5976840	4	1000	6.34	1.8E-01	rs2286680	1.2E-01	100000	15.19	1.5E-02	rs12534423	7.6E-03	1.5E-02
2	GEMIN6	38858830	38862610	8	1000	17.63	1.1E-01	rs3097714	6.6E-02	100000	29.37	3.0E-02	rs3097714	1.2E-03	1.5E-02
1	NCF2	181791319	181826669	14	100000	26.03	9.5E-02	rs2231241	1.9E-02	100000	37.49	3.8E-02	rs2702180	1.1E-02	1.5E-02
19	RAB11B	8361204	8375317	9	100000	21.37	4.4E-02	rs2303180	1.7E-02	100000	18.37	8.3E-02	rs2967614	3.2E-02	1.5E-02
4	KCTD8	43871029	44145581	45	1000000	186.30	1.7E-04	rs7689563	5.9E-05	1000	30.89	6.9E-01	rs13116771	3.3E-02	1.5E-02
4	SHROOM3	77575276	77923429	80	1000	88.24	3.2E-01	rs17002240	1.2E-02	100000	198.79	4.6E-03	rs12640170	2.3E-03	1.5E-02
19	CLPP	6312462	6319915	14	100000	28.88	5.7E-02	rs1982082	8.9E-03	100000	30.16	6.6E-02	rs6510896	7.9E-04	1.5E-02
19	ZNF383	42409205	42426414	8	100000	19.85	6.0E-02	rs1234261	4.2E-02	100000	19.89	6.3E-02	rs1234261	3.4E-02	1.5E-02
22	CECR6	15977189	15982143	24	1000	37.09	1.2E-01	rs738033	1.4E-02	100000	49.86	3.0E-02	rs5748883	3.5E-03	1.5E-02
6	EGFL11	66101526	66346418	46	100000	102.03	3.0E-02	rs998829	1.3E-02	1000	72.87	1.2E-01	rs1502991	1.7E-02	1.5E-02
1	ARPC5	181861954	181871608	9	100000	24.01	3.9E-02	rs10911390	1.9E-02	100000	18.45	9.5E-02	rs3754515	3.2E-02	1.5E-02
13	TPTE2	18895018	19008903	9	100000	55.35	5.1E-03	rs9508509	1.8E-03	1000	9.19	3.1E-01	rs1889970	9.9E-02	1.5E-02
6	FLJ45422	30335352	30342707	15	100000	62.21	3.5E-03	rs928822	9.8E-04	1000	16.80	3.5E-01	rs928822	8.3E-02	1.5E-02
6	TAAR8	132915524	132916553	37	1000	56.20	1.4E-01	rs9321350	3.3E-03	100000	84.21	2.4E-02	rs4305747	7.5E-03	1.5E-02
5	ATG10	81303629	81586526	25	1000	37.76	1.6E-01	rs1835112	2.8E-02	100000	78.68	1.8E-02	rs4703537	3.6E-03	1.5E-02
17	POLG2	59904363	59923631	6	1000	8.28	2.4E-01	rs7405659	5.0E-02	100000	20.58	9.2E-03	rs1427463	5.9E-03	1.5E-02
17	CCDC45	59933619	59964524	4	1000	5.84	2.0E-01	rs8071264	6.3E-02	100000	20.15	1.3E-02	rs1427463	5.9E-03	1.5E-02
20	CABLES2	60397080	60415734	21	1000	35.29	1.2E-01	rs6061231	1.1E-02	100000	52.94	3.0E-02	rs6142761	1.3E-02	1.5E-02
2	C2orf43	20748298	20886308	40	1000	48.72	2.5E-01	rs6709100	9.7E-03	100000	115.47	8.7E-03	rs9085	5.6E-04	1.5E-02
17	SMURF2	59971196	60088848	5	1000	7.12	2.2E-01	rs8071264	6.3E-02	100000	26.80	1.1E-02	rs1427463	5.9E-03	1.5E-02
7	RSPH10B-1	5932302	5976840	4	1000	6.34	1.8E-01	rs2286680	1.2E-01	100000	15.19	1.5E-02	rs12534423	7.6E-03	1.5E-02
2	BAZ2B	159883735	160181305	55	100000	104.85	5.0E-02	rs3213790	1.3E-02	100000	92.27	7.7E-02	rs10489999	2.0E-02	1.5E-02
6	WDR27	169599231	169844084	39	1000	59.10	1.6E-01	rs381753	6.3E-03	100000	111.93	2.0E-02	rs12196723	1.4E-03	1.5E-02
6	CD2AP	47553483	47702955	20	1000	28.14	2.2E-01	rs9349417	6.7E-02	100000	75.26	1.1E-02	rs2152797	2.0E-03	1.5E-02
22	CLDN5	17890549	17892860	13	100000	36.66	2.7E-02	rs2871029	4.5E-03	1000	23.20	1.3E-01	rs2106136	2.0E-02	1.5E-02
1	FAM89A	229221555	229242608	16	100000	39.18	3.1E-02	rs4658931	6.8E-03	1000	27.59	1.2E-01	rs7545429	1.6E-02	1.5E-02
6	C6orf106	34663047	34772603	17	100000	51.87	1.2E-02	rs205284	2.1E-03	1000	24.05	2.1E-01	rs6912923	5.8E-02	1.5E-02

					QIMRHCS+OX				BBJ					QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
19	ADAMTS1(	8551125	8581588	11	100000	21.88	4.4E-02	rs12460069	6.2E-03	100000	18.56	9.0E-02	rs12460069	9.0E-03	1.6E-02
19	DKKL1	54558853	54570185	8	100000	33.08	1.4E-02	rs11671438	5.3E-04	1000	12.97	1.9E-01	rs659555	7.0E-02	1.6E-02
12	KRT82	51074001	51086443	35	100000	77.72	5.6E-02	rs928993	7.4E-03	100000	76.06	7.2E-02	rs12311316	3.0E-03	1.6E-02
17	C17orf60	59875701	59895222	11	100000	20.74	1.0E-01	rs9894547	3.0E-02	100000	27.15	3.8E-02	rs1427463	5.9E-03	1.6E-02
16	MMP25	3036682	3050725	14	1000	23.88	1.1E-01	rs12919933	4.1E-02	100000	33.71	3.4E-02	rs10431961	8.7E-03	1.6E-02
14	NUDT14	104710320	104718685	13	1000	20.76	1.5E-01	rs3784230	6.6E-02	100000	37.25	2.3E-02	rs2010787	1.8E-03	1.6E-02
19	CNFN	47583010	47586284	7	1000	6.63	3.6E-01	rs1206032	1.3E-01	100000	42.73	3.7E-03	rs1206028	4.1E-03	1.6E-02
22	LOC38891(	43343882	43346993	37	100000	102.84	3.6E-03	rs2349634	2.9E-04	1000	39.14	3.6E-01	rs138606	3.8E-02	1.6E-02
19	DMPK	50964815	50977655	9	100000	31.03	1.7E-02	rs8109951	1.7E-03	1000	14.41	1.8E-01	rs8109951	3.3E-02	1.6E-02
4	RRH	110968598	110985310	17	100000	36.45	7.5E-02	rs4698795	2.7E-02	100000	36.53	5.6E-02	rs10029485	4.3E-03	1.6E-02
11	OR8D2	123694367	123695303	10	100000	23.78	7.5E-02	rs11219559	5.2E-03	100000	24.34	5.6E-02	rs539802	3.4E-02	1.6E-02
1	S100A9	151596953	151600127	16	1000	20.02	2.9E-01	rs2916229	3.2E-02	100000	59.12	6.8E-03	rs821426	7.0E-05	1.6E-02
15	SQRDL	43714547	43770771	39	100000	91.37	1.1E-02	rs677413	1.5E-03	1000	48.88	2.3E-01	rs622019	1.5E-02	1.6E-02
16	CDH1	67328695	67426945	24	1000	35.34	1.6E-01	rs7186693	1.6E-02	100000	64.10	2.1E-02	rs6499204	1.9E-03	1.6E-02
16	C16orf61	79567199	79597997	18	100000	48.08	5.1E-02	rs11863536	7.1E-03	100000	36.74	8.3E-02	rs11863536	2.7E-03	1.6E-02
3	PDIA5	124268654	124363565	42	1000	39.25	4.7E-01	rs872554	4.7E-02	100000	129.63	1.6E-03	rs836838	3.1E-04	1.6E-02
1	LCE5A	150749943	150751277	9	1000	10.19	2.8E-01	rs4240887	2.0E-01	100000	42.87	7.8E-03	rs6700998	1.9E-03	1.7E-02
16	CCDC64B	3017868	3025543	12	1000	19.65	1.6E-01	rs12917910	4.1E-02	100000	33.46	2.3E-02	rs10431961	8.7E-03	1.7E-02
19	LIPE	47597505	47623418	6	1000	6.59	3.1E-01	rs1206032	1.3E-01	100000	34.51	6.0E-03	rs1206032	1.0E-02	1.7E-02
6	C6orf204	118892931	119079713	31	100000	97.88	1.7E-02	rs12180015	1.4E-03	1000	46.79	1.9E-01	rs12190763	1.5E-02	1.7E-02
20	NECAB3	31708553	31725925	3	1000	1.38	6.5E-01	rs6142004	3.0E-01	1000000	21.64	3.6E-04	rs910397	1.2E-04	1.7E-02
1	CCDC24	44229866	44234785	18	1000	12.50	6.4E-01	rs6429644	9.9E-02	1000000	92.07	3.8E-04	rs2486013	3.8E-04	1.7E-02
1	INPP5B	38098955	38185316	2	100000	11.01	1.9E-02	rs7528185	1.4E-02	1000	3.59	1.8E-01	rs10890285	8.6E-02	1.7E-02
2	LOC39135(	24866639	24869755	12	100000	52.99	3.9E-03	rs2278485	1.1E-03	1000	12.89	3.7E-01	rs9309308	5.2E-02	1.7E-02
14	TGM1	23788159	23802256	15	1000000	70.67	2.6E-04	rs7158744	1.1E-04	1000	10.08	6.8E-01	rs3940231	1.1E-01	1.7E-02
6	SPDEF	34613557	34632069	15	100000	41.45	1.4E-02	rs205284	2.1E-03	1000	20.86	2.1E-01	rs6912923	5.8E-02	1.7E-02
20	C20orf71	31268795	31279220	10	100000	33.90	2.9E-02	rs6141378	6.4E-03	1000	19.31	1.3E-01	rs6059214	5.3E-02	1.7E-02
20	ADRM1	60311421	60317313	10	100000	26.58	4.4E-02	rs944895	3.0E-02	100000	20.23	9.7E-02	rs944895	8.7E-03	1.7E-02
2	CD8A	86865238	86871638	10	100000	20.69	9.0E-02	rs4832054	3.9E-02	100000	27.04	4.8E-02	rs12997796	9.2E-03	1.7E-02
7	COG5	106630226	106991721	24	1000000	133.27	1.3E-03	rs1548524	4.2E-04	1000	17.68	5.1E-01	rs6979121	1.1E-01	1.7E-02
19	PSPN	6326304	6326860	12	100000	25.82	6.6E-02	rs2075755	1.3E-02	100000	28.59	6.8E-02	rs6510896	7.9E-04	1.7E-02
1	UTS2	7830261	7836159	14	100000	27.01	8.3E-02	rs504560	1.5E-03	100000	29.58	5.4E-02	rs170551	2.5E-02	1.7E-02
12	TBC1D15	70519805	70604362	14	1000	17.15	2.7E-01	rs2171363	3.8E-02	100000	43.25	8.4E-03	rs2129575	4.7E-04	1.7E-02
1	DNM3	170077260	170648480	82	1000	98.15	2.7E-01	rs508742	2.5E-03	100000	189.96	8.8E-03	rs2421987	4.2E-05	1.7E-02
3	C3orf22	127751208	127760448	21	100000	89.89	7.4E-03	rs2363029	1.9E-03	1000	24.29	2.9E-01	rs11921028	8.4E-02	1.7E-02
10	ZNF485	43421880	43433358	15	100000	32.07	5.8E-02	rs2393938	3.0E-03	100000	30.84	7.8E-02	rs2393938	2.7E-03	1.7E-02
11	ALG8	77489635	77528347	24	1000	31.88	2.5E-01	rs624350	1.7E-02	100000	69.33	1.1E-02	rs10899440	8.3E-05	1.7E-02
1	EPHA10	37954232	38003411	17	1000	30.87	1.0E-01	rs484927	4.8E-03	100000	41.21	4.2E-02	rs7541350	1.1E-02	1.7E-02
19	DMWD	50978103	50987900	10	100000	34.12	2.0E-02	rs8109951	1.7E-03	1000	15.50	1.7E-01	rs8109951	3.3E-02	1.7E-02
2	GALNT14	30986836	31215075	77	1000	87.60	3.3E-01	rs2010334	1.1E-02	100000	177.10	5.4E-03	rs4952053	3.4E-04	1.7E-02
1	ENSA	148861222	148868722	5	1000	2.73	6.6E-01	rs2055975	2.9E-01	1000000	27.87	3.5E-04	rs11204684	5.6E-04	1.7E-02
1	SH3BGRL3	26478799	26480600	13	100000	46.20	1.1E-02	rs3795686	4.1E-03	1000	17.68	2.5E-01	rs7541333	1.1E-01	1.7E-02
19	ALKBH7	6323443	6326040	12	100000	25.82	6.7E-02	rs2075755	1.3E-02	100000	28.59	6.9E-02	rs6510896	7.9E-04	1.7E-02
17	EPX	53625120	53637524	20	100000	40.71	5.9E-02	rs8071251	1.8E-02	100000	38.92	7.9E-02	rs2302313	1.3E-02	1.8E-02
11	TMEM151/	65815916	65820711	8	1000	15.76	1.0E-01	rs523583	1.9E-02	100000	20.01	4.4E-02	rs556595	1.6E-02	1.8E-02
17	UNC13D	71334901	71352393	10	1000	19.34	1.2E-01	rs2290771	4.2E-02	100000	29.90	3.7E-02	rs2290771	9.8E-03	1.8E-02
1	VTCN1	117487731	117555072	26	1000	38.93	1.4E-01	rs6692758	4.0E-02	100000	56.81	3.0E-02	rs11805655	5.1E-03	1.8E-02
12	AVIL	56477709	56496119	8	100000	26.18	3.0E-02	rs2277326	1.7E-02	1000	14.64	1.4E-01	rs10783853	3.9E-02	1.8E-02
20	C20orf144	31713780	31715381	3	1000	1.38	6.5E-01	rs6142004	3.0E-01	1000000	21.64	3.8E-04	rs910397	1.2E-04	1.8E-02
8	GLI4	144420981	144430476	12	100000	33.40	4.3E-02	rs724037	5.0E-03	100000	24.20	1.0E-01	rs724037	5.7E-02	1.8E-02
2	TMEM214	27109277	27118069	5	100000	14.27	6.6E-02	rs2011616	2.4E-02	100000	13.90	7.2E-02	rs2011616	3.0E-02	1.8E-02
14	TINF2	23778690	23781720	14	1000000	64.92	3.7E-04	rs7158744	1.1E-04	1000	9.94	6.6E-01	rs3940231	1.1E-01	1.8E-02
17	KRT222P	36065397	36074942	9	100000	34.63	2.1E-02	rs7223332	1.2E-02	1000	14.93	1.7E-01	rs1526603	5.2E-02	1.8E-02
2	ARID5A	96566190	96582098	9	1000	9.56	3.6E-01	rs2118836	1.1E-01	100000	36.35	4.6E-03	rs2314109	3.3E-03	1.8E-02
20	RPS21	60395515	60396971	12	100000	25.48	6.4E-02	rs6061231	1.1E-02	100000	24.50	7.4E-02	rs1109400	1.5E-02	1.8E-02
1	F3	94767460	94779903	13	100000	27.42	5.6E-02	rs17365315	9.0E-03	100000	23.73	8.3E-02	rs2762509	1.0E-02	1.8E-02
17	ANKFY1	4013413	4114023	16	100000	55.19	1.3E-02	rs4508454	4.6E-03	1000	22.05	2.3E-01	rs12940450	7.1E-02	1.8E-02
3	C3orf37	130480373	130506825	8	1000	10.95	2.5E-01	rs4927943	5.9E-02	100000	29.22	1.1E-02	rs6439168	2.2E-02	1.8E-02
12	KRT75	51104120	51114377	31	100000	67.00	6.2E-02	rs928993	7.4E-03	100000	67.07	7.7E-02	rs12311316	3.0E-03	1.8E-02
5	PCDHA4	140166855	140372113	25	100000	82.24	1.5E-02	rs155818	8.3E-03	1000	33.67	2.1E-01	rs59479	1.3E-01	1.8E-02
4	FGG	155744735	155753352	15	100000	43.46	1.5E-02	rs2066865	6.0E-04	1000	20.93	2.1E-01	rs2070016	6.1E-02	1.8E-02
9	KIAA1797	20648308	20985954	96	100000	181.19	6.8E-02	rs1543677	2.8E-03	100000	187.64	7.1E-02	rs7019271	3.7E-03	1.8E-02
12	KITLG	87410697	87498369	15	100000	54.25	2.4E-02	rs1022034	8.0E-03	1000	25.68	1.6E-01	rs1022034	8.5E-02	1.8E-02
1	FCGR3B	159859611	159867782	3	100000	7.08	8.4E-02	rs12118043	5.2E-02	100000	7.75	5.7E-02	rs723177	7.9E-03	1.8E-02
20	C20orf134	31717964	31719992	3	1000	1.38	6.6E-01	rs6142004	3.0E-01	1000000	21.64	3.7E-04	rs910397	1.2E-04	1.8E-02
22	CDC45L	17847415	17888135	20	100000	48.76	4.5E-02	rs2871029	4.5E-03	1000	38.37	1.0E-01	rs2106136	2.0E-02	1.8E-02
11	MRPL17	6658191	6661208	37	1000	44.35	2.7E-01	rs4758124	2.6E-02	100000	114.64	9.6E-03	rs4408289	3.4E-03	1.8E-02
20	E2F1	31726952	31737871	3	1000	1.38	6.6E-01	rs6142004	3.0E-01	1000000	21.64	3.7E-04	rs910397	1.2E-04	1.8E-02
15	WDR72	51593229	51839151	77	1000	116.67	1.2E-01	rs7183817	1.1E-02	100000	151.48	3.9E-02	rs8023615	1.3E-03	1.8E-02
2	ID2	8739563	8742034	7	1000	8.27	2.9E-01	rs1344807	7.1E-02	100000	23.97	8.2E-03	rs3856451	1.1E-02	1.8E-02
1	SEMA6C	149370786	149385728	8	100000	29.76	2.2E-02	rs4970998	3.7E-03	1000	12.28	1.8E-01	rs7554936	2.1E-02	1.8E-02
11	SLC35C1	45783911	45791143	13	100000	25.21	8.9E-02	rs11607883	5.0E-02	100000	32.79	5.4E-02	rs1530634	1.3E-02	1.8E-02
8	DEPDC6	120955080	121132338	53	100000	145.39	2.0E-02	rs1554376	2.0E-03	1000	74.57	1.8E-01	rs11984766	2.5E-02	1.9E-02
5	PCDHA6	140187833	140372113	25	100000	82.24	1.5E-02	rs155818	8.3E-03	1000	33.67	2.2E-01	rs59479	1.3E-01	1.9E-02
5	PCDHA2	140154627	140372113	25	100000	82.24	1.5E-02	rs155818	8.3E-03	1000	33.67	2.2E-01	rs59479	1.3E-01	1.9E-02
12	LRTM2	1799955	1816179	27	100000	71.54	1.3E-02	rs10744553	6.7E-04	1000	34.48	2.3E-01	rs12301312	2.7E-02	1.9E-02
6	MRAP2	84800138	84857324	8	100000	25.28	1.9E-02	rs9341971	5.4E-04	1000	11.99	1.9E-01	rs593300	5.3E-02	1.9E-02
13	CDC16	114018463	114056252	19	1000	8.51	7.6E-01	rs9525307	2.0E-01	1000000	157.33	1.3E-04	rs9590480	3.2E-04	1.9E-02
3	PARP9	123729460	123766114	27	100000	51.37	8.0E-02	rs9851180	2.4E-02	100000	53.03	6.2E-02	rs2036342	3.8E-03	1.9E-02
6	MAP3K5	136919879	137155349	34	100000	72.19	4.3E-02	rs3799472	2.2E-02	1000	55.66	1.1E-01	rs9285484	1.3E-02	1.9E-02

					QIMRHCS+OX				BBJ					QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
13	FLJ10769	110066008	110090343	20	1000	18.44	4.5E-01	rs4771699	1.4E-02	100000	75.63	2.5E-03	rs4773225	7.2E-05	1.9E-02
7	CUX1	101246011	101713970	52	100000	88.73	7.1E-02	rs17407001	8.6E-04	100000	87.55	7.2E-02	rs2906652	1.7E-04	1.9E-02
1	PODN	53300472	53323762	32	100000	57.24	8.0E-02	rs1288369	7.8E-03	100000	63.29	6.3E-02	rs10437066	2.0E-02	1.9E-02
7	EIF2AK1	6029988	6065302	17	1000	30.84	1.2E-01	rs17409602	1.2E-02	100000	38.28	4.1E-02	rs12534423	7.6E-03	1.9E-02
7	FLJ21062	89712460	89777622	21	100000	57.50	4.7E-02	rs10226014	8.3E-03	1000	41.03	1.1E-01	rs42608	3.1E-02	1.9E-02
17	MPP3	39233692	39266064	5	100000	15.33	3.9E-02	rs865429	6.4E-03	1000	9.71	1.2E-01	rs865429	1.0E-01	1.9E-02
15	DMXL2	49527230	49702259	19	1000	12.10	5.1E-01	rs1902590	1.9E-01	100000	144.21	1.5E-03	rs12102203	9.9E-04	1.9E-02
6	GSTA1	52764346	52776616	3	100000	11.51	4.2E-02	rs4715326	2.0E-02	1000	7.04	1.1E-01	rs2397105	5.7E-02	1.9E-02
9	ORM1	116125123	116128580	32	1000	39.60	2.6E-01	rs10739407	2.2E-02	100000	77.24	1.2E-02	rs7851482	1.1E-04	1.9E-02
4	TRAM1L1	118224157	118226184	14	100000	36.64	2.8E-02	rs298928	2.4E-03	1000	22.68	1.6E-01	rs7676913	3.5E-02	1.9E-02
19	PRR19	47498123	47506813	3	1000	2.45	4.8E-01	rs3826706	1.6E-01	100000	19.41	2.1E-03	rs1206028	4.1E-03	1.9E-02
5	PCDHA9	140207540	140372113	25	100000	82.24	1.5E-02	rs155818	8.3E-03	1000	33.67	2.3E-01	rs59479	1.3E-01	1.9E-02
13	CARS2	110091759	110156464	26	1000	35.45	2.2E-01	rs4771699	1.4E-02	100000	78.59	1.5E-02	rs4773225	7.2E-05	1.9E-02
1	ARNT	149048809	149115810	4	1000	6.97	1.6E-01	rs2292166	5.7E-02	100000	14.28	2.6E-02	rs7412746	2.0E-03	1.9E-02
15	KLHL25	84103562	84139193	46	100000	86.12	5.4E-02	rs3765096	1.0E-02	100000	80.16	9.5E-02	rs7181017	2.9E-03	1.9E-02
11	SLC35F2	107166926	107234864	35	1000	50.34	1.8E-01	rs10890774	2.4E-02	100000	87.17	2.3E-02	rs4466794	7.4E-03	1.9E-02
5	RPS23	81604894	81609991	12	1000	21.18	1.3E-01	rs17245874	4.2E-02	100000	31.07	3.9E-02	rs2195448	1.9E-02	2.0E-02
1	CNTN2	203278962	203313761	34	1000	48.60	1.8E-01	rs2595968	2.6E-02	100000	78.39	2.2E-02	rs2802841	1.2E-04	2.0E-02
10	TYSND1	71567738	71576502	27	1000	28.24	4.0E-01	rs7908356	1.0E-02	100000	85.69	3.9E-03	rs7908356	3.7E-03	2.0E-02
4	NDST4	115968375	116254481	35	100000	78.76	3.5E-02	rs6533822	7.9E-03	1000	52.77	1.4E-01	rs6533832	1.5E-02	2.0E-02
2	WDR33	128178277	128285215	20	1000	27.41	2.3E-01	rs11685164	3.5E-02	100000	68.31	1.6E-02	rs2109315	1.7E-03	2.0E-02
22	NCF4	35586975	35604005	35	100000	93.58	8.5E-03	rs2072712	6.0E-04	1000	40.56	3.0E-01	rs131838	3.0E-03	2.0E-02
10	MMS19	99208070	99248356	25	100000	74.58	1.3E-02	rs11189249	1.9E-03	1000	31.99	2.4E-01	rs7893335	5.4E-02	2.0E-02
1	CDCA8	37930745	37947978	18	1000	26.60	1.6E-01	rs484927	4.8E-03	100000	46.52	2.9E-02	rs7541350	1.1E-02	2.0E-02
5	ITGA2	52320912	52426366	48	100000	97.07	4.8E-02	rs4865755	1.3E-03	1000	76.19	1.1E-01	rs30094	1.1E-03	2.0E-02
1	FBXO42	16449145	16551535	14	1000	27.84	1.2E-01	rs4661745	2.8E-02	100000	43.45	4.3E-02	rs12119764	2.4E-02	2.0E-02
2	PXDN	1614665	1727298	38	1000	45.76	2.6E-01	rs10519486	2.8E-04	100000	82.04	1.2E-02	rs6706107	2.4E-03	2.0E-02
4	CFI	110881296	110942784	22	1000	30.11	1.9E-01	rs4698795	2.7E-02	100000	55.77	2.1E-02	rs10029485	4.3E-03	2.0E-02
19	CLEC4M	7734080	7740491	20	1000	26.38	2.3E-01	rs621025	4.3E-02	100000	48.72	1.5E-02	rs735239	3.4E-03	2.0E-02
6	DYNLT1	158977493	158985728	18	1000	21.43	2.7E-01	rs317793	6.1E-02	100000	81.63	1.1E-02	rs6928653	5.7E-03	2.0E-02
5	PCDHA8	140201090	140372113	25	100000	82.24	1.6E-02	rs155818	8.3E-03	1000	33.67	2.3E-01	rs59479	1.3E-01	2.0E-02
4	SYT14L	68608906	68611610	8	100000	31.73	1.9E-02	rs3860691	1.2E-03	1000	12.54	2.1E-01	rs7676484	6.1E-02	2.0E-02
5	PCDHA7	140194152	140372113	25	100000	82.24	1.5E-02	rs155818	8.3E-03	1000	33.67	2.3E-01	rs59479	1.3E-01	2.0E-02
12	LOC72885	27125256	27126722	2	1000	2.03	3.1E-01	rs708167	3.1E-01	100000	13.86	8.2E-03	rs1388659	8.2E-03	2.0E-02
3	UROC1	127682813	127719284	24	100000	90.18	7.2E-03	rs2363029	1.9E-03	1000	25.51	3.3E-01	rs6786437	1.0E-01	2.0E-02
17	WBP2	71353374	71363096	9	1000	15.89	1.6E-01	rs2290771	4.2E-02	100000	28.70	2.8E-02	rs2290771	9.8E-03	2.0E-02
1	RAB7L1	204004300	204010747	8	1000	10.93	2.2E-01	rs1891094	1.0E-01	100000	31.63	1.7E-02	rs823066	8.1E-03	2.0E-02
19	SIPA1L3	43089707	43390848	47	1000	64.47	1.8E-01	rs353407	3.1E-02	100000	102.16	2.4E-02	rs833922	2.4E-04	2.0E-02
7	KLHL7	23111877	23181563	22	100000	58.60	7.6E-02	rs1468592	5.6E-02	100000	54.39	7.2E-02	rs2072369	2.8E-02	2.0E-02
18	C18orf54	50139168	50162402	6	100000	16.69	5.0E-02	rs4940331	1.3E-02	100000	13.95	1.1E-01	rs1787824	9.0E-02	2.0E-02
1	GNAI3	109892708	109939975	19	100000	42.56	4.7E-02	rs7537507	4.3E-03	1000	34.00	1.1E-01	rs865774	6.1E-03	2.1E-02
12	TAOK3	117071988	117295133	26	1000	46.29	1.1E-01	rs12316703	3.6E-03	100000	62.13	5.1E-02	rs11830698	9.3E-03	2.1E-02
19	SMARCA4	10932597	11033958	18	100000	61.96	1.5E-02	rs17304534	8.9E-03	1000	24.14	2.4E-01	rs12459603	1.7E-02	2.1E-02
7	PMS2	5979395	6015263	12	1000	20.70	1.2E-01	rs2640	2.4E-02	100000	28.68	4.3E-02	rs12534423	7.6E-03	2.1E-02
20	SLC24A3	19141289	19651541	152	100000	323.62	6.3E-03	rs7265772	8.6E-04	1000	162.39	3.5E-01	rs6136803	6.6E-04	2.1E-02
1	SDHB	17217811	17253252	26	100000	101.81	1.2E-02	rs2076604	5.3E-03	1000	31.06	2.6E-01	rs978528	1.2E-01	2.1E-02
2	GDF7	20729904	20734731	31	1000	30.27	4.6E-01	rs3732151	3.1E-02	1000000	99.47	2.7E-03	rs9085	5.6E-04	2.1E-02
11	TMEM133	100368020	100369876	26	100000	85.96	4.7E-03	rs606789	3.1E-05	1000	26.48	3.9E-01	rs523332	8.9E-02	2.1E-02
11	E2F8	19202185	19219083	25	1000	30.56	2.8E-01	rs7936229	3.8E-03	100000	65.38	1.1E-02	rs12146588	9.0E-04	2.1E-02
4	CCRN4L	140156392	140186543	10	100000	35.56	7.6E-03	rs6858120	3.4E-03	1000	11.69	3.3E-01	rs4863621	1.9E-02	2.1E-02
11	GRIK4	120036237	120362179	102	1000	106.39	4.0E-01	rs11218067	2.9E-02	100000	213.24	4.2E-03	rs10892622	2.2E-03	2.1E-02
8	BLK	11388929	11459517	40	1000	62.87	1.4E-01	rs2618450	5.9E-03	100000	91.93	3.7E-02	rs1600249	6.5E-03	2.1E-02
12	ZNF705A	8216416	8223909	9	100000	17.44	1.0E-01	rs2889630	6.5E-03	100000	19.26	5.4E-02	rs2889630	1.8E-02	2.1E-02
12	C12orf26	81276454	81397076	2	100000	4.60	1.0E-01	rs4561274	5.7E-02	100000	5.73	5.6E-02	rs10862491	3.1E-02	2.1E-02
1	S100A7	151696843	151699761	9	1000	16.92	1.3E-01	rs2026604	4.7E-02	100000	27.08	3.9E-02	rs4845552	7.5E-04	2.1E-02
22	DEPDC5	30480068	30633001	32	100000	62.27	6.9E-02	rs131231	1.1E-02	100000	57.77	8.3E-02	rs5998114	1.3E-02	2.1E-02
5	PCDHA10	140215817	140372113	21	100000	66.50	1.6E-02	rs155818	8.3E-03	1000	27.02	2.4E-01	rs59479	1.3E-01	2.1E-02
9	IFNA21	21155635	21156659	13	1000	20.25	1.7E-01	rs1016129	3.8E-02	100000	30.50	2.7E-02	rs10757193	9.0E-03	2.1E-02
1	ABCB10	227718951	227761065	10	100000	27.57	4.5E-02	rs10916508	1.9E-02	1000	19.28	1.2E-01	rs6701445	8.3E-02	2.1E-02
2	KHK	27163114	27177123	9	1000	20.21	1.0E-01	rs2011616	2.4E-02	100000	26.31	5.5E-02	rs3795961	1.8E-02	2.1E-02
5	PCDHA3	140160966	140372113	25	100000	82.24	1.5E-02	rs155818	8.3E-03	1000	33.67	2.4E-01	rs59479	1.3E-01	2.1E-02
6	TMEM181	158877455	158976455	28	1000	39.23	1.9E-01	rs7772700	5.7E-02	100000	87.01	2.4E-02	rs6928653	5.7E-03	2.1E-02
5	PCDHA5	140181544	140372113	25	100000	82.24	1.5E-02	rs155818	8.3E-03	1000	33.67	2.4E-01	rs59479	1.3E-01	2.1E-02
10	UBTD1	99248757	99320950	30	100000	84.13	1.3E-02	rs11189249	1.9E-03	1000	36.09	2.6E-01	rs7893335	5.4E-02	2.2E-02
6	ENPP4	46205870	46222237	23	100000	73.09	1.8E-02	rs9472709	1.4E-02	1000	30.96	2.2E-01	rs2235882	9.3E-03	2.2E-02
18	DSC2	26899939	26936386	36	1000	47.98	2.2E-01	rs1583609	9.5E-03	100000	88.62	1.9E-02	rs1612474	3.6E-03	2.2E-02
12	ABCB9	121979491	122025705	7	100000	23.48	1.2E-02	rs940904	5.0E-03	1000	8.49	2.7E-01	rs937564	1.5E-01	2.2E-02
10	CREM	35455806	35541892	13	100000	32.56	8.0E-02	rs16935888	3.3E-02	100000	33.97	7.4E-02	rs4934719	4.2E-02	2.2E-02
3	CHST13	127725865	127744824	22	100000	87.54	8.4E-03	rs2363029	1.9E-03	1000	23.69	3.2E-01	rs6786437	1.0E-01	2.2E-02
19	QPCTL	50887771	50935848	15	100000	38.64	1.8E-02	rs8109951	1.7E-03	1000	20.18	2.3E-01	rs8109951	3.3E-02	2.2E-02
1	ARID1A	26895108	26981188	1	100000	3.80	5.1E-02	rs11247596	5.1E-02	1000	2.39	1.1E-01	rs11247596	1.2E-01	2.2E-02
2	SAP130	128415265	128501337	16	1000	23.34	2.0E-01	rs11682273	1.1E-02	100000	54.39	2.3E-02	rs11688532	8.0E-03	2.2E-02
17	HEATR6	55475333	55511074	8	100000	34.94	1.8E-02	rs6503942	1.0E-02	1000	12.08	2.3E-01	rs3744375	1.3E-01	2.2E-02
8	ZNF696	144444933	144453495	13	100000	38.85	3.6E-02	rs7837655	4.3E-03	1000	22.59	1.5E-01	rs724037	5.7E-02	2.2E-02
11	IGSF22	18682427	18704353	33	100000	54.30	8.6E-02	rs7125943	3.1E-02	100000	58.01	7.0E-02	rs11024757	5.0E-03	2.2E-02
4	NFXL1	47544013	47611390	16	100000	63.71	6.5E-03	rs6832334	2.9E-04	1000	17.18	3.6E-01	rs16860658	7.2E-02	2.2E-02
1	SLC41A1	204024843	204048784	16	1000	19.13	2.8E-01	rs11540014	4.3E-02	100000	53.34	1.2E-02	rs823066	8.1E-03	2.2E-02
5	MRPL36	1851498	1852956	25	1000	25.10	4.1E-01	rs904757	7.9E-03	100000	82.27	4.5E-03	rs4975845	1.2E-03	2.2E-02
22	CSF2RB	35639620	35666425	36	100000	86.92	1.4E-02	rs2072712	6.0E-04	1000	42.34	2.6E-01	rs131849	2.2E-02	2.2E-02
2	EMILIN1	27155009	27162769	7	100000	17.49	8.6E-02	rs2011616	2.4E-02	100000	19.10	7.0E-02	rs2011616	3.0E-02	2.2E-02

				QIMRHCS+OX					BBJ					QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
5	UTP15	72897353	72913550	14	1000	21.17	1.5E-01	rs2249074	8.0E-02	100000	33.84	3.4E-02	rs865340	1.3E-03	2.2E-02
3	ARL6	98966284	99000063	12	100000	23.95	1.0E-01	rs11916766	5.3E-02	100000	29.10	5.7E-02	rs11916766	5.1E-03	2.2E-02
10	HHEX	94439660	94445388	12	1000	12.85	3.6E-01	rs2497313	6.5E-02	100000	45.15	6.7E-03	rs947591	1.0E-03	2.2E-02
12	PTPRO	15366753	15641602	46	1000000	183.73	4.9E-04	rs7964436	1.1E-05	1000	34.14	6.8E-01	rs12582633	2.2E-02	2.3E-02
9	ORM2	116131889	116135357	30	1000	37.15	2.6E-01	rs10739407	2.2E-02	100000	72.91	1.4E-02	rs7851482	1.1E-04	2.3E-02
8	DUSP26	33568392	33576981	10	1000	17.25	1.5E-01	rs11782575	6.0E-02	100000	33.93	3.5E-02	rs1530344	1.8E-02	2.3E-02
1	SMG7	181708256	181789949	21	1000	34.10	1.3E-01	rs12144629	6.9E-02	100000	50.41	4.5E-02	rs2702180	1.1E-02	2.3E-02
22	TNRC6B	38770766	39061758	23	100000	42.38	9.8E-02	rs6001762	1.2E-02	100000	49.20	6.2E-02	rs17406434	2.6E-03	2.3E-02
8	VPS13B	100094669	100958984	51	100000	117.15	5.0E-02	rs4626565	5.2E-03	1000	91.21	1.2E-01	rs4581019	2.5E-02	2.3E-02
13	LHFP	38815028	39075356	82	100000	135.24	6.1E-02	rs641027	2.7E-03	1000	118.44	1.0E-01	rs7995844	2.6E-03	2.3E-02
12	KRT85	51040056	51047576	42	100000	76.01	1.0E-01	rs928993	7.4E-03	100000	89.91	5.9E-02	rs12311316	3.0E-03	2.3E-02
2	CCDC128	48521411	48596026	16	100000	46.08	2.1E-02	rs4274640	5.6E-04	1000	21.06	2.2E-01	rs2293274	4.8E-02	2.3E-02
1	TMCO1	163960151	164004759	16	1000	27.42	1.1E-01	rs2153264	4.0E-02	100000	39.19	5.6E-02	rs7411708	1.5E-02	2.3E-02
20	HRH3	60223411	60228718	20	100000	52.92	1.6E-02	rs6142990	1.9E-03	1000	25.56	2.5E-01	rs944887	7.3E-02	2.3E-02
12	GIT2	108851991	108918483	3	1000	3.39	3.2E-01	rs3742010	1.7E-01	100000	14.43	9.6E-03	rs3742010	1.8E-02	2.3E-02
19	ZNF490	12547644	12582595	6	100000	28.50	7.5E-03	rs8112261	4.8E-03	1000	6.10	3.5E-01	rs8112261	1.5E-01	2.3E-02
6	GPR111	47732284	47766296	23	1000	22.21	3.7E-01	rs13194549	3.5E-02	100000	102.86	6.4E-03	rs2152797	2.0E-03	2.3E-02
8	ARC	143689411	143692835	9	100000	25.67	2.8E-02	rs7843869	5.9E-03	1000	14.44	1.8E-01	rs6996219	5.6E-02	2.3E-02
17	FBF1	71418212	71448714	14	1000	24.45	1.3E-01	rs3744017	5.7E-02	100000	36.27	4.6E-02	rs1551619	1.3E-02	2.3E-02
14	CHMP4A	23748626	23753025	21	1000000	95.13	8.7E-04	rs7158744	1.1E-04	1000	15.36	6.2E-01	rs4981494	3.9E-02	2.3E-02
1	C1orf89	16430781	16436033	12	100000	25.10	9.2E-02	rs6698317	6.5E-02	100000	29.61	6.9E-02	rs12119764	2.4E-02	2.3E-02
1	PIGV	26987072	26997474	1	100000	3.80	5.2E-02	rs11247596	5.1E-02	1000	2.39	1.2E-01	rs11247596	1.2E-01	2.3E-02
16	LMF1	843634	960985	35	1000	43.90	2.3E-01	rs6600235	2.3E-02	100000	89.16	1.8E-02	rs3751667	1.1E-03	2.3E-02
22	ADORA2A	23153529	23168325	8	100000	42.72	6.1E-03	rs2236624	6.9E-03	1000	7.31	3.8E-01	rs6004146	9.0E-02	2.3E-02
11	TMEM86A	18676926	18682908	24	100000	46.50	5.9E-02	rs7125943	3.1E-02	1000	40.80	1.1E-01	rs11024757	5.0E-03	2.3E-02
10	HERC4	69351661	69505109	17	100000	52.53	3.0E-02	rs10823120	4.6E-03	1000	27.54	1.8E-01	rs10997881	5.6E-02	2.3E-02
15	TSPAN3	75125385	75150568	16	100000	64.74	4.2E-03	rs7169831	3.9E-03	1000	14.18	4.3E-01	rs4420499	8.0E-02	2.3E-02
1	DEDD	159357391	159369102	9	100000	18.29	8.5E-02	rs4656287	2.2E-02	100000	18.70	7.6E-02	rs11576830	3.4E-02	2.3E-02
10	HELLS	96295563	96351846	9	100000	40.01	1.1E-02	rs1998591	2.0E-03	1000	10.29	3.0E-01	rs12220941	6.8E-02	2.4E-02
2	NUP35	183697327	183734653	23	100000	56.48	3.7E-02	rs1400131	9.5E-03	1000	37.16	1.5E-01	rs1316842	3.4E-02	2.4E-02
17	OR4D2	53602015	53602939	16	100000	38.99	3.6E-02	rs8071251	1.8E-02	1000	24.99	1.6E-01	rs2302313	1.3E-02	2.4E-02
3	FANCD2	10043112	10118614	11	1000	11.38	3.1E-01	rs265318	5.9E-02	100000	46.64	1.1E-02	rs2272120	8.2E-04	2.4E-02
2	KIAA1310	96622633	96667842	5	1000	4.04	5.1E-01	rs10183164	1.7E-01	100000	24.64	2.3E-03	rs2314109	3.3E-03	2.4E-02
10	NDUFB8	102273486	102279626	9	100000	28.58	6.5E-02	rs11190578	3.2E-02	100000	21.45	9.8E-02	rs2495747	2.7E-02	2.4E-02
5	PCDHA1	140146059	140372113	29	100000	94.20	1.7E-02	rs155818	8.3E-03	1000	38.46	2.5E-01	rs59479	1.3E-01	2.4E-02
5	FLJ43080	109783710	110090280	31	100000	83.61	4.7E-02	rs13173738	1.4E-02	1000	53.66	1.3E-01	rs3843243	1.9E-02	2.4E-02
10	TBC1D12	96152175	96286079	17	100000	58.02	1.6E-02	rs12572897	6.3E-03	1000	21.70	2.6E-01	rs11187968	5.6E-02	2.4E-02
8	TNKS	9450854	9677266	51	1000	82.11	1.4E-01	rs7831172	2.5E-03	100000	112.59	4.2E-02	rs7015700	9.3E-03	2.4E-02
22	CRYBA4	25347927	25356636	35	1000	48.61	1.9E-01	rs6005127	1.1E-02	100000	84.08	2.8E-02	rs2301523	3.2E-04	2.4E-02
17	PLEKHM1	40869048	40923893	4	1000	3.54	3.8E-01	rs1230101	1.9E-01	100000	26.80	6.6E-03	rs1230106	4.7E-03	2.4E-02
13	CLYBL	99056936	99342825	104	1000	142.76	1.3E-01	rs9585279	9.4E-04	100000	163.18	4.8E-02	rs9585276	1.8E-04	2.4E-02
10	SEC31B	102236392	102269585	10	100000	32.96	5.9E-02	rs11190578	3.2E-02	100000	22.74	1.1E-01	rs2495747	2.7E-02	2.4E-02
13	B3GALTL	30672111	30804411	22	1000	30.42	2.1E-01	rs1326316	3.1E-02	100000	50.91	2.4E-02	rs3761870	1.1E-02	2.4E-02
12	KIAA1853	117903778	118085240	72	100000	119.20	5.9E-02	rs11069189	1.8E-03	1000	103.60	1.1E-01	rs1568922	3.6E-03	2.4E-02
6	RTN4IP1	107125595	107184066	35	1000	54.07	1.4E-01	rs1770718	2.5E-02	100000	78.58	4.4E-02	rs11752138	2.7E-03	2.4E-02
2	NAB1	191222092	191265737	14	100000	39.10	1.9E-02	rs12621493	2.3E-03	1000	17.94	2.4E-01	rs2286896	4.1E-02	2.5E-02
4	MAN2B2	6627802	6675089	28	1000	40.15	1.5E-01	rs10804983	6.1E-03	100000	53.31	4.1E-02	rs6446517	6.3E-03	2.5E-02
10	C10orf59	90023600	90332988	56	100000	104.75	5.1E-02	rs3781201	2.1E-03	1000	86.45	1.3E-01	rs10509551	3.3E-03	2.5E-02
7	FOXP2	113842287	114118328	33	100000	64.06	8.3E-02	rs12670585	7.1E-03	100000	59.39	8.1E-02	rs727644	2.3E-03	2.5E-02
4	C4orf29	129105910	129171905	4	1000	2.54	5.7E-01	rs748630	2.5E-01	1000000	25.72	1.6E-03	rs748630	1.8E-03	2.5E-02
5	PIK3R1	67558217	67633405	35	1000	53.95	1.3E-01	rs2302975	8.1E-03	100000	73.32	4.8E-02	rs4122269	1.1E-02	2.5E-02
2	ERCC3	127731335	127768222	5	100000	11.89	7.4E-02	rs4150496	7.6E-02	100000	11.26	9.1E-02	rs2271026	2.8E-02	2.5E-02
4	PLK4	129021494	129039802	3	1000	2.17	5.4E-01	rs11940642	2.8E-01	100000	17.68	2.0E-03	rs11940642	3.0E-03	2.5E-02
11	KCNJ11	17363371	17366782	19	100000	40.74	4.3E-02	rs2074309	8.1E-03	1000	28.73	1.5E-01	rs1799859	9.2E-03	2.5E-02
17	AMZ2	63755739	63764900	10	100000	19.29	9.6E-02	rs11869470	3.3E-02	100000	21.41	7.0E-02	rs8080714	1.1E-02	2.5E-02
3	RNF168	197683024	197714979	14	1000	13.74	3.6E-01	rs7639524	1.8E-02	100000	64.49	8.1E-03	rs2342371	1.7E-03	2.5E-02
17	METRNL	78630855	78646011	9	100000	23.90	3.5E-02	rs11652770	8.1E-03	1000	13.85	1.7E-01	rs4986140	7.1E-02	2.5E-02
4	GABRA2	45946338	46086813	13	100000	55.59	7.1E-03	rs1808851	3.5E-03	1000	12.56	3.7E-01	rs996129	1.3E-01	2.5E-02
14	TSSK4	23744801	23747294	18	1000000	86.78	1.1E-03	rs7158744	1.1E-04	1000	12.48	6.2E-01	rs4981494	3.9E-02	2.5E-02
6	UNC5CL	41102748	41114906	13	100000	31.70	6.5E-02	rs9471456	6.0E-03	1000	30.31	1.1E-01	rs4714421	4.7E-02	2.5E-02
15	Gcom1	55671405	55797045	63	100000	101.00	8.7E-02	rs11638184	1.5E-03	100000	105.62	7.9E-02	rs11632793	1.0E-02	2.5E-02
21	LRRC3	44699820	44703167	12	100000	25.97	6.8E-02	rs1785461	3.6E-03	100000	22.87	1.0E-01	rs2838568	1.1E-02	2.5E-02
7	NFE2L3	26158384	26192432	15	100000	40.58	3.2E-02	rs10236009	9.2E-03	1000	22.64	1.8E-01	rs3814095	2.7E-02	2.5E-02
8	CLDN23	8597075	8599027	23	100000	86.45	4.7E-03	rs7012395	1.5E-03	1000	20.68	4.3E-01	rs9693402	3.9E-02	2.5E-02
11	SCGB2A2	61794205	61797204	16	100000	41.27	3.3E-02	rs1729404	4.9E-03	1000	23.74	1.8E-01	rs10897242	3.0E-02	2.5E-02
7	ARL4A	12693005	12697083	32	100000	65.80	4.1E-02	rs6952054	2.5E-03	1000	45.31	1.5E-01	rs7797379	4.6E-02	2.5E-02
3	PARP14	123882361	123932377	28	100000	56.12	6.1E-02	rs867782	2.1E-03	1000	48.87	1.1E-01	rs4678207	5.2E-02	2.5E-02
20	JPH2	42173750	42249632	54	100000	107.50	3.3E-02	rs6073330	6.1E-03	1000	75.56	1.8E-01	rs761206	1.5E-02	2.5E-02
5	SYNPO	150000412	150018985	14	100000	30.10	5.1E-02	rs10077713	3.1E-03	1000	21.97	1.3E-01	rs252155	4.2E-02	2.5E-02
20	PLUNC	31287462	31294776	12	100000	39.29	2.8E-02	rs6141378	6.4E-03	1000	19.51	2.0E-01	rs6059214	5.3E-02	2.5E-02
14	GMPR2	23771487	23778287	16	1000000	69.26	7.0E-04	rs7158744	1.1E-04	1000	10.53	6.7E-01	rs3940231	1.1E-01	2.5E-02
5	BTF3	72830005	72837204	17	100000	34.04	6.0E-02	rs347245	6.6E-03	1000	29.71	1.1E-01	rs865340	1.3E-03	2.6E-02
14	PCNX	70443874	70651852	32	1000	51.99	1.3E-01	rs1859915	2.6E-02	100000	69.62	5.2E-02	rs2526889	7.5E-03	2.6E-02
8	LRRC69	92184022	92300640	14	100000	58.68	1.6E-02	rs11787186	5.6E-03	1000	16.70	2.7E-01	rs7341609	7.2E-02	2.6E-02
20	CD40	44180312	44191791	22	100000	53.09	3.6E-02	rs1883838	1.1E-02	1000	34.20	1.7E-01	rs6032661	2.7E-02	2.6E-02
3	TM4SF18	150521544	150534109	33	100000	76.31	1.4E-02	rs1526787	2.5E-03	1000	38.50	2.9E-01	rs13314474	3.7E-02	2.6E-02
1	KIF17	20863093	20916904	25	1000	32.83	2.1E-01	rs12036633	1.3E-02	100000	51.75	2.6E-02	rs12121807	5.3E-04	2.6E-02
5	PCDHA13	140242037	140372113	18	100000	55.81	1.8E-02	rs155818	8.3E-03	1000	21.97	2.5E-01	rs59479	1.3E-01	2.6E-02
11	MTL5	68231483	68275564	12	100000	23.58	9.3E-02	rs6591350	3.9E-02	100000	24.15	7.6E-02	rs2123869	6.0E-03	2.6E-02
19	FXYD3	40298638	40307067	22	1000	24.06	3.3E-01	rs7250814	1.1E-02	100000	63.48	1.1E-02	rs2290650	6.7E-05	2.6E-02

					QIMRHCS+OX				BBJ					QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
16	CLDN6	3004713	3008189	12	1000	18.56	1.6E-01	rs4786370	4.9E-02	100000	30.91	3.8E-02	rs10431961	8.7E-03	2.6E-02
3	LOC401052	10023101	10027779	7	1000	3.37	5.2E-01	rs7615646	3.5E-01	100000	52.32	2.6E-03	rs4488814	4.9E-04	2.6E-02
14	TC2N	91316019	91403633	37	100000	110.09	6.0E-03	rs2402076	1.1E-03	1000	38.47	4.1E-01	rs2284339	2.0E-02	2.6E-02
19	ZNF558	8781381	8794565	13	100000	41.96	1.5E-02	rs3752140	3.7E-03	1000	14.79	2.8E-01	rs2967764	2.7E-02	2.6E-02
14	OTUB2	93562476	93585029	27	1000	37.16	2.2E-01	rs4905126	2.9E-03	100000	69.21	2.5E-02	rs10142728	3.1E-03	2.6E-02
16	CBLN1	47870199	47873184	13	100000	23.21	1.1E-01	rs8052686	4.4E-03	100000	25.56	6.6E-02	rs1469906	3.3E-02	2.6E-02
1	ASTN1	175096825	175400647	42	1000	55.59	2.2E-01	rs6701093	3.0E-02	100000	98.31	2.4E-02	rs6413830	6.5E-03	2.6E-02
17	DDX5	59926199	59932869	3	1000	3.78	2.8E-01	rs8071264	6.3E-02	100000	13.47	1.5E-02	rs1427463	5.9E-03	2.6E-02
20	SGK2	41621099	41647687	18	1000	21.94	2.8E-01	rs6030939	4.2E-02	100000	47.52	1.5E-02	rs3205	6.7E-04	2.6E-02
1	ACOT7	6246918	6376413	17	1000	25.67	1.3E-01	rs3789504	1.4E-02	100000	36.61	5.5E-02	rs7529205	2.5E-02	2.6E-02
1	NUP133	227643666	227710711	13	100000	36.01	3.1E-02	rs4338396	6.8E-03	1000	18.50	1.9E-01	rs6670553	1.0E-01	2.6E-02
16	COQ7	18986427	18998853	8	1000	7.61	4.1E-01	rs4536454	4.4E-02	100000	37.21	5.9E-03	rs8053779	1.1E-03	2.6E-02
8	MAFA	144582657	144583719	18	100000	38.20	4.5E-02	rs901770	7.1E-04	1000	28.44	1.5E-01	rs11780582	1.6E-02	2.6E-02
2	MTHFD2	74279197	74295932	16	1000	17.43	3.4E-01	rs11126426	1.1E-01	100000	55.64	1.0E-02	rs17009774	3.5E-03	2.7E-02
2	MFSD9	102700097	102719745	18	100000	47.40	3.1E-02	rs2732827	1.4E-02	1000	27.04	1.9E-01	rs962207	2.4E-02	2.7E-02
5	LOC92270	81636921	81649903	12	1000	21.45	1.4E-01	rs7734188	6.2E-02	100000	29.32	5.1E-02	rs224816	1.2E-02	2.7E-02
17	MKS1	53637796	53651665	17	1000	25.17	1.8E-01	rs2159444	3.1E-02	100000	42.20	3.5E-02	rs2302313	1.3E-02	2.7E-02
12	CLEC4C	7773277	7793336	31	100000	54.59	7.7E-02	rs10772650	1.2E-02	100000	47.82	9.6E-02	rs10845699	7.7E-03	2.7E-02
8	LEPROTL1	30072463	30114764	9	100000	22.08	7.0E-02	rs11984896	1.3E-02	1000	20.11	1.1E-01	rs9649896	5.3E-03	2.7E-02
6	CYP21A2	32114060	32117398	8	1000000	51.74	3.4E-04	rs12333245	2.9E-05	1000	3.94	7.5E-01	rs7774197	7.2E-02	2.7E-02
17	OR4D1	53587513	53588446	17	100000	38.61	4.0E-02	rs8071251	1.8E-02	1000	25.06	1.6E-01	rs2302313	1.3E-02	2.7E-02
16	FA2H	73304358	73366222	15	100000	29.24	6.4E-02	rs4556811	4.0E-03	1000	25.15	1.1E-01	rs2240245	2.7E-02	2.7E-02
4	TIGD2	90252990	90255075	22	1000	36.45	1.5E-01	rs6817766	3.2E-02	100000	53.48	4.7E-02	rs1554003	1.4E-02	2.7E-02
17	SLC16A6	63775932	63799000	19	1000	29.30	1.3E-01	rs9898599	2.0E-02	100000	36.66	5.7E-02	rs8080714	1.1E-02	2.7E-02
3	ZXDC	127639133	127677452	24	100000	59.20	3.4E-02	rs748465	7.5E-03	1000	34.99	1.9E-01	rs4410406	7.9E-03	2.7E-02
19	MARCH2	8384186	8409899	13	100000	26.26	7.5E-02	rs2303180	1.7E-02	100000	24.37	9.9E-02	rs2967614	3.2E-02	2.7E-02
3	H1FX	130516304	130517807	7	1000	6.75	4.1E-01	rs6439168	6.0E-02	1000000	25.51	6.1E-03	rs6439168	2.2E-02	2.7E-02
3	PRRT3	9962225	9969078	9	1000	3.85	6.4E-01	rs279545	1.6E-01	1000000	60.50	1.0E-03	rs279545	9.1E-05	2.7E-02
1	ELTD1	79128036	79245083	39	1000	60.91	1.4E-01	rs6673093	4.4E-02	100000	86.10	5.0E-02	rs6673093	4.2E-03	2.7E-02
7	RAMP3	45163891	45190375	46	100000	82.64	5.5E-02	rs2119053	8.7E-04	1000	69.97	1.3E-01	rs1294892	1.3E-02	2.7E-02
15	C15orf54	37330210	37334340	25	100000	51.96	4.7E-02	rs1505279	9.0E-03	1000	37.36	1.5E-01	rs12442944	4.1E-02	2.7E-02
2	C2orf71	29138061	29150631	32	1000	47.35	1.6E-01	rs1992809	9.7E-03	100000	65.57	4.1E-02	rs11684613	3.8E-03	2.7E-02
4	FGA	155723729	155731347	18	100000	49.52	1.8E-02	rs2066865	6.0E-04	1000	23.08	2.7E-01	rs2070016	6.1E-02	2.7E-02
13	GPR18	98704967	98708683	12	1000	13.93	3.3E-01	rs12857217	1.2E-01	100000	38.44	1.1E-02	rs9554579	5.2E-03	2.7E-02
1	CRCT1	150753601	150755105	11	1000	12.33	2.8E-01	rs4845790	1.2E-01	100000	38.59	1.6E-02	rs1053590	9.9E-03	2.7E-02
22	IL17RA	15945848	15971389	29	1000	44.26	1.1E-01	rs738033	1.4E-02	100000	50.38	6.5E-02	rs5748883	3.5E-03	2.7E-02
17	WSB1	22645232	22664772	9	100000	39.45	1.0E-02	rs4239230	1.8E-03	1000	8.28	3.4E-01	rs7207347	1.8E-01	2.7E-02
8	GDAP1	75425172	75441890	21	100000	72.99	1.1E-02	rs6996800	9.0E-04	1000	23.63	3.3E-01	rs10504577	7.8E-02	2.7E-02
7	JTV1	6015407	6029991	13	1000	22.01	1.3E-01	rs2640	2.4E-02	100000	29.31	5.4E-02	rs12534423	7.6E-03	2.7E-02
10	PARD3	34440102	35143929	99	100000	194.15	4.5E-02	rs3004929	7.8E-04	1000	147.98	1.5E-01	rs1274487	3.9E-03	2.7E-02
19	HNRNPM	8415802	8459996	17	1000	23.49	2.1E-01	rs2303180	1.7E-02	100000	43.80	2.9E-02	rs2287863	4.6E-03	2.7E-02
11	ZDHHC13	19095267	19154543	35	1000	38.34	3.4E-01	rs7936229	3.8E-03	100000	88.50	1.1E-02	rs12146588	9.0E-04	2.8E-02
8	CDCA2	25372429	25421342	17	1000	32.70	1.2E-01	rs1506869	2.9E-02	100000	39.87	6.1E-02	rs1506869	7.2E-03	2.8E-02
1	SPRR2F	151351236	151352613	8	1000	10.80	2.3E-01	rs428913	1.1E-01	100000	25.68	2.5E-02	rs6693927	1.2E-03	2.8E-02
6	CDSN	31190848	31196202	57	1000	52.66	4.5E-01	rs2844635	8.8E-03	100000	177.28	4.9E-03	rs3094187	1.1E-03	2.8E-02
13	RNASEH2B	50381892	50428902	26	1000	40.35	1.5E-01	rs12429206	6.4E-03	100000	53.27	4.8E-02	rs474012	2.1E-02	2.8E-02
10	FRAT2	99082243	99084448	12	1000000	59.79	2.0E-03	rs6584123	2.3E-04	1000	9.30	5.6E-01	rs4919096	1.4E-01	2.8E-02
10	DRGX	50244166	50269913	20	1000	22.45	3.5E-01	rs1924489	2.3E-02	100000	55.84	1.0E-02	rs10857475	4.3E-03	2.8E-02
13	HSPH1	30608762	30634117	23	1000	35.61	1.3E-01	rs9670049	2.9E-02	100000	45.45	5.6E-02	rs1555595	1.0E-02	2.8E-02
5	NDUFS6	1854508	1869167	30	1000	30.67	4.0E-01	rs904757	7.9E-03	100000	89.74	7.3E-03	rs4975845	1.2E-03	2.8E-02
18	FHOD3	32131699	32614016	159	1000000	502.55	1.2E-04	rs1790644	3.6E-06	1000	111.06	8.4E-01	rs1513848	6.3E-02	2.8E-02
5	SEC24A	134012377	134091500	5	1000	9.93	1.1E-01	rs4958192	5.9E-02	100000	12.47	6.8E-02	rs2305049	9.8E-03	2.8E-02
1	UBXD5	26481359	26517343	25	100000	73.60	1.5E-02	rs3795686	4.1E-03	1000	28.86	3.0E-01	rs7541333	1.1E-01	2.8E-02
16	ALG1	5061820	5075589	10	1000	17.35	1.2E-01	rs7110	7.3E-03	100000	22.53	6.3E-02	rs8047337	1.6E-03	2.8E-02
22	UFD1L	17817700	17846726	15	100000	42.01	3.3E-02	rs2871029	4.5E-03	1000	22.47	2.0E-01	rs885975	3.6E-02	2.8E-02
6	HIST1H2BL	27883235	27883688	9	1000	14.04	1.8E-01	rs9295749	3.5E-02	100000	25.52	3.9E-02	rs200480	1.0E-02	2.8E-02
19	NLRP13	61099122	61135514	58	1000	79.74	1.5E-01	rs302835	2.4E-02	100000	103.41	4.7E-02	rs12976945	6.4E-03	2.8E-02
14	C14orf177	98247702	98253850	28	100000	50.46	8.6E-02	rs1022633	1.3E-02	100000	50.52	9.2E-02	rs8018433	1.1E-03	2.8E-02
14	C14orf48	93533394	93544962	23	1000	27.28	2.8E-01	rs4905126	2.9E-03	100000	65.15	1.7E-02	rs10142728	3.1E-03	2.8E-02
5	MARCH3	126233449	126394145	21	100000	46.70	4.1E-02	rs2973600	6.3E-03	1000	30.60	1.7E-01	rs2055873	8.5E-04	2.8E-02
15	LOC283677	71522551	71639406	17	1000	29.06	1.4E-01	rs3889590	5.1E-02	100000	40.77	5.4E-02	rs4362355	1.3E-02	2.8E-02
5	LMNB1	126140731	126200608	26	100000	66.50	2.3E-02	rs2973600	6.3E-03	1000	31.73	2.5E-01	rs2055873	8.5E-04	2.8E-02
15	LYSMD4	98085134	98091149	20	100000	43.95	3.4E-02	rs8041078	1.2E-02	1000	28.76	1.9E-01	rs8027443	9.3E-02	2.8E-02
6	TAAR9	132901119	132902168	33	100000	57.29	7.1E-02	rs9321350	3.3E-03	1000	54.19	1.1E-01	rs9321354	2.1E-02	2.8E-02
11	FLRT1	63627937	63643221	24	1000	30.97	2.4E-01	rs7941785	1.9E-02	100000	59.29	2.3E-02	rs2000515	7.0E-03	2.8E-02
11	BLID	121491271	121492133	18	100000	30.49	1.1E-01	rs549798	1.1E-02	100000	35.93	6.9E-02	rs547008	2.9E-02	2.8E-02
4	HS3ST1	11009085	11039635	26	1000	36.69	1.5E-01	rs402575	3.2E-02	100000	52.42	4.8E-02	rs1528081	5.2E-03	2.9E-02
6	HIST1H2AI	27883955	27884424	10	1000	14.13	1.9E-01	rs9295749	3.5E-02	100000	28.73	3.5E-02	rs200480	1.0E-02	2.9E-02
15	TYRO3	39638523	39658818	14	1000	13.99	4.0E-01	rs2297377	9.5E-02	100000	55.84	7.2E-03	rs2297380	2.0E-03	2.9E-02
7	FSCN1	5598979	5612812	8	1000	10.87	2.1E-01	rs3807572	4.8E-02	100000	20.26	3.1E-02	rs12666245	2.9E-02	2.9E-02
21	ERG	38675670	38955488	110	100000	181.16	4.6E-02	rs1475877	4.4E-03	1000	147.83	1.6E-01	rs2836378	8.2E-04	2.9E-02
5	PCDHA11	140228014	140372113	18	100000	55.81	1.8E-02	rs155818	8.3E-03	1000	21.97	2.8E-01	rs59479	1.3E-01	2.9E-02
19	INSR	7063265	7245011	47	100000	107.46	7.5E-03	rs12971499	1.6E-03	1000	47.02	4.0E-01	rs12979424	9.4E-03	2.9E-02
1	RPS6KA1	26728835	26774107	16	100000	28.71	1.0E-01	rs17162247	2.2E-02	100000	33.53	7.6E-02	rs190737	1.5E-02	2.9E-02
11	RAB39	107304486	107339418	21	100000	40.48	5.7E-02	rs11212467	3.1E-03	1000	33.74	1.3E-01	rs963620	1.1E-02	2.9E-02
2	WDR75	190014403	190048509	17	100000	40.07	3.8E-02	rs10497703	1.2E-02	1000	27.00	1.8E-01	rs7608796	1.2E-02	2.9E-02
13	ZIC2	99432319	99437020	13	1000	20.77	1.4E-01	rs10851111	1.6E-02	100000	25.84	5.5E-02	rs2390334	3.7E-03	2.9E-02
10	CYP2C18	96433240	96485937	7	100000	46.16	2.7E-03	rs1926712	1.9E-03	1000	3.65	5.4E-01	rs4388808	1.9E-01	2.9E-02
1	PM20D1	204063775	204085868	15	1000	15.94	3.8E-01	rs11540014	4.3E-02	100000	51.12	8.9E-03	rs823066	8.1E-03	2.9E-02
8	PPP2R2A	26204950	26284563	25	1000	36.46	1.7E-01	rs1865305	3.1E-02	100000	65.23	4.2E-02	rs2170483	1.8E-03	2.9E-02

					QIMRHCS+OX				BBJ				QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
11	CPT1A	68278663	68365975	14	1000	18.10	2.6E-01	rs10791993	4.5E-02	100000	36.41	2.2E-02	rs2123869	6.0E-03	2.9E-02
17	HNF1B	33120546	33179209	35	1000	46.18	1.6E-01	rs9892543	7.0E-04	100000	58.26	4.8E-02	rs2285740	1.5E-03	2.9E-02
12	GLTP	108773130	108802676	9	1000	7.36	5.3E-01	rs7957938	1.5E-01	100000	39.18	2.9E-03	rs1861809	2.2E-03	2.9E-02
10	PPA1	71632591	71663196	19	1000	28.14	2.0E-01	rs7908356	1.0E-02	100000	50.29	3.4E-02	rs7908356	3.7E-03	2.9E-02
11	SCGB1D4	61820329	61823112	12	100000	35.67	2.0E-02	rs17157040	5.4E-03	1000	15.10	2.7E-01	rs10897242	3.0E-02	2.9E-02
4	RNF4	2440604	2487381	8	1000	13.74	1.4E-01	rs3128843	1.9E-02	100000	18.73	5.4E-02	rs1203808	1.9E-02	2.9E-02
6	AIM1	107066422	107125027	46	1000	66.53	1.4E-01	rs1770718	2.5E-02	100000	85.99	5.5E-02	rs11752138	2.7E-03	2.9E-02
22	DGCR6	17273735	17279601	7	1000	11.78	1.4E-01	rs450046	2.5E-02	100000	15.23	5.4E-02	rs2238732	1.1E-02	2.9E-02
3	DTX3L	123765955	123775968	24	1000	38.46	1.6E-01	rs9851180	2.4E-02	100000	49.62	4.8E-02	rs2036342	3.8E-03	2.9E-02
1	PEAR1	155130146	155152850	11	100000	29.84	2.0E-02	rs2644623	3.5E-02	1000	13.73	2.7E-01	rs943551	5.5E-02	2.9E-02
2	CGREF1	27176972	27195475	10	1000	19.32	1.3E-01	rs2011616	2.4E-02	100000	26.73	6.4E-02	rs3795961	1.8E-02	3.0E-02
8	GFRA2	21593809	21702292	34	1000	40.01	2.8E-01	rs4133279	1.1E-02	100000	74.13	1.9E-02	rs17581368	4.3E-03	3.0E-02
1	CFHR2	195179556	195194979	1	100000	7.15	7.2E-03	rs6667243	7.5E-03	1000	0.64	4.1E-01	rs6667243	4.2E-01	3.0E-02
10	CUL2	35338811	35419300	22	1000	44.61	1.3E-01	rs4934708	3.5E-02	100000	61.40	6.0E-02	rs7099036	3.7E-02	3.0E-02
1	CRB1	195504030	195714208	24	100000	64.04	2.0E-02	rs1135810	6.9E-04	1000	30.78	2.7E-01	rs9659183	5.7E-02	3.0E-02
16	ZNRF1	73590415	73702393	26	100000	103.22	3.1E-03	rs9646309	2.3E-04	1000	21.04	5.3E-01	rs7501201	4.2E-02	3.0E-02
7	OR6V1	142459559	142460501	6	100000	33.89	7.5E-03	rs10277305	1.5E-03	1000	4.06	4.1E-01	rs10246397	3.4E-01	3.0E-02
2	PRKCE	45732546	46268633	220	1000	278.63	1.7E-01	rs4953292	6.5E-03	100000	312.40	4.5E-02	rs556650	2.3E-03	3.0E-02
6	C6orf58	127940011	127954653	16	100000	36.05	5.4E-02	rs9388584	1.0E-02	1000	27.92	1.5E-01	rs9388584	3.4E-02	3.0E-02
3	SMC4	161600123	161635435	9	1000	11.09	2.8E-01	rs6798183	7.8E-02	100000	31.60	2.0E-02	rs4680580	1.7E-02	3.0E-02
15	LTK	39583131	39593791	15	1000	14.94	3.9E-01	rs2297377	9.5E-02	100000	53.50	9.0E-03	rs2297380	2.0E-03	3.0E-02
11	OR6Q1	57555000	57555954	13	100000	35.56	2.8E-02	rs4423203	6.0E-03	1000	17.56	2.3E-01	rs2513725	3.8E-03	3.0E-02
12	TPH2	70618892	70712488	27	100000	55.53	7.3E-02	rs7305115	3.4E-02	1000	45.96	1.2E-01	rs2129575	4.7E-04	3.0E-02
18	PIAS2	42646057	42751464	11	1000	20.11	1.4E-01	rs11872472	1.5E-02	100000	25.42	6.1E-02	rs4121690	1.5E-02	3.0E-02
6	CDC5L	44463279	44522758	34	1000	45.25	2.2E-01	rs4714784	1.4E-02	100000	76.00	3.1E-02	rs4413612	5.1E-04	3.0E-02
2	PRKRA	179004394	179024110	13	100000	40.44	2.2E-02	rs4894020	8.2E-03	1000	16.46	2.6E-01	rs2304340	8.8E-03	3.0E-02
17	TIMP2	74360653	74433067	29	1000	37.95	2.0E-01	rs7342880	8.9E-03	100000	56.90	3.4E-02	rs6501266	1.1E-02	3.0E-02
14	NIN	50256230	50367589	50	1000	72.96	1.3E-01	rs2073346	2.0E-02	100000	92.90	6.1E-02	rs17122988	7.7E-03	3.0E-02
9	MORN5	123962010	124002182	40	1000	58.44	1.4E-01	rs10818641	1.2E-02	100000	71.10	5.8E-02	rs3793621	5.3E-03	3.1E-02
1	TIMM17A	200191270	200206412	30	100000	75.08	1.5E-02	rs2360546	4.6E-03	1000	34.17	3.2E-01	rs4950752	3.3E-02	3.1E-02
1	ANGPTL1	177085292	177106838	7	1000	12.20	1.5E-01	rs3753535	6.7E-02	100000	18.78	5.2E-02	rs6425502	1.9E-02	3.1E-02
4	GLRB	158216726	158312692	14	1000	24.35	1.1E-01	rs10025251	1.0E-02	100000	29.08	7.7E-02	rs2343744	5.3E-03	3.1E-02
14	FANCM	44674885	44739843	8	100000	35.65	1.1E-02	rs3916169	1.1E-03	1000	7.61	3.7E-01	rs7152024	1.7E-01	3.1E-02
15	GABRG3	24799262	25451729	150	100000	239.58	4.4E-02	rs4340300	6.1E-03	1000	187.47	1.8E-01	rs3098543	5.8E-03	3.1E-02
8	ZBTB10	81561002	81597165	18	1000	27.55	1.5E-01	rs1051919	4.4E-02	100000	41.30	5.3E-02	rs1978564	9.6E-03	3.1E-02
17	KRTAP9-2	36636425	36637430	8	100000	19.51	6.4E-02	rs9895355	3.8E-02	1000	15.37	1.3E-01	rs447375	6.0E-02	3.1E-02
22	RASD2	34267297	34279991	28	1000	38.75	1.9E-01	rs139059	3.5E-02	100000	55.94	4.0E-02	rs5750112	8.3E-03	3.1E-02
6	SLC2A12	134350411	134415482	31	100000	56.22	7.2E-02	rs965652	1.3E-03	1000	48.27	1.2E-01	rs228867	6.3E-03	3.1E-02
20	RIN2	19818209	19931100	69	1000	83.27	2.3E-01	rs369005	7.4E-03	100000	113.80	2.9E-02	rs6046482	2.9E-04	3.1E-02
5	MOCS2	52429651	52441355	27	1000	37.16	2.0E-01	rs30101	1.3E-03	100000	61.94	3.7E-02	rs30094	1.1E-03	3.1E-02
5	PCDHA12	140235114	140372113	18	100000	55.81	1.8E-02	rs155818	8.3E-03	1000	21.97	3.0E-01	rs59479	1.3E-01	3.1E-02
13	PROZ	112860968	112874695	10	1000	15.51	1.2E-01	rs488703	7.7E-03	100000	19.15	7.5E-02	rs3751411	1.3E-02	3.1E-02
11	CSRP3	19160153	19180165	27	1000	37.63	1.7E-01	rs7936229	3.8E-03	100000	53.74	4.7E-02	rs12146588	9.0E-04	3.1E-02
2	RMND5A	86801203	86855943	10	1000	16.48	1.8E-01	rs12997796	5.3E-02	100000	28.04	4.4E-02	rs12997796	9.2E-03	3.1E-02
4	UGT2B10	69716317	69731209	4	100000	9.58	1.0E-01	rs6843220	3.0E-02	100000	9.76	8.7E-02	rs13123929	2.5E-02	3.1E-02
7	MCM7	99528339	99537363	7	1000000	41.35	1.1E-03	rs6975031	3.6E-04	1000	3.27	6.6E-01	rs11550034	2.9E-01	3.1E-02
20	GATA5	60471947	60484421	20	1000	20.61	3.9E-01	rs10460672	4.3E-02	100000	64.27	9.3E-03	rs8125731	7.8E-04	3.1E-02
7	DUS4L	106991667	107006204	6	100000	36.07	1.6E-03	rs10953541	5.6E-04	1000	2.99	6.2E-01	rs711442	2.9E-01	3.1E-02
21	C21orf62	33084854	33107876	16	1000	30.30	1.2E-01	rs6517109	1.1E-02	100000	36.14	7.2E-02	rs11088230	2.0E-02	3.1E-02
22	NIPSNAP1	28280797	28307144	14	100000	49.65	1.3E-02	rs4823044	8.6E-03	1000	15.07	3.4E-01	rs737976	4.5E-02	3.1E-02
10	SAR1A	71579966	71600272	22	1000	22.90	3.9E-01	rs7908356	1.0E-02	100000	71.45	9.3E-03	rs7908356	3.7E-03	3.1E-02
1	BTG2	201541286	201545352	14	100000	37.72	1.3E-02	rs4483473	2.9E-03	1000	15.14	3.5E-01	rs10800913	6.3E-02	3.1E-02
6	HIST1H3H	27885820	27886293	10	1000	14.13	2.1E-01	rs9295749	3.5E-02	100000	28.73	3.5E-02	rs200480	1.0E-02	3.1E-02
1	PFKFB2	205293242	205320991	22	100000	39.99	7.8E-02	rs764317	8.4E-03	1000	38.36	1.1E-01	rs1126618	7.2E-03	3.1E-02
8	TMEM66	30040172	30060191	14	100000	36.72	3.6E-02	rs12548565	4.1E-03	1000	20.33	2.0E-01	rs9649896	5.3E-03	3.1E-02
5	FGFR4	176446526	176457732	5	100000	10.26	7.4E-02	rs6556301	6.6E-03	1000	8.87	1.2E-01	rs6870999	9.8E-03	3.2E-02
4	ARHGAP24	86615307	87142847	101	100000	182.30	2.9E-02	rs13118367	2.2E-03	1000	121.33	2.3E-01	rs6845803	1.2E-02	3.2E-02
9	C9orf3	96528814	96889262	44	1000	34.69	6.0E-01	rs4744381	2.8E-02	100000	155.51	2.1E-03	rs10761374	2.2E-04	3.2E-02
4	TLR6	38504802	38507555	16	100000	45.59	3.0E-02	rs4833095	1.2E-02	1000	21.70	2.3E-01	rs6531673	2.7E-02	3.2E-02
12	GPR19	12705262	12706671	24	100000	61.94	2.7E-02	rs7309378	1.5E-03	1000	32.33	2.4E-01	rs2270451	4.2E-02	3.2E-02
15	CEP152	46817639	46890476	21	100000	74.93	8.4E-03	rs2304546	5.0E-04	1000	20.06	4.1E-01	rs1426199	3.6E-02	3.2E-02
11	PTPN5	18706050	18769965	39	100000	73.49	3.6E-02	rs10832998	2.4E-02	1000	50.12	2.0E-01	rs4561190	6.0E-03	3.2E-02
6	C6orf15	31186978	31188311	51	1000	49.73	4.3E-01	rs2844635	8.8E-03	100000	145.16	7.5E-03	rs3094187	1.1E-03	3.2E-02
16	TNFRSF12A	3010313	3012384	11	1000	15.00	2.2E-01	rs4786370	4.9E-02	100000	30.59	3.4E-02	rs10431961	8.7E-03	3.2E-02
13	EFHA1	20964838	21076307	18	100000	50.53	3.9E-02	rs2040060	7.8E-03	1000	27.28	2.0E-01	rs1899878	9.5E-04	3.2E-02
5	ANKRA2	72883918	72897254	18	1000	27.08	1.4E-01	rs2914544	4.8E-02	100000	36.67	6.0E-02	rs865340	1.3E-03	3.2E-02
16	HCFC1R1	3012626	3014288	11	1000	15.00	2.2E-01	rs4786370	4.9E-02	100000	30.59	3.3E-02	rs10431961	8.7E-03	3.2E-02
11	FANCF	22600654	22603963	7	100000	21.27	2.4E-02	rs16909703	3.0E-04	1000	9.00	2.6E-01	rs1355889	1.1E-01	3.2E-02
1	ELF3	200246312	200252938	25	100000	58.72	2.9E-02	rs2819360	1.0E-02	1000	31.86	2.3E-01	rs10920315	5.4E-03	3.2E-02
3	PPM1M	52255264	52259655	5	1000	10.51	1.1E-01	rs352143	2.9E-02	100000	12.59	8.6E-02	rs353547	6.8E-02	3.2E-02
1	GSTM4	110000225	110009648	9	1000	11.38	2.4E-01	rs2304355	5.0E-03	100000	24.02	2.7E-02	rs865774	6.1E-03	3.2E-02
18	DSC3	26824049	26876779	48	1000	55.79	2.8E-01	rs1583609	9.5E-03	100000	110.80	2.1E-02	rs1612474	3.6E-03	3.2E-02
17	NME1-NM	46585918	46604104	6	1000	5.85	3.5E-01	rs2215290	1.6E-01	100000	26.91	1.3E-02	rs10514981	2.3E-03	3.2E-02
17	KRTAP9-3	36642240	36643232	6	100000	16.12	5.1E-02	rs9895355	3.8E-02	1000	10.03	1.6E-01	rs447375	6.0E-02	3.2E-02
2	ABHD1	27200160	27207184	9	1000	17.31	1.2E-01	rs2011616	2.4E-02	100000	23.10	7.3E-02	rs3795961	1.8E-02	3.2E-02
17	FZD2	39990450	39992433	17	1000	22.67	2.1E-01	rs7501777	2.9E-02	100000	39.90	3.5E-02	rs9891184	1.6E-03	3.2E-02
6	TAAR1	133007815	133008835	37	1000	42.36	3.2E-01	rs3798800	2.0E-02	100000	93.80	1.6E-02	rs909975	2.8E-03	3.2E-02
14	RABGGTA	23804583	23810643	11	100000	41.72	2.2E-03	rs7158744	1.1E-04	1000	8.45	5.9E-01	rs3940231	1.1E-01	3.2E-02
3	UBXD7	197564765	197643742	13	1000	10.91	4.8E-01	rs7639524	1.8E-02	100000	51.90	5.2E-03	rs2342371	1.7E-03	3.3E-02
14	PTGER2	51850862	51865072	20	100000	42.51	5.8E-02	rs17125362	1.7E-02	1000	32.88	1.5E-01	rs17253026	2.8E-02	3.3E-02

					QIMRHCS+OX				BBJ				QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
21	NCAM2	21292503	21833085	123	100000	209.86	3.9E-02	rs2826620	3.2E-04	1000	148.10	2.0E-01	rs2826836	1.4E-03	3.3E-02
10	FRAT1	99069011	99071662	12	100000	55.96	3.3E-03	rs10786327	4.2E-04	1000	8.76	5.5E-01	rs4919096	1.4E-01	3.3E-02
1	NIT1	159354514	159357481	9	1000	17.09	1.2E-01	rs4656287	2.2E-02	100000	19.59	7.4E-02	rs11576830	3.4E-02	3.3E-02
3	CCDC37	127596471	127638088	24	100000	48.00	6.4E-02	rs4679245	1.9E-02	1000	37.53	1.4E-01	rs4410406	7.9E-03	3.3E-02
22	CRYBB3	23925824	23933324	34	1000	44.46	2.0E-01	rs5760907	5.1E-03	100000	73.27	3.8E-02	rs5752073	2.6E-03	3.3E-02
17	MYH10	8318254	8474761	21	100000	69.52	5.1E-03	rs7225835	3.3E-03	1000	18.98	4.9E-01	rs6503137	6.0E-02	3.3E-02
14	C14orf135	59628381	59671285	6	100000	17.89	6.4E-02	rs309004	9.4E-03	1000	11.21	1.4E-01	rs388389	7.9E-02	3.3E-02
3	ALAS1	52207155	52223383	5	1000	10.51	1.1E-01	rs352143	2.9E-02	100000	12.59	8.6E-02	rs353547	6.8E-02	3.3E-02
9	LHX6	124004678	124030840	29	1000	38.88	2.0E-01	rs10818641	1.2E-02	100000	58.82	3.8E-02	rs3793621	5.3E-03	3.3E-02
1	CREG1	165776874	165789680	47	100000	90.15	2.5E-02	rs6686571	1.3E-03	1000	56.15	2.6E-01	rs2982484	1.9E-02	3.3E-02
8	C8orf74	10567556	10595513	23	100000	41.16	8.6E-02	rs4841404	2.5E-02	1000	37.97	1.1E-01	rs7834573	2.0E-02	3.3E-02
6	C4A-2	32090549	32111173	12	100000	47.09	4.3E-03	rs12333245	2.9E-05	1000	9.94	5.1E-01	rs492899	2.4E-02	3.3E-02
9	CTNNAL1	110744671	110815585	24	1000	31.72	2.4E-01	rs7776	2.1E-02	100000	63.68	2.9E-02	rs866311	7.6E-03	3.3E-02
6	SCUBE3	35290167	35326587	6	100000	17.17	4.2E-02	rs11755266	1.4E-02	1000	9.47	1.9E-01	rs11755266	8.3E-02	3.3E-02
3	IFT80	161457481	161600014	13	1000	15.79	2.7E-01	rs6798183	7.8E-02	100000	40.48	2.4E-02	rs4679881	1.7E-02	3.3E-02
4	RAP1GDS1	99401549	99584035	26	1000	45.95	1.1E-01	rs4374629	1.2E-02	100000	51.49	9.0E-02	rs4303985	1.1E-02	3.3E-02
1	ATP13A2	17185039	17210854	18	100000	67.50	9.5E-03	rs2076604	5.3E-03	1000	17.09	4.0E-01	rs978528	1.2E-01	3.3E-02
16	ACSM5	20328356	20359782	18	1000	26.02	1.7E-01	rs7185940	2.3E-02	100000	34.24	5.1E-02	rs11864909	2.7E-02	3.3E-02
19	ZNF791	12582731	12601676	7	100000	25.37	2.4E-02	rs8112261	4.8E-03	1000	8.17	2.7E-01	rs8112261	1.5E-01	3.3E-02
14	SAMD4A	54104386	54325595	58	100000	98.65	4.4E-02	rs8021281	1.2E-03	1000	72.70	1.9E-01	rs3742562	2.5E-02	3.3E-02
8	BNIP3L	26296439	26326561	20	100000	35.93	9.3E-02	rs1865305	3.1E-02	1000	34.80	1.0E-01	rs3808566	2.3E-03	3.4E-02
6	HIST1H2BN	27890800	27891246	9	1000	12.48	2.2E-01	rs9295749	3.5E-02	100000	25.53	3.5E-02	rs200480	1.0E-02	3.4E-02
2	ACSL3	223433975	223516363	21	100000	40.01	8.9E-02	rs705727	6.1E-03	1000	37.70	1.1E-01	rs6751670	1.6E-02	3.4E-02
19	ACSBG2	6086709	6144112	15	100000	30.41	6.5E-02	rs10853992	2.2E-02	1000	24.08	1.4E-01	rs8108353	3.0E-02	3.4E-02
3	DKFZp667C	99078508	99146500	16	1000	15.51	4.1E-01	rs3856571	7.1E-02	100000	58.43	9.1E-03	rs6780855	8.7E-05	3.4E-02
1	CD52	26516997	26519601	22	100000	62.65	2.0E-02	rs10902731	5.2E-03	1000	24.44	3.0E-01	rs7541333	1.1E-01	3.4E-02
14	ADAM21	69993969	69996375	9	1000	15.63	1.6E-01	rs12880777	2.3E-02	100000	26.54	5.6E-02	rs12889741	2.6E-02	3.4E-02
1	MCL1	148813658	148818760	13	1000	21.17	1.2E-01	rs11204666	4.0E-03	100000	24.45	7.7E-02	rs4971041	9.4E-03	3.4E-02
17	PAFAH1B1	2443672	2535659	12	100000	26.55	4.4E-02	rs7212318	2.0E-03	1000	17.29	1.9E-01	rs4790344	2.1E-02	3.4E-02
19	UQCRFS1	34390006	34395976	13	1000	12.25	4.5E-01	rs4805358	1.2E-01	100000	47.78	7.1E-03	rs13382050	3.1E-03	3.4E-02
2	ALS2CR2	202024636	202053819	7	100000	17.73	6.9E-02	rs7603584	1.6E-02	1000	12.52	1.4E-01	rs10497868	6.9E-02	3.4E-02
1	LMOD1	200132206	200182339	25	100000	51.43	4.2E-02	rs2360546	4.6E-03	1000	33.41	2.0E-01	rs6427922	2.9E-02	3.4E-02
15	ITPKA	39573413	39583039	14	1000	12.69	4.3E-01	rs2297377	9.5E-02	100000	52.18	7.9E-03	rs2297380	2.0E-03	3.4E-02
22	EIF4ENIF1	30165354	30215704	13	1000	17.19	2.5E-01	rs4820983	5.0E-02	100000	34.45	2.9E-02	rs695455	1.5E-03	3.4E-02
17	ATP5G1	44325146	44328231	12	1000	15.52	2.6E-01	rs2303015	7.8E-02	100000	37.47	2.7E-02	rs12449856	2.0E-03	3.4E-02
1	PBX1	162795560	163082934	97	100000	161.62	4.1E-02	rs1770552	9.0E-03	1000	118.00	2.0E-01	rs12081132	7.9E-04	3.4E-02
17	DUSP14	32924063	32947701	12	1000	12.11	3.8E-01	rs853195	1.2E-01	100000	42.24	1.1E-02	rs1045000	3.7E-03	3.4E-02
7	NCAPG2	158116763	158190281	26	1000	36.26	2.1E-01	rs1869362	2.6E-03	100000	63.19	3.9E-02	rs4909093	2.2E-03	3.4E-02
15	JMJD7	39907574	39917077	17	100000	66.55	8.3E-03	rs11070352	4.0E-04	1000	16.09	4.3E-01	rs11070352	1.2E-01	3.4E-02
6	C4B-2	32090549	32111174	12	100000	47.09	4.4E-03	rs12333245	2.9E-05	1000	9.94	5.2E-01	rs492899	2.4E-02	3.4E-02
12	RERG	15151983	15265571	38	100000	120.23	2.5E-03	rs767201	5.9E-05	1000	30.76	5.9E-01	rs4764176	6.5E-02	3.4E-02
9	FAM75B	83865479	83866824	1	1000	0.80	3.7E-01	rs12343157	3.7E-01	100000	6.32	1.2E-02	rs12343157	1.2E-02	3.4E-02
21	C21orf56	46405497	46428729	27	100000	67.93	2.1E-02	rs2839156	2.6E-04	1000	30.63	3.0E-01	rs1980983	9.3E-03	3.5E-02
7	ZNF783	148590194	148613015	19	1000	28.99	1.5E-01	rs11976830	1.4E-02	100000	39.58	6.5E-02	rs736548	6.0E-03	3.5E-02
1	PAFAH2	26158844	26197235	17	100000	76.15	4.2E-03	rs2369433	2.3E-03	1000	12.36	5.3E-01	rs12074420	7.0E-02	3.5E-02
11	SORL1	120828170	121009681	39	100000	90.40	2.1E-02	rs676165	2.5E-03	1000	42.86	3.0E-01	rs4631890	1.7E-02	3.5E-02
12	TPCN1	112143651	112218317	8	100000	27.48	2.1E-02	rs16942754	7.8E-03	1000	8.78	3.0E-01	rs7304051	1.4E-01	3.5E-02
6	PSMB1	170686133	170704312	16	1000	18.94	2.6E-01	rs4710834	2.7E-02	100000	58.56	2.7E-02	rs12201276	7.3E-03	3.5E-02
13	SAP18	20612684	20620976	20	1000	29.86	1.4E-01	rs7984429	3.1E-02	100000	37.12	6.9E-02	rs9552349	5.7E-02	3.5E-02
7	TBRG4	45106223	45117842	25	1000	37.36	1.5E-01	rs2119053	8.7E-04	100000	53.01	6.2E-02	rs1001348	1.5E-02	3.5E-02
10	KCNMA1	78299367	79067583	183	1000	184.43	4.3E-01	rs676267	3.0E-03	100000	336.35	8.2E-03	rs499437	5.5E-04	3.5E-02
12	IQCD	112117628	112143263	7	100000	22.30	4.5E-02	rs7309187	2.5E-02	1000	10.72	1.9E-01	rs7304051	1.4E-01	3.5E-02
4	TBC1D19	26194643	26366015	14	100000	61.53	1.7E-02	rs7689475	9.2E-03	1000	14.78	3.3E-01	rs4692549	1.4E-01	3.5E-02
6	EYA4	133604187	133894951	86	100000	140.32	8.1E-02	rs492771	1.1E-03	1000	127.61	1.2E-01	rs6908856	1.0E-03	3.5E-02
6	TAAR6	132933153	132934191	41	1000	46.42	3.1E-01	rs9321350	3.3E-03	100000	93.38	2.0E-02	rs6904470	6.8E-03	3.5E-02
1	KIF2C	44978076	45006025	13	1000	9.08	5.5E-01	rs11211037	2.3E-01	100000	53.60	3.6E-03	rs12088087	6.3E-03	3.5E-02
19	EML2	50804497	50834509	20	1000	25.70	2.2E-01	rs4802262	1.6E-02	100000	41.26	3.8E-02	rs7252448	7.3E-03	3.5E-02
3	KLHL24	184836104	184884998	14	100000	50.12	1.8E-02	rs9856481	6.9E-04	1000	13.74	3.2E-01	rs11707792	7.5E-02	3.5E-02
1	TRIM67	229365296	229423937	34	1000	25.92	6.4E-01	rs16854012	3.4E-02	1000000	108.31	1.7E-03	rs6679627	4.0E-04	3.5E-02
6	CNPY3	43004837	43014986	17	100000	56.01	2.5E-02	rs9471969	2.1E-02	1000	21.55	2.7E-01	rs6941129	3.9E-02	3.5E-02
1	TMEM82	15941503	15947064	18	1000	31.50	1.2E-01	rs938295	1.8E-03	100000	37.35	8.1E-02	rs2271545	6.1E-03	3.5E-02
22	OSBP2	29420792	29633811	52	100000	98.58	5.8E-02	rs4820899	2.9E-03	1000	78.71	1.6E-01	rs136245	9.7E-03	3.5E-02
15	MEF2A	97956184	98071524	34	100000	73.14	4.9E-02	rs8041078	1.2E-02	1000	50.92	1.8E-01	rs1991921	5.9E-02	3.5E-02
6	HIST1H2AJ	27890058	27890497	9	1000	12.48	2.3E-01	rs9295749	3.5E-02	100000	25.53	3.5E-02	rs200480	1.0E-02	3.5E-02
8	ZFP41	144400483	144416250	12	100000	24.75	8.5E-02	rs10087900	2.4E-02	1000	21.86	1.2E-01	rs1122242	5.9E-02	3.5E-02
19	GIPR	50863341	50877557	17	1000	23.90	1.7E-01	rs4802262	1.6E-02	100000	34.55	5.3E-02	rs7252448	7.3E-03	3.5E-02
18	PARD6G	76016105	76106388	20	100000	67.12	8.5E-03	rs4398161	3.3E-04	1000	18.42	4.3E-01	rs12970236	4.8E-02	3.5E-02
7	COPS6	99524518	99527758	8	100000	42.29	1.9E-03	rs6975031	3.6E-04	1000	4.31	6.3E-01	rs11550034	2.9E-01	3.5E-02
17	NDEL1	8279903	8312206	10	100000	26.81	3.3E-02	rs2277670	5.2E-03	1000	13.32	2.4E-01	rs2133336	6.9E-02	3.5E-02
22	DGCR2	17403794	17489967	28	1000	45.08	1.4E-01	rs807673	6.6E-03	100000	52.82	6.8E-02	rs4819778	1.5E-02	3.5E-02
15	RPAP1	39596666	39623756	16	1000	15.05	4.1E-01	rs2297377	9.5E-02	100000	56.05	1.0E-02	rs2297380	2.0E-03	3.6E-02
17	UNK	71292275	71333481	13	1000	23.08	1.3E-01	rs2290771	4.2E-02	100000	28.03	7.6E-02	rs2290771	9.8E-03	3.6E-02
6	TRIM26	30260210	30289132	27	100000	100.26	5.6E-03	rs1362089	4.3E-03	1000	22.24	4.9E-01	rs2074475	5.2E-03	3.6E-02
22	GSC2	17516503	17517796	20	1000	27.06	2.0E-01	rs807673	6.6E-03	100000	38.56	4.5E-02	rs4819778	1.5E-02	3.6E-02
11	EFCAB4A	817584	821991	5	1000	10.37	1.0E-01	rs1138714	1.7E-02	100000	10.15	9.9E-02	rs10902222	1.9E-02	3.6E-02
7	ABCB5	20653740	20761821	47	100000	83.98	4.9E-02	rs4721944	1.1E-02	1000	59.14	1.9E-01	rs2301641	8.4E-03	3.6E-02
1	LELP1	151442542	151444220	24	1000	33.12	1.9E-01	rs11576296	4.8E-02	100000	48.91	4.6E-02	rs1926234	1.3E-02	3.6E-02
6	PSORS1C1	31190601	31215816	65	1000	58.72	4.6E-01	rs2844635	8.8E-03	100000	191.25	7.4E-03	rs3094187	1.1E-03	3.6E-02
1	ZMYM6	35224353	35270156	6	1000	5.87	3.5E-01	rs6691848	1.7E-01	100000	29.49	1.6E-02	rs4072108	1.8E-02	3.6E-02
2	CCDC140	222871109	222878180	19	1000	22.14	3.3E-01	rs1583151	3.3E-02	100000	59.74	1.8E-02	rs1864556	5.1E-04	3.6E-02

					QIMRHCS+OX				BBJ					QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
1	HORMAD1	148937165	148959976	11	1000	2.70	6.6E-01	rs10888390	1.5E-01	1000000	100.20	1.6E-03	rs1336899	1.4E-03	3.6E-02
20	GTPBP5	60191475	60211205	25	100000	52.96	4.9E-02	rs6142990	1.9E-03	1000	36.68	1.9E-01	rs944887	7.3E-02	3.6E-02
16	CCNF	2419395	2448860	2	1000	5.07	1.3E-01	rs4497687	7.3E-02	100000	5.89	8.2E-02	rs4497687	3.1E-02	3.6E-02
19	MYADM	59061422	59071501	8	1000	11.18	2.0E-01	rs4806712	6.0E-02	100000	16.87	4.6E-02	rs3844453	4.9E-03	3.6E-02
1	IPO13	44185229	44206012	17	1000	9.12	6.9E-01	rs1362153	1.2E-01	100000	93.69	1.2E-03	rs2486013	3.8E-04	3.6E-02
4	AGXT2L1	109882650	109903658	19	1000	20.44	3.6E-01	rs9999830	1.5E-02	100000	49.37	1.4E-02	rs1840063	7.8E-03	3.6E-02
7	PEX1	91954272	91995781	7	100000	27.96	2.9E-02	rs10252324	1.9E-03	1000	8.84	2.6E-01	rs10252324	1.3E-01	3.6E-02
1	STMN1	26099193	26105955	9	100000	19.59	9.8E-02	rs12037513	1.6E-02	1000	19.93	1.1E-01	rs12037513	2.2E-03	3.6E-02
1	CREB3L4	152207020	152213456	6	1000	12.52	1.2E-01	rs11264680	9.4E-02	100000	14.36	9.0E-02	rs11264743	5.6E-02	3.6E-02
1	RPS27	152229852	152231249	6	1000	12.52	1.1E-01	rs11264680	9.4E-02	100000	14.36	9.2E-02	rs11264743	5.6E-02	3.6E-02
5	FLJ37543	60969392	61038119	46	100000	83.33	7.7E-02	rs7713549	1.8E-03	1000	70.37	1.3E-01	rs379212	1.3E-02	3.6E-02
7	HBP1	106596695	106630210	12	100000	47.27	4.8E-03	rs7794915	2.0E-03	1000	9.40	5.2E-01	rs7794437	1.3E-01	3.6E-02
6	GNMT	43036477	43039596	17	100000	48.79	3.6E-02	rs9471969	2.1E-02	1000	22.45	2.3E-01	rs6941129	3.9E-02	3.6E-02
19	ZNF790	42000170	42021124	7	100000	17.53	5.3E-02	rs826278	2.3E-02	1000	11.51	1.8E-01	rs1148399	9.9E-02	3.6E-02
7	CLDN3	72821262	72822536	9	1000	7.52	3.9E-01	rs4717104	1.1E-01	100000	36.47	1.2E-02	rs11764572	9.5E-03	3.6E-02
18	L3MBTL4	5944704	6404910	102	1000	92.53	5.5E-01	rs4798428	2.0E-02	100000	207.20	3.8E-03	rs16949425	2.2E-03	3.6E-02
16	CNTNAP4	74868676	75150636	71	1000	98.58	1.3E-01	rs7206446	1.5E-02	100000	112.97	7.7E-02	rs6564323	3.1E-03	3.6E-02
1	ERO1LB	234447082	234511908	21	100000	62.51	1.6E-02	rs1254207	1.1E-02	1000	22.98	3.5E-01	rs1254207	2.3E-02	3.7E-02
12	C12orf36	13415289	13420912	28	1000	24.23	5.1E-01	rs725224	2.6E-02	100000	71.93	5.3E-03	rs10845768	3.1E-03	3.7E-02
6	PSORS1C2	31213289	31215106	61	1000	55.39	4.7E-01	rs2844635	8.8E-03	100000	185.75	6.9E-03	rs3094187	1.1E-03	3.7E-02
19	PIH1D1	54641367	54646879	13	100000	34.70	2.7E-02	rs11671438	5.3E-04	1000	14.79	2.7E-01	rs2280401	8.2E-02	3.7E-02
6	HEY2	126112424	126124108	11	1000	13.91	2.5E-01	rs1268093	8.8E-02	100000	36.92	3.3E-02	rs1777220	4.4E-03	3.7E-02
16	ZNF213	3125139	3132806	12	1000	25.32	1.2E-01	rs2741900	1.6E-02	100000	25.84	9.0E-02	rs909410	2.8E-02	3.7E-02
2	HADHB	26321119	26366837	11	1000	21.62	1.1E-01	rs2052937	2.1E-02	100000	22.58	9.5E-02	rs10177371	5.8E-03	3.7E-02
4	LARP7	113777568	113798191	2	100000	5.60	6.5E-02	rs11722959	2.0E-02	1000	3.57	1.6E-01	rs11722959	1.4E-01	3.7E-02
1	IFI16	157246305	157291569	16	1000	11.47	6.1E-01	rs856135	5.1E-02	1000000	76.65	2.5E-03	rs1772415	2.2E-03	3.7E-02
17	NME2	46597889	46604104	6	1000	5.85	3.7E-01	rs2215290	1.6E-01	100000	26.91	1.4E-02	rs10514981	2.3E-03	3.7E-02
12	RBMS2	55201992	55269875	9	100000	22.42	4.4E-02	rs6581096	7.8E-03	1000	13.51	2.1E-01	rs10450	1.5E-02	3.7E-02
11	CRY2	45825244	45861375	11	1000	18.04	1.3E-01	rs11607883	5.0E-02	100000	22.75	7.9E-02	rs3824872	2.0E-02	3.7E-02
1	HRNR	150451181	150463293	16	100000	34.51	7.7E-02	rs10888470	3.9E-02	1000	27.44	1.4E-01	rs924088	4.3E-03	3.7E-02
19	FLJ32658	54583317	54613058	12	100000	34.43	2.2E-02	rs11671438	5.3E-04	1000	13.88	3.1E-01	rs7248176	1.4E-01	3.7E-02
11	CD248	65838533	65841091	8	100000	15.74	9.8E-02	rs523583	1.9E-02	1000	15.00	1.1E-01	rs556595	1.6E-02	3.7E-02
1	CTSS	148969175	149004929	11	1000	2.70	6.6E-01	rs10888390	1.5E-01	1000000	100.20	1.7E-03	rs1336899	1.4E-03	3.7E-02
20	ZNF217	51617016	51633043	10	1000	15.90	1.6E-01	rs2741383	2.5E-02	100000	22.16	6.1E-02	rs2741396	2.1E-02	3.7E-02
5	MYOZ3	150020596	150039118	15	100000	39.07	3.1E-02	rs10077713	3.1E-03	1000	18.32	2.6E-01	rs252155	4.2E-02	3.7E-02
19	ZNF829	42074092	42099030	11	100000	27.56	4.9E-02	rs10411931	5.6E-03	1000	17.42	1.9E-01	rs543518	8.0E-02	3.7E-02
6	TRIM15	30238961	30248452	24	100000	75.37	9.3E-03	rs9261535	5.1E-03	1000	21.97	4.3E-01	rs2074475	5.2E-03	3.7E-02
8	FAM110B	59069666	59224831	49	1000	64.14	2.0E-01	rs10092970	8.7E-03	100000	85.03	4.6E-02	rs4237024	4.9E-03	3.7E-02
10	FLJ45983	8132418	8135453	23	100000	41.14	7.4E-02	rs434645	2.5E-03	1000	34.74	1.4E-01	rs10795588	3.2E-02	3.7E-02
3	KPNA1	123623437	123716474	24	100000	60.19	4.8E-02	rs9851180	2.4E-02	1000	35.81	2.0E-01	rs4678192	5.6E-02	3.7E-02
22	SFI1	30222260	30344534	23	100000	45.34	9.2E-02	rs5998074	4.6E-03	1000	38.32	1.2E-01	rs1968023	9.4E-03	3.7E-02
19	PSG4	48388693	48401630	2	100000	9.19	1.1E-02	rs8111681	1.0E-02	1000	1.40	4.2E-01	rs11083692	4.0E-01	3.7E-02
17	KRTAP9-8	36647795	36648782	4	100000	12.85	3.1E-02	rs9895355	3.8E-02	1000	5.00	2.6E-01	rs238824	6.1E-02	3.8E-02
8	GGH	64090192	64113940	17	1000	29.29	1.2E-01	rs921833	4.8E-02	100000	32.52	8.7E-02	rs989240	1.9E-02	3.8E-02
1	SLC25A34	15935395	15940471	18	1000	31.50	1.3E-01	rs938295	1.8E-03	100000	37.35	8.0E-02	rs2271545	6.1E-03	3.8E-02
17	SOCS7	33761530	33809545	12	1000	15.26	2.7E-01	rs8067381	1.9E-02	100000	28.67	2.9E-02	rs8182236	6.1E-03	3.8E-02
1	KIF21B	199205142	199259451	24	1000	34.22	2.0E-01	rs7536488	8.7E-03	100000	52.22	4.7E-02	rs296547	9.2E-03	3.8E-02
1	PADI2	17265842	17318535	26	100000	76.24	2.4E-02	rs4920653	1.3E-02	1000	29.80	3.0E-01	rs978528	1.2E-01	3.8E-02
1	LRRC8C	89871294	89957682	27	1000	30.32	3.3E-01	rs7512068	3.5E-02	100000	72.88	2.0E-02	rs6428561	2.1E-04	3.8E-02
10	GATA3	8136672	8157170	26	100000	43.09	8.9E-02	rs434645	2.5E-03	1000	39.86	1.2E-01	rs10795588	3.2E-02	3.8E-02
10	AIFM2	71542035	71562696	27	1000	23.73	5.4E-01	rs10823484	7.9E-02	100000	83.02	4.5E-03	rs7073719	4.6E-03	3.8E-02
17	KRTAP4-4	36569431	36570509	9	100000	17.91	9.6E-02	rs7214006	4.9E-02	100000	17.75	1.1E-01	rs447375	6.0E-02	3.8E-02
19	ZNF260	41693433	41711010	13	1000	19.78	1.5E-01	rs3745779	2.4E-02	100000	28.96	6.9E-02	rs2967436	1.7E-02	3.8E-02
16	CLDN9	3002206	3004507	11	1000	15.70	1.9E-01	rs4786370	4.9E-02	100000	27.22	5.0E-02	rs10431961	8.7E-03	3.8E-02
9	OGN	94186069	94206758	5	1000	5.55	3.2E-01	rs7848472	1.3E-01	100000	15.21	2.0E-02	rs944949	1.8E-02	3.8E-02
12	SOCS2	92487728	92494109	20	100000	50.71	3.3E-02	rs10745657	1.6E-03	1000	25.86	2.5E-01	rs11107116	3.6E-02	3.8E-02
16	MGC45438	5034123	5056112	20	100000	36.68	8.6E-02	rs7110	7.3E-03	1000	33.99	1.3E-01	rs8047337	1.6E-03	3.8E-02
6	MOG	29732787	29748128	27	1000	41.69	1.6E-01	rs29230	2.0E-02	100000	59.81	6.4E-02	rs2535238	2.1E-02	3.8E-02
2	SLC40A1	190133560	190153782	23	1000	30.23	2.2E-01	rs1371468	4.2E-02	100000	47.08	4.2E-02	rs7608796	1.2E-02	3.8E-02
8	OTUD6B	92151599	92168499	14	100000	45.52	3.8E-02	rs11787186	5.6E-03	1000	18.13	2.4E-01	rs7341609	7.2E-02	3.8E-02
12	ATP5B	55318225	55326119	6	1000	7.23	2.7E-01	rs1465081	1.1E-01	100000	26.15	2.9E-02	rs10450	1.5E-02	3.9E-02
19	LGI4	40307256	40318018	20	1000	19.36	4.1E-01	rs7250814	1.1E-02	100000	59.83	1.2E-02	rs2290650	6.7E-05	3.9E-02
11	INSC	15090545	15225330	46	100000	80.03	6.4E-02	rs1714354	5.4E-03	1000	64.59	1.6E-01	rs1792532	7.7E-03	3.9E-02
1	GPR52	172683834	172685306	3	100000	6.45	1.1E-01	rs10912779	5.9E-02	1000	6.20	1.0E-01	rs10912779	1.9E-02	3.9E-02
17	ADAM11	40192093	40214740	6	100000	12.60	1.0E-01	rs4043263	1.0E-02	1000	10.63	1.1E-01	rs8064669	1.8E-02	3.9E-02
1	FBLIM1	15957841	15985671	19	1000	31.76	1.4E-01	rs938295	1.8E-03	100000	37.54	8.0E-02	rs2271545	6.1E-03	3.9E-02
8	LY6D	143863299	143865010	13	1000	10.54	5.2E-01	rs3736008	9.1E-02	100000	45.89	5.3E-03	rs11988843	1.5E-03	3.9E-02
15	ZFYVE19	38886565	38894059	8	100000	28.05	1.7E-02	rs690377	2.2E-03	1000	8.76	3.5E-01	rs4924508	2.2E-02	3.9E-02
7	LUC7L2	138695173	138758740	10	1000	12.42	2.8E-01	rs10441417	2.5E-02	100000	33.13	2.8E-02	rs10954649	1.7E-02	3.9E-02
11	INTS4	77267413	77383365	26	1000	26.59	3.5E-01	rs10899420	7.4E-02	100000	70.07	1.7E-02	rs10899433	1.9E-03	3.9E-02
4	STX18	4471596	4594676	41	1000	50.90	2.5E-01	rs4555567	3.8E-02	100000	90.12	3.4E-02	rs6856236	2.1E-03	3.9E-02
7	DNAJB6	156822470	156902894	28	100000	68.45	2.3E-02	rs917738	4.1E-03	1000	31.62	3.1E-01	rs7779677	6.2E-02	3.9E-02
19	ZNF529	41726362	41756037	13	1000	20.41	1.8E-01	rs3745779	2.4E-02	100000	32.33	5.8E-02	rs2967436	1.7E-02	3.9E-02
4	SH3TC1	8251959	8293730	19	1000	25.80	2.0E-01	rs10938694	1.5E-02	100000	37.99	5.0E-02	rs13140502	7.0E-03	3.9E-02
15	OR4F6	100163445	100164384	9	1000	14.11	1.8E-01	rs7182651	6.4E-02	100000	25.62	5.6E-02	rs7169868	3.6E-02	3.9E-02
21	SLC37A1	42792810	42874619	50	100000	102.57	3.5E-02	rs228094	2.4E-03	1000	59.12	2.5E-01	rs12483004	6.7E-03	3.9E-02
4	FLJ12993	83624627	83702150	22	100000	58.07	8.5E-03	rs11099542	2.1E-03	1000	20.43	4.6E-01	rs873931	6.8E-02	3.9E-02
14	ADAM20	70058830	70071485	11	1000	23.21	1.2E-01	rs10138448	2.0E-02	100000	24.80	9.1E-02	rs10138448	3.5E-02	3.9E-02
17	NME1	46585918	46594449	6	1000	5.85	3.9E-01	rs2215290	1.6E-01	100000	26.91	1.4E-02	rs10514981	2.3E-03	3.9E-02
1	FMO2	169421011	169448446	27	1000	43.32	1.2E-01	rs2421707	2.7E-02	100000	50.22	9.2E-02	rs7527067	6.4E-03	3.9E-02

					QIMRHCS+OX				BBJ					QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
6	PEX6	43039588	43054959	17	100000	45.88	4.2E-02	rs9471969	2.1E-02	1000	23.78	2.2E-01	rs6941129	3.9E-02	3.9E-02
15	TRIP4	62467072	62534555	5	100000	20.44	1.7E-02	rs7165405	7.0E-03	1000	4.86	3.6E-01	rs4776494	3.7E-02	3.9E-02
1	KLHDC9	159334777	159336760	11	1000	18.95	1.2E-01	rs4656287	2.2E-02	100000	21.28	9.8E-02	rs11576830	3.4E-02	3.9E-02
2	SFT2D3	128175066	128177877	10	1000	15.87	1.8E-01	rs7595381	6.6E-02	100000	28.41	6.0E-02	rs6754215	8.4E-03	3.9E-02
5	ZMAT2	140060215	140066423	8	100000	25.30	3.5E-02	rs2563292	2.3E-02	1000	10.14	2.5E-01	rs1583005	8.7E-02	3.9E-02
4	D4S234E	4438883	4471686	34	1000	49.39	1.4E-01	rs6843595	2.0E-02	100000	57.43	7.8E-02	rs6856236	2.1E-03	4.0E-02
6	STK19-2	32089495	32089939	7	100000	28.01	7.0E-03	rs12333245	2.9E-05	1000	6.04	4.9E-01	rs492899	2.4E-02	4.0E-02
1	RAB13	152220751	152225430	6	1000	12.52	1.3E-01	rs11264680	9.4E-02	100000	14.36	9.2E-02	rs11264743	5.6E-02	4.0E-02
3	TLR9	52230137	52235219	5	1000	10.51	1.3E-01	rs352143	2.9E-02	100000	12.59	8.6E-02	rs353547	6.8E-02	4.0E-02
9	OMD	94216347	94226657	3	1000	3.85	3.1E-01	rs7848472	1.3E-01	100000	9.67	2.4E-02	rs944949	1.8E-02	4.0E-02
4	LSM6	147316284	147330663	10	1000	4.81	7.1E-01	rs17021270	2.9E-01	1000000	49.52	1.3E-03	rs2007366	1.2E-04	4.0E-02
8	LOC389672	81633556	81634615	19	1000	32.29	1.0E-01	rs1051919	4.4E-02	1000	35.83	1.1E-01	rs1978564	9.6E-03	4.0E-02
4	MAML3	140856995	141294683	119	100000	188.38	5.7E-02	rs17314832	4.9E-03	1000	148.17	1.9E-01	rs13112302	2.9E-03	4.0E-02
6	RRAGD	90134312	90178484	24	1000	31.78	2.1E-01	rs1065657	1.4E-02	100000	49.48	4.8E-02	rs1998576	1.1E-02	4.0E-02
19	POP4	34789040	34798547	35	1000000	200.29	9.3E-05	rs10411749	1.8E-05	1000	16.52	9.0E-01	rs2288898	1.5E-01	4.0E-02
14	TXNDC16	51967058	52088963	26	100000	110.72	2.7E-03	rs17125492	5.1E-05	1000	17.84	6.2E-01	rs781365	4.2E-02	4.0E-02
5	HARS2	140051201	140059074	10	100000	26.93	5.3E-02	rs2563292	2.3E-02	1000	15.81	2.0E-01	rs753279	7.8E-02	4.0E-02
1	AADACL3	12698704	12711313	20	1000	35.59	1.0E-01	rs3000864	8.3E-03	1000	37.21	1.2E-01	rs3010948	1.3E-02	4.0E-02
3	CRELD1	9950505	9962090	11	1000	4.77	7.0E-01	rs279545	1.6E-01	100000	60.51	1.4E-03	rs279545	9.1E-05	4.0E-02
16	VAC14	69278842	69392562	25	100000	57.87	4.6E-02	rs11642770	9.3E-03	1000	32.91	2.2E-01	rs4985416	2.4E-02	4.0E-02
1	C8B	57167470	57204276	18	100000	40.38	4.3E-02	rs595056	9.2E-03	1000	24.11	2.3E-01	rs582317	4.7E-02	4.1E-02
16	LOC162073	19032782	19040453	9	1000	11.36	2.5E-01	rs4536454	4.4E-02	100000	19.93	3.6E-02	rs11074359	1.4E-03	4.1E-02
19	MRPL4	10223639	10231736	16	100000	30.10	7.2E-02	rs2116941	3.1E-02	1000	23.94	1.6E-01	rs8110105	4.2E-03	4.1E-02
1	CCDC21	26433279	26477886	20	100000	52.03	2.7E-02	rs3795686	4.1E-03	1000	23.49	2.9E-01	rs7541333	1.1E-01	4.1E-02
7	DKFZP564(	91996022	92004759	6	100000	24.55	3.2E-02	rs10252324	1.9E-03	1000	7.57	2.7E-01	rs10252324	1.3E-01	4.1E-02
12	PITPNM2	122033979	122160928	8	100000	29.20	3.6E-02	rs940904	5.0E-03	1000	9.73	2.5E-01	rs596940	7.0E-02	4.1E-02
9	ZNF169	96061398	96105112	12	100000	27.57	4.3E-02	rs10993121	1.9E-03	1000	16.17	2.3E-01	rs3118756	6.8E-02	4.1E-02
1	HIST2H2AE	148125642	148126090	5	1000	5.31	3.3E-01	rs577935	2.1E-01	100000	16.49	2.2E-02	rs11205277	1.1E-03	4.1E-02
14	AP4S1	30564433	30632389	10	1000	10.16	3.9E-01	rs7159848	3.8E-02	100000	32.11	1.4E-02	rs7150642	3.5E-03	4.1E-02
19	ZNF414	8482221	8485032	13	1000	14.52	3.4E-01	rs12610448	6.4E-02	100000	37.20	2.1E-02	rs2287863	4.6E-03	4.1E-02
6	TAAR5	132951504	132952518	47	1000	47.49	4.1E-01	rs9321350	3.3E-03	100000	106.07	1.3E-02	rs6904470	6.8E-03	4.1E-02
11	BBOX1	27019084	27105930	35	100000	77.15	3.2E-02	rs2015372	1.7E-03	1000	44.51	2.7E-01	rs7119888	3.9E-02	4.1E-02
10	TACR2	70833963	70846680	24	1000	18.18	5.9E-01	rs3829185	1.2E-01	100000	97.95	3.7E-03	rs5030922	1.5E-03	4.1E-02
8	LOC72835	6841697	6844134	24	1000000	112.68	4.9E-04	rs2738113	5.2E-05	1000	12.10	8.0E-01	rs6605579	1.8E-01	4.1E-02
10	TAF3	7900678	8096720	57	100000	106.16	6.3E-02	rs1244414	1.3E-03	1000	78.09	1.8E-01	rs12219763	2.5E-02	4.1E-02
8	ENPP2	120638499	120720287	26	1000	42.22	1.1E-01	rs6991756	2.6E-02	1000	46.18	1.1E-01	rs10505368	1.9E-02	4.1E-02
19	TSHZ3	36457690	36532030	28	100000	69.36	1.6E-02	rs12971383	7.7E-04	1000	31.09	3.7E-01	rs10853912	1.2E-02	4.1E-02
22	THOC5	28234155	28279736	18	100000	57.83	1.6E-02	rs4823044	8.6E-03	1000	18.55	3.8E-01	rs737976	4.5E-02	4.1E-02
2	LOC150763	96051420	96064454	2	100000	10.71	1.9E-02	rs2579550	1.2E-02	1000	1.94	3.6E-01	rs11687113	1.7E-01	4.1E-02
4	HSPA4L	128922902	128973976	7	1000	4.19	5.8E-01	rs769293	2.1E-01	100000	46.71	4.1E-03	rs1380154	3.9E-03	4.1E-02
14	C14orf178	77296645	77305838	8	1000	4.82	5.8E-01	rs10162548	2.9E-01	100000	41.23	3.9E-03	rs11621593	1.5E-03	4.1E-02
8	DEFA1-2	6841697	6844122	24	1000000	112.68	4.6E-04	rs2738113	5.2E-05	1000	12.10	8.1E-01	rs6605579	1.8E-01	4.1E-02
13	ZNF828	114098116	114110899	8	1000	3.27	7.8E-01	rs7327124	2.1E-01	1000000	57.59	6.3E-04	rs9314909	4.6E-04	4.1E-02
1	CFHR5	195213289	195245426	6	100000	29.98	5.2E-03	rs7555070	2.5E-03	1000	4.28	5.4E-01	rs1332669	9.3E-02	4.1E-02
22	PRODH	17280293	17303814	11	1000	18.18	1.1E-01	rs2019061	2.4E-02	1000	19.80	1.1E-01	rs2238732	1.1E-02	4.1E-02
17	USP36	74304559	74348564	21	1000	37.44	1.1E-01	rs7342880	8.9E-03	1000	36.18	1.1E-01	rs7211960	1.1E-02	4.1E-02
5	ADAMTS16	5193442	5373412	104	1000	86.95	6.5E-01	rs1366167	2.6E-03	100000	236.80	2.2E-03	rs978280	3.7E-04	4.1E-02
7	HNRNPA2E	26196080	26206938	10	100000	33.51	2.4E-02	rs10236009	9.2E-03	1000	11.35	3.2E-01	rs2040786	5.6E-02	4.1E-02
3	CD47	109244630	109292625	20	100000	41.22	4.5E-02	rs7648181	5.5E-04	1000	25.85	2.3E-01	rs326352	1.4E-02	4.2E-02
4	SHISA3	42094612	42099261	21	100000	46.83	5.4E-02	rs7695984	1.1E-02	1000	30.38	2.0E-01	rs6831750	4.2E-02	4.2E-02
6	IL22RA2	137506649	137536478	17	1000	26.08	1.5E-01	rs2064501	2.2E-02	100000	33.17	7.8E-02	rs10484798	3.3E-02	4.2E-02
8	FAM91A1	124850062	124896871	31	100000	60.62	3.5E-02	rs2385507	3.0E-03	1000	36.92	2.6E-01	rs7828192	3.5E-02	4.2E-02
1	HIST2H2AC	148125148	148125585	5	1000	5.31	3.4E-01	rs577935	2.1E-01	100000	16.49	2.2E-02	rs11205277	1.1E-03	4.2E-02
1	AIM1L	26520936	26543030	25	100000	62.69	2.7E-02	rs10902731	5.2E-03	1000	28.39	3.0E-01	rs12084041	6.6E-02	4.2E-02
15	SEC11A	83013778	83060678	12	1000	16.34	2.4E-01	rs1374463	6.4E-02	100000	34.83	4.2E-02	rs1107179	2.3E-02	4.2E-02
17	KRTAP4-3	36577008	36577950	9	1000	17.91	1.1E-01	rs7214006	4.9E-02	1000	17.75	1.1E-01	rs447375	6.0E-02	4.2E-02
1	JTB	152213368	152217075	6	1000	12.52	1.2E-01	rs11264680	9.4E-02	1000	14.36	1.0E-01	rs11264743	5.6E-02	4.2E-02
3	MUC13	126106978	126136270	33	1000	43.82	2.1E-01	rs3184121	4.7E-03	100000	65.90	5.0E-02	rs848792	2.9E-04	4.2E-02
2	HOXD3	176737050	176746072	12	100000	26.01	6.3E-02	rs6714226	6.8E-03	1000	18.05	1.8E-01	rs2140538	1.4E-02	4.2E-02
17	TBX4	56888588	56916446	31	1000	50.48	1.0E-01	rs740752	2.1E-02	1000	46.08	1.2E-01	rs7214481	3.8E-02	4.2E-02
18	LRRC30	7221136	7222042	18	1000	18.24	4.2E-01	rs883105	9.3E-02	100000	45.13	1.3E-02	rs461096	1.0E-02	4.2E-02
2	SP3	174481503	174538309	25	1000	23.38	4.3E-01	rs3863940	7.7E-02	100000	88.73	1.2E-02	rs10497424	6.7E-04	4.3E-02
1	MYCBP	39101222	39111637	18	1000	15.99	4.4E-01	rs1008045	2.0E-02	100000	66.89	1.1E-02	rs4970634	1.2E-02	4.3E-02
20	EBF4	2621523	2688754	37	1000	56.29	1.2E-01	rs6084151	5.3E-03	1000	54.66	1.1E-01	rs1028408	1.3E-02	4.3E-02
19	LAIR2	59705824	59713709	23	100000	42.08	6.6E-02	rs11084349	8.1E-03	1000	32.36	1.8E-01	rs1000321	2.7E-02	4.3E-02
17	KRTAP4-2	36587223	36587986	9	100000	17.91	9.8E-02	rs7214006	4.9E-02	1000	17.75	1.3E-01	rs447375	6.0E-02	4.3E-02
1	PFDN2	159336969	159354490	11	1000	18.95	1.3E-01	rs4656287	2.2E-02	100000	21.28	9.9E-02	rs11576830	3.4E-02	4.3E-02
11	OR52R1	4781238	4782423	17	100000	51.30	2.1E-02	rs10836653	5.9E-03	1000	17.67	3.5E-01	rs17328663	2.4E-02	4.3E-02
3	C3orf24	10098003	10124915	9	1000	12.35	2.4E-01	rs265318	5.9E-02	100000	24.17	4.4E-02	rs1642742	1.7E-02	4.3E-02
15	ZSCAN2	82945252	82967951	10	1000	13.65	2.2E-01	rs1374463	6.4E-02	100000	26.61	4.9E-02	rs1107179	2.3E-02	4.3E-02
13	ELF1	40404163	40454418	11	1000	21.23	1.2E-01	rs7327898	6.0E-02	1000	20.16	1.1E-01	rs9525435	1.5E-02	4.3E-02
8	PUF60	144970534	144983525	9	1000000	35.37	4.7E-03	rs9314419	2.4E-03	1000	6.18	5.7E-01	rs11778556	1.4E-01	4.3E-02
11	MRGPRF	68528437	68537426	18	1000	28.98	1.6E-01	rs752296	2.6E-02	100000	33.45	7.5E-02	rs896978	2.6E-03	4.3E-02
7	WIPI2	5196360	5240012	13	1000	17.81	2.1E-01	rs4236378	2.4E-03	100000	26.14	5.5E-02	rs4720539	1.0E-02	4.4E-02
18	MCART2	27593656	27594841	16	100000	30.07	8.7E-02	rs12962363	5.9E-03	1000	24.55	1.5E-01	rs567225	3.3E-02	4.4E-02
15	GRINL1A	55786192	55797045	20	100000	48.36	1.8E-02	rs16977644	2.7E-03	1000	20.96	3.8E-01	rs11858872	8.4E-02	4.4E-02
22	CECR5	15998409	16026177	34	1000	42.09	2.5E-01	rs738033	1.4E-02	100000	61.94	4.0E-02	rs5748883	3.5E-03	4.4E-02
4	RAPGEF2	160408447	160500751	16	100000	43.49	5.0E-02	rs7668932	5.2E-03	1000	22.48	2.2E-01	rs7668932	5.5E-02	4.4E-02
14	NEDD8	23755896	23771416	20	100000	87.12	1.2E-03	rs7158744	1.1E-04	1000	12.23	7.4E-01	rs1885711	1.0E-01	4.4E-02
11	PNPLA2	808901	815217	5	1000	10.37	1.2E-01	rs1138714	1.7E-02	1000	10.15	1.1E-01	rs10902222	1.9E-02	4.4E-02

					QIMRHCS+OX				BBJ				QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
15	CLK3	72687765	72709595	13	1000	20.94	1.7E-01	rs8041357	3.0E-02	100000	35.52	7.5E-02	rs6495119	3.2E-02	4.4E-02
6	PPIL1	36930583	36950747	26	1000	29.88	3.3E-01	rs236391	2.3E-02	100000	71.13	2.4E-02	rs6900068	1.5E-03	4.4E-02
9	IFNA7	21191467	21192204	6	1000	4.62	4.8E-01	rs10757193	2.0E-01	100000	27.62	9.1E-03	rs6475526	6.1E-03	4.4E-02
12	BAZ2A	55275646	55316430	7	1000	8.06	3.0E-01	rs1465081	1.1E-01	100000	27.15	3.0E-02	rs10450	1.5E-02	4.4E-02
1	LOR	151498802	151501224	26	1000	29.33	3.3E-01	rs1980909	1.0E-01	100000	62.60	2.4E-02	rs821426	7.0E-05	4.4E-02
6	KHDC1	74007758	74029628	11	1000	19.12	1.4E-01	rs7753960	5.5E-03	100000	21.59	9.5E-02	rs6453659	2.2E-02	4.4E-02
3	RSRC1	159310585	159745270	45	1000	83.03	1.2E-01	rs6441201	2.3E-02	100000	81.79	1.1E-01	rs1630524	3.5E-02	4.4E-02
8	DOCK5	25098203	25326536	45	1000	54.83	2.6E-01	rs1506869	2.9E-02	100000	85.40	3.9E-02	rs11985184	1.7E-03	4.5E-02
17	MFSD11	72245377	72286933	14	100000	30.45	6.9E-02	rs2240774	1.1E-02	1000	21.65	1.8E-01	rs1014390	1.3E-02	4.5E-02
1	PRDX6	171713108	171724569	11	100000	36.44	2.1E-02	rs3934576	5.0E-03	1000	11.67	3.5E-01	rs4405161	5.9E-02	4.5E-02
12	CACNA2D4	1771383	1898131	42	100000	84.99	3.4E-02	rs10744553	6.7E-04	1000	50.15	2.8E-01	rs12301312	2.7E-02	4.5E-02
1	RRAGC	39077605	39097927	16	1000	14.49	4.3E-01	rs1008045	2.0E-02	100000	62.12	1.3E-02	rs4970634	1.2E-02	4.5E-02
1	YOD1	205283816	205291045	16	100000	35.66	4.9E-02	rs764317	8.4E-03	1000	21.78	2.3E-01	rs3813948	1.6E-02	4.5E-02
3	CPNE4	132736266	133236534	141	1000	156.24	3.3E-01	rs1502665	1.2E-02	100000	251.74	2.5E-02	rs9826180	2.1E-03	4.5E-02
6	RPL7L1	42955648	42962709	10	100000	28.48	3.2E-02	rs9471941	2.2E-02	1000	11.95	2.9E-01	rs4711731	4.8E-02	4.5E-02
3	ITGB5	125964484	126088834	52	1000	65.81	2.3E-01	rs7650893	3.6E-02	100000	111.33	4.8E-02	rs848792	2.9E-04	4.5E-02
2	MAPRE3	27047028	27103591	13	1000	26.64	1.4E-01	rs10181777	2.8E-02	100000	31.91	9.3E-02	rs10181777	5.2E-02	4.5E-02
12	DDX51	131187092	131194833	13	100000	41.97	2.5E-02	rs7137092	5.4E-03	1000	14.00	3.3E-01	rs7137092	4.4E-02	4.5E-02
3	TIPARP	157875072	157907228	18	1000	29.89	1.5E-01	rs9833654	2.1E-02	100000	37.73	8.9E-02	rs3851992	3.5E-02	4.5E-02
5	PCDHAC1	140286485	140372113	15	100000	43.09	2.4E-02	rs155818	8.3E-03	1000	16.76	3.4E-01	rs59479	1.3E-01	4.5E-02
12	CLSTN3	7174233	7202797	26	1000	38.61	1.7E-01	rs1450958	3.7E-02	100000	52.13	7.5E-02	rs4883422	1.5E-02	4.5E-02
12	EPS8	15664341	15833601	16	100000	45.15	2.0E-02	rs1024843	1.2E-02	1000	16.24	3.7E-01	rs10846235	9.1E-02	4.5E-02
19	CCDC8	51605928	51608681	19	100000	53.86	8.9E-03	rs11880808	2.9E-03	1000	17.65	4.9E-01	rs11670069	2.5E-02	4.5E-02
2	SERTAD2	64712259	64734550	24	1000	38.63	1.2E-01	rs3770716	3.1E-02	1000	38.43	1.1E-01	rs3796051	1.7E-03	4.5E-02
6	PTCRA	42991704	43001553	15	100000	55.42	2.3E-02	rs9471969	2.1E-02	1000	15.93	3.5E-01	rs4711731	4.8E-02	4.5E-02
15	OR4F15	100175912	100176851	10	1000	15.28	2.1E-01	rs7182651	6.4E-02	100000	28.10	5.8E-02	rs7169868	3.6E-02	4.5E-02
15	SHF	43246703	43280665	15	100000	51.67	1.6E-02	rs3959644	1.2E-03	1000	14.53	4.0E-01	rs12915027	7.4E-02	4.5E-02
14	TRMT5	60507919	60517535	3	1000	1.68	6.1E-01	rs4151374	2.7E-01	100000	16.22	3.9E-03	rs8012779	1.1E-02	4.5E-02
12	SYT10	33419614	33484021	20	100000	86.03	3.9E-03	rs1905423	5.1E-04	1000	12.60	6.1E-01	rs10743818	1.4E-01	4.5E-02
19	SNRPD2	50882557	50887282	15	1000	25.45	1.0E-01	rs4802262	1.6E-02	1000	24.05	1.3E-01	rs7252448	7.3E-03	4.5E-02
12	SLC6A12	169510	193632	35	1000	48.50	1.7E-01	rs2291928	1.4E-02	100000	59.53	7.6E-02	rs495360	1.2E-02	4.5E-02
7	PDIA4	148331086	148356715	9	1000	6.91	5.6E-01	rs1676904	1.9E-01	100000	31.26	5.7E-03	rs716817	5.0E-03	4.5E-02
9	KIF12	115893738	115901158	32	1000	30.98	4.4E-01	rs2093785	4.1E-02	100000	77.50	1.2E-02	rs2217541	2.9E-03	4.5E-02
11	SCGB1D2	61766299	61768856	17	100000	38.01	5.2E-02	rs1729404	4.9E-03	1000	22.44	2.2E-01	rs10897242	3.0E-02	4.5E-02
3	TRIM59	161635984	161650320	7	1000	7.49	3.5E-01	rs4680580	1.7E-01	100000	25.68	2.2E-02	rs4680580	1.7E-02	4.5E-02
1	S100A12	151612807	151614699	14	1000	14.43	3.9E-01	rs2987769	4.0E-02	100000	42.94	1.7E-02	rs1754134	1.2E-02	4.5E-02
5	ISCA1L	62106952	62108926	25	100000	68.41	1.8E-02	rs9784594	1.5E-03	1000	25.65	3.8E-01	rs10514948	4.4E-02	4.5E-02
7	AQP1	30917992	30931656	23	1000	36.16	1.2E-01	rs3801324	2.4E-02	1000	37.28	1.1E-01	rs739979	9.9E-03	4.5E-02
1	HMCN1	183970305	184426708	33	1000	30.59	4.5E-01	rs6696879	7.6E-02	100000	102.96	1.2E-02	rs7545010	7.1E-03	4.5E-02
17	NLRP1	5345442	5428556	27	100000	97.50	2.6E-03	rs8079727	2.8E-03	1000	18.80	6.6E-01	rs9902174	1.8E-01	4.5E-02
17	KRTAP4-5	36558701	36559580	9	1000	17.91	1.2E-01	rs7214006	4.9E-02	1000	17.75	1.1E-01	rs447375	6.0E-02	4.5E-02
7	MDH2	75515328	75533866	6	100000	17.91	3.5E-02	rs11983987	1.0E-02	1000	7.23	2.8E-01	rs11762941	4.5E-02	4.6E-02
1	BOLA1	148137824	148138969	5	1000	5.31	3.6E-01	rs577935	2.1E-01	100000	16.49	2.1E-02	rs11205277	1.1E-03	4.6E-02
15	BLM	89061582	89159690	28	100000	52.88	6.8E-02	rs7175811	2.2E-02	1000	40.38	1.8E-01	rs3213191	1.7E-02	4.6E-02
4	TMPRSS11.	68458613	68511827	15	100000	35.74	4.3E-02	rs3860691	1.2E-03	1000	19.31	2.5E-01	rs6552126	3.3E-02	4.6E-02
16	GSPT1	11869485	11918020	10	1000	9.96	3.9E-01	rs13339523	2.2E-02	100000	30.84	1.8E-02	rs13339523	1.2E-02	4.6E-02
8	LYPD2	143828629	143830954	14	1000	19.33	2.2E-01	rs2294011	6.2E-03	100000	33.51	5.4E-02	rs11988843	1.5E-03	4.6E-02
6	HACE1	105282660	105414487	14	1000	11.14	4.8E-01	rs6923490	8.2E-02	100000	53.94	1.0E-02	rs9404576	5.8E-03	4.6E-02
15	NIPA1	20594719	20637877	28	100000	62.65	2.6E-02	rs3812923	2.5E-03	1000	31.16	3.3E-01	rs3693	7.5E-02	4.6E-02
11	PRSS23	86189138	86199921	18	1000	17.79	3.5E-01	rs12786875	1.3E-01	100000	62.70	2.2E-02	rs4245425	1.2E-02	4.6E-02
8	NRBP2	144987903	144996188	11	100000	36.98	5.6E-03	rs9314419	2.4E-03	1000	7.97	5.6E-01	rs11778556	1.4E-01	4.6E-02
8	LYNX1	143842757	143856642	14	1000	11.01	5.2E-01	rs3736008	9.1E-02	100000	45.90	7.5E-03	rs11988843	1.5E-03	4.6E-02
13	UPF3A	114065179	114089385	14	1000	4.65	8.3E-01	rs7327124	2.1E-01	1000000	116.17	4.1E-04	rs9314907	4.0E-04	4.6E-02
4	C4orf22	81475897	82103926	53	1000	42.10	5.6E-01	rs10004901	5.0E-02	100000	202.64	5.7E-03	rs1486025	6.7E-04	4.6E-02
12	NUP37	100992102	101036491	11	100000	23.39	1.0E-01	rs950945	3.1E-02	1000	21.99	1.3E-01	rs11111147	1.1E-02	4.6E-02
3	SLC25A38	39399818	39413823	6	1000	6.94	3.0E-01	rs6806372	1.7E-01	100000	21.68	3.3E-02	rs2201965	1.7E-02	4.6E-02
12	APOBEC1	7693262	7709769	26	1000	38.33	1.4E-01	rs10772650	1.2E-02	100000	42.68	9.4E-02	rs10845699	7.7E-03	4.6E-02
11	PRRG4	32808064	32832681	9	1000	13.31	2.1E-01	rs11605633	4.0E-02	100000	22.27	5.9E-02	rs7944652	1.8E-02	4.6E-02
6	STXBP5	147567200	147750400	17	100000	65.83	1.5E-02	rs2818867	1.7E-03	1000	15.46	4.1E-01	rs6924763	2.9E-02	4.6E-02
1	NT5C1A	39897379	39910297	20	1000	29.47	1.5E-01	rs17561720	1.8E-02	100000	33.44	8.9E-02	rs12039225	2.1E-02	4.6E-02
19	ZNF345	42033106	42062310	8	100000	16.45	8.4E-02	rs826278	2.3E-02	1000	14.07	1.6E-01	rs543518	8.0E-02	4.6E-02
19	FBXL12	9781942	9790731	6	100000	13.45	8.0E-02	rs2081066	4.8E-02	1000	9.82	1.7E-01	rs2081066	4.4E-02	4.6E-02
7	CCM2	45006311	45082594	23	1000	26.88	3.0E-01	rs6967748	5.0E-02	100000	63.57	3.2E-02	rs1001348	1.5E-02	4.6E-02
12	DPPA3	7755355	7761419	30	1000	47.46	1.2E-01	rs10772650	1.2E-02	1000	46.30	1.2E-01	rs10845699	7.7E-03	4.7E-02
9	ASS1	132309914	132366482	47	1000	50.70	3.4E-01	rs10901125	4.5E-02	100000	91.67	2.5E-02	rs12377651	3.4E-04	4.7E-02
9	AKNA	116136254	116196506	44	1000	40.11	4.9E-01	rs10739407	2.2E-02	100000	111.36	9.5E-03	rs7851482	1.1E-04	4.7E-02
15	MYO1E	57215854	57452363	74	1000	95.92	1.9E-01	rs7178200	6.3E-04	100000	115.96	6.9E-02	rs7170390	5.6E-04	4.7E-02
1	HIST2H2BE	148122633	148124856	5	1000	5.31	3.6E-01	rs577935	2.1E-01	100000	16.49	2.2E-02	rs11205277	1.1E-03	4.7E-02
16	TMC7	18902830	18982002	15	1000	11.50	5.0E-01	rs4536454	4.4E-02	100000	59.48	8.9E-03	rs8053779	1.1E-03	4.7E-02
10	ATOH7	69660387	69661861	12	100000	28.49	5.5E-02	rs12571093	1.1E-02	1000	16.37	2.2E-01	rs3858145	5.0E-02	4.7E-02
6	KIF6	39410853	39801159	89	100000	183.66	2.0E-02	rs10046447	1.7E-03	1000	94.08	3.7E-01	rs302604	1.6E-02	4.7E-02
6	PBOV1	138578819	138581320	8	1000	8.33	3.6E-01	rs6927706	1.6E-01	100000	33.84	2.3E-02	rs6927706	9.1E-03	4.7E-02
16	C16orf42	1339241	1341874	6	1000	7.14	2.9E-01	rs1132358	5.1E-02	100000	17.66	3.5E-02	rs2294605	3.1E-02	4.7E-02
1	GTF2B	89090908	89129889	12	1000	8.64	5.6E-01	rs9428015	1.7E-01	100000	51.83	5.9E-03	rs7524919	3.4E-03	4.7E-02
1	KLHDC8A	203572270	203592662	29	100000	59.24	5.0E-02	rs2864860	7.9E-04	1000	38.07	2.4E-01	rs12135649	2.3E-02	4.7E-02
6	TMEM14B	10855980	10865200	8	1000	7.03	4.6E-01	rs474519	1.6E-01	100000	28.81	1.2E-02	rs522793	9.0E-03	4.7E-02
10	FER1L3	95056175	95232029	64	100000	118.93	3.8E-02	rs787697	5.0E-04	1000	75.49	2.8E-01	rs787646	2.8E-02	4.7E-02
12	C3AR1	8102185	8110222	11	100000	40.69	2.8E-03	rs7842	3.1E-03	1000	7.44	6.6E-01	rs2024304	1.4E-01	4.7E-02
9	IFNA4	21176692	21177670	7	1000	7.84	3.3E-01	rs7855438	1.0E-01	100000	20.44	2.8E-02	rs10757193	9.0E-03	4.7E-02
21	KCNE2	34658192	34665310	17	1000	26.91	1.5E-01	rs2834455	3.1E-03	100000	31.26	9.2E-02	rs1010668	5.6E-03	4.7E-02

					QIMRHCS+OX				BBJ					QIMRHCS+OX+BBJ
Chr	Gene	Start position (hg18 bp)	Stop position (hg18 bp)	Number of SNPs	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Number of simulations	Gene-based test-statistic	Gene-based p-value	Best SNP	Best SNP p-value	Stouffer's Z-score combined p-value
3	ETV5	187246799	187309595	23	100000	55.85	2.5E-02	rs6809651	7.1E-03	1000	25.20	3.4E-01	rs16848688	4.0E-02	4.8E-02
6	RBM24	17390910	17402052	17	100000	29.85	1.0E-01	rs864280	8.6E-03	1000	27.06	1.4E-01	rs13212769	2.5E-02	4.8E-02
11	SAA4	18209478	18214910	20	100000	40.61	4.7E-02	rs2045272	7.9E-03	1000	24.67	2.5E-01	rs10832903	2.5E-02	4.8E-02
4	LRPAP1	3484092	3503942	18	1000	22.57	2.4E-01	rs1730775	3.8E-02	100000	41.85	5.0E-02	rs1881803	4.5E-03	4.8E-02
3	RETNLB	109957175	109958820	13	1000	13.58	3.4E-01	rs6804995	3.9E-02	100000	42.25	2.5E-02	rs4561844	6.4E-03	4.8E-02
6	EFHC1	52392952	52468542	43	1000	37.35	5.1E-01	rs941967	1.5E-02	100000	121.88	8.8E-03	rs1266788	2.1E-04	4.8E-02
2	ZRANB3	135674043	136005276	13	100000	53.69	2.0E-02	rs6742030	1.5E-02	1000	10.85	3.8E-01	rs16831528	1.9E-01	4.8E-02
12	E2F7	75939156	75983491	34	1000	45.35	2.0E-01	rs10746338	1.1E-02	100000	63.85	6.5E-02	rs10862978	1.0E-04	4.8E-02
12	EEA1	91690415	91847238	18	1000	21.71	2.6E-01	rs6538367	2.7E-02	100000	47.16	4.3E-02	rs11106721	2.9E-02	4.8E-02
20	GDAP1L1	42309321	42342427	22	100000	45.66	7.5E-02	rs1971447	1.0E-02	1000	32.27	1.8E-01	rs6031503	4.4E-02	4.8E-02
6	LOC44115(	42965980	42966532	11	100000	33.77	2.4E-02	rs9471969	2.1E-02	1000	11.96	3.5E-01	rs4711731	4.8E-02	4.8E-02
15	ARID3B	72620600	72677525	14	1000	23.04	1.8E-01	rs8041357	3.0E-02	100000	36.87	7.8E-02	rs6495119	3.2E-02	4.8E-02
12	CD9	6179815	6217688	20	1000	19.24	4.1E-01	rs3181157	6.8E-02	100000	57.28	1.7E-02	rs2072372	1.2E-02	4.8E-02
20	ZNF133	18217120	18245640	19	100000	62.46	1.4E-02	rs926718	1.5E-02	1000	16.74	4.3E-01	rs2300812	5.6E-02	4.8E-02
20	C20orf142	42368610	42373303	14	100000	30.33	1.0E-01	rs6031551	4.2E-02	1000	23.24	1.4E-01	rs6031503	4.4E-02	4.8E-02
1	TP53BP2	222034217	222100297	19	1000	24.63	2.5E-01	rs1153952	6.9E-02	100000	42.09	4.6E-02	rs751128	1.9E-02	4.8E-02
22	SPECC1L	22996865	23143221	18	100000	57.60	1.7E-02	rs2236624	6.9E-03	1000	17.19	4.1E-01	rs6004146	9.0E-02	4.8E-02
1	PRPF3	148560551	148592328	7	100000	43.24	2.9E-03	rs509345	5.1E-03	1000	2.94	6.6E-01	rs10494266	3.1E-01	4.8E-02
15	PLA2G4B	39918302	39927638	20	100000	77.32	8.2E-03	rs11070352	4.0E-04	1000	16.43	5.2E-01	rs11070352	1.2E-01	4.8E-02
17	CCDC44	59031974	59039457	4	1000	5.06	2.8E-01	rs9906903	2.0E-01	100000	12.34	3.8E-02	rs7209435	4.0E-02	4.8E-02
8	ZC3H3	144590967	144694763	43	100000	81.64	5.6E-02	rs901770	7.1E-04	1000	56.23	2.3E-01	rs11780582	1.6E-02	4.8E-02
8	UNQ9391	10420490	10433738	29	1000	34.95	2.7E-01	rs7833781	3.6E-02	100000	67.38	4.1E-02	rs7846328	1.3E-03	4.9E-02
2	OSR1	19414726	19421853	12	1000	19.58	1.6E-01	rs12620067	3.2E-02	100000	23.69	9.0E-02	rs12710706	2.9E-03	4.9E-02
7	FLJ22374	30777557	30898527	60	100000	103.32	7.3E-02	rs4723008	9.8E-03	1000	80.81	1.9E-01	rs4645485	8.0E-03	4.9E-02
3	TWF2	52237665	52248223	5	1000	10.51	1.4E-01	rs352143	2.9E-02	1000	12.59	1.1E-01	rs353547	6.8E-02	4.9E-02
9	ANXA1	74956600	74975127	29	100000	72.14	1.7E-02	rs1342014	2.3E-03	1000	28.73	4.1E-01	rs4256646	4.7E-02	4.9E-02
4	MGC48628	91375204	91922174	67	100000	177.30	6.0E-03	rs1454329	5.6E-04	1000	60.15	5.7E-01	rs6835557	1.2E-03	4.9E-02
8	GPIHBP1	144366442	144370418	12	100000	25.95	5.8E-02	rs7829800	1.5E-02	1000	16.36	2.2E-01	rs2272631	6.2E-02	4.9E-02
9	RBM18	124043603	124066911	23	1000	23.41	3.7E-01	rs3808899	5.1E-02	100000	56.73	2.2E-02	rs3793621	5.3E-03	4.9E-02
2	USP39	85696793	85729917	21	1000	24.43	3.0E-01	rs1437743	4.8E-02	100000	55.18	3.4E-02	rs10206961	1.3E-02	4.9E-02
13	F7	112808105	112822996	14	100000	37.08	1.6E-02	rs10665	3.3E-03	1000	13.19	4.3E-01	rs3024718	2.5E-02	4.9E-02
8	LOC72835	6822580	6825024	26	100000	86.52	2.7E-03	rs2738113	5.2E-05	1000	18.54	6.7E-01	rs736227	1.1E-01	4.9E-02
11	OR51F2	4799191	4800220	17	100000	52.92	2.0E-02	rs10836653	5.9E-03	1000	17.06	3.9E-01	rs17328663	2.4E-02	4.9E-02
7	FLJ21075	47801413	47825969	45	1000	40.89	4.9E-01	rs17710983	1.9E-02	100000	130.21	1.0E-02	rs1074780	7.4E-04	4.9E-02
6	IYD	150731720	150767457	54	1000	60.69	3.4E-01	rs2211105	2.9E-02	100000	114.54	2.8E-02	rs665670	3.8E-03	4.9E-02
17	C17orf58	63417678	63420227	3	100000	13.31	1.6E-02	rs8071463	7.7E-03	1000	2.27	4.3E-01	rs7502781	1.4E-01	4.9E-02
15	LOC100137	39907574	39927638	20	100000	77.32	8.4E-03	rs11070352	4.0E-04	1000	16.43	5.2E-01	rs11070352	1.2E-01	4.9E-02
3	C3orf10	10132332	10143874	9	1000	12.30	2.3E-01	rs265318	5.9E-02	100000	20.00	5.6E-02	rs1642742	1.7E-02	4.9E-02
10	LRRC20	71728734	71812388	41	1000	54.49	2.0E-01	rs7075666	6.2E-03	100000	73.61	6.7E-02	rs1904592	1.8E-02	4.9E-02
8	RNF122	33524814	33544185	13	1000	17.55	2.4E-01	rs7842778	1.1E-01	100000	35.43	5.3E-02	rs1530344	1.8E-02	4.9E-02
5	YIPF5	143517919	143530471	17	1000	31.54	1.0E-01	rs17101605	4.0E-02	1000	28.11	1.5E-01	rs1862140	8.1E-03	4.9E-02
12	SRGAP1	62524807	62823829	50	1000	62.60	2.0E-01	rs10878096	2.0E-02	100000	85.22	6.6E-02	rs1350136	1.2E-03	4.9E-02
7	PLXNA4	131458630	131983987	125	1000000	261.58	5.2E-03	rs1544832	8.1E-06	1000	113.35	5.9E-01	rs924368	2.3E-02	5.0E-02
19	ELAVL3	11423142	11452803	7	1000	7.22	3.5E-01	rs8616	1.2E-01	100000	20.75	2.5E-02	rs2287671	2.1E-02	5.0E-02
17	ITGAE	3564667	3651286	23	100000	43.96	4.7E-02	rs2891	1.2E-03	1000	27.17	2.5E-01	rs149592	4.7E-02	5.0E-02
3	GOLGB1	122864737	122951292	22	1000	37.14	1.3E-01	rs6808500	1.8E-02	1000	39.81	1.2E-01	rs6766694	2.0E-02	5.0E-02
17	OR3A4	3160354	3161401	7	1000	7.23	3.5E-01	rs231678	9.5E-02	100000	26.44	2.7E-02	rs12051739	2.2E-02	5.0E-02
6	GSTA5	52804499	52818852	7	1000	12.09	1.5E-01	rs4715326	2.0E-02	1000	15.16	1.0E-01	rs7775877	4.3E-02	5.0E-02
15	CYFIP1	20444124	20555044	69	100000	120.24	4.2E-02	rs7167658	4.3E-04	1000	79.22	2.8E-01	rs2028794	1.4E-02	5.0E-02
6	C6orf65	56927731	57000101	15	100000	61.09	1.3E-02	rs2167460	1.8E-03	1000	12.41	4.5E-01	rs17752435	1.4E-01	5.0E-02
6	KIAA1586	57019342	57027953	6	100000	34.05	7.3E-03	rs2167460	1.8E-03	1000	3.36	5.5E-01	rs1993118	1.6E-01	5.0E-02
19	CLEC4G	7699849	7703005	27	1000	29.17	3.4E-01	rs621025	4.3E-02	100000	52.86	2.8E-02	rs735239	3.4E-03	5.0E-02
11	CD151	822951	828835	6	1000	11.58	1.1E-01	rs1138714	1.7E-02	1000	10.33	1.4E-01	rs10902222	1.9E-02	5.0E-02
1	SLC30A2	26237100	26245191	17	100000	69.10	7.7E-03	rs2369433	2.3E-03	1000	12.81	5.4E-01	rs12074420	7.0E-02	5.0E-02
17	HOXB2	43975017	43977392	16	1000	28.94	1.5E-01	rs9905940	4.3E-02	100000	31.52	9.7E-02	rs2555111	3.2E-03	5.0E-02
5	HARS	140033673	140051155	15	100000	37.61	6.4E-02	rs2563292	2.3E-02	1000	22.31	2.1E-01	rs7721577	7.4E-02	5.0E-02
6	PDE7B	136214526	136558402	55	1000	52.16	4.5E-01	rs6570047	1.8E-02	100000	112.70	1.4E-02	rs7751423	6.2E-04	5.0E-02
3	PROK2	71903495	71917047	16	100000	33.89	3.3E-02	rs1374912	1.2E-03	1000	18.76	3.1E-01	rs10865660	2.7E-02	5.0E-02
19	PRAM1	8460939	8473495	13	1000	14.32	3.3E-01	rs12610448	6.4E-02	100000	35.07	3.0E-02	rs2287863	4.6E-03	5.0E-02
11	CEND1	777109	780126	9	1000	12.19	2.2E-01	rs1138714	1.7E-02	100000	19.76	6.2E-02	rs7478765	8.1E-03	5.0E-02
14	TM9SF1	23728192	23734722	17	100000	64.50	5.4E-03	rs2295322	5.2E-04	1000	11.79	5.9E-01	rs4981494	3.9E-02	5.0E-02
11	SIGIRR	395715	407397	9	1000	11.68	2.8E-01	rs4074794	6.3E-02	100000	22.31	4.2E-02	rs4074794	1.2E-02	5.0E-02
7	CBX3	26207623	26219501	8	100000	32.69	1.7E-02	rs10236009	9.2E-03	1000	7.15	4.2E-01	rs2040786	5.6E-02	5.0E-02
11	KCTD14	77404408	77411968	17	1000	15.73	4.6E-01	rs10899420	7.4E-02	100000	46.41	1.4E-02	rs10899433	1.9E-03	5.0E-02
5	PCDHB3	140460417	140463590	15	100000	38.93	4.0E-02	rs246723	5.0E-03	1000	17.61	2.8E-01	rs246584	1.5E-01	5.0E-02

Supplementary Table 4: Gene expression and VEGAS gene-based association results for the seven implicated regions

					QIMRHCS+OX					BBJ					QIMRHCS+OX+BBJ	Human uterus gene expression	
Chr	**Gene**	**Start position (hg19 bp)**	**Stop position (hg19 bp)**	**Number of SNPs**	**Number of simulations**	**Gene-based test-statistic**	**Gene-based p-value**	**Best SNP**	**Best SNP p-value**	**Number of simulations**	**Gene-based test-statistic**	**Gene-based p-value**	**Best SNP**	**Best SNP p-value**	**Stouffer's Z-score combined p-value**	**Endometriosis**	**Normal**
1p36.12	RAP1GAP	21922714	21995799	43	1000	36.20	6.3E-01	rs829400	4.9E-02	1000	36.10	5.4E-01	rs829412	3.1E-02	6.2E-01	dormant	transcribed
1p36.12	USP48	22004791	22109688	32	1000	21.56	7.9E-01	rs829400	4.9E-02	1000	18.20	7.4E-01	rs829387	7.3E-02	8.5E-01	transcribed	transcribed
1p36.12	LDLRAD2	22138757	22151714	17	1000	8.23	8.2E-01	rs2010397	8.4E-02	1000	9.03	8.0E-01	rs4654771	2.0E-01	8.9E-01	-	-
1p36.12	HSPG2	22148736	22263750	31	1000	21.24	6.6E-01	rs2010397	8.4E-02	1000	28.54	5.1E-01	rs12081298	2.8E-02	6.2E-01	transcribed	transcribed
1p36.12	CDC42	22379119	22419436	12	100000	37.58	2.2E-02	rs4654783	5.4E-03	1000000	68.23	1.4E-03	rs2501279	1.7E-05	2.0E-04	transcribed	transcribed
1p36.12	**WNT4**	**22443797**	**22469519**	**19**	**1000000**	**105.54**	**8.5E-05**	**rs7515106**	**1.6E-05**	**1000000**	**130.11**	**7.0E-06**	**rs7542242**	**1.9E-06**	**5.0E-09**	**transcribed**	**dormant**
1p36.12	ZBTB40	22778343	22857650	23	1000	12.76	7.7E-01	rs12145722	1.8E-01	100000	43.46	6.6E-02	rs4655059	2.2E-03	3.0E-01	transcribed	transcribed
1p36.12	EPHA8	22890003	22930087	20	1000	21.96	3.4E-01	rs12132543	1.9E-02	1000	16.74	5.3E-01	rs209693	7.0E-02	4.0E-01	dormant	dormant
1p36.12	C1QA	22963117	22966175	20	1000	24.97	2.4E-01	rs12132543	1.9E-02	1000	13.02	6.5E-01	rs209693	7.0E-02	4.1E-01	transcribed	transcribed
1p36.12	C1QC	22970117	22974603	19	1000	26.24	2.0E-01	rs12132543	1.9E-02	1000	11.50	7.1E-01	rs209693	7.0E-02	4.2E-01	transcribed	transcribed
1p36.12	C1QB	22979681	22988029	18	1000	23.92	2.4E-01	rs12132543	1.9E-02	1000	7.61	8.9E-01	rs294218	8.9E-02	6.4E-01	transcribed	dormant
2p25.1	C2orf50	11273178	11286150	19	1000	19.52	3.7E-01	rs7608117	7.6E-02	1000	18.58	3.8E-01	rs7608117	4.0E-02	3.3E-01	dormant	dormant
2p25.1	PQLC3	11295539	11318998	15	1000	18.06	2.6E-01	rs7608117	7.6E-02	1000	16.42	3.3E-01	rs7608117	4.0E-02	2.2E-01	transcribed	dormant
2p25.1	ROCK2	11321777	11484711	23	1000	12.95	7.0E-01	rs12995564	1.0E-01	1000	41.44	1.3E-01	rs4669724	1.3E-03	3.4E-01	transcribed	transcribed
2p25.1	E2F6	11584500	11606297	14	100000	47.74	6.5E-03	rs13407457	1.1E-05	1000	22.15	1.4E-01	rs4260216	1.2E-03	5.7E-03	transcribed	dormant
2p25.1	**GREB1**	**11674241**	**11782912**	**36**	**1000000**	**112.62**	**1.3E-03**	**rs13407457**	**1.1E-05**	**100000**	**103.97**	**3.3E-03**	**rs4669751**	**9.5E-04**	**2.5E-05**	**transcribed**	**transcribed**
2p25.1	NTSR2	11798303	11810329	20	1000	19.17	4.6E-01	rs6718783	6.8E-02	1000	16.65	5.6E-01	rs7574891	8.1E-02	5.1E-01	dormant	dormant
2p25.1	LPIN1	11886739	11967533	30	1000	16.07	8.8E-01	rs2716628	1.5E-01	1000	23.86	5.9E-01	rs7574891	8.1E-02	8.4E-01	transcribed	transcribed
2p14	**ETAA1**	**67624441**	**67637533**	**13**	**1000**	**13.61**	**3.6E-01**	**rs6732641**	**7.8E-02**	**1000**	**25.18**	**1.2E-01**	**rs962856**	**5.2E-02**	**1.4E-01**	**transcribed**	**transcribed**
2p14	C1D	68269335	68290130	19	1000	12.06	6.9E-01	rs7558466	1.1E-01	1000	29.64	1.2E-01	rs7586762	4.3E-03	3.1E-01	transcribed	transcribed
2p14	WDR92	68357280	68384656	13	1000	11.97	4.3E-01	rs2861798	6.8E-02	1000	3.93	8.9E-01	rs4671873	2.9E-01	7.7E-01	transcribed	transcribed
6p22.3	**ID4**	**19837616**	**19840915**	**24**	**100000**	**63.15**	**6.5E-03**	**rs2223361**	**7.0E-05**	**100000**	**42.36**	**7.2E-02**	**rs6907340**	**2.3E-04**	**2.7E-03**	**transcribed**	**transcribed**
6p22.3	MBOAT1	20100934	20212670	54	1000	34.45	8.5E-01	rs10447379	7.3E-02	1000	51.38	4.6E-01	rs9460465	5.5E-03	7.5E-01	transcribed	transcribed
7p15.2	**NFE2L3**	**26191859**	**26225907**	**15**	**100000**	**40.58**	**3.2E-02**	**rs10236009**	**9.2E-03**	**1000**	**22.64**	**1.8E-01**	**rs3814095**	**2.7E-02**	**2.5E-02**	**transcribed**	**transcribed**
7p15.2	HNRNPA2B1	26229555	26240413	10	100000	33.51	2.4E-02	rs10236009	9.2E-03	1000	11.35	3.2E-01	rs2040786	5.6E-02	4.1E-02	transcribed	transcribed
7p15.2	CBX3	26241098	26252976	8	100000	32.69	1.7E-02	rs10236009	9.2E-03	1000	7.15	4.2E-01	rs2040786	5.6E-02	5.0E-02	transcribed	transcribed
9p21.3	MTAP	21802634	21865969	24	1000	34.51	1.8E-01	rs10757257	2.9E-02	100000	91.17	9.8E-03	rs2282245	4.0E-03	**1.1E-02**	**transcribed**	**transcribed**
9p21.3	CDKN2A	21967750	21994490	20	1000	11.88	7.1E-01	rs3731217	1.7E-01	100000	58.38	1.3E-02	rs2811708	9.7E-04	1.2E-01	dormant	dormant
9p21.3	CDKN2B	22002901	22009312	17	1000	8.81	6.8E-01	rs3731217	1.7E-01	100000	62.41	9.0E-03	rs2811708	9.7E-04	9.0E-02	transcribed	dormant
9p21.3	DMRTA1	22446839	22452472	19	1000	19.09	3.8E-01	rs665908	8.2E-02	1000	5.76	8.7E-01	rs476924	2.9E-01	7.1E-01	dormant	dormant
12q22	NDUFA12	95365109	95397511	32	1000	34.76	3.6E-01	rs10859824	6.7E-03	1000	25.46	5.7E-01	rs7133992	9.2E-02	4.4E-01	transcribed	transcribed
12q22	NR2C1	95414057	95467404	29	1000	32.54	3.1E-01	rs10859824	6.7E-03	1000	34.56	2.7E-01	rs6538595	9.2E-02	2.2E-01	transcribed	transcribed
12q22	FGD6	95470524	95611240	34	100000	103.57	2.6E-02	rs10777670	2.7E-05	100000	100.24	2.6E-02	rs10859856	6.1E-04	3.0E-03	transcribed	transcribed
12q22	**VEZT**	**95611521**	**95696566**	**31**	**1000000**	**147.21**	**1.0E-04**	**rs10859871**	**2.3E-06**	**1000000**	**144.47**	**7.7E-04**	**rs3185701**	**3.1E-04**	**5.7E-07**	**transcribed**	**transcribed**
12q22	METAP2	95867821	95909613	22	1000	22.60	3.9E-01	rs159853	7.6E-02	1000	8.23	9.0E-01	rs10777695	1.3E-01	7.6E-01	transcribed	transcribed
12q22	USP44	95910886	95945263	25	1000	18.00	6.5E-01	rs7304754	1.1E-01	1000	14.05	8.3E-01	rs6538657	1.3E-01	8.3E-01	dormant	dormant
12q22	NTN4	96051582	96184536	64	1000	60.15	4.8E-01	rs7297163	1.9E-02	1000	90.25	1.6E-01	rs4762615	2.7E-03	2.3E-01	transcribed	transcribed

Supplementary Note

Of the 38 SNPs reaching genome-wide suggestive association (**Supplementary Table 1**), the risk allele frequency was higher (i.e., stronger risk effect) for 32 SNPs in stage B cases compared to stage A cases (**Supplementary Table 2**). Using SNPSpD[1], the 38 total SNPs and 32 SNPs with a stronger effect in stage B compared to stage A cases, were estimated to be equivalent to 28 and 22 effective independent SNPs, respectively. A two-tailed binomial test shows the chance of observing either 22 or more, or 6 or fewer stronger effects, in 28 loci is significant ($P = 3.7 \times 10^{-3}$).

For the 38 SNPs listed in **Supplementary Table 1**, only rs4141819 (stage B heterogeneity $P = 0.06$) and rs7798431 (stage B heterogeneity $P = 0.05$) showed significant evidence for effect heterogeneity ($P < 0.1$); however, adjusting these P values for testing both all and stage B endometriosis cases versus controls would produce non-significant heterogeneity P values, plus association at these loci remained strong under the random effects (RE2) model, producing $P_{stageB} = 5.9 \times 10^{-8}$ and $P_{stageB} = 1.1 \times 10^{-7}$, respectively. Furthermore, the more significantly associated (and correlated) SNPs at these two loci, imputed SNP rs2861694 and genotyped SNP rs12700667, produced non-significant stage B heterogeneity P values of 0.12 and 0.36, respectively.

SNP-centric (cis-eQTL - SNP) analysis using default parameters in the GENe Expression VARiation (Genevar) database[2] indicated none of the seven implicated genotyped SNPs have a direct effect on gene expression in lymphoblastoid cell lines (LCLs), adipose, skin, fibroblast, or T-cell tissues, however these SNPs may affect expression in other more relevant tissue types such as endometrium, but for which relevant eQTL data does not currently exist.

To examine the candidate genes across the seven implicated regions, we queried the Mammalian Gene Expression Uterus database (MGEx-Udb)[3] to determine whether,

considering all publicly available reports and datasets, the genes are transcribed or dormant in endometriosis and normal human uterine tissue (including endometrium) (**Supplementary Table 4**). Association of *VEZT* and *GREB1* with endometriosis was inconclusive as consensus expression status through meta-analysis indicates they are transcribed in both endometriosis and normal uterine tissue. In contrast, *WNT4* is transcribed in endometriosis uterine tissue but dormant in normal uterine tissue, hence providing further support for it playing a role in endometriosis pathogenesis. We also searched the Gene Expression Omnibus (GEO) database[4] for datasets with expression measures in endometriosis and normal endometrial human tissue. Of the five identified datasets with sufficient valid measures (GDS3092[5], GDS3060[3], GDS2835[6], GDS2737[7], GDS2052[8]), nine of the ten *VEZT* and four of the five *GREB1* expression probe datasets observed increased expression in endometriosis tissue compared to normal tissue. One *VEZT* probe (223675_s_at) in GDS2835 and two *GREB1* probes (205862_at and 210562_at) in GDS2835 were differentially expressed ($P \leq 0.05$) (**Supplementary Figure 19**). The GEO datasets were inconclusive for *WNT4* with none of the *WNT4* probe datasets showing a difference in expression between endometriosis and normal tissue (all with $P > 0.4$).

URLs.

Gene Expression Omnibus (GEO) database, http://www.ncbi.nlm.nih.gov/gds/;

GENe Expression VARiation (Genevar) database, http://www.sanger.ac.uk/resources/software/genevar/;

Mammalian Gene Expression Uterus database (MGEx-Udb), http://resource.ibab.ac.in/cgi-bin/MGEXdb/microarray/scoring/interface/Homepage.pl;

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