supplementary table 1: variants found by *de novo* sequencing of exons (163 cases, 135 controls)

Exon	Position	SNP	Classification
exon 4	185508830	ss177930697	SYNON (462 R154R)
exon 4	185508906	ss177930701	NONSYNON (538 A180T)
exon 4	185509150	rs12476147	NONSYNON (782 Q261L)
exon 4	185509348	ss177930705	NONSYNON (980 N327T)
exon 4	185509556	rs34345078	SYNON (1188 P396P)
exon 4	185509593	rs62198466	NONSYNON (1225 I409V)
exon 4	185509715	ss177930708	SYNON (1347 T449T)
exon 4	185509804	rs35676856	NON-SYNON (1436 D479G)
exon 4	185509842	rs61739290	NON-SYNON (1474 I491V)
exon 4	185509992	rs4667001	NON-SYNON (1624 E542K)
exon 4	185510000	rs4667002	SYNON (1632 T544T)
exon 4	185510001	rs61739288	NON-SYNON (1633 G545S)
exon 4	185510145	ss177930711	NON-SYNON (1777 S593G)
exon 4	185510162	rs728534	SYNON (1794 K598K)
exon 4	185510356	ss177930715	NON-SYNON (1988 E663G)
exon 4	185510456-185510457	rs5836928	3bp INSERTION IN FRAME -SYNON
exon 4	185510488	rs1366842	NON-SYNON (2120 T707K)
exon 4	185510608	rs12477430	NON-SYNON (2240 H747R)
exon 4	185510969	ss177930719	SYNON (2601 R867R)
exon 4	185511609	rs3731834	NON-SYNON (3241 L1081V)
exon 4	185511690	ss177930722	NON-SYNON (3322 A1108T)

Exon =exon in which variant discovered. Position is given according to NCBI build36. SNP=SNP identifier. Classification= description of SNP and amino acid change. SYNON, synonymous change; NON-SYNON, non-synonymous change

Supplementary Table 2: HapMAP Markers showing nominally significant assocaition with lymphoblastoid *ZNF804A* expression in GeneVar

SNP	P-value GenVar	P value fatSNP1
rs3931790	0.006	$2.77x10^{-5}$
rs7593816	0.006	n/a
rs1583048	0.006	$2.00x10^{-5}$
rs11030607	0.011	n/a
rs10188385	0.019	n/a
rs13424692	0.027	0.96
rs263765	0.033	0.46
rs16918621	0.035	0.0062
rs1344706	0.035	$5.61x10^{-5}$
rs13420259	0.037	0.056
rs17617133	0.038	n/a
rs7478970	0.040	n/a
rs1992514	0.041	n/a
rs13393273	0.043	n/a
rs12693384	0.043	n/a
rs435822	0.043	n/a
rs4146075	0.043	0.50
rs10497655	0.044	$1.97x10^{-4}$
rs12693381	0.045	0.023

Marked in Bold is the most strongly associated SNP from the original GWAS study
P Value GenVar is the p value for assocaition with expression in that dataset
P value fatSNP1 is the p value for assocaition in 479 UK Cases and 1445 UK Controls

Supplementary table 3: Association results of genotyping 176 SNPs in fatSNP stage 1.

SNP	POS	ARM-P
rs12478223	184958599	0.72
rs1348341	184964668	0.93
rs894528	184970480	0.42
rs1304514	184981372	0.73
rs4363994	184985411	0.52
rs1443033	184985820	0.49
rs10204602	184987331	0.092
rs10204810	184987564	0.63
rs10931138	184988661	0.94
rs2034055	184990423	0.93
rs12475586	184991299	0.97
rs6759504	184992545	0.49
rs6759838	184992673	0.23
rs6728914	184994952	0.51
rs12467320	184998040	0.46
rs17616904	185009227	0.91
rs13036089	185010257	0.40
rs13411189	185011362	0.33
rs12998657	185024701	0.26
rs12474365	185025124	0.48
rs1443032	185027158	0.43
rs12465889	185030132	0.94
rs11678101	185039561	0.68
rs17429724	185040477	0.41
rs16825968	185052430	0.59
rs4146075	185054446	0.50
rs10497652	185062289	0.32
rs1303828	185063842	0.68
rs12471708	185065393	0.72
rs12467551	185070393	0.31
rs1348339	185077082	0.90
rs17583433	185077867	0.26
rs1867187	185077893	0.88
rs17583446	185079030	0.24
rs17583453	185079389	0.25
rs17508064	185080822	0.67
rs7425839	185091956	0.11
rs4666659	185098338	0.72
rs1427148	185108065	0.096
rs12477814	185108949	0.57
rs17430153	185109509	0.45
rs2033137	185113824	0.036
rs6721856	185115012	0.99

rs17617133	185115127	0.0062
rs7558116	185118807	0.93
rs1593661	185118878	0.028
rs6434088	185119078	0.75
rs1030430	185120343	0.0047
rs7566980	185122523	0.019
rs2369588	185123525	0.18
rs4399684	185129145	0.32
rs1896235	185129472	0.78
rs10803976	185137190	0.019
rs11682677	185137384	0.29
rs17430209	185141078	0.81
rs12466285	185143027	0.039
rs10198713	185152750	0.053
rs12618211	185153577	0.0064
rs1365718	185155392	0.44
rs359899	185156475	0.054
rs2052794	185163995	0.35
rs17508485	185167219	0.0061
rs11888068	185168539	3.77×10^{-4}
rs13026173	185169086	0.092
rs10497655	185170285	1.90×10^{-4}
rs10203158	185175081	0.025
rs12693381	185175153	0.023
rs12693382	185175905	0.041
rs12693383	185177107	0.027
rs722384	185184253	0.27
rs10202700	185187587	0.080
rs17508595	185191352	0.18
rs11900132	185192056	0.31
rs12613195	185197465	1.90×10^{-4}
rs17508671	185200091	0.88
rs17430621	185200713	0.88
rs12990519	185206213	0.48
rs1480478	185213800	0.023
rs1021043	185215665	0.024
rs12469299	185221740	0.042
rs6434096	185224968	0.016
rs17508706	185232835	0.86
rs899846	185234247	0.091
rs7597593	185241824	3.94×10^{-4}
rs6742182	185243865	0.094
rs17508767	185244051	0.0047
rs1480481	185255706	0.0026
rs12693387	185256270	0.30
rs10173509	185261504	0.0081
rs10186035	185270665	0.63

rs2199883	185273707	0.024
rs17430980	185287202	0.47
rs2170202	185307812	0.29
rs13026742	185313226	0.0064
rs13417466	185326355	0.023
rs17617913	185347119	0.036
rs6716235	185363336	0.013
rs6751335	185377371	0.46
rs17584522	185389974	2.69×10^{-5}
rs4544394	185397915	0.44
rs12693396	185427418	0.019
rs13398732	185438831	0.42
rs17509608	185440822	0.92
rs7588907	185443843	0.011
rs7564941	185444057	0.013
rs11904676	185458964	0.0077
rs12693400	185466656	0.0096
rs3931790	185471620	2.77×10^{-5}
rs7562384	185471689	0.41
rs7590852	185475156	0.62
rs17431742	185481645	0.0096
rs725617	185486506	0.75
rs1344706	185486672	5.61×10^{-5}
rs13009002	185486846	0.52
rs1583048	185491385	2.00×10^{-5}
rs1366839	185491910	0.32
rs1583049	185501062	0.19
rs6726421	185505086	0.012
rs17509873	185505652	0.0012
rs12476147	185509149	0.012
ss177930705	185509348	0.077
rs34345078	185509555	0.67
rs62198466	185509593	0.97
ss177930708	185509715	0.14
rs35676856	185509803	0.0052
rs61739290	185509841	0.0050
rs4667001	185509991	0.015
rs4667002	185509999	0.26
rs61739288	185510000	0.0014
rs728534	185510161	0.30
rs1366842	185510487	0.012
rs12477430	185510607	0.26
rs3731834	185511608	0.074
rs6745533	185515268	0.058
rs12693402	185516323	0.011
rs4380187	185520184	4.15×10^{-4}
rs1429428	185530947	0.22

rs6434107	185531710	0.069
rs6712373	185543939	0.17
rs6741522	185544142	0.37
rs4667003	185544351	0.98
rs12999356	185556696	0.45
rs6714752	185560807	0.017
rs2163065	185561599	0.069
rs12053131	185565199	0.53
rs6761601	185570496	0.013
rs12477914	185573984	0.011
rs17510170	185584889	0.072
rs263765	185613275	0.46
rs10167276	185613507	0.011
rs1429421	185623464	0.063
rs263771	185629936	0.86
rs17438478	185634329	0.23
rs17584976	185634529	5.83×10^{-4}
rs1429426	185635166	0.0036
rs965472	185638903	0.15
rs6752032	185640500	0.31
rs263767	185640559	0.53
rs13420259	185642192	0.056
rs17584997	185643649	0.024
rs1483247	185645284	0.40
rs17438527	185646187	0.011
rs13424692	185646982	0.96
rs10165431	185651727	0.54
rs17438590	185656545	0.98
rs2128737	185671827	0.50
rs10211053	185672589	0.041
rs1483253	185678486	0.64
rs12987273	185690221	0.61
rs10931160	185691427	0.019
rs13392265	185703127	0.017
rs1483233	185704248	0.43
rs17438805	185714826	0.027
rs6742605	185715835	0.032
rs4017483	185715865	0.030
rs1483238	185719812	0.035

POS = position as NCBI b26. ARM = Armitage Trend Test P value for association

supplementary table 4: Sample statistics

GWAS plus extra	rs12613195	rs17584522	rs1344706	rs1583048	rs6726421	rs12476147*	ss177930705	rs61739290	rs3731834
Call rate (CASE n = 642)	98	99	99	97	99	92	99	99	100
Call rate (CONTROL n = 2873)	100	99	100	99	100	98	99	99	99
HW CASE (P)	0.92	0.14	0.59	0.17	0.52	0.92	0.18	0.61	1.00
HW CONTROL (P)	0.80	1.00	0.82	1.00	0.82	0.94	0.76	0.66	0.70
Arm trend (P)	$1.20X10^{-5}$	$6.21X10^{-7}$	$7.08X10^{-7}$	$7.40X10^{-6}$	0.0022	0.0055	0.49	0.017	0.0080
OR	1.35	1.48	1.38	1.46	1.21	1.23	1.13	1.31	1.26

* the extra cases were not genotyped for this SNP

Bulgarian	rs12613195	rs17584522	rs1344706	rs1583048	rs6726421	rs12476147	ss177930705	rs61739290	rs3731834
Call rate (CASE n = 611)	97	97	97	99	100	99	99	99	100
Call rate (CONTROL n = 661)	98	99	98	99	100	100	100	100	100
HW CASE (P)	0.07	0.66	0.80	1.00	0.51	0.38	1.00	1.00	0.90
HW CONTROL (P)	0.76	0.25	1.00	0.17	0.52	0.56	0.42	1.00	0.78
Arm trend (P)	0.73	0.22	0.70	0.48	1.00	0.25	0.99	0.24	0.14
OR	1.03	1.14	1.03	1.08	1.00	0.91	1.00	0.83	1.17

Munich	rs12613195	rs17584522	rs1344706	rs1583048	rs6726421	rs12476147	ss177930705	rs61739290	rs3731834
Call rate (CASE n = 759)	96	98	99	99	98	99	99	99	100
Call rate (CONTROL n = 1897)	98	99	98	99	99	99	99	99	100
HW CASE (P)	0.53	0.16	0.82	0.48	0.26	0.44	1.00	0.18	1.00
HW CONTROL (P)	0.52	0.17	0.70	0.15	0.19	0.27	1.00	0.62	1.00
Arm trend (P)	0.084	0.44	0.042	0.53	0.10	0.15	0.55	0.80	0.45
OR	1.12	1.06	1.14	1.05	1.11	1.10	1.12	0.97	1.06

Dublin	rs12613195	rs17584522	rs1344706	rs1583048	rs6726421	rs12476147	ss177930705	rs61739290	rs3731834
Call rate (CASE n = 295)	97	95	93	99	99	99	99	99	100
Call rate (CONTROL n = 983)	98	93	97	97	99	98	98	98	99
HW CASE (P)	0.05	0.06	0.49	1.00	0.24	0.35	1.00	0.72	0.63
HW CONTROL (P)	0.71	0.69	0.94	1.00	0.56	0.68	1.00	0.77	0.41
Arm trend (P)	0.43	0.66	0.12	0.30	0.0018	$5.47X10^{-5}$	0.32	0.0078	0.20
OR	1.09	1.05	1.17	1.14	1.34	1.48	0.76	1.58	1.19

HW = Hardy-Weinberg P-value. ARM = Armitage trend P-value. OR = Odds ratio

supplementary table 5: Meta analysis of rs1344706 in schizophrenia samples

	OR	CI_low	CI_up	p-value	Ncas	Ncon
Cardiff	1.38	1.22	1.57	7.02×10^{-7}	636	2936
Dublin 1	1.17	0.96	1.44	0.12	275	951
Bulgarian	0.97	0.82	1.14	0.70	593	651
Munich	1.14	1	1.28	0.041	751	1857
MGS EA	1.09	1	1.18	0.038	2666	2633
Bonn	1.05	0.91	1.2	0.52	735	1022
Israel	1.07	0.94	1.21	0.33	732	1497
China	1.06	0.94	1.2	0.33	996	1015
Japan	1.1	0.96	1.27	0.18	721	796
Portugal	0.95	0.74	1.21	0.66	346	216
Sweden 1	1.32	0.97	1.79	0.075	170	170
Sweden 2	1.09	0.86	1.38	0.50	389	230
Sweden 3	1.12	0.96	1.3	0.14	538	904
Aberdeen	1.05	0.9	1.22	0.55	718	700
Edinburgh	1.06	0.84	1.32	0.63	365	284
London	1.16	0.97	1.39	0.096	522	503
VCU-Ireland	1.2	1.03	1.4	0.019	984	554
Pittsburgh	1.11	0.93	1.34	0.25	471	531
ZHH	1.3	1.01	1.68	0.038	277	247
Dublin 2	1.13	0.87	1.48	0.36	351	165
SGENE-plus	1.07	0.98	1.17	0.11	1630	15443
SGENE-plus (follow up)	1.08	1.01	1.16	0.033	2797	4407
MGS AA	1.06	0.85	1.3	0.62	1282	963
TOTAL	1.1	1.07	1.14	**2.54×10^{-11}**	**18945**	**38675**
p-value (heterogen)=0.353						
TOTAL without Cardiff	1.09	1.06	1.13	**1.19×10^{-8}**	**18309**	**35739**
p-value (heterogen)=0.957						

Meta analysis of rs1344706 in schizophrenia and Bipolar samples

	OR	CI_low	CI_up	p-value	Ncas	Ncon
Cardiff (PSY)	1.22	1.12	1.31	1.21×10^{-6}	2368	2936
Dublin 1	1.17	0.96	1.44	0.12	275	951
Bulgarian	0.97	0.82	1.14	0.70	593	651
Munich	1.14	1	1.28	0.041	751	1857
MGS EA	1.09	1	1.18	0.038	2666	2633
Bonn	1.05	0.91	1.2	0.52	735	1022
Israel	1.07	0.94	1.21	0.33	732	1497
China	1.06	0.94	1.2	0.33	996	1015
Japan	1.1	0.96	1.27	0.18	721	796

Portugal	0.95	0.74	1.21	0.66	346	216
Sweden 1	1.32	0.97	1.79	0.075	170	170
Sweden 2	1.09	0.86	1.38	0.50	389	230
Sweden 3	1.12	0.96	1.3	0.14	538	904
Aberdeen	1.05	0.9	1.22	0.55	718	700
Edinburgh	1.06	0.84	1.32	0.63	365	284
London	1.16	0.97	1.39	0.096	522	503
VCU-Ireland	1.2	1.03	1.4	0.019	984	554
Pittsburgh	1.11	0.93	1.34	0.25	471	531
ZHH	1.3	1.01	1.68	0.038	277	247
Dublin 2	1.13	0.87	1.48	0.36	351	165
SGENE-plus (PSY)	1.09	1.01	1.18	0.037	2033	15443
SGENE-plus (PSY) (follow up)	1.08	1.01	1.16	0.02	2991	4407
MGS AA	1.06	0.85	1.3	0.62	1282	963
TOTAL						
p-value (heterogen)= 0.740	1.11	1.07	1.14	**4.10×10^{-13}**	**21274**	**38675**
TOTAL without Cardiff						
p-value (heterogen)= 0.961	1.09	1.06	1.13	**2.80×10^{-9}**	**18906**	**35739**

OR = Odds ratio. CI = 95% Confidence Interval. p-value = Meta analysis P-value. Ncas = number of cases. Ncon = number of controls.

supplementary table 6: Sensitivity analysis for meta analyses

	SZ							SZ+PSY						
Excluded study:	OR	CI_low	CI_up	p-value	Ncas	Ncon	het	OR	CI_low	CI_up	p-value	Ncas	Ncon	het
Cardiff	1.09	1.06	1.13	1.19E-08	18309	35739	0.96	1.09	1.06	1.13	2.80E-09	18906	35739	0.96
Dublin 1	1.10	1.07	1.14	7.23E-11	18670	37724	0.32	1.10	1.07	1.14	1.20E-12	20999	37724	0.71
Bulgarian	1.11	1.07	1.14	7.50E-12	18352	38024	0.44	1.11	1.08	1.15	1.20E-13	20681	38024	0.84
Munich 1	1.10	1.07	1.14	1.88E-10	18194	36818	0.31	1.10	1.07	1.14	3.10E-12	20523	36818	0.70
MGS EA	1.11	1.07	1.14	2.15E-10	16279	36042	0.30	1.11	1.07	1.14	3.40E-12	18608	36042	0.70
Bonn	1.11	1.07	1.14	2.31E-11	18210	37653	0.33	1.11	1.08	1.14	3.60E-13	20539	37653	0.73
Israel	1.10	1.07	1.14	3.64E-11	18213	37178	0.31	1.11	1.07	1.14	5.80E-13	20542	37178	0.71
China	1.11	1.07	1.14	3.46E-11	17949	37660	0.32	1.11	1.08	1.14	5.50E-13	20278	37660	0.71
Japan	1.10	1.07	1.14	6.33E-11	18224	37879	0.28	1.11	1.07	1.14	1.00E-12	20553	37879	0.69
Portugal	1.11	1.07	1.14	1.31E-11	18599	38459	0.38	1.11	1.08	1.14	2.10E-13	20928	38459	0.78
Sweden 1	1.10	1.07	1.14	6.48E-11	18775	38505	0.37	1.10	1.07	1.14	1.10E-12	21104	38505	0.76
Sweden 2	1.10	1.07	1.14	3.20E-11	18556	38445	0.30	1.11	1.07	1.14	5.20E-13	20885	38445	0.69
Sweden 3	1.10	1.07	1.14	7.56E-11	18407	37771	0.30	1.11	1.07	1.14	1.20E-12	20736	37771	0.69
Aberdeen	1.10	1.07	1.14	2.43E-11	18227	37975	0.32	1.11	1.08	1.14	3.90E-13	20556	37975	0.72
Edinburgh	1.10	1.07	1.14	2.67E-11	18580	38391	0.31	1.11	1.07	1.14	4.30E-13	20909	38391	0.70
London	1.10	1.07	1.14	8.72E-11	18423	38172	0.32	1.10	1.07	1.14	1.40E-12	20752	38172	0.71
VCU-Ireland	1.10	1.07	1.14	2.27E-10	17961	38121	0.36	1.10	1.07	1.14	3.80E-12	20290	38121	0.76
Pittsburgh	1.10	1.07	1.14	4.93E-11	18474	38144	0.30	1.11	1.07	1.14	8.00E-13	20803	38144	0.69
ZHH	1.10	1.07	1.14	9.39E-11	18668	38428	0.39	1.10	1.07	1.14	1.60E-12	20997	38428	0.79
Dublin 2	1.10	1.07	1.14	3.81E-11	18594	38510	0.30	1.11	1.07	1.14	6.20E-13	20923	38510	0.69
SGENE+	1.11	1.07	1.14	7.83E-11	17315	23232	0.32	1.11	1.07	1.15	3.40E-12	19241	23232	0.70
SGENE+ follow up	1.11	1.07	1.15	2.06E-10	16148	34268	0.32	1.11	1.07	1.15	5.30E-12	18283	34268	0.71
MGS AA	1.10	1.07	1.14	2.65E-11	17663	37712	0.31	1.11	1.07	1.14	4.30E-13	19992	37712	0.70

OR = Odds ratio. CI = 95% Confidence Interval. p-value = Meta analysis P-value. Ncas = number of cases. Ncon = number of controls. het = heterogeniety P-value

supplementary table 7: within study and meta analyses of most significant *ZNF804A* SNPs chosen for follow up

		Cardiff Full cases = 642 controls = 2873		Bulgarian cases = 611 controls = 661		Munich 1 cases = 759 controls = 1897		Dublin 1 cases = 295 controls = 983		fatSNP2 cases = 2307 controls = 6414		ISC[i] cases = 2519 controls = 2110		SGENE plus cases = 1641 controls = 15549		MGS -EA cases = 2681 controls = 2653		MGS -AA cases = 1286 controls = 973		meta Sz cases = 10434 controls = 27699	
SNP ID	Allele	OR	ARM	OR	ARM[a]	OR	ARM[a]	OR	ARM[a]	OR	P	OR	P[a]	OR	P[a]	OR	P[a]	OR	P[a]	OR	P
rs12613195	C	1.35	$1.20x10^{-5}$	1.03	0.36	1.12	0.042	1.09	0.22	1.17	$6.03x10^{-5}$	1.07	0.060	1.02	0.29	1.07	0.045	0.96	0.74	1.08	$1.51x10^{-4}$
rs17584522[b]	C	1.48	$6.21x10^{-7}$	1.14	0.11	1.06	0.22	1.05	0.33	1.20	$5.34x10^{-5}$	1.07	0.060	1.02	0.36	1.07	0.046	1.06	0.31	1.09	$9.15x10^{-5}$
rs1344706	T	1.38	$6.85x10^{-7}$	0.97	0.70	1.14	0.021	1.17	0.06	1.18	$8.31x10^{-6}$	1.08	0.030	1.07	0.054	1.09	0.019	1.06	0.31	1.11	$3.65x10^{-7}$
rs1583048[c]	A	1.46	$7.40x10^{-6}$	1.08	0.24	1.05	0.26	1.14	0.15	1.18	$2.85x10^{-4}$	1.07	0.060	1.02	0.36	1.07	0.046	no proxies	n/a	1.09	$2.44x10^{-4}$
rs6726421[d,e]	C	1.21	0.0022	1.00	0.50	1.11	0.052	1.34	$9.03x10^{-4}$	1.15	$1.06x10^{-4}$	1.03	0.23	1.05	0.13	1.05	0.092	1.04	0.34	1.07	$2.35x10^{-4}$
rs12476147[f,g]	A	1.23	0.0055	0.91	0.25	1.10	0.074	1.48	$2.73x10^{-5}$	1.14	$6.54x10^{-4}$	1.03	0.35	1.05	0.13	1.06	0.072	1.03	0.29	1.08	$5.25x10^{-4}$
ss177930705	C	1.13	0.49	1.00	0.50	1.12	0.28	0.76	0.32	1.04	0.74	no proxies	n/a	no proxies	n/a	no proxies	n/a	no proxies	n/a	n/a	n/a
rs61739290[h]	G	1.31	0.017	0.83	0.24	0.97	0.80	1.58	0.0039	1.12	0.099	1.03	0.34	1.04	0.28	0.99	0.91	no proxies	n/a	1.05	0.17
rs3731834	C	1.26	0.0080	0.85	0.14	1.06	0.22	1.19	0.10	1.09	0.072	no proxies	n/a	1.13	0.13	no proxies	n/a	no proxies	n/a	n/a	n/a

Cardiff Full, Bulgarian, Munich 1 and Dublin 1 = data from O'Donovan et al. 2008. ISC = International Schizophrenia Consortium. SGENE-plus = schizophrenia sample. MGS-EA = Molecular Genetics of Schizophrenia European American sample. MGS-AA = Molecular Genetics of Schizophrenia African American sample. meta Sz = meta analysis of all schizophrenia samples.

OR = Odds ratio. ARM =Armitage trend test P value. CMH = Cochran-Mantel-Haenszel P value. P = meta analysis P-value.

[a] 1-tailed, tests where OR are in the same direction as Cardiff Full.

[b] best proxy : in ISC and MGS-EA rs12613195 (r2=0.82), LD calculated in HapMap CEU sample; in SGENE plus rs1583048 (r2=0.76), LD calculated in HapMap CEU sample and in MGS-AA rs1344706 (r2=1), LD calculated in HapMap YRI sample.

[c] best proxy : in ISC and MGS -EA rs12613195 (r2=0.76), LD calculated in HapMap CEU sample

[d] intronic SNP assayed as a proxy for non-synonymous SNP rs4667001

[e] best proxy : in SGENE plus rs1366842 (r2=1), LD calculated in HapMap CEU sample

[f] best proxy : in SGENE plus rs1366842 (r2=1), LD calculated in HapMap CEU sample

[g] UK extra Schizophrenia data unavailable

[h] best proxy : in ISC rs17509873 (r2=1), MGS -EA rs10497657 (r2=1) and in SGENE plus rs10497662 (r2=1), LD calculated in HapMap CEU sample. In MGS-AA sample there were no suitable proxy SNPs

[i] data for Dublin and Bulgaria removed for this analysis

supplementary table 8: SNPs discovered by genomic resequencing

Putative SNPs	Number	Comments
Total	825	
Previously available CEU data*	245	
Obtained using Illumina assay	172	
Total Obtained	417	
Designed but failed Illumina genotyping QC	26	
Not designed (repetitive sequence)	43	assuming 15% of 284 putative SNPs are genuine
Not designed (unique sequence)	98	
Total data not obtained	167	
Total obtained (%)	71	

*previously genotyped by us or in Hapmap

supplementary table 9: SNPs from genomic *de novo* resequencing project passing illumina genotyping QC

SNP_ID	Position	SNP alleles
rs359903	185164347	W
rs359904	185164766	R
novel1851	185165142	R
rs12992164	185166033	Y
rs16826057	185166454	S
rs359893	185167845	R
novel5377	185168668	Y
rs17617285	185169381	R
novel7197	185170488	W
rs430040	185178258	Y
novel16692	185179983	R
rs403115	185183824	Y
novel24339	185187630	R
novel26673	185189964	Y
rs359882	185192103	R
novel33630	185196921	Y
rs359888	185200585	R
novel38549	185201840	K
novel42758	185206049	Y
rs62176172	185207727	Y
rs35068933	185207825	W
rs6434094	185208407	M
rs35431480	185208524	Y
rs2054549	185210195	M
rs33993208	185211862	R
novel49759	185213050	M
rs7564347	185213625	W
novel51682	185214973	W
rs11890128	185215122	K
rs35230759	185215194	R
novel52323	185215614	W
rs62176207	185216516	R
novel53705	185216996	M
novel54888	185218179	M
novel55234	185218525	R
rs34934597	185219822	R
novel56907	185220198	K
novel64599	185227890	M
novel65254	185228545	K

novel66020	185229311	Y
novel68412	185231703	Y
rs35979599	185232113	Y
rs899845	185234233	Y
novel71226	185234517	R
rs60170726	185235750	R
rs1480479	185237174	Y
novel74877	185238168	Y
novel77803	185241094	Y
novel78927	185242218	W
novel83108	185246399	R
novel83551	185246842	Y
novel85338	185248629	Y
novel90142	185253433	R
rs6718759	185258349	W
rs55782979	185258686	Y
novel96986	185260277	Y
novel97931	185261222	R
rs16826169	185274322	S
novel111103	185274394	R
rs17430890	185274788	K
novel111983	185275274	Y
rs34494944	185278136	Y
novel116751	185280042	R
novel123941	185287232	Y
novel124046	185287337	Y
novel127290	185290581	K
rs62176233	185291226	Y
novel128458	185291749	Y
rs17430987	185295739	R
rs11278998	185297447	W
rs7569699	185297642	R
rs34202603	185300396	R
novel141994	185305285	W
novel144000	185307291	R
novel145756	185309047	S
rs13023106	185309748	R
novel149846	185313137	R
rs13001215	185313646	W
novel150425	185313716	Y
rs62176236	185315663	Y
rs34481141	185316002	R
rs1480484	185317755	Y
rs1480485	185318000	K

novel154825	185318116	W
rs62176237	185318314	R
novel158082	185321373	Y
novel162760	185326051	Y
novel164453	185327744	W
rs12992805	185332883	Y
novel170233	185333524	W
novel172211	185335502	S
rs13396662	185336244	K
novel174978	185338269	Y
rs10177035	185341291	Y
novel179195	185342486	R
rs10194285	185342919	R
rs62176239	185344812	Y
novel182118	185345409	W
novel186114	185349405	M
novel192429	185355720	M
novel193621	185356912	Y
novel195622	185358913	Y
novel196675	185359966	Y
rs34327168	185364330	R
rs34963004	185364611	Y
rs34452663	185365165	R
novel208545	185371836	Y
novel213549	185376840	K
novel218168	185381459	Y
novel218344	185381635	M
rs62174661	185396199	S
rs35105890	185397031	R
rs62174663	185409015	Y
novel250662	185413953	Y
novel251156	185414447	R
novel255033	185418324	K
novel258120	185421411	S
novel258258	185421549	S
novel261464	185424755	K
rs6709440	185425736	R
novel263985	185427276	R
rs6748925	185427931	W
novel266110	185429401	W
rs1579465	185429742	R
rs35321501	185429937	Y
rs7577581	185431724	K
rs12693398	185432695	R

rs13422256	185433333	Y
novel271092	185434383	R
rs62200788	185436090	M
novel281946	185445237	R
novel286992	185450283	R
rs4586602	185451039	Y
novel287859	185451150	Y
novel290149	185453440	W
rs34945978	185454114	W
novel292986	185456277	M
rs56310614	185460205	Y
novel298508	185461799	S
novel308084	185471375	W
novel314084	185477375	Y
novel314256	185477547	R
novel315421	185478712	Y
novel315805	185479096	Y
novel318197	185481488	R
novel319867	185483158	Y
novel320993	185484284	Y
novel322837	185486128	M
novel323110	185486401	K
novel323726	185487017	Y
rs4666998	185488466	S
novel326151	185489442	R
novel328282	185491573	Y
novel343720	185507011	K
novel347499	185510790	M
rs10931158	185517810	Y
novel356554	185519845	Y
novel356785	185520076	R
novel368304	185531595	M
novel369549	185532840	M
novel369768	185533059	Y
novel371359	185534650	Y
novel371478	185534769	M
novel371703	185534994	M
novel372423	185535714	R
novel372590	185535881	W
novel373189	185536480	Y
novel373389	185536680	R
novel373626	185536917	K
novel373794	185537085	R
novel379138	185542429	M

rs7583540	185542640	Y

SNP_ID = either db SNP rs# where available or novel# when discovered by us alone. Position = NCBI b36. SNP alleles = standard IUB code nomenclature

supplementary table 10: markers untagged at r^2=1 MAF≥0.01 in fatSNP1 sample, their Imputed P-value and pairwise LD correllation to rs1344706

	PLINK		Beagle			
SNP	INFO	P	R^2	P	D'	r^2
novel266110	0.10	n/a	n/a	n/a	1	0.02
novel319867	0.13	n/a	n/a	n/a	1	0.03
novel158082	0.43	n/a	n/a	n/a	1	0.03
rs10497658	0.46	n/a	n/a	n/a	1	0.02
rs13018902	0.46	n/a	n/a	n/a	1	0.02
rs17430890	0.49	n/a	n/a	n/a	1	0.02
novel263985	0.50	n/a	0.51	n/a	1	0.02
rs17430987	0.60	n/a	0.96	0.063	1	0.03
novel149846	0.61	n/a	0.88	n/a	0.52	0.01
novel154825	0.61	n/a	0.82	n/a	1	0.13
rs73041379	0.62	n/a	0.75	n/a	0.07	0
rs9646741	0.63	n/a	n/a	n/a	1	0.01
novel379138	0.64	n/a	0.05	n/a	0.72	0.04
novel77803	0.70	n/a	0.64	n/a	1	0.12
novel65254	0.73	n/a	0.89	n/a	1	0.1
novel111983	0.74	n/a	0.83	n/a	1	0.12
novel164453	0.74	n/a	0.83	n/a	1	0.12
novel74877	0.77	n/a	n/a	n/a	1	0.03
rs1021041	0.77	n/a	0.72	n/a	0.34	0.02
rs415350	0.78	n/a	0.96	0.44	1	0.01
ss177930722	0.78	n/a	0.15	n/a	0.23	0
rs2033138	0.81	0.76	0.91	0.94	0.37	0.06
novel1851	0.81	0.34	0.87	n/a	0.22	0.01
rs1365714	0.81	0.16	0.95	0.18	0.17	0.02
rs2279266	0.81	0.011	0.76	n/a	1	0.05
rs359901	0.82	0.62	0.62	n/a	1	0.03
rs13430946	0.89	0.67	0.81	n/a	0.79	0.07
rs359878	0.90	0.18	0.98	0.35	0.38	0.05
rs1429423	0.91	0.91	0.98	1.00	1	0.2
rs6748925	0.92	0.00078	0.88	n/a	1	0.07
rs1443029	0.92	0.91	0.96	0.70	0.07	0
rs2053562	0.92	0.91	0.96	0.76	0.07	0
rs17431708	0.95	0.67	0.00	n/a	1	0.01
rs4586602	0.96	0.52	0.97	0.44	1	0.16
rs10180958	0.96	0.40	0.91	0.47	1	0.18
rs10931145	0.96	0.12	0.97	0.098	0.18	0.02
rs2369337	0.96	0.56	0.98	0.77	0.18	0.01
rs1579762	0.96	0.56	0.98	0.93	0.18	0.01
rs1596271	0.96	0.56	0.98	0.93	0.18	0.01
rs981091	0.96	0.56	0.99	0.93	0.18	0.01
rs13394337	0.97	0.0032	0.94	0.018	0.86	0.09

rs359895	0.97	0.016	0.98	0.022	0.41	0.15
novel290149	0.97	0.014	0.98	0.0086	1	0.26
novel53705	0.98	0.16	0.97	0.31	0.2	0.01
rs11890128	0.98	0.16	0.97	0.25	0.2	0.01
novel42758	0.98	0.16	0.98	0.27	0.2	0.01
rs11891662	0.98	0.16	0.99	0.17	0.2	0.01
rs9288106	0.98	0.16	0.99	0.23	0.2	0.01
novel64599	0.98	0.16	1.00	0.27	0.2	0.01
rs2054549	0.98	0.015	0.96	0.018	0.4	0.15
rs62176207	0.98	0.11	0.97	0.15	0.89	0.13
rs1483234	0.99	0.0092	0.70	n/a	1	0.04
rs2369346	1.00	0.93	0.95	0.85	0.09	0
rs403115	1.00	0.015	1.00	0.013	0.41	0.16
rs35979599	1.00	0.18	1.00	0.17	0.36	0.04
rs10931157	1.01	0.26	0.93	0.33	0.93	0.28
novel144000	1.01	0.0035	0.99	0.010	0.7	0.03
novel170233	1.01	0.0038	0.99	0.012	0.7	0.03
novel141994	1.01	0.0035	0.99	0.010	0.7	0.03
novel150425	1.01	0.0035	0.99	0.010	0.7	0.03
novel162760	1.01	0.0035	0.99	0.010	0.7	0.03
rs34202603	1.01	0.0035	0.99	0.010	0.7	0.03
novel145756	1.01	0.0035	1.00	0.010	0.7	0.03
rs359882	1.01	0.014	1.00	0.013	0.41	0.15
rs6434093	1.02	1.00	0.02	n/a	1	0.01
rs10194642	1.02	0.92	0.51	n/a	0.36	0.06
rs1427149	1.02	0.92	0.87	n/a	0.36	0.06
rs13406273	1.02	0.28	0.88	n/a	0.15	0.01
rs17430600	1.02	0.014	1.00	0.025	0.53	0.15
rs6728764	1.03	0.075	1.00	0.11	1	0.38
rs7608194	1.03	0.015	1.00	0.021	0.58	0.17
rs10197925	1.03	0.015	1.00	0.023	0.58	0.17
rs7608284	1.03	0.015	1.00	0.025	0.58	0.17
rs359892	1.03	0.015	1.00	0.025	0.58	0.17
rs430040	1.04	0.013	0.99	0.015	0.53	0.15
rs435822	1.04	0.013	1.00	0.014	0.53	0.15
rs13393273	1.04	0.013	1.00	0.019	0.53	0.15
rs12693384	1.04	0.013	1.00	0.019	0.53	0.15
rs359893	1.09	0.85	n/a	n/a	1	0.02
novel186114	1.14	0.37	0.09	n/a	1	0.02

PLINK: INFO = information content metric. P = Imputed P-value, only shown for SNPs that have been accurately imputed (INFO>0.8). Beagle: R^2 = estimated squared correlation between the imputed allele dosage with the highest posterior probability and the true allele dosage, P = Imputed P-value. D' and r^2 = LD metric pairwise with rs1344706

supplemental table 11: all SNPs from within *ZNF804A* study region with pairwise r^2>0.2 with rs1344706

SNP	D'	r2	P (PLINK)	P (Beagle)
rs1429423	1	0.2	0.91	1.00
rs263771	1	0.21	0.81	0.86
rs4667002	1	0.22	0.78	0.22
rs7590852	1	0.21	0.73	0.64
rs4666994	1	0.21	0.72	0.83
rs4666995	1	0.21	0.72	0.73
rs1344707	1	0.21	0.72	0.67
rs6755404	1	0.21	0.72	0.69
rs725617	1	0.21	0.57	0.76
rs12693399	1	0.22	0.57	0.64
rs1987025	1	0.23	0.44	0.47
rs4666998	1	0.51	0.35	0.36
rs2059924	1	0.51	0.35	0.36
rs2059923	1	0.51	0.35	0.36
rs11901504	1	0.5	0.35	0.36
rs1366839	1	0.51	0.29	0.38
rs6709418	1	0.27	0.22	0.28
rs1429428	1	0.27	0.12	0.26
rs6728764	1	0.38	0.075	0.11
rs17431742	1	0.69	0.014	0.014
novel290149	1	0.26	0.014	0.0086
rs6749691	1	0.26	0.013	0.016
rs7594906	1	0.69	0.013	0.019
rs1366838	1	0.69	0.013	0.017
novel318197	1	0.69	0.013	0.017
rs1835172	1	0.69	0.013	0.017
rs7558878	1	0.26	0.013	0.016
rs13388087	1	0.69	0.013	0.014
rs10931155	1	0.69	0.013	0.014
novel314084	1	0.69	0.013	0.014
rs1429427	1	0.69	0.013	0.010
rs7584503	1	0.27	0.013	0.010
rs13401381	1	0.69	0.013	0.0093
rs10210216	1	0.69	0.013	0.0093
rs1366840	1	0.69	0.013	0.0093
rs7603001	1	0.68	0.013	0.0092
rs11904676	1	0.27	0.011	0.010
rs728534	1	0.36	0.0088	0.42
rs6709436	1	0.27	0.0082	0.011

rs1366844	1	0.27	0.0082	0.011
rs11892843	1	0.27	0.0082	0.011
novel308084	1	0.27	0.0082	0.010
rs10206265	1	0.27	0.0082	0.010
rs11899082	1	0.27	0.0082	0.010
rs6718067	1	0.27	0.0082	0.010
rs12693400	1	0.27	0.0082	0.0089
rs13012514	1	0.25	0.0079	0.016
rs34963004	1	0.27	0.0079	0.019
rs35321501	1	0.27	0.0079	0.018
rs7577581	1	0.27	0.0079	0.018
rs7605689	1	0.27	0.0079	0.017
rs7578316	1	0.27	0.0079	0.017
rs16826219	1	0.27	0.0079	0.017
rs12693394	1	0.27	0.0079	0.016
rs13424507	1	0.27	0.0079	0.016
rs13012893	1	0.27	0.0079	0.016
rs10201360	1	0.27	0.0079	0.016
rs7608386	1	0.27	0.0079	0.016
rs11890843	1	0.27	0.0079	0.016
rs6728615	1	0.27	0.0079	0.015
rs10177035	1	0.27	0.0079	0.015
rs6759491	1	0.27	0.0079	0.015
rs6716151	1	0.27	0.0079	0.015
rs6434102	1	0.27	0.0079	0.015
rs7564941	1	0.27	0.0079	0.013
rs13408744	1	0.26	0.0079	0.012
rs12693396	1	0.27	0.0079	0.018
rs6716235	1	0.27	0.0079	0.015
rs7588907	1	0.27	0.0079	0.011
rs13028349	1	0.27	0.0079	0.017
rs1583048	1	0.36	3.60E-05	2.07E-05
rs7593816	1	0.36	3.60E-05	1.70E-05
rs62200788	1	0.35	2.23E-05	5.28E-05
rs3931790	1	0.36	2.22E-05	3.78E-05
rs17584976	0.96	0.65	0.046	2.19E-04
rs4380187	0.95	0.55	0.066	3.43E-04
rs1429421	0.95	0.44	0.058	0.059
rs5836928	0.95	0.43	0.018	0.044
rs6722992	0.95	0.43	0.014	0.013
rs10931156	0.95	0.43	0.014	0.010
rs4667000	0.95	0.43	0.014	0.0073
rs6726421	0.95	0.43	0.012	0.010
rs1366842	0.95	0.43	0.0082	0.0094

rs4667001	0.95	0.43	0.0078	0.012
rs2170203	0.95	0.53	0.0048	0.0061
rs13026742	0.95	0.52	0.0044	0.0068
rs6745533	0.94	0.35	0.062	0.057
rs7583540	0.94	0.35	0.060	0.067
rs10931158	0.94	0.35	0.060	0.044
rs13420259	0.94	0.39	0.052	0.081
rs17510170	0.94	0.36	0.045	0.067
rs12615985	0.94	0.4	0.017	0.018
rs12476147	0.94	0.43	0.012	0.0073
rs6751736	0.93	0.29	0.29	0.27
rs12477430	0.93	0.29	0.28	0.21
rs10931157	0.93	0.28	0.26	0.33
rs1583049	0.93	0.3	0.25	0.20
rs13417466	0.92	0.24	0.028	0.023
rs6742299	0.92	0.24	0.025	0.023
rs7582887	0.92	0.24	0.025	0.023
rs7569699	0.92	0.24	0.025	0.023
rs16826178	0.92	0.24	0.025	0.023
rs10167859	0.92	0.24	0.025	0.023
rs13001215	0.92	0.24	0.025	0.023
rs6434100	0.92	0.24	0.025	0.023
rs1480484	0.92	0.24	0.025	0.023
rs1480485	0.92	0.24	0.025	0.023
rs1480486	0.92	0.24	0.025	0.023
rs10190062	0.92	0.24	0.025	0.023
rs10206426	0.92	0.24	0.025	0.023
rs1600578	0.92	0.23	0.025	0.023
rs1480481	0.9	0.47	0.0029	0.0038
rs4667010	0.89	0.36	0.019	0.092
rs4667012	0.89	0.36	0.019	0.092
rs1601071	0.89	0.36	0.019	0.020
rs6738633	0.89	0.36	0.019	0.018
rs10931160	0.89	0.36	0.018	0.016
rs4017483	0.89	0.36	0.017	0.022
rs4667014	0.89	0.36	0.017	0.018
rs13392265	0.89	0.36	0.017	0.018
rs10204328	0.88	0.38	0.024	0.0084
rs7597593	0.88	0.32	0.011	5.91E-04
rs10173509	0.85	0.2	0.029	0.011
rs6747844	0.85	0.21	0.025	0.025
rs13389241	0.85	0.21	0.025	0.025
rs1383309	0.85	0.21	0.025	0.025
rs7583953	0.85	0.21	0.025	0.025

rs1038197	0.85	0.2	0.011	0.011
rs16826158	0.85	0.2	0.011	0.011
rs4308093	0.85	0.2	0.011	0.011
rs11892742	0.85	0.2	0.011	0.010
rs10184629	0.85	0.2	0.011	0.0087
rs2199883	0.85	0.21	0.0093	0.025
rs6723680	0.84	0.2	0.011	0.010
rs7588753	0.84	0.2	0.011	0.010
rs6718759	0.84	0.2	0.011	0.010
rs7557843	0.75	0.33	1.97E-04	1.32E-04
rs62176172	0.75	0.33	1.97E-04	1.32E-04
rs12613195	0.75	0.33	5.00E-05	2.12E-04
rs2163065	0.73	0.3	0.10	0.068
rs17584494	0.7	0.24	2.65E-05	2.63E-05
rs62176239	0.7	0.24	2.59E-05	2.63E-05
rs17584522	0.7	0.24	1.58E-05	2.63E-05
rs10497655	0.68	0.26	2.08E-04	1.77E-04
rs1978573	0.65	0.21	3.43E-04	2.21E-04

D' and r^2 = LD pairwise with rs1344706. P = P-value derived form Imputation of fatSNP1 sample using either PLINK or Beagle.