

### Supplemental Table 1

Genes analyzed and number of variants genotyped and analyzed after quality control measures. All variants are SNPs except for 5-HTTLPR in SLC6A4.

Gene	Chr	Genotyped variants	Analyzed variants
<i>AKR1C2</i>	10	7	7
<i>AR</i>	X	5	4
<i>BDNF</i>	11	5	5
<i>COMT</i>	22	7	6
<i>ESR1</i>	6	17	17
<i>ESR2</i>	14	8	8
<i>FKBP5</i>	6	6	6
<i>HTR2A</i>	13	5	5
<i>MAOA</i>	X	3	3
<i>NR3C1</i>	5	4	4
<i>PGR</i>	11	7	6
<i>SLC6A4</i>	17	7	6

## Supplemental Table 2

Association analysis for all 77 tested variants.

<u>CHR</u>	<u>SNP</u>	<u>POSITION</u>	<u>A1</u>	<u>A2</u>	Allelic Association					Logistic, MDS1	
					<u>F_PPD</u>	<u>F_CTRL</u>	<u>P</u>	<u>OR (95% CI)</u>	<u>P_perm</u>	<u>OR</u>	<u>P</u>
13	rs6311	46369478	T	C	0.19	0.48	<b>0.002</b>	0.25 (0.10,0.63)	<b>0.003</b>	0.17	<b>0.004</b>
13	rs2070040	46365626	A	G	0.54	0.25	<b>0.003</b>	3.55 (1.49,8.43)	<b>0.01</b>	3.19	<b>0.02</b>
13	rs6314	46307034	T	C	0.02	0.19	<b>0.008</b>	0.09 (0.01,0.76)	<b>0.01</b>	0.06	<b>0.02</b>
6	rs10498734	35667750	G	T	0.17	0.02	<b>0.01</b>	9.40 (1.13,78.41)	<b>0.04</b>	7.35	<b>0.08</b>
6	rs111155820	152245902	G	A	0.21	0.07	<b>0.04</b>	3.77 (0.97,14.73)	<b>0.07</b>	3.64	<b>0.07</b>
6	rs2273206	152424003	T	G	0.08	0.23	<b>0.05</b>	0.31 (0.09,1.04)	0.12	0.31	<b>0.08</b>
6	rs9340835	152241623	A	G	0.40	0.22	<b>0.06</b>	2.36 (0.95,5.85)	<b>0.10</b>	1.98	0.14
6	rs2817032	35796596	C	T	0.38	0.21	<b>0.07</b>	2.28 (0.92,5.66)	0.14	1.95	0.17
6	rs9341052	152458317	G	A	0.06	0.00	<b>0.08</b>	NA	0.24	NA	1.00
10	rs1937889	5047740	C	T	0.00	0.06	<b>0.08</b>	NA	0.24	NA	1.00
14	rs17766755	63785525	A	G	0.17	0.31	<b>0.09</b>	0.44 (0.17,1.17)	0.11	0.35	<b>0.07</b>
14	rs1256033	63815151	A	G	0.54	0.38	0.10	1.97 (0.87,4.45)	0.12	2.17	0.12
X	rs1137070	43488334	T	C	0.44	0.29	0.14	1.89 (0.81,4.39)	0.24	1.70	0.21
6	rs2077647	152170769	A	G	0.39	0.54	0.14	0.54 (0.24,1.24)	0.18	0.50	0.12
6	rs3798577	152462822	C	T	0.33	0.48	0.15	0.54 (0.24,1.24)	0.17	0.51	0.17
11	rs1519480	27632287	C	T	0.33	0.48	0.15	0.54 (0.24,1.24)	0.24	0.66	0.35
17	rs4795541	25588443	2	1	0.42	0.56	0.15	0.56 (0.25,1.25)	0.25	0.68	0.36
22	rs9332377	18335691	T	C	0.08	0.17	0.22	0.45 (0.13,1.63)	0.37	0.60	0.48
17	rs2020942	25571039	A	G	0.24	0.35	0.22	0.57 (0.23,1.41)	0.27	0.62	0.33
6	rs2982900	152456684	T	C	0.10	0.04	0.24	2.67 (0.49,14.52)	0.42	2.97	0.24
6	rs3020383	152458471	C	G	0.10	0.04	0.24	2.67 (0.49,14.52)	0.42	2.97	0.24
13	rs1033847	46367335	A	G	0.04	0.10	0.24	0.37 (0.07,2.03)	0.42	0.48	0.44
6	rs9366890	35670951	T	A	0.11	0.20	0.25	0.50 (0.15,1.63)	0.36	0.54	0.29

6	rs1801132	152307214	G	C	0.35	0.25	0.27	1.65 (0.68,3.97)	0.43	1.27	0.59
10	rs10904387	5025245	T	C	0.35	0.46	0.28	0.63 (0.27,1.45)	0.31	0.44	<b>0.09</b>
6	rs9380524	35697047	A	C	0.13	0.06	0.29	2.14 (0.50,9.12)	0.53	1.71	0.46
14	rs1256063	63771969	T	C	0.00	0.02	0.31	NA	0.74	NA	1.00
5	rs6190	142760529	A	G	0.02	0.00	0.31	NA	1.00	NA	1.00
10	rs2854482	5033820	A	T	0.02	0.00	0.31	NA	1.00	NA	1.00
5	rs10482616	142761759	A	G	0.27	0.19	0.33	1.61 (0.61,4.22)	0.49	1.45	0.46
6	rs12200498	35793932	A	G	0.08	0.15	0.34	0.53 (0.15,1.95)	0.58	0.53	0.30
X	rs5919402	66782220	C	T	0.23	0.30	0.41	0.68 (0.27,1.71)	0.56	1.29	0.66
11	rs6265	27636491	A	G	0.23	0.17	0.44	1.49 (0.54,4.10)	0.63	1.18	0.74
13	rs3125	46306851	C	G	0.23	0.17	0.44	1.49 (0.54,4.10)	0.64	1.15	0.78
X	rs2235185	43480686	T	C	0.27	0.21	0.47	1.41 (0.55,3.63)	0.68	1.33	0.52
6	rs2207396	152424074	A	G	0.31	0.25	0.50	1.36 (0.56,3.33)	0.67	1.99	0.18
22	rs174675	18314050	T	C	0.40	0.46	0.54	0.77 (0.34,1.74)	0.70	0.80	0.57
6	rs3778099	152460267	C	T	0.10	0.15	0.54	0.68 (0.20,2.32)	0.77	0.59	0.41
6	rs3020371	152425512	T	C	0.35	0.41	0.56	0.78 (0.34,1.79)	0.71	0.93	0.86
17	rs4251417	25575983	A	G	0.04	0.02	0.56	2.04 (0.18,23.32)	1.00	2.13	0.55
X	rs5919413	66862464	T	C	0.13	0.17	0.56	0.71 (0.23,2.24)	0.83	1.53	0.52
14	rs8003490	63795121	A	G	0.19	0.15	0.58	1.35 (0.46,3.98)	0.76	2.30	0.24
22	rs737865	18310120	C	T	0.19	0.15	0.58	1.35 (0.46,3.98)	0.78	1.31	0.64
14	rs867443	63770794	A	G	0.19	0.15	0.58	1.35 (0.46,3.98)	0.76	1.22	0.75
11	rs553272	100437812	C	T	0.15	0.19	0.58	0.74 (0.25,2.18)	0.81	1.02	0.97
11	rs11030104	27641092	G	A	0.23	0.19	0.62	1.29 (0.48,3.46)	0.81	1.03	0.95
6	rs3020434	152400633	A	G	0.17	0.13	0.62	1.33 (0.42,4.19)	0.78	1.76	0.37
6	rs9322336	152242122	C	T	0.25	0.29	0.65	0.81 (0.33,2.00)	0.84	0.67	0.37
11	rs1042838	100438621	T	G	0.04	0.06	0.65	0.65 (0.10,4.09)	1.00	0.60	0.60
11	rs3740753	100503980	G	C	0.04	0.06	0.65	0.65 (0.10,4.09)	1.00	0.60	0.60
11	rs572580	100417736	C	A	0.25	0.29	0.65	0.81 (0.33,2.00)	0.83	1.09	0.86
6	rs6557170	152244796	A	G	0.31	0.27	0.65	1.22 (0.51,2.96)	0.84	0.96	0.92

6	rs6911230	152305052	G	A	0.35	0.31	0.67	1.21 (0.52,2.82)	0.84	1.18	0.69
10	rs1937888	5050632	A	G	0.46	0.41	0.67	1.19 (0.52,2.73)	0.54	2.37	0.36
X	rs2072743	43484464	A	G	0.42	0.38	0.68	1.19 (0.52,2.70)	0.85	1.35	0.47
22	rs4680	18331270	A	G	0.42	0.46	0.68	0.84 (0.38,1.89)	0.83	0.84	0.70
17	rs140700	25567514	A	G	0.06	0.04	0.68	1.47 (0.23,9.21)	1.00	1.98	0.50
10	rs11819128	5034032	G	T	0.50	0.46	0.68	1.18 (0.53,2.63)	0.49	NA	1.00
14	rs1256120	63874753	T	C	0.37	0.32	0.69	1.22 (0.46,3.23)	0.63	1.58	0.54
X	rs12011519	66849761	T	G	0.08	0.06	0.69	1.36 (0.29,6.45)	1.00	1.43	0.67
11	rs11224579	100442269	T	C	0.29	0.33	0.72	0.85 (0.35,2.04)	0.85	0.53	0.18
11	rs10835211	27657940	A	G	0.15	0.13	0.77	1.20 (0.37,3.86)	1.00	1.28	0.66
10	rs1937865	5039636	C	A	0.15	0.13	0.77	1.20 (0.37,3.86)	1.00	1.17	0.81
6	rs3798346	35670617	G	A	0.17	0.15	0.78	1.17 (0.39,3.53)	1.00	0.96	0.95
5	rs10482682	142659589	A	G	0.25	0.27	0.82	0.90 (0.36,2.23)	1.00	0.91	0.85
10	rs13840	5036012	T	C	0.50	0.48	0.83	1.10 (0.48,2.50)	0.48	NA	1.00
22	rs1544325	18311667	A	G	0.35	0.33	0.83	1.10 (0.47,2.55)	1.00	0.98	0.97
14	rs2978381	63836404	C	T	0.50	0.48	0.84	1.09 (0.49,2.42)	1.00	1.26	0.59
22	rs4633	18330234	T	C	0.43	0.45	0.89	0.94 (0.40,2.21)	0.99	0.98	0.97
5	rs852977	142667686	G	A	0.23	0.24	0.91	0.95 (0.36,2.46)	1.00	1.21	0.68
6	rs9340958	152372365	T	C	0.04	0.04	0.97	0.96 (0.13,7.09)	1.00	1.95	0.57
17	rs25531	25588472	A	G	0.13	0.13	1.00	1.00 (0.30,3.35)	1.00	1.50	0.52
11	rs471767	100410506	G	A	0.23	0.23	1.00	1.00 (0.39,2.59)	1.00	1.32	0.59
17	rs8076005	25571335	G	A	0.23	0.23	1.00	1.00 (0.39,2.59)	1.00	1.28	0.65
14	rs1952586	63829171	G	A	0.13	0.13	1.00	1.00 (0.27,3.76)	1.00	1.19	0.80
X	rs5031002	66859349	A	G	0.02	0.02	1.00	1.00 (0.06,16.46)	1.00	0.73	0.83
11	rs2049046	27680350	A	T	0.48	0.48	1.00	1.00 (0.45,2.23)	1.00	1.09	0.86

CHR, chromosome; POSITION, SNP location on UCSC genome browser hg18; A1, minor reference allele; A2, major allele; F\_PPD, frequency of A1 in PPD; F\_CTRL, frequency of A1 in controls; P, P-value ( $p < 0.1$  **bolded**); OR (95% CI), odds ratio and 95% confidence interval; P\_perm, empirical P-value from 100K permutations; Logistic, MDS1, results from logistic regression with one MDS covariate.

### Supplemental Table 3

Linkage disequilibrium in the *HTR2A* region. Bolded SNPs showed strongest association.

<u>SNP A</u>	<u>SNP B</u>	<u>r<sup>2</sup></u>	<u>Distance</u>
rs3125	rs6314	0.06	183
rs3125	rs2070040	0.11	58775
rs3125	rs1033847	0.07	60484
rs3125	rs6311	0.04	62627
<b>rs6314</b>	<b>rs2070040</b>	<b>0.12</b>	<b>58592</b>
rs6314	rs1033847	0.01	60301
<b>rs6314</b>	<b>rs6311</b>	<b>0.03</b>	<b>62444</b>
rs2070040	rs1033847	0.20	1709
<b>rs2070040</b>	<b>rs6311</b>	<b>0.33</b>	<b>3852</b>
rs1033847	rs6311	0.001	2143

**Supplemental Table 4**

Results from set-based association analysis.

<u>Gene</u>	<u>SNP/Ind</u>	<u>p-perm</u>
AKR1C2	7/6	0.22
AR	4/3	0.90
BDNF	5/4	0.62
COMT	6/5	0.77
ESR1	17/14	0.16
ESR2	8/7	0.33
FKBP5	6/5	0.07
HTR2A	5/5	<b>0.0009</b>
MAOA	3/2	0.47
NR3C1	4/4	0.83
PGR	6/4	0.98
SLC6A4	6/6	0.69

SNP/Ind, number of SNPs analyzed/number of independent SNPs in gene set based on linkage disequilibrium threshold ( $r^2=0.5$ ); p-perm, p-value ( $p<0.004$  **bolded**), derived from 100,000 permutations.

### Supplemental Figure 1

Upper panel, relationship between the first MDS vector value and self-reported ancestry (C1).

Lower panel, scatter plot of the first two MDS vectors (MDS1 and MDS2), with values coded by self-reported ancestry, showing predicted clustering.

