

Supplementary Information

Figure S1. Lack of gene size effect bias with our CFG approach.

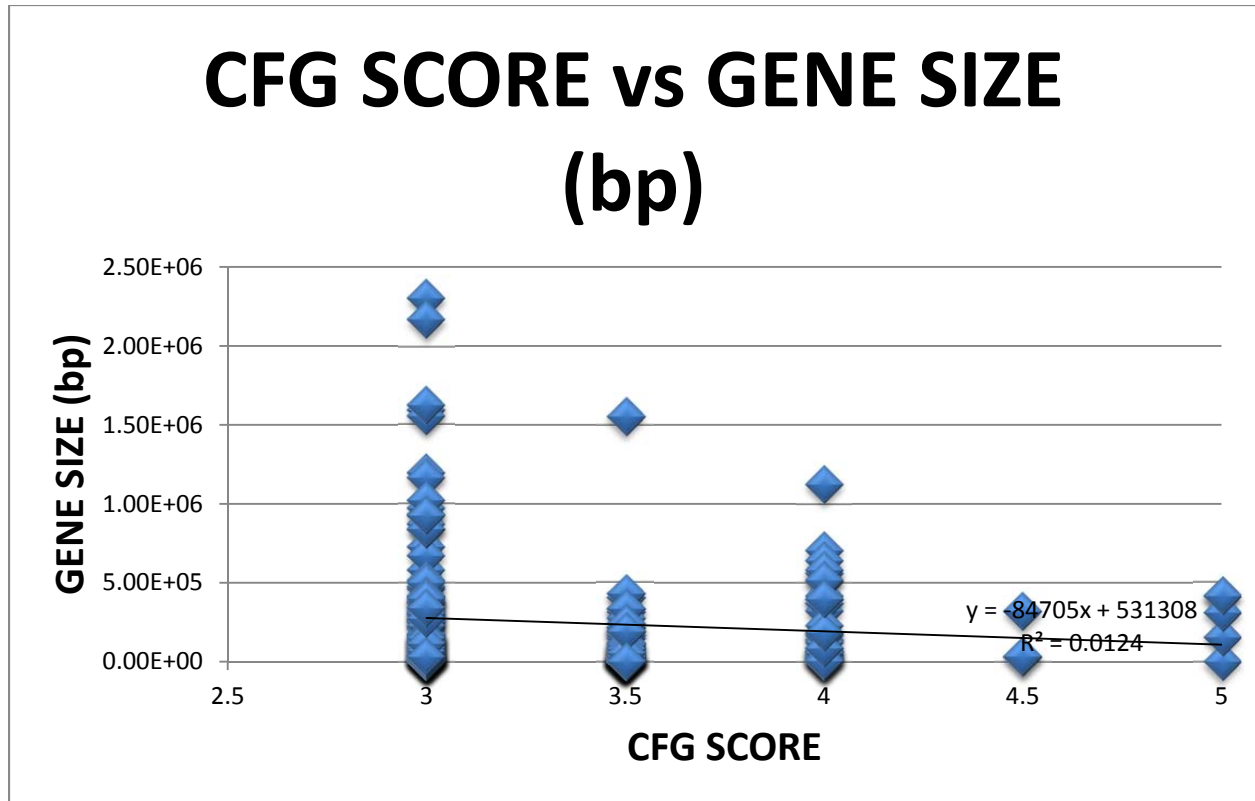


Table S1. Top candidate genes for schizophrenia- extended list. CFG analysis of ISC GWAS data.

Genes with a CFG score of 3 and above. For top genes with CFG score of 4 and above, we also list whether there is any evidence for involvement in autism and/or Alzheimer Disease (AD). 15 of 42 had evidence of involvement in autism and 10 out of 42 had evidence of involvement in AD.

Gene Symbol/Name	CFG Score	Autism Evidence	Alzheimer Evidence
DISC1 disrupted in schizophrenia 1	5.0	Yes Kilpinen et al. 2008	Yes Young-Pearse 2011
HSPA1B heat shock 70kDa protein 1B	5.0		
MBP myelin basic protein	5.0		Yes Desai 2009
TCF4 transcription factor 4	5.0		
MOBP myelin-associated oligodendrocyte basic protein	4.0		
NCAM1 neural cell adhesion molecule 1	4.5		
NDUFV2 NADH dehydrogenase (ubiquinone) flavoprotein 2, 24kDa	4.5		
NRCAM neuronal cell adhesion molecule	4.5	Yes Marui et al. 2009	
RAB18 RAB18, member RAS oncogene family	4.5		
ADCYAP1 adenylate cyclase activating polypeptide 1 (pituitary)	4.0		
ALDH1A1 aldehyde dehydrogenase 1 family, member A1	4.0		
ANK3 ankyrin 3, node of Ranvier (ankyrin G)	4.0		
BDNF brain-derived neurotrophic factor	4.0	Yes Correia et al. 2010	Yes Nagahara et al. 2009
CD9 CD9 molecule	4.0		
CNR1 cannabinoid receptor 1 (brain)	4.0	Yes Chakrabarti et al. 2011	
COMT catechol-O-methyltransferase	4.0		
CPLX2 complexin 2	4.0	Yes Voineagu et al. 2011	
DRD2 dopamine receptor D2	4.0		
DTNBP1 dystrobrevin binding protein 1	4.0		
FABP7 fatty acid binding protein 7, brain	4.0		
GABRB3 gamma-aminobutyric acid (GABA) A receptor, beta 3	4.0	Yes Buxbaum et al. 2002	Yes Simpson et al. 2011
GAD1 glutamate decarboxylase 1 (brain, 67kDa)	4.0		
GNB1L guanine nucleotide binding protein (G protein), beta polypeptide 1-like	4.0	Yes Chen et al. 2011	
GRIA1 glutamate receptor, ionotropic, AMPA 1	4.0		
GRIA4 glutamate receptor, ionotropic, AMPA 4	4.0		Yes Jacob CP et al. 2007

GRIN2B glutamate receptor, ionotropic, N-methyl D-aspartate 2B	4.0	Yes O'Roak et al. 2011	Yes Stein JL et al. 2010
GRM5 glutamate receptor, metabotropic 5	4.0	Yes Dolen et al. 2007	
GSN gelsolin	4.0		
HINT1 histidine triad nucleotide binding protein 1	4.0		
HTR2A 5-hydroxytryptamine (serotonin) receptor 2A	4.0		
KALRN kalirin, RhoGEF kinase	4.0	Yes Ben-David et al. 2011 Hussman et al. 2011	Yes Youn H et. 2007
KIF2A kinesin heavy chain member 2A	4.0	Yes Voineagu et al. 2011	
NR4A2 nuclear receptor subfamily 4, group A, member 2	4.0		
NRG1 neuregulin 1	4.0		
PDE4B phosphodiesterase 4B, cAMP-specific	4.0	Yes Braun et al. 2007	
PRKCA protein kinase C, alpha	4.0	Yes Hussman et al. 2011	
RELN reelin	4.0	Yes Ashley-Koch et al., 2007; Perisco et al., 2002	Yes Kramer PL et al. 2011
RGS4 regulator of G-protein signaling 4	4.0		Yes Emilsson L et al. 2006
SLC1A2 solute carrier family 1 (glial high affinity glutamate transporter), member 2	4.0		
SNAP25 synaptosomal-associated protein, 25kDa	4.0		Yes Adlard PA et al. 2010
SYN2 synapsin II	4.0		
TNIK TRAF2 and NCK interacting kinase	4.0		

ACBD3 acyl-CoA binding domain containing 3	3.5
ARID5A AT rich interactive domain 5A (MRF1-like)	3.5
ASAH1 N-acylsphingosine amidohydrolase (acid ceramidase) 1	3.5
B2M beta-2-microglobulin	3.5
C1QB complement component 1, q subcomponent, B chain	3.5
CALB1 calbindin 1, 28kDa	3.5
CASP3 caspase 3, apoptosis-related cysteine peptidase	3.5
CCND3 cyclin D3	3.5

CD47	
CD47 molecule	3.5
CNR2	
cannabinoid receptor 2 (macrophage)	3.5
DNAJA4	
DnaJ (Hsp40) homolog, subfamily A, member 4	3.5
DUSP1	
dual specificity phosphatase 1	3.5
EBF1	
early B-cell factor 1	3.5
EGR1	
early growth response 1	3.5
FUT8	
fucosyltransferase 8 (alpha (1,6) fucosyltransferase)	3.5
FYN	
FYN oncogene related to SRC, FGR, YES	3.5
GAP43	
growth associated protein 43	3.5
GNPDA1	
glucosamine-6-phosphate deaminase 1	3.5
GRIN2A	
glutamate receptor, ionotropic, N-methyl D-aspartate 2A	3.5
HSPA1A	
heat shock 70kDa protein 1A	3.5
IGF1R	
insulin-like growth factor 1 receptor	3.5
LPL	
lipoprotein lipase	3.5
MAL	
mal, T-cell differentiation protein	3.5
MAP6	
microtubule-associated protein 6	3.5
MFHAS1	
malignant fibrous histiocyoma amplified sequence 1	3.5
MMD	
monocyte to macrophage differentiation-associated	3.5
MYLK	
myosin light chain kinase	3.5
NEFL	
neurofilament, light polypeptide	3.5
NEFM	
neurofilament, medium polypeptide	3.5
NFKBIA	
nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha	3.5
NTSR2	
neurotensin receptor 2	3.5
PDE10A	
phosphodiesterase 10A	3.5
PDE4D	
phosphodiesterase 4D, cAMP-specific	3.5
PKM2	
pyruvate kinase, muscle	3.5
PRKAR2B	
protein kinase, cAMP-dependent, regulatory, type II, beta	3.5
PRNP	
prion protein	3.5
RAB2A	
RAB2A, member RAS oncogene family	3.5
RAP2A	3.5

RAP2A, member of RAS oncogene family	
RIMS3 regulating synaptic membrane exocytosis 3	3.5
SH3GL2 SH3-domain GRB2-like 2	3.5
SLC1A3 solute carrier family 1 (glial high affinity glutamate transporter), member 3	3.5
SLC6A9 solute carrier family 6 (neurotransmitter transporter, glycine), member 9	3.5
SOD1 superoxide dismutase 1, soluble	3.5
STXBP6 syntaxin binding protein 6 (amisyn)	3.5
VDAC1 voltage-dependent anion channel 1	3.5
YWHAE tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, epsilon polypeptide	3.5
ZBTB16 zinc finger and BTB domain containing 16	3.5
ABCA1 ATP-binding cassette, sub-family A (ABC1), member 1	3.0
ADCY1 adenylate cyclase 1 (brain)	3.0
ADRBK2 (GRK3) adrenergic, beta, receptor kinase 2	3.0
APC adenomatous polyposis coli	3.0
ARHGAP18 Rho GTPase activating protein 18	3.0
ATXN1 ataxin 1	3.0
AZIN1 antizyme inhibitor 1	3.0
CACNG2 calcium channel, voltage-dependent, gamma subunit 2	3.0
CHRNA7 cholinergic receptor, nicotinic, alpha 7	3.0
CLU clusterin	3.0
CMIP c-Maf inducing protein	3.0
CNTNAP2 contactin associated protein-like 2	3.0
CPD carboxypeptidase D	3.0
DDR1 discoidin domain receptor tyrosine kinase 1	3.0
DLG2 discs, large homolog 2 (Drosophila)	3.0
DSC3 desmocollin 3	3.0
DUSP6 dual specificity phosphatase 6	3.0
EGF epidermal growth factor	3.0

EGR2 early growth response 2	3.0
EML1 echinoderm microtubule associated protein like 1	3.0
ERBB4 v-erb-a erythroblastic leukemia viral oncogene homolog 4 (avian)	3.0
FEZ1 fasciculation and elongation protein zeta 1 (zygin I)	3.0
FGFR3 fibroblast growth factor receptor 3	3.0
FZD3 frizzled family receptor 3	3.0
GABRB2 gamma-aminobutyric acid (GABA) A receptor, beta 2	3.0
GNAL guanine nucleotide binding protein (G protein), alpha activating activity polypeptide, olfactory type	3.0
GNAO1 guanine nucleotide binding protein (G protein), alpha activating activity polypeptide O	3.0
GPM6A glycoprotein M6A	3.0
GPM6B glycoprotein M6B	3.0
GPR137B G protein-coupled receptor 137B	3.0
GRIA3 glutamate receptor, ionotropic, AMPA 3	3.0
GRIK4 glutamate receptor, ionotropic, kainate 4	3.0
GRM1 glutamate receptor, metabotropic 1	3.0
GRM4 glutamate receptor, metabotropic 4	3.0
GRM7 glutamate receptor, metabotropic 7	3.0
GULP1 GULP, engulfment adaptor PTB domain containing 1	3.0
HTR7 5-hydroxytryptamine (serotonin) receptor 7 (adenylate cyclase-coupled)	
IFITM3 interferon induced transmembrane protein 3	3.0
KCNB1 potassium voltage-gated channel, Shab-related subfamily, member 1	3.0
KIAA0513	3.0
KLF5 Kruppel-like factor 5 (intestinal)	3.0
KMO kynurenine 3-monooxygenase (kynurenine 3-hydroxylase)	3.0
LMO3 LIM domain only 3 (rhombotin-like 2)	3.0
MAPT microtubule-associated protein tau	3.0
MCF2 MCF.2 cell line derived transforming sequence	3.0
MCTP2 multiple C2 domains, transmembrane 2	3.0
MEGF10 multiple EGF-like-domains 10	3.0
MOG	3.0

myelin oligodendrocyte glycoprotein	
NCOA2 nuclear receptor coactivator 2	3.0
NMT1 N-myristoyltransferase 1	
NOS1 nitric oxide synthase 1 (neuronal)	3.0
NPAS2 neuronal PAS domain protein 2	3.0
NPY neuropeptide Y	3.0
NR4A3 nuclear receptor subfamily 4, group A, member 3	3.0
NRGN neurogranin (protein kinase C substrate, RC3)	3.0
NTF3 neurotrophin 3	3.0
NTNG1 netrin G1	3.0
PCLO piccolo (presynaptic cytomatrix protein)	3.0
PCM1 pericentriolar material 1	3.0
PDE7B phosphodiesterase 7B	3.0
PDYN prodynorphin	3.0
PLLP plasmolipin	3.0
PLXNA2 plexin A2	3.0
PNPLA8 patatin-like phospholipase domain containing 8	3.0
PPM1A protein phosphatase, Mg ²⁺ /Mn ²⁺ dependent, 1A	3.0
PRKAG2 protein kinase, AMP-activated, gamma 2 non-catalytic subunit	3.0
PSAP prosaposin	3.0
PTPRM protein tyrosine phosphatase, receptor type, M	3.0
PTPRZ1 protein tyrosine phosphatase, receptor-type, Z polypeptide 1	3.0
QKI quaking homolog, KH domain RNA binding (mouse)	3.0
QPCT glutaminy-peptide cyclotransferase	3.0
RAB31 RAB31, member RAS oncogene family	3.0
RHOBTB3 Rho-related BTB domain containing 3	3.0
RIMS3 regulating synaptic membrane exocytosis 3	3.0
S100A10 (p11) S100 calcium binding protein A10	3.0
SCAMP1 secretory carrier membrane protein 1	3.0
SERPINI1 serpin peptidase inhibitor, clade I (neuroserpin), member 1	3.0
SLC2A3	3.0

solute carrier family 2 (facilitated glucose transporter), member 3	
SLC44A1 solute carrier family 44, member 1	3.0
SLC4A4 solute carrier family 4, sodium bicarbonate cotransporter, member 4	3.0
SLC6A3 solute carrier family 6 (neurotransmitter transporter, dopamine), member 3	3.0
SLC6A5 solute carrier family 6 (neurotransmitter transporter, glycine), member 5	3.0
SNCA synuclein, alpha (non A4 component of amyloid precursor)	3.0
SPOCK3 sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) 3	3.0
SPON1 spondin 1, extracellular matrix protein	3.0
STMN1 stathmin 1	3.0
TAGLN3 transgelin 3	3.0
TAL1 T-cell acute lymphocytic leukemia 1	3.0
TMEM106B transmembrane protein 106B	3.0
USP2 ubiquitin specific peptidase 2	3.0
USP7 ubiquitin specific peptidase 7 (herpes virus-associated)	3.0
USP9X ubiquitin specific peptidase 9, X-linked	3.0
VLDLR very low density lipoprotein receptor	3.0
VSNL1 visinin-like 1	3.0
YWHAZ tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide	3.0
ZCCHC12 zinc finger, CCHC domain containing 12	3.0
ZFH3 zinc finger homeobox 3	3.0
ZNF804A zinc finger protein 804A	3.0

Table S2. Top candidate genes for schizophrenia from Table 1 that are targets of existing drugs.

Gene	Location	Drug(s)	CFG Score	DHA (Le-Niculescu et al. 2011) Brain region (Direction of change)
ALDH1A1 aldehyde dehydrogenase 1 family, member A1	Cytoplasm	disulfiram, chlorpropamide, DHA	4.0	AMY (I)
CNR1 cannabinoid receptor 1 (brain)	Plasma Membrane	trans-(±)-nabilone, SLV 319, rimonabant, BAY 38-7271, delta-8-tetrahydrocannabinol, delta-9-tetrahydrocannabinol	4.0	
COMT catechol-O-methyltransferase	Cytoplasm	BIA-3-202, tolcapone, entacapone	4.0	
DRD2 dopamine receptor D2	Plasma Membrane	antipsychotics	4.0	AMY (I)
GABRB3 gamma-aminobutyric acid (GABA) A receptor, beta 3	Plasma Membrane	benzodiazepines	4.0	HIP (D)
GRIA1 glutamate receptor, ionotropic, AMPA 1	Plasma Membrane	talampanel, Org 24448, LY451395, tezampanel	4.0	
GRIA4 glutamate receptor, ionotropic, AMPA 4	Plasma Membrane	talampanel, Org 24448, LY451395, tezampanel	4.0	
GRIN2B glutamate receptor, ionotropic, N-methyl D-aspartate 2B	Plasma Membrane	dextromethorphan, neramexane, bicifadine, delucemine, CR 2249, besonprodil, UK-240455, ketamine, felbamate, memantine, orphenadrine, cycloserine, N-(2-indanyl)glycinamide, dextromethorphan, brompheniramine/dextromethorphan/pseudoephedrine, chlorpheniramine/dextromethorphan/phenylephrine, carbinoxamine/dextromethorphan/pseudoephedrine, dextromethorphan/promethazine, 1-aminocyclopropane-1-carboxylic acid	4.0	
GRM5 glutamate receptor, metabotropic 5	Plasma Membrane	fasoracetam	4.0	
HTR2A 5-hydroxytryptamine (serotonin) receptor 2A	Plasma Membrane	atypical antipsychotics dihydroergotamine, apomorphine, ergotamine, azatadine	4.0	
NCAM1 neural cell adhesion molecule 1	Plasma Membrane	BB-10901	4.5	
PDE4B phosphodiesterase 4B, cAMP-specific	Cytoplasm	dyphylline, nitroglycerin, arofylline, tetomilast, L 869298, aminophylline, anagrelide, cilomilast, milrinone, rolipram, dipyrindamole, L-826, 141, roflumilast, tolbutamide, theophylline, pentoxifylline, caffeine	4.0	
PRKCA protein kinase C, alpha	Cytoplasm	L-threo-safingol	4.0	BLOOD (D)
SLC1A2 solute carrier family 1 (glial high affinity glutamate transporter), member 2	Plasma Membrane	riluzole	4.0	BLOOD (D)
SNAP25 synaptosomal-associated protein, 25kDa	Plasma Membrane	botulinum toxin type A	4.0	BLOOD (D)

Table S3. GRPS-542: Panel of SNPs used for genetic risk prediction of schizizophrenia.

Panel contains all the nominally significant SNPs in the top 42 candidate genes from Table 1 identified by CFG in the ISC GWAS. In the rightmost columns are the alleles, p-values and OR in the independent test cohorts GAIN EA and GAIN AA. Assignment of disease alleles to be tested is based on OR from the ISC, independent of any information from the test cohorts.

	DATA FROM ISC GWAS							DATA FROM GAIN GWAS								
Gene Symbol/ Gene Name	SNP	Probe Set ID	A1 (ISC)	A2 (ISC)	P (ISC)	OR (ISC)		A1 (GAIN EA)	A2 (GAIN EA)	P (GAIN EA)	OR (GAIN EA)		A1 (GAIN AA)	A2 (GAIN AA)	P (GAIN AA)	OR (GAIN AA)
ADCYAP1 (adenylate cyclase activating polypeptide 1 (pituitary))	rs504441	SNP_A-1782888	G	C	0.03776	1.166		G	C	0.9597	0.9941		G	C	0.2848	1.125
	rs810930	SNP_A-1784156	G	A	0.003912	0.877		G	A	0.8854	1.01		A	G	0.2401	0.9253
	rs2422224	SNP_A-1787302	G	C	0.01745	1.173		C	G	0.0549	1.221		C	G	0.9877	1.001
	rs9844740	SNP_A-1787640	A	C	0.04254	0.9102		T	G	0.6553	1.033		T	G	0.7011	0.9751
	rs1261070	SNP_A-1792662	A	G	0.03094	0.8742		T	C	0.9271	0.9909		T	C	0.8056	1.067
	rs11874716	SNP_A-1793542	G	T	0.02956	0.9251		C	A	0.9832	1.001		C	A	0.7756	0.9804
	rs883591	SNP_A-1795629	C	G	0.01985	0.9124		G	C	0.3343	0.9405		G	C	0.8656	1.012
	rs12655396	SNP_A-1796236	C	T	0.01436	1.174		G	A	0.7835	1.029		G	A	0.9829	0.9985
	rs10953394	SNP_A-1796688	A	T	0.02154	1.1		A	T	0.6271	0.9684		A	T	0.7369	0.9738
	rs159971	SNP_A-1796936	G	A	0.003416	1.153		G	A	0.9868	1.001		A	G	0.2516	0.9199
	rs159760	SNP_A-1798262	G	T	0.03477	1.1		C	A	0.9471	0.9952		A	C	0.5496	0.9617
ALDH1A1 (aldehyde dehydrogenase 1 family, member A1)	rs11916004	SNP_A-1798646	G	A	0.04041	0.905		G	A	0.6957	0.9725		A	G	0.3759	0.9429
	rs13272876	SNP_A-1799924	T	A	0.04398	0.92		A	T	0.3236	0.9354		A	T	0.1936	0.8115
ANK3 (ankyrin 3, node of Ranvier (ankyrin G))	rs10953569	SNP_A-1800120	A	G	0.02406	1.093		A	G	0.4061	0.9524		A	G	0.69	1.029
	rs4958560	SNP_A-1800957	C	T	0.03006	0.9097		G	A	0.4645	0.955		G	A	0.0424	0.8278

	rs13180912	SNP_A-1804203	T	C	0.01658	1.144		A	G	0.8071	0.9793		A	G	0.57	1.065
	rs1422341	SNP_A-1807380	A	G	0.01985	0.8995		T	C	0.2034	0.9128		T	C	0.5064	0.8902
	rs4958687	SNP_A-1811390	G	A	0.006494	0.8976		C	T	0.4618	1.044		C	T	0.7315	0.976
	rs11214469	SNP_A-1812077	A	T	0.04103	1.083		A	T	0.1223	1.093		A	T	0.1134	1.111
	rs9949821	SNP_A-1813452	A	G	0.02668	1.099		A	G	0.03078	1.158		A	G	0.2368	0.8914
	rs1892983	SNP_A-1814603	C	T	0.03201	1.08		C	T	0.1953	1.077		C	T	0.1109	1.112
	rs1768158	SNP_A-1815872	G	A	0.01439	1.113		C	T	0.9812	1.002		T	C	0.7246	0.977
	rs3772753	SNP_A-1815916	T	C	0.01374	1.18		T	C	0.6004	1.059		T	C	0.6774	0.9552
	rs11759609	SNP_A-1818933	A	G	0.04853	0.8837		A	G	0.5216	0.9373		A	G	0.1518	0.9036
	rs167467	SNP_A-1819097	C	T	0.02335	0.9234		G	A	0.481	0.9611		A	G	0.8328	1.014
	rs731117	SNP_A-1819179	C	T	0.01972	0.8996		C	T	0.1759	0.9074		C	T	0.6193	0.923
	rs9844925	SNP_A-1819684	T	C	0.03062	0.9083		T	C	0.7607	0.9788		C	T	0.8893	0.9909
	rs1402070	SNP_A-1824820	C	G	0.01646	1.106		G	C	0.01531	0.8458		G	C	0.9477	1.009
	rs10954863	SNP_A-1826569	A	G	0.02171	0.8909		T	C	0.624	0.9727		T	C	0.1549	0.8722
	rs1707960	SNP_A-1832007	G	A	0.02101	1.107		C	T	0.9871	1.001		C	T	0.2098	1.085
	rs11055664	SNP_A-1833355	G	A	0.02501	0.9237		G	A	0.874	0.991		G	A	0.5168	0.9494
	rs7072678	SNP_A-1839057	A	G	0.02473	0.9084		T	C	0.1419	0.9111		T	C	0.6757	0.9728
	rs12705470	SNP_A-1839823	T	C	0.04683	1.089		T	C	0.3708	0.946		T	C	0.8115	1.018
BDNF (brain-derived neurotrophic factor)	rs12457949	SNP_A-1843919	G	A	0.007208	0.8743		C	T	0.6008	0.9612		C	T	0.1694	0.8093
	rs17113236	SNP_A-1846295	A	T	0.04368	1.091		T	A	0.4456	1.055		T	A	0.6867	0.9668

	rs170110	SNP_A-1846902	T	A	0.03398	1.299		A	T	0.01842	0.6354		A	T	0.2289	1.119
	rs16954588	SNP_A-1847219	T	C	0.02644	0.8588		A	G	0.6115	0.948		A	G	0.3851	1.081
	rs10226935	SNP_A-1847308	T	C	0.01298	1.131		A	G	0.3372	0.9387		A	G	0.6992	1.028
	rs7564747	SNP_A-1852734	C	G	0.03771	0.9248		G	C	0.292	0.9379		G	C	0.4007	0.9406
	rs7985155	SNP_A-1859137	G	A	0.02014	1.154		C	T	0.08358	0.8389		C	T	0.2674	1.107
	rs12809496	SNP_A-1860379	G	A	0.008959	0.9089		G	A	0.63	0.9723		G	A	0.6795	1.047
	rs12653613	SNP_A-1865003	C	T	0.000571	2.098		C	T	0.1253	1.435		C	T	0.1573	0.8863
	rs41352345	SNP_A-1865505	T	A	0.02452	0.8872		T	A	0.6123	0.9605		T	A	0.2955	1.26
	rs502958	SNP_A-1866228	A	T	0.003879	1.107		A	T	0.2563	1.067		A	T	0.6121	1.036
	rs10742178	SNP_A-1866962	A	G	0.001666	0.8772		A	G	0.745	1.022		A	G	0.8097	0.984
	rs2763979	SNP_A-1867908	T	C	0.0009	0.8831		T	C	0.06573	0.8954		C	T	0.0987	1.121
	rs187229	SNP_A-1868251	T	C	0.03741	0.9271		A	G	0.01565	0.8681		G	A	0.8203	0.9839
	rs217771	SNP_A-1868571	C	T	0.03273	1.101		C	T	0.9569	1.004		T	C	0.3083	0.9273
	rs9846083	SNP_A-1869674	T	C	0.01204	0.9142		T	C	0.4619	0.9586		T	C	0.8566	1.017
	rs16839220	SNP_A-1871945	C	G	0.02361	1.105		C	G	0.3933	1.063		C	G	0.5016	0.9007
CD9 (CD9 molecule)	rs1898210	SNP_A-1873492	T	A	0.04452	0.9292		A	T	0.5688	1.034		A	T	0.6137	1.037
CNR1 (cannabinoid receptor 1 (brain))	rs2032161	SNP_A-1876443	C	T	0.009535	0.8955		C	T	0.129	0.9089		C	T	0.2687	0.8907
	rs390299	SNP_A-1879538	G	A	0.005409	1.116		G	A	0.5498	1.035		G	A	0.6118	1.035
	rs11030175	SNP_A-1879775	T	C	0.04939	0.8991		T	C	0.3108	1.092		T	C	0.7901	0.9574
COMT (catechol-O-methyltransferase)	rs4657237	SNP_A-1882915	T	C	0.02886	1.147		A	G	0.8618	0.9826		G	A	0.02626	0.8647

CPLX2 (complexion 2)	rs1035396	SNP_A-1887755	A	T	0.01709	0.889		A	T	0.172	0.9069		A	T	0.468	0.8818
DISC1 (disrupted in schizophrenia 1)	rs11055597	SNP_A-1889450	T	C	0.02369	1.083		A	G	0.5329	0.9654		A	G	0.1874	0.9144
	rs12087592	SNP_A-1890845	T	C	0.02936	0.8313		T	C	0.3358	0.8814		T	C	0.1181	1.114
	rs378267	SNP_A-1893103	G	A	0.002122	1.117		G	A	0.4094	1.049		A	G	0.3423	0.9397
	rs1422337	SNP_A-1893785	A	G	0.03683	1.094		A	G	0.3787	1.063		A	G	0.7909	0.9796
	rs13238841	SNP_A-1894176	A	G	0.01717	1.104		T	C	0.3666	0.9461		T	C	0.9852	1.001
	rs11214331	SNP_A-1895352	A	G	0.04941	0.9212		T	C	0.6475	1.031		C	T	0.8425	0.9861
	rs17226595	SNP_A-1900557	T	C	0.005957	1.111		A	G	0.8142	1.014		A	G	0.09702	0.8058
	rs278881	SNP_A-1902238	A	G	0.005153	0.9029		T	C	0.3281	1.059		T	C	0.9658	0.9971
	rs2101467	SNP_A-1903016	A	G	0.002081	0.8693		T	C	0.5147	1.044		T	C	0.5106	0.9565
	rs1353020	SNP_A-1906431	A	T	0.002069	1.208		T	A	0.03244	1.23		T	A	0.8972	0.9905
	rs2691786	SNP_A-1908125	G	C	0.005391	1.104		G	C	0.5218	1.037		G	C	0.9745	1.002
	rs11030104	SNP_A-1908663	G	A	0.003435	0.8788		C	T	0.8276	1.015		C	T	0.7602	1.05
	rs12991533	SNP_A-1908820	A	G	0.007067	1.101		A	G	0.502	1.039		A	G	0.9207	1.007
DRD2 (dopamine receptor D2)	rs13426050	SNP_A-1909156	A	G	0.04273	0.8803		A	G	0.7535	0.9692		A	G	0.7946	1.02
	rs1707956	SNP_A-1911769	T	C	0.008352	1.118		A	G	0.8633	0.9884		G	A	0.2213	0.9156
	rs843220	SNP_A-1913686	A	G	0.004904	0.9046		A	G	0.9623	0.9973		A	G	0.7517	1.021
	rs7087489	SNP_A-1914825	G	A	0.009135	0.904		C	T	0.1151	0.9057		C	T	0.5653	0.9529
	rs17525192	SNP_A-1917966	A	G	0.02791	1.118		T	C	0.5828	0.9546		T	C	0.4124	1.194
	rs2300268	SNP_A-1924051	A	G	0.03931	1.243		T	C	0.9241	1.018		T	C	0.2097	1.155

	rs143583 1	SNP_A- 1926078	T	C	0.0093 22	0.91 16		T	C	0.161 1	0.92 3		T	C	0.644 4	0.94 65
DTNBP1 (dystrobrevin binding protein 1)	rs211120 2	SNP_A- 1927223	T	C	0.0223 2	0.91 57		T	C	0.081 09	1.11 4		T	C	0.922 3	0.98 97
	rs717968 4	SNP_A- 1929746	G	A	0.0346 6	1.32 5		G	A	0.891 9	1.02 3		G	A	0.734	1.03 3
	rs111613 09	SNP_A- 1931382	T	C	0.0115	0.90 93		A	G	0.598 6	0.96 9		A	G	0.466 9	1.05 4
	rs176204 80	SNP_A- 1933024	T	C	0.0346 5	1.08 4		A	G	0.967 8	1.00 2		G	A	0.817 6	0.98 49
	rs710546 2	SNP_A- 1934006	G	A	0.0341 5	1.08 5		G	A	0.077 06	1.10 6		A	G	0.042 61	0.87 28
	rs170795 8	SNP_A- 1934756	T	C	0.0178 5	1.11		T	C	0.958 3	0.99 63		T	C	0.187 1	1.09
	rs108913 79	SNP_A- 1936552	T	C	0.0109 7	1.13		T	C	0.959 6	1.00 4		T	C	0.686	1.02 8
	rs175661 18	SNP_A- 1937726	T	C	0.0315 6	0.91 69		T	C	0.970 7	1.00 2		T	C	0.097 07	0.82 68
	rs107727 19	SNP_A- 1940301	A	G	0.0072	0.88 43		A	G	0.278 4	1.07 7		A	G	0.904	0.98 78
	rs721509 1	SNP_A- 1942222	T	C	0.0420 4	0.89 37		T	C	0.168 1	1.11 8		C	T	0.096 95	0.89 71
	rs122616 90	SNP_A- 1942786	G	A	0.0381 7	1.28 7		NA	NA	NA	NA		G	A	0.938 6	1.00 8
	rs127671 86	SNP_A- 1947918	A	G	0.0254 5	0.91 38		T	C	0.983 1	1.00 1		T	C	0.387 9	1.06 6
	rs465723 3	SNP_A- 1950294	C	T	0.027	1.14 4		C	T	0.870 6	0.98 41		C	T	0.510 5	1.04 4
FABP7 (fatty acid binding protein 7, brain)	rs286956	SNP_A- 1951209	C	A	0.0409 9	0.92 84		C	A	0.322 5	1.05 9		C	A	0.807	1.01 9
GABRB3 (gamma-aminobutyric acid (GABA) A receptor, beta 3)	rs808482 2	SNP_A- 1952887	T	A	0.0032 43	0.86 63		T	A	0.676	0.96 86		T	A	0.166 9	1.12 4
	rs779232 1	SNP_A- 1953659	G	C	0.0388 8	1.07 9		G	C	0.423 2	0.95 37		NA	NA	NA	NA
	rs110207 81	SNP_A- 1953906	C	A	0.0029 38	1.21 1		C	A	0.616 2	0.95 21		A	C	0.188 5	1.09 8
	rs194511 6	SNP_A- 1955576	C	G	0.0095 07	1.12 4		C	G	0.856 6	0.98 73		G	C	0.734 3	0.97 77
	rs463058 5	SNP_A- 1955964	G	A	0.0109 6	0.81 6		G	A	0.100 4	0.86 67		G	A	0.982	0.99 84

	rs4906680	SNP_A-1957719	A	C	0.04475	0.9261		A	C	0.537	1.035		A	C	0.1758	0.8967
	rs2691775	SNP_A-1965492	A	G	0.006209	1.101		T	C	0.7726	0.9838		T	C	0.8761	0.9899
	rs6599028	SNP_A-1972434	C	G	0.03685	1.101		G	C	0.8438	0.9867		C	G	0.1709	0.9059
	rs500507	SNP_A-1972436	T	C	0.009826	1.119		T	C	0.9631	0.9968		C	T	0.5145	0.9578
	rs902953	SNP_A-1975299	C	T	0.03837	0.9299		G	A	0.9753	0.9983		G	A	0.8616	0.9886
	rs10515672	SNP_A-1984057	G	A	0.03209	0.9106		G	A	0.886	0.9903		G	A	0.2005	0.8647
	rs300330	SNP_A-1984073	A	G	0.04157	1.096		A	G	0.9423	0.9947		A	G	0.9905	1.001
	rs17115298	SNP_A-1984101	G	T	0.02429	1.12		G	T	0.5341	0.9489		G	T	0.1176	1.159
	rs1461237	SNP_A-1984102	T	C	0.00804	0.8833		A	G	0.8621	1.013		A	G	0.3927	0.9416
	rs1461240	SNP_A-1984109	A	G	0.006938	1.137		T	C	0.8186	0.9837		T	C	0.5249	1.045
GAD1 (glutamate decarboxylase 1 (brain, 67kDa))	rs4716034	SNP_A-1985199	A	C	0.01854	1.095		T	G	0.5055	1.038		G	T	0.7948	0.9826
GNB1L (guanine nucleotide binding protein (G protein), beta polypeptide 1-like)	rs1324073	SNP_A-1986783	G	C	0.002567	0.8806		G	C	0.02821	1.159		G	C	0.6394	0.9514
	rs16872495	SNP_A-1990855	C	A	0.04263	0.916		G	T	0.6724	1.03		G	T	0.9333	1.009
	rs7818821	SNP_A-1992951	G	A	0.02687	1.088		G	A	0.7514	1.02		G	A	0.6146	1.034
	rs2455012	SNP_A-2000104	A	G	0.03812	0.8457		T	C	0.2236	1.17		T	C	0.06282	1.358
GRIA1 (glutamate receptor, ionotropic, AMPA 1)	rs10740035	SNP_A-2001630	G	T	0.01288	0.907		C	A	0.123	0.9068		C	A	0.6022	1.035
	rs4131791	SNP_A-2005672	T	C	0.02821	0.9246		A	G	0.9159	0.9939		A	G	0.621	0.9664
	rs1013442	SNP_A-2009067	T	A	0.005552	0.8896		T	A	0.8711	1.011		T	A	0.3522	0.8743
	rs1114029	SNP_A-2009068	T	C	0.002397	0.8716		A	G	0.6661	1.029		A	G	0.9104	0.9925

rs10501087	SNP_A-2009074	C	T	0.001966	0.8724		C	T	0.7737	1.02		C	T	0.8128	1.031
rs4894536	SNP_A-2009299	C	T	0.01102	0.913		G	A	0.4361	0.9562		G	A	0.9583	1.005
rs6882589	SNP_A-2011352	T	A	0.01142	0.8076		A	T	0.08675	1.271		A	T	0.9391	0.9945
rs10502163	SNP_A-2019302	T	C	0.04967	1.081		A	G	0.6345	0.97		A	G	0.4475	1.063
rs362563	SNP_A-2021062	C	T	0.04346	0.8347		NA	NA	NA	NA		C	T	0.9058	0.9898
rs546784	SNP_A-2022741	T	C	0.03305	1.078		A	G	0.3249	1.057		G	A	0.2775	0.9145
rs2926862	SNP_A-2024899	T	G	0.01844	0.896		A	C	0.919	1.008		A	C	0.3746	0.9378
rs8099483	SNP_A-2025191	A	T	0.0012	1.247		T	A	0.3669	1.102		T	A	0.6148	1.047
rs8025575	SNP_A-2027117	C	G	0.00944	0.9123		C	G	0.8209	1.013		G	C	0.8643	1.011
rs1565567	SNP_A-2028733	A	T	0.01764	1.111		T	A	0.5691	1.038		T	A	0.6678	1.035
rs1442540	SNP_A-2029804	A	G	0.02953	0.9134		T	C	0.6587	0.973		T	C	0.7574	1.021
rs6589354	SNP_A-2030349	A	T	0.03084	1.08		A	T	0.1436	1.088		A	T	0.1057	1.114
rs16859026	SNP_A-2031354	C	G	0.03907	0.7331		C	G	0.0169	1.67		C	G	0.4056	1.265
rs789038	SNP_A-2032470	G	C	0.03263	0.8637		C	G	0.6115	0.948		C	G	0.4704	1.069
rs2973151	SNP_A-2033269	T	C	0.01987	1.166		A	G	0.7923	1.028		A	G	0.9732	0.9977
rs7970144	SNP_A-2034427	A	T	0.04498	0.9135		T	A	0.3701	0.9358		T	A	0.2939	1.073
rs10845826	SNP_A-2034499	A	C	0.04941	1.074		T	G	0.7343	0.9804		T	G	0.2197	0.9194
rs6265	SNP_A-2038925	T	C	0.003375	0.8751		T	C	0.8989	0.9907		T	C	0.7794	0.9544
rs4958549	SNP_A-2039635	A	C	0.01561	0.8871		T	G	0.2034	0.9128		T	G	0.6243	0.9179
rs10164195	SNP_A-2041483	C	A	0.01493	0.7174		C	A	0.3116	0.8538		NA	NA	NA	NA

rs9966136	SNP_A-2043418	A	T	0.02582	1.126		T	A	0.1442	1.123		T	A	0.9557	0.996
rs17594526	SNP_A-2043531	T	C	0.000407	1.446		A	G	0.01369	1.448		A	G	0.1981	0.8872
rs17113732	SNP_A-2043688	T	C	0.03419	1.195		A	G	0.5249	1.098		A	G	0.7036	1.047
rs17452991	SNP_A-2045275	C	G	0.01882	0.9103		C	G	0.7031	0.9763		C	G	0.05031	0.7463
rs9646596	SNP_A-2048694	A	G	0.000517	1.43		T	C	0.02363	1.398		T	C	0.2833	0.9037
rs1025260	SNP_A-2051203	T	A	0.02569	1.102		T	A	0.7588	0.9782		T	A	0.6112	1.036
rs16909619	SNP_A-2053592	A	C	0.03986	0.8398		T	G	0.4416	1.104		T	G	0.6384	1.081
rs2962816	SNP_A-2054009	A	G	0.000803	1.283		A	G	0.6909	1.046		A	G	0.6766	1.029
rs7970407	SNP_A-2057007	T	C	0.02211	0.8434		T	C	0.4744	0.9547		T	C	0.2822	0.9297
rs11055594	SNP_A-2057652	G	A	0.01394	0.9171		G	A	0.7284	0.9806		G	A	0.5463	1.042
rs17155335	SNP_A-2058654	T	A	0.04801	1.089		T	A	0.00916	0.8498		A	T	0.5968	1.035
rs2199123	SNP_A-2062869	A	G	0.01385	1.171		A	G	0.6902	1.041		G	A	0.6887	0.9737
rs2711865	SNP_A-2068476	T	G	0.01368	0.8856		T	G	0.8264	0.9844		NA	NA	NA	NA
rs4285285	SNP_A-2070131	G	A	0.008827	0.9047		C	T	0.9759	1.002		C	T	0.2287	0.9042
rs12326693	SNP_A-2070226	T	C	0.002694	0.8885		A	G	0.5733	0.9648		A	G	0.8096	1.023
rs7571452	SNP_A-2071553	C	T	0.02522	0.9209		C	T	0.5375	1.038		C	T	0.8414	1.014
rs1946224	SNP_A-2076705	T	C	0.02349	0.9014		T	C	0.1993	0.9114		T	C	0.5857	0.9251
rs843219	SNP_A-2081107	A	T	0.01304	0.9083		A	T	0.6852	1.026		A	T	0.8787	1.011
rs3112530	SNP_A-2081190	A	G	0.01253	1.174		T	C	0.6559	1.046		C	T	0.5969	0.9655
rs1348281	SNP_A-2081611	T	C	0.04408	0.8923		T	C	0.1301	0.9079		T	C	0.8361	0.9864

rs17669037	SNP_A-2083384	G	A	0.03729	1.166		C	T	0.9597	0.9941		C	T	0.3895	1.11
rs300329	SNP_A-2083461	C	T	0.03253	1.101		C	T	0.9552	1.004		T	C	0.3083	0.9273
rs17417507	SNP_A-2084832	T	C	0.01945	0.838		A	G	0.8987	1.015		A	G	0.0001	0.2986
rs1528454	SNP_A-2086364	C	T	0.03383	0.9197		C	T	0.6509	0.9719		C	T	0.65	0.9698
rs809311	SNP_A-2089995	G	A	0.006875	0.8817		C	T	0.7968	1.019		C	T	0.5002	1.048
rs3802847	SNP_A-2090194	C	T	0.03504	1.078		C	T	0.1613	1.084		C	T	0.09798	1.117
rs7702336	SNP_A-2091282	A	C	0.04709	1.08		A	C	0.8426	1.013		A	C	0.4821	1.054
rs4447204	SNP_A-2093307	C	G	0.04992	0.9324		G	C	0.03489	1.128		G	C	0.2615	0.9014
rs219872	SNP_A-2096985	G	A	0.02466	0.8939		G	A	0.907	1.009		G	A	0.8656	1.012
rs17115481	SNP_A-2097202	A	G	0.001177	1.147		T	C	0.8049	1.016		T	C	0.4127	1.058
rs538867	SNP_A-2098043	T	C	0.02128	1.322		NA	NA	NA	NA		NA	NA	NA	NA
rs3101130	SNP_A-2103390	G	C	0.01204	1.179		C	G	0.7775	1.03		C	G	0.6188	0.9669
rs1377242	SNP_A-2105319	T	C	0.005119	0.797		T	C	0.1339	0.809		T	C	0.4646	0.8817
rs2131017	SNP_A-2105629	C	T	0.001602	1.204		NA	NA	NA	NA		NA	NA	NA	NA
rs286967	SNP_A-2108404	T	G	0.04988	0.9313		A	C	0.3181	1.06		A	C	0.9261	0.9932
rs11991036	SNP_A-2110514	T	C	0.0155	0.9136		T	C	0.09759	1.103		T	C	0.3499	1.068
rs17128076	SNP_A-2116543	A	G	0.01787	0.7863		A	G	0.7392	1.055		A	G	0.8574	1.026
rs17114687	SNP_A-2120176	G	A	0.03513	1.194		G	A	0.01228	1.229		G	A	0.1324	1.151
rs12802146	SNP_A-2120393	A	G	0.006936	1.17		T	C	0.4651	0.9318		C	T	0.4002	1.062
rs2962826	SNP_A-2120789	A	C	0.007641	1.202		T	G	0.7465	1.037		T	G	0.954	1.004

rs982010	SNP_A-2122098	C	T	0.008484	1.166		G	A	0.4665	0.9322		A	G	0.3426	1.07
rs362582	SNP_A-2123088	A	T	0.03678	0.85		T	A	0.6495	0.9442		T	A	0.9187	0.9918
rs6860180	SNP_A-2125625	G	A	0.01453	1.168		C	T	0.08297	1.194		C	T	0.07654	0.8874
rs575056	SNP_A-2127808	C	T	0.03044	1.081		C	T	0.3073	1.06		C	T	0.4843	1.048
rs2133972	SNP_A-2129869	A	G	0.0387	1.121		A	G	0.7282	1.032		A	G	0.8192	1.017
rs11214457	SNP_A-2131099	G	A	0.008474	1.143		G	A	0.301	0.9198		G	A	0.4561	1.102
rs7751000	SNP_A-2133532	A	C	0.002912	0.8975		A	C	0.1655	1.083		A	C	0.8959	0.9895
rs1864205	SNP_A-2133562	C	T	0.02797	1.083		G	A	0.05174	0.8913		G	A	0.7319	0.9628
rs7314880	SNP_A-2135314	T	A	0.01979	1.188		A	T	0.8097	1.029		A	T	0.7632	0.9804
rs2619552	SNP_A-2135315	G	A	0.04573	0.8824		G	A	0.4631	0.9286		G	A	0.1959	0.9133
rs6700403	SNP_A-2135531	T	C	0.004327	1.106		T	C	0.1924	1.077		C	T	0.1392	0.902
rs360457	SNP_A-2138782	G	T	0.03972	0.8951		NA	NA	NA	NA		NA	NA	NA	NA
rs11214441	SNP_A-2139990	A	T	0.003917	1.159		T	A	0.1322	1.091		T	A	0.3003	1.072
rs11030119	SNP_A-2140952	A	G	0.01266	1.101		T	C	0.5626	1.036		T	C	0.9957	0.9996
rs1768141	SNP_A-2141739	G	A	0.0062	1.279		G	A	0.9603	1.007		G	A	0.9911	1.001
rs2677479	SNP_A-2142560	G	C	0.00707	1.099		C	G	0.766	0.9834		C	G	0.9224	1.006
rs1609647	SNP_A-2147245	T	C	0.01069	1.118		T	C	0.9373	0.9945		C	T	0.4449	0.9507
rs11888593	SNP_A-2152768	C	T	0.005277	1.177		C	T	0.9065	0.9922		NA	NA	NA	NA
rs641262	SNP_A-2153696	T	C	0.02175	1.084		A	G	0.2676	1.065		G	A	0.2009	0.8969
rs181715	SNP_A-2157558	A	T	0.03886	0.9276		T	A	0.01057	0.861		A	T	0.8692	1.011

GRIA4 (glutamate receptor, ionotropic, AMPA 4)	rs11030182	SNP_A-2157621	C	T	0.04547	0.9049		G	A	0.5053	0.9479		G	A	0.3932	0.9133
	rs11030066	SNP_A-2158242	T	C	0.04836	1.108		T	C	0.9851	1.002		T	C	0.12	0.738
	rs159969	SNP_A-2160842	T	C	0.03764	1.098		A	G	0.8992	1.009		G	A	0.138	0.8978
GRIN2B (glutamate receptor, ionotropic, N-methyl D- aspartate 2B)	rs6518585	SNP_A-2160938	T	C	0.0372	1.105		T	C	0.8068	1.019		C	T	0.5807	1.038
	rs4142284	SNP_A-2161817	T	C	0.01743	0.9124		T	C	0.03029	1.145		T	C	0.6592	0.9551
	rs11152369	SNP_A-2162934	C	A	0.00047	1.445		C	A	0.01943	1.42		C	A	0.2425	0.896
	rs10845856	SNP_A-2165294	C	T	0.02142	0.922		C	T	0.8446	0.9889		C	T	0.5474	0.953
	rs160163	SNP_A-2167854	T	C	0.01564	1.171		T	C	0.7468	1.034		T	C	0.9216	1.007
	rs10994364	SNP_A-2168937	T	C	0.04667	1.104		A	G	0.1174	1.124		A	G	0.1536	1.122
	rs4488199	SNP_A-2170370	C	T	0.01	1.24		G	A	0.5411	0.943		A	G	0.9429	1.005
	rs4268090	SNP_A-2171675	T	C	0.0193	1.089		T	C	0.1928	1.078		T	C	0.1154	0.8876
	rs2193150	SNP_A-2172398	C	A	0.04389	0.9133		G	T	0.2582	0.92		G	T	0.2428	1.081
	rs308271	SNP_A-2172410	T	A	0.03272	1.101		A	T	0.9303	1.006		T	A	0.1332	0.8967
	rs1876683	SNP_A-2173382	G	A	0.04853	0.8629		G	A	0.7886	0.9778		G	A	0.4592	0.9139
	rs12209943	SNP_A-2174290	C	T	0.002634	0.8965		G	A	0.1498	1.087		G	A	0.7802	1.033
	rs2284428	SNP_A-2175964	G	A	0.02611	0.8875		G	A	0.01849	0.8112		G	A	0.7955	0.9776
	rs1321172	SNP_A-2177920	C	G	0.003177	1.109		G	C	0.4168	1.047		C	G	0.5122	0.9463
	rs9965625	SNP_A-2178958	A	G	0.02952	0.9255		T	C	0.912	0.9937		T	C	0.5113	1.044
	rs17511755	SNP_A-2179208	C	G	0.04115	1.195		C	G	0.07765	1.26		C	G	0.3086	1.239
	rs10891434	SNP_A-2180192	G	C	0.009937	1.104		G	C	0.04571	0.8926		G	C	0.5908	1.051

	rs2528864	SNP_A-2180542	C	G	0.02092	0.908		G	C	0.3664	1.062		C	G	0.01268	0.8493
	rs12043369	SNP_A-2183358	A	G	0.03839	1.088		A	G	0.7419	0.9785		A	G	0.3883	1.066
	rs300328	SNP_A-2186284	T	C	0.009612	1.185		T	C	0.8204	1.024		T	C	0.9974	1
	rs16879809	SNP_A-2187755	T	C	0.007758	1.14		T	C	0.05128	1.17		T	C	0.9974	1.001
	rs2840677	SNP_A-2188463	A	T	0.02238	0.9227		T	A	0.05376	0.8971		T	A	0.07104	0.8887
	rs11927009	SNP_A-2188964	T	G	0.00884	1.105		T	G	0.7402	0.9815		T	G	0.62	1.035
	rs11214468	SNP_A-2189086	T	C	0.02922	1.091		T	C	0.5043	0.9581		T	C	0.2037	1.112
	rs1527558	SNP_A-2193442	T	G	0.04144	0.9152		T	G	0.3689	0.9442		T	G	0.9606	1.003
	rs16915156	SNP_A-2200186	C	T	0.0378	1.102		G	A	0.00974	1.198		G	A	0.8598	0.982
	rs17546335	SNP_A-2202964	G	C	0.01116	0.8899		NA	NA	NA	NA		C	G	0.9495	0.9888
	rs414568	SNP_A-2203552	T	C	0.02761	1.116		T	C	0.4581	0.9472		T	C	0.3719	1.064
	rs386841	SNP_A-2213609	T	C	0.00425	1.109		T	C	0.503	1.04		T	C	0.6532	1.031
	rs12371702	SNP_A-2214762	C	G	0.02105	1.116		G	C	0.1355	1.124		G	C	0.8426	0.9803
GRM5 (glutamate receptor, metabotropic 5)	rs13225168	SNP_A-2216366	T	G	0.01969	0.914		T	G	0.07709	1.116		T	G	0.6979	0.9687
	rs10789894	SNP_A-2219775	G	A	0.007769	1.124		C	T	0.9332	0.9941		C	T	0.3894	1.06
	rs4948422	SNP_A-2221589	C	T	0.02715	1.088		G	A	0.01226	1.166		G	A	0.2971	1.075
	rs4354102	SNP_A-2223459	T	G	0.001498	1.121		T	G	0.3129	1.06		T	G	0.1322	1.104
	rs2212449	SNP_A-2224508	T	G	0.03556	1.078		A	C	0.1296	1.091		A	C	0.1379	1.104
	rs10401120	SNP_A-2224936	T	C	0.001341	1.314		A	G	0.2482	1.159		A	G	0.9987	0.9999
	rs7790875	SNP_A-2225717	C	G	0.006781	1.12		C	G	0.3568	0.9446		C	G	0.9105	1.009

	rs1768198	SNP_A-2226901	G	A	0.00526	1.193		G	A	0.9057	1.008		G	A	0.4108	1.056
	rs11214240	SNP_A-2227769	G	A	0.01421	1.115		C	T	0.5921	0.9624		C	T	0.6643	1.029
	rs41421645	SNP_A-2230421	A	T	0.002851	0.7449		A	T	0.09892	0.7845		A	T	0.7371	1.032
	rs16959714	SNP_A-2233134	T	C	0.01557	1.275		T	C	0.3482	1.157		T	C	0.7047	0.9059
	rs4948256	SNP_A-2235753	A	C	0.001727	1.154		T	G	0.826	1.015		T	G	0.1263	0.8085
	rs12735998	SNP_A-2248074	T	C	0.02304	1.097		T	C	0.8436	1.013		C	T	0.202	0.9199
	rs17113771	SNP_A-2250052	T	C	0.01156	0.9051		T	C	0.7819	1.017		T	C	0.1044	0.896
	rs9490546	SNP_A-2252809	G	A	0.01053	1.108		C	T	0.6009	0.9665		C	T	0.51	1.066
	rs7922622	SNP_A-2253626	A	G	0.006055	0.8941		T	C	0.03914	0.8731		T	C	0.386	0.9417
	rs12681411	SNP_A-2255315	G	C	0.02147	1.088		G	C	0.07185	1.111		G	C	0.0059	0.7455
	rs7845747	SNP_A-2255719	C	T	0.04531	0.8007		G	A	0.6203	0.9201		G	A	0.1666	1.194
	rs1462113	SNP_A-2261865	A	G	0.009475	1.186		A	G	0.8162	1.024		A	G	0.8908	0.9907
	rs2054266	SNP_A-2264574	G	C	0.04658	0.9325		G	C	0.3028	0.9437		C	G	0.6808	1.038
	rs4398624	SNP_A-2264725	C	T	0.03249	0.9176		C	T	0.4094	0.9491		C	T	0.04046	0.8599
	rs1938526	SNP_A-2265152	G	A	0.02872	1.169		G	A	0.00887	1.351		G	A	0.6747	0.9077
	rs2300052	SNP_A-2266283	A	G	0.01495	1.107		T	C	0.2749	0.935		T	C	0.8671	0.9874
	rs1935784	SNP_A-2267550	A	G	0.01778	1.095		A	G	0.9803	1.001		G	A	0.6846	0.9738
	rs1940724	SNP_A-2268149	G	A	0.03325	1.079		C	T	0.1296	1.091		C	T	0.1239	1.108
GSN (gelsolin)	rs9618705	SNP_A-2270171	A	G	0.04513	1.073		A	G	0.2615	1.066		G	A	0.7091	1.026
HINT1 (histidine triad)	rs4958561	SNP_A-2272453	G	A	0.01638	0.9086		G	A	0.6682	0.9734		G	A	0.07845	0.7675

nucleotide binding protein 1)	rs992259	SNP_A-2275445	A	G	0.002559	1.191		A	G	0.6651	0.9591		G	A	0.7554	1.023
	rs16915157	SNP_A-2277948	T	C	0.01902	1.106		T	C	0.0081	1.204		T	C	0.8286	0.9782
	rs10994322	SNP_A-2278263	T	C	0.03753	1.168		A	G	0.02354	1.32		A	G	0.6103	0.9411
	rs919222	SNP_A-2278557	A	G	0.004479	1.143		A	G	0.9736	0.9974		A	G	0.2822	1.079
	rs7716702	SNP_A-2285906	A	T	0.005513	1.444		A	T	0.09647	1.281		A	T	0.5098	0.9539
	rs12673676	SNP_A-2287636	T	G	0.04253	0.9168		T	G	0.4382	1.055		T	G	0.9481	1.008
	rs7948394	SNP_A-2290782	T	A	0.01144	1.118		T	A	0.9983	0.9998		T	A	0.6227	1.036
	rs2350796	SNP_A-2294126	A	T	0.017	1.139		A	T	0.8914	1.012		A	T	0.2271	1.085
	rs3772756	SNP_A-2294814	G	T	0.006285	1.22		C	A	0.6004	1.059		C	A	0.7724	0.9685
HSPA1B (heat shock 70kDa protein 1B)	rs2513417	SNP_A-2299874	C	G	0.03208	1.315		G	C	0.02417	0.6273		G	C	0.5045	1.065
HTR2A (5-hydroxytryptamine (serotonin) receptor 2A)	rs41452747	SNP_A-2299999	A	G	0.00043	1.315		T	C	0.5099	1.077		T	C	0.2724	1.212
	rs11030179	SNP_A-2300936	T	C	0.04084	0.9032		T	C	0.4952	0.947		T	C	0.4036	0.9158
	rs2973138	SNP_A-2301441	T	C	0.01834	1.201		T	C	0.6503	0.9443		T	C	0.07516	1.244
	rs11974528	SNP_A-2304415	T	C	0.03924	0.749		A	G	0.994	1.001		A	G	0.3835	0.9294
	rs10761507	SNP_A-2310229	A	C	0.01056	0.9009		T	G	0.09753	0.8969		T	G	0.2538	0.9187
KALRN (kalirin, RhoGEF kinase)	rs2711838	SNP_A-2311413	T	C	0.01399	0.9081		A	G	0.4811	1.045		A	G	0.1583	1.097
	rs2546331	SNP_A-2313741	C	T	0.008405	1.226		G	A	0.6098	0.9376		G	A	0.8751	1.011
	rs4923460	SNP_A-2313824	T	G	0.002746	0.8763		A	C	0.6062	1.038		A	C	0.0243	0.8116
	rs7717108	SNP_A-2314108	T	C	0.01111	1.123		T	C	0.4099	0.9404		T	C	0.3423	1.075

	rs6864793	SNP_A-4156821	C	T	0.005374	1.348		C	T	0.9752	0.9965		C	T	0.4832	1.077
	rs8027455	SNP_A-4196271	A	C	0.005299	1.111		T	G	0.5207	1.039		G	T	0.4473	0.9514
	rs375232	SNP_A-4199980	A	G	0.002771	1.115		T	C	0.3887	1.052		T	C	0.3611	1.063
	rs10830909	SNP_A-4200902	C	T	0.03748	1.076		G	A	0.8016	0.986		G	A	0.8268	1.022
	rs17509991	SNP_A-4201017	A	G	0.008441	1.517		A	G	0.01899	1.425		A	G	0.2127	0.8887
	rs2691787	SNP_A-4202806	A	G	0.01248	0.9147		T	C	0.8501	0.9892		T	C	0.8852	1.01
KIF2A (kinesin heavy chain member 2A)	rs17594665	SNP_A-4203722	A	G	0.00029	1.517		A	G	0.01039	1.468		A	G	0.5109	0.9291
	rs4800933	SNP_A-4203749	T	C	0.01148	0.8926		A	G	0.6522	0.9675		A	G	0.4724	1.073
	rs4492586	SNP_A-4204922	T	C	0.02494	0.8343		A	G	0.2263	1.168		A	G	0.06282	1.358
	rs988712	SNP_A-4206225	T	G	0.0312	0.8798		A	C	0.9227	1.007		A	C	0.657	0.9356
MBP (myelin basic protein)	rs11020748	SNP_A-4207207	T	C	0.00601	1.191		A	G	0.4184	0.9249		G	A	0.4082	1.061
	rs10515671	SNP_A-4211353	G	A	0.00973	0.8889		C	T	0.3501	0.935		C	T	0.5608	0.9022
	rs10509133	SNP_A-4214095	T	C	0.02156	1.116		T	C	0.00646	1.212		T	C	0.4894	0.9309
	rs6877008	SNP_A-4215103	T	C	0.01923	0.8216		T	C	0.05102	1.311		T	C	0.951	1.005
	rs1708044	SNP_A-4216830	G	C	0.003529	1.301		G	C	0.8484	1.027		NA	NA	NA	NA
MOBP (myelin-associated oligodendrocyte basic protein)	rs2964003	SNP_A-4222822	G	A	0.01557	0.8931		C	T	0.6526	1.035		C	T	0.3025	0.9278
	rs893523	SNP_A-4223827	C	T	0.004484	0.893		C	T	0.5548	1.035		C	T	0.6714	0.9704
	rs13227836	SNP_A-4224193	C	T	0.008682	1.116		C	T	0.2751	0.9349		C	T	0.7302	1.026
	rs6588193	SNP_A-4224697	G	C	0.003042	1.11		G	C	0.3473	1.054		C	G	0.4673	0.9405
	rs1353021	SNP_A-4225515	A	G	0.02969	1.087		T	C	0.2321	1.07		C	T	0.05394	0.8196

	rs9954574	SNP_A-4226637	C	T	0.002876	0.8765		G	A	0.5837	1.039		A	G	0.8128	0.9843
	rs524770	SNP_A-4229990	A	G	0.02169	1.086		A	G	0.2179	1.073		A	G	0.4779	1.052
	rs1703820	SNP_A-4230476	A	G	0.01303	0.885		A	G	0.8727	0.9877		A	G	0.107	0.7447
	rs6788198	SNP_A-4231193	A	G	0.03745	0.9003		T	C	0.08128	1.152		T	C	0.1285	0.7973
	rs10157628	SNP_A-4232432	A	G	0.01609	0.8123		A	G	0.3375	1.079		A	G	0.4521	1.064
	rs17566146	SNP_A-4234397	G	C	0.02689	0.9145		G	C	0.8845	1.009		G	C	0.04575	0.7936
	rs10891385	SNP_A-4235482	G	A	0.01347	1.115		C	T	0.9233	1.007		C	T	0.5602	1.039
	rs12959006	SNP_A-4236221	T	C	0.01002	1.122		T	C	0.7617	1.021		T	C	0.7293	0.9426
	rs7737208	SNP_A-4236353	T	C	0.01273	1.248		A	G	0.1536	1.158		G	A	0.5814	0.9632
	rs1945101	SNP_A-4237618	G	A	0.009896	1.12		C	T	0.792	0.9815		C	T	0.9784	0.9982
	rs362585	SNP_A-4238404	T	G	0.03084	0.8455		T	G	0.4797	0.9144		T	G	0.6273	0.9602
	rs536858	SNP_A-4242711	G	C	0.009832	1.106		G	C	0.2157	1.074		G	C	0.4999	1.049
	rs10891487	SNP_A-4242990	A	G	0.0347	1.085		A	G	0.1353	1.089		A	G	0.129	1.106
	rs2245617	SNP_A-4243581	T	C	0.04907	1.087		T	C	0.9913	1.001		T	C	0.9107	0.9837
NCAM1 (neural cell adhesion molecule 1)	rs2615178	SNP_A-4244124	C	T	0.007306	1.192		C	T	0.7458	1.034		C	T	0.9619	1.003
	rs17451810	SNP_A-4245046	G	C	0.04705	0.9159		G	C	0.5431	0.9623		G	C	0.07593	0.7658
	rs17089826	SNP_A-4246785	T	C	0.03431	0.8139		A	G	0.2709	0.8809		A	G	0.6209	1.05
	rs500951	SNP_A-4246924	T	C	0.04553	1.159		T	C	0.9597	0.9941		T	C	0.02716	1.446
	rs538336	SNP_A-4247653	C	T	0.01719	1.089		G	A	0.2219	1.073		G	A	0.5213	1.047
	rs902952	SNP_A-4247905	A	G	0.01009	1.205		A	G	0.05978	1.214		A	G	0.7736	0.9787

rs17642273	SNP_A-4247908	C	A	0.04091	0.8612		G	T	0.2944	0.9195		G	T	0.011	0.6327
rs13230316	SNP_A-4251808	G	C	0.02554	0.9144		C	G	0.9613	1.003		C	G	0.4867	1.054
rs11055792	SNP_A-4252160	T	C	0.01719	0.9193		A	G	0.7977	1.015		A	G	0.4974	1.065
rs7396702	SNP_A-4252496	C	G	0.002836	1.295		G	C	0.4099	0.9222		C	G	0.2545	1.085
rs308766	SNP_A-4254197	T	C	0.03982	1.311		A	G	0.02691	0.6286		A	G	0.3443	1.093
rs881897	SNP_A-4256541	A	C	0.009104	0.6855		T	G	0.7172	1.056		T	G	0.02647	1.178
rs1006826	SNP_A-4259317	C	T	0.02341	1.095		G	A	0.1912	0.9175		G	A	0.02291	0.698
rs498660	SNP_A-4259391	T	C	0.01179	1.267		A	G	0.7231	1.05		A	G	0.00604	1.199
rs17596267	SNP_A-4259735	A	T	0.002183	1.389		A	T	0.03964	1.339		A	T	0.904	1.021
rs11242025	SNP_A-4259792	A	G	8.67E-05	2.326		NA	NA	NA	NA		NA	NA	NA	NA
rs12273907	SNP_A-4260980	A	G	0.03549	0.8975		A	G	0.8465	0.9853		A	G	0.3894	0.9305
rs1629282	SNP_A-4261371	G	A	0.01543	1.112		C	T	0.9806	0.9983		T	C	0.5021	0.9564
rs843229	SNP_A-4262325	T	C	0.00429	0.9034		T	C	0.9095	0.9935		T	C	0.8056	1.016
rs9868941	SNP_A-4263458	C	T	0.04308	0.9226		C	T	0.4113	0.949		C	T	0.9901	0.9992
rs7926312	SNP_A-4270595	G	A	0.03132	1.08		C	T	0.1285	1.091		C	T	0.1134	1.111
rs6683977	SNP_A-4272130	G	C	0.03875	1.077		C	G	0.3352	1.057		G	C	0.4265	0.9178
rs10492134	SNP_A-4272433	G	C	0.03138	0.923		G	C	0.3173	0.9422		G	C	0.617	1.067
rs11055595	SNP_A-4274330	T	C	0.03812	0.9235		A	G	0.7232	0.9802		A	G	0.4647	1.052
rs3923209	SNP_A-4275672	T	A	0.02818	0.9087		T	A	0.6029	0.9678		T	A	0.03246	0.8179
rs7105410	SNP_A-4275677	T	A	0.04628	0.9069		T	A	0.9336	0.9933		T	A	0.8672	0.9863

	rs1609646	SNP_A-4278544	C	T	0.00835	1.122		G	A	0.9751	0.9978		A	G	0.4794	0.9543
	rs4922788	SNP_A-4279338	A	G	0.002602	0.8724		T	C	0.644	1.031		T	C	0.8403	0.9866
	rs308765	SNP_A-4282258	T	C	0.01333	1.377		T	C	0.06779	0.6904		T	C	0.1426	1.159
	rs2212450	SNP_A-4282285	C	T	0.03038	1.079		C	T	0.1273	1.09		C	T	0.06807	1.127
	rs12137115	SNP_A-4283348	C	G	0.04291	1.081		C	G	0.3556	1.054		G	C	0.3703	0.9292
	rs7116022	SNP_A-4285980	T	C	0.04965	0.9304		T	C	0.3162	0.9429		T	C	0.9455	0.9945
	rs10750016	SNP_A-4286366	A	T	0.009705	1.141		A	T	0.2118	1.074		A	T	0.0375	1.146
	rs9782927	SNP_A-4286443	G	A	0.02746	1.145		G	A	0.6566	1.031		G	A	0.796	1.04
	rs11775675	SNP_A-4287161	T	C	0.02899	0.8832		T	C	0.3961	0.9484		T	C	0.3581	0.9278
NDUFV2 (NADH dehydrogenase (ubiquinone) flavoprotein 2, 24kDa)	rs2268133	SNP_A-4287349	G	A	0.03991	1.081		G	A	0.03101	1.14		G	A	0.00976	1.215
	rs6504432	SNP_A-4287828	A	G	0.01337	0.7932		NA	NA	NA	NA		T	C	0.3984	1.061
	rs10761432	SNP_A-4288836	A	T	0.02086	0.8412		T	A	0.4198	0.9344		T	A	0.1955	0.9154
	rs7631217	SNP_A-4289048	T	A	0.02401	1.104		A	T	0.9982	0.9998		A	T	0.2098	1.085
	rs593935	SNP_A-4290632	A	T	0.04956	0.8944		A	T	0.5082	1.045		A	T	0.203	0.8157
	rs4937870	SNP_A-4293042	G	A	0.01584	1.103		G	A	0.1741	1.085		G	A	0.5323	1.05
	rs6032783	SNP_A-4294089	C	T	0.01815	0.8513		G	A	0.7874	0.9707		G	A	0.3542	0.9328
	rs360414	SNP_A-4295709	T	C	0.002929	0.9002		A	G	0.2666	0.939		G	A	0.5234	1.043
	rs2268135	SNP_A-4296729	C	G	0.03763	0.8895		C	G	0.01749	0.8018		C	G	0.7824	0.9759
	rs6688020	SNP_A-4296993	G	T	0.004013	1.106		C	A	0.4658	1.042		A	C	0.5053	0.9454
	rs1784773	SNP_A-4300374	C	T	0.008768	0.8791		C	T	0.8543	1.014		C	T	0.9226	1.008

NR4A2 (nuclear receptor subfamily 4, group A, member 2)	rs644498 3	SNP_A- 4300538	A	C	0.0068 1	1.19 7		T	G	0.063 18	1.21		T	G	0.707	1.03 6
	rs174488 15	SNP_A- 4302304	C	T	0.0056 02	0.88 1		C	T	0.230 5	0.91 68		C	T	0.512 9	0.89 39
	rs219904	SNP_A- 4303294	T	C	0.0492 2	1.07 8		T	C	0.501 6	1.03 9		T	C	0.127 9	1.10 6
	rs403532 3	SNP_A- 8281578	G	A	0.0209	0.86 23		G	A	0.877 7	0.99 13		A	G	0.562 1	0.96 28
	rs384713 1	SNP_A- 8281579	A	G	0.0425 7	0.89 77		T	C	0.749	0.98 12		T	C	0.423 3	0.94 76
	rs117800 04	SNP_A- 8281583	G	A	0.0124 5	0.88 19		C	T	0.786 5	0.98 49		C	T	0.005 52	0.76 85
	rs125415 16	SNP_A- 8282006	T	C	0.0022 85	0.83 45		T	C	0.603 8	1.03 5		T	C	0.101 2	1.11 4
	rs954009	SNP_A- 8282007	C	T	0.0031 91	0.83 91		C	T	0.925 4	1.00 6		C	T	0.045 91	1.17 2
	rs450225 7	SNP_A- 8288418	T	C	0.0365 1	0.77 27		A	G	0.051 93	0.75 78		A	G	0.097 95	0.77 58
	rs789042	SNP_A- 8289025	G	A	0.0183 8	0.85 87		C	T	0.960 9	1.00 3		T	C	0.620 7	0.96 72
	rs130873 77	SNP_A- 8294864	G	T	0.0389 3	1.11 2		G	T	0.684 3	0.97 67		G	T	0.977 5	0.99 81
	rs724107 7	SNP_A- 8295702	A	T	0.0239	1.13 3		A	T	0.328 8	1.06 3		A	T	0.040 04	1.22 9
	rs168357 83	SNP_A- 8296014	A	G	0.0273 7	1.18 4		T	C	0.039 94	0.83 28		T	C	0.410 1	1.07 7
	rs318129 1	SNP_A- 8296074	G	A	0.0455	0.90 4		C	T	0.302 7	0.94 34		C	T	0.887 8	1.01
	rs495855 6	SNP_A- 8298471	A	G	0.0318 3	1.23		A	G	0.793 7	0.97 11		A	G	0.112 4	0.83 23
	rs789046	SNP_A- 8304674	G	A	0.0440 8	0.82 26		C	T	0.782 8	0.97 38		C	T	0.392 1	1.08 5
	rs110814 48	SNP_A- 8305985	C	A	0.0150 1	0.88 26		C	A	0.059 62	0.89 73		A	C	0.996 2	0.99 97
	rs100392 53	SNP_A- 8309065	T	C	0.0212 7	0.85 84		T	C	0.199 5	0.91 25		T	C	0.548 1	0.94 21
	rs110205 28	SNP_A- 8311366	C	T	0.0440 2	1.56 8		G	A	0.895 8	1.03 1		NA	NA	NA	NA
	rs102500 83	SNP_A- 8316761	C	T	0.0062 34	1.21 1		NA	NA	NA	NA		NA	NA	NA	NA

	rs17090119	SNP_A-8318001	C	T	0.02339	0.6573		C	T	0.5891	1.114		C	T	0.7612	1.052
	rs362574	SNP_A-8322474	A	C	0.04111	1.109		T	G	0.4381	0.9569		T	G	0.3798	1.062
	rs2715574	SNP_A-8325161	G	A	0.04372	0.888		G	A	0.3571	1.061		G	A	0.5435	0.9581
NRCAM (neuronal cell adhesion molecule)	rs7734177	SNP_A-8327241	T	C	0.02928	1.299		T	C	0.00864	1.436		C	T	0.6232	1.033
	rs12805897	SNP_A-8329007	A	G	0.02965	1.226		A	G	0.4333	1.085		A	G	0.09759	0.7119
	rs11951398	SNP_A-8330922	T	C	0.04129	1.25		T	C	0.5021	1.086		T	C	0.482	1.072
	rs10501090	SNP_A-8334867	T	C	0.04287	1.349		T	C	0.6591	1.072		T	C	0.2573	1.158
	rs541279	SNP_A-8339269	G	T	0.02189	1.349		G	T	0.8657	1.025		G	T	0.04929	0.8491
	rs17104589	SNP_A-8339698	A	G	0.03609	1.288		T	C	0.1631	0.8254		NA	NA	NA	NA
	rs649098	SNP_A-8339706	G	C	0.02792	0.8708		C	G	0.03531	1.127		C	G	0.02561	1.182
	rs1940733	SNP_A-8343537	A	G	0.005925	1.15		T	C	0.1477	1.087		T	C	0.1693	1.096
	rs3755724	SNP_A-8346003	T	C	0.01529	0.8794		A	G	0.4188	1.049		A	G	0.5086	0.9436
	rs10891375	SNP_A-8347753	G	A	0.01695	0.882		G	A	0.5726	0.9675		G	A	0.6435	1.033
	rs1158001	SNP_A-8348754	A	C	0.001731	0.8305		T	G	0.9317	0.9943		NA	NA	NA	NA
	rs994919	SNP_A-8348966	G	A	0.02045	1.132		C	T	0.6953	1.024		C	T	0.9708	1.003
	rs3794086	SNP_A-8349382	A	C	0.02565	1.123		T	G	0.4893	1.041		T	G	0.5055	0.9435
	rs6880604	SNP_A-8351226	G	A	0.01481	1.809		G	A	0.05151	1.676		G	A	0.1697	0.8894
	rs4535704	SNP_A-8361899	G	A	0.01432	0.8794		G	A	0.9511	0.9964		G	A	0.4197	0.9391
	rs8037461	SNP_A-8363344	C	T	0.004635	1.164		G	A	0.8976	0.9923		G	A	0.2313	0.9199
	rs11143438	SNP_A-8364915	G	A	0.02526	1.258		C	T	0.1211	0.8501		C	T	0.04254	0.7837

	rs17568427	SNP_A-8368456	A	G	0.03955	0.8754		T	C	0.3828	0.9401		T	C	0.08357	0.7454
	rs2284284	SNP_A-8370696	G	A	0.03558	1.122		C	T	0.05315	0.8891		T	C	0.4684	1.049
	rs398854	SNP_A-8371561	C	T	0.03114	0.8932		C	T	0.6249	0.9717		C	T	0.07779	0.8473
	rs1893431	SNP_A-8372748	A	G	0.0294	1.119		A	G	0.7622	1.018		A	G	0.09793	1.125
	rs7012873	SNP_A-8374215	T	C	0.01629	0.5963		T	C	0.5199	1.159		T	C	0.3871	1.099
NRG1 (neuregulin 1)	rs11055830	SNP_A-8375382	A	G	0.0229	0.8369		A	G	0.4181	1.069		A	G	0.3167	1.164
	rs4363703	SNP_A-8376097	C	T	0.001569	0.8422		C	T	0.06983	1.113		C	T	0.6449	0.9679
	rs12279598	SNP_A-8376176	A	G	0.004129	1.731		A	G	0.3522	0.8182		A	G	0.6363	0.9526
	rs868584	SNP_A-8380440	T	C	0.03798	0.859		T	C	0.8064	0.983		T	C	0.2386	1.09
	rs736374	SNP_A-8381417	A	G	0.04739	1.108		A	G	0.4063	1.05		A	G	0.8783	0.9822
	rs9319830	SNP_A-8388607	G	C	0.03185	1.113		G	C	0.6738	0.9766		G	C	0.9604	1.003
	rs9362473	SNP_A-8388806	T	C	0.00716	1.228		T	C	0.5655	1.051		T	C	0.05974	0.6979
	rs4560987	SNP_A-8392987	A	T	0.02697	1.119		T	A	0.5383	0.9656		A	T	0.1507	0.8793
	rs9534696	SNP_A-8394779	T	C	0.04735	0.813		T	C	0.9971	1		C	T	0.6766	0.9729
	rs1937443	SNP_A-8402710	C	G	0.04724	0.9044		C	G	0.4432	0.9576		C	G	0.9215	0.9933
	rs656544	SNP_A-8403143	A	G	0.01973	1.57		T	C	0.4594	1.159		T	C	0.7231	0.9616
	rs7126748	SNP_A-8403197	C	T	0.007806	1.147		C	T	0.08545	1.104		C	T	0.5581	1.039
	rs9700757	SNP_A-8413977	T	C	0.046	0.7797		A	G	0.3592	0.8842		A	G	0.1879	1.126
	rs11813307	SNP_A-8414824	A	G	0.01678	0.8867		A	G	0.361	0.9497		G	A	0.00876	0.8325
	rs1542485	SNP_A-8417187	A	G	0.03469	0.8757		T	C	0.3112	1.074		T	C	0.4365	0.9303

	rs1990713	SNP_A-8417469	T	C	0.01922	0.8802		T	C	0.4582	1.046		T	C	0.0882	0.8856
	rs12201450	SNP_A-8419804	C	G	0.01576	1.29		C	G	0.206	0.8607		C	G	0.9028	0.9696
	rs4534613	SNP_A-8420069	C	A	0.01765	0.8865		C	A	0.07533	0.9036		C	A	0.9196	0.9934
	rs1375423	SNP_A-8422687	T	A	0.03542	0.7788		T	A	0.04107	1.301		T	A	0.8884	1.017
	rs9835143	SNP_A-8425066	T	C	0.0478	1.141		T	C	0.9663	1.003		T	C	0.1456	1.131
	rs789368	SNP_A-8425651	C	A	0.04055	1.123		C	A	0.8222	1.014		C	A	0.5653	0.9462
	rs4254099	SNP_A-8427210	T	C	0.04074	1.207		A	G	0.8531	1.019		A	G	0.2983	0.819
	rs1573321	SNP_A-8430718	G	T	0.01572	0.8734		C	A	0.1199	0.9069		C	A	0.6579	1.037
	rs987850	SNP_A-8430719	G	A	0.02976	0.8894		C	T	0.1845	0.9229		C	T	0.9628	1.004
	rs10213927	SNP_A-8431092	C	T	0.04338	1.109		G	A	0.3765	1.052		G	A	0.5497	0.9571
PDE4B (phosphodiesterase 4B, cAMP-specific)	rs10910616	SNP_A-8434384	T	C	0.002934	0.7363		T	C	0.06856	1.232		T	C	0.1061	1.442
	rs3773364	SNP_A-8438364	G	A	0.02792	0.8567		G	A	0.858	0.986		G	A	0.9998	1
	rs17689224	SNP_A-8439372	T	C	0.04205	1.128		A	G	0.6702	1.029		A	G	0.5825	0.9172
	rs17113267	SNP_A-8441560	A	G	0.01584	1.16		T	C	0.5309	1.044		T	C	0.8966	1.012
	rs9595613	SNP_A-8443824	G	C	0.03275	1.485		C	G	0.2172	1.277		C	G	0.2813	0.9154
	rs10917632	SNP_A-8449773	C	T	0.03359	1.13		C	T	0.5279	1.042		NA	NA	NA	NA
	rs10994257	SNP_A-8450700	T	C	0.03642	1.118		T	C	0.8932	1.008		T	C	0.6601	0.9564
	rs7621976	SNP_A-8451938	T	C	0.04785	1.165		T	C	0.04495	0.8366		T	C	0.7688	1.024
	rs9966779	SNP_A-8452997	T	C	0.01353	0.7713		T	C	0.4289	1.1		T	C	0.4148	0.9021
	rs2023503	SNP_A-8454924	G	C	0.03828	1.115		G	C	0.1383	0.9174		C	G	0.8433	0.987

	rs12362135	SNP_A-8455819	G	C	0.003654	1.326		C	G	0.371	0.9053		C	G	0.8322	0.9851
	rs12376078	SNP_A-8458322	A	G	0.04739	1.26		T	C	0.03655	1.361		T	C	0.2964	1.133
	rs16914531	SNP_A-8458560	T	C	0.02754	1.479		T	C	0.5973	1.125		NA	NA	NA	NA
	rs17546405	SNP_A-8459874	G	A	0.03114	0.8659		G	A	0.2527	0.9208		G	A	0.2098	0.8701
	rs558550	SNP_A-8462316	A	T	0.02763	0.8924		T	A	0.4183	0.9546		T	A	0.2979	0.9244
	rs3772790	SNP_A-8462780	T	G	0.02938	0.8204		A	C	0.7057	0.9631		A	C	0.2114	1.089
	rs4424941	SNP_A-8462947	T	G	0.01851	0.8325		A	C	0.3288	1.074		A	C	0.6903	1.031
	rs9477044	SNP_A-8463350	T	C	0.03838	1.197		A	G	0.7909	1.027		A	G	0.03092	1.445
	rs167569	SNP_A-8463370	T	C	0.03187	1.477		A	G	0.82	1.044		A	G	0.9353	0.9905
	rs12791990	SNP_A-8464558	C	T	0.01151	1.19		C	T	0.1362	1.124		C	T	0.1193	1.144
	rs1846475	SNP_A-8465906	A	T	0.03047	1.556		A	T	0.8852	0.9659		A	T	0.00126	0.3769
	rs4309187	SNP_A-8468800	A	C	0.01907	0.8801		A	C	0.1505	0.9159		A	C	0.4215	0.9273
	rs8095770	SNP_A-8471138	C	T	0.01716	1.279		G	A	0.5077	1.076		G	A	0.4762	1.122
PRKCA (protein kinase C, alpha)	rs4632206	SNP_A-8475385	G	T	0.024	1.144		C	A	0.1198	1.112		C	A	0.6377	0.923
	rs6579996	SNP_A-8478405	G	A	0.01679	1.177		C	T	0.5791	0.9588		C	T	0.2997	1.072
	rs4890910	SNP_A-8479764	T	C	0.02377	0.8744		A	G	0.595	0.9652		A	G	0.9961	1.001
	rs12124253	SNP_A-8480260	A	C	0.02514	1.137		A	C	0.7652	1.019		C	A	0.00829	0.8014
	rs16835412	SNP_A-8481623	T	A	0.03981	1.231		A	T	0.8354	0.9757		A	T	0.09278	0.6801
	rs554120	SNP_A-8481741	A	G	0.0262	1.12		A	G	0.2638	1.066		A	G	0.899	0.9915
	rs1785560	SNP_A-8482169	C	T	0.006002	0.8232		G	A	0.884	0.9888		G	A	0.6124	1.063

	rs812573	SNP_A-8482771	A	G	0.02747	0.8537		T	C	0.7775	1.02		C	T	0.4547	0.9523
	rs11665625	SNP_A-8485536	A	G	0.01547	1.129		T	C	0.7129	0.9794		C	T	0.9275	0.9938
RAB18 (RAB18, member RAS oncogene family)	rs17594358	SNP_A-8485945	G	A	0.01483	1.315		C	T	0.6296	1.06		C	T	0.8525	0.9451
RELN (reelin)	rs12076286	SNP_A-8490013	C	T	0.01049	1.181		G	A	0.02855	1.168		G	A	0.1678	1.109
	rs6504428	SNP_A-8490444	G	A	0.007991	0.8094		C	T	0.1004	0.8667		C	T	0.9586	1.004
	rs2588477	SNP_A-8494352	G	A	0.02413	0.8917		C	T	0.9424	0.9959		T	C	0.2605	1.08
	rs8031730	SNP_A-8495092	T	C	0.006932	1.156		A	G	0.5625	1.035		G	A	0.3869	0.9446
	rs12465886	SNP_A-8496375	T	G	0.000689	0.7463		A	C	0.3023	0.9256		A	C	0.9872	0.9988
RGS4 (regulator of G-protein signaling 4)	rs1708099	SNP_A-8496795	A	G	0.005777	1.397		T	C	0.9926	0.9987		T	C	0.7615	0.9732
	rs12956305	SNP_A-8497881	T	C	0.03278	0.8714		A	G	0.08567	1.13		A	G	0.891	0.9853
	rs17640142	SNP_A-8510942	C	G	0.01556	1.416		G	C	0.5952	0.9186		G	C	0.1223	0.8612
	rs10772769	SNP_A-8511818	A	G	0.04869	1.107		T	C	0.6875	0.9766		T	C	0.2365	0.8976
	rs10831155	SNP_A-8511977	C	T	0.004265	1.299		C	T	0.6108	0.9477		C	T	0.3842	0.9376
	rs3772751	SNP_A-8512582	T	C	0.009416	1.27		T	C	0.4302	1.089		T	C	0.2524	0.9193
	rs1623372	SNP_A-8514672	G	A	0.04656	0.898		C	T	0.411	0.9516		C	T	0.3237	1.07
	rs4642829	SNP_A-8517780	T	C	0.04464	0.8248		T	C	0.4952	0.9303		T	C	0.00116	0.5157
	rs2600271	SNP_A-8520412	T	C	0.04593	1.153		A	G	0.1893	1.108		NA	NA	NA	NA
SLC1A2 (solute carrier family 1 (glial high affinity	rs260769	SNP_A-8522141	C	T	0.001377	0.8417		G	A	0.8397	1.012		A	G	0.5017	0.9553
	rs1037892	SNP_A-8523871	A	G	0.01426	0.8665		A	G	0.6462	1.03		G	A	0.8518	1.012

glutamate transporter), member 2)	rs185227	SNP_A-8524823	C	G	0.01534	1.148		G	C	0.4179	0.9498		G	C	0.8106	1.016
	rs7040007	SNP_A-8524880	C	T	0.04929	0.8962		G	A	0.03881	1.141		G	A	0.611	0.9673
SNAP25 (synaptosomal-associated protein, 25kDa)	rs2619545	SNP_A-8527969	C	T	0.009163	0.8509		G	A	0.2974	0.9301		G	A	0.2484	0.9256
	rs17745302	SNP_A-8528094	T	C	0.03659	1.226		A	G	0.842	1.024		A	G	0.7925	0.9585
	rs12273644	SNP_A-8535231	C	A	0.02851	1.12		C	A	0.3341	1.058		C	A	0.6856	0.9693
	rs12065101	SNP_A-8536682	C	A	0.02953	0.748		C	A	0.4245	1.107		C	A	0.5649	1.04
	rs1326469	SNP_A-8536748	C	T	0.04418	0.8109		G	A	0.9177	0.9883		A	G	0.6157	0.9662
	rs10175502	SNP_A-8536945	G	C	0.01724	0.7311		C	G	0.719	0.9522		NA	NA	NA	NA
SYN2 (synapsin II)	rs17379710	SNP_A-8549821	T	C	0.04	1.109		A	G	0.3795	1.051		A	G	0.6182	0.9656
	rs10830770	SNP_A-8554115	C	T	0.03233	1.155		C	T	0.1105	0.884		C	T	0.3671	1.074
	rs13016588	SNP_A-8559979	G	A	0.01549	0.8825		G	A	0.684	0.9768		G	A	0.7593	0.9792
	rs2743862	SNP_A-8561379	G	C	0.01241	0.854		C	G	0.1802	0.9102		C	G	0.253	0.9263
	rs10477042	SNP_A-8565425	A	C	0.01124	1.159		A	C	0.2767	1.073		A	C	0.5295	1.048
TCF4 (transcription factor 4)	rs2960421	SNP_A-8566858	G	A	0.003144	0.8238		G	A	0.8224	1.017		G	A	0.6613	0.9357
	rs4648318	SNP_A-8568798	C	T	0.04038	1.126		C	T	0.6966	1.026		C	T	0.0628	1.13
	rs1316293	SNP_A-8576185	G	A	0.01583	0.8834		C	T	0.7088	0.9788		C	T	0.9317	0.9942
	rs951438	SNP_A-8579091	T	G	0.03883	0.9012		T	G	0.4148	1.047		T	G	0.8919	0.9899
	rs10954864	SNP_A-8580728	G	C	0.02482	1.119		C	G	0.9123	0.9938		C	G	0.7732	0.9805
	rs12656429	SNP_A-8583028	T	C	0.01416	0.8564		A	G	0.04536	1.162		A	G	0.1538	0.7491
	rs16954628	SNP_A-8584055	G	A	0.03681	1.151		C	T	0.02394	1.19		C	T	0.3048	1.082

rs7795834	SNP_A-8584593	A	T	0.02906	1.16		A	T	0.01782	0.8607		A	T	0.9197	0.9931
rs2553250	SNP_A-8586262	G	A	0.01625	0.8863		G	A	0.4646	0.9597		A	G	0.3331	0.9338
rs1805055	SNP_A-8586895	T	G	0.02387	1.462		A	C	0.5468	1.121		NA	NA	NA	NA
rs11081446	SNP_A-8587834	G	A	0.04385	0.9039		G	A	0.04409	0.8929		A	G	0.8226	0.9849
rs17533219	SNP_A-8597318	C	A	0.02091	0.8866		G	T	0.5448	0.9653		G	T	0.3693	0.9283
rs7641627	SNP_A-8597362	G	A	0.02256	0.7822		C	T	0.2576	0.8687		C	T	0.9864	1.002
rs4801016	SNP_A-8600472	T	A	0.01888	0.7397		T	A	0.2203	0.8349		T	A	0.2013	1.454
rs17770948	SNP_A-8603715	T	C	0.02375	1.268		A	G	0.2719	0.8726		A	G	0.3906	0.8735
rs4075412	SNP_A-8607796	A	T	0.03616	1.198		T	A	0.06602	1.187		T	A	0.07925	1.176
rs9728261	SNP_A-8609286	T	C	0.02596	1.124		A	G	0.6427	1.028		A	G	0.9908	1.001
rs2233204	SNP_A-8618501	T	C	0.02384	0.8883		T	C	0.2172	1.076		T	C	0.2393	0.8788
rs3900176	SNP_A-8622419	T	C	0.03766	0.8957		A	G	0.6998	1.023		G	A	0.6813	0.9724
rs333307	SNP_A-8623259	A	T	0.0438	0.8777		T	A	0.7827	0.9803		T	A	0.6632	0.9681
rs4894814	SNP_A-8625872	A	T	0.002333	0.7445		T	A	0.3335	0.9059		T	A	0.3334	1.25
rs8091765	SNP_A-8628659	C	A	0.01477	0.8759		C	A	0.5493	0.9643		NA	NA	NA	NA
rs17582738	SNP_A-8631251	T	A	0.02167	1.215		A	T	0.00787	1.247		A	T	0.1582	1.337
rs11854349	SNP_A-8631633	A	G	0.01641	0.8436		A	G	0.6549	0.9658		A	G	0.7989	0.9547
rs13439388	SNP_A-8644106	A	G	0.02139	0.8906		A	G	0.4771	0.9608		A	G	0.9873	1.001
rs13057910	SNP_A-8644510	T	C	0.04106	1.219		A	G	0.988	1.002		A	G	0.6693	0.9316
rs3924022	SNP_A-8645495	G	A	0.01481	0.8326		G	A	0.6964	0.9727		G	A	0.2343	0.8414

	rs17598303	SNP_A-8649761	T	C	0.01267	1.157		A	G	0.4316	0.9484		A	G	0.1704	0.7953
	rs8092661	SNP_A-8654363	C	T	0.0466	0.9016		G	A	0.4177	0.9542		G	A	0.8053	0.984
	rs7306014	SNP_A-8656195	A	G	0.04004	0.9017		A	G	0.2675	0.9392		G	A	0.7119	0.9741
	rs17491606	SNP_A-8659666	A	G	0.007334	1.346		T	C	0.5263	1.082		NA	NA	NA	NA
	rs1544325	SNP_A-8661036	A	G	0.04098	1.11		A	G	0.8614	0.9901		A	G	0.01457	1.193
	rs10515677	SNP_A-8663866	C	T	0.01746	1.319		G	A	0.9902	1.002		NA	NA	NA	NA
	rs1493383	SNP_A-8663886	T	C	0.02091	1.158		A	G	0.8318	0.9846		A	G	0.3553	0.8959
TNIK (TRAF2 and NCK interactin g kinase)	rs1363696	SNP_A-8665172	G	A	0.04845	1.119		C	T	0.2637	1.073		T	C	0.2559	0.9122
	rs1539422	SNP_A-8668086	C	T	0.005126	0.8486		G	A	0.2966	1.061		G	A	0.08649	1.164
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	rs9867647	SNP_A-8675678	A	T	0.02823	0.8947		A	T	0.356	1.054		A	T	0.383	0.944
	rs11055930	SNP_A-8676241	C	T	0.03724	0.8884		G	A	0.5654	1.037		G	A	0.6144	1.037
	rs12058117	SNP_A-8677173	G	A	0.0375	1.504		G	A	0.09143	1.563		G	A	0.8389	0.9815
	rs4657235	SNP_A-8679457	T	C	0.004835	1.254		A	G	0.6014	1.049		A	G	0.1017	1.119
	rs12137080	SNP_A-8683613	C	T	0.0395	1.11		G	A	0.2792	1.063		A	G	0.3399	0.9297
	rs8180650	SNP_A-8690835	A	G	0.04697	0.8869		T	C	0.8567	0.9877		T	C	0.5646	1.04
	rs4523899	SNP_A-8693032	C	T	0.02013	0.8891		C	T	0.5663	1.033		C	T	0.2138	0.9219
	rs11853743	SNP_A-8693033	C	T	0.03798	0.9007		NA	NA	NA	NA		C	T	0.5088	0.9536
	rs2300252	SNP_A-8697084	T	C	0.04201	0.8937		A	G	0.563	1.036		A	G	0.193	1.103
	rs6766433	SNP_A-8700370	T	C	0.03776	0.7272		A	G	0.3458	1.157		A	G	0.2018	1.136

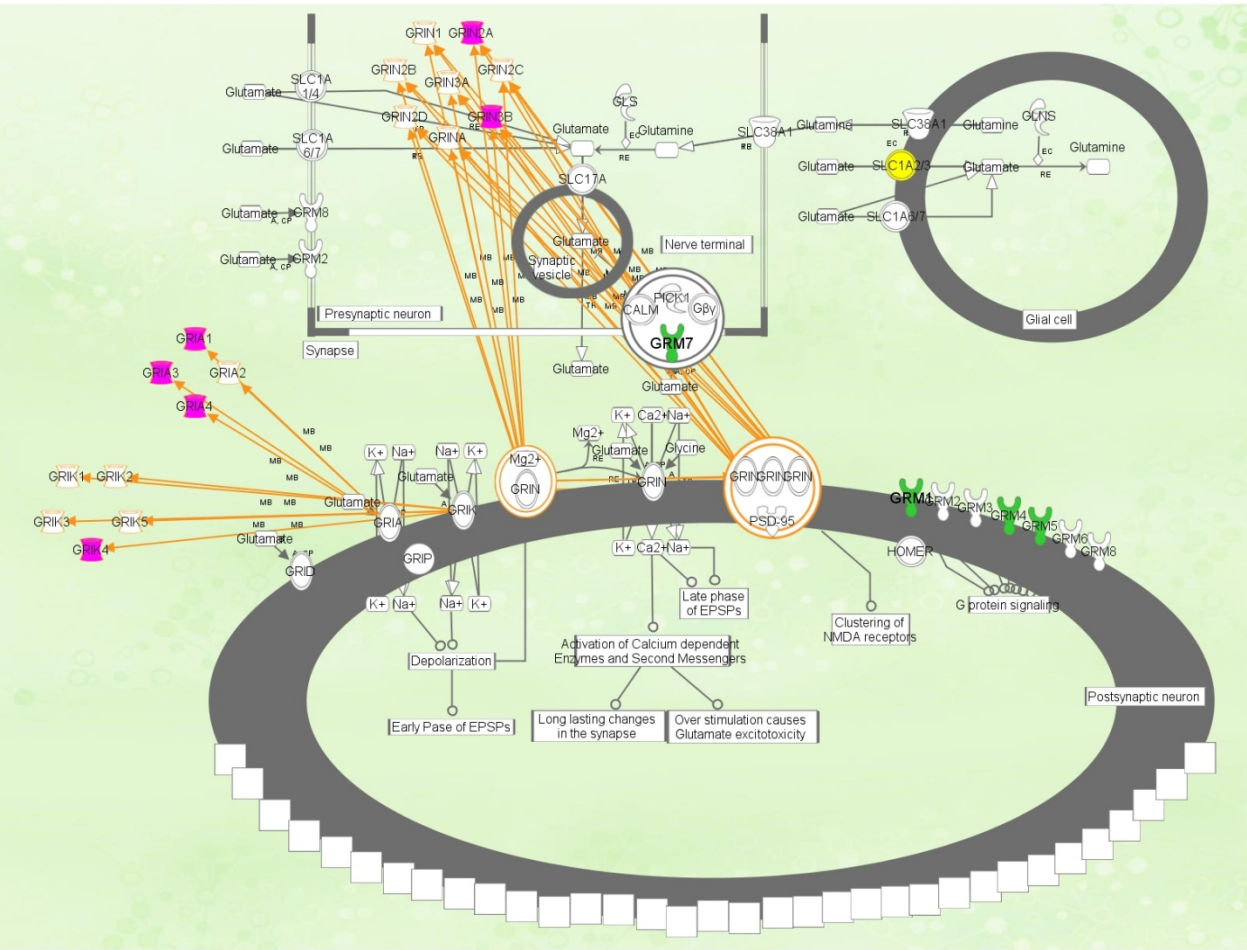
rs686888 8	SNP_A- 8707240	C	A	0.0043 55	1.19 6		G	T	0.406 9	1.04 8		T	G	0.522 5	0.94 51
rs109493 29	SNP_A- 8707535	T	G	0.0162 6	0.86 75		A	C	0.064 83	1.11 1		A	C	0.672 8	1.04 9
rs108458 59	SNP_A- 8709853	G	A	0.0062 13	0.85 19		G	A	0.157 3	1.09 8		G	A	0.492 8	0.94 19
rs286969	SNP_A- 8712067	A	G	0.0444 4	1.10 9		T	C	0.029 24	0.88 15		T	C	0.637 1	1.03 3
rs753768 7	SNP_A- 8715728	T	C	0.0332 5	0.81 69		A	G	0.045	1.23 3		A	G	0.628 3	0.93 55
rs115061 12	SNP_A- 1837924	C	G	0.0324 4	1.14 7		NA	NA	NA	NA		NA	NA	NA	NA
rs414574 4	SNP_A- 1856113	G	C	0.0490 9	1.23 4		NA	NA	NA	NA		NA	NA	NA	NA
rs479102 2	SNP_A- 2273374	T	C	0.0409 9	1.11		NA	NA	NA	NA		NA	NA	NA	NA
rs296394 0	SNP_A- 4276968	G	T	0.0217 6	1.14 9		NA	NA	NA	NA		NA	NA	NA	NA
rs109548 87	SNP_A- 4288825	G	A	0.0373 4	1.12 3		NA	NA	NA	NA		NA	NA	NA	NA

Table S4: An example of how Intra- Pathway Epistasis Testing (INPEP) Identifies Genes That May Work Together. Inside the canonical pathway Glutamate Receptor Signaling, we tested for pairwise epistatic interactions between the best p-value SNPs from the ISC GWAS (Table 1) in glutamate receptor genes in the pathway that are part of our list of top candidate genes, as a way of identifying and prioritizing interactions. The top epistatic interactions are depicted in bold and underlined. As a caveat, the p-value was not corrected for multiple comparisons. The corresponding genes merit future follow-up work to elucidate the biological and pathophysiological relevance of their interactions. In particular, GRIA4 has suggestive evidence for interaction with 2 other genes (GRM7 and GRIN2B) in this pathway.

	GRIA1	GRIA4	GRIN2A	GRIN2B	GRM1	GRM4	GRM5	GRM7
GRIA1		0.131	0.5841	0.4687	0.5963	0.6463	0.1614	0.062
GRIA4	0.131		0.2857	<u>0.0497</u>	0.1236	0.4803	0.7363	<u>0.0174</u>
GRIN2A	0.5841	0.2857		0.8176	0.9805	0.6123	0.3202	0.2206
GRIN2B	0.4687	<u>0.0497</u>	0.8176		0.1301	0.7771	0.6268	0.8746
GRM1	0.5963	0.1236	0.9805	0.1301		0.2372	0.3898	0.4186
GRM4	0.6463	0.4803	0.6123	0.7771	0.2372		0.0695	0.7195
GRM5	0.1614	0.7363	0.3202	0.6268	0.3898	0.06945		0.9429
GRM7	0.062	<u>0.0174</u>	0.2206	0.8746	0.4186	0.7195	0.9429	

Figure S2: Glutamate Receptor Signaling: From Genes to Biology

Path Designer Glutamate Receptor Signaling



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