Supplemental Material: MDD GWAS Mega-Analysis

MDD Working Group of the PGC

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DATA SHARING

Most of these data are available from control-access repositories (dbGaP or the NIMH Human Genetics Initiative). By German law, GWAS data on German citizens cannot be deposited, and can only be accessed via collaboration with the study authors.

Table S1: Discovery sample data sharing

Study	Resource availability
Bonn/Mannheim	Contact authors sven.cichon@uni-bonn.de Marcella.Rietschel@zi-mannheim.de
GAIN (NESDA/NTR)	dbGaP http://www.ncbi.nlm.nih.gov/gap/
GenRED	NIMH https://www.nimhgenetics.org/
GSK	Contact authors ftozzi2@hotmail.com pierandrea.muglia@utoronto.ca
MDD2000 QIMR	NIMH https://www.nimhgenetics.org/ Contact authors nick.martin@qimr.edu.au
MPIP	Contact authors lucae@mpipsykl.mpg.de
RADIANT	NIMH https://www.nimhgenetics.org/
STAR*D	NIMH https://www.nimhgenetics.org/
See below for sample acronyms.	

DISCOVERY PHASE: MDD STUDIES & SAMPLES

Table S2 summarizes the samples that comprise the discovery phase of the PGC MDD mega-analysis dataset. There are considerable similarities in the fundamental features of these studies. All subjects were of European ancestry. For cases, all subjects were assessed with a structured clinical interview and all met DSM-IV criteria for lifetime MDD (1). For three studies, case definitions required recurrent or recurrent/early-onset MDD. Cases were ascertained clinically in the majority of studies. Most of the control samples were population-based and all but one was screened to remove individuals with lifetime MDD.

Table S2: Discovery sample characteristics

Sample	Citation	Place	GWAS chip	Cases (DSM-IV) Def	Source	Controls Screened	Source
Bonn/Mannheim	(2)	GER	Illumina 610K	MDD	clin	no	pop
GAIN	(3)	NL	Perlegen 600K	MDD	clin/pop	yes	pop
GenRED	(4)	US	Affymetrix 6.0	reoMDD	vol	yes	pop
GSK	(5)	GER	Illumina 550K	rMDD	clin	yes	pop/clin
MDD2000 QIMR	(6)	Mix AUS	Affymetrix 6.0 Illumina 317K, 370K, 610K	MDD MDD	mix pop	yes	pop
MPIP	(7)	GER	Illumina 317K	MDD	clin	yes	pop
RADIANT	(8)	Mix	Illumina 610K	rMDD	clin	yes	pop/vol
STAR*D	(9)	US	Affymetrix 500K/5.0	MDD	clin	yes	pop

See below for sample acronyms. AUS=Australia. GER=Germany. NL=the Netherlands. US=United States. Mix=multiple sources of European subjects. MDD=major depressive disorder. rMDD=recurrent MDD. reoMDD=recurrent, early-onset MDD. Clin=clinical ascertainment. Pop=population-based ascertainment. Vol=volunteer sample.

The procedures used to establish each of these sample sets are described below.

Bonn/Mannheim (2)

Cases for the Bonn/Mannheim MDD study were ascertained from consecutive admissions to the inpatient units of the Department of Psychiatry and Psychotherapy at the University of Bonn and at the Central Institute of Mental Health in Mannheim, Germany. DSM-IV lifetime diagnoses of MDD were made by a consensus best-estimate procedure based on all available information, including a structured interview (SCID-I), medical records, and the family history method. In addition, the OPCRIT system was used to obtain detailed poly-diagnostic documentation of symptoms. Controls were ascertained from three population-based studies in Germany (Popgen, KORA, and Heinz-Nixdorf-Recall) and were asked for a lifetime history of MDD. Study protocols were reviewed and approved in advance by IRBs at participating institution. All subjects provided written informed consent.

Genetic Association Information Network (GAIN)-MDD (3)

The two parent projects that supplied subjects for this GWAS are large-scale longitudinal studies, the Netherlands Study of Depression and Anxiety (NESDA) and the Netherlands Twin Registry (NTR). Recruitment of participants for NESDA took place from 09/2004-02/2007, and ascertainment was from outpatient specialist mental health facilities, and primary care. Additional cases were from the population-based cohorts NEMESIS, ARIADNE and the NTR. Inclusion criteria were a lifetime diagnosis of DSM-IV MDD as diagnosed via the CIDI, age 18-65 years, and self-reported northwestern European ancestry. Persons who were not fluent in Dutch and those with a primary diagnosis of a psychotic disorder, obsessive compulsive disorder, bipolar disorder, or severe substance use dependence were excluded. Control subjects were mainly from the NTR. Longitudinal phenotyping includes assessment of depressive symptoms (via multiple instruments), anxiety, neuroticism, and personality measures. Inclusion for controls required no report of MDD at any measurement occasion, and low genetic liability for MDD. Controls were screened with specific queries about medication use or whether the subject had ever sought treatment for depression symptoms and/or via the CIDI interview. Low liability for MDD was determined by the use of a factor score derived from longitudinal measures of neuroticism, anxiety and depressive symptoms (mean 0, std 0.7); controls were required never to have scored highly (≥0.65) on this factor score. A subset of controls were from NESDA and had no lifetime diagnosis of MDD or an anxiety disorder as assessed by the CIDI and reported low depressive symptoms at baseline (K-10 score < 16 and Inventory of Depressive Symptoms score < 4). The NESDA and NTR studies were approved by the Central Ethics Committee on Research Involving Human Subjects of the VU University Medical Center, Amsterdam, an Institutional Review Board certified by the US Office of Human Research Protections (IRB number IRB-2991 under Federal wide Assurance-3703; IRB/institute codes, NESDA 03-183; NTR 03-180). All subjects provided written informed consent.

Genetics of Recurrent Early-Onset Depression (4)

Subjects with recurrent (≥2 episodes) or chronic (≥3 years) MDD with onset <31 years old were recruited by six research groups: D. Levinson (Stanford University); M. Weissman (Columbia University); R. DePaulo (Johns Hopkins; PI now is James Potash); William Scheftner (Rush Presbyterian Medical Center, Chicago); R. Raymond Crowe (University of Iowa; PI now is William Coryell); George Zubenko (University of Pittsburgh, although this site no longer participates in the ongoing study, and its specimens were accessed through the NIMH repository after public release). There was a single protocol at all sites. All subjects gave signed, informed consent, on forms approved by the IRB at the PI's institution as above. Subjects were interviewed with the DIGS 3.0; family informant if available was interviewed with FIGS; and psychiatric records were obtained where possible. Diagnoses were assigned based on all information by consensus of two independent experienced research clinicians. Control subjects were from the Molecular Genetics of Schizophrenia GAIN project. We then selected a subset of controls who did not report recurrent major depression by CIDI-SF instrument criteria (which are known to identify over 30% false positives).

Glaxo-Smith-Kline (GSK) (5)

Cases diagnosed with recurrent MDD and age- and sex-matched unaffected controls were recruited at the Max-Planck Institute of Psychiatry in Munich, Germany and from two satellite hospitals in the Munich metropolitan area (BKH Augsburg and Klinikum Ingolstadt). All cases were evaluated using the semi-structured Schedules for Clinical Assessment in Neuropsychiatry (SCAN). The SCAN was administered by experienced research assistants who had completed training at World Health Organization Training and Research Centers. Each participant completed a questionnaire covering demography, family and individual history as well as medical history and ancestry. Cases were included in the study if they received a diagnosis of recurrent MDD (≥2 separate episodes of MDD) of moderate or severe intensity

according to DSM-IV or ICD-10 . Cases were excluded from the study if they had experienced mood incongruent psychotic symptoms, a lifetime history of intravenous drug use or diagnosis of drug dependence, depression secondary to alcohol or substance abuse, or depression as clear consequence of medical illnesses or use of medications. Cases with diagnosis of schizophrenia, schizoaffective disorders, and other axis I disorders other than anxiety disorders were excluded from the study. Controls were selected randomly from a Munich-based community sample and recruited at the Max-Planck Institute of Psychiatry. They were screened for the presence of anxiety and mood disorders using the CIDI Screener. Only individuals without lifetime mood and anxiety disorders were included as controls. All subjects are independent from the MPIP collection below.

MDD2000 (6)

The original MDD2000 study was a case-only study with MDD cases recruited by three research groups: Queensland Institute for Medical Research (QIMR), VU University Amsterdam and VU Medical Centre. The MDD2000 samples were genotyped on the Affymetrix 6.0 platform (A6.0). These cases were combined with other cases and controls into the study published as the MDD2000+ association study (6). In the published study, the cases genotyped on the A6.0 were compared with the MGS controls (also used as controls for the GenRED and STAR*D samples). Dividing the control set between three studies would lead to reduced power for each analysis. For this reason the MDD2000 A6.0 sample was excluded from the mega-analysis. However, genotype and phenotype data are available on the NIMH website to allow case-only analyses. Briefly, QIMR (N=941) cases were from the population-based Australian Twin Registry (see below). The VUMC cases (N=127) were drawn from the same studies as GAIN (see above). All cases were unrelated and independent from the GAIN MDD study. UEDIN cases (N=373) of recurrent MDD were recruited from inpatient and outpatient services of Royal Edinburgh Hospital and other psychiatric hospitals in southeastern Scotland. All subjects are of

North European ancestry. The diagnosis of MDD was per DSM-IV criteria (consensus between two psychiatrists) using data from direct interview by a psychiatrist (SADS-L) supplemented by clinical interviews and medical record review. Particular attention was paid to exclude cases with bipolar spectrum disorders. Patient consent allows de-identified samples to be sent abroad and used by academic and commercial collaborators and phenotype and genotype data can be used in meta-analyses.

The published MDD2000+ study also included additional cases and controls from QIMR referred to as the I317, I370 and I610 sets (named to reflect the genotyping platforms, Illumina 317K, 370K and 610K). Since publication of reference (6), some QIMR samples had been re-genotyped on the I610K platform. In addition, some QIMR cases from the A6.0 sample in (6) had been genotyped on an Illumina platform. Lastly, since publication of (6) additional screened QIMR controls had been genotyped. Briefly, MDD cases and controls were identified through psychiatric questionnaires administered to adult twins and their families recruited through the Australian Twin Registry (ATR, http://www.twins.org.au) under collaborative grant funding to QIMR and the Washington University in St. Louis. The structured interviews were either the shortened Composite International Diagnostic Interview (CIDI) (10) or the SSAGA-OZ interview (a modified version of the Semi-Structured Assessment for the Genetics of Alcoholism) (11), comprehensive psychiatric interviews designed to assess MDD and other psychiatric disorders according to DSM-IV criteria. The interviews were administered by trained telephone interviewers, closely supervised by a clinical psychologist. Only unrelated individuals were included. All participants provided written informed consent under study protocols approved by the QIMR Human Research Ethics Committee. Unrelated controls were selected as genotyped individuals from families in which no individuals qualified for diagnoses of MDD or anxiety disorders. If multiple controls were available from a family, the individual with the lowest neuroticism score was preferentially selected, otherwise an individual was selected at random. QIMR samples are analyzed as two sets MDD2000-QIMR_317 (those genotyped on the

Illumina 317K or 370K platforms) and MDD2000-QIMR_610 (those genotyped on the Illumina 610K platform).

Max Planck Institute of Psychiatry, Munich (12)

Cases were admitted to the hospital of the Max Planck Institute of Psychiatry (MPI-P), Munich, Germany, for treatment of MDD. Patients were included in the study within 1-3 days of admission, and the diagnosis was ascertained by trained psychiatrists according to DSM-IV criteria. Patients with MDD due to a medical or neurological condition were excluded. Ancestry was estimated using a self-report sheet for nationality, first language and ethnicity of the subject and of all grandparents. Controls were randomly drawn from Munich community registries and were screened with a modified version of the Munich-Composite-International-Diagnostic Interview (DIA-X/M-CIDI) for the absence of a lifetime history of axis I disorders. All included patients and controls were of Caucasian descent. The study was approved by the local ethics committee and written informed consent obtained from all subjects. All subjects are independent from the GSK collection above.

RADIANT (8)

Cases for the RADIANT MDD study arise from three multi-center cohorts (DeCC, DeNt, GENDEP) using the same clinical tools. Cases were ascertained from clinical centers in the UK and Europe, with one US center. All cases met DSM-IV criteria for MDD after review of all available information by senior study psychiatrists. Cases were interviewed (SCAN and other measures), and consensus diagnoses assigned by research clinicians. Controls were ascertained from UK and screened for absence of MDD using the Past History Schedule. Study protocols were reviewed and approved in advance by IRBs at participating institutions. All subjects provided written informed consent. Only UK cases were included in the published GWAS (8) following concerns regarding the difficulty of effectively controlling for genetic ancestry where cases and controls are sampled from different European centers with differing

ancestry (13). All RADIANT controls were from the UK, leading to a correlation between affected status and ancestry. In this study design, controlling for test statistic inflation using principal components corrects out the genetic differences between cases and controls due to both ancestry and affected status, reducing power of the study to detect association. We therefore analyzed only MDD cases ascertained in the UK, to match with the ascertainment of controls (RADIANT-UK). This strategy was confirmed by the use of profile scoring (14) . Briefly, we used association results from other data ("discovery") sets from within the PGC-MDD to construct profile scores in the RADIANT data sets. A profile score for each individual is the sum of the logarithm of the odds ratios for each allele as estimated from the discovery data set, summed across all SNPs. We compared the variance explained in case control status in the RADIANT-UK vs the total RADIANT data set. We found that the variance explained in the RADIANT-UK set was consistently greater than in the total RADIANT data set and the non-UK cases were discarded. Ancestry principal components from the German cases of the RADIANT study showed that they grouped, as expected, with the other German samples in the PGC-MDD consortium. Since the RADIANT-GERMANY cases were genotyped on the same platform as the Bonn/Mannheim sample they were analyzed together with this data set.

Sequenced Treatment Alternatives to Relieve Depression (9)

MDD cases were recruited from participants in the STAR*D trial; they consented separately to give DNA for genetic studies. The STAR*D trial was a large NIMH-sponsored treatment trial involving 4,041 subjects that was designed to assess effectiveness of antidepressant treatments in generalizable samples, and to determine outcomes for outpatients with non-psychotic MDD treated with citalopram. To increase the generalizability of the findings, STAR*D utilized broad inclusion criteria and enrolled an ethnically diverse population. Diagnosis was made using the Psychiatric Diagnostic Screening Questionnaire, and depressive symptoms were assessed with the 16-item Quick Inventory of Depressive Symptomatology. Patients with

bipolar, psychotic, or obsessive-compulsive disorders were excluded, as were those with primary eating disorders, general medical conditions that contraindicated study medications, substance dependence requiring inpatient detoxification, and clear non-response or intolerance to any protocol antidepressant during current episode or those who were pregnant or breast-feeding. Controls were MGS subjects, as described above for GenRED.

REFINING THE DISCOVERY SAMPLES

Relatedness

Using 8,549 autosomal SNPs directly genotyped on all subjects and in approximate linkage equilibrium, we estimated the relatedness of all cases and controls using the “--genome" command in PLINK (15). Individuals with evidence of first- or second-degree relatedness were resolved by keeping one member of the relative pair (preference for cases).

Restructuring

Controls were known to be shared in GenRED and STAR*D, and controls were proportionally distributed between these studies. In addition, the RADIANT sample had individuals from the UK and Germany; UK subjects were analyzed separately. MDS results (below) showed that the German subjects were similar to Bonn-Mannheim subjects and these were combined. The rationale for splitting the MDD2000 samples into two groups of QIMR samples only is described above.

MDD REPLICATION PHASE: STUDIES & SAMPLES

Table S3 summarizes the seven samples used in the replication phase.

Table S3: MDD replication studies

Sample	Citation	Place	Cases		Controls	
			Definition	Source	Screened	Source
deCODE	-	Iceland	DSM-III/ICD10	Clin	No	Pop
GenPod/NEWMEDS	(16)	UK	ICD-10	Clin	No	Pop
Harvard i2b2	-	US	ICD-9 +	Clin	Yes	Clin
PsyCoLaus	(17)	Switzerland	DSM-IV	Pop	Yes	Pop
SHIP-LEGEND	(18)	Germany	DSM-IV	Pop	Yes	Pop
TwinGene	-	Sweden	DSM-IV	Pop	Yes	Pop
GenRED2	-	US	DSM-IV	Vol	Yes	Pop
DepGenesNetworks	-	US	DSM-IV	Vol	Yes	Pop
See below for sample acronyms. US=United States. UK=United Kingdom. Clin=clinical ascertainment. Pop=population-based ascertainment. Vol=volunteer sample.						

deCODE

Cases and controls were all Icelandic and were recruited from all over Iceland. For patients, diagnoses were assigned according to DSM-III or ICD-10 criteria. Controls were recruited as a part of various genetic programs at deCODE (excluding the schizophrenia, bipolar disorder, and anxiety projects) and were not screened for psychiatric disorders. Approval for the study was granted by the National Bioethics Committee of Iceland and the Icelandic Data Protection Authority. Informed consent was obtained for all participants.

GenPod/NEWMEDS

A full description of the methodology and sample of the GenPod study can be found elsewhere (16). The study was a multi-centre randomized clinical trial of 601 patients with MDD recruited in primary care in three centers in the UK (Bristol, Birmingham and Newcastle).

Individuals were included who had an ICD-10 diagnosis of MDD of at least moderate severity as assessed by the Clinical Interview Schedule-Revised (CIS-R) (19) and a Beck Depression Inventory (20) score > 14. A subset of subjects of European ancestry were chosen for genotyping. Blood-derived DNA samples were genotyped on Illumina Human 660W-Quad bead chips at the University of Geneva Medical School (Geneva, Switzerland) as part of the NEWMEDS project (http://www.newmeds-europe.com). Individuals were aged between 18-74 years with a mean age of 38.8 years. Exclusion criteria were psychosis, bipolar disorder or major substance or alcohol abuse, and medical contraindications to antidepressants. All participants provided written informed consent. Ethical approval was obtained from the South West Ethics Committee (MREC 02/6/076) as well as research governance approval from Bristol, Manchester and Newcastle Primary Care NHS Trusts. Control individuals came from the Wellcome Trust Case Control Consortium (WTCCC) (21).

Harvard i2b2

Cases were identified using the Partners Healthcare electronic medical record (EMR). Using data available in the EMR, patients who met the following inclusion criteria were identified: a minimum of one ICD-9 code for MDD (ICD9 296.2x, 296.3x), at least one antidepressant prescription, and at least three outpatient psychiatry visit notes. Patients with both a past antidepressant prescription and at least two electroconvulsive therapy procedures (CPT: 90870, 90871) within one week were also included. Exclusion criteria included a past history of bipolar disorder (ICD-9: 296.1x, 296.4x-296.9x), dementia/delirium (ICD-9: 290.x), psychotic disorder (ICD-9: 295.x, 298.x), or past bone marrow transplant. De-identified, discarded blood specimens were obtained for subjects meeting these criteria who had presented for routine blood draw. Genotyping was restricted to individuals who identified as having European ancestry. The Partners Institutional Review Board approved all aspects of this study. Controls were identified from a healthy volunteer sample, age 18-35, participating in the

MGH Brain Genomics Superstruct Project and were screened to have no history of psychiatric or neurologic illness or treatment with psychoactive drugs.

PsyCoLaus

Subjects were selected from subjects of European ancestry from a community survey (CoLaus) carried out in the city of Lausanne, Switzerland (17). Subjects were randomly selected from a complete list of the Lausanne inhabitants aged 35-75 years. All 35 to 66-year old participants were invited by letters also to participate in the psychiatric evaluation (PsyCoLaus) (22). Sixty-seven percent of the participants of the CoLaus study in the age range between 35-66 years accepted the psychiatric evaluation, which resulted in a sample of 3,719 individuals, of whom 92% were of European ancestry. Psychiatric assessment in the PsyCoLaus sub-study included the semi structured Diagnostic Interview for Genetic Studies (DIGS), French version (23). Cases met DSM-IV criteria for MDD and controls were devoid of any psychiatric disorders. A subset of the 3,419 European subjects who received full psychiatric assessment and gave consent for genetic testing were selected for GWAS genotyping. This research was approved by the local institutional review board. All participants received a detailed description of the goal and funding of the study and signed a written informed consent.

SHIP-LEGEND

Data from the Study of Health in Pomerania (SHIP) were used (24, 25). The target population was comprised of adult German residents in northeastern Germany living in 3 cities and 29 communities, with a total population of 212,157. A two-stage stratified cluster sample of adults aged 20-79 years (baseline) was randomly drawn from local population registries. The net sample (without migrated or deceased persons) comprised 6,267 eligible subjects of whom 4,308 Caucasian subjects participated at baseline SHIP-0 between 1997 and 2001. Follow-up examination (SHIP-1) was conducted 5 years after baseline and included 3,300 subjects. In 2007, the “Life-Events and Gene-Environment Interaction in Depression” (LEGEND) study was

started based on SHIP (18). The lifetime diagnosis of MDD was assessed with the Munich-Composite International Diagnostic Interview (M-CIDI). The M-CIDI is a standardized fully structured instrument for assessing psychiatric disorders over the life span according to DSM-IV criteria. The computerized version of the interview was used by clinically experienced interviewers (psychologists) in a face-to-face situation. All interviewers had undergone intensive and continuous training in the diagnostic procedures. SHIP and LEGEND were approved by the local Institutional Review Board and conformed to the principles of the Declaration of Helsinki.

TwinGene

The TwinGene project, conducted between 2004 and 2008, is a population-based Swedish study of twins born between 1911 and 1958 drawn from the Swedish Twin Registry (26). All subjects in this investigation were independent (i.e., one twin selected per twin pair). The study participants previously participated in a telephone interview called Screening Across the Lifespan Twin Study (SALT). Data from the SALT study were used to identify MDD cases as either reporting antidepressant use or meeting DSM-IV criteria for MDD using the Composite International Diagnostic Interview Short Form (CIDI-SF) criteria. The study was approved by the local ethics committee at Karolinska Institutet and all participants gave informed consent.

Genetics of Recurrent Early-Onset Depression Phase II

The second phase of GenRED was included as a replication sample (the first phase was a discovery sample) (4). GenRED2 included new cases meeting the same criteria as in GenRED (see above), plus new controls. Dr. Janet Sobell (University of Southern California) contributed 287 post-QC controls from the Mayo DNA Bank which consists of long-term, community medicine patients (Mayo Clinic, Rochester, MN) who were undergoing venipuncture for any reason. Consenting individuals ages 45 and above completed a brief demographic and psychiatric screening questionnaire. Extensive medical records were screened for evidence of psychiatric illness. Individuals were excluded if they were judged likely to have had a mood or

psychotic disorder on the basis of a review of medical records, taking into account the recorded diagnoses and treatment in each case (including major disorders as well as possible proxies for a mood disorder in older nomenclature such as adjustment disorders, depression NOS, anxiety state, etc.). The final subset was selected to roughly match the proportions of self-reported ancestry in the GenRED 1+2 sample. Drs. Carlos Pato and James Knowles contributed 187 post-QC controls from the Genomic Psychiatry Consortium, an ongoing study of schizophrenia and bipolar disorder. Controls were recruited opportunistically in the Los Angeles area and screened with a self-report questionnaire. We selected individuals who reported European ancestry in all grandparents and answered negatively to five screening questions for lifetime bipolar disorder, five for lifetime schizophrenia, and four for lifetime MDD. Note that these 1,305 subjects were genotyped at the same lab (Centrillion Biosciences, Mountain View, CA) and with the same GWAS array (Illumina Omni1-Quad) as the Depression Genes and Networks sample (below) collected by a subset of the GenRED investigators, so that these samples were combined for the PGC replication analysis.

Depression Genes and Networks

This sample was genotyped and analyzed in combination with the GenRED2 sample (above). A survey research company (Knowledge Networks, Menlo Park, CA) recruited the 471 post-QC recurrent MDD cases and 470 never-depressed controls from participants in an online survey panel that is recruited on an ongoing basis using random digit dialing of nationally-representative US households. (Note that the same panel was used to recruit the Molecular Genetics of Schizophrenia control sample for the NIMH repository, but individuals who were invited to be screened for MGS and who were still members of the panel were not invited to be screened for DGN.) Online screening was carried out using the CIDI-SF depression and alcohol and substance dependence modules; prospective controls were selected who reported two or more episodes meeting criteria for MDD but denied lifetime substance dependence, while

prospective controls denied ever having two or more weeks of depressed mood or anhedonia and two or more other MDD criteria outside of acute bereavement. These individuals were then interviewed (SCID) and individuals not meeting the initial eligibility criteria (based on final review by the site PI) were excluded. Note that these cases all reported recurrent MDD, but were not required to meet the additional criteria required for the GenRED project.

MDD-Bipolar Disorder (BIP) Cross-Disorder Analysis

The PGC BIP mega-analysis (27) included 7,481 cases with BIP and 9,250 controls in its discovery phase. The BIP samples went through the same QC pipeline used for the MDD data (described above). The main issue in comparing these samples is overlapping controls. The same control samples were used for many of the MDD and BIP samples (i.e., the NIMH/MGS controls and the WTCCC1 controls), and some groups had MDD and BIP case groups and a common set of controls. We used identity-by-state comparisons to identify samples that were included in multiple PGC MDD and BIP samples. Any overlapping controls were randomly allocated to yield comparisons of independent cases and independent controls both within and between the MDD and BIP samples. Thus, the sample sizes for this particular analysis are different from the MDD discovery phase and from those in the PGC BIP paper (27).

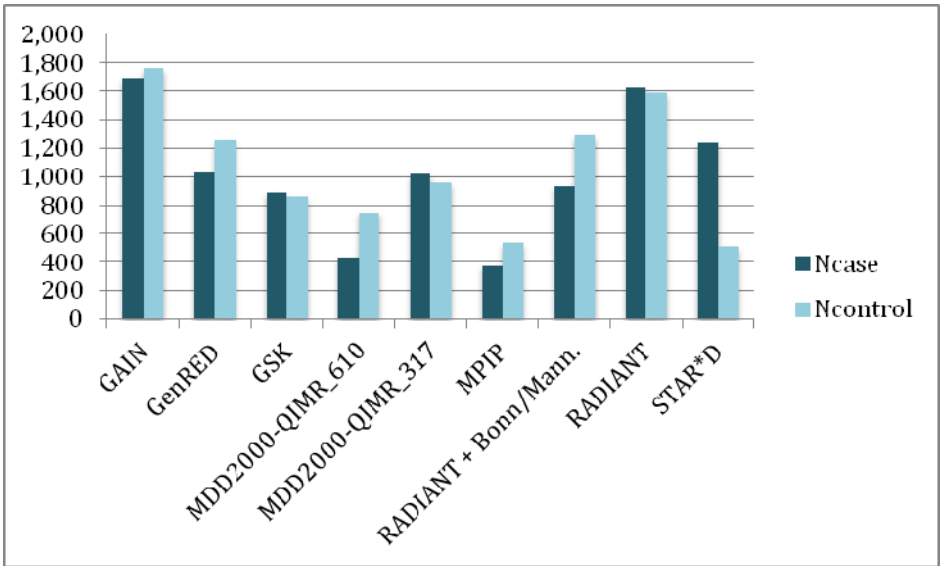
SAMPLE SIZES FOR DISCOVERY & REPLICATION PHASES

The discovery and replication sample sizes are given in ***Table S4***. The totals are below. Discovery phase: 18,759 subjects (9,240 MDD cases and 9,519 controls). ***Figure S5*** depicts a bar chart of the discovery phase numbers of cases and controls. MDD replication phase: 57,478 subjects (6,783 MDD cases and 50,695 controls). MDD-BIP cross-disorder analysis: after resolving overlapping samples, there were 32,050 independent subjects (9,238 MDD cases plus 8,039 controls and 6,998 BIP cases plus 7,775 controls).

Table S4: Sample sizes for the discovery mega-analysis and replication phases

Phase	Sample	SNPs	Total subjects	Cases	Controls
Discovery	GAIN	366,883	3,461	1,696	1,765
	GenRED	630,196	2,283	1,030	1,253
	GSK	503,946	1,751	887	864
	MDD2000-QIMR_610	473,720	1,184	433	751
	MDD2000-QIMR_317	271,366	1,977	1,017	960
	MPIP	297,080	913	376	537
	RADIANT + Bonn/Mann.	431,469	2,225	935	1,290
	RADIANT	471,581	3,213	1,625	1,588
	STAR*D	270,182	1,752	1,241	511
MDD replication	deCODE	593	34,229	1,067	33,162
	GenPod/NEWMEDS	593	5,939	477	5,462
	Harvard i2b2	593	902	460	442
	PsyCoLaus	593	2,794	1,303	1,491
	SHIP-LEGEND	593	1,806	313	1,493
	TwinGene	593	9,562	1,861	7,701
	GenRED2/DepGenesNetworks	593	2,246	1,302	944
MDD-BIP	PGC MDD	819	17,277	9,238	8,039
Cross-disorder	PGC BIP	819	14,773	6,998	7,775
Totals	**Discovery**	-	**18,759**	**9,240**	**9,519**
	MDD replication		**57,478**	**6,783**	**50,695**
	MDD-BIP cross-disorder		**32,050**	**16,236**	**15,814**

Figure S5: Bar chart of discovery phase sample sizes



SNP selection for replication

MDD replication

The discovery SNP results were grouped into regions defined by linkage disequilibrium using an iterative process after ranking all SNPs by association p-value: if a SNP has r^2>0.2 (based on analysis of HapMap3 CEU+TSI using Haploview) to a more significantly associated SNP located ± 1Mb, the SNP is assigned to the region defined by the more strongly associated SNP. Distinct regions (i.e., associated variants within ± 200kb) were tested for independence using conditional analysis. For the MDD replication samples, the top SNP in each region was tested for association, and standard error-weighted meta-analysis was used for the replication samples alone, and for the combination of PGC discovery and replication data.

MDD-BIP cross-disorder analysis

We selected SNPs for analysis of that had p < 0.0001 in the MDD samples (160 SNPs) or in the BIP samples (659 SNPs) from a total of 1,241,611 autosomal directly genotyped and

imputed SNPs. These SNP lists differ from the primary samples due to the need to eliminate sample overlap. As no SNP was on both lists, there were 819 total SNPs.

ASSESSMENT OF ANCESTRY

Population stratification can bias association results. Methods to handle this risk have been developed and are now standard in the field. We identified 8,549 autosomal SNPs directly genotyped on all subjects and in approximate linkage equilibrium, and used multidimensional scaling (MDS) in PLINK (15) to extract 10 MDS scores per subject. MDS is essentially identical to principal components analysis (28).

We present the MDS results in multiple ways. ***Figure S6*** shows the interrelation of the 10 MDS values for all subjects. MDS1 and MDS2 are the most variable. The clusters for MDS3-10 are globular suggesting that these dimensions capture little variability.

Figure S6: Interrelation of 10 MDS dimensions on all discovery samples

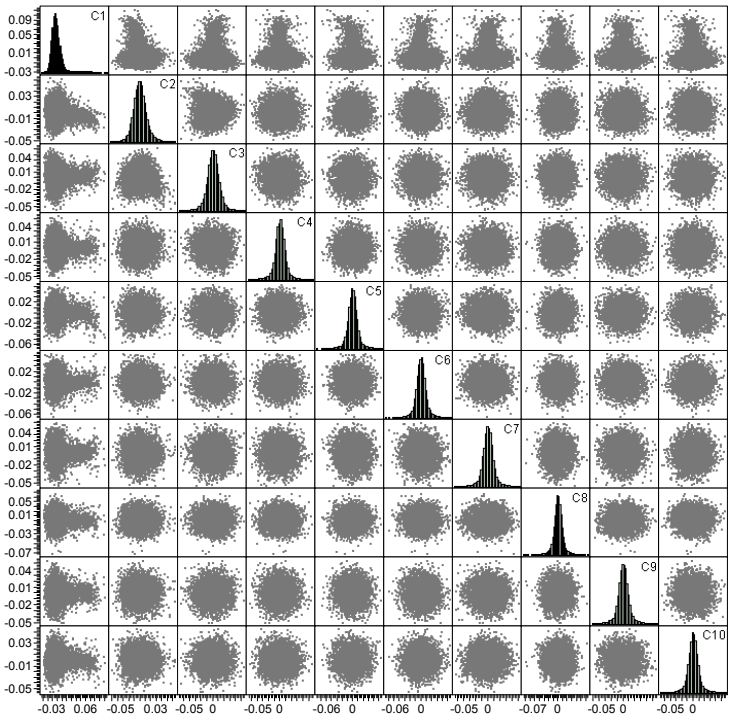


Figure S7 plots MDS2 x MDS1 for the whole discovery sample (this is essentially an enlargement of the graph in row 2, column 1 of Figure S6). Most subjects fall within a central cluster. There is modest diversity along MDS 1 and MDS2. In the legend, mdd2000b is the MDD2000_QIMR_610 sample and mdd2000ks is the MDD2000_QIMR_317 sample.

Figure S7: MDS plots for the discovery sample

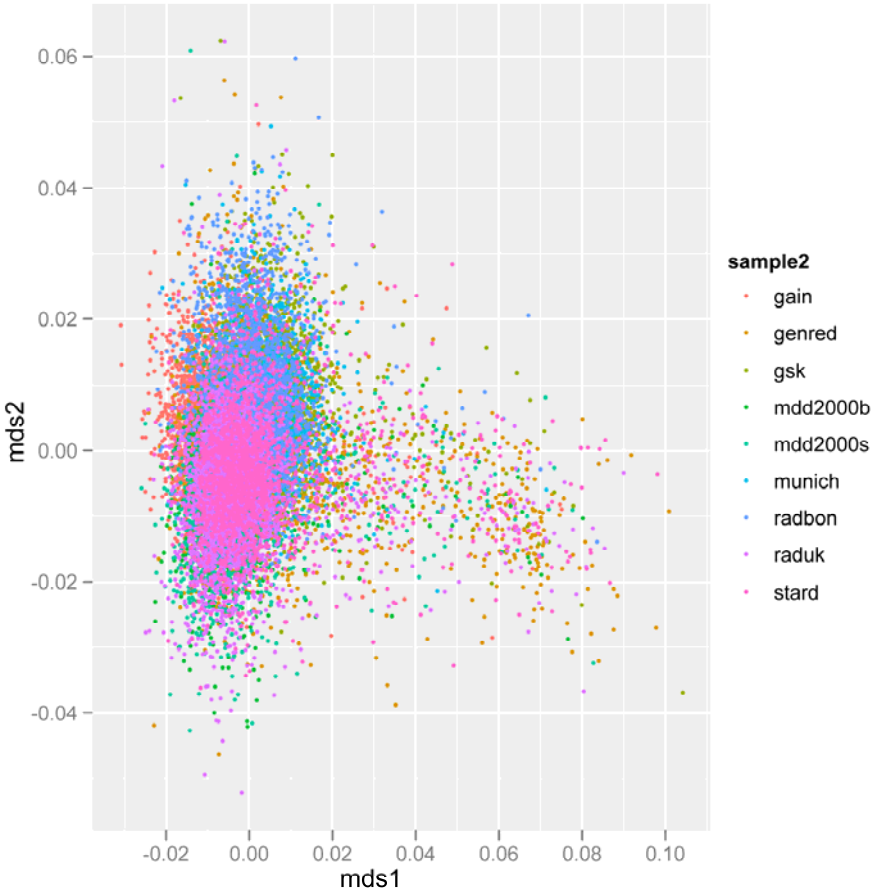


Figure S8 stratifies Figure S7 by study in order to evaluate differences by study (not visible in Figure S7 as the central cluster contains >17,000 points). The blue circles in Figure S8 show the density of points. All studies have a globular central cluster with minor degrees of outliers along MDS1. The locations of the clusters are similar between studies. The mdd2000b is the MDD2000_QIMR_610 sample and mdd2000ks is the MDD2000_QIMR_317 sample.

Figure S8: MDS plots by sample

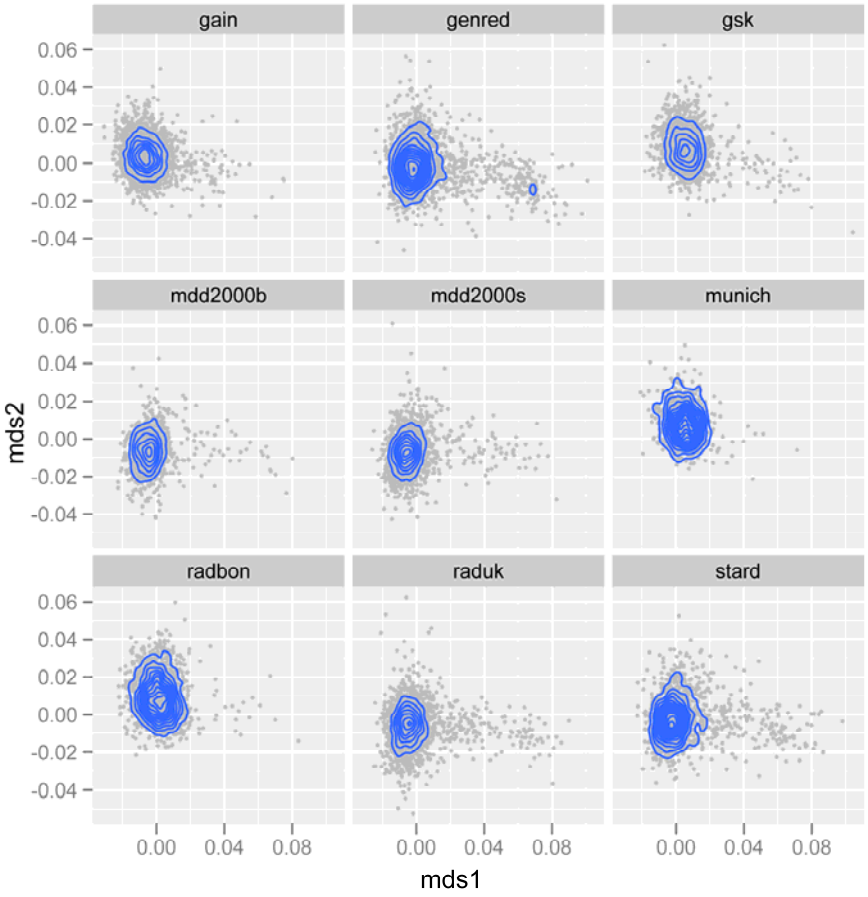
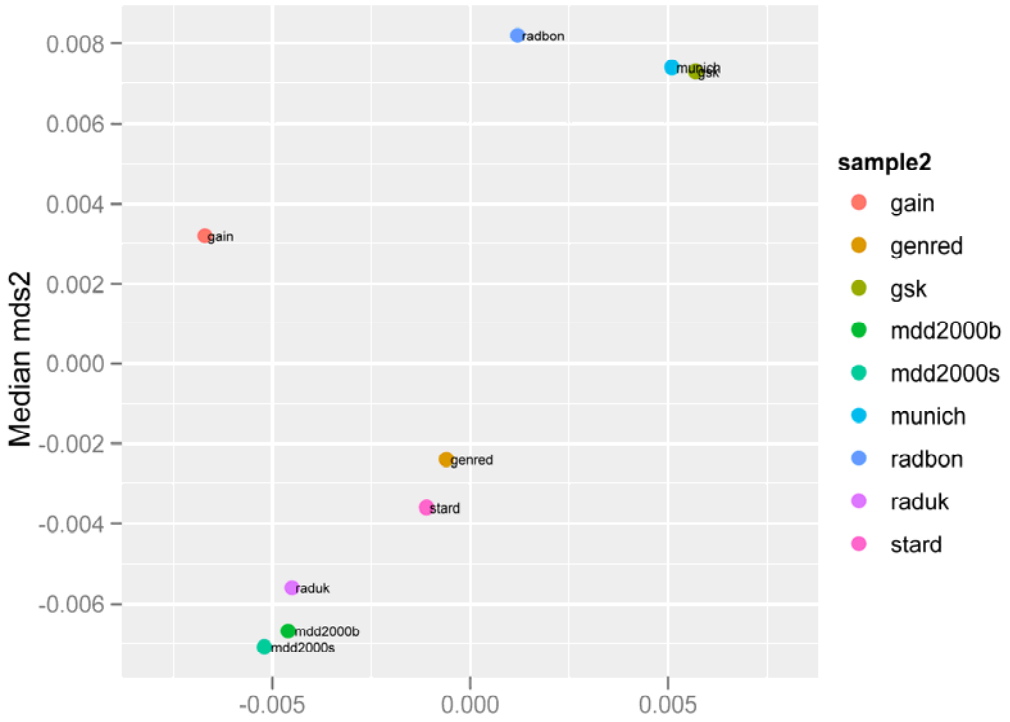


Figure S9 shows the median values for MDS1 and MDS2 per study to enable clearer comparisons of the discovery samples. Overall, the variation between studies is not large and the relative locations of the sample medians are consistent with the sample origins. The studies fall into four geographical subgroups. (a) The three samples from Germany are in the upper right (with the two southern German samples overlapping). (b) The GAIN sample from the Netherlands is on the left. (c) The two US samples (GenRED and STAR*D) cluster together. (d) The UK RADIANT sample and the two Australian samples cluster together in the lower left. In the legend, mdd2000b is the MDD2000_QIMR_610 sample and mdd2000ks is the MDD2000_QIMR_317 sample.

Figure S9: MDS plot showing sample medians

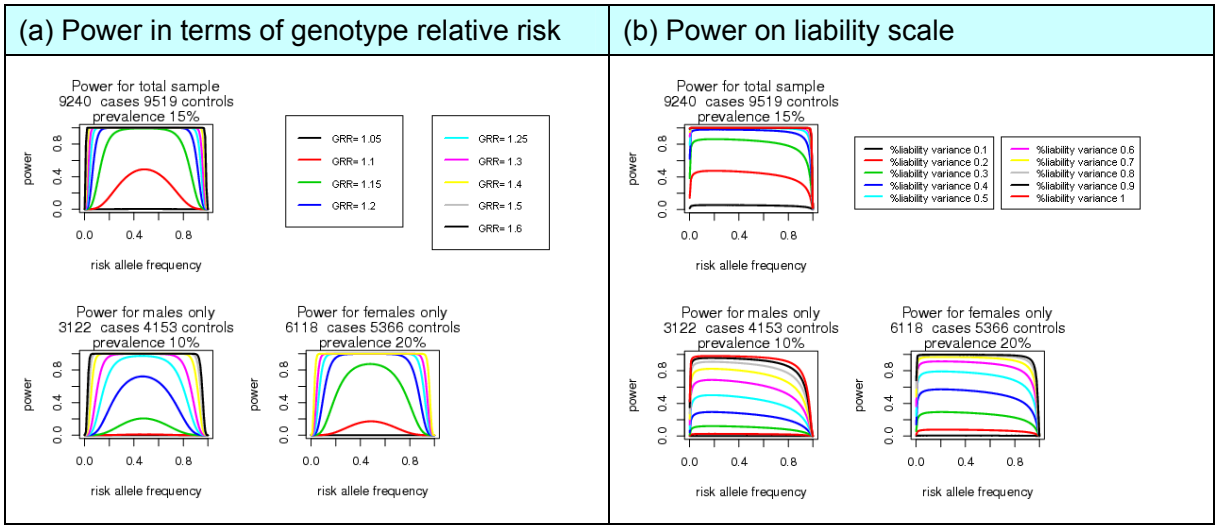


STATISTICAL POWER

We present power calculation curves (***Figure S10***) in two ways (both assuming type I probability level of $5x10^{-8}$), firstly expressed in the terms of the genotype relative risk (GRR) of the heterozygote. Although this is the usual way to express power it can be somewhat misleading for diseases of high prevalence. For example, we have 86% power to detect a variant with GRR of 1.15 (assuming prevalence of 15%, risk allele frequency 0.2, significance level $5x10^{-8}$) compared to 55% power to detect a variant of GRR of 1.15 in a case-control study of the same size for a disorder of prevalence 1%. This is counter-intuitive because on the liability scale the cases of the less prevalent disease must be more extreme than cases of the

more common disease. In fact, for this example, the locus explains 0.3% of the variance in liability for a disorder with prevalence of 15% compared to only 0.1% of the variance in liability for a disorder of prevalence of 1%. Therefore we also express power in terms of the variance in liability of a risk allele.

Figure S10: Statistical power of the discovery sample



SECONDARY ANALYSES

We undertook a number of pre-defined secondary analyses intended to evaluate genetic heterogeneity between MDD cases.

Sex

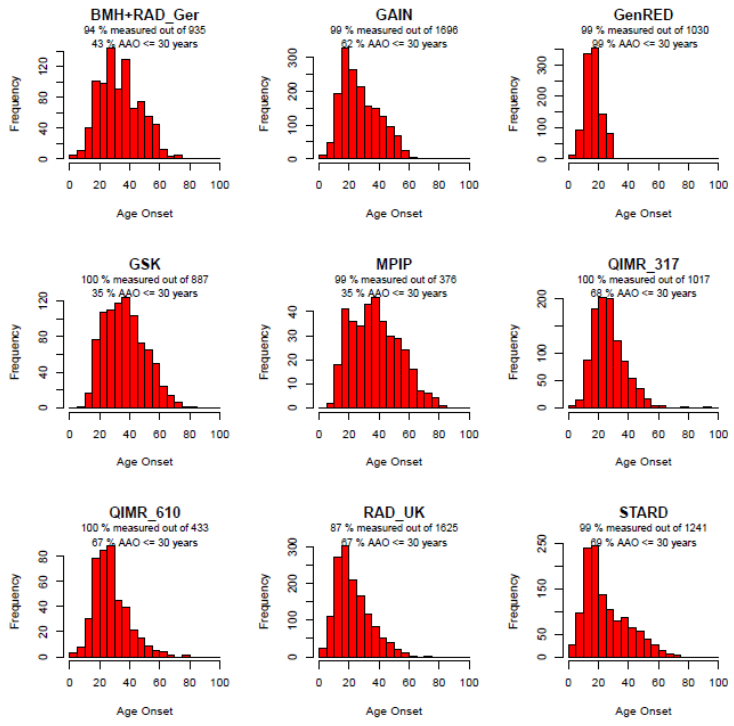
As the lifetime prevalence of MDD is approximately two times greater in females (29, 30), we conducted GWAS separately in males and females to evaluate sex-specific genetic risk variants.

Recurrent and recurrent-early onset MDD

As recurrence and age of onset may index heterogeneity in MDD (31, 32), we conducted four sets of secondary analyses. The distributions of age of onset of first major depressive episode are shown in ***Figure S11***. The GenRED study required onset ≤ 30 years.

First, we restricted MDD cases to those with early-onset (≤ 30 years) and recurrence (≥ 2 episodes) of MDD. Second, as pre-pubertal onset may be distinctive (33), we restricted MDD cases to those with childhood onset (≤ 12 years). Third, to identify SNPs which are differentially associated with either early-onset or late-onset MDD, we analyzed association age of as a quantitative trait (a square root transformation was used to normalize the data and reported ages of onset < 5 years were set to 5).

Figure S11: Age of onset distributions for each sample



Latent class analysis

The diagnosis of DSM-IV MDD requires endorsement of five of nine "A" criteria (depressed mood, loss of interest, appetite/weight gain or loss, hypersomnia/insomnia, psychomotor agitation/retardation, fatigue, feelings of worthlessness or guilt, diminished ability to think or concentrate or indecisiveness, and suicidal ideation). The A criteria were available for 88% of cases. Endorsement rates were somewhat variable between studies (***Table S12***), which reflects differences such as setting (e.g. clinical vs. community), ascertainment (e.g., MDD vs recurrent MDD), and assessment frame (e.g., a focus on lifetime worst vs current episode).

Table S12. MDD A criteria endorsement rates by study

Study	%not missing	MDD1	MDD2	MDD3a	MDD3b	MDD4a	MDD4b	MDD5a	MDD5b	MDD6	MDD7	MDD8	MDD9
BonnMH	100	98	97	66	14	80	10	55	48	95	78	91	72
RAD_GER	98	99	97	58	15	77	10	92	59	96	90	84	54
GAIN	95	94	93	49	32	73	43	29	32	93	80	98	61
GenRED	99	100	89	48	26	65	56	34	33	94	93	91	74
GSK	100	99	100	66	10	65	10	NA	55	98	51	85	68
MPIP	97	99	NA	78	NA	91	NA	53	70	91	78	100	73
QIMR_317	100	97	95	29	43	70	26	31	34	86	73	84	47
QIMR_610	100	96	92	56	25	71	23	28	33	88	62	91	45
RAD_UK	93	100	97	63	20	72	27	88	62	96	95	92	71
STAR*D	100	92	95	33	25	89	10	25	23	93	86	87	37

MDD A criteria

(1) depressed mood most of the day, nearly every day
(2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day
(3a) significant weight loss or decrease in appetite
(3b) significant weight gain or increase in appetite
(4a) insomnia nearly every day
(4b) hypersomnia nearly every day
(5a) psychomotor agitation nearly every day
(5b) psychomotor retardation nearly every day
(6) fatigue or loss of energy nearly every day
(7) feelings of worthlessness or excessive or inappropriate guilt
(8) diminished ability to think or concentrate, or indecisiveness
(9) recurrent thoughts of death or suicide or a suicide attempt or a specific plan for committing suicide

We used LCA to evaluate item-level heterogeneity in MDD symptoms. Input data were binary MDD symptom data. Items 1 and 2 were excluded because endorsement of one of these items is required for a diagnosis of MDD resulting in very high endorsement rates in all studies. Items 3 (weight/appetite), 4 (sleep), and 5 (motor) were disaggregated to code increases and decreases separately.

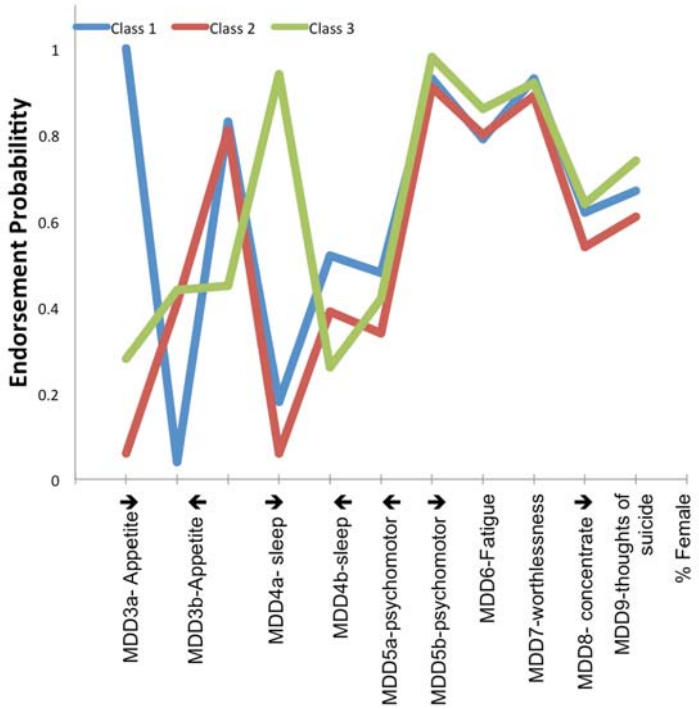
Latent class cluster models were fit to 10 binary item responses for MDD cases (items 3a, 3b, 4a, 4b, 5a, 5b, 6, 7, 8, and 9) using Latent GOLD (Statistical Innovations, v4.5). For each Latent GOLD run, up to 10,000 iterations of the EM algorithm were allowed using a convergence criterion of 10^{-10}. Each LCA solution was restarted 100 times with new starting values to find the maximum likelihood estimates of the parameters. Individuals with missing item responses were included. After preliminary analyses, the final analysis was applied to all analysis samples fitting sex as a covariate. The fit of the latent class and latent factor models with differing number of classes/factors was compared using the Bayes Information Criterion (BIC), where BIC = $-2LL_j+F_j*N$, where LL_j is the maximum log likelihood achieved for a model fitting *j* latent classes, F_j is the number of free (estimated) parameters in the model $F_j = 11*j - 1$, where 11 reflects the 10 binary MDD items plus the sex covariate and N is the sample size (N=7,040). The BIC takes account of the goodness of fit and the number of criteria needed to achieve that fit. The BIC is expected to lead to the correct choice of model for large samples.

Based on BIC, the most parsimonious model was a 2-factor 3-class model. Investigation of this model showed that the 3-classes represented severity levels with differences in the profile symptoms captured in the quantitative factor scores. The factor scores may be suitable for a case-only analysis, but our aim was an association analysis of controls vs multiple categories of cases. Allowing only latent classes, the six-class model, was most parsimonious based on BIC. However, some class sizes were small and profiles were not highly interpretable. We found that the three class solution provided interpretable differences and reasonably sized

classes. Additional analyses by sex and by site confirmed qualitatively the robustness of the 3 class solution.

Details of the three class solution are given in ***Figure S13*** and ***Tables S14*** and ***S15***. The class frequencies were: 47%, 35%, and 18%. The numbers in the third class may be prohibitively small and assignments vary between sites for the reasons discussed above. Consistent with other studies (34, 35), these results provided empirical support for latent classes related to typical/atypical MDD subtypes. We used multinomial logistic regression (36) (including study indicators and five principle components as before) as the most powerful way to optimize the potential gain of power from sub-phenotyping versus loss of power from smaller case sample groups. The test of heterogeneity of allelic odds ratios between the classes identifies SNPs with differential association.

Figure S13: Symptom endorsement per latent class



Important discrimination comes from items 3a (weight loss), 3b (weight gain), 4a (insomnia), and 4b (hypersomnia). Note that MPIP does not have data on 3b and 4b, the latter will be hard to predict and so MPIP has few cases in the third cluster. RAD_BDI is analysed together with BonnMH so the small class size will not be a problem.

Table S14. Endorsement probabilities for each of the 3 clusters

Item	1	2	3
MDD3a	1.00	0.06	0.28
MDD3b	0.04	0.41	0.44
MDD4a	0.83	0.81	0.45
MDD4b	0.18	0.06	0.94
MDD5a	0.52	0.39	0.26
MDD5b	0.48	0.34	0.42
MDD6	0.93	0.91	0.98
MDD7	0.79	0.80	0.86
MDD8	0.93	0.89	0.92
MDD9	0.62	0.54	0.64
%Female	0.67	0.61	0.74

Table S15. Cluster assignments by site

Site grouped by phenotype collection		Cluster			Total
		1	2	3	
BonnMH	Count	366	140	43	549
	%	66.7%	25.5%	7.8%	100.0%
GAIN	Count	631	440	502	1573
	%	40.1%	28.0%	31.9%	100.0%
GenRED	Count	385	197	419	1001
	%	38.5%	19.7%	41.9%	100.0%
GSK	Count	522	210	34	766
	%	68.1%	27.4%	4.4%	100.0%
MPIP	Count	285	76	3	364
	%	78.3%	20.9%	.8%	100.0%
QIMR	Count	459	679	272	1410
	%	32.6%	48.2%	19.3%	100.0%
RAD_BDI	Count	107	77	10	194
	%	55.2%	39.7%	5.2%	100.0%
RAD_SCAN	Count	667	319	130	1116
	%	59.8%	28.6%	11.6%	100.0%
STAR*D	Count	392	724	81	1197
	%	32.7%	60.5%	6.8%	100.0%
Total	Count	3814	2862	1494	8170
	%	46.7%	35.0%	18.3%	100.0%

POLYGENIC / RISK PROFILE ANALYSIS

Following our prior work (14), we reallocated the MDD discovery samples into discovery (~80%) and target sets (~20%) for polygenic / risk profile analysis. The polygenic discovery set consisted of 4,984 cases and 6,641 controls (the GSK, MPIP, STAR*D, GAIN, QIMR_317, QIMR_610, and GenRED samples). The polygenic target set consisted for 2,524 cases and 2,824 controls (RADIANT-Bonn-Mannheim and RADIANT-UK).

We first conducted association analyses in the discovery set using a subset of 114,158 autosomal SNPs that had been subject to particularly strict QC and filtered so that the remaining

SNPs were in approximate linkage equilibrium. These SNPs were used to make a profile list (SNP rs ID, reference allele, and a the logistic regression beta coefficient as weight). This profile list was then applied to the independent target set to compute a summed weighted risk allele score for each case and each control. The risk profile scores of target cases and controls were hen tested using analysis of variance. We considered the ability of SNPs beneath 10 p-value thresholds (pT) to predict case-control status in the target samples. The results are given in ***Table S22***.

Table S22: Risk profile analyses.

pT	SNPs with p < pT	Target sample p-value	R^2
0.0001	42	0.29	0.00027
0.001	343	0.011	0.00158
0.01	2,902	0.022	0.00126
0.05	11,835	4.6e-4	0.00297
0.1	21,365	3.0e-5	0.00422
0.2	38,048	5.4e-6	0.00502
0.3	52,948	5.0e-6	0.00506
0.4	66,108	9.2e-7	0.00585
0.5	77,695	6.8e-7	0.00599
1.0	114,158	7.9e-7	0.00592

SNPs identified in the polygenic discovery sample have a highly significant relationship with case-control status in the target samples for pT of 0.05 and greater. Although highly significant, the proportion of variance explained is small (R^2 ~ 0.6%, 0.04% expected by chance).

TABLE S16. SNPS WITH ASSOCIATION P-VALUES < 0.0001 IN THE DISCOVERY PHASE

snpid	hg18chr	bp	a1	a2	or	se	pval	ngt
rs11579964	1	222605563	T	C	0.846	0.031	1.01E-07	6
rs7647854	3	186359477	A	G	0.860	0.030	6.51E-07	5
rs8013144	14	66958528	A	G	1.407	0.070	1.05E-06	0
rs12407717	1	30198601	T	C	1.170	0.032	1.20E-06	4
rs9830950	3	61097358	T	C	1.112	0.022	1.24E-06	3
rs9323497	14	66942881	T	C	1.258	0.048	1.57E-06	6
rs9937841	16	1260594	A	G	1.140	0.027	1.59E-06	1
rs4949232	1	30183089	A	C	0.858	0.032	1.98E-06	1
rs8045299	16	1256226	A	G	0.882	0.027	2.83E-06	6
rs9825823	3	61057193	T	C	1.105	0.022	4.08E-06	0
rs11641981	16	1253638	T	C	0.883	0.027	4.31E-06	0
rs6445194	3	61086235	T	G	0.908	0.021	6.04E-06	6
rs4659657	1	234612765	A	G	1.156	0.032	6.09E-06	2
rs4659660	1	234619153	A	G	0.862	0.033	6.42E-06	6
rs1365593	15	24318276	A	G	0.904	0.023	7.65E-06	4
rs966365	1	234624394	A	G	1.142	0.030	7.80E-06	0
rs6673040	1	234612516	T	G	0.866	0.032	7.89E-06	3
rs1025977	1	234614045	T	G	0.867	0.032	8.00E-06	6
rs7626688	3	61081361	T	G	1.100	0.021	8.47E-06	2
rs966364	1	234624551	A	G	1.141	0.030	9.55E-06	6
rs9841506	3	186336036	A	G	1.142	0.030	9.70E-06	5
rs2183696	10	24831387	A	G	0.909	0.022	9.94E-06	0
rs4523899	15	24317742	T	C	0.905	0.023	1.00E-05	1
rs1556406	10	24829620	T	C	0.909	0.022	1.00E-05	2
rs10802533	1	234624035	T	G	0.877	0.030	1.02E-05	6
rs11143186	9	74040855	A	G	1.099	0.021	1.06E-05	1
rs4741652	9	2184227	T	C	1.113	0.024	1.06E-05	7
rs1969420	3	61131945	T	G	0.910	0.022	1.11E-05	1
rs12457996	18	39126271	T	C	1.118	0.026	1.21E-05	4
rs10869149	9	74026067	T	C	1.097	0.021	1.23E-05	6
rs11143176	9	74025905	T	G	0.912	0.021	1.25E-05	1
rs11707984	3	61125198	T	C	1.098	0.021	1.26E-05	2
rs6807748	3	61125007	T	C	0.911	0.022	1.27E-05	2
rs10129827	14	66302326	A	G	1.232	0.048	1.37E-05	6
rs1966136	3	61128618	A	C	0.911	0.021	1.37E-05	6
rs9851485	3	61130931	C	G	0.911	0.021	1.46E-05	0
rs16839984	3	134319928	T	C	0.910	0.022	1.48E-05	2
rs12587989	14	66339876	A	G	0.812	0.048	1.50E-05	1
rs4478239	4	188428300	A	C	0.861	0.035	1.53E-05	2
rs2975494	8	19426611	A	G	1.129	0.028	1.53E-05	7
rs10181724	2	139676278	T	C	0.769	0.061	1.59E-05	1
rs11640300	16	3932784	T	C	1.262	0.054	1.60E-05	5
rs7090837	10	24846637	A	G	1.097	0.022	1.61E-05	5
rs4922053	8	19423956	A	G	0.885	0.028	1.63E-05	1
rs9817813	3	134267641	T	C	0.912	0.022	1.74E-05	3
rs6553052	4	188427213	T	G	0.862	0.035	1.75E-05	4
rs1969253	3	185359206	A	C	1.101	0.022	1.83E-05	0
rs9871451	3	61130969	T	C	0.912	0.021	1.84E-05	2
rs10503652	8	19434179	A	G	1.128	0.028	1.86E-05	3
rs9835480	3	134274899	A	C	1.097	0.022	1.86E-05	0
rs1550343	3	61134528	A	C	0.912	0.022	1.87E-05	2
rs10196730	2	139631288	A	C	0.769	0.062	1.91E-05	1
rs7636123	3	134324107	T	C	0.911	0.022	1.96E-05	2
rs1437305	2	139678295	A	G	0.770	0.061	1.97E-05	0
rs4487238	3	134273547	C	G	0.912	0.022	1.97E-05	0
rs12714788	3	72739803	A	C	1.107	0.024	1.97E-05	6
rs9864890	3	134326028	A	G	1.098	0.022	1.99E-05	2
rs9860508	3	134277643	A	G	0.913	0.021	1.99E-05	2
rs4478240	4	188428510	T	C	0.859	0.036	2.01E-05	3
rs17256183	16	3934697	T	C	0.793	0.054	2.02E-05	2

rs6538329	12	91348724	T	G	0.914	0.021	2.05E-05	7
rs6553051	4	188427111	T	C	0.863	0.035	2.06E-05	6
rs4862792	4	188438344	T	G	1.151	0.033	2.09E-05	8
rs861271	3	99254426	T	G	0.911	0.022	2.13E-05	7
rs264501	12	128725658	T	G	0.897	0.026	2.17E-05	4
rs2122003	5	173115968	T	C	0.871	0.033	2.21E-05	2
rs16977454	18	39116245	A	C	0.897	0.026	2.26E-05	0
rs17678033	3	72740001	T	C	1.107	0.024	2.31E-05	3
rs11025135	11	19407596	T	C	0.903	0.024	2.36E-05	6
rs4659664	1	234621933	A	T	0.882	0.030	2.39E-05	2
rs4895363	5	118645069	T	C	1.119	0.027	2.44E-05	6
rs12536959	7	78164462	T	C	0.846	0.040	2.51E-05	1
rs1515565	12	91342917	A	G	0.915	0.021	2.54E-05	0
rs1515563	12	91343270	A	C	0.915	0.021	2.59E-05	0
rs1437296	2	139654878	A	G	0.773	0.061	2.64E-05	0
rs12530747	7	78160434	T	C	1.182	0.040	2.67E-05	4
rs6532503	4	95827046	T	G	0.897	0.026	2.71E-05	1
rs6583735	10	92577480	A	C	0.915	0.021	2.83E-05	3
rs4760440	12	91330328	A	G	0.915	0.021	2.88E-05	7
rs2975468	8	19422061	T	C	0.889	0.028	2.96E-05	2
rs6992386	8	19424591	T	C	1.125	0.028	3.00E-05	1
rs16833076	1	30186769	T	G	0.882	0.030	3.02E-05	0
rs934707	2	139692531	T	G	1.290	0.061	3.17E-05	4
rs4949238	1	30195183	A	G	0.882	0.030	3.20E-05	9
rs10260531	7	139319086	T	G	0.797	0.055	3.21E-05	0
rs17018779	4	92953741	T	C	0.849	0.039	3.28E-05	4
rs4496483	3	134273376	T	G	0.916	0.021	3.30E-05	2
rs1485991	4	92953313	T	C	1.178	0.040	3.42E-05	6
rs736707	7	102917639	A	G	0.897	0.026	3.46E-05	6
rs1276324	18	19172417	C	G	1.099	0.023	3.49E-05	2
rs17145575	16	8248676	A	G	0.899	0.026	3.50E-05	1
rs2049149	3	134259591	T	C	1.091	0.021	3.67E-05	1
rs1515569	12	91337777	A	G	0.916	0.021	3.72E-05	0
rs1498243	1	30187613	A	G	1.131	0.030	3.89E-05	1
rs10500847	11	19408081	A	T	0.905	0.024	3.91E-05	0
rs472724	7	54518804	T	C	0.916	0.021	3.94E-05	3
rs12401298	1	30212347	A	G	0.871	0.034	3.95E-05	1
rs9879280	3	134260004	T	C	0.917	0.021	4.10E-05	4
rs7024630	9	30972620	T	C	1.092	0.022	4.14E-05	2
rs6796955	3	16860606	T	C	0.835	0.044	4.14E-05	6
rs7619914	3	186320739	T	C	0.808	0.052	4.23E-05	1
rs7985182	13	84183856	C	G	0.916	0.021	4.34E-05	0
rs2554635	8	3924312	C	G	0.915	0.022	4.38E-05	0
rs1276321	18	19175270	T	C	1.097	0.023	4.45E-05	7
rs1971078	8	3925003	A	G	0.916	0.022	4.54E-05	0
rs1875196	5	1744202	C	G	1.437	0.089	4.71E-05	1
rs7038348	9	30972002	T	C	0.916	0.022	4.73E-05	6
rs7743180	6	104235436	T	G	0.860	0.037	4.84E-05	3
rs17057536	9	74035924	A	G	1.101	0.024	4.85E-05	5
rs1568478	3	134243117	T	C	1.090	0.021	4.88E-05	2
rs7629340	3	61222037	A	G	1.092	0.022	4.94E-05	1
rs4854680	3	134245860	A	C	1.090	0.021	4.97E-05	2
rs9845837	3	61046851	A	G	0.915	0.022	5.12E-05	2
rs9846073	3	61161590	T	G	0.916	0.022	5.13E-05	4
rs7637028	3	72757615	A	G	1.102	0.024	5.32E-05	2
rs9806254	15	21303599	A	G	0.911	0.023	5.38E-05	1
rs6953739	7	78194313	T	C	1.182	0.042	5.38E-05	0
rs832095	3	99254697	A	G	0.910	0.023	5.41E-05	2
rs7631246	3	61137444	T	G	1.091	0.022	5.42E-05	2
rs1916800	3	61162237	T	C	1.092	0.022	5.46E-05	1
rs2501299	1	22218234	T	C	1.098	0.023	5.47E-05	2
rs902923	9	93373420	T	C	1.116	0.027	5.48E-05	8
rs1959778	14	25360889	T	C	1.205	0.046	5.49E-05	2
rs10828664	10	24854509	A	G	1.102	0.024	5.55E-05	4
rs10869150	9	74035809	A	C	0.909	0.024	5.55E-05	6
rs10229458	7	78191669	T	C	1.181	0.041	5.57E-05	5

rs1347852	3	61055822	T	G	0.917	0.022	5.59E-05	8
rs10230190	7	78192408	A	T	1.181	0.041	5.62E-05	2
rs10229438	7	78191613	T	C	1.181	0.041	5.62E-05	1
rs7643404	3	99254293	A	G	0.910	0.023	5.63E-05	1
rs2106730	7	90085244	T	C	0.912	0.023	5.74E-05	6
rs10869151	9	74040752	A	C	1.099	0.024	5.82E-05	1
rs10757999	9	31017597	A	G	0.918	0.021	5.90E-05	0
rs12884688	14	41391684	T	C	0.918	0.021	6.07E-05	4
rs10881832	10	92538743	T	C	0.919	0.021	6.12E-05	5
rs12607475	18	19200794	T	C	1.096	0.023	6.13E-05	8
rs6563407	13	84183675	A	G	1.089	0.021	6.19E-05	1
rs2632010	11	19423296	A	G	1.091	0.022	6.20E-05	6
rs11790706	9	9494580	T	G	1.215	0.049	6.21E-05	2
rs6507592	18	19167881	A	G	1.096	0.023	▪.26E-05	2
rs815710	3	61237189	A	G	0.917	0.022	6.26E-05	8
rs7230499	18	19184128	T	C	0.913	0.023	6.31E-05	0
rs7639455	3	72757722	T	C	1.101	0.024	6.34E-05	1
rs3751700	16	88279695	A	G	0.873	0.034	6.37E-05	6
rs9646303	16	86019470	A	G	0.879	0.032	6.39E-05	2
rs9815274	3	7504849	A	T	0.914	0.022	6.43E-05	0
rs13398149	2	232273125	A	C	1.137	0.032	6.50E-05	2
rs11210220	1	73622243	T	G	1.090	0.022	6.55E-05	2
rs4362366	15	21298218	T	G	0.911	0.023	6.61E-05	1
rs4743837	9	93286593	A	G	1.117	0.028	6.70E-05	2
rs7219119	17	9095380	T	C	0.901	0.026	6.71E-05	6
rs6832990	4	188462177	A	G	0.872	0.034	6.85E-05	1
rs11638103	15	21297489	A	T	1.098	0.024	6.87E-05	0
rs865808	3	185341633	A	C	1.091	0.022	6.91E-05	7
rs1791124	18	3306176	T	G	0.878	0.033	6.93E-05	2
rs7142068	14	66532765	T	C	1.211	0.048	6.94E-05	4
rs11724374	4	10769066	A	G	0.919	0.021	6.96E-05	6
rs7948839	11	66390973	T	C	0.911	0.023	7.11E-05	6
rs6807522	3	134298394	T	G	0.918	0.022	7.23E-05	6
rs2485944	1	2873718	T	C	1.142	0.034	7.27E-05	4
rs17781474	14	41390851	A	T	1.088	0.021	7.34E-05	0
rs7233508	18	19165590	T	C	1.095	0.023	7.34E-05	3
rs6445200	3	61216088	T	C	0.917	0.022	7.36E-05	1
rs6891823	5	54353657	T	C	0.914	0.023	7.48E-05	1
rs9955650	18	39085635	T	C	0.901	0.026	7.54E-05	2
rs12534964	7	67842039	A	G	1.130	0.031	7.57E-05	5
rs2304961	17	908650	A	G	0.913	0.023	7.58E-05	7
rs2131301	9	93360890	T	G	1.114	0.027	7.58E-05	1
rs17152161	7	102928939	T	C	0.890	0.030	7.71E-05	6
rs13232021	7	102928383	A	G	0.890	0.030	8.07E-05	0
rs4309721	3	61107738	T	C	0.919	0.021	8.14E-05	7
rs4480680	13	84163636	T	C	0.920	0.021	8.15E-05	3
rs6785875	3	61218651	T	C	0.917	0.022	8.22E-05	1
rs8011755	14	34411989	T	C	0.904	0.026	8.22E-05	2
rs3117048	1	22217680	A	G	0.916	0.022	8.28E-05	8
rs6797038	3	16860689	A	C	0.841	0.044	8.33E-05	1
rs12895832	14	41384303	T	G	1.088	0.021	8.46E-05	2
rs11210222	1	73622275	T	C	1.089	0.022	8.57E-05	0
rs863615	3	185347557	A	G	0.919	0.022	8.61E-05	1
rs36991	5	1549622	T	C	1.145	0.035	8.63E-05	4
rs1773860	10	29331562	T	C	1.088	0.022	8.73E-05	4
rs17259202	18	19189831	T	G	1.094	0.023	8.80E-05	1
rs1694834	3	99242339	A	T	0.914	0.023	9.00E-05	3
rs13235135	7	102928673	A	G	0.891	0.030	9.15E-05	0
rs832052	3	99248875	A	G	0.914	0.023	9.22E-05	5
rs4730427	7	78123896	T	C	0.887	0.031	9.23E-05	7
rs10512971	5	51897194	A	G	1.102	0.025	9.29E-05	5
rs12943640	17	11165259	A	G	0.914	0.023	9.37E-05	1
rs35419027	11	66417525	T	C	1.096	0.024	9.45E-05	0
rs7226876	18	54683800	T	C	0.908	0.025	9.45E-05	8
rs1445570	8	82002247	A	G	0.920	0.022	9.50E-05	5
rs1608962	15	21301783	T	C	1.094	0.023	9.54E-05	8

rs10993714	9	92652927	A	T	0.732	0.080	9.54E-05	2
rs6663154	1	222313369	T	G	1.122	0.030	9.60E-05	6
rs12925472	16	86038533	T	C	1.135	0.032	9.65E-05	6
rs7808106	7	102912821	T	C	0.895	0.028	9.66E-05	0
rs9843007	3	61182117	A	T	0.917	0.022	9.68E-05	2
rs2046575	11	19424007	T	C	1.094	0.023	9.82E-05	1
rs258324	16	88281756	T	G	0.876	0.034	9.87E-05	6
rs2331	3	134242909	A	G	1.087	0.021	9.88E-05	6
rs4949241	1	30232384	A	G	1.140	0.034	9.93E-05	4
rs17764590	14	79282833	A	G	0.918	0.022	9.93E-05	1

SNP positions according to NCBI Build 36/UCSC hg18. OR=odds ratio. SE=standard error. a1 is the reference allele. Ngt=number of samples in which SNP directly genotyped (versus imputed).

TABLE S17. TOP REGIONS IN MDD DISCOVERY PHASE

SNP	hg18chr:bp	p-value	OR	SE	a1a2	Direction	SNPs in region (r^2 LD)	Genes ± 300 kb
rs11579964	1: 222605563	1.01E-7	0.846	0.0314	TC	---------	-	SUSD4,C1orf65,CAPN8,CAPN2,TP53BP2,FBXO28,DEGS1,CNIH3,DNAH14,LBR,ENAH
rs7647854	3: 186359477	6.51E-7	0.860	0.0303	AG	---------	rs9841506(0.58)	YEATS2,MAP6D1,PARL,ABCC5,HTR3D,HTR3C,HTR3E,EIF2B5,DVL3,AP2M1,ABCF3,VWA5B2,MIR1224,ALG3,ECE2,CAMK2N2,PSMD2,EIF4G1,SNORD66,FAM131A,CLCN2,POLR2H,THPO,CHRD,EPHB3,MAGEF1,TMEM41A,LIPH,SENP2,IGF2BP2,C3orf65,TRA2B,ETV5,DGKG
rs8013144	14: 66958528	1.05E-6	1.407	0.0700	AG	+++++++++	rs9323497(0.462),rs10129827(0.405),rs12587989(0.442),rs7142068(0.442)	NCRNA00238,PLEKHH1,PIGH,ARG2,VTI1B,RDH11,RDH12,ZFYVE26,RAD51L1
rs12407717	1: 30198601	1.20E-6	1.170	0.0323	TC	++-++++++	rs4949232(1),rs16833076(0.763),rs4949238(0.763),rs1498243(0.763),rs12401298(0.811),rs4949241(0.77)	EPB41,TMEM200B,SFRS4,MECR,PTPRU,MATN1,LAPTM5,SDC3,PUM1,SNORD103A,SNORD103B,SNORD85,PRO0611
rs9830950	3: 61097358	1.24E-6	1.112	0.0219	TC	+++++++++	rs9825823(0.735),rs6445194(0.612),rs7626688(0.807),rs1969420(0.377),rs11707984(0.384),rs6807748(0.377),rs1966136(0.384),rs9851485(0.384),rs9871451(0.384),rs1550343(0.377),rs7629340(0.239),rs9845837(0.566),rs9846073(0.251),rs7631246(0.4),rs1916800(0.251),rs1347852(0.583),rs815710(0.232),rs6445200(0.233),rs4309721(0.386),rs6785875(0.238),rs9843007(0.241)	PTPRG,ID2B
rs9937841	16: 1260594	1.59E-6	1.140	0.0272	AG	+++++?+++	rs8045299(0.921),rs11641981(0.909)	LOC146336,SSTR5,C1QTNF8,UBE2I,BAIAP3,C16orf42,GNPTG,UNKL,C16orf91,CCDC154,CLCN7,PTX4,TELO2,IFT140,TMEM204,CRAMP1L,HN1L,MAPK8IP3,NME3,MRPS34,EME2,SPSB3,NUBP2,IGFALS,LUC7L,HAGH,FAHD1,C16orf73,HS3ST6,SEPX1,RPL3L,NDUFB10,RPS2,SNORA10,SNORA64,SNHG9,SNORA78,RNF151,TBL3,NOXO1,GFER,SYNGR3,ZNF598,NPW,SLC9A3R2,NTHL1,TSC2,PKD1,MIR1225,RAB26,SNORD60,TRAF7,CASKIN1,MLST8,C16orf79,PGP,E4F1,DNASE1L2,DCI,RNPS1,ITFG3,MIR940,ABCA3,RGS11,ARHGDIG,PDIA2,AXIN1,MRPL28,TMEM8A,LOC100134368,NME4,DECR2,RAB11FIP3,NCRNA00235,SOLH,C16orf11,NHLRC4,PIGQ,RAB40C,WFIKKN1,C16orf13,FAM195A,WDR90,RHOT2,RHBDL1,STUB1,JMJD8,WDR24,FBXL16,METRN,FA

								M173A,CCDC78,HAGHL,NARFL,MSLN,MSLNL,MIR662,RPUSD1,CHTF18,GNG13,PRR25,LMF1,SOX8
rs4659657	1: 234612765	6.09E-6	1.156	0.0320	AG	+++++++++	rs4659660(0.912),rs966365(0.645),rs6673040(1),rs1025977(1),rs966364(0.645),rs10802533(0.645),rs4659664(0.645)	ARID4B,GGPS1,TBCE,B3GALNT2,GNG4,LYST,MIR1537,NID1,GPR137B,ERO1LB,LGALS8,HEATR1,ACTN2,MTR,RYR2
rs1365593	15: 24318276	7.65E-6	0.904	0.0227	AG	--+------	rs4523899(1)	ATP10A,GABRA5,GABRG3
rs2183696	10: 24831387	9.94E-6	0.909	0.0217	AG	---------	rs1556406(0.99),rs7090837(0.971),rs10828664(0.258)	OTUD1,PRINS,MIR603,ARHGAP21,PRTFDC1,ENKUR,THNSL1,LOC100128811,GPR158

The SNP in the "SNP" column is the index SNP along with its position, p-value, odds ratio, standard error, and direction of effect in the discovery samples. SNPs in region shows the SNPs in the region and their r^2 (in parentheses) with the index SNP. The genes column lists genes ± 300 kb of the index SNP.

TABLE S18. MDD DISCOVERY, MDD REPLICATION, AND COMBINED RESULTS

SNP	Chr	BP	Discovery			Replication			Combined	Genes ± 300 kb
			P	OR	SE	P	OR	SE	P	
rs1969253	3	185359206	0.00001825	1.101	0.0224	0.02615	1.049	0.0214	0.000004787	HTR3D,HTR3C,HTR3E,EIF2B5,DVL3,AP2M1,ABCF3,VWA5B2,MIR1224,ALG3,ECE2,CAMK2N2
rs4478239	4	188428300	0.00001532	0.8611	0.0346	0.0346	0.9284	0.0351	0.000005058	-
rs9646303	16	86019470	0.00006386	0.8786	0.0324	0.01383	0.9239	0.0321	0.000005097	FBXO31,MAP1LC3B,ZCCHC14
rs2173763	3	123811850	0.0005313	0.86	0.0435	0.003363	0.8743	0.0458	0.000005803	PARP9,DTX3L,PARP15
rs2721937	8	116702874	0.0003039	1.104	0.0275	0.006104	1.077	0.0271	0.000007524	TRPS1
rs7276043	21	41007790	0.0004948	1.137	0.0368	0.005714	1.108	0.037	0.000009742	DSCAM
rs11587363	1	234511281	0.0009185	1.189	0.0522	0.001222	1.602	0.1458	0.00002529	GPR137B,ERO1LB,EDARADD
rs393093	2	164635154	0.0002393	1.093	0.0241	0.03138	1.055	0.0251	0.00003302	-
rs12614221	2	220708262	0.0003677	1.083	0.0223	0.02246	1.052	0.0224	0.00003422	-
rs2183696	10	24831387	0.000009935	0.9087	0.0217	0.1542	0.9701	0.0213	0.00003979	KIAA1217
rs6538329	12	91348724	0.00002049	0.9136	0.0212	0.1427	0.9696	0.0211	0.00005252	CLLU1OS,CLLU1
rs16828722	1	42043253	0.000247	1.125	0.032	0.04489	1.067	0.0324	0.00005633	HIVEP3
rs8066012	17	12258968	0.0002156	0.6626	0.1113	0.07001	0.7849	0.1337	0.00006303	-
rs26531	5	115178424	0.0004119	0.9237	0.0225	0.03442	0.9535	0.0225	0.00006594	CDO1,ATG12,AP3S1,AQPEP
rs12884688	14	41391684	0.0000607	0.9181	0.0213	0.1077	0.9663	0.0213	0.00007017	LRFN5
rs1513498	6	67228643	0.0001677	1.138	0.0343	0.07085	1.065	0.0348	0.00007744	-
rs90754	20	58500494	0.000159	1.107	0.0268	0.1452	1.056	0.0376	0.00008361	-
rs11645728	16	86113589	0.0008083	1.079	0.0228	0.02837	1.049	0.022	0.00009902	FBXO31,MAP1LC3B,ZCCHC14,JPH3
rs10964284	9	19771086	0.0002511	0.9239	0.0216	0.07102	0.9609	0.0221	0.0001034	SLC24A2
rs861271	3	99254426	0.00002134	0.9113	0.0219	0.2387	0.9743	0.022	0.0001238	GABRR3,OR5AC2
rs2554635	8	3924312	0.00004375	0.9154	0.0216	0.1765	0.9716	0.0213	0.0001253	CSMD1
rs9815274	3	7504849	0.00006426	0.9143	0.0224	0.1409	0.9688	0.0215	0.0001261	GRM7
rs214042	2	56356407	0.000359	0.9172	0.0242	0.09066	0.9514	0.0294	0.0001264	CCDC85A
rs1579491	2	37872165	0.0009553	0.8542	0.0477	0.05202	0.7989	0.1155	0.0001475	-
rs4557199	3	77151956	0.0004649	0.887	0.0342	0.07287	0.9369	0.0364	0.0001551	ROBO2
rs4853414	2	78923077	0.0001501	0.9011	0.0275	0.1163	0.9585	0.027	0.000161	-
rs8013144	14	66958528	0.00000105	1.407	0.07	0.7394	0.9684	0.0966	0.0001737	GPHN,FAM71D,MPP5,ATP6V1D,EIF2S1,PLEK2,TMEM229B
rs1025286	4	124300880	0.0005653	0.8228	0.0566	0.1372	0.8138	0.1386	0.0001753	FGF2,NUDT6,SPATA5
rs2859379	6	28466174	0.0008899	0.8142	0.0618	0.08366	0.8004	0.1287	0.0001789	HIST1H2BL,HIST1H2AI,HIST1H3H,HIST1H2AJ,HIST1H2BM,HIST1H4J,HIST1H4K,HIST1H2AK,HIST1H2BN,HIST1H2AL,HIST1H1B,HIST1H3I,HIST1H4L,HIST1H3J,HIST1H2AM,HIST1H2BO,OR2B2,OR2B6,ZNF165,ZSCAN12P1,ZSCAN16,ZNF192,ZNF389,LOC222699,ZNF193,ZKSCAN4,NKAPL,ZNF187,PGBD1,ZNF323,ZKSCAN3,ZSCAN12,ZSCAN23,GPX6,GPX5,SCAND3,LOC401242,TRIM27,ZNF311,OR2W1

rs1343432	1	49169576	0.0002439	1.099	0.0257	0.1487	1.045	0.0307	0.0001818	AGBL4,BEND5,ELAVL4
rs16855373	2	169047054	0.000239	0.7277	0.0865	0.3879	0.8286	0.2177	0.0001886	LASS6
rs7024630	9	30972620	0.00004137	1.092	0.0215	0.2847	1.025	0.0231	0.0001947	-
rs17018779	4	92953741	0.00003278	0.8493	0.0393	0.312	0.9595	0.0409	0.0002182	GRID2
rs4419361	3	186357848	0.0001863	1.085	0.0219	0.1351	1.033	0.0219	0.0002251	VPS8,C3orf70,EHHADH,MAP3K13
rs6562826	13	73922614	0.0001207	0.8743	0.0349	0.1815	0.9534	0.0357	0.0002272	-
rs269340	1	68333600	0.0007745	0.9188	0.0252	0.1295	0.9147	0.0588	0.0002278	DIRAS3,WLS
rs1445570	8	82002247	0.00009496	0.9196	0.0215	0.2623	0.9725	0.0249	0.0002295	ZNF704,PAG1
rs2044682	2	168282769	0.000295	1.085	0.0226	0.1036	1.036	0.0218	0.0002342	B3GALT1
rs3129322	4	3222650	0.0005308	1.082	0.0226	0.2324	1.067	0.0544	0.0002346	ADD1,MFSD10,C4orf10,NOP14,GRK4,HTT,C4orf44,RGS12,HGFAC
rs8006560	14	74418854	0.0001957	1.157	0.0392	0.1301	1.059	0.038	0.0002366	LTBP2,KIAA0317,FCF1,YLPM1,PROX2,DLST,RPS6KL1,PGF,EIF2B2,MLH3,ACYP1,FAM164C,NEK9,TMED10
rs1524271	7	109004591	0.0009765	1.073	0.0214	0.09985	1.091	0.0528	0.0002431	-
rs3764900	17	4669099	0.0002472	1.097	0.0253	0.1317	1.04	0.0258	0.0002455	TM4SF5,VMO1,GLTPD2,PSMB6,PLD2,MINK1,CHRNE,C17orf107,GP1BA,SLC25A11,RNF167,PFN1,ENO3
rs324368	6	155684256	0.0005476	1.084	0.0234	0.08695	1.041	0.0233	0.000266	TIAM2,TFB1M,CLDN20,NOX3
rs10501615	11	85781350	0.000114	1.574	0.1175	0.3871	1.151	0.163	0.0002755	EED,C11orf73,CCDC81,ME3
rs11790706	9	9494580	0.00006207	1.215	0.0486	0.8709	0.9813	0.1163	0.0002782	PTPRD
rs5767024	22	46879051	0.0004992	0.9028	0.0293	0.07634	0.9554	0.0257	0.0002787	RGN,NDUFB11,RBM10,UBA1,INE1
rs17479671	10	98122006	0.0005274	1.079	0.0218	0.0959	1.036	0.0213	0.0002856	BLNK,DNTT,OPALIN,TLL2
rs6476722	9	3856849	0.0004587	1.193	0.0504	0.306	1.132	0.1214	0.0002875	GLIS3,C9orf70
rs16839984	3	134319928	0.00001478	0.9099	0.0218	0.7415	0.9907	0.0281	0.0002902	NCRNA00119,TMEM108
rs962075	14	26219135	0.0002688	1.093	0.0245	0.1965	1.039	0.0298	0.0002912	NOVA1
rs11751671	6	37641272	0.0009139	1.125	0.0356	0.07858	1.069	0.0381	0.0002964	-
rs3910522	2	154039031	0.000872	0.9106	0.0281	0.1592	0.9071	0.0693	0.0002974	RPRM
rs5748926	22	16029774	0.0003801	0.9189	0.0238	0.2713	0.9575	0.0394	0.000305	IL17RA,CECR6,CECR5,CECR4,CECR1,GRPR
rs2281838	6	155624042	0.0004004	0.823	0.055	0.1156	0.919	0.0537	0.0003183	TIAM2,TFB1M,CLDN20,NOX3
rs1392705	3	195015895	0.0003097	1.116	0.0305	0.3024	1.051	0.0487	0.0003222	-
rs10260531	7	139319086	0.00003212	0.7966	0.0547	0.5166	0.9588	0.0649	0.0003224	TBXAS1
rs208165	15	24974470	0.00034	1.079	0.0213	0.1949	1.035	0.0265	0.0003243	GABRG3
rs17110665	5	149255650	0.0007542	0.8664	0.0426	0.1982	0.889	0.0915	0.0003245	PDE6A,SLC26A2
rs10986339	9	126235694	0.0005644	1.115	0.0316	0.2605	1.078	0.0665	0.0003255	PSMB7,GPR144
rs6891823	5	54353657	0.00007483	0.9142	0.0226	0.2636	0.9756	0.0221	0.00035	ESM1,GZMK
rs2419613	10	114018528	0.0003831	1.082	0.0222	0.1314	1.034	0.0221	0.0003505	TECTB,GUCY2GP
rs6854525	4	187648614	0.0007264	1.114	0.032	0.07514	1.052	0.0284	0.0003569	-
rs12155338	7	81337209	0.0003002	1.083	0.022	0.2257	1.033	0.0265	0.0003684	HGF,CACNA2D1
rs2182003	13	71924725	0.0006337	0.9102	0.0275	0.1103	0.9562	0.028	0.00037	-
rs17665827	17	13574699	0.0007304	0.8437	0.0503	0.2316	0.8913	0.0962	0.0003871	-
rs10481053	8	103425288	0.0004161	1.079	0.0215	0.2203	1.035	0.0279	0.0003874	RRM2B,UBR5,ODF1
rs7311091	12	47669474	0.000312	1.17	0.0435	0.6077	1.057	0.108	0.0004005	DDX23,RND1,CCDC65,FKBP11,ARF3,WNT10B,WNT1,DDN,PRKAG1,MLL2,RHEBL1,DHH,LMBR1L,TUBA1B,TUBA1A,TUBA1C,PRPH
rs9346682	6	168428382	0.000377	0.9237	0.0223	0.1378	0.9689	0.0213	0.0004143	DACT2

rs12541822	8	138671642	0.0001978	1.089	0.0229	0.3066	1.029	0.0278	0.000426	-
rs17008389	3	71366206	0.0004001	0.9182	0.0241	0.1453	0.966	0.0238	0.0004262	FOXP1
rs2038672	13	99932344	0.000793	1.074	0.0214	0.2508	1.062	0.0524	0.0004275	TMTC4,PCCA,A2LD1
rs4412434	9	85366893	0.0003039	0.9153	0.0245	0.1606	0.9675	0.0235	0.0004413	FRMD3
rs2924328	18	51284738	0.0001817	1.084	0.0215	0.2283	1.026	0.0216	0.0004485	TCF4
rs1791124	18	3306176	0.0000693	0.8784	0.0326	0.3144	0.9682	0.0321	0.0004535	MYOM1,MYL12A,MYL12B
rs1525361	6	64152851	0.0009926	1.147	0.0418	0.2193	1.135	0.1027	0.0004615	LGSN,PTP4A1,PHF3,EYS
rs17719089	10	116373333	0.0002501	0.9243	0.0215	0.1975	0.9726	0.0215	0.0004618	ABLIM1,FAM160B1
rs6976643	7	77679465	0.000172	0.9196	0.0223	0.2253	0.9738	0.0219	0.0004666	MAGI2,RPL13AP17
rs4797173	18	456351	0.0007047	1.088	0.0249	0.332	1.059	0.0595	0.0004667	COLEC12
rs7982118	13	111902794	0.0007508	0.929	0.0218	0.3317	0.9499	0.053	0.0004769	-
rs1924939	13	71998057	0.000454	0.9268	0.0217	0.1552	0.9696	0.0217	0.0004957	-
rs552398	12	91384694	0.0009392	0.9041	0.0305	0.264	0.9214	0.0733	0.0004997	CLLU1OS,CLLU1
rs10946146	6	166606865	0.0005607	0.8532	0.046	0.4311	0.9221	0.103	0.0005159	PRR18
rs10457592	6	99658691	0.0009221	1.086	0.0249	0.2915	1.067	0.0614	0.0005268	POU3F2,FBXL4
rs11680679	2	61394116	0.0006606	0.887	0.0352	0.3408	0.9392	0.0659	0.0005536	REL,PUS10,PEX13,KIAA1841,C2orf74,AHSA2,USP34,SNORA70B,XPO1
rs640399	6	41468990	0.0005273	1.111	0.0304	0.5457	1.05	0.0803	0.000556	NCR2
rs28504502	4	793637	0.0008649	1.237	0.0637	0.2694	1.133	0.1132	0.0005575	MYL5,MFSD7,PCGF3,CPLX1,GAK,TMEM175,DGKQ,SLC26A1,IDUA,FGFRL1,LOC389834
rs4644166	7	82617726	0.0006159	1.244	0.0637	0.4102	1.112	0.1289	0.0005869	PCLO
rs2225602	9	119774420	0.0003863	0.9228	0.0226	0.1944	0.9709	0.0228	0.0005877	-
rs7948839	11	66390973	0.00007108	0.9114	0.0234	0.3781	0.9794	0.0236	0.0005941	RAB1B,CNIH2,YIF1A,TMEM151A,CD248,RIN1,BRMS1,B3GNT1,SLC29A2,NPAS4,MRPL11,PELI3,DPP3,BBS1,ZDHHC24,ACTN3,CTSF,CCDC87,CCS,RBM14,RBM4,RBM4B,SPTBN2,C11orf80,RCE1,PC,LRFN4,C11orf86,SYT12,RHOD
rs11063703	12	5459670	0.0004285	1.079	0.0215	0.5833	1.025	0.0456	0.0005969	NTF3
rs2072107	6	30274914	0.0002565	1.116	0.03	0.2259	1.037	0.0297	0.0005969	HCG9,NCRNA00171,HLA-J,ZNRD1,PPP1R11,RNF39,TRIM31,TRIM40,TRIM10,TRIM15,TRIM26,HLA-L,HCG18,TRIM39,RPP21,HLA-E
rs1866599	2	232434544	0.0004064	0.9183	0.0241	0.189	0.9689	0.0241	0.0006065	PTMA,PDE6D,COPS7B,MIR1471,NPPC
rs9817853	3	61215833	0.0002597	0.9156	0.0241	0.7807	0.986	0.0507	0.0006162	FHIT
rs12094201	1	236509336	0.0002322	0.6345	0.1236	0.7358	1.146	0.4052	0.0006216	-
rs4870864	8	124759028	0.0009308	1.084	0.0244	0.3424	1.057	0.0579	0.0006379	KLHL38,ANXA13
rs11819842	11	110189672	0.0008136	1.099	0.0283	0.3946	1.061	0.0696	0.0006481	ARHGAP20
rs10999064	10	71412707	0.0001058	0.9175	0.0222	0.3675	0.9799	0.0225	0.0006846	COL13A1,H2AFY2,AIFM2,TYSND1
rs8049897	16	88551703	0.0008774	1.108	0.0309	0.4055	1.065	0.0755	0.0007071	C16orf7,ZNF276,FANCA,SPIRE2,TCF25,MC1R,TUBB3,DEF8,CENPBD1,AFG3L1,DBNDD1,GAS8,C16orf3,LOC100130015,PRDM7
rs12536959	7	78164462	0.0000251	0.8457	0.0398	0.6568	0.9812	0.0428	0.000709	MAGI2
rs3748299	12	15624936	0.0006427	0.8652	0.0424	0.173	0.9434	0.0428	0.0007131	PTPRO,EPS8
rs7245374	18	68150533	0.0004731	1.116	0.0315	0.194	1.042	0.0314	0.000724	-
rs716447	16	26648730	0.0009407	0.9125	0.0277	0.3891	0.9456	0.0649	0.0007289	-

rs3802917	11	10465514	0.0002886	1.096	0.0254	0.2541	1.03	0.026	0.0007291	AMPD3,RNF141
rs2446930	8	101154232	0.0007213	0.9303	0.0214	0.1626	0.9705	0.0214	0.0007402	RGS22,FBXO43,POLR2K,SPAG1,RNF19A
rs11143186	9	74040855	0.00001061	1.099	0.0214	0.8336	0.9941	0.0279	0.0007443	C9orf57,GDA
rs2094012	6	7193458	0.0009763	28.57	1.017	0.5084	13.82	3.971	0.000787	RREB1,SSR1,CAGE1
rs4958272	5	150811835	0.0001074	0.9189	0.0218	0.3747	0.9811	0.0215	0.0007885	GM2A,SLC36A3,SLC36A2,SLC36A1,FAT2
rs6061784	20	59749273	0.0003122	1.09	0.0238	0.2466	1.027	0.0231	0.0007947	CDH4
rs11654358	17	57626754	0.0008722	0.8885	0.0355	0.4689	0.9417	0.083	0.0008176	TBC1D3P2
rs7700535	5	85671585	0.0003262	1.119	0.0313	0.2475	1.036	0.0308	0.0008236	NBPF22P
rs13638	15	71968591	0.0007795	1.105	0.0297	0.5511	1.044	0.072	0.0008527	C15orf59,TBC1D21,LOXL1
rs1327022	1	82208869	0.000168	1.087	0.0222	0.3426	1.021	0.0223	0.0008581	LPHN2
rs6932621	6	134763651	0.0004851	1.137	0.0369	0.5585	1.04	0.0663	0.000884	-
rs9937841	16	1260594	0.000001588	1.14	0.0272	0.8046	1.006	0.0233	0.0008846	CACNA1H,TPSG1,TPSB2,TPSAB1,TPSD1
rs17764590	14	79282833	0.00009934	0.9183	0.0219	0.4041	0.9822	0.0215	0.0008901	NRXN3
rs6796955	3	16860606	0.0000414	0.8348	0.044	0.5862	0.9756	0.0453	0.0008916	PLCL2
rs1547117	20	15929119	0.0001261	0.9215	0.0213	0.3977	0.982	0.0215	0.0008997	MACROD2
rs12276041	11	78770384	0.0006093	0.8808	0.037	0.2068	0.9544	0.037	0.0009039	ODZ4,MIR708
rs2523590	6	31435043	0.0004541	0.9216	0.0233	0.6971	0.9817	0.0475	0.0009099	HLA-B,MICA,HCP5,HCG26
rs4851536	2	102038113	0.0009173	1.073	0.0213	0.4923	1.036	0.0508	0.0009131	MAP4K4,IL1R2
rs965949	1	40926994	0.0009595	0.9313	0.0216	0.4822	0.9638	0.0526	0.0009167	ZNF643,ZNF642,DEM1,ZNF684,RIMS3,LOC100130557,NFYC,MIR30E,MIR30C1,KCNQ4
rs6828833	4	190029985	0.0008809	0.9162	0.0263	0.5263	0.9616	0.0619	0.000931	-
rs17061517	3	59899883	0.0008216	0.8953	0.0331	0.5007	0.9541	0.0698	0.0009417	FHIT
rs9806254	15	21303599	0.00005375	0.9114	0.023	0.7728	0.9919	0.0282	0.0009438	MKRN3
rs7117597	11	93294739	0.0003402	1.084	0.0226	0.2621	1.025	0.0223	0.0009474	C11orf90,HEPHL1
rs1524483	2	5476464	0.000829	0.9172	0.0259	0.4821	0.9639	0.0523	0.0009587	-
rs635538	18	51424612	0.0005133	1.139	0.0374	0.244	1.046	0.0382	0.0009598	TCF4
rs17095902	1	75012799	0.0009973	0.7571	0.0846	0.4969	0.8702	0.2046	0.0009699	C1orf173,CRYZ,TYW3
rs9921605	16	27042488	0.0008136	1.137	0.0383	0.431	1.053	0.0661	0.0009827	C16orf82
rs16827839	2	150695664	0.0002877	0.8173	0.0557	0.3149	0.9443	0.057	0.0009909	-
rs17632355	2	107330899	0.0009055	0.9316	0.0213	0.1844	0.9724	0.0211	0.001025	-
rs2090845	8	20967515	0.0007545	0.909	0.0283	0.2111	0.9647	0.0287	0.00104	-
rs16878545	5	7326088	0.0008013	0.9026	0.0306	0.6538	0.9661	0.0769	0.001047	ADCY2
rs206364	2	216818856	0.0007189	0.9205	0.0245	0.6731	0.9762	0.0571	0.001062	MREG,PECR,TMEM169,XRCC5,MARCH4
rs11678350	2	100572431	0.0004595	1.147	0.0392	0.221	1.045	0.0361	0.001071	CHST10,NMS,PDCL3
rs2717149	18	73066985	0.0002321	1.089	0.0231	0.5611	1.017	0.0296	0.001085	GALR1
rs2052480	5	80318718	0.0004484	1.086	0.0234	0.2724	1.026	0.0232	0.001103	MSH3,RASGRF2
rs710003	14	58309053	0.0004517	0.8982	0.0306	0.2603	0.9668	0.03	0.001113	-
rs9830950	3	61097358	0.000001236	1.112	0.0219	0.8396	0.9956	0.0216	0.001125	FHIT
rs456867	5	55846849	0.0007107	1.1	0.0281	0.2267	1.035	0.0281	0.001136	-
rs10059890	5	11199698	0.0002496	1.081	0.0214	0.344	1.021	0.0215	0.001172	CTNND2
rs6950421	7	149915133	0.0008826	1.088	0.0252	0.701	1.024	0.0618	0.001179	GIMAP8,GIMAP7,GIMAP4,GIMAP6,GIMAP2,GIMAP1,GIMAP5,LOC100128542
rs13014483	2	78979194	0.0006863	0.9235	0.0234	0.8068	0.9863	0.0564	0.001215	-
rs10874038	1	79723877	0.0005444	0.7055	0.1009	0.8631	0.9614	0.2287	0.001226	-
rs11899115	2	53213479	0.0007404	0.9234	0.0236	0.7871	0.9844	0.058	0.001241	-
rs7899286	10	97330526	0.0007942	1.095	0.027	0.7319	1.022	0.0636	0.001247	SORBS1,ALDH18A1,TCTN3,ENTPD1,C10orf131,CC2D2B

rs11203713	8	15486984	0.0008074	0.9282	0.0222	0.7556	0.9832	0.0543	0.001262	TUSC3
rs17737611	8	9892069	0.0003915	1.196	0.0505	0.3395	1.052	0.0529	0.001266	LOC157627,MIR124-1,MSRA
rs193139	1	109285498	0.0001251	1.124	0.0304	0.4854	1.022	0.0306	0.001282	AKNAD1,GPSM2,CLCC1,WDR47,TAF13,TMEM167B,SCARNA2,C1orf194,KIAA1324
rs3769192	2	173700047	0.0004577	0.9261	0.0219	0.2929	0.9775	0.0217	0.001306	RAPGEF4,ZAK
rs17029209	3	1756625	0.0004965	1.129	0.0349	0.2653	1.038	0.0335	0.001327	-
rs664607	18	2992922	0.0001785	0.9189	0.0226	0.4518	0.9827	0.0233	0.001329	EMILIN2,LPIN2,LOC727896
rs2304961	17	908650	0.00007575	0.9131	0.023	0.5547	0.9865	0.0229	0.001329	ABR
rs1199995	13	36591229	0.0003306	0.9263	0.0213	0.5798	0.9844	0.0284	0.001344	SMAD9,ALG5,EXOSC8,FAM48A,CSNK1A1L
rs12407717	1	30198601	0.000001202	1.17	0.0323	0.7329	0.989	0.0324	0.001358	-
rs808276	10	116555377	0.0007365	1.076	0.0216	0.9631	1.003	0.0592	0.001367	ABLIM1,FAM160B1,TRUB1,ATRNL1
rs443233	4	177676150	0.0007466	0.93	0.0215	0.2445	0.9756	0.0212	0.00138	-
rs575452	8	81626703	0.0003931	1.108	0.029	0.3447	1.029	0.0299	0.001386	ZBTB10
rs12151149	19	60626895	0.0008308	1.33	0.0854	0.776	1.06	0.2059	0.001406	FAM71E2,IL11,TMEM190,RPL28,UBE2S,SHISA7,ISOC2,ZNF628,NAT14,SSC5D
rs17180439	2	49768414	0.0005724	1.078	0.0218	0.2772	1.024	0.0214	0.00142	-
rs7749924	6	30905970	0.0004124	1.139	0.0368	0.9834	0.9984	0.0778	0.001431	TUBB,FLOT1,IER3,DDR1,GTF2H4,VARS2,SFTA2,DPCR1,MUC21
rs11717004	3	6186117	0.0002546	1.321	0.076	0.5877	0.904	0.1861	0.001443	-
rs12164914	15	96889082	0.0005197	1.079	0.0218	0.9113	0.9941	0.0526	0.001474	FAM169B
rs7661125	4	118637228	0.0006367	1.079	0.0224	0.2652	1.025	0.0221	0.001482	-
rs4725752	7	147226473	0.0009346	1.079	0.023	0.4659	1.026	0.0358	0.001493	CNTNAP2
rs8011755	14	34411989	0.00008216	0.9037	0.0257	0.5771	0.986	0.0253	0.00157	CFL2,BAZ1A,C14orf19,SRP54,FAM177A1,PPP2R3C,KIAA0391
rs2244084	21	40198919	0.0004483	1.101	0.0273	0.3627	1.026	0.028	0.001578	PCP4
rs7423447	2	34180149	0.0007483	1.101	0.0286	0.2724	1.032	0.0287	0.001595	-
rs7647854	3	186359477	6.514E-07	0.8599	0.0303	0.6746	1.012	0.0292	0.001623	VPS8,C3orf70,EHHADH,MAP3K13
rs1374699	11	112196393	0.0005955	0.9255	0.0226	0.9893	1.001	0.0536	0.001625	-
rs243907	20	13191435	0.000602	0.9057	0.0289	0.385	0.9717	0.033	0.001627	ISM1
rs10502673	18	33316161	0.000376	1.091	0.0246	0.3547	1.023	0.0244	0.00164	CELF4
rs11135932	8	26182378	0.0002127	1.086	0.0222	0.4438	1.017	0.0218	0.001641	PPP2R2A,BNIP3L
rs7089228	10	18625225	0.0008704	0.9237	0.0239	0.8205	0.9874	0.0559	0.001675	CACNB2
rs7696323	4	154825195	0.0006182	1.081	0.0227	0.4795	1.021	0.0291	0.001684	KIAA0922,TLR2,RNF175,SFRP2
rs2479429	13	109975673	0.0007373	0.9234	0.0236	0.2905	0.9752	0.0238	0.001685	COL4A2,RAB20
rs8080379	17	21021547	0.0009912	0.8998	0.0321	0.779	0.9788	0.0761	0.001691	USP22,DHRS7B,TMEM11,C17orf103,MAP2K3
rs12477089	2	241913986	0.0004735	1.096	0.0262	0.3586	1.024	0.0263	0.001775	PPP1R7,ANO7,HDLBP,SEPT2,FARP2,STK25,BOKAS,BOK
rs17833825	17	1349976	0.0001222	0.8932	0.0294	0.7201	0.9881	0.0335	0.001776	CRK,MYO1C,INPP5K,LOC100306951,PITPNA,SLC43A2,TBC1D3B
rs8017055	14	33312734	0.0008514	1.084	0.024	0.993	1.001	0.0596	0.001806	NPAS3
rs2589615	9	74493473	0.0008701	1.074	0.0214	0.287	1.023	0.0216	0.001809	ZFAND5,TMC1,ALDH1A1
rs321975	7	78146123	0.0008575	1.078	0.0226	0.8787	1.008	0.0534	0.00181	MAGI2
rs1945429	11	21399598	0.0004637	0.9243	0.0225	0.3482	0.9796	0.022	0.001828	NELL1
rs3793406	8	1304083	0.0006257	0.9151	0.0259	0.9856	0.999	0.0559	0.001834	-
rs2302805	16	52838018	0.0008655	0.8978	0.0324	0.8629	0.9874	0.0734	0.001847	IRX3
rs6843498	4	16130821	0.0008073	1.091	0.0261	0.8015	1.014	0.054	0.001849	LDB2

rs11155218	6	142289166	0.0006841	0.9273	0.0222	0.3118	0.978	0.0219	0.001876	-
rs7619914	3	186320739	0.00004232	0.8084	0.052	0.6819	0.9801	0.0491	0.001895	VPS8,C3orf70,EHHADH
rs2928679	8	23494920	0.000957	1.073	0.0213	0.2782	1.023	0.0213	0.001901	SLC25A37
rs1569722	20	44159644	0.0009132	0.9277	0.0226	0.8351	0.9899	0.0488	0.001928	ZSWIM3,ZSWIM1,C20orf165,NEURL2,CTSA,PLTP,PCIF1,ZNF335,MMP9,SLC12A5,NCOA5,CD40,CDH22
rs11892648	2	219901640	0.0005811	1.088	0.0244	0.3472	1.023	0.0242	0.00193	SLC23A3,C2orf24,FAM134A,ZFAND2B,ABCB6,ATG9A,ANKZF1,GLB1L,STK16,TUBA4A,TUBA4B,DNAJB2,PTPRN,MIR153-1,RESP18,DNPEP,DES,SPEG
rs1931864	10	2859001	0.0009257	0.8947	0.0336	0.9141	0.9913	0.0809	0.001936	-
rs225329	21	42636795	0.0006461	1.088	0.0247	0.9077	0.9933	0.0578	0.001973	ABCG1,TFF3,TFF2,TFF1,TMPRSS3,UBASH3A
rs13249798	8	103527917	0.0006257	1.126	0.0347	0.3997	1.033	0.038	0.001976	RRM2B,UBR5,ODF1
rs346652	5	135755057	0.0004761	0.9284	0.0213	0.3658	0.9812	0.021	0.001985	TGFBI,MIR886,SMAD5OS,SMAD5,LOC389332,TRPC7
rs11691127	2	191467013	0.0004679	1.173	0.0457	0.7152	0.9604	0.1106	0.002017	NAB1,GLS,STAT1,STAT4
rs2290255	2	99365529	0.0005435	1.077	0.0215	0.356	1.02	0.0213	0.00203	MGAT4A,C2orf55,TSGA10,C2orf15,LIPT1,MITD1,MRPL30,LYG2,LYG1,TXNDC9,EIF5B,REV1,AFF3
rs16855816	2	169332507	0.0008417	0.8834	0.0371	0.9812	1.002	0.0906	0.002046	LASS6,NOSTRIN,SPC25
rs17044232	4	164989794	0.000867	1.602	0.1416	0.6356	0.7836	0.5146	0.002049	MARCH1
rs8125170	20	5054287	0.000911	1.125	0.0356	0.2847	1.038	0.0349	0.00207	C20orf30,PCNA,PCNAAS,CDS2
rs9449775	6	84849699	0.0009168	1.108	0.0309	0.7754	1.017	0.0598	0.002071	MRAP2,KIAA1009
rs6792901	3	149433043	0.0009247	1.124	0.0354	0.1584	0.6987	0.2542	0.002098	-
rs6583735	10	92577480	0.00002828	0.9153	0.0211	0.8746	0.9967	0.0211	0.002107	HTR7,RPP30,ANKRD1
rs13032715	2	40178533	0.0004287	0.9258	0.0219	0.4049	0.9821	0.0217	0.002146	SLC8A1
rs13074773	3	137091700	0.0004445	1.08	0.0218	0.7082	1.011	0.0297	0.002152	PPP2R3A,MSL2,PCCB,STAG1
rs2273617	20	17533614	0.0003755	1.236	0.0596	0.6047	0.9304	0.1393	0.00218	BFSP1,DSTN,RRBP1
rs4741652	9	2184227	0.00001063	1.113	0.0243	0.926	0.9977	0.0245	0.0022	SMARCA2
rs34049985	8	72523044	0.00086	0.917	0.026	0.9898	0.9992	0.0594	0.002229	-
rs17013164	4	129501316	0.0008607	1.319	0.0831	0.8687	0.9651	0.2144	0.002312	INTU,SLC25A31,HSPA4L,PLK4,MFSD8,C4orf29,LARP1B,PGRMC2
rs9863780	3	186839994	0.0008805	1.169	0.047	0.9134	1.011	0.0985	0.002325	MAP3K13,TMEM41A,LIPH,SENP2,IGF2BP2,C3orf65
rs11022060	11	11804353	0.0001118	2.675	0.2547	0.1338	0.3794	0.6464	0.002329	USP47,DKK3
rs7213608	17	21219882	0.0007006	1.09	0.0254	0.9205	0.9945	0.0555	0.002336	C17orf103,MAP2K3,KCNJ12
rs16846092	1	224796115	0.001	1.075	0.0219	0.8847	1.007	0.046	0.002338	PARP1,C1orf95,ITPKB
rs179767	16	27333237	0.0009746	0.9212	0.0249	0.941	1.005	0.0636	0.002349	IL4R,IL21R
rs1466828	12	63790221	0.0002237	0.8414	0.0468	0.8647	0.9896	0.0615	0.002367	WIF1,LEMD3,MSRB3
rs1784359	11	122943240	0.0009761	1.077	0.0225	0.9856	0.999	0.0529	0.00247	GRAMD1B,SCN3B
rs6445932	3	57854651	0.000157	1.097	0.0246	0.8685	1.005	0.0302	0.002512	IL17RD,HESX1,APPL1,ASB14,DNAH12,PDE12,ARF4,FAM116A,SLMAP,FLNB
rs338466	1	109287719	0.0006192	1.076	0.0213	0.3995	1.018	0.0211	0.002532	AKNAD1,GPSM2,CLCC1,WDR47,TAF13,TMEM167B,SCARNA2,C1orf194,KIAA1324
rs9941367	17	52693979	0.0005035	1.085	0.0233	0.6502	1.013	0.0291	0.00255	MSI2
rs6812511	4	109944057	0.0006262	0.8473	0.0484	0.8132	1.025	0.1058	0.002568	AGXT2L1,COL25A1
rs10852557	16	56358851	0.0006107	1.112	0.0309	0.4217	1.026	0.0315	0.00257	GPR97,CCDC135,KATNB1,KIFC3

rs675497	6	75114270	0.0007991	0.9311	0.0213	0.8049	1.013	0.0526	0.002581	-
rs13398149	2	232273125	0.00006495	1.137	0.0321	0.733	1.01	0.0306	0.002658	PTMA,PDE6D,COPS7B,MIR1471
rs1875196	5	1744202	0.0000471	1.437	0.0891	0.725	1.029	0.0813	0.002683	SDHAP3,LOC728613,MCCC2,CARTPT
rs4243899	8	135963291	0.0002933	1.091	0.024	0.5816	1.014	0.025	0.0027	-
rs7038217	9	114044331	0.0009526	0.5589	0.176	0.5514	0.8701	0.2336	0.002711	SUSD1,ROD1,HSDL2,KIAA1958
rs2925790	8	103303344	0.0005387	1.129	0.0351	0.703	0.9708	0.0778	0.002755	RRM2B,UBR5
rs2282522	18	6863354	0.0005308	1.078	0.0216	0.4422	1.017	0.0214	0.002761	ARHGAP28,LAMA1
rs17867741	7	126471512	0.0003228	1.137	0.0358	0.8108	1.011	0.0467	0.002778	GRM8,MIR592
rs6137371	20	21433247	0.0008874	1.076	0.022	0.7711	0.984	0.0554	0.002817	PLK1S1,XRN2,NKX2-4,NKX2-2,PAX1
rs2358649	4	149861274	0.0004593	1.093	0.0253	0.6548	1.014	0.0302	0.00286	-
rs4245009	10	52247821	0.000562	0.9284	0.0215	0.6603	0.9882	0.0272	0.002865	ASAH2B,A1CF
rs17123126	8	16428215	0.0001427	1.252	0.059	0.8402	1.013	0.0663	0.002891	-
rs8111925	19	14609113	0.0008191	1.08	0.0231	0.8422	0.9895	0.0532	0.002909	CLEC17A,EMR3,ZNF333,EMR2
rs2280356	2	96730051	0.0003793	0.8514	0.0453	0.4864	0.9698	0.044	0.002932	LOC729234,GPAT2,ADRA2B,ASTL,DUSP2,STARD7,LOC285033,TMEM127,CIAO1,SNRNP200,ITPRIPL1,NCAPH,NEURL3,ARID5A,KIAA1310,FER1L5,LMAN2L,CNNM4,CNNM3,ANKRD23,ANKRD39,SEMA4C,FAM178B,FAHD2B,ANKRD36
rs12714287	2	29564167	0.0007777	1.078	0.0223	0.393	1.019	0.0218	0.003012	ALK
rs6037081	20	2528772	0.0006164	0.9294	0.0214	0.5967	1.028	0.052	0.003055	TMC2,NOP56,MIR1292,SNORD110,SNORA51,SNORD86,SNORD56,SNORD57,IDH3B,EBF4
rs2535629	3	52808259	0.0001296	0.9169	0.0227	0.6967	0.9913	0.0224	0.003071	POC1A,ALAS1,TLR9,TWF2,PPM1M,WDR82,MIRLET7G,GLYCTK,MIR135A1,DNAH1,BAP1,PHF7,SEMA3G,TNNC1,NISCH,STAB1,NT5DC2,LOC440957,PBRM1,GNL3,SNORD19,SNORD19B,SNORD69,GLT8D1,SPCS1,NEK4,ITIH1,ITIH3,ITIH4,MUSTN1,TMEM110,SFMBT1,RFT1,PRKCD,HBII-108,HBII-210
rs2409809	8	11584559	0.0003107	0.9225	0.0224	0.5847	0.9876	0.0229	0.003123	GATA4,NEIL2
rs11232256	11	80022511	0.0009486	1.085	0.0247	0.4271	1.021	0.0263	0.003154	-
rs7985182	13	84183856	0.00004335	0.9163	0.0214	0.9195	0.9979	0.0213	0.003175	-
rs195770	17	8651190	0.00079	0.9225	0.0241	0.3906	0.9801	0.0234	0.003189	MFSD6L,PIK3R6,PIK3R5
rs13184483	5	29386970	0.0005261	1.114	0.0312	0.5084	1.022	0.0323	0.003209	-
rs11622332	14	36159780	0.0009186	1.073	0.0212	0.7014	0.9798	0.0531	0.003237	SFTA3,NKX2-1,NKX2-8,PAX9,SLC25A21
rs7599679	2	192501105	0.0008867	1.088	0.0254	0.511	1.02	0.0294	0.003244	TMEFF2
rs1505080	5	7398847	0.0002953	1.082	0.0217	0.5928	1.012	0.0216	0.003263	ADCY2
rs7743180	6	104235436	0.00004836	0.8602	0.0371	0.9564	0.9979	0.038	0.003272	-
rs1330327	9	71353208	0.0008881	0.9287	0.0223	0.7327	1.019	0.0543	0.003297	FAM189A2,APBA1
rs6580902	12	51450456	0.0002817	1.753	0.1546	0.6148	0.8684	0.2803	0.003322	KRT1,KRT77,KRT76,KRT3,KRT4,KRT79,KRT78
rs9541193	13	34002243	0.0009486	1.144	0.0408	0.9651	0.9964	0.0821	0.003352	-
rs12457691	18	68169602	0.0008592	1.235	0.0632	0.6527	0.9327	0.155	0.003471	-
rs1731838	7	155343320	0.0009123	0.9251	0.0235	0.7373	1.019	0.0552	0.003534	SHH
rs17812197	20	13058632	0.0008893	0.8173	0.0607	0.4044	0.9519	0.0591	0.003542	SPTLC3,ISM1
rs888555	12	107460614	0.0002899	0.9039	0.0279	0.5942	0.9855	0.0274	0.003548	FICD,SART3,ISCU,TMEM119,SELPLG,CORO1C

rs4686510	3	190527369	0.0009131	0.9208	0.0249	0.8072	1.013	0.0545	0.003585	TPRG1
rs1445566	8	82015860	0.0004205	0.9121	0.0261	0.6202	1.026	0.051	0.003593	ZNF704,PAG1
rs16851554	2	214732637	0.0008297	1.12	0.0339	0.7151	0.9725	0.0765	0.003636	SPAG16
rs9394992	6	44303970	0.0006939	1.096	0.027	0.6363	0.9718	0.0605	0.003643	CAPN11,SLC29A1,HSP90AB1,SLC35B2,NFKBIE,TMEM151B,TCTE1
rs11106542	12	91342233	0.0001602	1.366	0.0826	0.313	1.056	0.0537	0.003686	CLLU1OS,CLLU1
rs9824299	3	181192622	0.0004765	0.9231	0.0229	0.3607	1.053	0.057	0.003719	PEX5L
rs3858244	10	32038023	0.0006157	0.9254	0.0226	0.4904	0.9847	0.0223	0.003723	ARHGAP12
rs12714788	3	72739803	0.00001973	1.107	0.0239	0.8579	0.9957	0.0242	0.003753	-
rs438330	21	26926889	0.00053	1.084	0.0231	0.5473	1.014	0.0231	0.003771	CYYR1
rs3736228	11	67957871	0.0002987	1.119	0.031	0.6337	1.015	0.0308	0.003804	LRP5,SAPS3,GAL,MTL5,CPT1A
rs2485944	1	2873718	0.00007271	1.142	0.0335	0.7443	1.01	0.0301	0.003836	ACTRT2
rs614397	11	63640561	0.0003583	0.8948	0.0312	0.8146	0.9912	0.0374	0.003905	MACROD1,FLRT1,STIP1,FERMT3,TRPT1,NUDT22,DNAJC4,VEGFB,FKBP2,PPP1R14B,PLCB3,BAD,GPR137,KCNK4,C11orf20,ESRRA,TRMT112,PRDX5,CCDC88B,RPS6KA4,MIR1237
rs6780995	3	57113459	0.0001195	1.093	0.0232	0.8066	1.006	0.0232	0.003963	ARHGEF3,SPATA12,IL17RD,HESX1,APPL1,ASB14,DNAH12,PDE12
rs1976959	9	132906289	0.0003426	1.094	0.0252	0.6007	1.013	0.0249	0.00399	LAMC3,AIF1L,NUP214
rs6768883	3	60328015	0.0009004	0.9301	0.0219	0.4445	0.9834	0.0218	0.004031	FHIT
rs17764516	1	212291051	0.0008387	1.164	0.0454	0.3252	0.8731	0.1379	0.004111	PROX1
rs6905993	6	17191086	0.0003785	0.6436	0.124	0.5947	0.9373	0.1217	0.004117	-
rs2371214	7	82292608	0.0005657	0.9294	0.0212	0.5379	0.9872	0.021	0.004132	PCLO
rs4235144	4	46990423	0.0008337	0.579	0.1635	0.8652	1.053	0.3048	0.00417	GABRB1
rs12541504	8	22169375	0.0001053	1.102	0.025	0.8497	1.005	0.0245	0.004294	BMP1,PHYHIP,MIR320A,POLR3D,PIWIL2,SLC39A14,PPP3CC
rs35617206	4	85839903	0.0001676	0.8748	0.0355	0.9733	1.001	0.042	0.004301	NKX6-1,CDS1,WDFY3,C4orf12
rs1025908	8	92969723	0.0004426	0.9252	0.0221	0.581	0.9882	0.0216	0.004304	RUNX1T1
rs840459	5	121452312	0.0008655	0.9158	0.0264	0.5342	1.041	0.065	0.004336	FTMT,SRFBP1,LOX,ZNF474
rs41404051	15	24198006	0.0009897	1.105	0.0303	0.7953	0.9839	0.0625	0.004348	-
rs8085804	18	38542291	0.0008066	1.081	0.0233	0.4987	1.016	0.0235	0.004355	RIT2
rs6942982	7	105105294	0.0001644	1.146	0.0361	0.9363	0.9965	0.0433	0.0044	ATXN7L1
rs16888809	6	78139234	0.0001678	0.7259	0.0851	0.6924	0.9695	0.0785	0.004473	HTR1B
rs4659657	1	234612765	0.000006089	1.156	0.032	0.3113	0.9618	0.0385	0.004534	EDARADD
rs7236653	18	10688648	0.0002553	0.9231	0.0219	0.7384	0.9926	0.0222	0.004561	FAM38B
rs8132692	21	19130602	0.0003257	0.8159	0.0566	0.69	0.9775	0.0572	0.004581	-
rs445348	13	109956875	0.0003036	0.8744	0.0372	0.6601	0.9842	0.0361	0.004696	COL4A2,RAB20
rs17010669	2	124432258	0.0002266	0.8424	0.0465	0.8322	0.9897	0.0491	0.004744	-
rs8083594	18	55214311	0.0002965	1.081	0.0215	0.713	1.008	0.0215	0.004749	RAX,CPLX4,LMAN1,CCBE1
rs3772979	3	69209823	0.0001359	1.106	0.0265	0.9385	1.002	0.0281	0.004848	FAM19A4,C3orf64,TMF1,UBA3,ARL6IP5,LMOD3,FRMD4B
rs9321440	6	134771095	0.0009083	0.9302	0.0218	0.5125	1.035	0.0527	0.004859	-
rs17296151	7	83537669	0.0008763	0.9183	0.0256	0.518	1.04	0.0607	0.004862	SEMA3A
rs7108672	11	7066729	0.0003968	0.9178	0.0242	0.4404	1.038	0.0478	0.00489	ZNF215,ZNF214,NLRP14,RBMXL2
rs2395569	10	80869091	0.0006447	0.8668	0.0419	0.7967	1.019	0.0715	0.004909	ZCCHC24
rs12990097	2	46948709	0.0001672	1.092	0.0233	0.8392	1.005	0.0233	0.004925	LOC100134259,MCFD2
rs6116408	20	4469289	0.0004764	1.13	0.035	0.6483	1.016	0.0355	0.005001	-

rs154601	5	115855844	0.0004154	1.19	0.0493	0.5847	1.025	0.0459	0.005033	SEMA6A
rs16894654	6	64678187	0.0004107	1.086	0.0233	0.655	1.01	0.0229	0.005079	PTP4A1,PHF3,EYS
rs11900463	2	47171456	0.000925	0.911	0.0281	0.5434	0.9828	0.0286	0.005233	TTC7A,C2orf61
rs10202492	2	164329770	0.0008072	0.8891	0.0351	0.5436	0.9792	0.0346	0.005397	FIGN
rs1425843	11	109445915	0.0008997	0.9221	0.0244	0.5278	0.9849	0.024	0.005421	ZC3H12C,RDX
rs285577	12	40238262	0.0007574	1.125	0.035	0.5809	1.02	0.0352	0.005496	PDZRN4
rs10977747	9	9430057	0.0009887	1.095	0.0275	0.4599	0.9517	0.067	0.005565	PTPRD
rs589087	1	224798202	0.0004121	0.9088	0.0271	0.7542	0.9911	0.0284	0.005593	PARP1,C1orf95,ITPKB
rs11210220	1	73622243	0.00006552	1.09	0.0217	0.9759	0.9994	0.0214	0.0056	-
rs17086697	13	69772649	0.000742	0.865	0.043	0.4458	1.076	0.0964	0.005618	-
rs10181724	2	139676278	0.00001589	0.7691	0.0608	0.6798	1.026	0.0611	0.005632	-
rs12337573	9	26636638	0.0004064	1.083	0.0226	0.7216	1.008	0.023	0.005713	-
rs1941545	18	10741624	0.0008228	1.074	0.0213	0.3671	0.9539	0.0523	0.005715	FAM38B
rs7026976	9	84711091	0.000546	1.086	0.0237	0.6433	1.011	0.0231	0.005727	RASEF
rs16836940	1	148683537	0.0001385	1.104	0.026	0.9735	1.001	0.027	0.005737	OTUD7B,VPS45,PLEKHO1,ANP32E,CA14,APH1A,C1orf54,C1orf51,MRPS21,PRPF3,RPRD2,TARS2,ECM1,ADAMTSL4,MCL1,ENSA,GOLPH3L,HORMAD1,CTSS,CTSK,ARNT,SETDB1,LASS2,ANXA9,FAM63A,PRUNE,BNIPL,C1orf56,CDC42SE1
rs31978	5	14634556	0.0005515	0.8868	0.0348	0.6543	0.9845	0.0349	0.005764	FAM105A,FAM105B,ANKH
rs1895193	5	107860199	0.0005337	1.08	0.0221	0.6732	1.009	0.0221	0.005776	FBXL17
rs868278	18	60467885	0.0007534	0.926	0.0228	0.5992	0.9881	0.0229	0.005799	-
rs1483582	8	116549929	0.0002826	1.081	0.0213	0.8092	1.005	0.0213	0.005855	TRPS1
rs17232226	3	109330911	0.0003534	1.091	0.0243	0.7639	1.007	0.0245	0.005862	CD47,IFT57,HHLA2,MYH15
rs9476488	6	9743479	0.0001702	1.176	0.0432	0.8916	1.006	0.0431	0.006027	-
rs6565894	18	72432389	0.0008624	1.084	0.0243	0.5074	1.015	0.0225	0.006085	LOC284276
rs9473192	6	47879876	0.0003523	1.112	0.0298	0.757	1.009	0.0299	0.006095	GPR111,GPR115,OPN5,C6orf138
rs264501	12	128725658	0.00002165	0.8974	0.0255	0.8173	1.006	0.024	0.006152	TMEM132D
rs7332817	13	22979255	0.0004701	0.9252	0.0222	0.6852	0.9912	0.0217	0.006197	TNFRSF19
rs11075806	16	69477060	0.0002328	1.634	0.1334	0.3387	1.081	0.0813	0.006295	HYDIN
rs11210568	1	42287039	0.0003201	0.926	0.0214	0.9119	1.003	0.0265	0.00638	HIVEP3,GUCA2B,GUCA2A,FOXJ3
rs12877812	13	110467481	0.0002034	1.088	0.0228	0.864	1.004	0.0225	0.006529	ARHGEF7
rs17069081	4	181452649	0.0009295	1.105	0.0302	0.4206	0.9453	0.0699	0.006613	-
rs10966002	9	23628258	0.0008129	0.8903	0.0347	0.7972	1.015	0.0562	0.006653	-
rs17470235	4	163997880	0.0004695	1.17	0.045	0.678	1.018	0.043	0.006712	-
rs4895363	5	118645069	0.0000244	1.119	0.0266	0.6427	0.9874	0.0274	0.006786	DMXL1,TNFAIP8
rs10429950	1	216691156	0.0001187	0.9126	0.0238	0.9589	1.001	0.0243	0.006795	TGFB2
rs748385	15	99143471	0.0009579	0.9103	0.0285	0.699	1.02	0.0519	0.006829	-
rs4258834	2	54710515	0.0005595	0.8329	0.053	0.7464	0.9825	0.0548	0.006835	SPTBN1,RPL23AP32,EML6
rs484458	8	27540871	0.0004167	0.9138	0.0255	0.7922	0.9932	0.0259	0.006857	CLU,SCARA3,CCDC25
rs493220	11	100465576	0.0008983	0.9288	0.0222	0.2953	1.059	0.0551	0.00705	ARHGAP42,TMEM133,PGR
rs527116	5	80336910	0.00061	1.075	0.0211	0.2475	0.9447	0.0492	0.007071	RASGRF2
rs2009118	6	10925491	0.0001398	1.11	0.0275	0.97	0.9989	0.0283	0.00708	PAK1IP1,TMEM14C,TMEM14B,MAK,GCM2,SYCP2L
rs2930648	15	23452361	0.0005621	1.076	0.0213	0.7347	1.007	0.0216	0.007222	ATP10A
rs2071278	6	32273422	0.000527	1.106	0.029	0.8275	1.007	0.0309	0.007341	C6orf48,SNORD48,SNORD52,NEU1,SLC44A4,EHMT2,ZBTB12,C2,CFB,RDBP,MIR12

										36,SKIV2L,DOM3Z,STK19,C4A,C4B,TNXA,CYP21A2,TNXB,ATF6B,FKBPL,PRRT1,PPT2,EGFL8,AGPAT1,RNF5,RNF5P1,AGER,PBX2,GPSM3,NOTCH4
rs224246	16	3129380	0.0007158	1.095	0.0269	0.2413	0.9258	0.0658	0.007377	MMP25,IL32,ZSCAN10,MGC3771,ZNF205,ZNF213,OR1F1,OR1F2P,ZNF200,MEFV
rs4488184	11	7671455	0.0008854	1.083	0.0239	0.3751	0.9542	0.0529	0.007485	PPFIBP2,CYB5R2,OVCH2
rs4861039	4	42518036	0.0006115	0.9279	0.0218	0.7437	0.9928	0.022	0.007672	ATP8A1,GRXCR1
rs17137979	11	78655986	0.0006739	0.82	0.0583	0.8442	0.9874	0.0649	0.007746	ODZ4
rs1507864	4	48300385	0.0003302	0.8723	0.0381	0.8291	0.992	0.0372	0.007786	TEC,SLAIN2,SLC10A4,ZAR1,FRYL,OCIAD1,OCIAD2,CWH43,DCUN1D4,LRRC66,SGCB,SPATA18
rs167567	1	98734519	0.0007128	1.127	0.0353	0.6297	1.016	0.0328	0.007847	-
rs9819588	3	61152791	0.0002506	0.9228	0.0219	0.9514	0.9987	0.0221	0.008042	FHIT
rs17052417	9	88812116	0.0008703	0.7208	0.0983	0.6366	0.9568	0.0936	0.008318	GAS1,LOC440173,C9orf170
rs12907567	15	60001899	0.0001438	0.8604	0.0396	0.8413	1.008	0.0421	0.008565	VPS13C,C2CD4A,C2CD4B
rs7226876	18	54683800	0.0000945	0.9083	0.0246	0.8505	1.005	0.0245	0.008598	ZNF532
rs1859814	7	105290771	0.0005291	1.077	0.0214	0.8088	1.005	0.0213	0.008843	ATXN7L1
rs7838294	8	24781999	0.0002607	0.8653	0.0396	0.9289	0.9966	0.0386	0.008919	NEFM,NEFL
rs9436174	1	59094333	0.0001557	1.09	0.0229	0.9552	0.9987	0.0228	0.008942	-
rs1139056	22	16041178	0.000466	0.9215	0.0234	0.1294	1.086	0.0545	0.009001	IL17RA,CECR6,CECR5,CECR4,CECR1,GRPR
rs2122003	5	173115968	0.00002207	0.8708	0.0326	0.7398	1.01	0.0296	0.009165	-
rs1276324	18	19172417	0.00003485	1.099	0.0227	0.6352	0.9894	0.0226	0.009329	CABLES1,C18orf45,RIOK3,C18orf8,NPC1,ANKRD29
rs7995809	13	36233321	0.0007787	0.8526	0.0475	0.7729	0.9861	0.0484	0.009366	RFXAP
rs6989226	8	15710484	0.0001048	1.124	0.0301	0.7336	0.9892	0.032	0.009463	TUSC3
rs7254215	19	14574493	0.0007677	0.9055	0.0295	0.9764	0.999	0.0351	0.009484	MIR639,TECR,NDUFB7,CLEC17A,EMR3
rs3769166	2	173767074	0.0004988	1.115	0.0313	0.8438	1.006	0.0311	0.009533	RAPGEF4,ZAK
rs2542361	3	9592634	0.0007988	1.105	0.0298	0.6545	1.012	0.0272	0.009632	SETD5,LHFPL4
rs4513569	4	7102533	0.0004798	0.8012	0.0635	0.7647	1.025	0.0825	0.009779	KIAA0232,TBC1D14,CCDC96,TADA2B,GRPEL1,FLJ36777
rs1427407	2	60571547	0.0006971	1.105	0.0295	0.7913	1.008	0.0295	0.009825	BCL11A
rs12579771	12	44019689	0.0004991	0.9131	0.0261	0.9064	0.9968	0.0269	0.009851	PLEKHA9,ANO6
rs10495537	2	6611970	0.000521	0.9237	0.0229	0.8598	0.9959	0.023	0.009882	-
rs736707	7	102917639	0.00003463	0.8972	0.0262	0.6076	1.014	0.0263	0.01011	SLC26A5,RELN
rs2088619	1	222825183	0.0009991	1.077	0.0225	0.1948	0.9303	0.0557	0.01013	NVL,CNIH4,WDR26,CNIH3
rs16949681	15	64283090	0.0001287	1.106	0.0264	0.8298	0.9943	0.0266	0.01049	MEGF11,DIS3L
rs1463384	11	5036095	0.0004168	0.9159	0.0249	0.9248	0.9977	0.0247	0.01065	MMP26,OR51L1,OR52J3,OR52E2,OR52A4,OR52A5,OR52A1,OR51V1
rs12943640	17	11165259	0.00009369	0.9144	0.0229	0.7913	1.006	0.0225	0.01072	SHISA6
rs617231	11	84515546	0.0007615	0.9272	0.0224	0.8596	0.9959	0.0231	0.01092	DLG2,TMEM126B,TMEM126A,CREBZF,CCDC89,SYTL2
rs7138836	12	102417731	0.0009426	1.128	0.0364	0.1587	0.8802	0.0905	0.01096	C12orf42
rs236063	21	21898138	0.0002917	0.8439	0.0469	0.8912	1.007	0.0491	0.01163	NCAM2
rs6472787	8	74659384	0.000194	1.116	0.0295	0.6605	0.9853	0.0338	0.01193	STAU2,UBE2W,TCEB1
rs1554715	2	217135870	0.0005614	0.9241	0.0229	0.8988	0.9971	0.0226	0.01201	MARCH4,SMARCAL1,RPL37A
rs3824617	10	45487853	0.0005548	0.9137	0.0262	0.8802	0.9962	0.0254	0.01221	ALOX5,MARCH8,ANUBL1,FAM21C,AGAP

										4
rs464	7	83624396	0.0005488	0.9195	0.0243	0.768	1.009	0.0301	0.0124	SEMA3A
rs1287071	20	5776375	0.0006734	1.086	0.0244	0.8664	1.004	0.0242	0.01249	C20orf196
rs2106730	7	90085244	0.00005744	0.9119	0.0229	0.6445	1.01	0.0225	0.01265	GTPBP10,CLDN12,CDK14
rs6509628	19	57433524	0.0005346	1.116	0.0318	0.1815	0.9183	0.0638	0.0127	ZNF836,PPP2R1A,ZNF766,MIR643,ZNF480
rs10224074	7	67818390	0.0001349	1.21	0.0498	0.698	0.9801	0.0518	0.01273	-
rs12457996	18	39126271	0.00001206	1.118	0.0255	0.4022	0.979	0.0253	0.01283	RIT2,SYT4
rs6663154	1	222313369	0.00009603	1.122	0.0295	0.675	0.9877	0.0295	0.01376	FBXO28,DEGS1,NVL,MIR320B2
rs13227002	7	70876404	0.0003773	0.8707	0.039	0.9814	0.9991	0.0369	0.01399	CALN1
rs13005268	2	49553266	0.0005312	1.077	0.0214	0.751	0.9919	0.0256	0.01401	-
rs10063708	5	171626671	0.0003637	0.9221	0.0228	0.9244	1.002	0.0228	0.01434	STK10,EFCAB9,UBTD2,SH3PXD2B
rs2423618	20	11757442	0.0004812	0.9237	0.0228	0.9929	0.9998	0.0224	0.01449	BTBD3
rs2027228	13	33629881	0.000818	0.9136	0.027	0.9589	0.9986	0.0278	0.01479	-
rs2758934	6	165450795	0.0003132	1.155	0.0401	0.9361	0.9969	0.0384	0.01523	-
rs10512971	5	51897194	0.00009293	1.102	0.0249	0.6251	0.9878	0.0251	0.01537	PELO,ITGA1
rs10814470	9	36890212	0.0002344	1.104	0.0268	0.6777	0.9881	0.0288	0.01551	PAX5
rs609843	18	6869036	0.0008876	1.107	0.0307	0.8491	1.006	0.0292	0.01556	ARHGAP28,LAMA1
rs2842003	1	161246919	0.0009334	1.076	0.0221	0.9045	1.003	0.0219	0.01566	RGS4
rs1660272	18	60667071	0.0001098	1.102	0.0251	0.6631	0.9893	0.0248	0.01601	-
rs3773729	3	53179885	0.00022	0.921	0.0223	0.7716	1.007	0.0223	0.01628	RFT1,PRKCD,TKT
rs11579964	1	222605563	1.008E-07	0.8461	0.0314	0.08736	1.052	0.0295	0.01644	NVL,MIR320B2,CNIH4,WDR26
rs10497618	2	183578391	0.0004246	0.9195	0.0238	0.8354	1.005	0.0248	0.01649	FRZB,NCKAP1,DUSP19,NUP35
rs16944856	17	11335292	0.0005214	0.8749	0.0385	0.8655	1.007	0.0404	0.01657	SHISA6,DNAH9
rs13186057	5	164585115	0.0009456	0.9303	0.0218	0.9702	0.9992	0.0219	0.01747	-
rs7813280	8	106204643	0.0002378	1.086	0.0223	0.74	0.9927	0.0219	0.01849	ZFPM2
rs36991	5	1549622	0.00008632	1.145	0.0345	0.6835	0.9872	0.0317	0.01861	LPCAT1,BDP1,MCCC2
rs2501299	1	22218234	0.00005474	1.098	0.0232	0.2489	0.9685	0.0278	0.01866	HSPG2,CELA3B,CELA3A,HSPC157,CDC42,WNT4
rs1247419	10	29948134	0.0006822	0.888	0.035	0.8376	1.008	0.0377	0.01882	SVIL,MIR938
rs7588090	2	229756507	0.000958	0.9019	0.0313	0.9893	0.9996	0.0314	0.01896	PID1
rs17082084	4	53391037	0.0005564	0.7602	0.0794	0.9968	1	0.0736	0.01902	USP46,KIAA0114,SNORA26,RASL11B,SCFD2
rs12776142	10	89998548	0.00034	1.159	0.0411	0.6704	0.9817	0.0435	0.02042	RNLS
rs7678824	4	46593190	0.0009423	1.107	0.0309	0.1327	0.9076	0.0645	0.02052	GABRA2,COX7B2,GABRA4,GABRB1
rs6508355	18	21079991	0.0005012	0.9233	0.0229	0.8561	1.004	0.0226	0.02055	ZNF521
rs10982710	9	117161418	0.0004609	1.086	0.0235	0.8199	0.9947	0.0233	0.02073	DEC1
rs10911937	1	185101760	0.0002858	1.098	0.0258	0.1747	0.9471	0.04	0.02098	PLA2G4A
rs11149915	16	75208044	0.0001914	1.089	0.0229	0.6447	0.9895	0.0229	0.02101	CNTNAP4
rs17152325	7	105358724	0.0001477	0.8996	0.0279	0.5927	1.015	0.0279	0.02135	ATXN7L1,CDHR3
rs13429725	2	147009118	0.0004973	0.9095	0.0272	0.8127	1.006	0.0272	0.02162	PABPC1P2
rs11211383	1	38254943	0.0001673	0.9019	0.0274	0.7182	1.009	0.0253	0.0221	SF3A3,FHL3,UTP11L,POU3F1
rs11640300	16	3932784	0.00001595	1.262	0.054	0.3667	0.9553	0.0506	0.0221	CREBBP,ADCY9
rs10069497	5	132640331	0.0004903	0.9156	0.0253	0.7992	1.006	0.0252	0.02252	FSTL4
rs12534964	7	67842039	0.00007565	1.13	0.0309	0.4112	0.9741	0.0319	0.02337	-
rs11602256	11	67900859	0.0003863	1.088	0.0237	0.7234	0.9916	0.0236	0.02375	SUV420H1,C11orf24,LRP5,SAPS3
rs2554962	3	102927808	0.0006551	1.093	0.0261	0.8091	0.9936	0.0265	0.02402	IMPG2,SENP7,RG9MTD1,PCNP,ZBTB11,LOC100009676,RPL24,LOC285359,CEP97,

										FAM55C,NFKBIZ,LOC152225
rs7219119	17	9095380	0.00006714	0.9012	0.0261	0.5446	1.015	0.0241	0.02403	NTN1,STX8
rs4697267	4	21720373	0.0003969	0.9106	0.0265	0.6411	1.013	0.0282	0.02416	KCNIP4,NCRNA00099
rs1158522	12	125627384	0.0009503	0.9108	0.0283	0.09187	1.105	0.0592	0.02439	-
rs17145575	16	8248676	0.00003502	0.8986	0.0258	0.3439	1.024	0.0255	0.02495	-
rs17769347	18	36989057	0.0002013	0.8828	0.0335	0.6662	1.014	0.0316	0.02505	-
rs7657298	4	89472103	0.0002112	0.8817	0.034	0.5972	1.018	0.0338	0.02543	PPM1K,HERC6
rs12692341	2	7801358	0.0005167	1.079	0.022	0.7907	0.9943	0.0216	0.02553	-
rs17140880	5	116308095	0.000118	0.8835	0.0322	0.5204	1.021	0.0315	0.02567	-
rs4783519	16	20993214	0.0004619	0.888	0.0339	0.6974	1.013	0.0345	0.02606	ACSM2B,ACSM1,THUMPD1,ACSM3,ERI2,LOC81691,DCUN1D3,LYRM1,DNAH3,TMEM159,ZP2,ANKS4B
rs3734936	7	138097935	0.0004451	0.8974	0.0308	0.6276	1.016	0.0327	0.02611	ATP6V0A4,TMEM213
rs3751700	16	88279695	0.00006373	0.8728	0.034	0.3702	1.031	0.0345	0.02619	CPNE7,DPEP1,CHMP1A,C16orf55,CDK10,SPATA2L,C16orf7,ZNF276,FANCA,SPIRE2,TCF25,MC1R,TUBB3,DEF8
rs1365593	15	24318276	0.000007647	0.9036	0.0227	0.2287	1.027	0.0218	0.02631	GABRB3
rs16836496	2	154884545	0.000819	1.098	0.0281	0.6842	0.9873	0.0316	0.02673	GALNT13
rs6990255	8	34246490	0.00035	1.208	0.0529	0.7939	0.9875	0.0483	0.02676	-
rs902923	9	93373420	0.00005478	1.116	0.0272	0.161	0.9549	0.0329	0.02681	NFIL3
rs1359865	1	228811901	0.0003538	0.8126	0.0581	0.6048	1.032	0.0601	0.0272	COG2
rs11671605	19	4656508	0.0006507	0.9077	0.0284	0.8049	1.007	0.0276	0.02773	TNFAIP8L1,C19orf10,DPP9
rs2116050	2	67926267	0.0007896	1.074	0.0212	0.7748	0.9939	0.0215	0.02817	-
rs11594834	10	3857784	0.0001788	0.9032	0.0272	0.1946	1.047	0.0356	0.02876	-
rs6005605	22	26471301	0.0004208	1.102	0.0276	0.7596	0.9921	0.0258	0.0292	MN1,VENTXP1
rs1947200	2	207020692	0.0004976	0.9199	0.024	0.4502	1.022	0.0286	0.02922	ADAM23,LOC200726,DYTN
rs10114227	9	77405406	0.0008326	1.117	0.033	0.8921	1.004	0.0259	0.02953	-
rs2116877	19	11219440	0.0006076	1.128	0.0352	0.7441	0.9888	0.0348	0.02988	SPC24,KANK2,DOCK6,LOC55908,TSPAN16,RAB3D,TMEM205,CCDC159
rs10966061	9	23730210	0.0003	0.9148	0.0246	0.5992	1.013	0.0241	0.03081	ELAVL2
rs2850905	18	73148982	0.000639	0.76	0.0804	0.5148	1.062	0.0929	0.03115	GALR1
rs3764551	19	8667327	0.0004219	1.106	0.0287	0.7275	0.9906	0.0269	0.03191	ACTL9,OR2Z1,ZNF558
rs7550651	1	76705588	0.0007709	1.095	0.027	0.6869	0.9889	0.0277	0.03353	ST6GALNAC3
rs1811829	1	12751085	0.0002633	1.105	0.0274	0.5607	0.9846	0.0266	0.03401	AADACL3,C1orf158,PRAMEF12,PRAMEF1,PRAMEF11,LOC649330,HNRNPCL1,PRAMEF2
rs8075977	17	1607551	0.000351	0.9214	0.0229	0.566	1.013	0.0229	0.03408	WDR81,SERPINF2,SERPINF1,SMYD4,RPA1
rs1773860	10	29331562	0.00008732	1.088	0.0215	0.372	0.9813	0.0212	0.0342	-
rs2269542	22	43622435	0.0007856	1.19	0.0519	0.6076	0.9716	0.0561	0.03481	PRR5-ARHGAP8,ARHGAP8,PHF21B,MAOB
rs2422176	2	118668359	0.0004959	1.122	0.0331	0.5587	0.98	0.0346	0.03498	INSIG2
rs4684591	3	8354719	0.0003813	1.096	0.0259	0.6608	0.9894	0.0244	0.03519	LOC100288428
rs321460	16	26648222	0.0002248	1.098	0.0253	0.502	0.9835	0.0248	0.0352	-
rs7747306	6	8398662	0.0003019	0.9246	0.0217	0.5028	1.015	0.022	0.03553	SLC35B3,HULC
rs4949458	1	31914919	0.0007521	0.9303	0.0214	0.6937	1.008	0.0213	0.03562	TINAGL1,HCRTR1,PEF1,COL16A1,BAI2,SPOCD1
rs9436797	1	68340006	0.0006404	1.117	0.0323	0.7381	0.99	0.0303	0.0358	DIRAS3,WLS

rs1728803	3	11034996	0.0008716	1.079	0.0228	0.7789	0.9939	0.0216	0.03642	SLC6A1
rs4713420	6	31101546	0.0003105	1.111	0.0293	0.5553	0.9832	0.0287	0.03651	DDR1,GTF2H4,VARS2,SFTA2,DPCR1,MUC21,HCG22,C6orf15,PSORS1C1,CDSN,PSORS1C2,CCHCR1,TCF19
rs11025135	11	19407596	0.00002359	0.9029	0.0242	0.2161	1.03	0.0238	0.03755	NAV2
rs16847499	2	142356102	0.0007343	1.158	0.0436	0.7058	0.9841	0.0424	0.03797	LRP1B
rs11078618	17	6174464	0.0004554	0.9231	0.0228	0.5624	1.013	0.0227	0.03857	-
rs3925064	12	23985031	0.0009901	1.083	0.0242	0.7311	0.9919	0.0236	0.03984	SOX5
rs748108	9	18721160	0.0003894	0.9038	0.0285	0.5491	1.017	0.0278	0.04032	ADAMTSL1
rs1269025	1	234511596	0.0001428	0.9138	0.0237	0.3691	1.021	0.0236	0.04037	GPR137B,ERO1LB,EDARADD
rs7032572	9	6162380	0.0003271	0.8938	0.0313	0.5164	1.02	0.0307	0.0405	IL33
rs2510752	11	89853120	0.0004547	1.081	0.0222	0.5285	0.986	0.0224	0.04079	NAALAD2,CHORDC1
rs7096169	10	104608685	0.0008137	1.077	0.0221	0.6518	0.9901	0.0219	0.04103	CUEDC2,MIR146B,C10orf95,TMEM180,ACTR1A,SUFU,TRIM8,ARL3,SFXN2,C10orf26,CYP17A1,C10orf32,AS3MT,CNNM2,NT5C2,LOC729020,INA,PCGF6,TAF5,USMG5,MIR1307,PDCD11,CALHM2,CALHM1,CALHM3,NEURL
rs11778091	8	9169991	0.0001822	1.105	0.0267	0.3841	0.9771	0.0266	0.04312	-
rs11263535	11	69242310	0.0005126	1.108	0.0295	0.7987	0.9938	0.0243	0.04434	ORAOV1,FGF19
rs472724	7	54518804	0.00003936	0.9157	0.0214	0.1903	1.029	0.0217	0.04474	HPVC1,VSTM2A
rs9522923	13	89750374	0.0006165	0.9271	0.0221	0.5182	1.015	0.0227	0.04522	MIR622
rs3766875	1	235869533	0.0005438	0.9273	0.0218	0.5474	1.013	0.0214	0.04608	RYR2
rs12701343	7	34102150	0.0002415	1.099	0.0257	0.4638	0.9825	0.0242	0.04725	BMPER
rs4494192	1	145865184	0.0006301	0.6885	0.1092	0.1716	1.232	0.1525	0.0474	GJA8,GPR89B,GPR89C,PDZK1P1,LOC200030,NBPF11
rs10038189	5	164535349	0.0008472	0.8634	0.044	0.5584	1.026	0.0446	0.04939	-
rs11649432	16	9582809	0.0005399	1.079	0.0219	0.4954	0.9855	0.0215	0.0519	-
rs1608890	7	112511761	0.0007455	1.138	0.0383	0.6179	0.9823	0.0359	0.05195	GPR85,LOC401397
rs12109482	5	117626489	0.0004734	1.093	0.0254	0.4494	0.981	0.0254	0.0522	-
rs7758789	6	37172024	0.000126	1.094	0.0234	0.2525	0.9732	0.0238	0.05327	FGD2
rs1979988	17	774976	0.0004876	1.122	0.033	0.3652	0.9687	0.0352	0.0543	NXN
rs4639518	8	23312037	0.0006813	1.077	0.0218	0.4759	0.9844	0.022	0.0557	LOXL2,ENTPD4,SLC25A37
rs17159786	5	106683411	0.0005328	0.7753	0.0735	0.406	1.065	0.0761	0.05573	EFNA5
rs10475959	5	170130444	0.0006738	0.928	0.022	0.5031	1.015	0.0218	0.05578	KCNIP1,GABRP,RANBP17
rs17096174	14	29523889	0.0006397	1.096	0.0268	0.6266	0.9885	0.0239	0.05583	PRKD1
rs6470235	8	125285510	0.0002077	1.096	0.0247	0.3263	0.9764	0.0244	0.05649	FER1L6
rs12423103	12	43270726	0.0001209	1.1	0.0247	0.2258	0.97	0.0252	0.05653	NELL2
rs10877949	12	61752398	0.0006778	0.9239	0.0233	0.4915	1.016	0.0229	0.05874	PPM1H,AVPR1A
rs6532503	4	95827046	0.00002714	0.8973	0.0258	0.1716	1.034	0.0244	0.05879	PDLIM5
rs13218146	6	130084525	0.0002517	0.9106	0.0256	0.2562	1.031	0.0272	0.05962	ARHGAP18
rs11838719	13	84469239	0.0006166	1.15	0.0409	0.4938	0.9734	0.0395	0.06008	-
rs6027514	20	58337519	0.000452	1.079	0.0216	0.3886	0.9816	0.0215	0.06095	MIR646
rs2222597	2	149627594	0.0007013	1.145	0.04	0.469	0.972	0.0393	0.06359	KIF5C,LYPD6B
rs3933012	1	94968020	0.0009452	1.081	0.0235	0.5022	0.9846	0.0231	0.06501	-
rs1884644	20	5977634	0.0001924	0.9205	0.0222	0.2573	1.025	0.0221	0.06784	CHGB,TRMT6,MCM8,CRLS1,LRRN4,FERMT1
rs9878037	3	188712534	0.0006436	1.083	0.0234	0.4159	0.9814	0.0231	0.07	-

rs8102308	19	63164775	0.0005063	1.093	0.0256	0.3188	0.9738	0.0266	0.07019	ZSCAN4,ZNF551,ZNF154,ZNF671,ZNF776,ZNF586,ZNF552,FKBP1AP1,ZNF587,ZNF814,ZNF417,ZNF418,ZNF256,C19orf18,ZNF606,ZSCAN1
rs4417826	3	141321345	0.0008505	1.111	0.0315	0.4367	0.976	0.0312	0.07168	CLSTN2
rs11611119	12	38452524	0.0009705	0.9225	0.0245	0.4474	1.019	0.0243	0.07563	KIF21A,ABCD2,C12orf40,SLC2A13
rs1781070	1	108371221	0.0006472	0.9293	0.0215	0.1332	1.042	0.0276	0.07735	VAV3,SLC25A24,NBPF4
rs1448836	2	168224982	0.0006627	1.09	0.0252	0.3809	0.9787	0.0246	0.07834	-
rs7297062	12	113707293	0.0005048	1.087	0.024	0.3468	0.9781	0.0235	0.0786	-
rs67746	1	8185100	0.0001252	0.8379	0.0461	0.1318	1.076	0.0488	0.07924	-
rs12897244	14	52572713	0.0002094	1.262	0.0627	0.2779	0.9386	0.0585	0.08234	FERMT2,DDHD1
rs7796129	7	130556318	0.0009621	0.9303	0.0219	0.3939	1.019	0.022	0.08254	FLJ43663,MKLN1
rs12379790	9	73569079	0.0004202	0.9	0.0299	0.3202	1.029	0.0287	0.08468	TMEM2
rs13438248	7	18904606	0.0005158	0.889	0.0339	0.4508	1.022	0.0294	0.08877	HDAC9
rs830471	8	77146843	0.000635	0.9264	0.0224	0.3021	1.023	0.0224	0.09253	HNF4G
rs11052562	12	33302329	0.0004541	0.9148	0.0254	0.2468	1.03	0.0257	0.09352	SYT10
rs1959778	14	25360889	0.00005491	1.205	0.0462	0.3438	0.9676	0.0348	0.09459	-
rs3796443	4	96280532	0.0001463	0.922	0.0214	0.1618	1.03	0.0211	0.09521	BMPR1B,UNC5C
rs10036207	5	174257233	0.0005697	0.8947	0.0323	0.2642	1.037	0.0327	0.09615	-
rs10235210	7	115790681	0.0004883	1.078	0.0216	0.2639	0.9766	0.0212	0.1007	TFEC,TES,CAV2,CAV1
rs4771831	13	90823753	0.0002808	1.089	0.0235	0.1669	0.9672	0.0241	0.1028	MIR17HG,MIR17,MIR18A,MIR19A,MIR20A,MIR19B1,MIR92A1,GPC5
rs4905534	14	96272941	0.0005316	0.9036	0.0293	0.224	1.037	0.0301	0.1028	VRK1
rs10993714	9	92652927	0.00009542	0.7323	0.0799	0.1	1.143	0.0812	0.1041	SYK
rs11760246	7	157523437	0.0007562	1.079	0.0227	0.2983	0.977	0.0224	0.1065	PTPRN2
rs12539114	7	115715162	0.0005836	0.7736	0.0746	0.1608	1.121	0.0813	0.1126	TFEC,TES,CAV2,CAV1
rs1528016	7	144714726	0.0005921	1.156	0.0423	0.2109	0.9471	0.0434	0.1141	-
rs1776127	10	28673456	0.0005354	1.091	0.0252	0.2247	0.9702	0.025	0.1161	MPP7
rs667994	6	118213730	0.0007441	1.2	0.0541	0.2513	0.9404	0.0536	0.1197	NUS1,SLC35F1
rs17666499	18	30273370	0.0008373	0.9101	0.0282	0.3096	1.027	0.0264	0.1239	NOL4,DTNA
rs2975494	8	19426611	0.00001532	1.129	0.0281	0.03315	0.9425	0.0278	0.128	SH2D4A,CSGALNACT1
rs9362625	6	89954816	0.0008385	1.101	0.0287	0.2203	0.9653	0.0288	0.131	RNGTT,PNRC1,SFRS13B,PM20D2,GABRR1,GABRR2
rs2731065	12	47179190	0.000361	1.107	0.0284	0.1386	0.9587	0.0285	0.1363	SENP1,PFKM,ASB8,C12orf68,OR10AD1,H1FNT,ZNF641,ANP32D,C12orf54,OR8S1,LALBA
rs8005571	14	97519673	0.0007496	1.08	0.0227	0.06714	0.9499	0.0281	0.1375	C14orf64
rs10153455	19	17956277	0.0003974	1.088	0.0239	0.1853	0.9702	0.0229	0.1379	CCDC124,KCNN1,ARRDC2
rs7513908	1	8225206	0.0008261	1.105	0.0298	0.1278	0.9506	0.0333	0.1386	-
rs7518785	1	168434806	0.0009774	0.932	0.0214	0.2122	1.027	0.0212	0.1522	C1orf156,C1orf112,SCYL3,KIFAP3,METTL11B
rs11877945	18	20732662	0.0004646	0.9283	0.0212	0.1307	1.033	0.0212	0.1573	-
rs6005542	22	26373820	0.0003232	1.088	0.0235	0.1224	0.965	0.023	0.1586	MN1
rs10499796	7	67690705	0.0006638	1.131	0.0362	0.164	0.9518	0.0355	0.1653	-
rs10959053	9	10323382	0.0008542	0.9061	0.0296	0.1763	1.04	0.0292	0.1694	PTPRD
rs2834732	21	35308597	0.0003159	0.9238	0.022	0.08903	1.039	0.0223	0.1697	RUNX1,C21orf96
rs7100942	10	25863759	0.0004046	1.079	0.0215	0.1131	0.9667	0.0214	0.1705	GPR158
rs8019439	14	22288687	0.0006996	1.127	0.0353	0.167	0.9537	0.0343	0.1708	ABHD4,OXA1L,SLC7A7

rs3774718	3	63919024	0.0006203	0.9223	0.0236	0.1397	1.035	0.0232	0.1774	SNTN,C3orf49,THOC7,ATXN7,PSMD6,PRICKLE2
rs2027363	9	72442473	0.0001887	1.083	0.0213	0.06568	0.9616	0.0213	0.1785	TRPM3,MIR204
rs667367	13	85281213	0.0006134	0.899	0.0311	0.1063	1.053	0.0321	0.1812	SLITRK6
rs4724512	7	5290729	0.0006359	0.899	0.0312	0.08855	1.057	0.0328	0.1934	WIPI2,SLC29A4,TNRC18
rs693595	5	6625428	0.0004907	1.095	0.0261	0.08018	0.9537	0.0271	0.1974	LOC255167,NSUN2,SRD5A1
rs2887631	12	1804842	0.0009559	1.091	0.0263	0.152	0.9639	0.0257	0.1981	WNT5B,ADIPOR2,CACNA2D4,LRTM2
rs11724374	4	10769066	0.00006957	0.9188	0.0213	0.02605	1.049	0.0214	0.2138	-
rs329502	2	64170191	0.0006854	1.076	0.0216	0.1029	0.9655	0.0215	0.2156	C2orf86,MDH1,LOC388955,UGP2,VPS54,PELI1
rs1982525	1	26698169	0.0005816	1.092	0.0256	0.102	0.9602	0.0249	0.222	ZNF683,LIN28A,DHDDS,HMGN2,RPS6KA1,MIR1976
rs1326251	10	52918572	0.0005646	1.124	0.034	0.06247	0.9363	0.0353	0.2359	PRKG1
rs10873658	1	85043679	0.0005532	1.083	0.023	0.06536	0.958	0.0233	0.2419	LPAR3
rs12236537	9	89021540	0.000574	1.23	0.0601	0.107	0.9149	0.0551	0.254	LOC440173,C9orf170
rs3897586	18	2968689	0.0003208	0.8854	0.0338	0.03649	1.075	0.0345	0.2672	EMILIN2,LPIN2,LOC727896
rs10430679	10	113380194	0.0003177	1.11	0.0289	0.03523	0.9402	0.0293	0.2749	-
rs4403185	5	30253910	0.0007971	0.9231	0.0238	0.0771	1.042	0.0232	0.2794	-
rs1661957	19	58169921	0.0004001	1.177	0.046	0.04558	0.9147	0.0446	0.3025	ZNF321,ZNF816A,ZNF702P
rs3129248	6	33217636	0.0005134	0.9276	0.0216	0.03654	1.046	0.0215	0.3313	HLA-DPA1,HLA-DPB1,HLA-DPB2,COL11A2,RXRB,SLC39A7,HSD17B8,MIR219-1,RING1,VPS52,RPS18,B3GALT4,WDR46,PFDN6,RGL2,TAPBP,ZBTB22,DAXX,LYPLA2P1,KIFC1,PHF1
rs7674308	4	180941761	0.0001337	0.9186	0.0222	0.01219	1.057	0.0222	0.3496	-
rs12901022	15	29100035	0.000806	0.9314	0.0212	0.04134	1.044	0.0211	0.3588	FAM7A1,FAM7A2,ARHGAP11B,MTMR15,MTMR10,TRPM1,MIR211
rs17133921	11	74712634	0.0004805	1.155	0.0412	0.03496	0.9215	0.0388	0.3887	ARRB1,MIR326,RPS3,SNORD15A,SNORD15B,KLHL35,GDPD5
rs570801	7	105170475	0.0002722	0.9093	0.0261	0.01355	1.067	0.0265	0.3903	ATXN7L1
rs11084925	19	1954029	0.0001549	0.8059	0.057	0.09492	1.057	0.0334	0.6352	CSNK1G2,BTBD2,MKNK2
rs10954491	7	134622666	0.0007575	0.926	0.0228	0.006006	1.063	0.0222	0.703	STRA8,CNOT4
rs7714990	5	18086881	0.0003877	1.241	0.0609	0.07325	0.9431	0.0327	0.9201	-

SNP positions according to NCBI Build 36/UCSC hg18. OR=odds ratio. SE=standard error.

TABLE S19. MDD-BIP CROSS-DISORDER ANALYSIS

SNP	chr	BP	Combined			MDD		BIP	
			OR	P	Direction	OR	P	OR	P
rs2535629	3	52808259	0.8998	5.883e-9	--	0.9239	0.0009575	0.8687	3.62e-7
rs2251219	3	52559827	1.1	1.913e-8	++	1.062	0.008059	1.149	4.38e-8
rs33967311	3	52658904	0.9105	2.789e-8	--	0.9413	0.007529	0.873	9.152e-8
rs1561337	3	52635003	0.9103	2.83e-8	--	0.9404	0.006834	0.874	1.146e-7
rs2289250	3	52657986	0.9106	2.893e-8	--	0.9408	0.007089	0.8738	1.109e-7
rs13068293	3	52647207	0.9104	2.904e-8	--	0.9407	0.007035	0.8738	1.127e-7
rs11130315	3	52672203	1.098	3.019e-8	++	1.063	0.007335	1.144	1.217e-7
rs3755806	3	52618725	1.098	3.091e-8	++	1.063	0.006818	1.144	1.175e-7
rs12487591	3	52617976	1.098	3.091e-8	++	1.063	0.006943	1.144	1.186e-7
rs13064064	3	52632042	1.098	3.091e-8	++	1.063	0.006704	1.144	1.221e-7
rs2268026	3	52753387	1.099	3.412e-8	++	1.063	0.007732	1.145	1.104e-7
rs12496634	3	52684299	1.098	3.439e-8	++	1.063	0.007207	1.143	1.509e-7
rs11130317	3	52706523	0.912	4.832e-8	--	0.9415	0.007697	0.876	1.963e-7
rs2336149	3	52667164	0.9127	4.847e-8	--	0.9443	0.01088	0.8747	1.009e-7
rs7611731	3	52667761	1.096	4.995e-8	++	1.059	0.01077	1.143	9.983e-8
rs6804145	3	52669238	0.9127	5.042e-8	--	0.9445	0.01117	0.8747	1.006e-7
rs2083180	3	52643159	0.9105	5.043e-8	--	0.9415	0.009051	0.8732	1.484e-7
rs11130310	3	52649707	0.9126	5.429e-8	--	0.9439	0.01068	0.8751	1.269e-7
rs2019065	3	52784565	1.098	5.463e-8	++	1.061	0.01025	1.149	1.076e-7
rs1014969	3	52783381	0.9115	5.548e-8	--	0.9442	0.01216	0.8721	9.157e-8
rs11720243	3	52593058	1.096	5.652e-8	++	1.059	0.01121	1.143	1.17e-7
rs7652191	3	52585455	1.096	5.652e-8	++	1.059	0.0115	1.143	1.102e-7
rs17052256	3	52568159	1.095	5.804e-8	++	1.059	0.01177	1.142	1.372e-7
rs2336545	3	52762643	1.096	5.946e-8	++	1.06	0.01009	1.143	1.392e-7
rs7622694	3	52638922	0.9132	6.05e-8	--	0.9443	0.01083	0.876	1.411e-7
rs3733039	3	52694128	0.9132	6.05e-8	--	0.9443	0.0107	0.876	1.382e-7
rs3733045	3	52618347	1.095	6.204e-8	++	1.06	0.009621	1.14	1.84e-7
rs34017441	3	52717453	1.096	6.283e-8	++	1.061	0.008838	1.142	2.072e-7
rs7763880	6	152843990	0.9127	6.362e-8	--	0.944	0.01133	0.8752	1.331e-7
rs2289247	3	52702297	0.9137	6.455e-8	--	0.9437	0.009911	0.8772	1.868e-7
rs3774366	3	52616295	1.095	6.484e-8	++	1.059	0.01116	1.141	1.604e-7
rs1866268	3	52694438	0.9135	6.508e-8	--	0.9445	0.01109	0.8762	1.444e-7
rs11714565	3	52581332	0.9131	6.514e-8	--	0.9444	0.01145	0.8756	1.366e-7
rs3796353	3	52568270	0.9133	6.555e-8	--	0.9447	0.01173	0.8759	1.386e-7
rs6786043	3	52579901	1.095	6.613e-8	++	1.059	0.01161	1.141	1.564e-7
rs10865976	3	52777442	1.096	6.886e-8	++	1.059	0.01145	1.144	1.332e-7
rs2230535	3	52775324	1.096	6.886e-8	++	1.059	0.01121	1.144	1.354e-7
rs2878628	3	52559755	1.095	6.903e-8	++	1.058	0.0125	1.142	1.265e-7
rs1961958	3	52561030	1.096	6.979e-8	++	1.062	0.008737	1.14	2.861e-7
rs6778844	3	52571438	1.096	6.979e-8	++	1.062	0.008589	1.14	3.034e-7
rs2159644	3	52749570	0.9135	7.046e-8	--	0.9449	0.01186	0.8756	1.348e-7
rs9397512	6	152847582	1.095	7.156e-8	++	1.06	0.01022	1.14	2.114e-7
rs2164885	3	52706309	1.095	7.179e-8	++	1.059	0.01148	1.141	1.672e-7
rs6786919	3	52574829	1.095	7.322e-8	++	1.059	0.01164	1.141	1.511e-7
rs2336146	3	52601686	1.094	7.383e-8	++	1.059	0.01166	1.14	1.734e-7
rs6445535	3	52746508	1.095	7.512e-8	++	1.058	0.01189	1.142	1.367e-7
rs7624716	3	52726574	1.095	7.512e-8	++	1.058	0.01283	1.142	1.366e-7
rs13063160	3	52577314	1.095	7.651e-8	++	1.058	0.01215	1.142	1.355e-7
rs3733041	3	52706638	1.094	7.716e-8	++	1.058	0.01172	1.141	1.68e-7
rs4687638	3	52627006	1.095	7.745e-8	ą+	1.062	0.008281	1.139	3.462e-7
rs3852066	3	52596879	0.9138	7.88e-8	--	0.9447	0.01155	0.8765	1.605e-7

rs12487445	3	52593359	1.096	7.927e-8	++	1.062	0.008514	1.139	3.152e-7
rs2072390	3	52755549	1.095	7.996e-8	++	1.057	0.01349	1.143	1.233e-7
rs767418	3	52742467	0.9138	8.032e-8	--	0.9454	0.01265	0.8758	1.413e-7
rs2028216	3	52655863	0.9131	8.14e-8	--	0.9421	0.00857	0.8777	3.161e-7
rs9397518	6	152852414	1.096	8.146e-8	++	1.061	0.009829	1.142	2.197e-7
rs2079929	3	52740686	0.9139	8.167e-8	--	0.9454	0.01278	0.8759	1.457e-7
rs10865974	3	52693320	0.9142	8.477e-8	--	0.9443	0.01077	0.878	2.164e-7
rs11716747	3	52723897	0.9138	8.611e-8	--	0.9448	0.0119	0.8768	1.863e-7
rs35526119	3	52724374	0.9141	8.633e-8	--	0.9456	0.01318	0.876	1.465e-7
rs11714419	3	52603856	1.095	8.792e-8	++	1.062	0.008391	1.138	3.988e-7
rs2289249	3	52572704	0.9131	9.015e-8	--	0.942	0.008619	0.8783	3.548e-7
rs12488461	3	52673457	1.095	9.118e-8	++	1.061	0.009002	1.14	3.132e-7
rs12497998	3	52768642	0.914	9.226e-8	--	0.9462	0.0143	0.8756	1.362e-7
rs3755798	3	52716200	0.9145	9.865e-8	--	0.945	0.01181	0.8775	2.053e-7
rs10774037	12	2290787	0.8958	9.88e-8	--	0.9099	0.0008366	0.88	0.00002375
rs6762813	3	52701735	0.9138	1.007e-7	--	0.9434	0.009982	0.8776	3.045e-7
rs1042779	3	52796051	1.097	1.022e-7	++	1.06	0.01172	1.147	2.209e-7
rs13071584	3	52779527	1.094	1.052e-7	++	1.056	0.01577	1.143	1.225e-7
rs3755799	3	52784233	0.9014	1.081e-7	--	0.9266	0.003195	0.8687	2.464e-6
rs11177	3	52696345	0.9141	1.106e-7	--	0.9438	0.01067	0.8777	3.105e-7
rs12635140	3	52713205	1.093	1.186e-7	++	1.057	0.01296	1.139	2.189e-7
rs8906	3	52714560	1.094	1.236e-7	++	1.06	0.01081	1.138	4.072e-7
rs7296288	12	47766235	0.9137	1.334e-7	--	0.9382	0.006256	0.8859	1.541e-6
rs10780035	3	52739664	0.9145	1.394e-7	--	0.945	0.01275	0.877	2.816e-7
rs6976	3	52703844	0.9148	1.447e-7	--	0.9436	0.01028	0.8796	4.815e-7
rs7756410	6	152830890	0.9159	1.878e-7	--	0.9495	0.02212	0.8755	1.396e-7
rs4318888	6	152833906	0.9159	1.987e-7	--	0.9507	0.02546	0.8744	1.119e-7
rs12738490	1	148669043	1.111	1.99e-7	++	1.099	0.0005271	1.126	0.00008071
rs579464	6	152824626	1.091	2.078e-7	++	1.052	0.0243	1.143	1.321e-7
rs214969	6	152818024	1.091	2.078e-7	++	1.052	0.02564	1.143	1.226e-7
rs214976	6	152813957	0.9168	2.518e-7	--	0.9529	0.03301	0.8734	8.308e-8
rs169974	6	152816925	0.9169	2.588e-7	--	0.9527	0.03175	0.8738	9.514e-8
rs9371601	6	152832266	1.094	2.951e-7	++	1.042	0.08245	1.16	1.192e-8
rs70018	6	152815726	1.09	3.039e-7	++	1.049	0.03368	1.144	1.01e-7
rs4765914	12	2290638	1.111	3.049e-7	++	1.092	0.001784	1.133	0.00003419
rs4741652	9	2184227	1.107	3.323e-7	++	1.112	0.00002894	1.1	0.003231
rs2239551	3	52793619	0.9159	3.494e-7	--	0.9496	0.02402	0.8736	2.521e-7
rs1011633	2	99461231	1.089	3.713e-7	++	1.062	0.007388	1.122	3.882e-6
rs1053544	2	99388702	1.089	3.945e-7	++	1.07	0.002993	1.113	0.00002023
rs717454	2	99389204	0.9184	4.099e-7	--	0.9348	0.002915	0.8987	0.00001999
rs2290255	2	99365529	1.089	4.166e-7	++	1.07	0.002927	1.112	0.00002262
rs769105	2	99444398	1.088	4.212e-7	++	1.062	0.0074	1.121	4.826e-6
rs2239549	3	52798166	0.9166	4.334e-7	--	0.9507	0.02715	0.8737	2.692e-7
rs11899745	2	99430504	0.9192	4.408e-7	--	0.9408	0.006766	0.8933	0.00000578
rs3792137	2	99428180	1.088	4.528e-7	++	1.063	0.007218	1.12	5.883e-6
rs2290261	2	99387616	0.9186	4.626e-7	--	0.935	0.003054	0.899	0.00002183
rs6715321	2	99475433	1.088	4.658e-7	++	1.063	0.006988	1.12	5.502e-6
rs7585019	2	99443759	1.088	4.777e-7	++	1.062	0.007093	1.12	5.322e-6
rs4851206	2	99434501	0.9194	4.843e-7	--	0.9414	0.007328	0.8932	5.649e-6
rs3774354	3	52792715	0.9165	5.188e-7	--	0.9485	0.02175	0.8757	5.429e-7
rs502268	6	152810489	0.9195	6.168e-7	--	0.9548	0.04053	0.8775	2.201e-7
rs12464785	2	99305374	0.9195	6.181e-7	--	0.936	0.003534	0.8997	0.00002524
rs527021	6	152809887	1.088	6.214e-7	++	1.047	0.04022	1.14	2.012e-7
rs2300149	3	52797961	0.9177	6.265e-7	--	0.9525	0.03356	0.874	2.859e-7
rs2286798	3	52796217	1.09	7.012e-7	++	1.053	0.026	1.142	6.197e-7
rs214993	6	152807879	1.088	7.253e-7	++	1.048	0.03857	1.139	3.209e-7
rs6990255	8	34246490	1.223	8.121e-7	++	1.182	0.002625	1.272	0.00006347
rs4650608	1	79010603	1.09	8.493e-7	++	1.069	0.004563	1.118	0.00002449

rs2609653	8	34356534	0.8357	8.924e-7	--	0.8758	0.008022	0.792	0.00001318
rs6580698	12	47764925	0.9204	9.129e-7	--	0.9412	0.007374	0.8944	0.00001202
rs17022433	2	99240090	1.086	9.153e-7	++	1.062	0.0074	1.115	0.00001321
rs6580699	12	47765079	0.9209	1.091e-6	--	0.9417	0.007741	0.895	0.0000137
rs10791889	11	66250401	0.9116	1.155e-6	--	0.9302	0.004298	0.8885	0.00003753
rs1955393	2	99252733	1.085	1.204e-6	++	1.062	0.007727	1.113	0.00001624
rs7969091	12	47750716	0.9207	1.263e-6	--	0.9434	0.01045	0.8926	0.00001021
rs10875914	12	47708361	0.9189	1.402e-6	--	0.9432	0.01224	0.8882	7.974e-6
rs7930203	11	66340335	1.096	1.502e-6	++	1.075	0.004208	1.123	0.00004946
rs10750790	11	66338786	1.096	1.555e-6	++	1.074	0.004711	1.124	0.00004819
rs6591222	11	66307719	0.9128	1.675e-6	--	0.9303	0.004514	0.8908	0.00005881
rs4930390	11	66316599	1.095	1.723e-6	++	1.074	0.004674	1.123	0.00005395
rs901596	2	99254889	1.083	1.801e-6	++	1.06	0.009767	1.112	0.00001959
rs12821008	12	47760872	1.087	0.00000195	++	1.058	0.01525	1.124	8.435e-6
rs7597593	2	185241825	1.086	2.037e-6	++	1.064	0.007512	1.113	0.00003635
rs10783302	12	47784397	1.092	2.135e-6	++	1.066	0.01382	1.12	0.00002029
rs1203233	6	152756299	1.085	2.163e-6	++	1.037	0.1181	1.146	1.024e-7
rs9825823	3	61057193	1.083	2.469e-6	++	1.1	0.00002906	1.063	0.01499
rs861271	3	99254426	0.9226	2.673e-6	--	0.8987	3.502e-6	0.9535	0.06528
rs20585	6	152756139	1.084	2.811e-6	++	1.036	0.1292	1.145	1.106e-7
rs10255295	7	137509306	0.873	3.023e-6	--	0.9053	0.01172	0.8362	0.00003094
rs2071506	3	52801316	1.085	3.236e-6	++	1.051	0.03118	1.131	4.168e-6
rs1076425	3	52800502	1.085	3.236e-6	++	1.051	0.03414	1.131	3.509e-6
rs214944	6	152754445	1.084	3.261e-6	++	1.035	0.1381	1.145	1.133e-7
rs522437	6	152760911	0.9228	0.00000336	--	0.9656	0.1348	0.8742	1.448e-7
rs1075653	3	52800568	1.085	3.378e-6	++	1.05	0.03616	1.132	3.256e-6
rs2117028	12	47767215	1.116	3.641e-6	++	1.063	0.05775	1.182	1.871e-6
rs9881468	3	52803668	0.9216	3.679e-6	--	0.9511	0.03248	0.8844	4.546e-6
rs2241726	12	47730812	1.085	3.708e-6	++	1.048	0.04589	1.132	2.429e-6
rs4687551	3	52798488	1.084	4.042e-6	++	1.05	0.03671	1.131	4.287e-6
rs9324	3	52800625	1.084	4.173e-6	++	1.05	0.03673	1.13	4.139e-6
rs12580349	12	47722991	0.9211	4.438e-6	--	0.9542	0.05451	0.8837	2.938e-6
rs2071508	3	52801886	0.9227	4.555e-6	--	0.9526	0.0371	0.8848	4.452e-6
rs215001	6	152802599	1.083	4.715e-6	++	1.036	0.1353	1.142	2.907e-7
rs177330	6	152763921	0.924	0.00000473	--	0.9675	0.1589	0.8745	1.553e-7
rs4924287	15	36759469	1.096	4.879e-6	++	1.047	0.09371	1.159	8.022e-7
rs7626688	3	61081361	1.079	5.038e-6	++	1.098	0.00003402	1.057	0.02624
rs11614738	12	47710883	1.085	5.045e-6	++	1.047	0.05812	1.133	2.737e-6
rs10487804	7	86874041	1.155	5.208e-6	++	1.115	0.0112	1.202	0.00007143
rs11594834	10	3857784	0.8992	5.319e-6	--	0.8932	0.00007313	0.9117	0.02278
rs9834970	3	36831034	0.9263	5.412e-6	--	0.9551	0.0446	0.8927	5.459e-6
rs17149539	7	86876010	0.8664	5.462e-6	--	0.8965	0.01125	0.8329	0.00007836
rs2106730	7	90085244	0.9215	5.506e-6	--	0.9019	0.000019	0.9468	0.0426
rs11082423	18	19183992	1.078	5.741e-6	++	1.059	0.01088	1.103	0.00007785
rs4148829	7	86884406	0.867	6.174e-6	--	0.8961	0.01094	0.8344	0.00009462
rs7328941	13	107362193	0.8829	6.639e-6	--	0.9146	0.01625	0.8451	0.00004908
rs525210	6	152794017	0.9261	6.639e-6	--	0.9645	0.1171	0.8819	7.106e-7
rs11761050	7	86879792	1.153	6.789e-6	++	1.115	0.01137	1.198	0.00009526
rs17149547	7	86881166	0.8675	0.00000679	--	0.8967	0.01147	0.8349	0.0000996
rs9830950	3	61097358	1.08	7.112e-6	++	1.112	0.00000439	1.042	0.1038
rs10875912	12	47703211	0.9219	7.141e-6	--	0.9543	0.05592	0.8843	0.00000485
rs7788404	7	86885749	0.8681	7.416e-6	--	0.8989	0.01337	0.834	0.00008968
rs877483	3	53821781	0.9249	7.457e-6	--	0.9453	0.01829	0.9018	0.00005402
rs214978	6	152773091	0.9248	7.739e-6	--	0.9655	0.1385	0.8784	5.723e-7
rs12456691	18	19186720	0.9284	8.639e-6	--	0.9474	0.0161	0.9057	0.00007152
rs11168827	12	47705944	1.082	8.752e-6	++	1.046	0.05404	1.128	5.798e-6
rs13398149	2	232273125	1.117	8.828e-6	++	1.153	0.00003045	1.077	0.03933
rs214997	6	152804282	0.9273	9.632e-6	--	0.9649	0.1213	0.8841	0.00000113

rs553642	6	152793251	1.079	0.00000967	++	1.037	0.1165	1.131	1.117e-6
rs2293445	12	47685129	1.081	0.00001008	++	1.046	0.05904	1.128	5.927e-6
rs214952	6	152764408	0.9277	0.00001022	--	0.963	0.101	0.8872	0.00000209
rs650018	6	153375021	0.9296	0.00001029	--	0.9497	0.02075	0.9055	0.00005616
rs2314133	4	162531606	0.9022	0.00001087	--	0.938	0.03368	0.8501	0.00001281
rs10783299	12	47676944	0.925	0.0000109	--	0.9554	0.05369	0.8868	7.743e-6
rs3617	3	52808845	0.9277	0.00001119	--	0.9465	0.01489	0.9032	0.00009776
rs1274726	12	47787665	0.9196	0.00001133	--	0.9407	0.02044	0.8972	0.00008706
rs10510760	3	52625388	0.9246	0.0000114	--	0.9485	0.02643	0.8948	0.00003863
rs503366	6	153375243	0.93	0.00001154	--	0.9499	0.02145	0.9061	0.0000643
rs4145049	11	83932041	1.142	0.00001184	++	1.087	0.04159	1.21	0.00001895
rs214987	6	152775286	1.077	0.00001194	++	1.038	0.1066	1.127	2.155e-6
rs4666644	2	181463674	1.17	0.00001226	++	1.087	0.09351	1.27	4.544e-6
rs12703863	7	146283095	1.079	0.00001249	++	1.054	0.02448	1.11	0.0000571
rs2071044	3	52822641	0.9278	0.00001317	--	0.9491	0.02201	0.9004	0.00006016
rs893363	3	53822102	1.08	0.00001325	++	1.054	0.0295	1.11	0.00005737
rs6737601	2	232280625	1.099	0.00001347	++	1.128	0.00003406	1.063	0.06074
rs12407717	1	30198601	1.115	0.00001566	++	1.15	0.00004098	1.074	0.05824
rs544863	6	152770507	1.077	0.00001572	++	1.042	0.07922	1.12	8.406e-6
rs17807611	11	83916547	1.14	0.00001576	++	1.082	0.05499	1.211	0.00001792
rs6445194	3	61086235	0.9297	0.00001722	--	0.9048	8.693e-6	0.9635	0.1494
rs13031974	2	181465938	0.8556	0.00001731	--	0.9225	0.1065	0.7871	5.544e-6
rs940455	7	146294501	0.928	0.00001763	--	0.9521	0.03588	0.8992	0.0000422
rs4687657	3	52827578	0.9218	0.0000179	--	0.9636	0.1422	0.8707	1.398e-6
rs1381171	1	60815186	0.9289	0.00001792	--	0.956	0.05324	0.8974	0.0000214
rs1572358	1	60829213	0.9285	0.00001859	--	0.95	0.02939	0.9033	0.00007586
rs731831	3	52511554	0.9254	0.00001885	--	0.9518	0.04036	0.8921	0.00003311
rs702909	2	65620751	1.077	0.00001889	++	1.046	0.05499	1.117	0.00002115
rs2239547	3	52830269	1.084	0.00001959	++	1.039	0.1343	1.145	2.094e-6
rs3845817	2	65612029	1.077	0.00001983	++	1.029	0.2297	1.137	5.729e-7
rs10081247	7	146231271	0.9288	0.00001997	--	0.9502	0.02884	0.9033	0.00008217
rs11695646	2	232293051	1.091	0.00002021	++	1.116	0.00004305	1.057	0.07851
rs11678288	2	65628191	0.929	0.0000203	--	0.9651	0.1265	0.8859	2.875e-6
rs2271893	2	96769167	0.927	0.00002075	--	0.9682	0.174	0.8761	9.653e-7
rs13003991	2	65626460	1.076	0.00002093	++	1.036	0.1293	1.128	2.848e-6
rs4949232	1	30183089	0.8985	0.00002219	--	0.8724	0.00005759	0.932	0.06258
rs6746896	2	96774676	1.077	0.00002262	++	1.031	0.188	1.141	7.488e-7
rs127196	6	152769024	1.075	0.00002294	++	1.039	0.09662	1.121	7.857e-6
rs12703869	7	146299484	0.929	0.00002339	--	0.9508	0.03162	0.9028	0.0000822
rs7174485	15	36765002	0.9186	0.00002339	--	0.9669	0.2193	0.8656	1.004e-6
rs7740022	6	152843902	1.107	0.0000234	++	1.061	0.06907	1.162	0.00001909
rs10776799	1	115674570	0.9103	0.00002516	--	0.947	0.05959	0.8587	0.00001421
rs702919	2	65625795	1.076	0.00002568	++	1.043	0.07059	1.118	0.00001682
rs2623981	6	152883711	1.081	0.0000261	++	1.028	0.268	1.155	2.968e-7
rs7236560	18	54819490	1.075	0.00002699	++	1.049	0.04099	1.106	0.00007256
rs4263076	2	181487924	0.8525	0.00002761	--	0.923	0.1272	0.7805	7.539e-6
rs832095	3	99254697	0.9264	0.00002813	--	0.8992	0.00001485	0.9615	0.1509
rs3845816	2	65611859	1.075	0.00002944	++	1.027	0.2483	1.135	7.452e-7
rs2172835	15	36777463	0.9274	0.00002974	--	0.9682	0.1841	0.8793	1.841e-6
rs17053472	3	53763772	0.9318	0.00003005	--	0.957	0.05083	0.8999	0.00004024
rs7095688	10	61379989	0.8132	0.00003072	--	0.8765	0.04828	0.7412	0.00005415
rs3911862	2	65613175	1.073	0.00003088	++	1.037	0.1139	1.118	9.188e-6
rs6755895	2	232288039	1.089	0.0000317	++	1.117	0.00004024	1.052	0.1059
rs7643404	3	99254293	0.927	0.00003522	--	0.8953	7.213e-6	0.9681	0.2379
rs702891	2	65611954	0.9302	0.00003547	--	0.9672	0.1583	0.8874	4.229e-6
rs12912251	15	36773660	0.928	0.00003569	--	0.9697	0.206	0.8791	1.902e-6
rs9371604	6	152867915	1.108	0.00003595	++	1.067	0.05556	1.157	0.00006388
rs6758984	2	181406381	0.859	0.00003808	--	0.9066	0.05205	0.807	0.0000756

rs31674	7	86906400	1.087	0.00003922	++	1.055	0.05414	1.127	0.00007127
rs12903120	15	36775389	0.9287	0.00004156	--	0.9701	0.2096	0.8799	2.084e-6
rs7894427	10	61339234	0.8133	0.00004188	--	0.874	0.04746	0.7448	0.00008806
rs2072107	6	30274914	1.101	0.00004274	++	1.143	0.00002872	1.053	0.1372
rs31676	7	86907816	1.087	0.00004356	++	1.053	0.06478	1.129	0.0000574
rs2440915	10	61343778	1.228	0.00004377	++	1.144	0.04653	1.339	0.00009747
rs10889187	1	60783346	1.073	0.00004438	++	1.04	0.09445	1.114	0.00002556
rs4789	3	36844443	0.9341	0.00004529	--	0.9576	0.05463	0.9058	0.00007541
rs11207633	1	60779770	0.9322	0.00004648	--	0.9621	0.09779	0.8974	0.00002374
rs1382751	4	11747925	0.9325	0.0000466	--	0.9598	0.07489	0.8992	0.0000382
rs6769842	3	99234887	0.9293	0.00004774	--	0.9012	0.00001722	0.9656	0.1943
rs832067	3	99236860	0.9297	0.00005032	--	0.9014	0.00001784	0.9658	0.1965
rs12644947	4	87240962	1.072	0.00005043	++	1.035	0.1356	1.122	0.00000926
rs2577831	3	52603096	0.9338	0.00005111	--	0.9618	0.08438	0.8993	0.00003181
rs17138171	11	78740578	0.9155	0.00005232	--	0.9769	0.4303	0.8482	3.247e-7
rs7083127	10	18671451	0.9239	0.00005318	--	0.9591	0.1117	0.8816	0.00001789
rs7594838	2	99433986	1.069	0.00005507	++	1.043	0.05956	1.103	0.00008979
rs7567674	2	99434010	1.069	0.00005692	++	1.042	0.06313	1.104	0.00006858
rs13083798	3	52624788	1.07	0.00005834	++	1.039	0.08895	1.111	0.00003222
rs11237799	11	78745120	0.9161	0.00005879	--	0.9758	0.4083	0.8503	4.56e-7
rs1684918	10	61358959	0.818	0.00005907	--	0.8836	0.06667	0.7446	0.00007562
rs10172752	2	99435817	0.9355	0.00005927	--	0.9592	0.06156	0.9067	0.00008555
rs7093791	10	18663469	0.9259	0.0000596	--	0.9553	0.07667	0.8907	0.00005528
rs3087386	2	99421938	0.9355	0.00006015	--	0.9593	0.06211	0.9067	0.0000856
rs702938	2	65600946	0.9323	0.00006023	--	0.966	0.1437	0.8935	0.0000143
rs7932890	11	78746042	0.9164	0.00006034	--	0.979	0.4732	0.8479	2.823e-7
rs12916379	15	36778812	1.075	0.00006046	++	1.03	0.2229	1.133	3.133e-6
rs3792146	2	99417954	1.069	0.00006106	++	1.043	0.0608	1.102	0.00009491
rs6714244	2	99471744	0.9356	0.00006109	--	0.96	0.06796	0.906	0.00007206
rs10872455	6	136317780	0.9335	0.00006504	--	0.9696	0.1855	0.8917	7.652e-6
rs9376172	6	136374051	0.9331	0.00006794	--	0.9678	0.1641	0.893	0.00001118
rs10889182	1	60770783	0.9335	0.00006938	--	0.962	0.09901	0.9002	0.00004471
rs4896187	6	136323537	1.071	0.00007147	++	1.033	0.1706	1.119	0.00001223
rs832052	3	99248875	0.9313	0.00007222	--	0.9011	0.000016	0.9702	0.2606
rs1694834	3	99242339	0.9311	0.00007312	--	0.9012	0.00001653	0.9695	0.2492
rs10889184	1	60778638	1.071	0.00007329	++	1.039	0.1003	1.111	0.00004535
rs12190806	6	136326024	0.9338	0.00007504	--	0.9681	0.166	0.894	0.00001288
rs12138423	1	60759161	1.072	0.00007528	++	1.039	0.1067	1.112	0.00003926
rs9402782	6	136374922	1.071	0.00007606	++	1.033	0.1752	1.119	0.00001294
rs10501439	11	78763494	0.9123	0.0000779	--	0.9717	0.3641	0.8469	1.241e-6
rs7751588	6	152839046	1.1	0.00007854	++	1.053	0.1144	1.156	0.00003789
rs17033706	1	115679147	1.101	0.0000827	++	1.056	0.1007	1.156	0.00005696
rs9261567	6	30293223	0.912	0.00008334	--	0.8778	0.0000429	0.9542	0.1752
rs2132157	15	36779839	1.073	0.0000867	++	1.032	0.1955	1.125	0.00001078
rs11154835	6	136326169	1.07	0.00008995	++	1.033	0.1682	1.116	0.00001941
rs2590838	3	52597126	0.9361	0.00009063	--	0.9651	0.1157	0.9011	0.0000397
rs9397510	6	152838758	1.098	0.00009262	++	1.053	0.1124	1.153	0.00004903
rs2327665	6	136308009	0.9346	0.00009422	--	0.9703	0.1983	0.894	0.00001252
rs2018448	6	136313220	0.9345	0.00009546	--	0.9709	0.209	0.8929	0.00001005
rs2623932	6	152890591	0.9348	0.00009731	--	0.986	0.5416	0.8733	2.029e-7
rs1944449	11	78760897	1.094	0.00009845	++	1.025	0.427	1.181	9.865e-7
rs4254999	6	136353556	0.9343	0.0000987	--	0.9672	0.1589	0.8957	0.00002255
rs2710323	3	52790945	1.068	0.0001024	++	1.039	0.09002	1.107	0.00007471
rs3865353	17	5301799	0.9359	0.0001048	--	0.9681	0.1596	0.8983	0.0000249
rs17138230	11	78753500	0.9195	0.0001072	--	0.9818	0.5326	0.8509	4.479e-7
rs1108842	3	52695120	1.067	0.0001131	++	1.035	0.1216	1.109	0.0000424
rs12576775	11	78754841	0.9199	0.0001139	--	0.9818	0.5317	0.8515	5.043e-7
rs6856121	4	11728958	1.069	0.0001148	++	1.031	0.1978	1.116	0.00001922

rs3865350	17	5322591	0.9367	0.0001169	--	0.9649	0.117	0.9029	0.00005792
rs12990097	2	46948709	1.072	0.0001203	++	1.101	0.00009297	1.039	0.1616
rs1547117	20	15929119	0.9366	0.0001217	--	0.9151	0.00007734	0.967	0.2016
rs1866599	2	232434544	0.9286	0.000124	--	0.9016	0.00004711	0.9661	0.2433
rs12457996	18	39126271	1.08	0.0001263	++	1.121	0.00002075	1.03	0.3177
rs1418340	6	136301289	0.9352	0.0001271	--	0.974	0.269	0.8915	0.00000846
rs4896189	6	136330637	0.9359	0.0001291	--	0.9698	0.1903	0.8966	0.00002234
rs1479255	4	11733202	1.069	0.0001299	++	1.03	0.2041	1.116	0.00001863
rs4482754	4	87230328	1.066	0.0001339	++	1.029	0.2141	1.112	0.0000186
rs17615758	12	115535419	0.8902	0.0001342	--	0.934	0.07674	0.8223	0.00008105
rs1365593	15	24318276	0.9342	0.0001347	--	0.8948	3.737e-6	0.9852	0.5769
rs7496809	15	36774672	1.068	0.0001365	++	1.031	0.1849	1.115	0.00002423
rs6542847	2	98939903	0.939	0.0001382	--	0.9728	0.2138	0.8988	0.00001502
rs12290811	11	78761268	1.092	0.0001385	++	1.02	0.5179	1.182	8.064e-7
rs7647854	3	186359477	0.9131	0.0001409	--	0.8546	8.538e-7	0.9935	0.8561
rs6810413	4	87185127	1.065	0.0001471	++	1.026	0.2576	1.115	0.00001195
rs13094687	3	52425083	1.071	0.0001472	++	1.039	0.1089	1.117	0.00006991
rs2272088	3	52432013	1.071	0.0001472	++	1.039	0.1129	1.117	0.00007337
rs764240	4	166795349	0.9362	0.0001485	--	0.9742	0.2667	0.8924	0.00001008
rs11700097	20	15919797	0.9303	0.0001496	--	0.9013	0.00004135	0.9697	0.2862
rs954129	11	78738444	1.082	0.0001502	++	1.022	0.4539	1.156	2.253e-6
rs7662249	4	11734112	0.9364	0.000152	--	0.9703	0.2012	0.898	0.00002735
rs4523899	15	24317742	0.9344	0.0001536	--	0.8952	4.144e-6	0.9853	0.5797
rs281408	19	53925218	0.9385	0.0001614	--	0.9691	0.1659	0.9023	0.00004279
rs264501	12	128725658	0.9254	0.0001657	--	0.8821	3.036e-6	0.9901	0.7558
rs1469869	4	87209051	1.065	0.0001672	++	1.025	0.2776	1.115	0.00001187
rs3775187	4	87202256	0.9391	0.0001705	--	0.9759	0.2801	0.8967	0.00001111
rs973579	19	53933788	0.9376	0.0001727	--	0.9674	0.1412	0.8978	0.00004849
rs11237796	11	78737092	0.9248	0.0001769	--	0.9782	0.4411	0.8675	3.283e-6
rs3905108	9	79416503	1.148	0.0001773	++	1.075	0.1549	1.235	0.00008143
rs2304275	12	47729080	0.931	0.0001777	--	0.9765	0.357	0.8791	0.00000523
rs131686	22	21976953	1.076	0.0001797	++	1.04	0.1133	1.136	0.00005392
rs9937841	16	1260594	1.076	0.0001807	++	1.158	4.137e-7	1.012	0.6442
rs131690	22	21978009	1.076	0.000184	++	1.04	0.1145	1.135	0.00005652
rs2309399	17	5332414	0.9385	0.0001883	--	0.9672	0.1444	0.9038	0.00007264
rs838147	19	53938678	1.066	0.0001889	++	1.032	0.1616	1.116	0.00003782
rs17256183	16	3934697	0.8594	0.0001889	--	0.7804	0.00001969	0.9421	0.2933
rs12502934	4	87233830	0.9392	0.0001909	--	0.9741	0.2483	0.8986	0.00001887
rs11640300	16	3932784	1.163	0.0001913	++	1.282	0.00001625	1.058	0.325
rs883799	6	136303736	1.067	0.0001918	++	1.024	0.3119	1.121	8.733e-6
rs7774640	6	136306858	1.066	0.0001948	++	1.026	0.2704	1.117	0.00001745
rs13112959	4	87217288	0.9399	0.000197	--	0.9762	0.2858	0.8975	0.00001255
rs516246	19	53897984	1.072	0.0001984	++	1.041	0.08221	1.131	0.00009356
rs8045299	16	1256226	0.9291	0.0002025	--	0.8689	7.998e-7	0.9889	0.6856
rs4834882	4	11717337	1.066	0.0002037	++	1.03	0.2004	1.112	0.00003782
rs10028075	4	87186854	1.064	0.0002045	++	1.025	0.2762	1.113	0.00001488
rs838144	19	53942051	0.9382	0.0002074	--	0.969	0.1622	0.8964	0.00004044
rs4896192	6	136359349	1.065	0.0002099	++	1.034	0.1483	1.104	0.00009457
rs8013144	14	66958528	1.231	0.0002105	++	1.334	0.0000948	1.103	0.2571
rs131693	22	21979242	0.93	0.0002138	--	0.9623	0.1236	0.8806	0.00005513
rs9884770	4	87238262	0.9392	0.000214	--	0.9757	0.2825	0.8968	0.00001559
rs9995879	4	87220847	1.064	0.0002155	++	1.023	0.3046	1.115	0.00001156
rs3774609	3	53807943	1.067	0.0002161	++	1.026	0.2638	1.125	0.00001251
rs12511521	4	137240966	0.9076	0.0002166	--	0.9562	0.2027	0.8504	0.00003789
rs12899449	15	36782783	1.069	0.0002191	++	1.027	0.2686	1.124	0.00001728
rs7569367	2	124663415	0.9372	0.0002193	--	0.9754	0.2877	0.8899	0.00001213
rs3810492	20	61690184	1.076	0.00022	++	1.038	0.1568	1.124	0.00007156
rs3774608	3	53807752	0.9368	0.0002209	--	0.974	0.2609	0.8894	0.00001412

rs11641981	16	1253638	0.9289	0.0002241	--	0.8699	1.233e-6	0.9882	0.6697
rs9376168	6	136306714	1.067	0.0002286	++	1.027	0.2636	1.117	0.00002091
rs7558429	2	124660714	0.9373	0.0002445	--	0.9801	0.392	0.8843	4.279e-6
rs17207824	21	14070001	1.128	0.0002482	+-	0.9651	0.6051	1.182	8.719e-6
rs9955650	18	39085635	0.9273	0.0002567	--	0.8958	0.00007707	0.9676	0.2861
rs4965481	15	97763529	0.9331	0.0002571	--	0.9817	0.4713	0.8786	0.00000387
rs2614461	14	98817744	0.9204	0.0002684	--	0.9689	0.2978	0.8617	0.00001504
rs13043255	20	61689360	1.075	0.0002715	++	1.036	0.1894	1.124	0.00007024
rs16977454	18	39116245	0.9296	0.0002728	--	0.8949	0.00003928	0.9742	0.3843
rs4687554	3	52839175	1.075	0.0002738	++	1.037	0.1747	1.125	0.00007826
rs1344706	2	185486673	1.063	0.0002763	++	1.031	0.1733	1.105	0.00007594
rs17520436	14	33813782	0.9343	0.0002771	--	0.9659	0.1695	0.8969	0.00009744
rs2449116	6	152879814	0.9403	0.0002779	--	0.9997	0.9892	0.8702	5.203e-8
rs11667321	19	53942350	1.063	0.0002856	++	1.028	0.2222	1.11	0.00004679
rs2611209	4	166797686	0.9397	0.0002905	--	0.9775	0.3247	0.896	0.00001612
rs16839984	3	134319928	0.9405	0.0002978	--	0.9117	0.00005677	0.976	0.3323
rs3774601	3	53797933	0.9382	0.0002983	--	0.9726	0.2352	0.895	0.00003477
rs6445538	3	52849328	1.074	0.0003078	++	1.035	0.1941	1.125	0.00006848
rs10994359	10	61892113	0.8838	0.0003089	-+	1.043	0.3547	0.7169	1.035e-10
rs1583048	2	185491386	1.084	0.0003116	++	1.032	0.2846	1.161	0.00001584
rs2276817	3	52835976	0.931	0.0003118	--	0.9652	0.1812	0.8892	0.0000865
rs6445539	3	52849336	0.9315	0.0003165	--	0.9665	0.1955	0.8893	0.00007398
rs4659660	1	234619153	0.9109	0.0003172	--	0.8597	0.00001343	0.9799	0.6031
rs9864890	3	134326028	1.063	0.0003182	++	1.095	0.00007841	1.026	0.3057
rs11633450	15	83108291	0.9323	0.0003208	--	0.9713	0.2685	0.887	0.00003592
rs1573815	3	52845172	0.9312	0.0003252	--	0.966	0.1924	0.8892	0.00008333
rs6803519	3	52864811	0.9316	0.0003252	--	0.9683	0.2233	0.8875	0.00005514
rs719260	3	53764212	1.073	0.0003271	++	1.035	0.1858	1.123	0.00008293
rs3733047	3	52846969	0.9311	0.0003301	--	0.9658	0.1908	0.8891	0.00008394
rs7304254	12	115534994	0.8833	0.0003346	--	0.9408	0.1587	0.7899	0.00004183
rs17599989	15	83086540	1.068	0.0003401	++	1.031	0.2172	1.119	0.0000596
rs13083728	3	52843485	0.9314	0.0003401	--	0.9664	0.1968	0.8887	0.00007801
rs729952	10	105342980	0.9404	0.0003415	--	0.9716	0.2132	0.903	0.00007423
rs7636123	3	134324107	0.9411	0.0003442	--	0.9134	0.0000816	0.9752	0.3172
rs3865351	17	5322755	0.9377	0.0003503	--	0.9742	0.2809	0.8945	0.00003338
rs11191741	10	105352094	0.9388	0.0003527	--	0.9704	0.2071	0.9018	0.00008659
rs4862792	4	188438344	1.097	0.000355	++	1.146	0.00008793	1.039	0.3229
rs3774604	3	53799176	0.9376	0.0003605	--	0.9732	0.2561	0.8932	0.00003662
rs2236211	10	105339806	0.9405	0.000363	--	0.9713	0.2082	0.9039	0.00008301
rs13194053	6	27251862	1.08	0.0003643	++	1.036	0.2198	1.139	0.00006507
rs12910012	15	83099666	1.068	0.0003808	++	1.03	0.2307	1.119	0.00006124
rs7918186	10	105340437	0.9408	0.0003822	--	0.9711	0.2048	0.9046	0.00009409
rs1025977	1	234614045	0.9146	0.0003905	--	0.8668	0.00002421	0.9778	0.5532
rs13220008	6	152742658	0.8871	0.0003967	--	0.9587	0.3496	0.803	0.00001778
rs6904071	6	27155235	0.9263	0.0004058	--	0.9642	0.2077	0.8804	0.00009338
rs35524990	15	83059207	1.068	0.0004061	++	1.032	0.206	1.116	0.00009881
rs4659657	1	234612765	1.093	0.0004165	++	1.155	0.00002193	1.021	0.5732
rs4965480	15	97763404	1.067	0.0004194	++	1.016	0.5201	1.132	5.047e-6
rs11637142	15	83096931	1.067	0.0004261	++	1.029	0.2428	1.119	0.00005966
rs2255107	3	53035677	1.076	0.000429	++	1.031	0.2682	1.14	0.00003758
rs10821745	10	61806212	0.8791	0.0004294	-+	1.043	0.3873	0.7099	4.225e-10
rs11025135	11	19407596	0.9354	0.0004323	--	0.9051	0.00009014	0.9744	0.3613
rs11919979	3	153814002	0.9211	0.0004425	--	0.9699	0.3287	0.8629	0.00002844
rs8108136	19	53939505	0.9429	0.0004654	--	0.9763	0.2859	0.9022	0.00004759
rs3818253	20	33060537	1.075	0.0004696	++	1.033	0.2491	1.131	0.0000747
rs9835480	3	134274899	1.061	0.0004719	++	1.1	0.00003198	1.015	0.5545
rs10181724	2	139676278	0.851	0.0004887	--	0.7723	0.00006554	0.942	0.3665
rs8105137	19	53941700	0.9431	0.0004888	--	0.976	0.2803	0.903	0.000056

rs8108468	19	53939598	0.9433	0.0004943	--	0.9763	0.2842	0.9027	0.00005228
rs2141601	3	153806800	0.9218	0.0005019	--	0.9667	0.281	0.8686	0.00005947
rs8111399	19	53939775	0.9431	0.0005059	--	0.976	0.2792	0.9028	0.00005682
rs2134095	1	163644176	1.064	0.0005101	++	1.024	0.3209	1.118	0.00003895
rs8104897	19	53941626	0.9433	0.0005123	--	0.9762	0.2834	0.9032	0.00005749
rs752448	20	33055909	1.075	0.0005173	++	1.032	0.2584	1.131	0.00008288
rs2253795	3	53753915	0.9342	0.0005177	--	0.9706	0.2526	0.8891	0.00007689
rs3748376	15	83129356	0.9374	0.0005194	--	0.971	0.2356	0.8957	0.00009417
rs281393	19	53916296	0.9379	0.0005295	--	0.9778	0.3507	0.8833	0.00001752
rs6088678	20	33071212	1.075	0.000531	++	1.031	0.2736	1.132	0.00006939
rs6120804	20	33087362	1.075	0.000533	++	1.031	0.2749	1.132	0.00006577
rs12982115	19	53940452	1.06	0.0005479	++	1.024	0.2799	1.107	0.00005526
rs6508355	18	21079991	0.9405	0.0005562	--	0.9051	0.00003913	0.9836	0.5273
rs13277065	8	74661989	0.9364	0.0005608	--	0.9055	0.00008753	0.9784	0.4505
rs2307019	19	53936032	0.9436	0.0005748	--	0.9765	0.29	0.9034	0.00006352
rs6989226	8	15710484	1.085	0.0005839	++	1.137	0.00006049	1.025	0.4824
rs7749924	6	30905970	1.105	0.0005935	++	1.168	0.00006156	1.029	0.5176
rs6673040	1	234612516	0.917	0.0005936	--	0.868	0.00003058	0.9809	0.6088
rs6088691	20	33097419	1.074	0.0006106	++	1.031	0.2753	1.13	0.00008973
rs6088662	20	33011294	0.9321	0.0006132	--	0.9707	0.2844	0.887	0.00008836
rs1037023	13	42696406	0.9273	0.0006181	--	0.9694	0.2935	0.8771	0.00007487
rs6024269	20	53664404	1.063	0.0006365	++	1.023	0.3478	1.114	0.0000499
rs3767339	1	163644688	0.941	0.0006415	--	0.9774	0.3338	0.8958	0.00004577
rs966365	1	234624394	1.082	0.0006424	++	1.136	0.00005395	1.023	0.5067
rs2289774	13	42696348	0.9273	0.0006447	--	0.9683	0.2783	0.8784	0.00009621
rs7117597	11	93294739	1.062	0.0006497	++	1.107	0.00002065	1.01	0.7151
rs281381	19	53906560	1.066	0.0006507	++	1.026	0.2883	1.128	0.00004477
rs11247090	15	97763196	1.064	0.0006548	++	1.013	0.586	1.13	7.024e-6
rs10994329	10	61833333	1.133	0.0006565	+-	0.9553	0.3522	1.399	8.284e-10
rs4948417	10	61831624	0.8832	0.0006694	-+	1.048	0.3385	0.7148	7.921e-10
rs9878891	3	153874698	0.9237	0.0006767	--	0.9672	0.2855	0.8717	0.00009114
rs4679989	3	153847384	1.083	0.0006773	++	1.03	0.3382	1.154	0.00004756
rs10489744	1	163647247	1.062	0.0006862	++	1.023	0.3258	1.115	0.00005243
rs6088667	20	33030383	0.9318	0.0006991	--	0.9711	0.2952	0.8852	0.00009202
rs9920182	15	40989842	1.076	0.0007057	++	1.03	0.3184	1.134	0.00008893
rs10501809	11	93305911	0.9417	0.0007155	--	0.9027	0.0000187	0.992	0.763
rs9902174	17	5337537	1.063	0.0007179	++	1.022	0.3778	1.116	0.00004589
rs10765647	11	93302107	1.062	0.0007199	++	1.106	0.00002349	1.01	0.7163
rs9817813	3	134267641	0.9448	0.0007214	--	0.9097	0.00002969	0.9891	0.6599
rs7613502	3	153811415	0.9242	0.0007239	--	0.9698	0.3264	0.8706	0.00007119
rs1540774	3	153842973	1.082	0.000725	++	1.026	0.412	1.158	0.00002897
rs1262775	13	49966576	0.9371	0.0007271	--	0.9761	0.3518	0.8919	0.00006408
rs4487238	3	134273547	0.945	0.0007327	--	0.9108	0.00003695	0.9885	0.6426
rs966364	1	234624551	1.081	0.0007407	++	1.134	0.00006536	1.023	0.4965
rs10994397	10	61949130	1.122	0.0007503	+-	0.9562	0.3281	1.37	8.126e-10
rs9842903	3	153868438	1.082	0.0007551	++	1.033	0.2942	1.146	0.00009808
rs11867311	17	5299395	0.9407	0.000758	--	0.9813	0.4407	0.8937	0.00003078
rs1380459	10	61767337	1.132	0.0007592	+-	0.9524	0.3235	1.403	8.374e-10
rs1040697	20	53664725	1.063	0.0007667	++	1.024	0.3393	1.111	0.00008903
rs17292684	6	154596299	1.127	0.0007897	++	1.049	0.3013	1.247	0.000065
rs10802533	1	234624035	0.9251	0.0007911	--	0.882	0.00006943	0.9781	0.5176
rs1875196	5	1744202	1.265	0.0007973	++	1.49	0.00002456	1.035	0.7405
rs1630605	13	49973386	0.9375	0.0008068	--	0.976	0.3494	0.8931	0.00007589
rs17460690	9	72475408	0.941	0.0008279	--	0.9073	0.00007447	0.9833	0.5342
rs4965479	15	97756786	0.9406	0.0008617	--	0.9846	0.5231	0.8848	0.00001341
rs1953439	14	32542174	1.147	0.0008646	++	1.044	0.4409	1.282	0.0000445
rs9399177	6	136377903	1.064	0.0008761	++	1.023	0.3719	1.119	0.00006977
rs4948412	10	61816582	0.8856	0.0008774	-+	1.051	0.3149	0.7148	8.787e-10

rs12884688	14	41391684	0.946	0.0008774	--	0.9108	0.00003249	0.9909	0.7139
rs7327420	13	22645532	0.9116	0.0008774	--	0.9666	0.3663	0.849	0.00007868
rs3764900	17	4669099	1.076	0.0008807	++	1.111	0.00007228	1.003	0.9359
rs4948418	10	61855500	1.12	0.0008875	+-	0.9691	0.4908	1.352	6.065e-9
rs263918	1	101757520	1.057	0.000897	++	1.021	0.3673	1.104	0.00007739
rs7167392	15	40815884	1.07	0.0009205	++	1.023	0.4156	1.128	0.00006513
rs11204426	20	60480860	1.069	0.0009251	++	1.022	0.4499	1.117	0.00009279
rs8070008	17	5307374	1.062	0.0009396	++	1.018	0.4763	1.117	0.00003689
rs10492859	16	81419315	1.068	0.0009452	++	1.006	0.817	1.157	1.752e-6
rs2841409	1	236990388	1.062	0.0009491	++	1.019	0.4356	1.117	0.00004459
rs17781474	14	41390851	1.057	0.0009873	++	1.097	0.00003588	1.009	0.7146
rs7175582	15	40826355	1.069	0.0009884	++	1.023	0.4194	1.127	0.00007402
rs673604	1	35460402	1.106	0.001045	++	1.024	0.5534	1.222	0.00001638
rs3808943	10	61821021	1.127	0.001047	+-	0.9476	0.2714	1.397	8.439e-10
rs12416052	10	18829273	0.9434	0.001057	--	0.9789	0.3701	0.9002	0.0000881
rs2046575	11	19424007	1.06	0.001073	++	1.1	0.00008778	1.014	0.5942
rs2632010	11	19423296	1.057	0.001082	++	1.098	0.00004574	1.009	0.7157
rs12895832	14	41384303	1.056	0.001085	++	1.097	0.00003701	1.008	0.7374
rs10135546	14	23463870	1.13	0.001104	++	1.024	0.6469	1.257	0.00002283
rs10139204	14	23452745	1.104	0.001122	+-	0.9938	0.88	1.249	6.897e-7
rs3774605	3	53805807	0.944	0.001126	--	0.981	0.4153	0.8976	0.00005908
rs668092	1	35459790	1.104	0.001187	++	1.022	0.594	1.222	0.00001624
rs495838	13	49984108	0.9397	0.001198	--	0.9791	0.4176	0.8944	0.00008902
rs2501299	1	22218234	1.06	0.001201	++	1.102	0.00007034	1.013	0.622
rs9860508	3	134277643	0.9476	0.001206	--	0.9098	0.00002573	0.9961	0.8757
rs11579964	1	222605563	0.9215	0.001218	+-	0.8616	6.971e-6	1.011	0.7716
rs225329	21	42636795	1.069	0.001237	++	1.107	0.00007923	1.005	0.8846
rs7166775	15	40829982	1.066	0.001239	++	1.019	0.4834	1.124	0.00006595
rs4714760	6	44223545	0.945	0.001257	--	0.9807	0.408	0.9028	0.0000951
rs6064254	20	53650750	0.9431	0.001257	--	0.9848	0.5357	0.8956	0.00004078
rs10994308	10	61768958	1.125	0.001279	+-	0.9471	0.2688	1.396	1.338e-9
rs4478240	4	188428510	0.914	0.00128	--	0.8533	0.00002574	0.9935	0.8761
rs8005943	14	42700649	1.092	0.001327	++	1.02	0.6021	1.177	0.00004167
rs7169009	15	40818153	1.066	0.001394	++	1.02	0.4551	1.123	0.00008491
rs6765687	3	52708146	1.073	0.001412	++	1.02	0.494	1.146	0.00004978
rs1354766	11	93277110	1.059	0.001421	++	1.099	0.0000982	1.012	0.6623
rs7182141	15	40849840	0.9383	0.001451	--	0.9805	0.4692	0.891	0.00008994
rs4660532	1	41612784	1.063	0.001455	++	1.013	0.6292	1.127	0.0000284
rs2183696	10	24831387	0.9473	0.001465	--	0.914	0.00008783	0.99	0.6898
rs748108	9	18721160	0.9319	0.001506	--	0.8788	0.0000204	0.9978	0.9463
rs1938526	10	61970389	0.9001	0.001507	-+	1.052	0.2532	0.7368	1.053e-9
rs120963	16	23515571	1.07	0.001558	++	1.019	0.5036	1.136	0.0000664
rs2521760	7	24734008	1.078	0.001586	++	1.019	0.5623	1.151	0.00005954
rs9683403	4	149898860	1.059	0.00159	++	1.103	0.00006478	1.008	0.7564
rs3129322	4	3222650	1.058	0.0016	++	1.103	0.0000382	1.004	0.8738
rs1969253	3	185359206	1.057	0.001629	-+	1.107	0.00001542	0.9976	0.9273
rs10821792	10	61968622	1.11	0.001641	+-	0.9505	0.2519	1.354	1.503e-9
rs12789389	11	93282525	1.059	0.001647	++	1.102	0.00007043	1.008	0.7552
rs9323497	14	66942881	1.125	0.001652	++	1.218	0.00008842	1.019	0.7433
rs4854680	3	134245860	1.054	0.001672	++	1.097	0.00003802	1.003	0.9012
rs13226728	7	143377511	1.058	0.001683	++	1.013	0.6024	1.114	0.00004476
rs9879280	3	134260004	0.9492	0.001691	--	0.9119	0.00003695	0.9967	0.8931
rs4811610	20	53652782	0.9443	0.001694	--	0.9858	0.5619	0.896	0.00005489
rs120962	16	23497487	1.069	0.001698	++	1.018	0.5292	1.136	0.00006844
rs865808	3	185341633	1.056	0.00172	++	1.097	0.00006458	1.005	0.8614
rs10145131	14	23472622	0.8716	0.001767	--	0.9806	0.74	0.7529	0.00001625
rs528213	2	239792013	0.9455	0.001782	--	0.9827	0.4518	0.8939	0.00006562
rs9376166	6	136296352	0.9452	0.001786	--	0.9842	0.5155	0.9002	0.00008861

rs2008209	14	42688372	0.9181	0.00183	--	0.9802	0.5964	0.8539	0.00007442
rs2049149	3	134259591	1.053	0.001834	++	1.097	0.00003449	1.002	0.947
rs9302410	16	23418873	1.068	0.001921	++	1.015	0.6073	1.138	0.00005098
rs2951355	7	143391495	0.9456	0.001941	--	0.9879	0.619	0.8989	0.00005832
rs608678	4	2289144	1.069	0.001951	++	1.019	0.5073	1.147	0.00004969
rs702902	2	65618716	1.069	0.001982	++	1.015	0.6095	1.139	0.00005077
rs4496483	3	134273376	0.95	0.002023	--	0.9123	0.00004166	0.9983	0.9461
rs1568478	3	134243117	1.053	0.002027	-+	1.098	0.00003323	0.9998	0.9936
rs7743905	6	47879173	1.075	0.002055	++	1.135	0.00006845	1.006	0.8766
rs9806254	15	21303599	0.9471	0.002058	--	0.9038	0.00003432	0.997	0.907
rs2951368	7	143383754	1.057	0.002064	++	1.012	0.6174	1.112	0.00005766
rs2951308	7	143398082	1.057	0.002064	++	1.012	0.6376	1.112	0.00006459
rs2097662	16	23430846	1.067	0.002095	++	1.014	0.635	1.138	0.00005036
rs11085829	19	13035312	0.9442	0.002116	--	0.9942	0.8077	0.8657	2.522e-6
rs9841506	3	186336036	1.075	0.002156	-+	1.146	0.00001398	0.9905	0.789
rs722069	16	23414441	1.067	0.002175	++	1.015	0.6008	1.136	0.00006232
rs7124931	11	19424577	0.9481	0.002176	--	0.9116	0.00007855	0.9943	0.827
rs2961144	7	143378803	0.9462	0.002179	--	0.988	0.6226	0.9	0.00007017
rs7741473	6	47857687	1.063	0.002196	++	1.114	0.00005914	1.003	0.914
rs10423745	19	13037815	1.059	0.0022	++	1.006	0.7876	1.156	2.709e-6
rs2239951	16	23412494	1.067	0.002228	++	1.014	0.6162	1.137	0.00005578
rs9558932	13	106471484	0.8894	0.002228	--	0.9735	0.5989	0.7916	0.0000552
rs581362	2	239797022	0.9469	0.002233	--	0.985	0.5143	0.8939	0.00006272
rs1161474	2	239795994	0.947	0.002265	--	0.9849	0.5133	0.8942	0.00006577
rs1077151	19	13012108	1.059	0.002268	++	1.007	0.7816	1.15	4.508e-6
rs11976037	7	143371957	0.9464	0.002284	--	0.9907	0.7047	0.8971	0.00004443
rs7190131	16	23409650	1.067	0.002313	++	1.015	0.6062	1.135	0.00007085
rs1959778	14	25360889	1.114	0.002332	-+	1.236	0.00001032	0.9843	0.7641
rs9473192	6	47879876	1.074	0.002359	++	1.135	0.00006605	1.004	0.9165
rs6553052	4	188427213	0.9207	0.002383	+-	0.8568	0.00002582	1.005	0.9039
rs11074562	16	23407201	1.067	0.002385	++	1.015	0.5969	1.133	0.00008176
rs4968014	16	23431376	1.066	0.002457	++	1.013	0.6435	1.137	0.00005547
rs9399176	6	136344800	0.9483	0.002498	--	0.995	0.8314	0.8925	0.00001668
rs7090837	10	24846637	1.052	0.002501	++	1.094	0.0000924	1.005	0.8494
rs4926298	19	13014035	0.9454	0.002508	--	0.9934	0.7804	0.8701	4.756e-6
rs677488	11	66081338	0.9512	0.002589	--	0.992	0.7198	0.9032	0.00004032
rs7043404	9	112241097	1.054	0.002591	+-	0.9994	0.9807	1.126	0.00000615
rs974699	2	176608336	1.057	0.002597	++	1.008	0.7472	1.119	0.00003949
rs6464573	7	143379031	1.056	0.002599	++	1.012	0.6128	1.109	0.00009781
rs9395320	6	47857498	1.062	0.002605	++	1.113	0.00006779	1.002	0.95
rs4362366	15	21298218	0.9476	0.002617	--	0.905	0.00005729	0.996	0.8763
rs11638103	15	21297489	1.056	0.002642	++	1.106	0.00005344	1.004	0.8841
rs509556	11	66082938	1.051	0.002644	++	1.008	0.709	1.107	0.00003786
rs17145575	16	8248676	0.9396	0.002674	+-	0.8959	0.00005263	1.004	0.9104
rs1957680	14	23523206	0.8569	0.002706	--	0.9765	0.728	0.7218	0.00003094
rs4478239	4	188428300	0.9221	0.002766	+-	0.8547	0.00001865	1.01	0.8005
rs338466	1	109287719	1.051	0.002769	++	1.092	0.00008636	1.003	0.9026
rs7925108	11	65990599	1.052	0.002794	++	1.001	0.9525	1.119	9.044e-6
rs1791687	11	65983760	0.9506	0.002803	--	0.9989	0.9602	0.8938	9.778e-6
rs717998	16	23468272	1.066	0.002825	++	1.013	0.6485	1.135	0.0000704
rs11643602	16	23464410	1.066	0.002825	++	1.013	0.6547	1.135	0.00007565
rs7187920	16	23471002	1.066	0.002825	++	1.013	0.6587	1.135	0.00006796
rs11642395	16	23464062	1.066	0.002825	++	1.013	0.6506	1.135	0.00007442
rs2309249	4	181525164	0.8694	0.002839	--	0.9664	0.5834	0.7568	0.0000924
rs7199108	16	23456302	1.065	0.002881	++	1.013	0.6483	1.134	0.00007592
rs1439670	2	104485026	0.9221	0.002893	--	0.9819	0.614	0.8497	0.00008069
rs9995817	4	92126386	1.08	0.002917	+0	1	0.999	1.179	0.00001248
rs7042161	9	112237084	0.949	0.00292	-+	1.002	0.9481	0.8881	6.002e-6

rs6553051	4	188427111	0.9225	0.002923	+-	0.8584	0.00002988	1.007	0.8645
rs2122003	5	173115968	0.9215	0.002957	+-	0.8642	0.00001529	1.045	0.3531
rs7428	2	85399001	0.9481	0.00303	--	0.9891	0.6394	0.8932	0.00005255
rs4640664	4	87151510	0.9511	0.00324	--	0.9892	0.6309	0.9045	0.00009025
rs9999101	4	118761043	1.061	0.003244	++	1.015	0.5667	1.137	0.00006527
rs4895363	5	118645069	1.063	0.003301	-+	1.124	0.00003148	0.9929	0.8208
rs7780636	7	70664399	0.9076	0.003331	+-	0.8424	0.00004681	1.023	0.6665
rs10974873	9	4933454	1.068	0.003351	++	1.01	0.7178	1.161	0.00002627
rs2072061	16	23448724	1.064	0.003363	++	1.012	0.6815	1.133	0.00008301
rs17221444	4	92891766	0.9337	0.003378	+-	0.8931	0.00007058	1.024	0.5605
rs17018779	4	92953741	0.9102	0.00346	+-	0.8471	0.00005911	1.017	0.736
rs6547611	2	85402150	0.9509	0.003464	--	0.992	0.7265	0.9001	0.00005573
rs8432	11	66056091	1.051	0.003477	+-	0.9991	0.9686	1.118	9.803e-6
rs4982031	14	32547916	0.8633	0.003481	--	0.9973	0.9688	0.7323	0.00002331
rs10485322	6	47885696	1.071	0.003546	++	1.133	0.00009213	1.001	0.9729
rs7743180	6	104235436	0.9202	0.003702	+-	0.853	0.00004692	1.005	0.8989
rs1608962	15	21301783	1.053	0.003777	++	1.102	0.00007188	1.001	0.9765
rs1815739	11	66084671	1.05	0.00383	++	1.009	0.6946	1.104	0.00008846
rs10483422	14	32548256	0.8644	0.003831	--	0.9969	0.9644	0.7347	0.00002871
rs7582249	2	96827256	0.9517	0.003935	-+	1.009	0.682	0.8815	1.422e-6
rs7827290	8	142369497	0.9458	0.00394	--	0.9945	0.8229	0.8754	0.00001531
rs1969260	2	85422321	1.053	0.004047	++	1.008	0.7343	1.123	0.00004386
rs1199575	1	101768685	1.049	0.004144	++	1.006	0.7903	1.104	0.00007074
rs7319070	13	106469793	0.8962	0.004248	--	0.9836	0.7476	0.796	0.00007806
rs1671062	11	66038114	1.049	0.004295	+-	0.9973	0.9058	1.118	0.00001068
rs2295709	6	119273667	0.9433	0.004307	--	0.9993	0.9813	0.8812	0.00002788
rs4446071	2	85396575	0.952	0.004337	--	0.9943	0.8034	0.9001	0.00005665
rs968470	2	96787353	1.05	0.004423	+-	0.9913	0.7023	1.132	1.807e-6
rs7004793	8	23526060	0.9536	0.004512	+-	0.9154	0.00008554	1.003	0.9137
rs6727384	2	96764051	1.05	0.004559	+-	0.9893	0.6344	1.135	1.124e-6
rs6005542	22	26373820	1.053	0.004677	-+	1.107	0.00003774	0.9907	0.7347
rs7142052	14	32545349	1.151	0.004728	+0	1	0.9969	1.348	0.00003951
rs7983510	13	106440165	0.9092	0.004747	--	0.988	0.7905	0.8217	0.00009059
rs12805133	11	66239841	0.9542	0.004955	--	0.9944	0.8013	0.9064	0.0000874
rs10460585	2	85408773	0.952	0.004996	--	0.9935	0.7786	0.8992	0.00007346
rs1362506	17	53007738	0.9486	0.00508	--	0.9925	0.7526	0.8802	0.00003284
rs7608661	2	96823647	1.049	0.005161	+-	0.9904	0.6724	1.132	1.947e-6
rs4982029	14	32546017	1.151	0.005247	++	1.002	0.9812	1.349	0.00005123
rs9489542	6	119279297	0.9447	0.00543	-0	1	0.9995	0.8834	0.00003973
rs6562826	13	73922614	0.9264	0.005681	+-	0.8575	0.00003599	1.019	0.6486
rs11135759	8	23525033	0.9549	0.005755	+-	0.9161	0.00009681	1.005	0.858
rs12124356	1	98734902	1.083	0.005901	-+	1.162	0.00005859	0.9762	0.5931
rs362306	4	3211898	0.9505	0.005925	+-	0.9073	0.00009734	1.005	0.8517
rs2048766	2	239825623	0.947	0.006045	--	0.9974	0.9228	0.8908	0.00007875
rs7573680	2	239834014	1.056	0.006162	++	1.003	0.9205	1.122	0.00008734
rs6712996	2	239829627	0.9471	0.006187	--	0.9967	0.9032	0.8913	0.00009008
rs167567	1	98734519	1.081	0.006193	-+	1.161	0.00005288	0.9735	0.5484
rs2393702	10	62274862	0.9359	0.00651	-+	1.003	0.9239	0.8577	0.00002789
rs843357	3	185344444	1.047	0.006786	-+	1.094	0.000069	0.991	0.7212
rs12151485	2	239841673	1.055	0.00686	++	1.001	0.9607	1.122	0.0000781
rs12703567	7	143412329	0.9459	0.006883	--	0.9968	0.9073	0.887	0.0000944
rs11888437	2	146824532	1.07	0.006918	++	1.003	0.9247	1.16	0.0000763
rs7302440	12	58646216	1.05	0.006969	+-	0.9981	0.9395	1.121	0.00003229
rs843359	3	185343758	1.047	0.006977	-+	1.094	0.00007082	0.9904	0.7038
rs12924026	16	15993154	1.076	0.007051	++	1.01	0.7827	1.184	0.00009169
rs1485991	4	92953313	1.091	0.007139	-+	1.18	0.00006636	0.9665	0.5106
rs4581487	12	58640574	1.05	0.007761	+-	0.9966	0.8896	1.12	0.00003098
rs7566731	2	239832428	0.9485	0.007921	-0	1	0.9922	0.8912	0.00009023

rs794614	6	119326583	0.9471	0.007923	-+	1.004	0.8777	0.8836	0.00004376
rs6479737	10	62278861	1.067	0.007926	+-	0.996	0.9022	1.162	0.0000362
rs11844835	14	32552007	0.8754	0.008021	-+	1.011	0.8781	0.7437	0.00005403
rs12927980	16	15998152	0.9304	0.008158	--	0.993	0.8415	0.8439	0.00008182
rs4247303	2	85407591	1.045	0.008242	++	1.001	0.9796	1.107	0.00007353
rs863615	3	185347557	0.9564	0.008398	+-	0.9134	0.0000698	1.012	0.6346
rs11845143	14	32542096	1.141	0.008635	+-	0.9948	0.9399	1.339	0.00007955
rs10964284	9	19771086	0.9544	0.00884	+-	0.9097	0.00003185	1.031	0.2814
rs2031741	9	19771617	1.048	0.008911	-+	1.099	0.00003709	0.9708	0.3056
rs1709642	3	185364469	1.046	0.008951	-+	1.095	0.0000785	0.9875	0.6231
rs10894573	11	131903443	1.048	0.009093	+-	0.9987	0.9586	1.112	0.00007601
rs7253430	19	1754582	1.138	0.009413	++	1.025	0.6799	1.435	0.00005298
rs11622061	14	78729191	1.045	0.009608	+-	0.9973	0.9078	1.107	0.00006467
rs7280779	21	23006406	0.91	0.009687	-+	1.038	0.4846	0.8064	0.00002021
rs17579503	16	15998302	0.9316	0.009816	--	0.9953	0.8933	0.844	0.00008909
rs11135932	8	26182378	1.045	0.01039	-+	1.102	0.00003623	0.9816	0.4687
rs17004256	21	23014696	0.9106	0.01059	-+	1.043	0.4257	0.8037	0.00001678
rs10791881	11	66075838	0.9531	0.01062	-+	1.009	0.7077	0.8866	0.00002101
rs4937708	11	131901954	1.047	0.01073	+-	0.9983	0.9438	1.11	0.00009697
rs7599598	2	96715567	1.046	0.01086	+-	0.9897	0.6533	1.125	9.744e-6
rs1152786	14	98775707	1.048	0.01101	++	1.003	0.9038	1.123	0.00008729
rs6116408	20	4469289	1.072	0.01102	-+	1.163	0.00005243	0.9737	0.5121
rs6116400	20	4454988	0.9328	0.01124	+-	0.8642	0.00008825	1.022	0.5852
rs6941877	6	13049003	0.8772	0.01126	-+	1.014	0.8342	0.7227	0.00003937
rs1688582	1	101764810	0.9446	0.01128	-+	1.004	0.8835	0.8742	0.00007429
rs10994538	10	62284964	0.94	0.0113	-+	1.013	0.7035	0.8587	0.00002672
rs2370934	14	78723015	0.9576	0.01134	-+	1.004	0.8595	0.9039	0.00007467
rs4899736	14	78728484	0.9576	0.01143	-+	1.004	0.8534	0.904	0.00007633
rs2827687	21	22984163	1.096	0.01159	+-	0.958	0.414	1.241	0.00001802
rs1945429	11	21399598	0.957	0.01177	+-	0.9104	0.00008166	1.014	0.5946
rs4853414	2	78923077	0.9467	0.01193	+-	0.8897	0.00005073	1.029	0.3888
rs7280730	21	23006069	1.095	0.01246	+-	0.9594	0.4333	1.236	0.00002566
rs1933260	6	153421070	0.9555	0.01247	-+	1.005	0.8448	0.8979	0.00007714
rs7747583	6	153413461	1.046	0.01256	+-	0.994	0.8069	1.115	0.00006786
rs17004255	21	22979739	0.9129	0.01301	-+	1.045	0.4131	0.8082	0.00002582
rs759831	16	81421161	0.9563	0.01303	-+	1.01	0.6767	0.8933	0.00002989
rs984071	9	112178851	0.9576	0.01327	-+	1.008	0.7229	0.8999	0.0000494
rs2827684	21	22982716	0.9138	0.01342	-+	1.04	0.4517	0.8122	0.00003721
rs6107476	20	4461311	1.07	0.01353	-+	1.16	0.00006577	0.9716	0.4767
rs1350617	4	118946070	1.043	0.01353	+-	0.9914	0.7079	1.106	0.00005182
rs2926458	10	107238836	0.9131	0.01384	-+	1.01	0.8433	0.8004	0.00007259
rs7761503	6	153413021	0.9561	0.01384	-+	1.006	0.8117	0.8976	0.00007511
rs6116410	20	4470535	1.07	0.01458	-+	1.162	0.00006192	0.9696	0.4476
rs2185027	6	153423315	1.045	0.01496	+-	0.9934	0.7883	1.113	0.00008483
rs6910440	6	153413801	1.045	0.01512	+-	0.994	0.807	1.112	0.0000909
rs2169059	4	118926638	1.042	0.01512	+-	0.9919	0.7201	1.104	0.00007058
rs12648654	4	118915046	1.041	0.01541	+-	0.9912	0.6954	1.105	0.0000547
rs4948267	10	62293820	0.9441	0.01569	-+	1.012	0.7224	0.8694	0.00006914
rs4445584	10	62293938	1.059	0.01579	+-	0.9882	0.7125	1.15	0.00007103
rs7847590	9	109470229	1.049	0.01583	+-	0.9928	0.7853	1.127	0.00007225
rs10994544	10	62289848	1.059	0.01592	+-	0.9888	0.726	1.149	0.00008275
rs7772912	6	119260169	1.055	0.01601	+-	0.9908	0.7582	1.137	0.00009445
rs941519	14	98799716	0.9563	0.01615	-+	1.019	0.4124	0.8538	3.377e-7
rs11153777	6	119238867	1.055	0.01619	+-	0.9873	0.6697	1.142	0.00005584
rs6973399	7	117238360	0.9523	0.01666	-+	1.012	0.6549	0.8677	0.0000124
rs2349433	6	153425448	1.044	0.01693	+-	0.9912	0.7175	1.114	0.00006901
rs2169058	4	118926608	0.961	0.01708	-+	1.009	0.7018	0.9061	0.00007148
rs2295231	6	153407041	0.9571	0.01708	-+	1.008	0.7343	0.8976	0.00008594

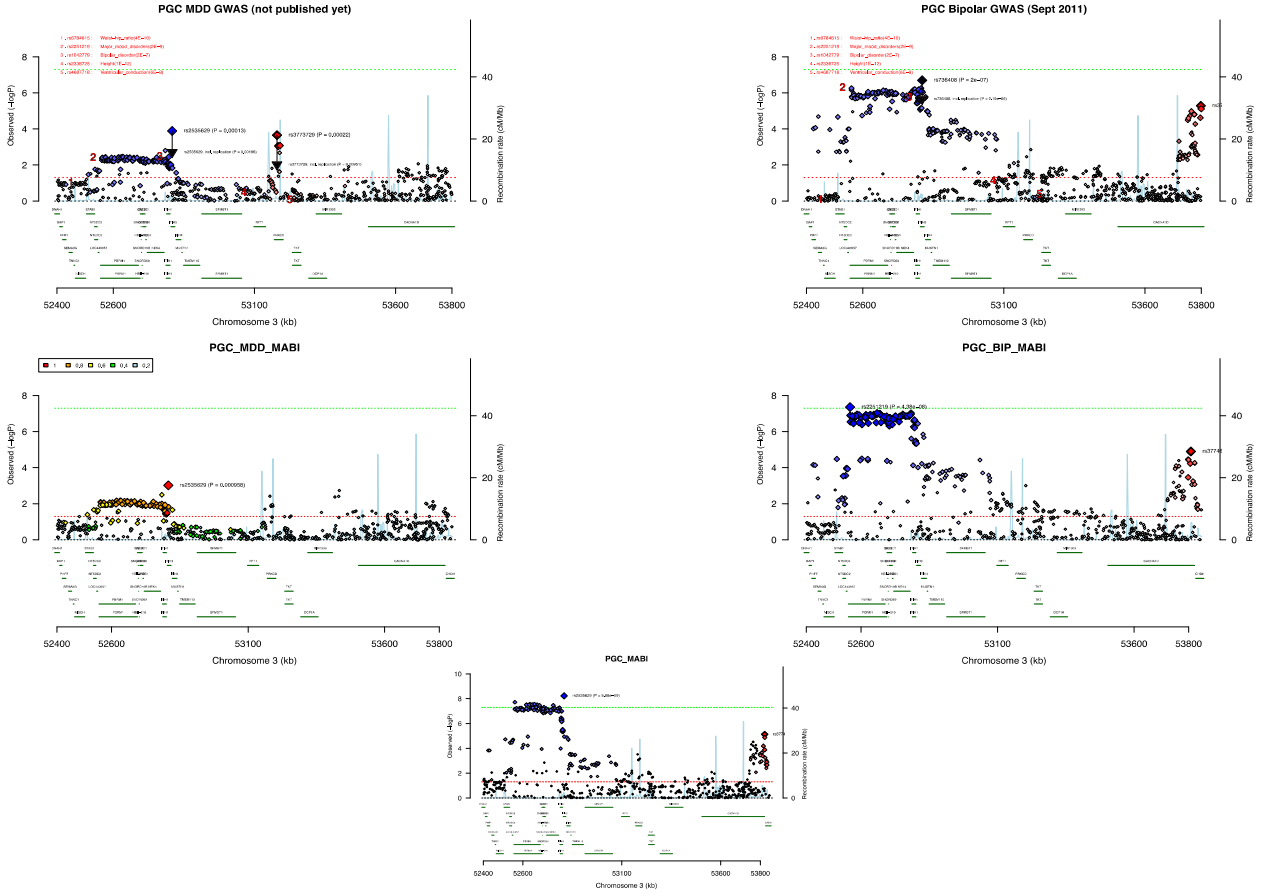
rs10877371	12	58639799	0.9529	0.0171	-+	1.011	0.6847	0.8868	0.00006558
rs362273	4	3197217	1.044	0.01746	-+	1.101	0.00009943	0.9806	0.4673
rs7538873	1	230843180	0.9601	0.01772	-+	1.006	0.778	0.9031	0.00009602
rs11973863	7	42321543	0.8468	0.01805	-+	1.131	0.2006	0.6073	1.328e-6
rs11173235	12	58593474	1.045	0.0181	+-	0.991	0.719	1.116	0.00007781
rs7666568	4	118930112	0.9613	0.01819	-+	1.01	0.655	0.9058	0.00006847
rs6796955	3	16860606	0.922	0.01821	+-	0.8183	0.00001488	1.068	0.2015
rs1023890	4	118920894	1.04	0.01842	+-	0.9907	0.6812	1.103	0.00007837
rs2125709	4	118926872	1.04	0.01888	+-	0.9902	0.6639	1.104	0.00007016
rs9356870	6	23771658	1.072	0.01932	+-	0.9961	0.9154	1.219	0.00005805
rs818442	6	152934431	1.041	0.01947	+-	0.9883	0.6015	1.115	0.00002883
rs2341439	12	121414049	1.046	0.01968	+-	0.9873	0.6225	1.124	0.00005494
rs4585377	4	118924452	0.9618	0.01971	-+	1.009	0.6925	0.9076	0.00009387
rs17110665	5	149255650	0.922	0.02001	+-	0.8381	0.00006735	1.078	0.1855
rs4240309	4	118921458	1.04	0.02021	+-	0.9904	0.6702	1.102	0.00008616
rs11877945	18	20732662	0.9622	0.02128	+-	0.9042	7.617e-6	1.039	0.1282
rs5021355	16	77644298	1.044	0.0214	+-	0.9925	0.7534	1.134	0.00003654
rs10847415	12	121710246	0.9576	0.02147	-+	1.027	0.2869	0.879	4.344e-6
rs1121404	16	77647370	0.9581	0.02186	-+	1.004	0.8714	0.889	0.00008943
rs12606162	18	20733521	1.039	0.02216	-+	1.106	7.929e-6	0.9623	0.1233
rs12193446	6	129861731	1.075	0.02219	+-	0.9833	0.6892	1.205	0.00008863
rs11857508	15	97759511	1.051	0.02248	+-	0.9855	0.6023	1.166	0.00001461
rs10871083	13	73941427	1.042	0.02264	-+	1.102	0.00008734	0.9751	0.3519
rs2175420	11	78801531	1.05	0.02277	+-	0.9841	0.5854	1.134	0.00007694
rs6032092	20	43345300	1.047	0.0228	+-	0.9871	0.6349	1.125	0.00009532
rs7954006	12	121697777	1.044	0.02354	+-	0.9751	0.3243	1.133	0.00000858
rs10184974	2	5477579	1.051	0.0237	-+	1.117	0.00005025	0.9405	0.09542
rs1524483	2	5476464	0.9517	0.02388	+-	0.895	0.00004788	1.064	0.09356
rs1599123	4	118948749	0.9629	0.02428	-+	1.012	0.6124	0.907	0.00008757
rs10814470	9	36890212	1.05	0.02439	-+	1.12	0.00006537	0.9608	0.2254
rs10131783	14	98809961	1.068	0.02461	+-	0.9898	0.7797	1.225	0.00003673
rs2679895	2	105272912	0.9559	0.02468	-+	1.015	0.5954	0.8877	0.00007069
rs6104093	20	43341711	1.046	0.02479	+-	0.9861	0.6025	1.122	0.00009316
rs7181871	15	97757744	1.05	0.02528	+-	0.9842	0.57	1.166	0.00001418
rs3780145	9	36893692	1.044	0.02738	-+	1.107	0.00008901	0.9716	0.3159
rs1567540	11	78801732	0.9542	0.02739	-+	1.018	0.5251	0.8831	0.00008115
rs12714788	3	72739803	1.042	0.0274	-+	1.107	0.00005531	0.967	0.2323
rs920217	2	105271094	0.9569	0.02804	-+	1.016	0.5562	0.8886	0.00008306
rs17678033	3	72740001	1.042	0.02865	-+	1.106	0.00006601	0.9685	0.2537
rs1152793	14	98781147	0.9568	0.02888	-+	1.023	0.3845	0.8634	4.863e-6
rs2576742	2	105265254	1.045	0.02903	+-	0.9843	0.5564	1.125	0.00008576
rs9871548	3	171962037	1.045	0.02918	+-	0.9794	0.4473	1.132	0.00004256
rs6797038	3	16860689	0.9276	0.02928	+-	0.8259	0.00003854	1.069	0.1967
rs2512637	11	78869105	0.9521	0.02983	-+	1.019	0.5264	0.8683	0.0000479
rs2576741	2	105264396	0.9574	0.03027	-+	1.016	0.5658	0.8898	0.00009903
rs16952350	15	66743229	0.8256	0.03124	-+	1.018	0.8668	0.5431	0.00007469
rs1793258	11	132089658	0.9392	0.03208	-+	1.009	0.8005	0.8225	0.00007689
rs6955723	7	129789703	1.049	0.03256	+-	0.9794	0.491	1.141	0.0000771
rs2793323	14	98758651	1.075	0.03298	+-	0.9776	0.603	1.237	0.00006209
rs9371606	6	152919487	0.964	0.0335	-+	1.018	0.4256	0.8954	0.00003043
rs6047657	20	21762130	1.077	0.03472	+-	0.965	0.4521	1.227	0.00007674
rs231082	16	63332570	0.9543	0.03493	-+	1.024	0.4221	0.8771	0.00006921
rs231050	16	63318038	1.048	0.0358	+-	0.9775	0.4496	1.139	0.0000816
rs9319534	16	77648659	0.9601	0.03599	-+	1.014	0.5653	0.8724	0.00002302
rs6047646	20	21748510	0.9293	0.03601	-+	1.037	0.4481	0.8144	0.00007522
rs7168514	15	66742522	0.8304	0.03603	-+	1.026	0.8119	0.5438	0.00007334
rs13109387	4	134186399	0.9652	0.03615	+-	0.91	0.00004607	1.033	0.1883
rs17487665	16	63364956	0.9542	0.03658	-+	1.024	0.4332	0.8766	0.00007625

rs231073	16	63327277	0.9549	0.03815	-+	1.023	0.44	0.8791	0.00009464
rs2776857	1	226490270	0.9009	0.03863	-+	1.056	0.4212	0.7332	0.00004942
rs17494512	16	63378755	1.047	0.03875	+-	0.9764	0.4274	1.138	0.00008817
rs231051	16	63318297	0.955	0.03882	-+	1.024	0.4222	0.8787	0.00008989
rs17410049	16	63383267	1.047	0.03887	+-	0.9742	0.3857	1.141	0.00006171
rs231053	16	63319927	1.047	0.03908	+-	0.9775	0.4492	1.137	0.00009807
rs13122167	4	134161677	0.9654	0.03944	+-	0.9126	0.00008753	1.031	0.2216
rs231105	16	63343720	1.047	0.03946	+-	0.9761	0.4209	1.138	0.00008244
rs231088	16	63334779	1.047	0.03946	+-	0.9761	0.4211	1.138	0.00008457
rs4380451	3	32304501	0.9608	0.04019	-+	1.021	0.4239	0.8909	0.00007643
rs231092	16	63337858	1.047	0.04043	+-	0.9757	0.4142	1.138	0.00009037
rs648102	12	127952571	1.037	0.04071	-+	1.097	0.00008032	0.9662	0.1913
rs1424002	16	63384911	1.046	0.04219	+-	0.9741	0.3839	1.14	0.00007616
rs13165263	5	83529283	1.049	0.04287	+-	0.9769	0.4444	1.157	0.00006039
rs1364218	16	63380873	1.046	0.04457	+-	0.9739	0.3799	1.139	0.00008208
rs132825	22	43926478	1.049	0.04505	+-	0.9745	0.4184	1.147	0.00009975
rs7248493	19	63402920	1.042	0.04534	+-	0.9679	0.2433	1.139	0.00002149
rs10425685	19	63394897	1.042	0.04658	+-	0.9681	0.2507	1.139	0.00002548
rs4488950	4	134197278	1.034	0.04658	-+	1.095	0.00008087	0.9676	0.1842
rs4864173	4	134147077	1.035	0.04735	-+	1.099	0.00008205	0.9666	0.1871
rs17019478	4	134200024	0.9672	0.04755	+-	0.9131	0.00007792	1.034	0.1724
rs142058	16	63324444	1.049	0.04826	+-	0.9684	0.3305	1.155	0.00006231
rs4623020	4	134200046	0.9673	0.04881	+-	0.9131	0.00007686	1.034	0.1797
rs12151036	19	63406047	0.9603	0.04967	-+	1.035	0.2145	0.877	0.00001921
rs12648076	4	134214431	1.033	0.05137	-+	1.095	0.00007717	0.9654	0.155
rs231110	16	63353743	0.9574	0.05144	-+	1.029	0.3432	0.8781	0.00008673
rs2288937	19	10201912	0.9453	0.05263	-+	1.021	0.5639	0.8043	0.00002064
rs12466929	2	217688678	0.9282	0.05342	-+	1.004	0.9277	0.736	0.00006396
rs6840712	4	134207211	1.034	0.05408	-+	1.097	0.0000765	0.9638	0.1468
rs10224183	7	11466259	0.948	0.05591	-+	1.031	0.3987	0.8449	0.00009041
rs7700535	5	85671585	1.048	0.05593	-+	1.141	0.00006586	0.9447	0.1178
rs17639568	19	13018540	1.039	0.05942	+-	0.988	0.6297	1.149	0.00008303
rs11099232	4	134221805	1.032	0.06287	-+	1.094	0.0000786	0.963	0.127
rs1423989	16	63435352	0.957	0.06509	-+	1.04	0.2344	0.87	0.00006669
rs16915196	10	62029865	0.957	0.0698	-+	1.069	0.04181	0.8357	6.871e-7
rs10994429	10	62041085	1.045	0.07001	+-	0.9371	0.0459	1.196	8.299e-7
rs7675895	4	134222051	0.9702	0.07022	+-	0.9143	0.00008541	1.04	0.1113
rs16915231	10	62045052	1.044	0.07193	+-	0.9369	0.04434	1.194	8.976e-7
rs9676249	18	71215604	0.9694	0.07223	-+	1.03	0.2084	0.8993	0.00004342
rs6947314	7	3052837	1.076	0.07362	+-	0.9353	0.2222	1.28	0.00005469
rs9921688	16	77649584	0.966	0.07406	-+	1.018	0.4693	0.8815	0.0000859
rs9851496	3	172002440	1.039	0.07458	+-	0.9653	0.2252	1.136	0.00006473
rs11786212	8	142379839	0.9691	0.0747	-+	1.028	0.2276	0.8883	0.00001934
rs8100377	19	9003925	1.051	0.07999	+-	0.9658	0.3249	1.231	0.00001682
rs1152790	14	98780596	1.03	0.08052	+-	0.9697	0.1795	1.11	0.00004156
rs2028564	10	62054378	0.9588	0.08168	-+	1.069	0.0406	0.8384	1.045e-6
rs1152795	14	98784510	1.03	0.08179	+-	0.968	0.1635	1.112	0.00003779
rs1424003	16	63384985	1.043	0.0818	+-	0.9602	0.2163	1.152	0.00008677
rs7141044	14	98786661	1.03	0.08319	+-	0.969	0.1682	1.107	0.0000485
rs7693366	4	134220978	1.029	0.0875	-+	1.095	0.00009279	0.9599	0.09976
rs7632259	3	172009326	1.037	0.08941	+-	0.9635	0.2015	1.134	0.0000854
rs6007466	22	43909540	1.034	0.09097	+-	0.9749	0.3138	1.13	0.00008362
rs1152792	14	98781084	1.029	0.09115	+-	0.9685	0.1615	1.109	0.0000459
rs1540667	16	17733862	1.044	0.1064	+-	0.9748	0.4329	1.214	0.00005376
rs6960076	7	153809121	0.9486	0.1065	-+	1.022	0.5717	0.7763	0.0000555
rs2693698	14	98788972	0.9723	0.108	-+	1.028	0.2183	0.8965	0.00006534
rs573140	1	230643904	1.034	0.1149	+-	0.9619	0.1638	1.137	0.00005589
rs11236507	11	75122253	1.043	0.1169	+-	0.9455	0.122	1.17	0.00006182

rs4390476	13	83496571	0.9403	0.1347	-+	1.095	0.09052	0.7579	0.00001492
rs2389380	4	118716851	0.9637	0.1369	-+	1.036	0.2553	0.8534	0.00009707
rs10150710	14	98789433	1.028	0.1404	+-	0.9699	0.2023	1.138	0.00004124
rs7606067	2	144194221	1.025	0.1473	+-	0.9658	0.1286	1.108	0.00008523
rs6839718	4	118717942	0.9651	0.1536	-+	1.039	0.2195	0.8527	0.0000886
rs4881466	10	5532109	1.027	0.1644	+-	0.9521	0.0571	1.123	0.00003634
rs7831477	8	142385020	1.024	0.1855	+-	0.9664	0.1372	1.116	0.00009786
rs6757588	2	144184693	0.9778	0.1998	-+	1.053	0.02705	0.8924	0.00001383
rs4618585	7	18037725	0.9782	0.2131	-+	1.047	0.05417	0.9021	0.00008559
rs12030813	1	190017895	0.9745	0.2182	-+	1.062	0.03422	0.8797	0.00003515
rs4955755	3	171977103	1.024	0.2189	+-	0.9507	0.0464	1.125	0.00003726
rs10494663	1	190042701	0.9787	0.3023	-+	1.064	0.02803	0.8859	0.00008646
rs10921018	1	190025153	0.9794	0.3159	-+	1.066	0.02408	0.8858	0.00008015
rs6708276	2	144158620	0.9833	0.3311	-+	1.059	0.01373	0.8992	0.00003648

SNP positions according to NCBI Build 36/UCSC hg18. OR=odds ratio. Direction means direction of effect (“-“ for OR<1 and “+” for OR>1).

FIGURE S20. MDD-BIP CROSS-DISORDER ANALYSIS FOCUSING ON CHR3:52 MB



MDD and BIP primary analyses (upper left and right). MDD and BIP analyses after removal of overlapping subjects (middle left and right). Combined, cross-disorder analysis (lower middle).

TABLE S21. REGIONAL ASSOCIATIONS FOR SECONDARY ANALYSES

Female sex

SNP	Chr	Bp	P	OR	SE	Genes ± 300 kb
rs1969253	3	185359206	0.00000476	1.095	0.0197	HTR3D,HTR3C,HTR3E,EIF2B5,DVL3,AP2M1,ABCF3,VWA5B2,MIR1224,ALG3,ECE2,CAMK2N2
rs7336437	13	81383702	0.000007186	1.101	0.0214	-
rs7245865	19	39215623	0.00001472	0.9078	0.0223	-
rs17155765	5	103098411	0.00001513	1.109	0.0238	-
rs808276	10	116555377	0.00001636	1.089	0.0198	ABLIM1,FAM160B1,TRUB1,ATRNL1
rs16855373	2	169047054	0.00001896	0.7256	0.075	LASS6
rs3893509	17	13120820	0.00002006	0.8401	0.0409	-
rs2859379	6	28466174	0.00002519	0.7687	0.0625	HIST1H2BL,HIST1H2AI,HIST1H3H,HIST1H2AJ,HIST1H2BM,HIST1H4J,HIST1H4K,HIST1H2AK,HIST1H2BN,HIST1H2AL,HIST1H1B,HIST1H3I,HIST1H4L,HIST1H3J,HIST1H2AM,HIST1H2BO,OR2B2,OR2B6,ZNF165,ZSCAN12P1,ZSCAN16,ZNF192,ZNF389,LOC222699,ZNF193,ZKSCAN4,NKAPL,ZNF187,PGBD1,ZNF323,ZKSCAN3,ZSCAN12,ZSCAN23,GPX6,GPX5,SCAND3,LOC401242,TRIM27,ZNF311,OR2W1
rs1498696	12	101868537	0.00005263	1.125	0.0292	PAH,ASCL1
rs17198295	3	137339008	0.00005367	0.8416	0.0427	PPP2R3A,MSL2,PCCB,STAG1,TMEM22,NCK1,IL20RB

Male sex

SNP	Chr	Bp	P	OR	SE	Genes ± 300 kb
rs2498828	14	91491028	0.000000384	0.8262	0.0376	TC2N,FBLN5,TRIP11,ATXN3,NDUFB1,CPSF2
rs1669794	14	45975802	4.127E-07	1.153	0.0281	RPL10L
rs1012780	20	1702969	0.000002335	0.7577	0.0588	SIRPG
rs1008628	14	104793771	0.000007121	0.8806	0.0283	JAG2,NUDT14,BRF1,BTBD6,PACS2
rs7490744	13	83874970	0.0000098	0.8749	0.0302	MIR548F1
rs6975847	7	16760029	0.00001507	0.8798	0.0296	TSPAN13,AGR2
rs1386937	12	33761564	0.00002092	0.8806	0.0299	SYT10,ALG10
rs12681426	8	132337988	0.00002231	0.8793	0.0303	-
rs10842244	12	24000512	0.00002804	1.133	0.0299	SOX5
rs17061517	3	59899883	0.00004547	0.8564	0.038	FHIT

Recurrent MDD

SNP	Chr	Bp	P	OR	SE	Genes ± 300 kb
rs2668193	3	185419374	0.000001046	1.095	0.0187	HTR3C,HTR3E,EIF2B5,DVL3,AP2M1,ABCF3,VWA5B2,MIR1224,ALG3,ECE2,CAMK2N2,PSMD2,EIF4G1,SNORD66,FAM131A,CLCN2,POLR2H
rs2173763	3	123811850	0.000002966	0.8411	0.0371	PARP9,DTX3L,PARP15

rs2478887	6	51344277	0.000006335	0.8591	0.0336	PKHD1
rs201412	12	97814444	0.000006606	1.17	0.0348	ANKS1B
rs6854525	4	187648614	0.00001044	1.121	0.0259	-
rs90754	20	58500494	0.00001132	1.105	0.0227	-
rs1556406	10	24829620	0.0000134	0.9241	0.0181	KIAA1217
rs1969420	3	61131945	0.00001497	0.9204	0.0192	FHIT
rs178165	14	26098029	0.00001498	0.9157	0.0204	NOVA1
rs716447	16	26648730	0.00001548	0.9047	0.0232	-

Recurrent, early-onset MDD

SNP	hg18chr:bp	p-value	OR	SE	a1a2	Genes ± 300 kb
rs1276324	18:19172417	6.67E-07	1.1500	0.0282	CG	CTAGE1,RBBP8,LAMA3,TTC39C,CABYR,OSBPL1A,MIR320C2,IMPACT,HRH4
rs12407717	1:30198601	2.33E-06	1.2080	0.0400	TC	EPB41,TMEM200B,SFRS4,MECR,PTPRU,MATN1,LAPTM5,SDC3,PUM1,SNORD103A,SNORD103B,SNORD85,PRO0611
rs17256183	16:3934697	6.97E-06	0.7486	0.0644	TC	FLYWCH2,FLYWCH1,KREMEN2,PAQR4,PKMYT1,CLDN9,CLDN6,TNFRSF12A,HCFC1R1,THOC6,CCDC64B,MMP25,IL32,ZSCAN10,MGC3771,ZNF205,ZNF213,OR1F1,OR1F2P,ZNF200,MEFV,ZNF263,TIGD7,ZNF75A,OR2C1,ZNF434,ZNF174,ZNF597,NAT15,C16orf90,CLUAP1,NLRC3,BTBD12,DNASE1,TRAP1,SRL,TFAP4,GLIS2,TIMM16,CORO7,VASN,DNAJA3,NMRAL1,HMOX2,C16orf5,LOC342346,FAM100A,MGRN1,NUDT16L1,ANKS3,C16orf71,ZNF500,SEPT12,LOC440335,ROGDI,GLYR1,UBN1,PPL
rs4862792	4:188438344	7.58E-06	1.1990	0.0406	TG	CYP4V2,KLKB1,F11,MTNR1A,FAT1,ZFP42,TRIML2,TRIML1

Age of onset (square root transformation)

SNP	hg18chr:bp	p-value	OR	SE	a1a2	Genes ± 300 kb
rs16948388	17:45242175	1.04E-06	1.1280	0.0247	TC	HOXB2,HOXB3,HOXB4,MIR10A,LOC404266,HOXB5,HOXB6,HOXB7,HOXB8,HOXB9,MIR196A1,PRAC,C17orf93,HOXB13,TTLL6,CALCOCO2,ATP5G1,UBE2Z,SNF8,GIP,IGF2BP1,B4GALNT2,GNGT2,ABI3,PHOSPHO1,ZNF652,PHB,NGFR,DLX4,DLX3,ITGA3,PDK2,SAMD14,PPP1R9B,SGCA,HILS1,COL1A1,TMEM92,XYLT2,MRPL27,EME1,LRRC59,ACSF2,CHAD,RSAD1,MYCBPAP,EPN3,SPATA20,CACNA1G,ABCC3,ANKRD40,LUC7L3,C17orf73,WFIKKN2,TOB1
rs10476070	5:172611983	2.87E-06	1.1170	0.0236	TC	UBTD2,SH3PXD2B,NEURL1B,DUSP1,ERGIC1,LOC100268168,RPL26L1,ATP6V0E1,SNORA74B,C5orf41,BNIP1,STC2,LOC285593,BOD1,CPEB4,C5orf47,HMP19
rs10422570	19:44556076	5.75E-06	66.5100	0.9255	AG	YIF1B,C19orf33,KCNK6,CATSPERG,PSMD8,GGN,SPRED3,FAM98C,RASGRP4,RYR1,MAP4K1,EIF3K,ACTN4,CAPN12,LGALS7,LGALS7B,LGALS4,ECH1,HNRNPL,RINL,SIRT2,NFKBIB,SARS2,MRPS12,FBXO17,FBXO27,PAPL,PAK4,NCCRP1,SYCN,IL28B,IL28A,SUPT5H,TIMM50,DLL3,SELV,EID2B,EID2,LGALS13,LOC100129935,LOC400696,LGALS14,CLC,LEUTX,DYRK1B,FBL,FCGBP,PSMC4,ZNF546,ZNF780B,ZNF780A,MAP3K10,TTC9B,CNTD2,AKT2,MIR641,C19orf47,PLD3,HIPK4,PRX
rs11870005	17:37559601	6.47E-06	0.8871	0.0266	AC	KRTAP4-7,KRTAP4-8,KRTAP4-9,KRTAP4-11,KRTAP4-12,KRTAP4-5,KRTAP4-4,KRTAP4-3,KRTAP4-2,KRTAP4-1,KRTAP9-2,KRTAP9-3,KRTAP9-8,KRTAP9-4,KRTAP9-9,KRTAP17-1,KRT33A,KRT33B,KRT34,KRT31,KRT37,KRT38,KRT32,KRT35,KRT36,KRT13,KRT15,KRT19,KRT9,KRT14,KRT16,KRT17,KRT42P,EIF1,GAST,HAP1,JUP,SC65,FKBP10,NT5C3L,KLHL10,KLHL11,ACLY,TTC25,CNP,DNAJC7,NKIRAS2,PTRF,ATP6V0A1,NAGLU,HSD17B1,COASY,MLX,PSMC3IP,FAM134C,TUBG1,TUBG2,PLEKHH3,CCR10,CNTNAP1,EZH1,LOC100190938,RAMP2,VPS25,WNK4,CCDC56,CNTD1,BECN1,PSME3,AOC2,AOC3,LOC90586,LOC388387,G6PC,AARSD1,RUNDC1,RPL27,IFI35,VAT1,RND2,BRCA1,NBR2,

						NBR1,TMEM106A
rs323932	1:83326560	7.34E-06	0.9280	0.0167	AC	TTLL7,PRKACB,SAMD13
rs12145172	1:67960263	9.21E-06	1.1140	0.0243	TC	SGIP1,TCTEX1D1,INSL5,WDR78,MIER1,SLC35D1,C1orf141,IL23R,IL12RB2,SERBP1,DIRAS3,WLS,MIR1262,RPE65,DEPDC1

Latent class analysis, class 1 ("typical")

SNP	hg18chr:bp	p-value	OR	SE	a1a2	Genes ± 300 kb
rs9830950	3:61097358	1.02E-07	1.1650	0.0288	TC	PTPRG,ID2B
rs1639211	7:81363117	1.21E-06	1.1490	0.0286	TC	SEMA3C,PCLO
rs11631605	15:24407779	1.79E-06	0.8728	0.0285	TC	ATP10A,GABRA5,GABRG3
rs411654	1:8197394	3.93E-06	0.8179	0.0435	AG	CAMTA1,VAMP3,PER3,UTS2,TNFRSF9,PARK7,ERRFI1,SLC45A1,RERE,ENO1,CA6,SLC2A7,SLC2A5,GPR157,MIR34A,H6PD
rs9636869	21:34149354	5.28E-06	1.2650	0.0515	TC	OLIG2,OLIG1,C21orf54,IFNAR2,IL10RB,IFNAR1,IFNGR2,TMEM50B,DNAJC28,GART,SON,DONSON,CRYZL1,MRPS6,SLC5A3,C21orf82,KCNE2,FAM165B,KCNE1,RCAN1,CLIC6,NCRNA00160,RUNX1
rs6137371	20:21433247	5.78E-06	1.1410	0.0290	TC	C20orf26,INSM1,RALGAPA2,LOC284788,C20orf56,FOXA2
rs36991	5:1549622	6.35E-06	1.2170	0.0436	TC	NKD2,SLC12A7,SLC6A19,SLC6A18,TERT,CLPTM1L,SLC6A3,SDHAP3,LOC728613,MRPL36,NDUFS6,IRX4,SLC9A3,CEP72,TPPP,ZDHHC11,BRD9,TRIP13,OCLN,LOC647859,NAIP,LOC100170939,LOC653391,PMCHL2,CARTPT,LOC100272216,GUSBP3,GTF2H2B,GTF2H2C,GTF2H2,GTF2H2D
rs3773729	3:53179885	6.43E-06	0.8772	0.0290	TC	POC1A,ALAS1,TLR9,TWF2,PPM1M,WDR82,MIRLET7G,GLYCTK,MIR135A1,DNAH1,BAP1,PHF7,SEMA3G,TNNC1,NISCH,STAB1,NT5DC2,LOC440957,PBRM1,GNL3,SNORD19,SNORD19B,SNORD69,GLT8D1,SPCS1,NEK4,ITIH1,ITIH3,ITIH4,MUSTN1,TMEM110,SFMBT1,DCP1A,MIR1303,CACNA1D,CHDH,IL17RB,ACTR8,SELK,CACNA2D3,HBII-108,HBII-210

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