

# Supplementary Materials

## for “Multiple Genetic Loci Influence Serum Urate And Their Relationship With Gout and Cardiovascular Disease Risk Factors”

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## Supplementary Methods

### *Description of Participating studies*

#### *AGES Reykjavik Study*

The Reykjavik Study cohort originally comprised a random sample of 30,795 men and women born in 1907–1935 and living in Reykjavik in 1967<sup>1</sup>. Between 2002 and 2006, the AGES-Reykjavik Study re-examined 5,764 survivors of the original cohort who had participated before in the Reykjavik Study. The AGES Reykjavik Study GWAS was approved by the National Bioethics Committee (00-063-V8+1) and the Data Protection Authority. DNA was genotyped using the Illumina 370CNV BeadChip array on 3,664 participants. Samples were excluded from the dataset based on sample failure, genotype mismatch with reference panel, and sex mismatch, resulting in clean genotype data on 3,219 individuals. Standard protocols for working with Illumina data were followed, with clustering score greater than 0.4. Prior to genotype imputation, SNPs were excluded using filters based on call rate (<97%), Hardy-Weinberg Equilibrium (<1e-6), mishap (<1e-9), and mismatched positions between Illumina, dbSNP and/or HapMap resulting in 325,094 SNPs passing all QC (of 353,202 prior to cleaning steps). Imputation was done using MACH against the HapMap CEU haplotypes (release 22/NCBI build 36) resulting in 2,533,153 total SNPs for analysis. Association analysis was conducted against all genotypes, and includes the most likely imputed genotypes.

Serum urate was measured at the Icelandic Heart Association using the Roche-Hitachi P-Module instrument with Roche uricase method. The coefficient of variation for the urate assay was 4.3%. Gout was determined from a positive answer on a questionnaire or if the participant was on allopurinol treatment at a study visit. The final analyses sample consisted of 3,202 individuals for serum urate and 3,219 for gout.

Diabetes was defined as fasting glucose of at least 126 mg/dl, pharmacologic treatment for diabetes, or self-report. Blood pressure was measured in the supine position after a 5-minute

rest, twice by a nurse using a mercury sphygmomanometer. World Health Organization recommendations were used to measure blood pressure<sup>2</sup>. Insulin was measured using an electrochemiluminescence immunoassay on a Roche Elecsys 2010 instrument, using two monoclonal antibodies and a sandwich principle. The method was standardized using the 1st IRP WHO Reference Standard 66/304 (NIBSC). Coronary heart disease was defined as history of myocardial infarction, percutaneous coronary interventions, or coronary artery bypass grafting.

#### *Atherosclerosis Risk in Communities Study (ARIC)*

The Atherosclerosis Risk in Communities Study (ARIC) is an ongoing population-based prospective study. From 1987-98, 15,792 mostly self-reported black and white adults aged 45-64 years were recruited from four US communities and attended a baseline visit (visit 1)<sup>3</sup>. Participants returned for three subsequent visits approximately every three years. Details about the study have been published previously<sup>3</sup>. Genotyping was conducted among all consenting individuals using the Affymetrix 6.0 array, and genome-wide association data on 8,861 white individuals was available for the current study. Genomic DNA was hybridized in accordance with the manufacturer's standard recommendations, and genotypes were determined using the Birdseed clustering algorithm. Individual samples were filtered to ensure genotyping quality, and 734 out of 8,861 samples were removed in data cleaning steps for sex mismatch, discordance with previously-genotyped markers, first-degree relative of an included individual, and genetic outliers based on allele sharing and principal components analyses<sup>4;5</sup>.

Serum urate concentrations were measured at the baseline visit using a uricase method<sup>6</sup>. Repeat measurements in 40 individuals at least 1 week apart yielded a coefficient of variation of 7.2% and a reliability coefficient of 0.91<sup>7</sup>. Gout was self-reported at the fourth study visit (1996-98). Systolic and diastolic blood pressure was measured three times in the seated position after 5 minutes of rest using a random zero sphygmomanometer, and the average of the 2nd and 3rd measurement was used in analyses. Diabetes was defined as fasting serum glucose  $\geq 126$  mg/dl, non-fasting glucose  $\geq 200$  mg/dl, self-reported physician diagnosis of diabetes, or the current

use of diabetes medications. Fasting serum insulin was measured by radioimmunoassay (125Insulin kit; Cambridge Medical Diagnosis, Bilerica, MA), with a 7 pmol/l lower limit of sensitivity and 33% cross-reactivity with proinsulin. CHD was defined as incident myocardial infarction, fatal CHD, silent MI from EKG or coronary revascularization procedure. The final study sample with available genotype and phenotype data consisted of 8,092 individuals for the analyses of urate and 6,557 individuals for the analyses of gout.

### *Cardiovascular Health Study (CHS)*

The Cardiovascular Health Study (CHS) is a population-based longitudinal study of risk factors for cardiovascular disease and stroke in adults 65 years of age or older, recruited at four field centers (Forsyth County, NC; Sacramento County, CA; Washington County, MD; Pittsburgh, PA) 8. Predominantly Caucasian individuals (n=5,201) were recruited in 1989-1990 from random samples of Medicare eligibility lists, followed by an additional 687 African-Americans recruited in 1992-1993 (total n=5,888). The CHS GWAS had the primary aim of studying incident cardiovascular events in participants who were free of clinical cardiovascular disease at baseline. A total of 1,908 persons were excluded from the GWAS study sample due to the presence at study baseline of coronary heart disease, congestive heart failure, peripheral vascular disease, valvular heart disease, stroke or transient ischemic attack or lack of available DNA. African American participants were excluded from this analysis since the other cohorts were predominantly Caucasian.

DNA was extracted from blood samples drawn on all participants at the baseline examination. In 2007-2008, genotyping was performed at the General Clinical Research Center's Genotyping Laboratory at Cedars-Sinai Medical Center using the Illumina HumanCNV370-Duo BeadChip system. Genotypes were called using the Illumina BeadStudio software. Genotyping was successful in 3,291 persons. The following exclusions were applied to identify a final set of

306,655 autosomal SNPs used for imputation: call rate <97%; HWE  $P < 10^{-5}$ ; >1 duplicate error or Mendelian inconsistency; heterozygote frequency=0; SNPs not found in dbSNP.

Serum urate concentrations were measured at the baseline visit using the Kodak Ektachem 700 Analyzer with reagents (Eastman Kodak, Rochester, NY). The coefficient of variation for urate was 1.2%<sup>9</sup>. The final study sample with available genotype and phenotype data consisted of 3,252 individuals for the analyses of urate. Gout cases were identified through participants' medication use that was recorded at yearly clinic visits from 1989-1998<sup>10</sup>, and during annual and 6-month follow-up phone calls from 1998 – 2004. Participants receiving gout medication (allopurinol, colchicine, and probenecid) were considered gout cases.

Using blood collected at the baseline visit, 12-hour fasting serum insulin was measured with a Kodak Ektachem 700 analyzer (Eastman Kodak Corp., Rochester, NY). Research staff who received central training in blood pressure measurement assessed repeat right-arm seated systolic and diastolic blood pressure levels at baseline with a Hawksley random-zero sphygmomanometer. Diabetes was defined as fasting plasma glucose of at least 126 mg/dl or treatment with diabetes medication. CHD was defined as incident myocardial infarction, fatal CHD, sudden cardiac arrest<sup>11</sup>.

### *Framingham Heart Study (FHS)*

The FHS is a community-based prospective cohort study started in 1948 with 5,209 randomly ascertained participants from Framingham, Massachusetts, United States<sup>12</sup>. In 1971, 5,124 children of the original cohort, and children's spouses, referred as the Offspring cohort, were enrolled. In 2002, the Third Generation, consisting of 4,095 children of the Offspring cohort, was recruited. Most FHS participants are self-identified as Caucasian (white).

Among them, 9,274 participants from all three generations were genotyped, using the Affymetrix 500K mapping array and the Affymetrix 50K supplemental array (SNP Health Association Resource; [www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study\\_id=phs000007.v2.p1](http://www.ncbi.nlm.nih.gov/projects/gap/cgi-bin/study.cgi?study_id=phs000007.v2.p1)).

Serum urate was measured at the first examination cycle of each cohort using an autoanalyzer with a phosphotungstic acid reagent<sup>13</sup>. Gout was ascertained via self-report in the Offspring subjects during exam cycles 3-7, and the first exam of the Third Generation. Systolic and diastolic blood pressure was measured in the left arm twice by an examining physician with a sphygmomanometer after the participant had been in a seated position for 5 minutes. Diabetes was defined as fasting plasma glucose of at least 126 mg/dl or treatment. Fasting insulin levels (total immunoreactive insulin) were measured at Offspring examination 5 in EDTA plasma (Coat-A-Count Insulin, Diagnostic Products Corporation, Los Angeles, CA). Coronary heart disease was defined as myocardial infarction or fatal coronary heart disease. Principal components of the genotypes of 550K SNPs were computed using the Eigenstrat software<sup>5</sup>, and none of the first 10 components were found association with either urate levels or gout using a Bonferroni correction on alpha of 0.05, which indicated that there is little population admixture for these two traits and therefore no need to adjust for admixture in GWAS.

#### *The Rotterdam Study (RS)*

The Rotterdam study is a population-based cohort study designed to study the etiology of chronic diseases among participants aged 55 years and older<sup>14;15</sup>. Briefly, residents of Ommoord, a district of Rotterdam, in the Netherlands, 55 years of age or older, were asked to participate. The baseline examination, conducted in 1990-1993, consisted of a home interview and research center visit for blood samples. This cohort was referred as RS-I. In 1999, inhabitants who turned 55 years of age or moved into the study district since the start of the study were invited to participate in the extended Rotterdam study, of whom 3,011 participated and was referred as RS-II.

Serum urate was measured at the baseline visit using a Kone Diagnostica reagent kit and autoanalyzer<sup>16</sup>. Using a computer network of pharmacies, data on medication prescription use was abstracted from pharmacies in the study region that registers all medication prescriptions

beginning January 1, 1991. Participants receiving medication (allopurinol, benzbromarone, colchicine, and probenecid) were considered gout cases.

The Illumina 550K array was used to conduct genotyping among self-reported Caucasians. Participants were excluded for the following reasons: mismatch between called and phenotypic gender, excess autosomal heterozygosity, or outliers identified by the IBS clustering analysis. SNPs were excluded for the following reasons: SNP call rate  $\leq 90\%$ , minor allele frequency  $\leq 1\%$ , or Hardy-Weinberg equilibrium  $p$ -value  $< 10^{-5}$ , resulting in data on a total of 530,683 SNPs for RS-I and 495,478 SNPs in RS-II. The final sample for this analysis comprised 4,148 individuals in RS-I and 1,890 individuals in RS-II for serum urate, and 5,741 in RS-I and 1,895 in RS-II for gout.

Blood pressure was assessed using the mean of two measurements in a sitting position using a random-zero sphygmomanometer in the same session. Diabetes was defined as treatment for diabetes, an elevated nonfasting glucose level (11.1 mmol/L) or an abnormal oral glucose tolerance test. Insulin was measured using a Roche kit. Coronary heart disease was defined as fatal or nonfatal myocardial infarction (ICD-10 code I21), coronary artery bypass grafting (CABG), and percutaneous transluminal coronary angioplasty (PTCA).

#### *Women's Health Genome Study*

The Women's Genome Health Study (WGHS) <sup>17</sup> was used as a replication sample. The WGHS originated from the Women's Health Study (WHS) in 1992 <sup>18</sup> and included women without a prior history of cardiovascular disease, cancer, or other major chronic illness with a baseline blood sample from the time of study enrollment that was used for the extraction of genomic DNA. For the current analysis, individuals were excluded for the following reasons: 1) genotyping call rates  $< 98\%$ ; 2) discrepancies based on comparisons of previously obtained genotypes; 3) outliers identified by 9 clustering analyses; 22,054 had data on both phenotype and genotype available. In 2007-2008, genotyping was conducted using HumanHap300 Duo-Plus chip or the combination of the I-Select and the HumanHap300 Duo chips, resulting in a total of

363,808 SNPs. SNP exclusion criteria included: 1) SNP call rates <90%; 2) deviation from Hardy-Weinberg equilibrium ( $p < 10^{-5}$ ); 3) SNPs with minor allele frequency <1% in Caucasians, yielding 340,923 SNPs for analysis.

Imputed genotypes for individuals missing experimental genotypes and for SNPs not evaluated in the genotyping platform were determined by MACH 1.0<sup>19</sup>, using linkage disequilibrium relationships from the HapMap release 21. For the present analysis, the most likely genotype for each SNP was used in the regression models.

Baseline clinical information included information for SBP, DBP, history of hypertension, use of hypertension medication, and prevalent diabetes by self report. Blood pressure was reported in pre-specified categories, and analyzed on the basis of the mid-point of these categories as previously described<sup>20</sup>. Serum creatinine was calibrated and estimated GFR was calculated using the MDRD equation; CKD was defined as eGFR < 60 ml/min. Incident cardiovascular disease was validated on the basis of medical records by an endpoints committee of the Women's Health Study.

### ***Imputation of HapMap SNPs***

Genotypes were imputed to ~2.5 million HapMap SNPs by each cohort using directly genotyped SNPs with reference to phased haplotypes of release 22 from the HapMap CEU samples using a hidden Markov chain approach implemented in MACH<sup>19</sup> or BimBam v0.99<sup>21</sup>. The resulting “dosage” estimates from the imputation, i.e. the posterior mean of the genotypes in additive coding, was used as genotypes in the association analyses to account for estimation uncertainty in the genotypes. Study specific information on genotyping, imputation and statistical analyses is included in Supplementary Table 1s.

### ***Adjusting for Potential Population Admixture***

Prior to GWAS, population stratification was examined in all cohorts using EIGENSTRAT<sup>5</sup> or PLINK<sup>4</sup> identity by state (IBS) clustering analysis and no significant stratification was observed in any of the populations for these phenotypes. Individual study results were evaluated and



corrected for a trait-specific genomic control parameter<sup>22</sup> ( $\lambda < 1.05$  in all studies) prior to meta analyses.

### ***Genetic Urate Score Construction***

To model the cumulative effects of the loci identified from the urate meta-analysis, we multiplied the number of HapMap minor alleles for the most significant SNP for each locus in each person (0, 1, or 2) by the beta coefficient estimated from the meta-analysis, and added the results to calculate a genetic urate score. Specifically, the genetic urate score equals  $rs1967017(T)*3.3 + rs780093(T)*5.2 - rs13129697(G)*22.2 + rs2199936(A)*18.1 + rs675209(T)*4.4 - rs1165196(G)*6.2 + rs2078267(C)*6.8 - rs1106766(T)*5.2$ , where each SNP followed by the allele in parenthesis denotes number of that allele carried by an individual.

### ***Power of Genetic Urate Score analyses***

Denote  $\hat{\beta}$  as the coefficient of a linear regression model of a continuous trait on genetic urate score,  $\hat{\beta} \sim N(\beta, \sigma^2)$ . Under the null hypothesis,  $\beta = 0$ . Since we are interested in testing if the genetic urate score association is in the same direction as the epidemiology association, the alternative hypothesis is one-sided, e.g.  $\beta > 0$  if serum urate is positively associated with the trait.

Therefore, the power for detecting  $\beta = \beta_1$  at  $\alpha=0.05$  is

$$\begin{aligned} power &= P\left(\frac{\hat{\beta}}{se(\hat{\beta})} > 1.65 \mid \beta = \beta_1\right) \\ &= P\left(\frac{\hat{\beta} - \beta_1}{se(\hat{\beta})} > 1.65 - \frac{\beta_1}{se(\hat{\beta})} \mid \beta = \beta_1\right) \\ &= P\left(Z > 1.65 - \frac{\beta_1}{se(\hat{\beta})}\right) \end{aligned}$$

where 1.65 is the critical value of a one sided Z test at  $\alpha=0.05$ .

$\beta_1$  corresponding to 80% power can be obtained by solving above equation at power=80%

i.e.  $1.65 - \frac{\beta_1}{se(\hat{\beta})} = -1.28$ , where -1.28 is the standard normal quantile corresponding to 80% tail

probability. Thus  $\beta_1 = (1.65 + 1.28) * se(\hat{\beta})$  is the expected effect size that can be detected with 80% power. For a dichotomous (survival) outcome,  $\hat{\beta}$ , is the log odds ratio (log hazard ratio) and same power calculation as continuous trait can be used to obtain  $\beta_1$ . Odds ratio (hazard ratio) corresponding to 80% power can be obtained by transforming  $\beta_1$ .

## ***Secondary Analyses (Methods and Results)***

### *Sensitivity Analyses*

To evaluate the extent to which the current genetic urate score performance is enhanced by being developed and evaluated in the same cohorts, we compared the performance in FHS of the current score score to a genetic urate score developed in all cohorts except FHS. The scores had very similar associations to serum urate (beta coefficient of 0.95 vs. 0.93 and nearly identical p-values= $4 \times 10^{-101}$ ) suggesting the results of our large meta analysis may generalize well to similar populations.

### *Individual SNP Association with Cardiovascular Risk Factors and CHD*

We carried out analyses to examine the association between each individual SNP among the eight most significant SNPs and blood pressure, glucose, CKD and CHD. A Bonferroni corrected alpha 0.0016, i.e. 0.05/8/4 for 4 trait classes (blood pressure, glucose, CKD, CHD) and 8 SNPs, was used as significance threshold. The results, shown in Supplement table 5s, indicate that except fasting glucose and log eGFR creatinine, no other trait-SNP associations reached the pre-specified significance level.

SNP rs780093 in *GCKR* was borderline associated with glucose after multiple testing correction (beta=-0.03 mmol/l, P=0.0017), and the association was stronger in the absence of diagnosed diabetes (beta = -0.026 mmol/l, P = 2.8x10<sup>-8</sup>). Since this SNP is associated with higher serum urate and lower glucose it can not account for the observed epidemiologic associations between elevated urate levels and diabetes. None of the other SNPs included in the genetic urate score were associated with glucose levels.

Two loci were associated with log transformed eGFR creatinine (Table 5s). The minor allele of SNP rs1106766 in the *R3HDM2-INHBC* locus was associated with higher log transformed eGFR (beta= 0.01, P=1.3x10<sup>-5</sup>) and lower serum urate levels, consistent with the inverse correlation of urate levels with eGFR. This finding was also observed in WGHS (beta=0.00096, P= 0.00034). The other locus, *RREB1* also showed association with log transformed eGFR. However, the minor allele was associated with higher serum urate levels and higher eGFR, which is not direction-consistent to the observed association between elevated urate levels and lower eGFR. A third locus, *GCKR* was borderline associated but similar to *RREB1*, directional inconsistent with the relationship between urate and eGFR. All remaining five SNPs were not associated with log eGFR. Together, the *R3HDM2-INHBC* locus alone is unlikely to mediate a causal relationship between urate and eGFR, and all three loci (*R3HDM2-INHBC*, *GCKR* and *RREB1*) may have pleiotropic effects on urate and eGFR.

#### *Binary Genetic Urate Score*

To examine a possible threshold effect of serum urate on cardiovascular risk factors and CHD, we created a binary genetic score by dichotomizing the continuous genetic urate score at zero, corresponding to a mean urate level of ~333 µmol/L or 5.6 mg/dL.

The binary genetic urate score was only borderline associated with CKD (OR=1.12, p=0.01), and not associated with any other cardiovascular risk factors or coronary heart disease (all P>0.05).

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## Supplementary Tables and Figures

*Table 1s. Study-specific genotyping and analysis information for all cohorts*

Study	AGES	ARIC	CHS	FHS	RS-I and RS-II	WGHS
<b>Array type(s)</b>	Illumina 370CNV	Affymetrix 6.0	Illumina 370CNV	Affymetrix 500K, Affymetrix 50K supplemental array	Illumina 550K	HumanHap300 Duo-Plus chip; combination of the I-Select and the HumanHap300 Duo chips
<b>Genotype calling</b>	Illumina BeadStudio	Birdseed	Illumina BeadStudio	BRLMM	Illumina BeadStudio	Illumina BeadStudio
<b>QC filters for genotyped SNPs used for imputation</b>	call rate <97%, pHWE <1E-6, MAF <1%, Mishap p <1E-9, A/T and G/C SNPs, Mismatches between Illumina, dbSNP and/or HapMap position	call rate <95%, MAF<1%, pHWE<1E-5	call rate <97%, heterozygotes=0, pHWE<1E-5, SNP not in HapMap	call rate <97%, pHWE<1E-6, Mishap p<1e-9, >100 Mendel errors, MAF<1%, strand Mismatch with HapMap, not in HapMap	call rate <90%, MAF<1%, pHWE<1E-5	call rate <90%; pHWE<1E-5; MAF <1%
<b>No of SNPs used for imputation</b>	308,340	602,642	306,655	378,163	530,683	363,808
<b>Imputation</b>	MACH version 1.0.16	MACH version 1.0.16	BimBam	MACH version 1.0.15	MACH version 1.0.15	MACH version 1.0.16
<b>Imputation Backbone (NCBI build)</b>	phased CEU haplotypes, HapMap release 22 (build 36)	phased CEU haplotypes, HapMap release 21 (build 35)	HapMap CEU release 21A (build 36)	phased CEU haplotypes, HapMap release 22 (build 36)	phased CEU haplotypes, HapMap release 22 (build 36)	phased CEU haplotypes, HapMap release 21 (build 35)
<b>Filtering of imputed genotypes</b>	none	none	dosage variance < 0.01	none	none	none

<b>Statistical analysis and softwares</b>	Linear, logistic and survival regression using PLINK, R	Linear, logistic and survival regression using ProbABEL, PLINK, R	Linear, logistic and survival regression using R	Linear mixed effects model using lmeKin() and in Kinship package and logistic regression models using gee() in GEE package in R	Linear, logistic and survival regression using ProbABEL, R	Linear, logistic and survival regression using R
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**Table 2s. Information of the most significant SNPs at loci significantly associated with urate in CHARGE cohorts**

SNP	Outcome		AGES	ARIC	CHS	FHS	RS-I	RS-II	Combined
<b>rs13129697</b>		MAF*	0.23	0.28	0.28	0.28	0.25	0.26	0.27
Chr 4: 9536065 Gene: <b>SLC2A9</b>	Urate	p-value	5.00E-24	1.90E-75	7.50E-31	1.00E-75	4.60E-26	7.90E-24	1.50E-242
		beta**(se)	-24.88(2.44)	-23.01(1.24)	-23.42(2.03)	-21.35(1.16)	-18.43(1.74)	-26.34(2.58)	-22.21(0.67)
Alleles: G/T		R <sup>2</sup> †	3.15%	4.08%	2.94%	4.98%	2.70%	1.80%	3.70%
Minor allele: G	Gout	p-value	6.30E-02	8.00E-08	0.048	2.40E-04	5.10E-03	8.40E-02	3.70E-13
		OR***	0.74	0.59	0.77	0.58	0.69	0.68	0.66
		95% C.I.	0.55-1.02	0.49-0.72	0.59-1.00	0.44-0.78	0.53-0.9	0.43-1.07	0.59-0.74
<b>rs2199936</b>		MAF*	0.1	0.11	0.1	0.1	0.12	0.12	0.11
Chr 4:89264355 Gene: <b>ABCG2</b>	Urate	p-value	1.80E-07	2.20E-26	5.10E-14	2.20E-20	8.20E-12	4.50E-06	1.20E-75
		beta**(se)	17.76(3.39)	19.6(1.84)	24.08(3.20)	16.4(1.77)	16.28(2.38)	16.14(3.51)	18.08(0.98)
Alleles: A/G		R <sup>2</sup> †	0.85%	1.37%	1.33%	1.28%	1.10%	0.30%	1.20%
Minor allele: A	Gout	p-value	7.80E-02	2.80E-08	3.70E-08	2.00E-06	2.70E-04	1.00E-01	2.60E-23
		OR***	1.38	1.93	2.43	1.96	1.73	1.52	1.86
		95% C.I.	0.96-1.97	1.55-2.41	1.77-3.34	1.49-2.59	1.31-2.28	0.94-2.46	1.64-2.10
<b>rs2078267</b>		MAF*	0.5	0.47	0.46	0.43	0.48	0.47	0.46
Chr 11: 64090690 Gene: <b>SLC22A11</b>	Urate	p-value	2.20E-03	5.60E-10	5.80E-04	4.10E-07	2.80E-04	1.20E-05	2.40E-26
		beta**(se)	6.42(2.10)	6.94(1.12)	6.18(1.8)	6.92(1.37)	5.53(1.52)	10.24(2.34)	6.8(0.64)
Alleles: C/T		R <sup>2</sup> †	0.29%	0.46%	0.26%	0.44%	0.30%	0.30%	0.38%
Minor allele: C	Gout	p-value	0.4	1.90E-07	0.44	0.38	0.37	0.02	1.30E-06
		OR***	1.11	1.52	1.1	1.13	1.1	1.51	1.26
		95% C.I.	0.87-1.42	1.29-1.78	0.87-1.39	0.86-1.49	0.89-1.36	1.05-2.16	1.14-1.38
<b>rs1165196</b>		MAF*	0.51	0.46	0.46	0.45	0.45	0.45	0.46
Chr 6:25921129 Gene: <b>SLC17A11</b>	Urate	p-value	2.60E-03	1.70E-08	1.80E-04	6.80E-10	1.20E-02	3.00E-04	4.95E-25
		beta**(se)	-6.28(2.09)	-6.26(1.11)	-7.00(1.87)	-6.54(1.06)	-3.85(1.53)	-8.34(2.31)	-6.21(0.60)
Alleles: G/A		R <sup>2</sup> †	0.28%	0.38%	0.33%	0.62%	0.20%	0.00%	0.37%
Minor allele: G	Gout	p-value	0.81	0.09	0.79	0.1	0.94	0.005	0.013
		OR***	0.97	0.87	0.97	0.83	0.99	0.59	0.89
		95% C.I.	0.76-1.24	0.75-1.02	0.76-1.23	0.67-1.04	0.80-1.22	0.41-0.86	0.82-0.98
<b>rs780093</b>		MAF*	0.35	0.4	0.42	0.44	0.37	0.36	0.4
Chr 2: 27596107 Gene: <b>GCKR</b>	Urate	p-value	1.20E-04	4.50E-09	6.10E-02	2.90E-04	3.50E-05	7.20E-01	3.80E-17
		beta**(se)	8.35(2.17)	6.72(1.14)	3.48(1.85)	3.84(1.06)	6.58(1.59)	0.85(2.37)	5.15(0.61)
Alleles: C/T		R <sup>2</sup> †	0.45%	0.41%	0.08%	0.12%	0.04%	0.20%	0.23%
Minor allele: T	Gout	p-value	0.04	0.029	0.26	0.27	0.2	0.62	4.70E-04
		OR***	1.29	1.19	1.15	1.12	1.15	1.09	1.17
		95% C.I.	1.01-1.66	1.02-1.4	0.90-1.46	0.91-1.38	0.93-1.42	0.77-1.56	1.07-1.28
<b>rs1106766</b>		MAF*	0.31	0.23	0.22	0.2	0.23	0.21	0.23
Chr 12: 56095723 Gene: <b>R3HDM2;</b> <b>INHBC</b>	Urate	p-value	1.70E-02	3.90E-03	3.60E-02	3.80E-07	3.30E-02	2.50E-01	1.90E-11
		beta**(se)	-5.36(2.25)	-3.83(1.33)	-5.68(2.70)	-7.37(1.45)	-4.25(2.00)	-3.55(3.12)	-5.16(0.77)
Alleles: C/T		R <sup>2</sup> †	0.18%	0.09%	0.10%	0.33%	0.10%	0.00%	0.16%
Minor allele: T	Gout	p-value	0.12	0.46	0.036	0.0022	0.3	0.6	7.70E-04
		OR***	0.81	0.93	0.7	0.59	0.87	0.88	0.82
		95% C.I.	0.61-1.06	0.77-1.13	0.49-0.98	0.42-0.83	0.66-1.14	0.53-1.44	0.73-0.92
<b>rs675209</b>		MAF*	0.26	0.26	0.27	0.26	0.25	0.25	0.26
Chr 6: 7047083	Urate	p-value	5.00E-01	7.00E-03	5.90E-02	1.70E-04	2.60E-02	3.00E-04	1.00E-09

Gene: <b>RREB1</b>		beta**(se)	1.62(2.42)	3.71(1.37)	4(2.12)	4.82(1.28)	4.02(1.80)	9.78(2.70)	4.39(0.72)
Alleles: T/C		R <sup>2</sup> †	0.01%	0.08%	0.08%	0.23%	0.10%	0.20%	0.12%
Minor allele: T	Gout	p-value	0.24	0.27	0.21	0.03	0.65	0.97	0.16
		OR***	0.84	1.11	1.17	1.34	0.94	1.01	1.08
		95% C.I.	0.63-1.13	0.92-1.35	0.91-1.51	1.04-1.74	0.74-1.21	0.67-1.52	0.97-1.20
<b>rs1967017</b>		MAF*	<i>0.45</i>	<i>0.48</i>	<i>0.49</i>	<i>0.49</i>	0.45	0.45	0.47
Chr 1: 144435002	Urate	p-value	5.40E-01	6.70E-04	7.20E-03	2.20E-03	7.10E-02	2.50E-01	3.50E-08
Gene: <b>PDZK1</b>		beta**(se)	1.29(2.11)	3.81(1.12)	4.94(1.84)	3.24(1.06)	2.77(1.54)	2.74(2.40)	3.33(0.6)
Alleles: T/C		R <sup>2</sup> †	0.01%	0.13%	0.16%	0.13%	0.07%	0.02%	0.10%
Minor allele: T	Gout	p-value	0.46	0.43	0.99	0.13	0.06	0.92	0.96
		OR***	0.91	1.07	1	1.18	0.82	1.02	1
		95% C.I.	0.71-1.16	0.91-1.25	0.78-1.28	0.95-1.45	0.66-1.01	0.71-1.47	0.92-1.10

§SNP location, gene annotation were based on human genome reference sequence of NCBI build 36.2; alleles were called on forward strand.

\*Minor allele is the less common allele of the SNP, and minor allele frequency (MAF) was in combined sample determined using sample size weighted average MAF of all cohorts. MAFs of studies where the SNP was imputed were in italic, and otherwise in regular font.

\*\*beta is the increase of UA (umol/l) per copy increment of the minor allele under an additive model; se is the standard error of the beta coefficient

\*\*\*OR is the odds ratio for gout per per copy increment of the minor allele

All analyses for UA and gout are adjusted for age, sex, BMI, alcohol consumption (all except RS-II), hypertension treatment, (cohort status in FHS, study center in ARIC)

†R<sup>2</sup> is the R-square coefficient for the SNP, i.e. total phenotypic variance explained by the SNP under an additive model.

R<sup>2</sup> in meta analyses was sample size weighted average of the R<sup>2</sup> from individual studies

£SLC17A1 refers to the entire SLC17A4/ SLC17A1/ SLC17A3/SLC17A2 gene cluster

**Table 3s. Information of the most significant SNPs at loci significantly associated with urate in CHARGE cohorts**

SNP ID Chr: Gene (region)		Imputation Quality*						Other genome-wide significant SNP in the loci†							
		AGES	ARIC	CHS	FHS	RS-I <sup>§</sup>	RS-II <sup>§</sup>	SNP ID <sup>†</sup>	R <sup>2</sup> with Top SNP	No. of Cohorts Genotyped <sup>§</sup>	Minimum Imputation Ratio	MAF	In Gene (Region)	Distance to Gene (bp)	Meta P-value
rs2078267	11: SLC22A11	-	-	-	0.62	-	-	rs7936185	0.48	3	0.98	0.44	N	17645	4.72E-12
rs780093	2: GCKR	1.00	1.00	1.00	1.00	1.00	1.00	rs780094	1.00	5	1.00	0.40	Y		4.68E-17
rs1106766	12: (R3HDM2-INHBC)	0.91	-	0.69	0.84	0.83	0.83	rs4760355	0.73	2	0.99	0.24	(Y)		4.71E-11
rs675209	6: RREB1	-	0.85	-	0.89	-	-	rs11755724	0.55	5	1.00	0.36	Y		1.42E-08
rs1967017	1: PDZK1	1.00	0.99	0.99	1.00	-	-	rs10910845	1.00	4	0.99	0.47	N	4605	3.89E-08
rs13129697	4: SLC2A9	-	0.98	-	0.98	-	-	rs1519098	0.53	4	0.99	0.19	Y		3.81E-228
rs2199936	4: ABCG2	0.99	0.95	0.95	0.97	0.98	0.98	rs2231142	0.92	4	0.97	0.11	Y		2.46E-75
rs1165196	6: SLC17A1	1.00	1.00	0.86	1.02	1.00	1.00	rs3799344	0.90	3	0.99	0.45	Y		1.40E-20

\*Imputation quality is the ratio between the observed and expected variance of the imputed genotype (range 0 - 1), with >0.9 being considered as best quality, 0.5-0.9 medium quality; and <0.5 bad quality.

Missing values (-) indicated that the SNP is genotyped and passed QC in a cohort.

†One SNP is selected from each locus that reached genomewide significance, in LD with the most significant SNP (R-squared ~0.5 and higher) and had the same or better imputation qualities than the most significant SNP for the cohort with the lowest imputation quality.

§RS-I and RS-II have the same genotyping status for all the SNPs and counted as one cohort.

**Table 4s. Association of genetic urate score with CVD risk factors and CHD in 22,054 individuals from the WGHS**

phenotype*	Genetic Urate Score, per 100 umol/L					
	Age-sex Adjusted			Multivariable Adjusted		
	Beta (Odds Ratio)	95% CI	P-value	Beta (Odds Ratio)	95% CI	P-value
hypertension incidence	-0.93	0.78 , 1.11	0.43	-0.81	0.81 , 1.16	0.74
SBP (mm Hg)†	-0.51	-1.6 , 0.57	0.35	-1.33	-2.34 , -0.32	0.54
DBP (mm Hg)†	-0.44	-1.15 , 0.27	0.22	-0.97	-1.64 , -0.3	0.39
SBP (not treated; mmHg)**	-0.71	-1.66 , 0.24	0.14	-1.49	-2.98	0.2
DBP (not treated; mmHg)**	-0.72	-1.39 , -0.05	0.04	-1.26	-2.52	0.06
prevalent diabetes	-0.63	0.39 , 1.00	0.05	-0.4	0.40 , 1.04	0.07
log egfr-Creatinine (ml/min/1.73m2)	-0.0089	-0.0081 , 0.0259	0.3	-0.0084	-0.0255 , 0.0087	0.32
CKD	-0.81	0.59 , 1.10	0.17	-0.59	0.59 , 1.10	0.17
incident CHD	-0.83	0.53 , 1.30	0.42	-0.53	0.53 , 1.32	0.43

\*includes 5407 cases of incident hypertension, 557 cases of prevalent diabetes, 1333 cases of CKD, and 611 cases of CHD.

†Systolic blood pressure (+10 mm Hg if treated), diastolic blood pressure (+5 mm Hg if treated).

\*\*Individuals taking anti-hypertensive treatment were excluded from this analysis.

*Table 5s. Single SNP association with CVD risk factors and CHD in CHARGE cohorts.*

				Multivariable Adjusted		
Phenotype	SNPID	Chr: Gene (region)	coded allele	beta	SE	P-value
<b>SBP</b>	rs2078267	11: SLC22A11	C	0.028	0.158	8.6E-01
	rs780093	2: GCKR	T	0.297	0.145	4.1E-02
	rs1106766	12: (R3HDM2-INHBC)	T	0.042	0.184	8.2E-01
	rs675209	6: RREB1	T	-0.125	0.171	4.7E-01
	rs1967017	1: PDZK1	T	0.052	0.143	7.2E-01
	rs13129697	4: SLC2A9	G	0.302	0.162	6.2E-02
	rs2199936	4: ABCG2	A	-0.483	0.235	4.0E-02
	rs1165196	6: SLC17A1	G	-0.090	0.142	5.3E-01
<b>DBP</b>	rs2078267	11: SLC22A11	C	0.068	0.089	4.5E-01
	rs780093	2: GCKR	T	0.172	0.085	4.3E-02
	rs1106766	12: (R3HDM2-INHBC)	T	0.059	0.107	5.9E-01
	rs675209	6: RREB1	T	-0.001	0.100	9.9E-01
	rs1967017	1: PDZK1	T	0.008	0.084	9.2E-01
	rs13129697	4: SLC2A9	G	0.061	0.095	5.2E-01
	rs2199936	4: ABCG2	A	-0.178	0.138	2.0E-01
	rs1165196	6: SLC17A1	G	-0.048	0.084	5.7E-01
<b>SBP (exclude treated)</b>	rs2078267	11: SLC22A11	C	0.032	0.164	8.5E-01
	rs780093	2: GCKR	T	0.265	0.150	7.6E-02
	rs1106766	12: (R3HDM2-INHBC)	T	0.182	0.192	3.4E-01
	rs675209	6: RREB1	T	-0.310	0.178	8.0E-02
	rs1967017	1: PDZK1	T	0.074	0.148	6.2E-01
	rs13129697	4: SLC2A9	G	0.272	0.166	1.0E-01
	rs2199936	4: ABCG2	A	-0.454	0.242	6.1E-02
	rs1165196	6: SLC17A1	G	0.015	0.147	9.2E-01
<b>DBP (exclude treated)</b>	rs2078267	11: SLC22A11	C	0.064	0.099	5.2E-01
	rs780093	2: GCKR	T	0.181	0.093	5.1E-02
	rs1106766	12: (R3HDM2-INHBC)	T	0.146	0.118	2.2E-01
	rs675209	6: RREB1	T	-0.153	0.110	1.6E-01
	rs1967017	1: PDZK1	T	-0.002	0.092	9.9E-01
	rs13129697	4: SLC2A9	G	0.092	0.103	3.7E-01
	rs2199936	4: ABCG2	A	-0.184	0.149	2.2E-01
	rs1165196	6: SLC17A1	G	-0.004	0.091	9.7E-01
<b>glucose</b>	rs2078267	11: SLC22A11	C	-0.006	0.011	5.8E-01
	rs780093	2: GCKR	T	-0.031	0.010	1.7E-03
	rs1106766	12: (R3HDM2-INHBC)	T	0.016	0.013	2.2E-01
	rs675209	6: RREB1	T	-0.002	0.012	8.8E-01
	rs1967017	1: PDZK1	T	0.016	0.010	1.0E-01
	rs13129697	4: SLC2A9	G	0.007	0.011	5.1E-01
	rs2199936	4: ABCG2	A	-0.007	0.016	6.7E-01
	rs1165196	6: SLC17A1	G	0.003	0.010	7.3E-01
<b>glucose (exclude diabetes)</b>	rs2078267	11: SLC22A11	C	-0.0056	0.0050	2.6E-01
	rs780093	2: GCKR	T	-0.0259	0.0047	<b>2.8E-08</b>
	rs1106766	12: (R3HDM2-INHBC)	T	-0.0031	0.0059	6.0E-01
	rs675209	6: RREB1	T	0.0032	0.0055	5.7E-01
	rs1967017	1: PDZK1	T	0.0065	0.0046	1.6E-01

	rs13129697	4: SLC2A9	G	-0.0012	0.0052	8.2E-01
	rs2199936	4: ABCG2	A	0.0158	0.0077	4.0E-02
	rs1165196	6: SLC17A1	G	0.0006	0.0046	8.9E-01
<b>Insulin (exclude diabetes)</b>	rs2078267	11: SLC22A11	C	-0.0307	0.1259	8.1E-01
	rs780093	2: GCKR	T	-0.2930	0.1186	1.3E-02
	rs1106766	12: (R3HDM2-INHBC)	T	-0.1667	0.1645	3.1E-01
	rs675209	6: RREB1	T	0.0287	0.1353	8.3E-01
	rs1967017	1: PDZK1	T	0.0115	0.1243	9.3E-01
	rs13129697	4: SLC2A9	G	-0.0043	0.1417	9.8E-01
	rs2199936	4: ABCG2	A	0.2736	0.2140	2.0E-01
	rs1165196	6: SLC17A1	G	0.0263	0.1176	8.2E-01
<b>log-GFR Creatinine</b>	rs2078267	11: SLC22A11	C	0.0030	0.0020	1.4E-01
	rs780093	2: GCKR	T	0.0061	0.0020	2.5E-03
	rs1106766	12: (R3HDM2-INHBC)	T	0.0109	0.0025	<b>1.3E-05</b>
	rs675209	6: RREB1	T	0.0083	0.0024	<b>4.6E-04</b>
	rs1967017	1: PDZK1	T	0.0023	0.0020	2.5E-01
	rs13129697	4: SLC2A9	G	0.0014	0.0023	5.5E-01
	rs2199936	4: ABCG2	A	-0.0008	0.0032	8.1E-01
	rs1165196	6: SLC17A1	G	0.0013	0.0020	5.1E-01
<b>CKD</b>	rs2078267	11: SLC22A11	C	-0.0159	0.0294	5.9E-01
	rs780093	2: GCKR	T	-0.0007	0.0298	9.8E-01
	rs1106766	12: (R3HDM2-INHBC)	T	-0.0019	0.0041	6.4E-01
	rs675209	6: RREB1	T	-0.0270	0.0344	4.3E-01
	rs1967017	1: PDZK1	T	0.0169	0.0290	5.6E-01
	rs13129697	4: SLC2A9	G	-0.0350	0.0336	3.0E-01
	rs2199936	4: ABCG2	A	0.0593	0.0469	2.1E-01
	rs1165196	6: SLC17A1	G	-0.0111	0.0292	7.0E-01
<b>CHD</b>	rs2078267	11: SLC22A11	C	0.0166	0.0256	5.2E-01
	rs780093	2: GCKR	T	0.0156	0.0262	5.5E-01
	rs1106766	12: (R3HDM2-INHBC)	T	-0.0046	0.0058	4.3E-01
	rs675209	6: RREB1	T	0.0600	0.0299	4.5E-02
	rs1967017	1: PDZK1	T	-0.0004	0.0257	9.9E-01
	rs13129697	4: SLC2A9	G	0.0213	0.0289	4.6E-01
	rs2199936	4: ABCG2	A	0.0262	0.0417	5.3E-01
	rs1165196	6: SLC17A1	G	0.0013	0.0255	9.6E-01

\***Bold P-values indicate the result is significant at alpha=0.0016, corresponding to a Bonferroni corrected alpha of 0.05, for 4 trait classes (BP, glucose, CKD, CHD) and 8 SNPs.**

**Table 6s. SNPs associated with serum urate (p-value  $\leq 4e-7$ ) in meta analyses of CHARGE cohorts**

Chr	SNP ID	Allele	Position	Beta	P	In RefGene	RefGenes within 60kb
1	rs10910845	A	144434477	3.312	3.9E-08		CD160;GPR89A;ZNF364;PDZK1
1	rs1967017	T	144435002	3.327	3.5E-08		CD160;GPR89A;ZNF364;PDZK1
1	rs1471633	A	144435096	3.330	3.6E-08		CD160;GPR89A;ZNF364;PDZK1
2	rs1049817	A	27404471	3.324	1.2E-07	GTF3C2	SNX17;UCN;ZNF513;GTF3C2;MPV17;EIF2B4;PPM1G;TRIM54;DNAJC5G
2	rs3739095	A	27410225	-3.988	1.4E-10	GTF3C2	SNX17;UCN;ZNF513;GTF3C2;MPV17;EIF2B4;PPM1G;TRIM54;DNAJC5G
2	rs11684134	A	27411756	3.656	7.1E-09	GTF3C2	SNX17;UCN;ZNF513;GTF3C2;MPV17;EIF2B4;PPM1G;TRIM54;DNAJC5G
2	rs6743819	T	27420911	-3.299	1.4E-07	GTF3C2	SNX17;UCN;ZNF513;GTF3C2;MPV17;EIF2B4;PPM1G;TRIM54
2	rs10205219	T	27422069	3.297	1.4E-07	GTF3C2	SNX17;UCN;ZNF513;GTF3C2;MPV17;EIF2B4;PPM1G;TRIM54
2	rs4665969	T	27428457	3.298	1.3E-07	GTF3C2	SNX17;UCN;ZNF513;GTF3C2;MPV17;EIF2B4;PPM1G;TRIM54
2	rs6760828	T	27432735	3.307	1.2E-07	GTF3C2	SNX17;UCN;ZNF513;GTF3C2;MPV17;EIF2B4;PPM1G;TRIM54
2	rs7586601	A	27438170	3.915	2.8E-10		SNX17;UCN;ZNF513;GTF3C2;MPV17;EIF2B4;PPM1G;TRIM54
2	rs2280737	T	27443314	3.224	2.5E-07	EIF2B4	SNX17;UCN;ZNF513;GTF3C2;MPV17;EIF2B4;PPM1G;TRIM54
2	rs7602534	T	27445927	-3.184	3.4E-07	EIF2B4	SNX17;ZNF513;GTF3C2;MPV17;NRBP1;EIF2B4;PPM1G
2	rs1528533	C	27449260	-3.240	1.9E-07	SNX17	SNX17;ZNF513;GTF3C2;MPV17;NRBP1;EIF2B4;PPM1G
2	rs13472	A	27453743	-3.237	2.2E-07	ZNF513	SNX17;ZNF513;GTF3C2;MPV17;NRBP1;EIF2B4;PPM1G
2	rs1647284	T	27461619	-3.261	1.7E-07	PPM1G	SNX17;KRTCAP3;ZNF513;IFT172;GTF3C2;NRBP1;EIF2B4;PPM1G
2	rs7594812	A	27464973	3.264	1.6E-07	PPM1G	SNX17;KRTCAP3;ZNF513;IFT172;GTF3C2;NRBP1;EIF2B4;PPM1G
2	rs12476704	A	27466535	-3.276	1.6E-07	PPM1G	SNX17;KRTCAP3;ZNF513;IFT172;GTF3C2;NRBP1;EIF2B4;PPM1G
2	rs2911712	A	27480449	3.285	1.3E-07	PPM1G	SNX17;KRTCAP3;ZNF513;IFT172;GTF3C2;NRBP1;EIF2B4;PPM1G
2	rs7563162	T	27484695	-3.287	1.3E-07	PPM1G	SNX17;KRTCAP3;ZNF513;IFT172;GTF3C2;NRBP1;EIF2B4;PPM1G
2	rs1060525	A	27489086	3.264	1.6E-07		SNX17;KRTCAP3;ZNF513;IFT172;GTF3C2;NRBP1;EIF2B4;PPM1G
2	rs2010087	T	27490739	-3.297	1.3E-07		SNX17;KRTCAP3;ZNF513;IFT172;GTF3C2;NRBP1;EIF2B4;PPM1G
2	rs4665976	A	27493829	3.288	1.3E-07		SNX17;KRTCAP3;ZNF513;IFT172;NRBP1;EIF2B4;PPM1G
2	rs1728922	A	27497968	3.296	1.2E-07		SNX17;KRTCAP3;ZNF513;IFT172;NRBP1;EIF2B4;PPM1G
2	rs6547626	T	27500274	-3.301	1.1E-07		SNX17;KRTCAP3;ZNF513;IFT172;NRBP1;EIF2B4;PPM1G
2	rs4665978	T	27502230	3.943	1.8E-10		SNX17;KRTCAP3;ZNF513;IFT172;NRBP1;EIF2B4;PPM1G
2	rs780100	T	27505657	-3.438	3.4E-08	NRBP1	SNX17;KRTCAP3;ZNF513;IFT172;NRBP1;EIF2B4;PPM1G
2	rs704791	T	27510671	3.424	3.9E-08	NRBP1	SNX17;KRTCAP3;ZNF513;IFT172;FNDC4;NRBP1;PPM1G
2	rs780102	T	27512995	3.441	3.3E-08	NRBP1	SNX17;KRTCAP3;ZNF513;IFT172;FNDC4;NRBP1;PPM1G
2	rs1260341	A	27516719	-3.444	3.2E-08	NRBP1	GCKR;KRTCAP3;ZNF513;IFT172;FNDC4;NRBP1;PPM1G
2	rs1260342	T	27516920	-3.443	3.2E-08	NRBP1	GCKR;KRTCAP3;ZNF513;IFT172;FNDC4;NRBP1;PPM1G
2	rs4803	A	27520801	3.455	2.9E-08	IFT172	GCKR;KRTCAP3;IFT172;FNDC4;NRBP1;PPM1G
2	rs780104	A	27531195	-3.453	2.9E-08	IFT172	GCKR;KRTCAP3;IFT172;FNDC4;NRBP1;PPM1G
2	rs780106	A	27535102	3.449	3.1E-08	IFT172	GCKR;KRTCAP3;IFT172;FNDC4;NRBP1;PPM1G
2	rs780107	A	27538238	3.457	2.9E-08	IFT172	GCKR;KRTCAP3;IFT172;FNDC4;NRBP1;PPM1G
2	rs780110	A	27538892	-4.080	3.8E-11	IFT172	GCKR;KRTCAP3;IFT172;FNDC4;NRBP1;PPM1G
2	rs1647276	T	27542105	-3.462	2.7E-08	IFT172	GCKR;KRTCAP3;IFT172;FNDC4;NRBP1;PPM1G
2	rs1647266	T	27546989	3.456	2.8E-08	IFT172	GCKR;KRTCAP3;IFT172;FNDC4;NRBP1
2	rs780117	C	27551847	3.466	2.6E-08	IFT172	GCKR;KRTCAP3;IFT172;FNDC4;NRBP1
2	rs2303369	T	27568920	-3.496	2.3E-08	FNDC4	GCKR;KRTCAP3;IFT172;FNDC4;NRBP1
2	rs704795	A	27569998	-3.506	1.9E-08	FNDC4	GCKR;KRTCAP3;IFT172;FNDC4;NRBP1
2	rs813592	T	27575475	3.549	1.3E-08	GCKR	GCKR;KRTCAP3;IFT172;FNDC4;NRBP1
2	rs1260320	A	27575920	-3.551	1.2E-08	GCKR	GCKR;KRTCAP3;IFT172;FNDC4;NRBP1
2	rs2293572	C	27582281	3.560	1.1E-08	GCKR	GCKR;IFT172;FNDC4
2	rs2293571	A	27582984	-3.544	1.3E-08	GCKR	GCKR;IFT172;FNDC4
2	rs1260326	T	27584444	5.152	5.9E-17	GCKR	GCKR;IFT172;FNDC4
2	rs4425043	A	27586956	-3.559	1.2E-08	GCKR	GCKR;IFT172;FNDC4
2	rs780094	T	27594741	5.128	4.7E-17	GCKR	GCKR;IFT172;FNDC4;C2orf16
2	rs780093	T	27596107	5.147	3.8E-17	GCKR	GCKR;IFT172;FNDC4;C2orf16
2	rs11681351	A	27596927	-3.506	1.6E-08	GCKR	GCKR;IFT172;FNDC4;C2orf16

2	rs8179252	A	27600336	3.515	1.5E-08	GCKR;IFT172;ZNF512;FNDC4;C2orf16
2	rs1260333	A	27602128	4.404	4.3E-13	GCKR;IFT172;ZNF512;FNDC4;C2orf16
2	rs2911711	A	27604050	-4.416	4.1E-13	GCKR;IFT172;ZNF512;FNDC4;C2orf16
2	rs4665987	A	27609329	3.487	3.9E-07	GCKR;IFT172;ZNF512;FNDC4;C2orf16
4	rs12513044	A	9115776	-4.789	6.5E-10	LOC650293;DEFB131
4	rs11722359	A	9117312	-4.798	5.9E-10	LOC650293;DEFB131
4	rs2127796	T	9119930	4.883	4.0E-10	LOC650293;DEFB131
4	rs6448742	T	9151857	8.004	2.1E-07	LOC650293
4	rs12233771	A	9162063	4.655	1.3E-09	
4	rs13110253	T	9167654	4.622	3.6E-10	
4	rs10013288	A	9168316	8.602	2.0E-08	
4	rs2170252	A	9169160	-8.604	2.0E-08	
4	rs13117722	T	9170737	-8.606	2.0E-08	
4	rs13116764	A	9170857	-4.708	1.5E-10	
4	rs13131681	A	9173028	-8.735	1.2E-08	
4	rs6448816	T	9173582	-9.342	8.7E-09	
4	rs12646317	A	9174936	-9.762	1.6E-09	
4	rs4102942	T	9177576	4.631	1.8E-10	
4	rs1825043	A	9182838	7.310	4.7E-08	
4	rs13138961	T	9194245	5.491	1.0E-14	
4	rs12512447	A	9195411	5.839	6.6E-17	
4	rs1811570	A	9197097	-7.555	3.3E-08	
4	rs6824806	T	9198525	7.248	5.3E-08	
4	rs6815602	T	9201191	5.858	5.9E-16	
4	rs16898588	T	9204849	-6.038	1.0E-08	
4	rs6448858	T	9205016	-6.988	1.3E-07	
4	rs4974823	A	9211817	-9.421	8.8E-10	
4	rs12509677	A	9211822	-6.047	9.1E-09	
4	rs13103207	T	9212770	7.382	1.5E-17	
4	rs2077679	A	9217187	-9.531	4.9E-10	
4	rs4974853	C	9218213	-9.566	4.2E-10	
4	rs7375281	T	9218604	-9.568	4.2E-10	
4	rs11724183	A	9218992	9.626	3.3E-10	
4	rs4974812	A	9223696	9.629	3.3E-10	
4	rs11735475	T	9224024	-9.631	3.3E-10	
4	rs6838199	C	9230431	20.820	5.6E-09	
4	rs6837106	T	9235402	-9.601	3.4E-10	
4	rs10049735	T	9235507	5.659	8.8E-08	
4	rs10005684	T	9235995	-9.673	2.5E-10	
4	rs9998663	T	9236151	9.673	2.5E-10	
4	rs13151183	A	9236164	6.022	1.3E-16	
4	rs13107086	T	9237186	6.017	1.3E-16	
4	rs10939427	A	9237636	9.654	2.5E-10	
4	rs7698775	T	9238149	32.289	3.0E-11	
4	rs7693695	A	9238478	-6.014	1.2E-16	
4	rs11939895	T	9239500	-9.601	2.5E-10	
4	rs9291589	C	9242508	-9.589	2.6E-10	
4	rs6842855	T	9243088	-9.571	3.0E-10	
4	rs11731624	A	9246706	-9.565	3.1E-10	
4	rs11737243	T	9250370	-9.559	3.1E-10	
4	rs11733687	T	9252472	5.693	7.4E-14	
4	rs10939436	T	9256233	-9.521	3.6E-10	
4	rs7440232	T	9260842	-9.536	3.5E-10	
4	rs7654169	T	9263169	-9.501	3.8E-10	
4	rs6812811	T	9281098	-9.459	4.4E-10	



4	rs7434744	A	9281786	-9.462	4.4E-10	
4	rs10002984	T	9289831	-9.447	4.8E-10	
4	rs6858093	A	9290748	7.996	5.0E-08	
4	rs13104360	A	9293902	9.445	4.5E-10	
4	rs7671092	T	9296539	7.544	1.4E-08	
4	rs7658414	T	9297067	4.405	2.2E-07	
4	rs7691759	T	9297112	-4.408	2.2E-07	
4	rs6821253	T	9299829	-5.862	1.4E-16	
4	rs10022012	A	9302280	4.289	2.1E-08	
4	rs7678732	T	9302351	-9.133	9.7E-10	
4	rs12649073	A	9303588	4.299	1.2E-07	
4	rs13103452	T	9303760	-5.827	1.9E-16	
4	rs4554078	A	9310642	-8.476	7.3E-09	
4	rs10805313	T	9312159	-8.246	1.5E-08	
4	rs9685887	T	9315440	-8.102	2.4E-08	
4	rs9291607	C	9317896	8.188	1.8E-08	
4	rs6858393	T	9318675	-3.980	1.9E-09	
4	rs13136075	A	9324066	4.846	1.9E-15	
4	rs6448974	A	9324203	-8.308	1.1E-08	
4	rs9684176	T	9325484	-4.832	2.1E-15	
4	rs12501880	T	9327073	4.858	1.7E-15	
4	rs11730320	T	9328999	6.180	2.0E-16	
4	rs11727674	T	9329079	-3.830	4.8E-08	
4	rs11724606	A	9329542	-6.543	3.9E-11	
4	rs7659176	A	9330164	-8.381	4.5E-09	
4	rs10939472	C	9330714	8.326	4.9E-09	
4	rs13121465	T	9331373	-5.687	7.6E-17	
4	rs13136217	T	9331390	8.321	5.2E-09	
4	rs13128435	A	9332770	-5.394	1.0E-15	DRD5
4	rs2037313	T	9333809	-8.313	5.3E-09	DRD5
4	rs7685513	A	9337697	-8.327	4.7E-09	DRD5
4	rs13127001	A	9340313	5.411	8.3E-16	DRD5
4	rs6811848	A	9341259	8.264	6.7E-09	DRD5
4	rs10007469	C	9341841	8.383	1.4E-08	DRD5
4	rs7684214	T	9343683	-8.266	6.7E-09	DRD5
4	rs7675599	A	9345614	8.295	6.1E-09	DRD5
4	rs6448981	C	9349423	5.319	3.3E-14	DRD5
4	rs1818670	C	9354488	8.296	5.9E-09	DRD5
4	rs6834270	A	9365808	12.018	9.3E-10	DRD5
4	rs6834697	A	9366012	-8.201	4.7E-08	DRD5
4	rs11727873	T	9367567	5.463	1.7E-11	DRD5
4	rs10011621	A	9369337	5.457	9.8E-12	DRD5
4	rs13140817	A	9372073	5.250	3.4E-15	DRD5
4	rs11733815	A	9373380	-8.144	5.3E-08	DRD5
4	rs11734974	T	9373662	-7.642	2.3E-07	DRD5
4	rs11729600	T	9373784	-8.139	5.3E-08	DRD5
4	rs7655090	A	9374973	4.577	3.6E-12	DRD5
4	rs11731100	A	9376278	-5.760	1.3E-19	DRD5
4	rs10939504	A	9376468	-8.049	7.0E-08	DRD5
4	rs11732272	A	9377356	6.995	6.3E-15	SLC2A9;DRD5
4	rs10939507	T	9377921	-8.007	7.9E-08	SLC2A9;DRD5
4	rs10939514	T	9382294	8.028	7.6E-08	SLC2A9;DRD5
4	rs10939515	A	9382394	-6.144	2.1E-13	SLC2A9;DRD5
4	rs10033951	T	9388678	-4.511	4.0E-12	SLC2A9;DRD5
4	rs2867383	A	9397033	-4.522	3.5E-12	SLC2A9;DRD5

4	rs1850744	T	9399810	-7.884	1.3E-07	SLC2A9;DRD5
4	rs7685396	A	9403822	5.590	2.2E-18	SLC2A9;DRD5
4	rs1850739	T	9406441	-7.872	1.4E-07	SLC2A9;DRD5
4	rs13106539	T	9406801	5.657	2.6E-19	SLC2A9;DRD5
4	rs2139240	T	9407190	28.833	2.5E-09	SLC2A9;DRD5
4	rs6449000	A	9407710	7.858	1.5E-07	SLC2A9;DRD5
4	rs2280207	T	9408874	-5.658	2.7E-19	SLC2A9;DRD5
4	rs2280208	A	9409141	-7.783	1.9E-07	SLC2A9;DRD5
4	rs938556	A	9411464	-7.816	1.7E-07	SLC2A9;DRD5
4	rs1519097	A	9411951	4.631	9.9E-13	SLC2A9;DRD5
4	rs1533615	T	9413622	-7.795	1.8E-07	SLC2A9;DRD5
4	rs1519096	T	9414970	5.772	2.0E-13	SLC2A9;DRD5
4	rs7664572	T	9417807	-7.913	1.2E-07	SLC2A9;DRD5
4	rs12500086	A	9418957	5.722	2.5E-13	SLC2A9;DRD5
4	rs1519095	C	9420029	7.900	1.3E-07	SLC2A9;DRD5
4	rs2280333	A	9420231	5.778	5.0E-20	SLC2A9;DRD5
4	rs1401438	A	9423554	-6.442	4.9E-15	SLC2A9;DRD5
4	rs13148356	A	9426168	5.782	4.0E-20	SLC2A9;DRD5
4	rs1519094	T	9426384	-7.925	1.3E-07	SLC2A9;DRD5
4	rs13141706	T	9427443	-6.079	3.4E-21	SLC2A9;DRD5
4	rs6855095	A	9429075	-6.286	5.1E-23	SLC2A9;DRD5
4	rs1107912	A	9429277	-6.104	6.0E-22	SLC2A9;DRD5
4	rs4697892	A	9432935	-8.119	5.1E-28	SLC2A9;DRD5
4	rs1980220	A	9433734	-8.064	2.1E-28	SLC2A9;DRD5
4	rs4697893	T	9435281	19.164	1.7E-08	SLC2A9;DRD5
4	rs6822889	T	9435855	6.212	4.3E-23	SLC2A9;DRD5
4	rs4621429	A	9435968	8.038	1.8E-28	SLC2A9;DRD5
4	rs4697895	T	9437582	7.973	4.1E-28	SLC2A9;DRD5
4	rs1401440	T	9441610	6.199	4.4E-23	SLC2A9;DRD5
4	rs1464258	T	9443205	6.173	5.7E-23	SLC2A9;DRD5
4	rs16889260	T	9443994	-9.085	7.3E-32	SLC2A9;DRD5
4	rs12505312	C	9446188	8.042	2.1E-28	SLC2A9;DRD5
4	rs10939552	A	9447646	-8.055	2.0E-28	SLC2A9;DRD5
4	rs1914874	A	9448588	-6.200	2.0E-21	SLC2A9;DRD5
4	rs10031303	A	9450788	-6.287	5.6E-23	SLC2A9;DRD5
4	rs950310	A	9451948	-9.193	6.5E-32	SLC2A9;DRD5
4	rs10939558	T	9453260	-6.322	3.9E-22	SLC2A9;DRD5
4	rs7683831	T	9454177	6.043	3.6E-20	SLC2A9;DRD5
4	rs13141635	T	9455083	-6.091	1.3E-21	SLC2A9;DRD5
4	rs1976792	A	9455407	-9.270	3.7E-28	SLC2A9;DRD5
4	rs13119059	C	9456958	6.091	1.3E-21	SLC2A9;DRD5
4	rs11721988	A	9457997	8.200	1.1E-28	SLC2A9;DRD5
4	rs2176644	T	9458626	-8.195	1.2E-28	SLC2A9;DRD5
4	rs6812007	A	9459318	-6.055	3.0E-20	SLC2A9;DRD5
4	rs6831796	C	9461996	8.317	6.8E-30	SLC2A9;DRD5
4	rs6826806	A	9465567	7.885	2.6E-27	SLC2A9;DRD5
4	rs4697900	A	9469074	6.002	1.1E-18	SLC2A9;DRD5
4	rs9684729	T	9471134	-6.117	1.4E-20	SLC2A9;DRD5
4	rs4697903	A	9474524	-7.933	1.6E-27	SLC2A9;DRD5
4	rs2292917	C	9476375	-6.112	7.9E-22	SLC2A9;DRD5
4	rs2139243	A	9476600	8.300	3.0E-29	SLC2A9;DRD5
4	rs883041	T	9477444	-7.933	1.4E-27	SLC2A9;DRD5
4	rs13105954	C	9477515	-6.113	7.1E-22	SLC2A9;DRD5
4	rs939134	A	9477691	7.928	1.4E-27	SLC2A9;DRD5
4	rs884573	C	9478832	-9.243	1.2E-30	SLC2A9;DRD5

4	rs1048252	T	9479633	10.182	6.2E-25	SLC2A9	SLC2A9
4	rs1568318	T	9480639	8.717	1.2E-30	SLC2A9	SLC2A9
4	rs2867394	A	9481573	-9.073	1.4E-32	SLC2A9	SLC2A9
4	rs13148571	A	9482953	7.349	6.7E-26	SLC2A9	SLC2A9
4	rs1519098	A	9490256	5.836	6.1E-21	SLC2A9	SLC2A9
4	rs6824636	C	9490949	-7.198	1.7E-26	SLC2A9	SLC2A9
4	rs6449090	T	9493634	6.031	3.2E-20	SLC2A9	SLC2A9
4	rs10939599	A	9495958	-8.657	2.8E-30	SLC2A9	SLC2A9
4	rs10939600	A	9496029	6.044	3.2E-20	SLC2A9	SLC2A9
4	rs9993652	C	9497947	-6.027	8.2E-15	SLC2A9	SLC2A9
4	rs6818572	A	9498546	-8.610	2.4E-28	SLC2A9	SLC2A9
4	rs1107710	A	9499806	8.658	2.7E-30	SLC2A9	SLC2A9
4	rs938563	C	9500096	-8.273	1.8E-28	SLC2A9	SLC2A9
4	rs938562	T	9500129	-8.696	2.0E-30	SLC2A9	SLC2A9
4	rs10939602	T	9501200	6.082	2.3E-20	SLC2A9	SLC2A9
4	rs4697692	T	9502295	-8.251	4.4E-25	SLC2A9	SLC2A9
4	rs12644047	A	9502501	-9.266	7.4E-33	SLC2A9	SLC2A9
4	rs7669444	A	9502675	6.117	1.9E-20	SLC2A9	SLC2A9
4	rs4697693	A	9504958	7.836	3.7E-31	SLC2A9	SLC2A9
4	rs10939605	A	9505391	-7.855	2.8E-31	SLC2A9	SLC2A9
4	rs4697694	T	9505740	7.866	2.4E-31	SLC2A9	SLC2A9
4	rs6449097	T	9505832	-5.919	1.6E-22	SLC2A9	SLC2A9
4	rs13115121	T	9506440	-5.915	1.7E-22	SLC2A9	SLC2A9
4	rs13129868	A	9506470	5.912	1.8E-22	SLC2A9	SLC2A9
4	rs13122026	T	9507305	-5.899	2.1E-22	SLC2A9	SLC2A9
4	rs6449100	T	9510661	5.744	5.1E-21	SLC2A9	SLC2A9
4	rs4697910	A	9510972	-7.887	2.2E-31	SLC2A9	SLC2A9
4	rs11732681	A	9511974	6.109	2.5E-23	SLC2A9	SLC2A9
4	rs11737685	A	9512219	-7.251	4.6E-29	SLC2A9	SLC2A9
4	rs7694136	C	9517889	-5.853	3.8E-22	SLC2A9	SLC2A9
4	rs2280202	T	9518393	-5.853	3.9E-22	SLC2A9	SLC2A9
4	rs2280205	A	9519021	5.872	2.7E-22	SLC2A9	SLC2A9
4	rs11734893	A	9519539	5.877	2.6E-22	SLC2A9	SLC2A9
4	rs13103429	T	9519733	5.882	2.5E-22	SLC2A9	SLC2A9
4	rs13108825	C	9519761	-5.889	2.4E-22	SLC2A9	SLC2A9
4	rs11722228	T	9524839	12.521	3.7E-90	SLC2A9	SLC2A9
4	rs4697695	A	9524948	12.501	4.6E-90	SLC2A9	SLC2A9
4	rs10516194	T	9525307	31.714	9.6E-31	SLC2A9	SLC2A9
4	rs10805346	T	9529445	16.583	7.2E-167	SLC2A9	SLC2A9
4	rs874432	A	9529704	23.578	1.8E-235	SLC2A9	SLC2A9
4	rs6823877	T	9531029	12.578	9.4E-91	SLC2A9	SLC2A9
4	rs16890979	T	9531265	23.635	3.2E-241	SLC2A9	SLC2A9
4	rs938564	T	9531671	23.787	1.7E-238	SLC2A9	SLC2A9
4	rs734553	T	9532102	23.679	5.6E-239	SLC2A9	SLC2A9
4	rs6832439	A	9533417	23.758	5.5E-238	SLC2A9	SLC2A9
4	rs938553	T	9534624	9.436	1.0E-17	SLC2A9	SLC2A9
4	rs938554	C	9534790	23.766	4.3E-238	SLC2A9	SLC2A9
4	rs938555	A	9535149	23.767	4.3E-238	SLC2A9	SLC2A9
4	rs10939614	T	9535711	12.705	2.4E-91	SLC2A9	SLC2A9
4	rs13129697	T	9536065	22.211	1.5E-242	SLC2A9	SLC2A9
4	rs6838021	T	9536718	23.769	3.8E-238	SLC2A9	SLC2A9
4	rs881971	T	9540060	11.893	6.7E-86	SLC2A9	SLC2A9

4	rs737267	T	9543842	-	22.533	1.0E-234	SLC2A9	SLC2A9
4	rs6855911	A	9545008	-	22.569	3.4E-235	SLC2A9	SLC2A9
4	rs7670751	A	9547871	-	22.423	7.2E-166	SLC2A9	SLC2A9
4	rs4447863	T	9548067	-	12.877	5.7E-102	SLC2A9	SLC2A9
4	rs938558	A	9548303	-	22.040	1.2E-241	SLC2A9	SLC2A9
4	rs4511996	A	9548916	-	7.046	3.9E-21	SLC2A9	SLC2A9
4	rs5028843	A	9549904	-	22.683	3.4E-236	SLC2A9	SLC2A9
4	rs4697913	T	9550360	-	23.207	7.6E-236	SLC2A9	SLC2A9
4	rs7675964	T	9550532	-	22.294	2.1E-242	SLC2A9	SLC2A9
4	rs4697698	T	9551675	-	12.687	3.3E-98	SLC2A9	SLC2A9
4	rs4292327	A	9552798	-	7.012	1.1E-20	SLC2A9	SLC2A9
4	rs12498742	A	9553150	-	23.067	6.9E-234	SLC2A9	SLC2A9
4	rs6449144	T	9553748	-	12.977	5.4E-92	SLC2A9	SLC2A9
4	rs4235346	T	9554394	-	12.684	5.7E-98	SLC2A9	SLC2A9
4	rs4697700	C	9554890	-	22.273	4.2E-217	SLC2A9	SLC2A9
4	rs4697701	A	9555193	-	22.462	9.3E-240	SLC2A9	SLC2A9
4	rs16891234	T	9555261	-	-6.541	1.3E-18	SLC2A9	SLC2A9
4	rs4475146	A	9555754	-	23.438	3.2E-233	SLC2A9	SLC2A9
4	rs2018643	T	9556219	-	11.654	8.4E-82	SLC2A9	SLC2A9
4	rs1122141	T	9556376	-	12.553	1.5E-91	SLC2A9	SLC2A9
4	rs4621431	A	9556688	-	11.661	4.9E-82	SLC2A9	SLC2A9
4	rs4339211	T	9556756	-	11.658	3.7E-82	SLC2A9	SLC2A9
4	rs7694997	A	9556909	-	11.658	2.5E-82	SLC2A9	SLC2A9
4	rs7686538	T	9557175	-	11.654	2.5E-82	SLC2A9	SLC2A9
4	rs4580649	A	9557559	-	11.652	2.5E-82	SLC2A9	SLC2A9
4	rs998676	T	9557662	-	12.704	4.0E-98	SLC2A9	SLC2A9
4	rs998675	T	9557927	-	12.702	4.0E-98	SLC2A9	SLC2A9
4	rs12498150	T	9559635	-	11.640	2.8E-82	SLC2A9	SLC2A9
4	rs12498956	A	9559803	-	11.645	2.3E-82	SLC2A9	SLC2A9
4	rs13328050	T	9560218	-	11.649	2.2E-82	SLC2A9	SLC2A9
4	rs1079128	T	9560319	-	11.653	2.2E-82	SLC2A9	SLC2A9
4	rs9993410	T	9560362	-	11.654	2.3E-82	SLC2A9	SLC2A9
4	rs11723439	T	9560917	-	25.262	4.4E-238	SLC2A9	SLC2A9
4	rs4235347	T	9561054	-	11.550	2.3E-79	SLC2A9	SLC2A9
4	rs4455410	T	9562395	-	11.569	1.6E-79	SLC2A9	SLC2A9
4	rs4560411	A	9562459	-	11.578	1.5E-79	SLC2A9	SLC2A9
4	rs4447861	T	9563038	-	11.007	5.5E-70	SLC2A9	SLC2A9
4	rs4459990	T	9563103	-	11.609	9.7E-80	SLC2A9	SLC2A9
4	rs9994266	A	9563548	-	11.613	9.3E-80	SLC2A9	SLC2A9
4	rs7376948	A	9563806	-	11.618	9.3E-80	SLC2A9	SLC2A9
4	rs7375587	A	9563856	-	11.620	9.2E-80	SLC2A9	SLC2A9
4	rs7378305	T	9563991	-	11.643	6.9E-80	SLC2A9	SLC2A9
4	rs7375599	A	9564016	-	12.877	2.3E-98	SLC2A9	SLC2A9
4	rs7378340	T	9564296	-	11.689	9.0E-80	SLC2A9	SLC2A9
4	rs4519796	A	9565034	-	11.689	9.3E-80	SLC2A9	SLC2A9

4	rs4311316	A	9565069	-	11.690	9.5E-80	SLC2A9	SLC2A9
4	rs4481233	T	9565177	-	25.390	2.3E-230	SLC2A9	SLC2A9
4	rs4314284	T	9565194	-	11.695	9.0E-80	SLC2A9	SLC2A9
4	rs4312757	A	9565243	-	12.167	1.2E-83	SLC2A9	SLC2A9
4	rs6814664	T	9565326	-	11.720	7.0E-80	SLC2A9	SLC2A9
4	rs6449155	T	9565645	-	11.722	6.9E-80	SLC2A9	SLC2A9
4	rs6449156	C	9565810	-	11.939	1.3E-82	SLC2A9	SLC2A9
4	rs17245436	A	9567267	-	11.843	7.9E-81	SLC2A9	SLC2A9
4	rs17185835	T	9567278	-	11.842	9.6E-81	SLC2A9	SLC2A9
4	rs17185870	A	9567312	-	11.856	2.3E-80	SLC2A9	SLC2A9
4	rs11724510	T	9567681	-	11.874	1.3E-80	SLC2A9	SLC2A9
4	rs6815001	C	9567760	-	11.881	1.1E-80	SLC2A9	SLC2A9
4	rs6849717	T	9567817	-	13.010	3.9E-98	SLC2A9	SLC2A9
4	rs6849729	T	9567830	-	11.894	6.4E-81	SLC2A9	SLC2A9
4	rs6843873	A	9567886	-	11.894	6.4E-81	SLC2A9	SLC2A9
4	rs6850143	T	9568022	-	11.894	6.3E-81	SLC2A9	SLC2A9
4	rs6844316	A	9568075	-	11.895	6.1E-81	SLC2A9	SLC2A9
4	rs6834893	T	9568221	-	11.902	5.1E-81	SLC2A9	SLC2A9
4	rs10001964	T	9568373	-	11.730	1.3E-74	SLC2A9	SLC2A9
4	rs4515163	T	9568701	-	11.995	4.3E-82	SLC2A9	SLC2A9
4	rs6449157	A	9569540	-	11.958	1.7E-81	SLC2A9	SLC2A9
4	rs6449159	A	9569596	-	11.945	1.4E-81	SLC2A9	SLC2A9
4	rs7672947	C	9570466	-	11.937	1.7E-81	SLC2A9	SLC2A9
4	rs17245723	A	9571316	-	12.157	2.8E-84	SLC2A9	SLC2A9
4	rs11942223	T	9571863	-	23.848	5.8E-229	SLC2A9	SLC2A9
4	rs6823361	A	9572225	-	11.816	3.4E-80	SLC2A9	SLC2A9
4	rs6836706	A	9573349	-	11.815	3.3E-80	SLC2A9	SLC2A9
4	rs6850684	T	9573478	-	11.814	3.4E-80	SLC2A9	SLC2A9
4	rs10018204	T	9573668	-	11.810	3.3E-80	SLC2A9	SLC2A9
4	rs6839490	C	9574098	-	11.745	1.6E-79	SLC2A9	SLC2A9
4	rs6856127	T	9574541	-	11.809	2.7E-80	SLC2A9	SLC2A9
4	rs6840802	C	9574731	-	11.757	1.2E-79	SLC2A9	SLC2A9
4	rs6449171	T	9575096	-	11.820	1.9E-80	SLC2A9	SLC2A9
4	rs6449172	A	9575134	-	11.821	1.5E-80	SLC2A9	SLC2A9
4	rs6449173	T	9575203	-	23.807	6.5E-229	SLC2A9	SLC2A9
4	rs6847019	T	9575347	-	6.848	4.2E-19	SLC2A9	SLC2A9
4	rs7442295	A	9575478	-	23.801	9.9E-229	SLC2A9	SLC2A9
4	rs6449174	T	9575520	-	11.821	1.1E-80	SLC2A9	SLC2A9
4	rs9998811	A	9575575	-	23.792	7.1E-229	SLC2A9	SLC2A9
4	rs7658170	T	9575691	-	11.822	7.1E-81	SLC2A9	SLC2A9
4	rs6449175	T	9575708	-	-6.923	1.6E-19	SLC2A9	SLC2A9
4	rs7663097	T	9575889	-	12.498	1.8E-91	SLC2A9	SLC2A9
4	rs7676733	A	9576054	-	11.810	7.2E-81	SLC2A9	SLC2A9
4	rs10017674	T	9576151	-	11.665	8.0E-78	SLC2A9	SLC2A9
4	rs7435196	A	9576654	-	11.795	3.9E-81	SLC2A9	SLC2A9
4	rs6449176	A	9576941	-	11.792	4.1E-81	SLC2A9	SLC2A9

4	rs6449178	T	9577782	-	11.787	4.2E-81	SLC2A9	SLC2A9
4	rs6449179	A	9578215	-	11.781	4.5E-81	SLC2A9	SLC2A9
4	rs7677710	T	9578615	-	11.784	3.4E-81	SLC2A9	SLC2A9
4	rs7683283	T	9579072	-	11.779	3.0E-81	SLC2A9	SLC2A9
4	rs7376960	A	9579668	-	23.545	1.3E-228	SLC2A9	SLC2A9
4	rs6449183	A	9579789	-	12.506	2.6E-93	SLC2A9	SLC2A9
4	rs4292328	T	9580060	-	12.992	2.1E-100	SLC2A9	SLC2A9
4	rs4473653	A	9580156	-	11.693	9.5E-81	SLC2A9	SLC2A9
4	rs7439210	C	9580847	-	23.219	4.4E-217	SLC2A9	SLC2A9
4	rs13132625	A	9581261	-	10.616	3.1E-11	SLC2A9	SLC2A9
4	rs13103690	T	9581876	-	12.491	3.3E-93	SLC2A9	SLC2A9
4	rs13103879	T	9581977	-	12.486	3.6E-93	SLC2A9	SLC2A9
4	rs6852441	T	9582842	-	11.756	1.7E-81	SLC2A9	SLC2A9
4	rs6449201	T	9582992	-	11.756	1.7E-81	SLC2A9	SLC2A9
4	rs6449202	T	9583141	-	11.754	1.7E-81	SLC2A9	SLC2A9
4	rs1071988	A	9583736	-	23.105	1.3E-217	SLC2A9	SLC2A9
4	rs4505821	A	9587192	-	6.925	1.8E-20	SLC2A9	SLC2A9
4	rs16868246	C	9587403	-	23.039	2.6E-217	SLC2A9	SLC2A9
4	rs13103497	A	9588360	-	12.149	5.4E-79	SLC2A9	SLC2A9
4	rs13144899	T	9588400	-	10.632	1.4E-11	SLC2A9	SLC2A9
4	rs13125476	A	9588712	-	10.630	1.4E-11	SLC2A9	SLC2A9
4	rs11723970	T	9589560	-	13.668	4.4E-106	SLC2A9	SLC2A9
4	rs11722229	A	9589795	-	22.863	7.4E-215	SLC2A9	SLC2A9
4	rs882223	A	9590723	-	13.243	1.9E-99	SLC2A9	SLC2A9
4	rs13131257	T	9590987	-	22.703	5.0E-213	SLC2A9	SLC2A9
4	rs13145758	A	9591095	-	22.684	1.4E-211	SLC2A9	SLC2A9
4	rs13125029	A	9591127	-	11.694	6.3E-77	SLC2A9	SLC2A9
4	rs13125209	A	9591142	-	22.527	1.3E-199	SLC2A9	SLC2A9
4	rs13115193	T	9591289	-	12.830	8.2E-99	SLC2A9	SLC2A9
4	rs13125646	A	9591428	-	23.307	1.2E-192	SLC2A9	SLC2A9
4	rs10003001	T	9593573	-	7.011	2.0E-20	SLC2A9	SLC2A9
4	rs10033612	T	9594104	-	7.065	1.2E-20	SLC2A9	SLC2A9
4	rs11723591	A	9594496	-	12.983	1.0E-100	SLC2A9	SLC2A9
4	rs7660895	A	9594543	-	22.330	2.8E-230	SLC2A9	SLC2A9
4	rs7680126	A	9594694	-	23.141	6.7E-225	SLC2A9	SLC2A9
4	rs17246501	A	9594808	-	12.981	7.0E-101	SLC2A9	SLC2A9
4	rs9992406	T	9595386	-	7.089	1.5E-20	SLC2A9	SLC2A9
4	rs6849736	A	9595881	-	-8.090	4.7E-09	SLC2A9	SLC2A9
4	rs6836200	T	9596013	-	8.072	5.3E-09	SLC2A9	SLC2A9
4	rs3733590	T	9596324	-	8.078	5.3E-09	SLC2A9	SLC2A9
4	rs4385059	T	9598331	-	24.445	1.6E-228	SLC2A9	SLC2A9
4	rs4502681	T	9599270	-	10.955	7.2E-13	SLC2A9	SLC2A9
4	rs17187075	C	9599426	-	12.511	2.9E-93	SLC2A9	SLC2A9
4	rs10011206	T	9601053	-	7.046	2.8E-20	SLC2A9	SLC2A9
4	rs7678012	T	9602870	-	12.524	1.7E-93	SLC2A9	SLC2A9
4	rs7663032	T	9602936	-	22.179	6.3E-160	SLC2A9	SLC2A9

4	rs6449213	T	9603313	24.376	3.8E-228	SLC2A9	SLC2A9
4	rs3775948	C	9604280	22.620	2.8E-233	SLC2A9	SLC2A9
4	rs12499857	A	9604474	12.303	1.3E-89	SLC2A9	SLC2A9
4	rs3796842	A	9604949	12.544	1.3E-93	SLC2A9	SLC2A9
4	rs9998739	A	9605607	7.053	3.0E-20	SLC2A9	SLC2A9
4	rs13111638	T	9605988	24.656	2.8E-232	SLC2A9	SLC2A9
4	rs4547795	T	9606158	7.087	2.0E-20	SLC2A9	SLC2A9
4	rs4529048	A	9606210	22.720	5.2E-236	SLC2A9	SLC2A9
4	rs3733588	A	9606401	22.790	6.6E-237	SLC2A9	SLC2A9
4	rs3733587	A	9606532	-7.103	1.6E-20	SLC2A9	SLC2A9
4	rs7669607	T	9606899	23.967	1.1E-235	SLC2A9	SLC2A9
4	rs10939650	T	9607538	22.772	3.3E-237	SLC2A9	SLC2A9
4	rs13113918	A	9607591	23.571	1.6E-162	SLC2A9	SLC2A9
4	rs10008035	T	9608433	7.101	1.7E-20	SLC2A9	SLC2A9
4	rs7696536	T	9609334	7.099	1.7E-20	SLC2A9	SLC2A9
4	rs1014290	A	9610959	22.711	8.9E-237	SLC2A9	SLC2A9
4	rs7696895	T	9611523	-7.095	1.8E-20	SLC2A9	SLC2A9
4	rs9991278	T	9611763	24.056	4.9E-236	SLC2A9	SLC2A9
4	rs4622999	C	9612493	12.593	2.5E-94	SLC2A9	SLC2A9
4	rs7657096	A	9613098	8.523	1.6E-09	SLC2A9	SLC2A9
4	rs17247314	C	9613841	12.411	9.7E-93	SLC2A9	SLC2A9
4	rs10023068	A	9613930	20.054	8.3E-147	SLC2A9	SLC2A9
4	rs6853437	A	9614533	20.050	9.4E-147	SLC2A9	SLC2A9
4	rs10022499	A	9615635	20.017	4.7E-147	SLC2A9	SLC2A9
4	rs9291640	T	9616184	20.012	4.6E-147	SLC2A9	SLC2A9
4	rs9291642	T	9616373	22.239	1.7E-144	SLC2A9	SLC2A9
4	rs4543113	A	9617403	11.121	3.7E-73	SLC2A9	SLC2A9
4	rs6845554	T	9622271	11.273	2.4E-76	SLC2A9	SLC2A9
4	rs3756236	A	9622561	12.046	1.6E-88	SLC2A9	SLC2A9
4	rs6827754	A	9627251	11.231	6.8E-76	SLC2A9	WDR1;SLC2A9
4	rs13133766	T	9628830	12.040	1.8E-88	SLC2A9	WDR1;SLC2A9
4	rs2240720	T	9629578	12.032	2.6E-88	SLC2A9	WDR1;SLC2A9
4	rs2240721	A	9629662	12.025	4.1E-88	SLC2A9	WDR1;SLC2A9
4	rs2240724	C	9630388	11.943	1.9E-86	SLC2A9	WDR1;SLC2A9
4	rs6849273	T	9630693	11.222	5.5E-75	SLC2A9	WDR1;SLC2A9
4	rs12509955	T	9633401	22.532	1.3E-201	SLC2A9	WDR1;SLC2A9
4	rs3775940	A	9634261	11.211	2.7E-75	SLC2A9	WDR1;SLC2A9
4	rs6826764	C	9639892	19.686	1.1E-137	SLC2A9	WDR1;SLC2A9
4	rs6856396	A	9640261	21.660	7.4E-139	SLC2A9	WDR1;SLC2A9
4	rs12506455	A	9640667	11.999	1.2E-87	SLC2A9	WDR1;SLC2A9
4	rs10939663	T	9641614	11.171	7.3E-61	SLC2A9	WDR1;SLC2A9
4	rs12506122	A	9642636	11.288	2.5E-76	SLC2A9	WDR1;SLC2A9
4	rs13146686	T	9644031	11.002	2.7E-72	SLC2A9	WDR1;SLC2A9
4	rs11722930	A	9644552	12.013	6.4E-88	SLC2A9	WDR1;SLC2A9
4	rs10006397	A	9645238	19.596	5.9E-137	SLC2A9	WDR1;SLC2A9
4	rs11727199	T	9645288	12.019	5.7E-88	SLC2A9	WDR1;SLC2A9
4	rs3733585	A	9645437	12.024	4.9E-88	SLC2A9	WDR1;SLC2A9
4	rs11731110	T	9646444	12.010	6.0E-88	SLC2A9	WDR1;SLC2A9
4	rs10939665	T	9646726	-	4.5E-88	SLC2A9	WDR1;SLC2A9

				12.017			
4	rs10012779	T	9647210	-	16.876	1.2E-42	SLC2A9 WDR1;SLC2A9
4	rs13139055	T	9648022	11.332	1.1E-76	SLC2A9	WDR1;SLC2A9
4	rs13115776	C	9649287	11.338	1.0E-76	SLC2A9	WDR1;SLC2A9
4	rs12508991	T	9650202	12.045	3.9E-88	SLC2A9	WDR1;SLC2A9
4	rs10029311	T	9650232	16.920	1.6E-42	SLC2A9	WDR1;SLC2A9
4	rs7679916	T	9651258	12.053	3.4E-88		WDR1;SLC2A9
4	rs7349721	A	9651660	19.342	3.9E-135		WDR1;SLC2A9
4	rs13101785	A	9652013	11.999	1.2E-87		WDR1;SLC2A9
4	rs13137343	A	9652126	11.999	1.1E-87		WDR1;SLC2A9
4	rs13110307	T	9653462	11.309	2.4E-76		WDR1;SLC2A9
4	rs13129453	T	9653882	11.308	2.5E-76		WDR1;SLC2A9
4	rs4529049	T	9654487	11.307	2.4E-76		WDR1;SLC2A9
4	rs10939669	A	9654925	12.018	6.2E-88		WDR1;SLC2A9
4	rs733175	T	9659239	19.172	4.4E-134		WDR1;SLC2A9
4	rs13120348	C	9662253	11.299	8.1E-76		WDR1;SLC2A9
4	rs7671266	T	9665474	22.072	3.0E-193		WDR1;SLC2A9
4	rs10516198	T	9668546	-5.414	1.0E-12		WDR1;SLC2A9
4	rs714873	A	9668716	14.313	1.1E-83		WDR1;SLC2A9
4	rs6834555	A	9671424	14.328	8.6E-84		WDR1;SLC2A9
4	rs12506004	A	9675968	-8.991	8.2E-42		WDR1;SLC2A9
4	rs16868313	T	9677162	8.940	2.4E-41		WDR1;SLC2A9
4	rs3775938	C	9678629	-4.256	3.0E-10		WDR1;SLC2A9
4	rs7667452	T	9682010	4.214	1.6E-07		WDR1;SLC2A9
4	rs4320137	T	9682067	21.166	9.2E-131		WDR1;SLC2A9
4	rs4461524	A	9683268	-6.181	1.6E-16		WDR1;SLC2A9
4	rs11731597	T	9684583	8.749	1.9E-40		WDR1;SLC2A9
4	rs9926	A	9685958	8.766	6.8E-25	WDR1	WDR1;SLC2A9
4	rs3775935	A	9686736	4.206	3.5E-10	WDR1	WDR1;SLC2A9
4	rs2241469	A	9689560	-4.200	3.6E-10	WDR1	WDR1;SLC2A9
4	rs10516200	A	9691254	8.767	1.0E-40	WDR1	WDR1;SLC2A9
4	rs3756230	C	9692927	-9.407	2.4E-39	WDR1	WDR1;SLC2A9
4	rs2241470	T	9693668	-8.144	5.6E-26	WDR1	WDR1;SLC2A9
4	rs2241473	A	9695047	8.987	8.6E-37	WDR1	WDR1;SLC2A9
4	rs3756227	A	9697093	8.982	9.4E-37	WDR1	WDR1;SLC2A9
4	rs2241480	T	9698861	8.682	5.8E-40	WDR1	WDR1;SLC2A9
4	rs734122	A	9698963	8.731	2.2E-40	WDR1	WDR1;SLC2A9
4	rs3796822	C	9702749	-4.217	3.0E-10	WDR1	WDR1;SLC2A9
4	rs3822242	T	9704002	9.912	7.5E-61	WDR1	WDR1;SLC2A9
4	rs3822239	A	9704637	-4.217	3.0E-10	WDR1	WDR1;SLC2A9
4	rs11727087	T	9705118	11.039	2.4E-73	WDR1	WDR1;SLC2A9
4	rs3796818	T	9707074	9.446	1.8E-39	WDR1	WDR1;SLC2A9
4	rs11726271	A	9707290	-9.889	1.3E-60	WDR1	WDR1;SLC2A9
4	rs2241482	A	9708912	4.163	4.7E-10	WDR1	WDR1;SLC2A9
4	rs2241483	A	9708929	9.888	1.3E-60	WDR1	WDR1;SLC2A9
4	rs2241486	C	9710181	-8.792	7.5E-41	WDR1	WDR1;SLC2A9
4	rs2241488	T	9710229	-9.455	1.5E-39	WDR1	WDR1;SLC2A9
4	rs6830786	T	9710541	9.085	2.2E-42	WDR1	WDR1;SLC2A9
4	rs4697917	T	9711058	4.154	5.3E-10	WDR1	WDR1
4	rs16868326	A	9711691	8.821	5.6E-41	WDR1	WDR1
4	rs12499240	T	9712988	4.150	5.5E-10	WDR1	WDR1



4	rs717615	A	9713768	9.453	6.3E-56	WDR1	WDR1
4	rs717614	C	9713886	10.879	3.2E-70	WDR1	WDR1
4	rs3756223	T	9714895	7.006	1.2E-29	WDR1	WDR1
4	rs12509714	C	9716189	14.062	1.6E-110	WDR1	WDR1
4	rs4697922	T	9719703	4.102	8.8E-10	WDR1	WDR1
4	rs4459989	T	9721700	4.905	1.8E-10	WDR1	WDR1
4	rs2241468	A	9723003	9.383	1.0E-36	WDR1	WDR1
4	rs4604059	T	9724163	10.122	4.1E-60	WDR1	WDR1
4	rs4393994	T	9724219	-4.204	3.3E-10	WDR1	WDR1
4	rs12498927	A	9724621	10.212	1.6E-61	WDR1	WDR1
4	rs10939710	T	9725899	-4.867	3.1E-12	WDR1	WDR1
4	rs3822236	T	9729059	12.004	4.5E-81		WDR1
4	rs12374320	T	9729707	5.453	5.9E-18		WDR1
4	rs4697708	T	9730287	11.747	2.2E-78		WDR1
4	rs3756215	A	9730358	-7.012	1.7E-17		WDR1
4	rs4697710	T	9731747	11.743	2.4E-78		WDR1
4	rs6825888	T	9731832	-7.861	3.6E-29		WDR1
4	rs4235354	A	9732040	18.443	5.8E-08		WDR1
4	rs4235355	A	9732176	11.742	2.0E-78		WDR1
4	rs4235356	C	9732204	11.741	2.0E-78		WDR1
4	rs4311315	T	9732289	5.193	4.7E-15		WDR1
4	rs12506893	T	9732763	7.817	6.8E-29		WDR1
4	rs10516201	T	9733039	-7.647	7.9E-28		WDR1
4	rs4697926	A	9733665	10.316	9.2E-63		WDR1
4	rs4444830	T	9733917	9.355	1.9E-52		WDR1
4	rs4456954	C	9733936	8.403	1.9E-22		WDR1
4	rs715979	C	9734340	-7.881	1.9E-27		WDR1
4	rs3886038	T	9734353	7.566	3.3E-27		WDR1
4	rs7699512	T	9734906	-9.128	1.9E-51		WDR1
4	rs7699671	T	9734972	10.336	9.4E-64		WDR1
4	rs11722989	A	9735237	9.163	1.9E-51		WDR1
4	rs11723016	A	9735287	9.165	2.0E-51		WDR1
4	rs6449286	A	9735797	8.241	2.3E-36		WDR1
4	rs4619888	A	9736076	-8.202	1.9E-31		WDR1
4	rs4467562	A	9736239	8.050	2.5E-36		WDR1
4	rs10001106	T	9736539	-8.068	1.5E-36		WDR1
4	rs17250843	C	9737076	-4.617	1.5E-09		WDR1
4	rs715260	C	9737244	-8.303	2.0E-31		WDR1
4	rs7667775	T	9737634	7.951	1.2E-27		WDR1
4	rs12502556	C	9739603	-8.756	2.2E-34		WDR1
4	rs10009493	C	9741145	20.579	5.3E-149		WDR1
4	rs12501597	T	9741235	8.031	1.7E-30		WDR1
4	rs6449289	T	9741641	9.665	5.9E-35		WDR1
4	rs881641	A	9742845	8.471	8.3E-33		WDR1
4	rs881642	T	9742971	8.010	2.4E-30		WDR1
4	rs881643	A	9743215	8.174	1.0E-32		WDR1
4	rs17197769	T	9743434	8.432	1.6E-32		WDR1
4	rs1109472	C	9743546	8.425	1.7E-32		WDR1
4	rs11938608	T	9744947	-8.089	4.2E-32		WDR1
4	rs4358401	A	9745905	-5.917	3.2E-22		WDR1
4	rs873984	C	9746223	6.390	1.0E-25		WDR1
4	rs4399989	A	9746486	-5.912	3.1E-22		WDR1

4	rs4315785	A	9746705	5.902	3.4E-22	WDR1
4	rs4235357	T	9746854	5.904	2.6E-22	WDR1
4	rs12507725	A	9746888	8.272	2.9E-31	WDR1
4	rs17198113	T	9747568	7.773	1.2E-28	WDR1
4	rs11732828	T	9747844	5.827	6.5E-22	WDR1
4	rs10939722	T	9748145	-5.888	2.5E-22	WDR1
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4	rs10939723	T	9748203	20.074	5.1E-144	WDR1
4	rs17198197	A	9748255	4.876	4.7E-11	WDR1
4	rs6449300	T	9748649	8.236	5.1E-31	WDR1
4	rs6850516	C	9749076	-5.907	2.1E-22	WDR1
4	rs10025456	T	9749357	-4.959	4.8E-16	WDR1
4	rs10022911	A	9749649	19.570	2.4E-138	WDR1
4	rs10020887	C	9749849	20.018	1.0E-142	WDR1
4	rs10012288	A	9750051	-5.870	3.4E-22	WDR1
4	rs4533775	C	9750502	4.877	5.2E-11	WDR1
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4	rs17198547	T	9750517	19.986	2.1E-142	WDR1
4	rs10805356	T	9750700	5.891	2.6E-22	WDR1
4	rs4473652	C	9750715	4.931	3.6E-11	WDR1
4	rs10028503	A	9751025	5.916	1.9E-22	WDR1
4	rs10015494	A	9751088	-5.916	1.8E-22	WDR1
4	rs10028937	A	9751464	5.913	1.9E-22	WDR1
4	rs10015872	A	9751508	-5.913	1.8E-22	WDR1
4	rs17251963	T	9751659	21.349	1.7E-156	WDR1
4	rs10031453	A	9751757	5.911	1.9E-22	WDR1
4	rs4697713	T	9752680	5.907	2.0E-22	WDR1
4	rs4697930	C	9752692	5.902	2.1E-22	WDR1
				-		
4	rs4697714	A	9752884	19.959	1.2E-141	WDR1
4	rs4292329	C	9753557	-4.952	3.9E-11	WDR1
4	rs4697931	T	9754394	-5.884	2.6E-22	WDR1
4	rs4574408	A	9754666	-5.915	2.0E-22	WDR1
				-		
4	rs4640669	A	9754831	19.679	7.2E-141	WDR1
4	rs4484300	A	9754892	-5.996	8.2E-23	WDR1
4	rs4401449	T	9755096	-6.065	6.6E-23	WDR1
4	rs10939730	C	9755147	-6.062	7.1E-23	WDR1
				-		
4	rs4697933	A	9755591	19.878	3.5E-141	WDR1
4	rs4697715	A	9755752	5.260	4.1E-17	WDR1
4	rs6855657	T	9757246	5.993	6.0E-22	WDR1
4	rs10939732	A	9757488	-5.986	6.9E-22	WDR1
4	rs12507586	A	9757673	8.605	2.3E-32	WDR1
4	rs4168	A	9757707	-5.970	9.1E-22	WDR1
4	rs11735668	C	9757753	19.657	1.9E-134	WDR1
4	rs12508413	A	9757769	8.618	1.8E-32	WDR1
4	rs6813334	T	9757851	-8.622	1.7E-32	WDR1
4	rs6813385	T	9757926	-5.003	4.3E-15	WDR1
4	rs6846402	T	9757979	-5.815	5.1E-20	WDR1
4	rs4697934	T	9758162	-5.918	2.6E-21	WDR1
4	rs4697936	T	9758693	-5.279	1.7E-13	WDR1
4	rs4697937	T	9758767	6.395	9.8E-24	WDR1
4	rs6826693	T	9759837	5.632	5.6E-18	WDR1
4	rs6840883	A	9759962	-5.482	3.8E-18	WDR1
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4	rs11721682	T	9760245	20.348	3.5E-141	WDR1
4	rs6827946	T	9760433	18.798	1.9E-126	WDR1
4	rs6827496	A	9760754	-8.725	2.0E-33	WDR1

4	rs6847379	T	9760802	-5.480	3.9E-18	WDR1
4	rs4697939	A	9761400	45.648	2.4E-14	WDR1
4	rs4697940	C	9761427	-5.446	6.0E-18	WDR1
4	rs731069	A	9761529	5.430	7.6E-18	WDR1
4	rs731070	T	9761680	-5.422	8.0E-18	WDR1
4	rs747357	C	9761976	5.423	7.9E-18	WDR1
4	rs747356	T	9762149	-5.473	4.5E-18	WDR1
4	rs6851524	A	9764139	5.113	6.6E-11	WDR1
4	rs11932627	T	9765275	-9.173	1.5E-07	WDR1
4	rs12513376	T	9765320	8.281	1.1E-30	WDR1
4	rs11929718	A	9765419	-8.492	5.1E-37	WDR1
4	rs6834055	A	9767609	18.595	8.6E-124	WDR1
4	rs2241464	A	9768059	6.325	3.7E-17	WDR1
4	rs2241465	T	9768118	-8.846	3.7E-38	WDR1
4	rs4697941	A	9769960	-8.201	5.3E-34	WDR1
4	rs17450260	A	9772887	-8.606	1.1E-32	WDR1
4	rs6816215	T	9773125	-6.058	3.8E-19	WDR1
4	rs17450372	T	9773442	-8.605	1.1E-32	WDR1
4	rs1009144	T	9774029	8.965	1.0E-34	WDR1
4	rs17450434	T	9774059	8.967	9.7E-35	WDR1
4	rs16894270	T	9774877	-4.833	5.2E-13	WDR1
4	rs11729371	A	9775055	20.660	1.1E-62	WDR1
4	rs11724641	A	9776092	-8.219	7.4E-32	WDR1
4	rs7659717	T	9776315	-9.177	1.5E-37	WDR1
4	rs17385112	T	9776630	17.304	8.1E-74	WDR1
4	rs17385294	A	9777545	9.054	1.8E-35	WDR1
4	rs1001216	A	9777947	17.181	1.1E-73	WDR1
4	rs1001217	C	9778097	3.396	1.3E-07	WDR1
4	rs11734209	A	9779469	5.849	2.4E-15	WDR1
4	rs4697948	C	9780665	3.465	6.6E-08	WDR1
4	rs6835689	T	9781577	-3.367	1.2E-07	WDR1
4	rs4697721	C	9783315	-8.423	3.0E-37	WDR1
4	rs2903827	C	9784970	20.540	1.9E-153	WDR1
4	rs2868414	C	9786218	-8.212	1.6E-36	WDR1
4	rs17385872	A	9787266	9.372	3.3E-41	WDR1
4	rs16894579	T	9787315	-8.185	1.3E-36	WDR1
4	rs10033955	A	9787654	-8.178	1.4E-36	WDR1
4	rs11737347	A	9788020	8.177	1.3E-36	WDR1
4	rs7657551	T	9788407	8.196	9.8E-37	WDR1
4	rs6449342	A	9788867	8.197	8.3E-37	WDR1
4	rs4273473	T	9789720	8.204	6.6E-37	WDR1
4	rs11724112	T	9789741	11.359	9.5E-78	WDR1
4	rs6811287	T	9789921	11.278	1.9E-77	WDR1
4	rs723663	A	9790472	8.196	7.2E-37	WDR1
4	rs12500891	A	9790485	9.075	2.0E-39	WDR1
4	rs4697956	T	9790770	-8.183	9.7E-37	WDR1
4	rs4697957	A	9791352	20.315	8.7E-156	WDR1
4	rs4697958	T	9791654	8.176	1.1E-36	WDR1
4	rs887735	T	9791943	-9.431	2.0E-42	WDR1
4	rs887733	T	9792206	8.941	3.5E-46	WDR1
4	rs887732	C	9792215	20.314	9.0E-156	WDR1
4	rs887731	A	9792284	8.164	1.4E-36	WDR1
4	rs887729	C	9792709	-9.048	3.1E-39	WDR1
4	rs887728	A	9792896	8.139	1.9E-36	WDR1

4	rs887727	A	9792917	-8.345	3.7E-37
4	rs887725	T	9792993	4.930	6.5E-15
4	rs11722345	A	9795897	-8.047	7.0E-36
4	rs4697960	C	9796361	-8.270	1.0E-36
4	rs4697727	T	9797020	8.150	3.1E-36
4	rs956312	A	9797424	-7.969	2.1E-35
4	rs956311	A	9797479	-8.022	9.5E-36
4	rs11721530	A	9798260	-8.035	7.5E-36
4	rs4697964	A	9798910	8.038	7.2E-36
4	rs4697965	A	9799156	8.038	7.1E-36
4	rs4697966	A	9799172	-8.046	6.3E-36
4	rs2215691	T	9801206	-8.105	2.0E-36
4	rs10489080	C	9802525	-8.947	2.7E-39
4	rs2159864	A	9802702	8.103	1.9E-36
4	rs6826383	A	9803602	8.089	2.1E-36
4	rs4697728	T	9805736	8.150	7.2E-37
4	rs917825	A	9805859	8.151	6.9E-37
4	rs1860903	A	9805951	8.981	6.7E-40
4	rs929575	C	9805984	20.824	4.3E-157
4	rs917823	T	9806323	-8.170	5.4E-37
4	rs2080075	T	9808546	8.156	7.4E-37
4	rs4697729	T	9809499	-8.153	7.9E-37
4	rs4697730	T	9809594	8.151	8.3E-37
4	rs4697971	A	9809958	-8.148	8.3E-37
4	rs4697732	T	9810971	-8.147	8.4E-37
4	rs2868416	T	9811672	-8.148	8.1E-37
4	rs10489079	C	9813061	8.972	9.8E-40
4	rs6858209	A	9813255	8.140	7.8E-37
4	rs9283699	T	9813287	-8.138	7.7E-37
4	rs10030776	C	9813573	8.118	1.3E-36
4	rs10030782	T	9813594	-8.113	1.4E-36
4	rs9990501	A	9813691	8.102	1.6E-36
4	rs10939766	A	9814068	8.099	1.6E-36
4	rs16894893	A	9814693	-5.374	1.1E-17
4	rs231	C	9814946	8.135	1.1E-36
4	rs17455117	C	9815302	10.128	6.3E-24
4	rs6449355	T	9815829	8.126	1.4E-36
4	rs17389602	A	9816024	20.674	3.1E-155
4	rs6812780	T	9817823	8.124	1.4E-36
4	rs6826450	A	9817876	-8.120	1.8E-36
4	rs6845818	T	9817892	5.370	1.2E-17
4	rs6855489	A	9817986	8.101	2.2E-36
4	rs11947517	A	9818349	8.368	6.6E-38
4	rs4697977	T	9819751	-8.077	1.9E-36
4	rs2080072	C	9844720	11.898	2.3E-80
4	rs11734783	T	9849761	22.145	5.0E-147
4	rs11727366	A	9853939	-8.499	8.7E-40
4	rs10023177	A	9854053	-8.502	9.4E-40
4	rs1978274	T	9854185	20.728	4.1E-154
4	rs7675945	T	9854438	8.502	1.0E-39
4	rs6853056	A	9854996	8.534	7.1E-40
4	rs10010656	C	9855425	8.505	1.1E-39
4	rs11732042	T	9855546	5.526	5.6E-13
4	rs4697983	A	9856346	27.179	2.0E-29

4	rs10939801	C	9856610	-8.149	1.9E-35
4	rs11730940	A	9856991	-8.151	2.0E-35
4	rs10025702	C	9857272	-9.172	1.7E-39
4	rs2024282	A	9858786	7.626	1.1E-22
4	rs2024281	A	9858849	-8.158	1.9E-35
4	rs7661555	T	9859124	-8.886	2.5E-37
4	rs17392044	C	9859438	18.128	5.3E-82
4	rs10171124	T	9859497	8.462	1.7E-38
4	rs12509424	A	9859601	8.879	1.5E-36
4	rs1860896	T	9859875	8.077	3.5E-35
4	rs16895216	A	9860081	4.374	1.7E-11
4	rs11735543	T	9860750	20.869	7.4E-142
4	rs10029208	T	9861103	-8.468	2.0E-38
4	rs6838644	T	9861969	-8.884	2.1E-36
4	rs4522862	C	9862113	8.469	2.3E-38
4	rs4697984	A	9863648	8.473	2.3E-38
4	rs12513165	T	9865675	8.901	2.1E-36
4	rs2192101	C	9867155	8.470	2.8E-38
4	rs4697986	A	9868066	-7.988	8.9E-34
4	rs17406107	T	9872478	20.382	8.7E-150
4	rs929577	A	9873986	8.847	4.6E-36
4	rs759031	T	9874531	8.357	3.0E-37
4	rs17472370	A	9879229	27.251	8.7E-30
4	rs10489076	T	9879946	5.394	2.0E-16
4	rs12505222	T	9880234	-5.389	2.1E-16
4	rs7676442	T	9881689	-5.570	2.9E-17
4	rs10489074	A	9881703	6.230	2.7E-14
4	rs10489073	A	9881886	6.233	2.0E-19
4	rs17407324	A	9882141	6.243	1.7E-19
4	rs10489072	T	9882342	5.723	1.4E-18
4	rs10939814	T	9882427	5.757	1.0E-18
4	rs10489071	A	9882647	-5.571	1.5E-17
4	rs2192095	T	9883271	5.687	4.2E-18
4	rs4697998	T	9883724	-5.492	4.4E-17
4	rs4697999	C	9884032	-5.247	1.4E-15
4	rs17407555	A	9884092	-5.898	4.7E-17
4	rs1860911	T	9884155	8.200	7.5E-40
4	rs1860910	T	9884568	-8.174	1.2E-39
4	rs10805364	A	9884616	19.992	1.4E-148
4	rs6823180	T	9884929	-5.087	1.2E-14
4	rs6833142	A	9885080	5.051	1.7E-14
4	rs10489070	C	9885450	20.005	9.0E-149
4	rs12510549	T	9885565	20.001	1.1E-148
4	rs4698000	T	9886565	5.323	6.6E-16
4	rs6836916	C	9886890	5.334	6.3E-16
4	rs16895836	T	9887447	-5.754	1.5E-17
4	rs7435841	A	9887650	-5.367	5.6E-16
4	rs10489069	C	9887766	8.795	9.8E-35
4	rs10032742	A	9887991	5.360	7.3E-16
4	rs4698001	A	9888511	5.360	7.5E-16
4	rs17474174	T	9890509	-9.001	2.6E-36
4	rs16895984	T	9893825	14.920	5.3E-106
4	rs4698009	T	9894091	19.501	1.8E-145
4	rs4698014	T	9895399	19.531	3.5E-146

4	rs17409460	C	9895525	8.888	1.9E-36
4	rs7685241	A	9895763	-8.279	1.3E-36
4	rs10939818	T	9896060	-8.283	1.2E-36
4	rs17475334	A	9896268	-8.893	1.7E-36
4	rs11932349	A	9896349	8.280	1.2E-36
4	rs10489068	A	9896366	8.056	1.2E-33
4	rs17475461	T	9896775	-5.764	2.6E-15
4	rs11937220	T	9898972	8.253	2.2E-36
4	rs7692559	A	9899824	-5.532	7.0E-19
4	rs6449438	T	9900161	5.537	6.5E-19
4	rs2024280	T	9900911	20.128	2.7E-152
4	rs2192094	T	9901066	-8.869	2.4E-36
4	rs11731652	T	9902082	20.113	3.5E-149
4	rs917827	T	9904598	7.984	3.6E-33
4	rs11728055	A	9905396	19.390	4.4E-60
4	rs1860907	T	9905797	8.008	2.6E-33
4	rs17410735	T	9906545	-8.821	5.1E-36
4	rs4697744	A	9907245	8.011	6.1E-34
4	rs11732729	A	9909414	-5.416	2.3E-13
4	rs2080077	A	9909480	8.242	3.4E-37
4	rs2098236	C	9909570	-8.237	3.2E-37
4	rs6834574	A	9909912	-8.772	2.2E-36
4	rs10939829	T	9909917	-8.238	2.4E-29
4	rs7683755	A	9910855	-8.755	2.2E-36
4	rs2868937	T	9912179	19.632	4.6E-151
4	rs4698023	A	9913824	19.631	4.8E-151
4	rs4698025	A	9914255	8.334	5.0E-36
4	rs7689060	C	9914561	19.724	4.0E-145
4	rs1468692	T	9914873	-5.269	3.7E-18
4	rs9991653	A	9919593	-5.503	1.9E-19
4	rs7436833	T	9920172	-9.514	7.9E-15
4	rs6449449	T	9920805	-7.553	1.3E-32
4	rs12511337	A	9921070	19.792	2.0E-151
4	rs6449451	C	9921171	-7.495	3.2E-32
4	rs6449452	T	9921210	7.493	3.3E-32
4	rs4698028	A	9921314	7.492	3.3E-32
4	rs4698029	C	9921896	19.751	5.7E-151
4	rs2192093	T	9922204	5.633	1.5E-20
4	rs6810699	A	9923123	-7.505	2.5E-32
4	rs727995	T	9923275	-5.632	1.5E-20
4	rs714436	A	9923765	19.882	1.1E-154
4	rs2868939	A	9924019	5.556	2.1E-14
4	rs17477561	T	9924194	-8.367	8.8E-34
4	rs4698031	A	9925019	20.020	1.6E-157
4	rs6449453	A	9925932	-8.394	4.4E-34
4	rs17418478	A	9925949	20.559	1.8E-142
4	rs7666514	A	9925977	8.080	2.6E-32
4	rs17418533	T	9926039	20.049	1.4E-157
4	rs6449454	A	9926479	-8.131	7.6E-37
4	rs11722185	C	9926580	20.065	1.2E-157
4	rs1860905	C	9927934	-8.286	4.6E-38
4	rs11737588	A	9928105	14.728	1.5E-07
4	rs4698033	T	9928669	-8.290	3.8E-38

4	rs4697748	T	9928797	8.294	2.7E-38	
4	rs993173	T	9933033	9.108	7.1E-51	
4	rs9291683	A	9933258	8.149	3.9E-42	
4	rs17478453	T	9933410	8.706	1.2E-36	
4	rs993172	A	9933459	9.109	1.3E-50	
4	rs1558489	A	9934587	-8.703	9.3E-47	
4	rs1558488	A	9936512	5.602	1.7E-17	
4	rs4698036	T	9940392	19.621	1.4E-157	
4	rs11729318	C	9946017	20.395	4.9E-160	
4	rs17419612	T	9946361	-8.243	8.9E-34	
4	rs1964268	A	9947019	-8.241	3.0E-38	
4	rs13142790	A	9948138	-8.164	2.0E-33	
4	rs759024	A	9948193	-8.200	7.0E-38	
4	rs2007103	A	9950353	8.279	1.0E-38	
4	rs4306950	T	9950517	8.315	5.5E-39	
4	rs984723	T	9953722	8.267	9.9E-39	
4	rs2052165	T	9954270	10.407	4.4E-15	
4	rs17420080	T	9954646	19.847	5.9E-147	
4	rs13109847	T	9955343	-8.474	1.7E-35	
4	rs17479487	A	9955648	-8.459	1.6E-32	
4	rs2192084	T	9956149	8.390	7.6E-40	
4	rs6849037	T	9957529	-8.435	3.6E-40	
4	rs4698037	A	9957993	8.388	7.5E-40	
4	rs17420450	T	9959863	10.326	2.0E-24	
4	rs13145430	T	9960046	-8.488	1.4E-35	
4	rs17420513	A	9960073	8.641	2.2E-36	
4	rs17420562	A	9960693	8.513	1.3E-35	
4	rs4697750	A	9960804	8.312	1.0E-38	
4	rs6853659	A	9961068	-8.752	2.4E-37	
4	rs4697751	A	9961604	8.149	4.6E-36	
4	rs4698040	T	9961648	20.582	2.5E-158	
4	rs4697752	T	9962479	8.334	8.7E-39	
4	rs10938768	T	9963439	-8.325	1.1E-38	
4	rs6838846	A	9964627	-7.743	1.3E-29	
4	rs11931317	A	9965446	8.314	1.3E-38	
4	rs7680825	C	9967888	8.310	1.4E-38	
4	rs7681212	C	9968062	17.557	1.7E-126	
4	rs7661209	A	9968705	-8.307	1.5E-38	
4	rs4697753	A	9975551	26.756	1.0E-29	
4	rs4698041	A	9977333	8.293	1.8E-38	
4	rs6857135	A	9979683	8.278	1.0E-38	
4	rs6813712	A	9979761	8.268	1.2E-38	
4	rs6849583	A	9981888	-8.260	1.3E-38	
4	rs6851536	T	9982064	-8.241	1.6E-38	
4	rs11943393	A	9983103	8.242	1.5E-38	
4	rs10938772	A	9984426	17.355	6.0E-127	
4	rs4698043	T	9987700	-8.234	1.5E-38	
4	rs7677806	T	9992103	-8.202	3.2E-38	KIAA1729
4	rs4302456	T	9995772	-8.735	1.1E-37	KIAA1729
4	rs4302457	T	9996071	-8.776	7.4E-38	KIAA1729
4	rs10017305	T	10010321	16.830	2.6E-117	KIAA1729
4	rs4463062	A	10016092	-7.876	1.1E-33	KIAA1729
4	rs6819959	A	10016632	-5.924	1.1E-20	KIAA1729

4	rs4643800	T	10016670	-	15.252	5.4E-95	KIAA1729
4	rs11728025	C	10017319	14.842	2.0E-86	KIAA1729	
4	rs7697246	T	10017855	-7.801	3.1E-33	KIAA1729	
4	rs4698049	C	10018868	7.801	3.2E-33	KIAA1729	
4	rs7656072	A	10018939	5.421	4.1E-18	KIAA1729	
4	rs4698050	T	10019846	16.355	4.9E-112	KIAA1729	
4	rs4610325	T	10022266	7.928	1.3E-33	KIAA1729	
4	rs11736389	T	10025458	16.662	1.0E-113	KIAA1729	
4	rs13125855	C	10027176	7.409	4.1E-20	KIAA1729	
4	rs7691990	A	10043557	5.227	1.9E-14	MIST;KIAA1729	
4	rs10003864	T	10046489	-3.283	1.2E-07	MIST;KIAA1729	
4	rs4422413	T	10052482	-3.819	8.0E-10	KIAA1729 MIST;KIAA1729	
4	rs10938799	A	10052523	-6.348	1.6E-19	KIAA1729 MIST;KIAA1729	
4	rs3217	T	10053748	3.821	7.8E-10	KIAA1729 MIST;KIAA1729	
4	rs10016022	A	10056004	-5.236	1.6E-14	KIAA1729 MIST;KIAA1729	
4	rs10016702	A	10056738	-5.251	2.6E-07	KIAA1729 MIST;KIAA1729	
4	rs7674156	C	10061861	3.815	8.1E-10	KIAA1729 MIST;KIAA1729	
4	rs12019277	A	10064092	3.816	8.1E-10	KIAA1729 MIST;KIAA1729	
4	rs9996284	C	10078544	-4.584	2.5E-10	MIST;KIAA1729	
4	rs10029818	C	10081768	3.819	8.1E-10	MIST;KIAA1729	
4	rs11732503	C	10091712	6.015	1.7E-19	MIST;KIAA1729	
4	rs11737650	A	10094112	-5.288	9.7E-15	MIST;KIAA1729	
4	rs11733306	T	10097500	-5.230	2.4E-14	MIST;KIAA1729	
4	rs11737601	A	10097666	5.949	1.2E-18	MIST;KIAA1729	
4	rs4541501	T	10097719	-5.066	1.4E-13	MIST;KIAA1729	
4	rs13111270	A	10098105	3.629	6.3E-09	MIST;KIAA1729	
4	rs13130674	A	10098698	-5.033	1.2E-13	MIST;KIAA1729	
4	rs7692088	C	10100138	4.327	8.8E-13	MIST;KIAA1729	
4	rs9790491	A	10102213	5.055	8.9E-14	MIST MIST;KIAA1729	
4	rs13115661	T	10103059	-9.672	3.3E-11	MIST MIST;KIAA1729	
4	rs3749558	T	10103101	-5.049	9.1E-14	MIST MIST;KIAA1729	
4	rs7667644	T	10104170	5.053	8.9E-14	MIST MIST;KIAA1729	
4	rs16869060	C	10104888	5.342	1.4E-16	MIST MIST;KIAA1729	
4	rs13142053	C	10105339	-4.669	2.0E-11	MIST MIST;KIAA1729	
4	rs10033825	T	10105890	3.551	1.4E-08	MIST MIST;KIAA1729	
4	rs7698826	A	10106521	4.222	3.1E-12	MIST MIST;KIAA1729	
4	rs12504795	T	10108442	5.619	6.6E-17	MIST MIST;KIAA1729	
4	rs17467273	T	10109529	-3.504	1.9E-08	MIST MIST;KIAA1729	
4	rs13109939	T	10110723	5.092	6.8E-14	MIST MIST;KIAA1729	
4	rs6833095	A	10115697	3.650	4.0E-09	MIST MIST;KIAA1729	
4	rs11734599	C	10116588	-5.192	3.2E-14	MIST MIST;KIAA1729	
4	rs887112	T	10117082	6.674	2.5E-08	MIST MIST;KIAA1729	
4	rs13141385	A	10117502	3.207	2.1E-07	MIST MIST;KIAA1729	
4	rs2868941	T	10118797	-5.737	2.5E-17	MIST MIST;KIAA1729	
4	rs11929850	C	10119148	6.659	2.9E-08	MIST MIST;KIAA1729	
4	rs13108998	T	10119967	3.426	4.2E-08	MIST MIST;KIAA1729	
4	rs1004327	T	10120581	4.971	2.9E-14	MIST MIST;KIAA1729	
4	rs12508358	T	10121336	-5.065	1.1E-14	MIST MIST;KIAA1729	
4	rs13125670	T	10122170	4.990	2.3E-16	MIST MIST;KIAA1729	
4	rs12499142	A	10123336	-5.008	3.5E-13	MIST MIST;KIAA1729	
4	rs2868942	T	10123666	-5.090	8.7E-15	MIST MIST;KIAA1729	
4	rs16869379	T	10123779	5.424	6.6E-17	MIST MIST;KIAA1729	
4	rs10034180	A	10127623	3.902	1.1E-10	MIST MIST;KIAA1729	
4	rs16869430	T	10128524	4.849	1.1E-15	MIST MIST	



4	rs2041215	T	10129080	-3.919	1.0E-10	MIST	MIST
4	rs13125086	T	10129791	9.758	1.4E-11	MIST	MIST
4	rs16869474	C	10130070	4.851	1.1E-15	MIST	MIST
4	rs2012249	T	10130256	10.701	1.7E-07	MIST	MIST
4	rs2041216	T	10132188	-3.837	2.2E-10	MIST	MIST
4	rs997219	A	10133769	-3.795	4.4E-10	MIST	MIST
4	rs2108878	T	10136440	6.124	3.6E-20	MIST	MIST
4	rs12641877	A	10137324	6.055	7.6E-20	MIST	MIST
4	rs2286463	A	10141356	5.517	3.4E-15	MIST	MIST
4	rs2286465	A	10141732	5.812	8.4E-17	MIST	MIST
4	rs10488948	A	10145642	-5.150	3.5E-12	MIST	MIST
4	rs4466013	A	88979437	15.318	2.1E-09	MEPE	MEPE;IBSP
4	rs6854498	A	88995784	14.868	2.1E-09		MEPE;IBSP
4	rs6854361	A	88995888	14.864	2.1E-09		MEPE;IBSP
4	rs17842205	A	89068576	10.022	1.1E-17		SPP1
4	rs4693920	T	89083799	10.771	3.4E-19		SPP1
4	rs2728123	T	89089819	10.580	3.5E-18		PKD2;SPP1
4	rs17013584	A	89091987	7.631	1.3E-18		PKD2;SPP1
4	rs2728119	A	89096555	-9.460	4.6E-24		PKD2;SPP1
4	rs4490426	A	89099546	-4.801	9.1E-13		PKD2;SPP1
4	rs10516798	T	89102561	4.741	1.2E-12		PKD2;SPP1
4	rs11730059	A	89106351	11.195	7.4E-27		PKD2;SPP1
4	rs12641001	T	89107964	-4.926	2.4E-12		PKD2;SPP1
4	rs10516800	C	89110614	-4.952	2.1E-12		PKD2;SPP1
4	rs6813526	T	89113259	4.889	3.9E-13		PKD2;SPP1
4	rs2853749	T	89116838	-4.935	2.0E-13	SPP1	PKD2;SPP1
4	rs7685225	T	89125482	3.957	4.1E-10		PKD2;SPP1
4	rs6818927	T	89126281	-3.953	4.3E-10		PKD2;SPP1
4	rs4128340	A	89127160	-3.958	4.1E-10		PKD2;SPP1
4	rs6532041	A	89128057	-4.014	2.3E-10		PKD2;SPP1
4	rs6832511	A	89128112	-3.962	3.8E-10		PKD2;SPP1
4	rs6838095	A	89128460	-3.945	4.4E-10		PKD2;SPP1
4	rs12509864	T	89128790	3.964	3.9E-10		PKD2;SPP1
4	rs11938988	C	89129137	-3.939	7.1E-10		PKD2;SPP1
4	rs2725234	T	89151296	11.610	3.5E-30	PKD2	PKD2;SPP1
4	rs12503776	T	89151488	-3.968	4.4E-09	PKD2	PKD2;SPP1
4	rs2728113	A	89158760	11.602	2.8E-30	PKD2	PKD2;SPP1
4	rs2725227	T	89163535	3.140	2.7E-07	PKD2	PKD2;SPP1
4	rs13149278	A	89170414	-3.928	1.2E-09	PKD2	PKD2;SPP1
4	rs2725225	T	89171100	-3.161	2.2E-07	PKD2	PKD2;SPP1;ABCG2
4	rs2728110	A	89171907	-3.160	2.4E-07	PKD2	PKD2;SPP1;ABCG2
4	rs17786456	T	89176586	3.792	4.8E-09	PKD2	PKD2;SPP1;ABCG2
4	rs2728109	A	89176747	12.440	5.2E-33	PKD2	PKD2;SPP1;ABCG2
4	rs2725217	A	89179282	12.533	2.3E-33	PKD2	PKD2;SPP1;ABCG2
4	rs2725215	T	89180595	13.078	1.7E-35	PKD2	PKD2;SPP1;ABCG2
4	rs2725212	A	89187737	10.288	4.6E-27	PKD2	PKD2;ABCG2
4	rs2725211	T	89189399	12.080	5.3E-32	PKD2	PKD2;ABCG2
4	rs2728106	A	89191075	10.197	8.1E-27	PKD2	PKD2;ABCG2
4	rs2728104	T	89192030	11.962	1.2E-32	PKD2	PKD2;ABCG2
4	rs2725210	A	89192451	10.038	1.3E-26	PKD2	PKD2;ABCG2
4	rs2728099	T	89194762	13.417	2.4E-34	PKD2	PKD2;ABCG2

4	rs2725207	A	89198553	10.206	8.9E-27	PKD2	PKD2;ABCG2
4	rs2728133	T	89200714	10.250	6.5E-27	PKD2	PKD2;ABCG2
4	rs2728132	A	89201485	10.272	5.9E-27	PKD2	PKD2;ABCG2
4	rs2725205	A	89204735	10.277	5.7E-27	PKD2	PKD2;ABCG2
4	rs11938025	A	89206300	3.667	5.3E-08	PKD2	PKD2;ABCG2
4	rs4336187	A	89206940	10.268	7.5E-27	PKD2	PKD2;ABCG2
4	rs2725203	T	89214819	10.132	1.9E-26	PKD2	PKD2;ABCG2
4	rs2728121	T	89216126	12.470	8.6E-34	PKD2	PKD2;ABCG2
4	rs10965	A	89217107	-3.724	4.2E-08	PKD2	PKD2;ABCG2
4	rs2728126	A	89218246	13.063	4.6E-39		PKD2;ABCG2
4	rs2728125	A	89220917	13.702	2.1E-41		PKD2;ABCG2
4	rs2231164	T	89234881	11.639	4.1E-36	ABCG2	PKD2;ABCG2
4	rs2231156	A	89239451	14.579	4.1E-45	ABCG2	PKD2;ABCG2
4	rs4148157	A	89239958	14.605	2.9E-45	ABCG2	PKD2;ABCG2
4	rs4693924	A	89242248	14.557	4.2E-45	ABCG2	PKD2;ABCG2
4	rs2231148	A	89247502	-4.179	2.1E-09	ABCG2	PKD2;ABCG2
4	rs2054576	A	89247799	14.955	2.8E-46	ABCG2	PKD2;ABCG2
4	rs12505410	T	89249865	5.534	4.6E-16	ABCG2	PKD2;ABCG2
4	rs2622621	C	89249944	-7.411	1.6E-27	ABCG2	PKD2;ABCG2
4	rs13120400	T	89252551	6.014	2.4E-18	ABCG2	PKD2;ABCG2
4	rs1481012	A	89258106	17.855	8.1E-74	ABCG2	PKD2;ABCG2
4	rs2199936	A	89264355	18.079	1.2E-75	ABCG2	PKD2;ABCG2
4	rs2231142	T	89271347	17.648	2.5E-75	ABCG2	PKD2;ABCG2
4	rs4148155	A	89273691	17.689	2.1E-75	ABCG2	PKD2;ABCG2
4	rs13137622	T	89281537	-5.916	2.2E-18	ABCG2	ABCG2
4	rs3114018	A	89283605	-5.684	3.3E-21	ABCG2	ABCG2
4	rs3109823	T	89283626	5.329	6.4E-15	ABCG2	ABCG2
4	rs2622626	A	89285739	5.752	7.5E-21	ABCG2	ABCG2
4	rs17731799	T	89287479	6.699	1.3E-26	ABCG2	ABCG2
4	rs2622624	T	89288430	-6.708	1.1E-26	ABCG2	ABCG2
4	rs2622604	T	89297948	-5.213	7.9E-14	ABCG2	ABCG2
4	rs2622605	T	89298410	-6.897	1.5E-28	ABCG2	ABCG2
4	rs3114020	T	89302690	-6.895	2.4E-28		ABCG2
4	rs10011796	T	89309901	5.656	5.1E-20		ABCG2
4	rs10009618	T	89313032	-5.618	7.6E-20		ABCG2
4	rs1481017	T	89316501	-5.650	6.1E-20		ABCG2
4	rs11724427	A	89322196	-4.881	1.4E-09		ABCG2
4	rs6821227	T	89323712	4.852	1.4E-09		ABCG2
4	rs6821239	A	89323775	-4.907	1.2E-09		ABCG2
4	rs9784454	T	89326514	4.645	5.9E-09		ABCG2
4	rs6532053	A	89328283	-4.655	5.4E-09		ABCG2
4	rs2127863	T	89330492	-4.609	7.2E-09		ABCG2
4	rs4560364	A	89335202	-4.650	5.7E-09		ABCG2
4	rs13108900	C	89335726	-4.689	4.4E-09		ABCG2
4	rs4693935	A	89358299	-3.879	1.9E-08		PPM1K;ABCG2
4	rs9307048	T	89368594	-4.131	5.0E-10		PPM1K
4	rs13120254	A	89379585	3.797	5.1E-09		PPM1K
4	rs17014018	A	89467059	7.918	2.3E-08		HERC6;PPM1K
4	rs4693211	T	89468085	-7.631	8.3E-08		HERC6;PPM1K
4	rs12512051	T	89471092	7.241	1.5E-07		HERC6;PPM1K
4	rs7436324	T	NA	24.140	5.8E-71		

4	rs6449151	A	NA	-	12.531	4.5E-28		
4	rs13352078	A	NA	-	18.261	9.1E-19		
4	rs7376519	A	NA	10.029	3.5E-16			
4	rs11943386	A	NA	10.025	3.6E-16			
4	rs7375547	T	NA	10.085	5.1E-16			
4	rs7375191	A	NA	10.173	6.0E-16			
4	rs7378384	T	NA	-9.711	1.5E-15			
4	rs7377456	C	NA	-9.709	1.5E-15			
4	rs11731261	A	NA	-9.588	8.3E-14			
4	rs11728274	A	NA	-7.309	2.7E-10			
4	rs6532038	A	NA	9.633	2.2E-08			
4	rs12696932	T	NA	-6.450	9.3E-08			
4	rs7376184	T	NA	-7.201	1.8E-07			
6	rs611555	T	7020821	3.707	1.0E-08		RREB1	
6	rs501510	A	7026839	3.756	2.4E-07		RREB1	
6	rs13213992	T	7028217	-3.628	1.7E-08		RREB1	
6	rs675209	T	7047083	4.388	1.0E-09		RREB1	
6	rs1285875	C	7060926	-3.771	9.3E-08	RREB1	RREB1	
6	rs11755724	A	7063989	3.578	1.4E-08	RREB1	RREB1	
6	rs6933716	T	7070708	3.536	2.8E-07	RREB1	RREB1	
6	rs687467	A	7073075	3.921	3.6E-08	RREB1	RREB1	
6	rs622404	A	7075595	3.910	3.8E-08	RREB1	RREB1	
6	rs630258	T	7079400	3.904	4.0E-08	RREB1	RREB1	
6	rs1285879	T	7082362	3.893	4.2E-08	RREB1	RREB1	
6	rs665723	T	7084063	-3.889	4.6E-08	RREB1	RREB1	
6	rs1334577	A	7156750	3.713	2.3E-07	RREB1	RREB1	
6	rs301395	A	25594605	3.329	3.1E-07	LRRC16	LRRC16	
6	rs4712944	A	25596244	-3.329	2.7E-07	LRRC16	LRRC16	
6	rs12528639	C	25599786	3.386	1.5E-07	LRRC16	LRRC16	
6	rs1034050	A	25600343	-3.401	1.3E-07	LRRC16	LRRC16	
6	rs2205936	C	25793471	3.956	1.3E-09	SCGN	HIST1H2BA;HIST1H2AA;SCGN	
6	rs2294346	C	25797466	4.013	3.6E-10	SCGN	HIST1H2BA;HIST1H2AA;SCGN	
6	rs4419666	T	25801253	-4.270	4.3E-10	SCGN	HIST1H2BA;HIST1H2AA;SCGN	
6	rs4409177	T	25802470	4.236	1.8E-10	SCGN	HIST1H2BA;HIST1H2AA;SCGN	
6	rs9467570	A	25807262	-4.225	1.7E-10	SCGN	HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs9467573	A	25812169	-4.213	1.6E-10		HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs9467574	C	25813697	4.213	1.6E-10		HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs6456688	T	25816939	3.776	7.2E-09		HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs6456693	C	25818066	4.130	7.9E-11		HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs6912391	C	25818742	3.932	5.4E-10		HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs9461204	A	25826445	4.262	6.1E-11		HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs12215823	C	25834053	4.064	9.0E-11		SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs9461210	A	25842052	4.314	4.8E-11		SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs9467591	A	25850678	4.252	1.6E-09		SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs10498728	A	25859299	-4.278	9.0E-11		SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs12207270	A	25859700	-4.278	9.0E-11		SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs1892256	T	25862250	-4.267	1.0E-10		SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs13194155	T	25863487	-4.252	1.2E-10	SLC17A4	SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4;SCGN	
6	rs16890999	A	25863562	4.242	1.3E-10	SLC17A4	HIST1H2AA;SLC17A1;SLC17A4;HIST1H2BA;SCGN	
6	rs2328893	A	25878218	4.740	1.0E-12	SLC17A4	SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4	
6	rs2275906	A	25881788	4.715	8.9E-08	SLC17A4	SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4	
6	rs11754288	A	25884928	-5.874	2.2E-22	SLC17A4	SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4	
6	rs12201071	T	25886034	-4.293	2.7E-12	SLC17A4	SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4	
6	rs10946798	T	25889832	4.288	2.4E-12		SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4	

6	rs3923	T	25891294	4.076	3.1E-11	SLC17A1	SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4
6	rs3757131	T	25891888	-5.877	2.3E-22	SLC17A1	SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4
6	rs13197601	A	25893914	-5.882	2.2E-22	SLC17A1	SLC17A1;HIST1H2BA;HIST1H2AA;SLC17A4;SLC17A3
6	rs3799344	T	25894972	-5.603	1.4E-20	SLC17A1	SLC17A1;HIST1H2BA;SLC17A4;SLC17A3
6	rs2096386	A	25895796	-4.020	1.3E-10	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs9393670	A	25897040	4.489	2.7E-13	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs10214468	A	25897369	5.222	3.9E-08	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs3799346	T	25899333	5.359	2.7E-14	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs942377	T	25900271	-5.362	2.6E-14	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs2762353	A	25902410	-6.116	6.2E-24	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1165215	A	25906911	6.250	5.9E-25	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1165209	A	25909298	6.250	5.1E-25	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1324082	T	25909950	5.355	2.6E-14	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs9467604	A	25912981	-5.395	1.5E-14	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs9467606	A	25917197	-5.500	2.9E-07	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1575534	T	25919383	5.442	7.3E-15	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs942378	A	25920438	5.447	7.4E-15	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1165196	A	25921129	6.205	5.0E-25	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs7753366	A	25925497	5.448	7.0E-15	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1165153	A	25925768	-6.199	6.3E-25	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1185567	A	25926567	-6.195	6.8E-25	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1183200	C	25926625	6.190	7.3E-25	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs12182983	A	25926734	5.380	1.5E-13	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1165152	A	25926745	-6.184	8.3E-25	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs6913879	T	25928407	-5.424	8.7E-15	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1165151	T	25929595	-6.058	1.1E-23	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs3799352	T	25930599	6.052	1.3E-23	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1183201	A	25931423	-6.050	1.4E-23	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs6456703	T	25934098	5.525	6.0E-15	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1408268	A	25934965	5.518	6.6E-15	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1165178	A	25935495	-6.029	1.6E-23	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs765285	C	25936221	5.946	6.1E-23	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs13200784	A	25937612	-5.448	1.3E-14	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1165177	A	25937638	5.927	7.6E-23	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1165176	A	25938277	-5.911	8.7E-23	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1185569	A	25939582	-5.866	4.1E-16	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1185568	A	25942407	5.911	9.2E-23	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1184803	T	25942637	-5.909	9.5E-23	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1185978	A	25943874	-6.001	9.7E-23	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs1165182	A	25945808	-5.902	1.0E-22	SLC17A1	SLC17A1;SLC17A4;SLC17A3
6	rs6905614	A	25948464	5.724	3.8E-21	SLC17A1	SLC17A1;SLC17A3
6	rs1408273	A	25948925	-5.893	1.1E-22	SLC17A1	SLC17A1;SLC17A3
6	rs1324088	A	25949101	4.973	1.4E-07	SLC17A1	SLC17A1;SLC17A3
6	rs1324087	A	25949387	4.915	1.5E-07	SLC17A1	SLC17A1;SLC17A3
6	rs9393672	T	25950584	-5.866	1.4E-22	SLC17A1	SLC17A1;SLC17A3
6	rs1165148	T	25952689	5.353	2.7E-14	SLC17A1	SLC17A1;SLC17A3
6	rs942379	A	25957599	-5.749	9.9E-22	SLC17A3	SLC17A1;SLC17A3
6	rs1165189	A	25957758	-5.355	2.6E-14	SLC17A3	SLC17A1;SLC17A3
6	rs1165187	T	25959348	-5.363	2.6E-14	SLC17A3	SLC17A1;SLC17A3
6	rs1780969	A	25966411	5.379	2.1E-14	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1179087	T	25966683	5.458	3.4E-13	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1177441	A	25967392	-4.909	1.9E-07	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1165168	A	25967487	-4.907	1.9E-07	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1182814	T	25967533	-5.362	2.4E-14	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1165167	A	25968667	-5.337	2.9E-14	SLC17A3	SLC17A1;SLC17A2;SLC17A3

6	rs1165165	T	25970445	5.225	4.2E-13	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1165164	A	25971460	5.515	2.5E-13	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1165162	T	25971584	5.329	3.1E-14	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1165161	T	25972341	5.372	2.2E-14	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1165160	A	25972435	-5.768	2.2E-21	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1165159	A	25972604	-5.401	1.8E-14	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1184498	C	25972861	5.021	9.2E-08	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1165158	A	25972877	5.428	1.3E-14	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1165207	T	25973245	-5.821	9.3E-22	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1165206	A	25975545	4.108	4.3E-11	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1184804	T	25976205	-5.846	7.2E-22	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs548987	C	25977350	5.198	2.6E-08	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs523383	A	25977827	-5.206	2.6E-08	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1165205	A	25978521	5.851	6.0E-22	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs555460	T	25978634	5.192	2.8E-08	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs556339	T	25978724	5.635	2.2E-15	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs972087	A	25980558	-5.413	2.0E-07	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs501220	A	25981004	5.242	2.8E-08	SLC17A3	SLC17A1;SLC17A2;SLC17A3
6	rs1165201	A	25982802	-3.756	1.3E-08		SLC17A1;SLC17A2;SLC17A3
6	rs603089	A	25985949	4.056	2.5E-10		SLC17A1;SLC17A2;SLC17A3
6	rs629835	T	25987309	-3.821	9.9E-09		SLC17A1;SLC17A2;SLC17A3
6	rs645279	T	25988473	-3.534	1.2E-07		SLC17A1;SLC17A2;SLC17A3
6	rs531750	C	25990621	-3.526	1.3E-07		SLC17A1;SLC17A2;SLC17A3
6	rs599444	A	25991693	-3.524	1.3E-07		SLC17A1;SLC17A2;SLC17A3
6	rs629444	T	25993793	5.310	7.4E-08		SLC17A1;SLC17A2;SLC17A3
6	rs9379801	T	26009690	-4.229	3.0E-12		SLC17A2;SLC17A3
6	rs7749342	T	26028244	-3.868	1.7E-10	SLC17A2	SLC17A2;TRIM38;SLC17A3
6	rs9393676	A	26044923	4.131	9.2E-12		SLC17A2;TRIM38
6	rs9295678	A	26045012	4.128	9.4E-12		TRIM38;SLC17A2
6	rs2051541	A	26053190	-4.145	5.9E-12		SLC17A2;TRIM38
6	rs115810	C	26083862	3.475	1.3E-07	TRIM38	HIST1H3A;HIST1H3B;HIST1H1A;SLC17A2;HIST1H2AB;HIST1H4B;TRIM38;HIST1H4A
6	rs199753	A	26109867	3.479	1.1E-07		HIST1H3A;HIST1H1C;HIST1H3B;HIST1H2BB;HIST1H1A;HIST1H2AB;HIST1H4B;TRIM38;HIST1H4A;HIST1H4C
6	rs199752	T	26120854	3.409	1.6E-07		HIST1H3A;HIST1H1C;HIST1H3B;HIST1H2BB;HIST1H1A;HIST1H2AB;HIST1H4B;TRIM38;HIST1H4A;HIST1H4C
6	rs199751	T	26123562	-3.526	5.4E-08		HIST1H3A;HIST1H1C;HIST1H3B;HIST1H2BB;HIST1H1A;HIST1H2AB;HIST1H4B;TRIM38;HIST1H4A;HIST1H4C
6	rs199750	T	26124441	3.526	5.2E-08		HIST1H3A;HIST1H1C;HIST1H3B;HIST1H2BB;HIST1H1A;HIST1H2AB;HIST1H4B;TRIM38;HIST1H4A;HIST1H4C
6	rs9467664	A	26129792	-3.315	2.8E-07		HIST1H3A;HIST1H1C;HIST1H3B;HIST1H2BB;HIST1H1A;HIST1H2AB;HIST1H4B;TRIM38;HIST1H4A;HIST1H4C
6	rs1540276	T	26136798	-3.260	4.0E-07		HIST1H3A;HIST1H1C;HIST1H3B;HIST1H2BB;HIST1H1A;HIST1H2AB;HIST1H4B;TRIM38;HIST1H4A;HFE
6	rs807214	C	26169748	3.244	3.8E-07		HIST1H3A;HIST1H1C;HIST1H3B;HIST1H4C;HIST1H2BB;HIST1H1A;HIST1H1T;HIST1H2AB;HIST1H4B;HIST1H4C
6	rs807212	A	26173600	-3.283	3.8E-07		HIST1H2BC;HIST1H3A;HIST1H1C;HIST1H3B;HIST1H4C;HIST1H2BB;HIST1H2AC;HIST1H1A;HIST1H1T;HIST1H4B
6	rs2071303	T	26199315	-3.302	2.5E-07	HFE	HIST1H2BC;HIST1H1C;HIST1H3B;HIST1H4C;HIST1H2BB;HIST1H2AC;HIST1H1T;HIST1H2AB;HFE;HIST1H4B
6	rs793143	T	NA	-6.003	1.1E-07		
10	rs1171618	T	61135947	-3.503	1.7E-07	SLC16A9	SLC16A9
11	rs4247633	T	63982855	-3.235	1.5E-07		
11	rs4247634	A	63983064	-3.227	1.5E-07		
11	rs1003697	A	63990359	3.324	5.9E-08		
11	rs1000662	A	63990395	-3.324	5.9E-08		
11	rs685272	T	63993609	-3.326	5.6E-08		
11	rs547484	A	63993697	-3.385	2.3E-08		
11	rs490581	A	63995372	3.313	6.2E-08		
11	rs192133	A	63997117	-3.365	2.5E-08		
11	rs171284	A	63997226	-3.365	2.5E-08		
11	rs240696	T	63997327	-3.365	2.5E-08		

11	rs475414	A	63998420	-3.348	3.0E-08	
11	rs522485	T	64000770	-3.476	1.1E-08	
11	rs606496	T	64006136	3.477	1.1E-08	
11	rs525192	T	64007041	3.478	1.0E-08	
11	rs634497	T	64007797	-3.537	9.5E-09	
11	rs2845635	T	64009546	3.483	1.0E-08	
11	rs2845637	T	64010196	3.543	7.0E-09	
11	rs2845638	T	64010280	-3.546	6.8E-09	
11	rs17299124	A	64013435	-5.308	1.4E-10	
11	rs589852	T	64014016	-3.635	3.3E-09	
11	rs604182	T	64014858	-3.191	2.0E-07	
11	rs615311	T	64015081	3.279	2.4E-07	
11	rs617104	C	64015466	-3.191	1.9E-07	
11	rs1210879	T	64016382	3.190	2.0E-07	
11	rs662228	A	64016683	3.188	2.0E-07	
11	rs661292	A	64017054	3.188	2.0E-07	
11	rs1210877	T	64021987	3.187	2.1E-07	SLC22A11
11	rs7104498	A	64022820	3.185	2.1E-07	SLC22A11
11	rs4930402	A	64026514	-3.215	1.7E-07	SLC22A11
11	rs7483260	T	64029610	-3.214	1.7E-07	SLC22A11
11	rs12417589	A	64058289	-4.038	2.1E-11	SLC22A12;SLC22A11
11	rs11231808	A	64058917	-4.042	2.1E-11	SLC22A12;SLC22A11
11	rs1939120	A	64061291	4.684	1.0E-07	SLC22A12;SLC22A11
11	rs7936185	T	64062028	-4.175	4.7E-12	SLC22A12;SLC22A11
11	rs4930420	C	64063633	-4.128	1.6E-11	SLC22A12;SLC22A11
11	rs7479811	T	64065360	4.761	7.7E-08	SLC22A12;SLC22A11
11	rs6591859	A	64068424	4.909	1.1E-15	SLC22A12;SLC22A11
11	rs4930423	T	64068473	4.912	1.1E-15	SLC22A12;SLC22A11
11	rs12362644	T	64068729	4.914	1.1E-15	SLC22A12;SLC22A11
11	rs11231816	A	64068979	-4.909	1.2E-15	SLC22A12;SLC22A11
11	rs7124676	A	64069867	-6.333	4.6E-23	SLC22A11;SLC22A12
11	rs4930426	C	64072490	6.323	5.1E-23	SLC22A11;NRXN2;SLC22A12
11	rs3759053	T	64079656	-6.343	4.1E-23	SLC22A12;SLC22A11;NRXN2
11	rs7940321	A	64080696	-6.402	4.3E-23	SLC22A11 SLC22A12;SLC22A11;NRXN2
11	rs693591	C	64081645	5.607	7.6E-11	SLC22A11 SLC22A12;SLC22A11;NRXN2
11	rs3782099	T	64084286	6.419	2.5E-23	SLC22A11 SLC22A11;NRXN2;SLC22A12
11	rs7943154	A	64084420	6.435	2.1E-23	SLC22A11 SLC22A12;SLC22A11;NRXN2
11	rs17300741	A	64088038	6.782	7.5E-26	SLC22A11 SLC22A12;SLC22A11;NRXN2
11	rs17372915	A	64088144	-6.866	5.5E-26	SLC22A11 SLC22A12;SLC22A11;NRXN2
11	rs1783811	A	64089872	4.550	1.7E-10	SLC22A11 SLC22A12;SLC22A11;NRXN2
11	rs2078267	T	64090690	-6.801	2.4E-26	SLC22A11 SLC22A12;SLC22A11;NRXN2
11	rs528211	T	64108297	4.804	2.8E-12	SLC22A12;SLC22A11;NRXN2
11	rs505802	T	64113648	-4.703	5.1E-12	SLC22A12;SLC22A11;NRXN2
11	rs524023	T	64114841	4.624	1.0E-08	SLC22A11;NRXN2;SLC22A12
11	rs9734313	T	64114887	-4.624	1.0E-08	SLC22A12 SLC22A12;SLC22A11;NRXN2
11	rs3825018	A	64115385	-4.630	7.0E-09	SLC22A12 SLC22A12;SLC22A11;NRXN2
11	rs3825016	T	64115862	-4.623	7.1E-09	SLC22A12 SLC22A12;SLC22A11;NRXN2
11	rs11231825	T	64116850	4.617	7.3E-09	SLC22A12 SLC22A11;NRXN2;SLC22A12
11	rs10897518	T	64117281	-4.801	3.7E-13	SLC22A12 SLC22A12;SLC22A11;NRXN2
11	rs475688	T	64120867	3.580	2.4E-07	SLC22A12 SLC22A11;NRXN2;SLC22A12
11	rs893006	A	64122372	-4.359	5.4E-11	SLC22A12 SLC22A12;SLC22A11;NRXN2
11	rs7932437	T	64130080	4.352	5.4E-11	SLC22A12;SLC22A11;NRXN2
11	rs4930556	C	64134302	-4.323	7.2E-11	NRXN2 SLC22A12;SLC22A11;NRXN2
11	rs2277311	A	64144508	-4.309	8.0E-11	NRXN2 SLC22A12;SLC22A11;NRXN2
11	rs2360873	C	64147733	-4.294	9.3E-11	NRXN2 SLC22A12;SLC22A11;NRXN2

11	rs10792443	C	64151828	-4.285	9.9E-11	NRXN2	SLC22A12;SLC22A11;NRXN2
11	rs11231845	A	64163995	-4.281	1.0E-10	NRXN2	SLC22A12;NRXN2
11	rs555456	T	64174835	4.259	1.2E-10	NRXN2	SLC22A12;NRXN2
11	rs544838	T	64185635	4.205	1.7E-10	NRXN2	SLC22A12;NRXN2
11	rs492175	A	64189654	-4.199	1.8E-10	NRXN2	NRXN2
11	rs2666559	T	64195803	-4.190	2.0E-10	NRXN2	RASGRP2;NRXN2
11	rs506338	T	64197496	4.219	1.5E-10	NRXN2	RASGRP2;NRXN2
11	rs519090	C	64212816	-4.197	2.3E-10	NRXN2	PYGM;RASGRP2;NRXN2
11	rs504915	A	64220661	-4.190	2.5E-10	NRXN2	PYGM;RASGRP2;NRXN2
11	rs500531	T	64243595	-4.252	3.3E-10	NRXN2	SF1;NRXN2;PYGM;RASGRP2
11	rs10897526	T	64316474	-4.762	7.1E-10	MAP4K2	MEN1;SF1;MAP4K2;PYGM;RASGRP2;CDC42BPG
11	rs6591188	T	65224529	-3.256	3.6E-07		RELA;SIPA1;RNASEH2C;HTATIP
11	rs9666878	A	65232392	3.241	4.0E-07		RELA;SIPA1;RNASEH2C;HTATIP
11	rs4645933	T	65241696	3.258	3.5E-07	HTATIP	RELA;RNASEH2C;DKFZp761E198;HTATIP
12	rs11172134	A	55932056	-4.754	4.4E-10		NXPH4;R3HDM2;SHMT2;NDUFA4L2;STAC3;LRP1
12	rs11172147	A	55982944	-4.704	4.1E-11		R3HDM2;STAC3
12	rs4760355	A	56011464	-4.682	4.7E-11		R3HDM2
12	rs11609805	A	56021312	-4.683	4.6E-11		R3HDM2
12	rs4760254	C	56052659	-4.735	3.1E-11		
12	rs4760278	A	56057420	-4.745	3.0E-11		INHBC
12	rs11613352	T	56078847	-4.703	3.9E-11		INHBE;INHBC
12	rs1106766	T	56095723	-5.162	1.9E-11		INHBE;GLI1;ARHGAP9;INHBC
12	rs11614506	T	56101942	4.707	3.8E-11		INHBE;GLI1;ARHGAP9;INHBC
12	rs7964492	A	56109852	4.711	4.2E-11		INHBE;GLI1;ARHGAP9;MARS;INHBC
12	rs3741414	T	56130316	-4.642	3.4E-10	INHBC	INHBE;GLI1;ARHGAP9;MARS;INHBC

**Table 7s. SNPs Associated with Gout ( $p < 4e-7$ ) and  $MAF \geq 0.02$  in meta-analysis of CHARGE cohorts.**

Chr	SNP ID	Coded Allele	Noncoded Allele	Position	Effects	P	In RefGene	RefGenes within 60kb
4	rs10805346	T	C	9529445	0.3596	3.50E-14	SLC2A9	SLC2A9
4	rs874432	A	T	9529704	-0.4977	3.70E-15	SLC2A9	SLC2A9
4	rs16890979	T	C	9531265	-0.48	9.44E-15	SLC2A9	SLC2A9
4	rs938564	T	G	9531671	0.5017	3.04E-15	SLC2A9	SLC2A9
4	rs734553	T	G	9532102	0.4764	2.78E-14	SLC2A9	SLC2A9
4	rs6832439	A	G	9533417	-0.4992	3.76E-15	SLC2A9	SLC2A9
4	rs938554	C	G	9534790	-0.4995	3.68E-15	SLC2A9	SLC2A9
4	rs938555	A	G	9535149	-0.4994	3.74E-15	SLC2A9	SLC2A9
4	rs13129697	T	G	9536065	0.4129	3.66E-13	SLC2A9	SLC2A9
4	rs6838021	T	C	9536718	-0.4992	3.94E-15	SLC2A9	SLC2A9
4	rs737267	T	G	9543842	-0.4439	5.20E-14	SLC2A9	SLC2A9
4	rs6855911	A	G	9545008	0.4447	5.14E-14	SLC2A9	SLC2A9
4	rs7670751	A	C	9547871	0.4162	5.41E-09	SLC2A9	SLC2A9
4	rs938558	A	G	9548303	0.4234	6.00E-14	SLC2A9	SLC2A9
4	rs5028843	A	G	9549904	-0.4443	6.45E-14	SLC2A9	SLC2A9
4	rs4697913	T	C	9550360	-0.4852	2.50E-15	SLC2A9	SLC2A9
4	rs7675964	T	C	9550532	-0.4371	2.35E-14	SLC2A9	SLC2A9
4	rs12498742	A	G	9553150	0.4516	1.77E-13	SLC2A9	SLC2A9
4	rs4697700	C	G	9554890	-0.4627	5.40E-14	SLC2A9	SLC2A9
4	rs4697701	A	G	9555193	-0.4538	1.24E-14	SLC2A9	SLC2A9
4	rs4475146	A	C	9555754	-0.4875	8.17E-15	SLC2A9	SLC2A9
4	rs11723439	T	C	9560917	-0.4851	5.10E-13	SLC2A9	SLC2A9
4	rs4481233	T	C	9565177	-0.513	3.15E-13	SLC2A9	SLC2A9
4	rs11942223	T	C	9571863	0.4958	3.45E-14	SLC2A9	SLC2A9
4	rs6449173	T	G	9575203	0.4925	4.06E-14	SLC2A9	SLC2A9
4	rs7442295	A	G	9575478	0.4924	4.17E-14	SLC2A9	SLC2A9
4	rs9998811	A	G	9575575	-0.4918	4.17E-14	SLC2A9	SLC2A9
4	rs7376960	A	G	9579668	0.4779	7.06E-14	SLC2A9	SLC2A9
4	rs7439210	C	G	9580847	0.4642	5.45E-13	SLC2A9	SLC2A9
4	rs1071988	A	G	9583736	0.4575	6.67E-13	SLC2A9	SLC2A9
4	rs16868246	C	G	9587403	-0.4556	6.83E-13	SLC2A9	SLC2A9
4	rs11722229	A	C	9589795	0.4535	7.69E-13	SLC2A9	SLC2A9
4	rs13131257	T	C	9590987	-0.4501	9.77E-13	SLC2A9	SLC2A9
4	rs13145758	A	G	9591095	0.4438	2.07E-12	SLC2A9	SLC2A9
4	rs13125209	A	C	9591142	-0.4527	2.52E-12	SLC2A9	SLC2A9
4	rs13125646	A	G	9591428	-0.4768	3.43E-12	SLC2A9	SLC2A9
4	rs7660895	A	G	9594543	-0.4545	2.16E-14	SLC2A9	SLC2A9
4	rs7680126	A	G	9594694	0.4544	4.93E-13	SLC2A9	SLC2A9
4	rs4385059	T	C	9598331	0.4355	2.95E-11	SLC2A9	SLC2A9
4	rs6449213	T	C	9603313	0.4319	3.67E-11	SLC2A9	SLC2A9
4	rs3775948	C	G	9604280	0.4017	1.01E-11	SLC2A9	SLC2A9
4	rs13111638	T	C	9605988	-0.4467	1.04E-11	SLC2A9	SLC2A9
4	rs4529048	A	C	9606210	0.415	2.12E-12	SLC2A9	SLC2A9
4	rs3733588	A	G	9606401	0.4162	1.78E-12	SLC2A9	SLC2A9
4	rs7669607	T	C	9606899	-0.4296	6.04E-12	SLC2A9	SLC2A9
4	rs10939650	T	C	9607538	0.4253	5.96E-13	SLC2A9	SLC2A9
4	rs13113918	A	G	9607591	-0.3812	3.26E-07	SLC2A9	SLC2A9
4	rs1014290	A	G	9610959	0.4263	4.75E-13	SLC2A9	SLC2A9
4	rs9991278	T	C	9611763	-0.4337	5.07E-12	SLC2A9	SLC2A9



4	rs10023068	A	G	9613930	-0.3897	6.19E-09	SLC2A9	SLC2A9
4	rs6853437	A	G	9614533	0.3887	6.66E-09	SLC2A9	SLC2A9
4	rs10022499	A	C	9615635	0.3837	8.20E-09	SLC2A9	SLC2A9
4	rs9291640	T	C	9616184	0.3828	8.69E-09	SLC2A9	SLC2A9
4	rs9291642	T	C	9616373	0.3924	2.48E-07	SLC2A9	SLC2A9
4	rs12509955	T	C	9633401	-0.3728	4.63E-09	SLC2A9	WDR1;SLC2A9
4	rs6826764	C	G	9639892	0.396	5.09E-09	SLC2A9	WDR1;SLC2A9
4	rs10006397	A	C	9645238	0.3929	5.83E-09	SLC2A9	WDR1;SLC2A9
4	rs7349721	A	T	9651660	-0.3797	1.12E-08		WDR1;SLC2A9
4	rs733175	T	C	9659239	0.3767	1.14E-08		WDR1;SLC2A9
4	rs7671266	T	C	9665474	-0.3627	9.50E-09		WDR1;SLC2A9
4	rs4320137	T	C	9682067	0.3924	2.62E-07		WDR1;SLC2A9
4	rs717614	C	G	9713886	0.2633	2.74E-08	WDR1	WDR1
4	rs12509714	C	G	9716189	-0.3084	4.39E-10	WDR1	WDR1
4	rs4604059	T	C	9724163	-0.2665	2.02E-08	WDR1	WDR1
4	rs12498927	A	G	9724621	-0.2694	1.37E-08	WDR1	WDR1
4	rs10009493	C	G	9741145	0.3623	7.89E-08		WDR1
4	rs10939723	T	G	9748203	-0.3546	1.06E-07		WDR1
4	rs10022911	A	G	9749649	0.3391	2.72E-07		WDR1
4	rs10020887	C	G	9749849	0.3521	1.52E-07		WDR1
4	rs17198547	T	C	9750517	-0.3468	2.38E-07		WDR1
4	rs17251963	T	C	9751659	0.3737	6.00E-08		WDR1
4	rs4697714	A	T	9752884	-0.351	1.92E-07		WDR1
4	rs4640669	A	G	9754831	-0.3415	2.30E-07		WDR1
4	rs4697933	A	G	9755591	-0.3515	1.67E-07		WDR1
4	rs11735668	C	G	9757753	0.351	2.84E-07		WDR1
4	rs11721682	T	C	9760245	-0.3533	3.05E-07		WDR1
4	rs6834055	A	T	9767609	0.3452	1.95E-07		WDR1
4	rs2903827	C	G	9784970	0.3686	2.78E-08		WDR1
4	rs11724112	T	C	9789741	0.2939	3.38E-10		
4	rs6811287	T	C	9789921	-0.2899	4.47E-10		
4	rs4697957	A	G	9791352	0.3499	6.39E-08		
4	rs887732	C	G	9792215	-0.3502	6.26E-08		
4	rs929575	C	G	9805984	0.3772	2.14E-08		
4	rs17389602	A	T	9816024	-0.3807	1.72E-08		
4	rs2080072	C	G	9844720	-0.309	2.40E-10		
4	rs11734783	T	C	9849761	0.434	9.30E-09		
4	rs1978274	T	G	9854185	0.3857	1.68E-08		
4	rs11735543	T	G	9860750	-0.3892	5.00E-08		
4	rs17406107	T	G	9872478	0.3822	1.87E-08		
4	rs10805364	A	G	9884616	0.3854	5.74E-09		
4	rs10489070	C	G	9885450	0.3858	5.56E-09		
4	rs12510549	T	C	9885565	0.3847	6.12E-09		
4	rs16895984	T	C	9893825	0.3092	3.50E-08		
4	rs4698009	T	C	9894091	0.3568	3.05E-08		
4	rs4698014	T	C	9895399	-0.3579	2.78E-08		
4	rs2024280	T	C	9900911	0.3915	2.38E-09		
4	rs11731652	T	C	9902082	0.3639	1.95E-08		
4	rs2868937	T	C	9912179	-0.3512	2.39E-08		
4	rs4698023	A	G	9913824	0.3512	2.40E-08		
4	rs7689060	C	G	9914561	-0.3555	4.16E-08		
4	rs12511337	A	G	9921070	-0.3409	5.08E-08		
4	rs4698029	C	G	9921896	0.3399	5.42E-08		
4	rs714436	A	C	9923765	0.3452	3.23E-08		
4	rs4698031	A	G	9925019	0.3554	1.25E-08		

4	rs17418478	A	G	9925949	-0.3517	1.83E-07		
4	rs17418533	T	C	9926039	0.356	1.24E-08		
4	rs11722185	C	G	9926580	0.3562	1.26E-08		
4	rs4698036	T	G	9940392	0.3511	8.71E-09		
4	rs11729318	C	G	9946017	-0.3628	1.08E-08		
4	rs17420080	T	C	9954646	-0.3423	9.25E-08		
4	rs4698040	T	C	9961648	-0.3807	4.90E-09		
4	rs7681212	C	G	9968062	0.3118	2.60E-07		
4	rs10938772	A	G	9984426	0.3062	2.45E-07		
4	rs4693920	T	C	89083799	-0.4253	1.19E-07		SPP1
4	rs2728123	T	C	89089819	-0.424	2.40E-07		PKD2;SPP1
4	rs2728119	A	G	89096555	-0.3706	4.84E-09		PKD2;SPP1
4	rs11730059	A	G	89106351	0.4469	1.39E-10		PKD2;SPP1
4	rs2725234	T	C	89151296	0.4809	8.19E-13	PKD2	PKD2;SPP1
4	rs2728113	A	G	89158760	-0.4779	1.14E-12	PKD2	PKD2;SPP1
4	rs2728109	A	C	89176747	0.4924	2.79E-13	PKD2	PKD2;SPP1;ABCG2
4	rs2725217	A	T	89179282	-0.4955	1.67E-13	PKD2	PKD2;SPP1;ABCG2
4	rs2725215	T	C	89180595	0.5036	1.46E-13	PKD2	PKD2;SPP1;ABCG2
4	rs2725212	A	G	89187737	-0.371	5.95E-09	PKD2	PKD2;ABCG2
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4	rs2728106	A	G	89191075	0.3618	1.29E-08	PKD2	PKD2;ABCG2
4	rs2728104	T	C	89192030	-0.417	3.16E-10	PKD2	PKD2;ABCG2
4	rs2725210	A	G	89192451	-0.3401	7.27E-08	PKD2	PKD2;ABCG2
4	rs2728099	T	C	89194762	-0.4864	7.77E-12	PKD2	PKD2;ABCG2
4	rs2725207	A	C	89198553	0.3663	5.93E-09	PKD2	PKD2;ABCG2
4	rs2728133	T	C	89200714	-0.3653	7.19E-09	PKD2	PKD2;ABCG2
4	rs2728132	A	C	89201485	-0.3665	6.60E-09	PKD2	PKD2;ABCG2
4	rs2725205	A	G	89204735	0.3668	6.45E-09	PKD2	PKD2;ABCG2
4	rs4336187	A	G	89206940	-0.3708	4.33E-09	PKD2	PKD2;ABCG2
4	rs2725203	T	C	89214819	-0.3641	7.08E-09	PKD2	PKD2;ABCG2
4	rs2728121	T	C	89216126	0.4501	2.27E-11	PKD2	PKD2;ABCG2
4	rs2728126	A	T	89218246	0.455	2.85E-12		PKD2;ABCG2
4	rs2728125	A	G	89220917	-0.4803	3.20E-13		PKD2;ABCG2
4	rs2231164	T	C	89234881	-0.426	4.92E-12	ABCG2	PKD2;ABCG2
4	rs2231156	A	C	89239451	0.5324	1.06E-15	ABCG2	PKD2;ABCG2
4	rs4148157	A	G	89239958	0.5324	1.06E-15	ABCG2	PKD2;ABCG2
4	rs4693924	A	G	89242248	0.5342	7.40E-16	ABCG2	PKD2;ABCG2
4	rs2054576	A	G	89247799	-0.5423	8.10E-16	ABCG2	PKD2;ABCG2
4	rs12505410	T	G	89249865	0.2688	2.98E-07	ABCG2	PKD2;ABCG2
4	rs2622621	C	G	89249944	-0.2726	2.92E-08	ABCG2	PKD2;ABCG2
4	rs1481012	A	G	89258106	-0.6148	3.48E-23	ABCG2	PKD2;ABCG2
4	rs2199936	A	G	89264355	0.6183	2.60E-23	ABCG2	PKD2;ABCG2
4	rs2231142	T	G	89271347	0.6021	4.41E-23	ABCG2	PKD2;ABCG2
4	rs4148155	A	G	89273691	-0.6037	3.55E-23	ABCG2	PKD2;ABCG2
4	rs2622626	A	C	89285739	0.253	2.10E-08	ABCG2	ABCG2
4	rs17731799	T	G	89287479	0.2722	3.14E-09	ABCG2	ABCG2
4	rs2622624	T	C	89288430	-0.2727	2.95E-09	ABCG2	ABCG2
4	rs2622605	T	C	89298410	-0.3024	4.55E-11	ABCG2	ABCG2
4	rs3114020	T	C	89302690	-0.3057	3.38E-11		ABCG2
4	rs10011796	T	C	89309901	0.2576	2.05E-08		ABCG2
4	rs10009618	T	C	89313032	-0.2546	2.63E-08		ABCG2
4	rs1481017	T	C	89316501	-0.2549	2.68E-08		ABCG2

9

rs13287980

A

G

106364021

0.3472

1.09E-07

OR13C8;OR13C2;OR13C3;OR13C4;OR13C9;OR13F

## Supplementary Figures

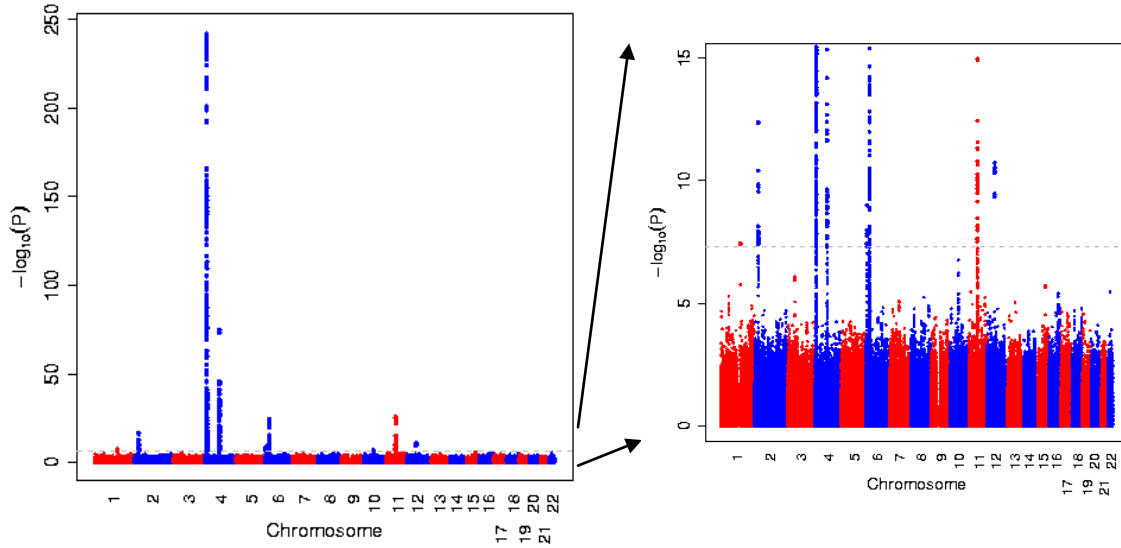
**Figure 1s. Genome-wide association results from meta-analyses of five studies for urate and gout.** Each point in the plot corresponds to a SNP with chromosome location and  $-\log_{10}$  (p-value) as x- and y-coordinates respectively. Panel A: Left plot includes the complete set of p-values from urate association analyses, and right plot offers an amplified view restricted to SNPs with p-values higher than  $10^{-15}$ . Panel B: Complete set of p-values from gout association analyses. The genomic control parameters were all below 1.05 within individual cohorts, and in combined meta-analysis results.

**Figure 2s. Regional plots of loci associated with urate (A-H)** The association p-values ( $-\log_{10}$  transformed, left y-axis) for SNPs in a region of each of the six loci: A) *SLC22A11*, B) *GCKR*, C) *R3HDM2-INHBC*, D) *RREB1*, E) *PDZK1*, F) *SLC2A9*, G) *ABCG2*, H) *SLC17A1* are plotted against their chromosome positions (NCBI build 36, x-axis). The regions were determined to include all SNPs with  $R^2$  of 0.1 or above with the top associated SNP, and each diamond represents a SNP with the color indicating the  $R^2$  range ( $R^2$  was estimated using HapMap CEU sample). The top associated SNP is plotted by a red diamond with size larger than others, and with the SNP name displayed on the top, and p-value on the right. The light blue curve in the background is the estimated recombination rate in HapMap with values indicated by the right y-axis. The bottom panel displays the reference genes in the region based on the UCSC Genome Browser March 2006 assembly, with the arrow indicating the direction of transcription. The light grey horizontal line corresponds to the p-value threshold of genome-wide significance,  $5 \times 10^{-8}$ .

**Figure 3s. Forest plots of the eight genome-wide significant loci for serum urate.** Two plots in each column were generated for each locus: the top plot displays the beta coefficient that is the increase in urate level ( $\mu\text{mol/L}$ ) per minor allele, and the bottom plot displays the odds ratio per minor allele with gout. In each plot, the value of each individual study and the meta-analysis

combined is displayed as a box with size proportional to the inverse of its variance and with a 95% confidence interval as blue lines extending from the box.

**Figure 1- A.  $-\log_{10}(p\text{-value})$  of Genome-wide association analyses of UA**



**Figure 1- B.  $-\log_{10}(p\text{-value})$  of Genome-wide association analyses of Gout**

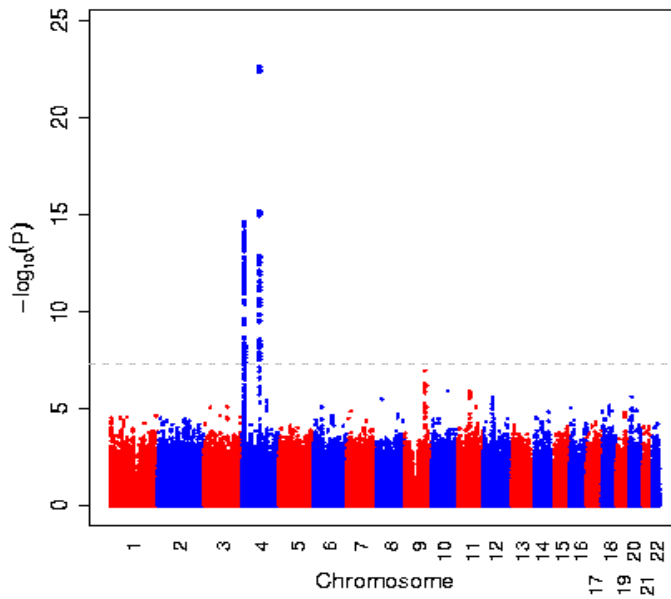


Figure 2s - A

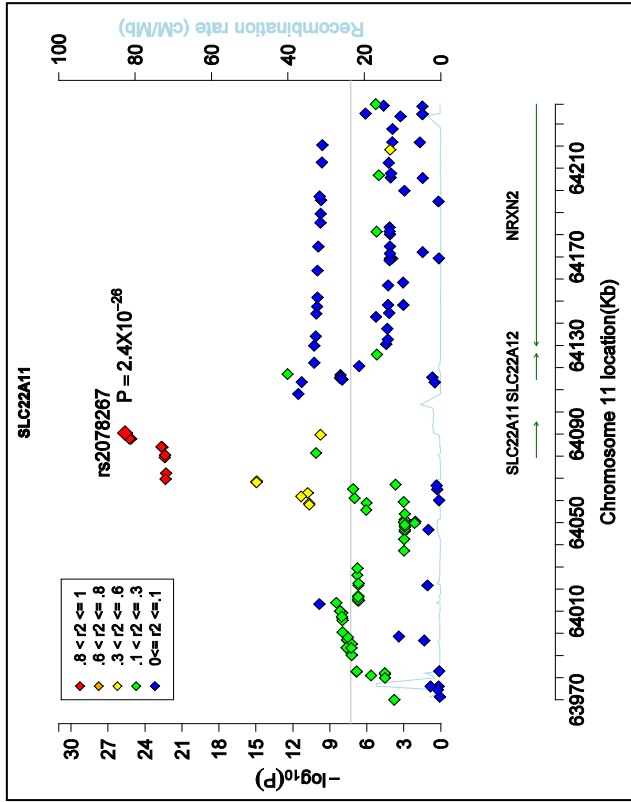


Figure 2s - B

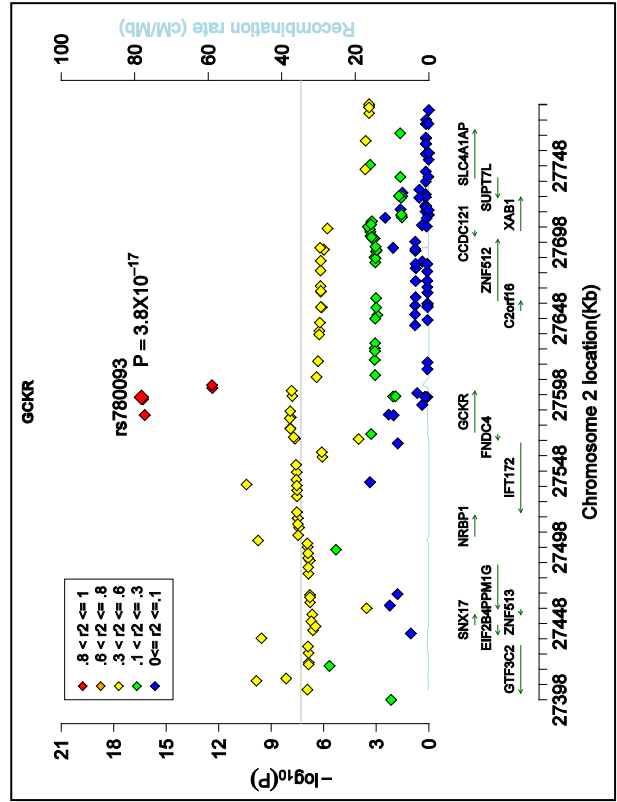


Figure 2s - C

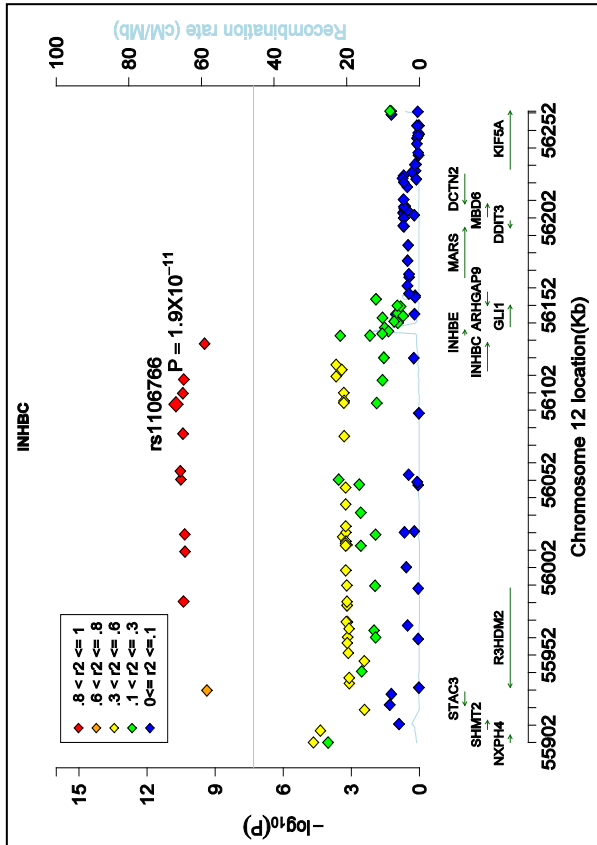


Figure 2s - D

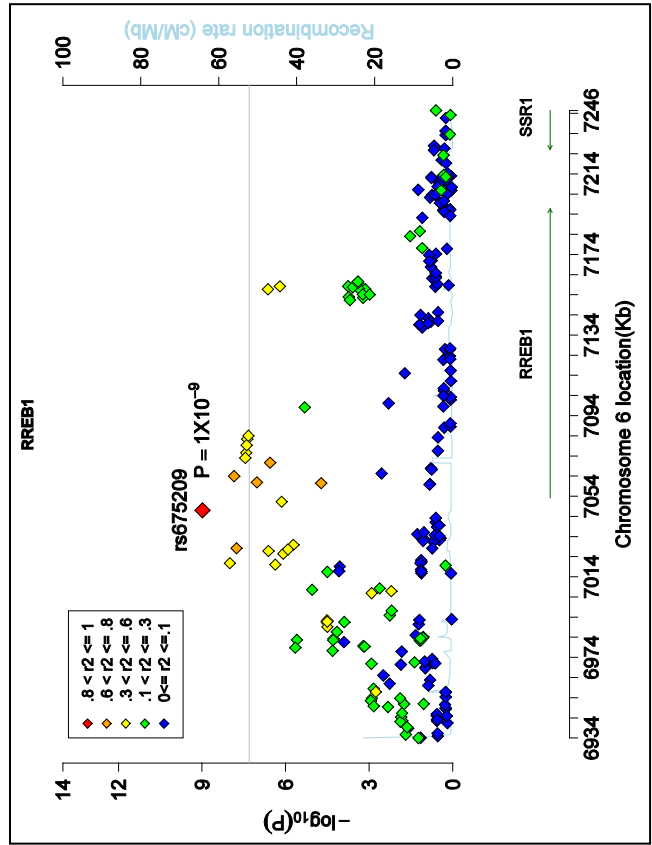


Figure 2s - E

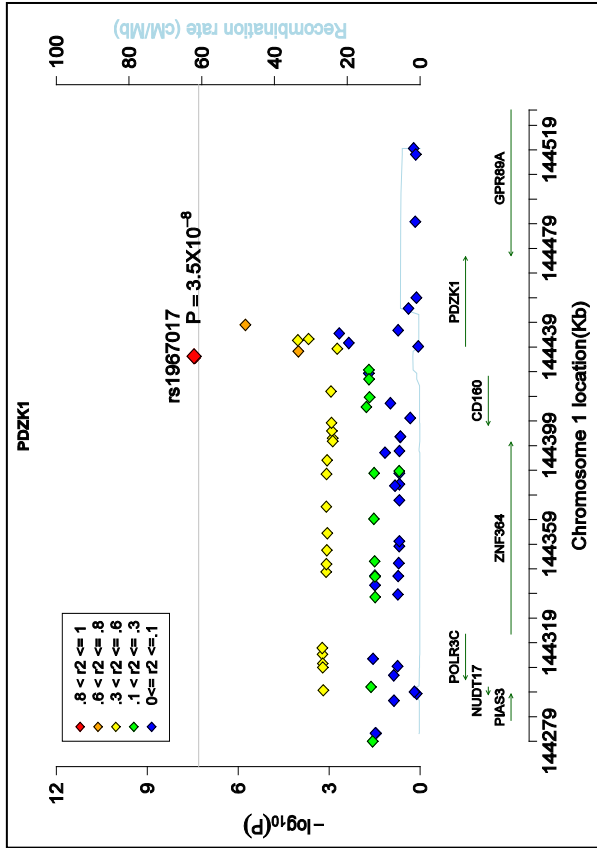


Figure 2s-G.

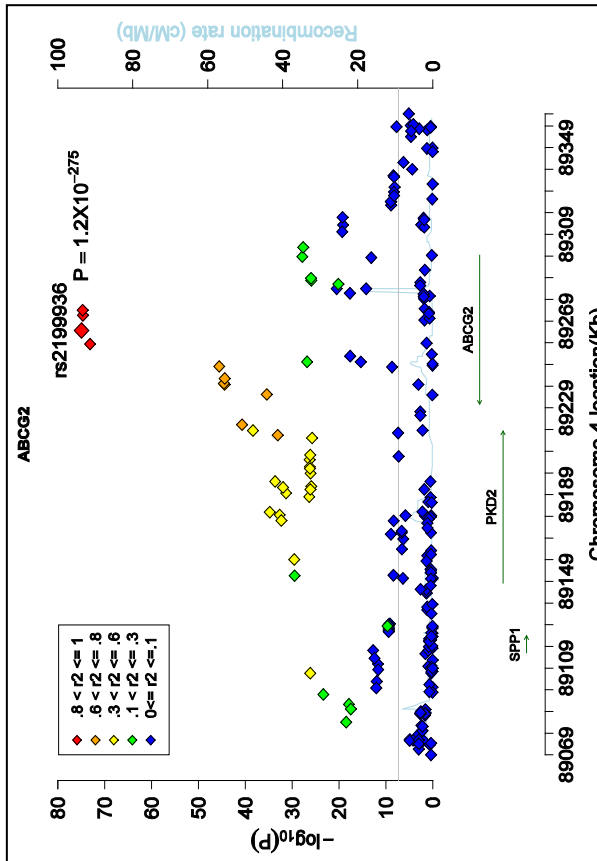


Figure 2s - F

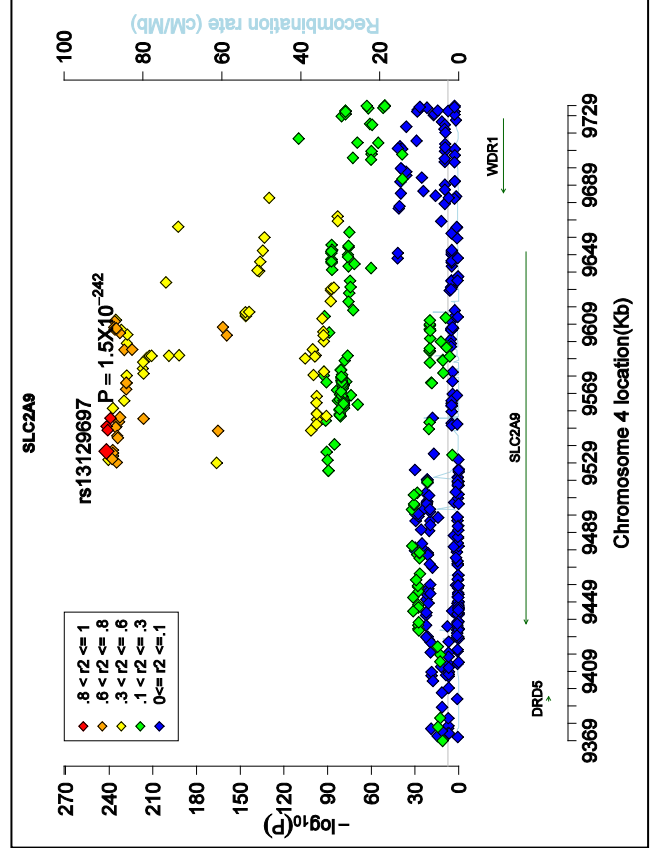
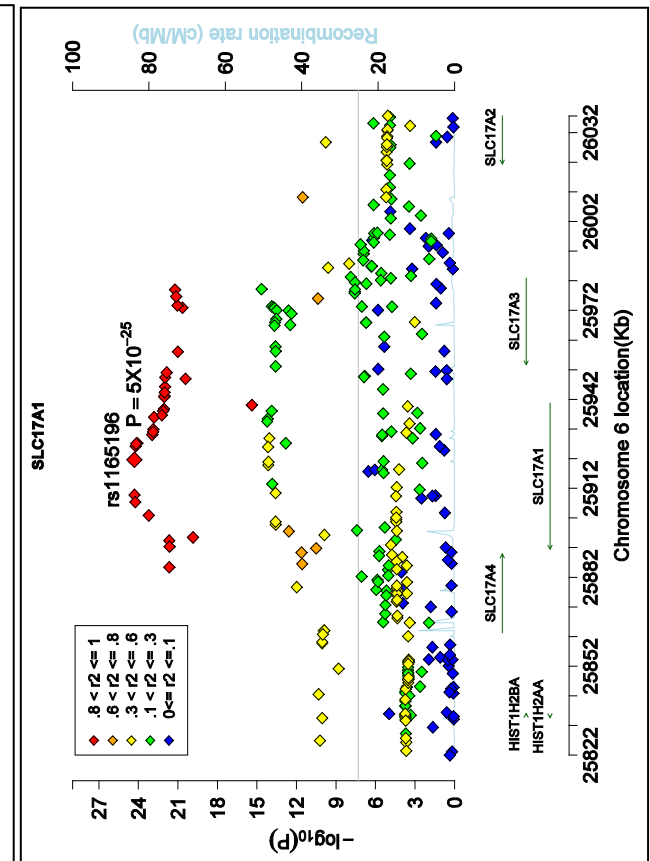
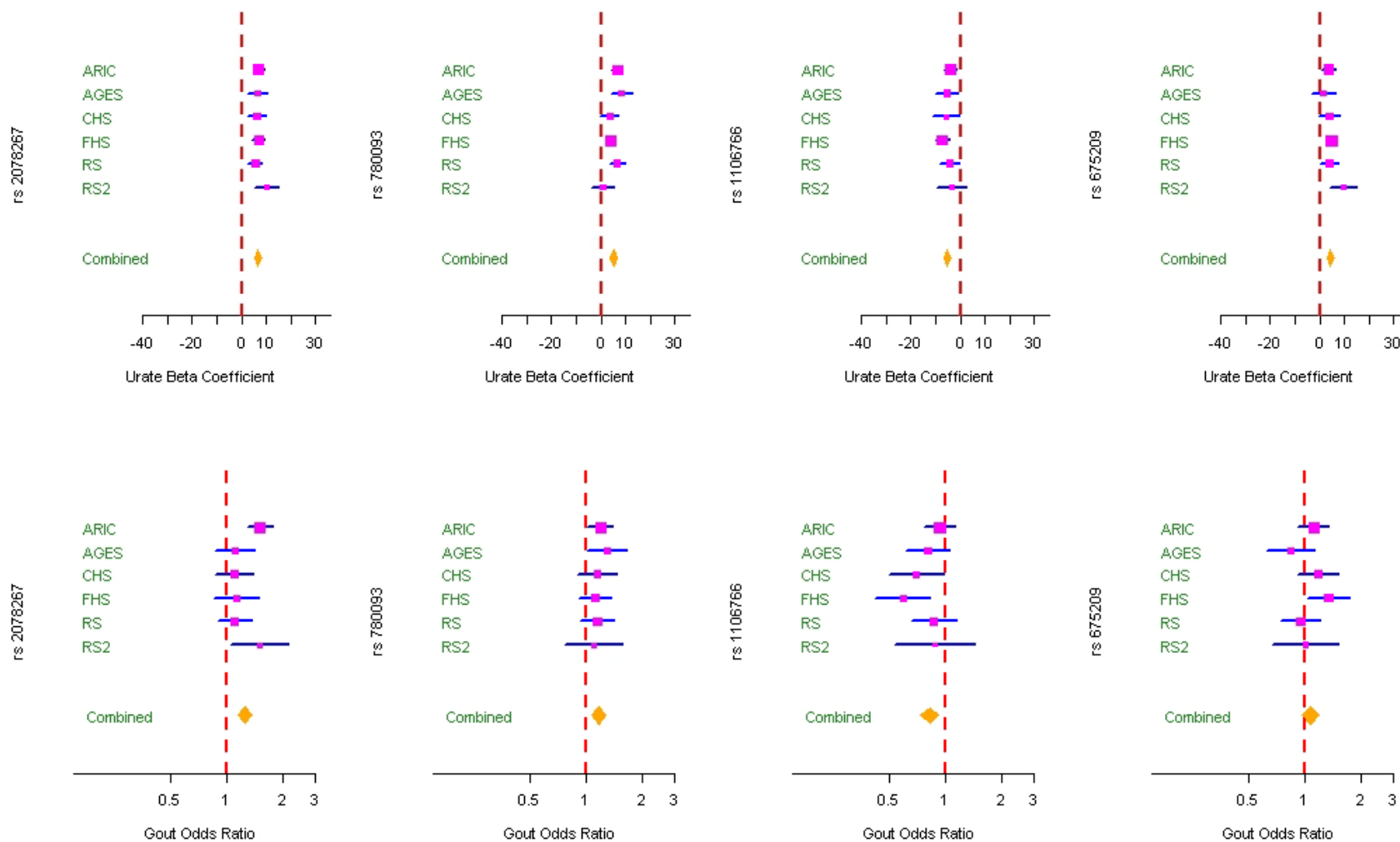


Figure 2s-H.

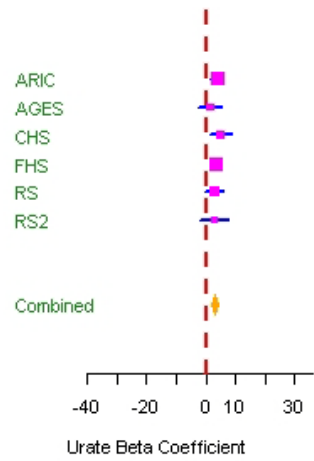


**Supplemental Figure 3s. Top row, urate beta coefficients; bottom row, gout odds ratio estimate for each SNP.**

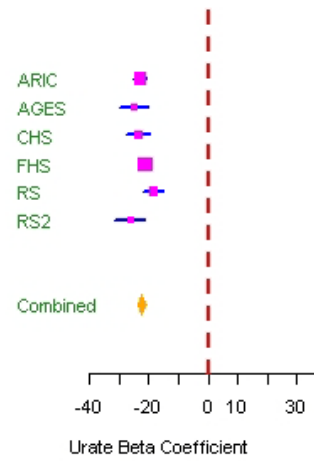




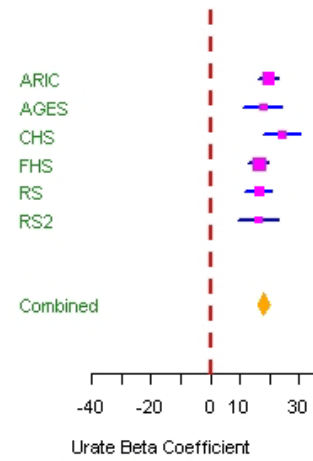
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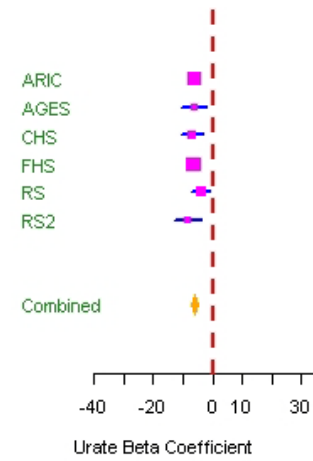
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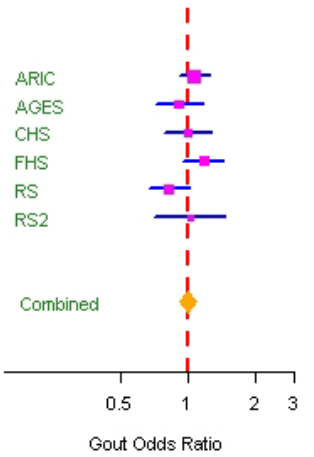
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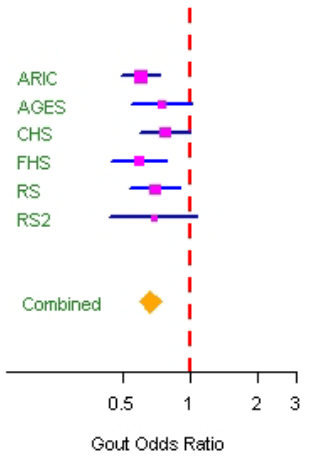
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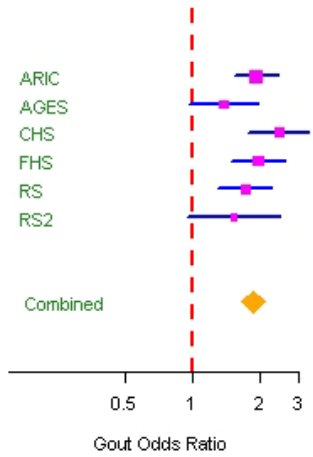
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rs 1165196

