The SchizophreniaGene Database:

A comprehensive online field synopsis and meta-analysis resource

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SZ genetic association findings to date

- ⇨ >1,300 individual publications in scientific journals
- ⇨ >660 different genes have been tested (>5,000 variants)
- ⇨ ~20-30% show “significant association” in at least one study
- ⇨ Majority of positive associations never replicated (even once)
- ⇨ Currently up to 10 association papers published *each month*
- ⇨ Two published GWA studies (several more expected in 2008)

Total number of *established* associations = 0

Bertram L, McQueen MB, Mullin K, Blacker D, Tanzi RE. Systematic meta-analyses of Alzheimer disease genetic association studies: the AlzGene database. *Nat Genet*. 2007 Jan;39(1):17-23.

SzGene data collection and analysis

Initial search for papers June-July 2006 on PubMed: "schizophreni* & associat*"
(now daily searches for "schizophreni*")

⇨ ~12,000 articles
(currently: 300 per month)

↓

Include if:
a) genetic association study
b) peer-reviewed (i.e. no abstracts)
c) published in English

Enter study details into internal database and double-check all entries

⇨ >1,300 articles

↓

Perform random-effects allelic meta-analyses if genotype data available from at least 4 case-control samples

Publish data online at:
www.szgene.org

⇨ Current stats:
1,281 studies, 661 loci
138 meta-analyses

SzGene literature search strategies are comprehensive (albeit not perfect)

Gene	SzGene	HuGENet	GAD	EMBASE
ACE	5	4*	3	2**
AKT1	9	6*	3	9
ASCL1	2	1	0	2
ATXN8OS	4	2	2	1
FZD3	7	5	4	7
IL1A	3	1	0	1
MLC1	6	2	2	2
PHOX2B	2	0	0	2
PLA2G4C	4	1	1	4
SOD2	5	5*	1	3
Total	**47**	**27**	**16**	**33**

*Additional studies are listed on HuGENet that were not eligible for inclusion
**One study found in EMBASE was not listed on PubMed

Note that HuGENet does not include studies published before 10/14/2000 which applied to 3 out of the 47 studies included in SzGene

Allen *et al.* (submitted)

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SchizophreniaGene (SZGene)
Published Candidate Genes for Schizophrenia

BACK | SEARCH | METHODS | DISCLAIMER | CREDITS

SZGene *Updated 15 January 2008*

Chromosome: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 X Y

Gene: -- Select -- Go

Protein: -- Select -- G

Polymorphism: -- Select -- Go

Study: -- Select -- Go

Keyword: Go

* New * View large scale studies (including GWA analyses)

Display, print, and download the SchizophreniaGene database i

The SchizophreniaGene database aims to provide a comprehensive unbiased and regularly updated collection of genetic association st performed on schizophrenia phenotypes. Eligible publications are identified following systematic searches of scientific literature datab as well as the table of contents of journals in genetics and psychia

The database can be searched either by a variety of dropdown men by specific keywords. For each gene, summary overviews are provi displaying key characteristics for each publication, including links t genotype distributions of the polymorphisms studied, random-effect allelic meta-analyses, and funnel plots for an assessment of public bias.

For more details on the background and methods, see Methods, Disclaimer, and Credits. We encourage authors and readers to contact us to report errors in the presentation of study details, or to notify us of studies that have mistakenly been left out.

How to Cite Content on SchizophreniaGene:
Allen NC, Bagade S, Tanzi R, Bertram L. The SchizophreniaGene Database. Schizophrenia Research Forum. Available at: http://www.schizophreniaforum.org/res/sczgene/default.asp. Accessed [date of access].

SchizophreniaGene Top Results

View Top Results Methods

1. DRD2
2. GRIN2B
3. GABRB2
4. PLXNA2
5. DTNBP1
6. TPH1
7. DRD4
8. IL1B
9. DAOA
10. DRD1 [close]
11. APOE
12. MTHFR
13. SLC6A4
14. HP
15. DAO
16. TP53
17. AKT1
18. COMT
19. PPP3CC

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Summary of SzGene findings (April 30th 2007)

- ⇨ Total number of papers = 1,179 (reporting on 516 genes)
- ⇨ Meta-analyses on 118 polymorphisms (52 genes)
- ⇨ Median sample size = 3,589 (IQR: 2,335-5,669)
- ⇨ Median number of studies = 6 (IQR: 4-9)

"Positive" associations (nominal P≤0.05)

- ⇨ 24 variants in 16 genes
- ⇨ Average OR = 1.23 (range: 1.11-1.52; P 0.048 to <0.0001)
- ⇨ Median sample size = 3,378 (IQR: 2,410-5,419)

"Negative" associations (nominal P>0.05)

- ⇨ 94 variants in 45 genes
- ⇨ Median sample size = 3,928 (IQR: 2,335-56,695)

Significant findings in SzGene (*April 2007*)

Gene	Polymorphism	Model	Cases vs. controls (# independent samples)	OR (95% CI)†	P-value	Grade††
APOE	APOE (ε2/3/4) E4 vs. E3	E4 vs. E3, Caucasian[a]	1500 vs. 2702 (15)	1.16 (1.00-1.34)	0.043	B
COMT	rs165599	G vs. A, all ethnicities	2628 vs. 7340 (6)	1.11 (1.02-1.21)	0.019	C
COMT	rs737865	C vs. T, Caucasian[a]	1605 vs. 4021 (3)	1.13 (1.01-1.28)	0.039	C
DAO	rs4623951	C vs. T, all ethnicities	1509 vs. 1521 (4)	0.88 (0.79-0.98)	0.026	C
DRD1	rs4532 (DRD1_48A/G)	G vs. A, all ethnicities	725 vs. 1075 (5)	1.18 (1.01-1.38)	0.037	A
DRD2	rs1801028 (Ser311Cys)	G vs. C, Caucasian[b]	2299 vs. 3777 (15)	1.52 (1.09-2.12)	0.013	B
DRD2	rs6277 (Pro319Pro)	C vs. T, Caucasian[b]	473 vs. 896 (3)	1.45 (1.21-1.73)	<0.00004	C
DRD4	rs1800955 (521T/C)	C vs. T, all ethnicities	2002 vs. 1986 (6)	1.15 (1.05-1.26)	0.003	C
DRD4	120-bp TR	S vs. L, all ethnicities	1236 vs. 1199 (4)	0.81 (0.70-0.94)	0.005	C
DTNBP1	rs1011313 (P1325)	T vs. C, Caucasian[a]	2696 vs. 2849 (8)	1.23 (1.07-1.40)	0.003	A
GABRB2	rs1816072	C vs. T, Caucasian[a]	1129 vs. 995 (4)	0.82 (0.72-0.93)	0.002	C
GABRB2	rs1816071	G vs. A, Caucasian[a]	1133 vs. 993 (4)	0.82 (0.72-0.93)	0.002	C
GABRB2	rs194072	C vs. T, Caucasian[a]	1137 vs. 991 (4)	0.83 (0.69-1.00)	0.048	B
GABRB2	rs6556547	T vs. G, Caucasian[a]	774 vs. 620 (3)	0.70 (0.52-0.95)	0.022	B
GRIN2B	rs7301328 (366G/C)	G vs. C, all ethnicities	903 vs. 810 (4)	1.16 (1.01-1.33)	0.034	C
GRIN2B	rs1019385 (200T/G)	G vs. T, all ethnicities	502 vs. 466 (4)	1.45 (1.14-1.85)	0.003	C
HP	Hp1/2	1 vs. 2, all ethnicities	1346 vs. 2018 (6)	0.88 (0.80-0.98)	0.016	C
IL1B	rs16944 (C511T)	T vs. C, Caucasian[b]	819 vs. 1302 (5)	0.78 (0.65-0.93)	0.006	C
MTHFR	rs1801133 (C677T)	T vs. C, all ethnicities	3327 vs. 4093 (14)	1.16 (1.05-1.30)	0.005	C
MTHFR	rs1801131 (A1298C)	C vs. A, Caucasian[b]	1211 vs. 1729 (5)	1.19 (1.07-1.34)	0.002	A
PLXNA2	rs752016	C vs. T, all ethnicities	1122 vs. 1211 (6)	0.82 (0.69-0.99)	0.037	C
SLC6A4	5-HTTVNTR	10 vs. 12, all ethnicities	2335 vs. 2688 (11)	0.86 (0.74-0.99)	0.036	C
TP53	rs1042522	C vs. G, all ethnicities	1418 vs. 1410 (5)	1.13 (1.01-1.26)	0.029	C
TPH1	rs1800532 (218A/C)	A vs. C, all ethnicities	829 vs. 1268 (5)	1.31 (1.15-1.51)	<0.00008	A

Allen *et al.* (submitted)

Grading of epidemiologic credibility *(HuGENet Venice interim guidelines)*

1. **"Amount of evidence"**
   ⇨ sample size (>1000, 1000-100, <100)
2. **"Replication"**
   ⇨ degree of heterogeneity (I^2-statistic)
3. **"Proctection from bias"**
   ⇨ OR <1.15, publication bias, sensitivity (initial, HWE)

Lowest score in any category determines overall grade

Ioannidis *et al*. Int J Epi (in press)

Applying the HuGENet guidelines to SzGene

Supplementary Table 6: Details of the application of grading scheme for the assessment of cumulative evidence in genetic association studies (Venice interim criteria) on all SNPs showing nominally significant results in meta-analyses of all ethnicities or Caucasian-only

Shaded columns denote criteria which make up "OVERALL" score (see main text for details)
"A" = strong, "B" = moderate, "C" = weak.

Gene	Ethnicity	Polymorphism	AMOUNT	N minor	REPLICATION	I-squared	PROTECTION FROM BIAS	Bias reason*	OVERALL
APOE	Cau only	e2/3/4	B	616	A	0.000	A		**B**
COMT	All	rs165599	A	7362	B	0.254	C	Low OR, F	**C**
COMT	Cau only	rs737865	A	4100	B	0.341	C	Low OR, F	**C**
DAO	All	rs3918346 (MDAAO-5)	A	1871	A	0.000	C	Low OR	**C**
DRD1	All	rs4532 (48A/G)	A	1089	A	0.000	A		**A**
DRD2	Cau only	rs1801028 (Ser311Cys)	B	264	A	0.161	A		**B**
DRD2	Cau only	rs6277 (Pro319Pro)	A	1276	A	0.153	C	Regr	**C**
DRD4	All	120-bp TR	A	1050	A	0.071	C	F	**C**
DRD4	All	rs1800955 (521T/C)	A	3326	A	0.000	C	Low OR	**C**
DTNBP1	Cau only	rs1011313 (P1325)	A	1002	A	0.000	A		**A**
GABRB2	Cau only	rs1816071	A	1629	A	0.000	C	Regr	**C**
GABRB2	Cau only	rs1816072	A	1621	A	0.000	C	Regr	**C**
GABRB2	Cau only	rs194072	B	603	A	0.074	A		**B**
GABRB2	Cau only	rs6556547	B	182	A	0.000	A		**B**
GRIN2B	All	rs1019385 (200T/G)	B	911	B	0.437	C	F	**C**
GRIN2B	All	rs7301328 (366G/C)	A	1468	A	0.000	C	F	**C**
HP	All	Hp 1/2	A	2658	A	0.000	C	Low OR	**C**
IL1B	Cau only	rs16944 (C511T)	A	1533	B	0.256	C	Regr	**C**
MTHFR	Cau only	rs1801131 (A1298C)	A	1773	A	0.000	A		**A**
MTHFR	All	rs1801133 (C677T)	A	4999	C	0.555	A		**C**
PLXNA2	All	rs752016	A	1208	B	0.328	C	F	**C**
SLC6A4	All	5-HTTVNTR	A	2931	C	0.504	C	F, HWE	**C**
TP53	All	rs1042522	A	2171	A	0.000	C	Low OR	**C**
TPH1	All	rs1800532 (218A/C)	A	1937	A	0.129	A		**A**

Allen *et al*. (submitted)

Comparison of SzGene results to previously published meta-analyses

Shaded results indicate discrepancies between prior and SzGene analyses.

Gene	Study	PubMed ID	Polymorphism	Prior Meta Sample Size (# Samples)	SzGene Sample Size (# Samples)	Model (default = random effects)	Meta OR	Het Meta	SZGene OR	Het SZGene	Meta Result	SZGene Result	HuGE?	Inclusion Date Limit
APOE	Xu, 2006	16567081	APOE ε2/3/4	4809 (17)	7996 (24)	ε4 v non-ε4	1.08 [0.88-1.33]	0.007	1.10 [0.94-1.29]	0.015	N	P	N	Sep-05
APOE	Xu, 2006	16567081	APOE ε2/3/4	4809 (17)	7996 (24)	ε4 v non-ε4 (genotypic dominant)	1.09 [0.87-1.36]	n.g.	1.10 [0.92-1.31]	0.019	N	P	N	Sep-05
APOE	Xu, 2006	16567081	APOE ε2/3/4	5223 (11)	4202 (15)	ε4 v non-ε4, Caucasian	1.23 [1.04-1.44]	0.59	1.17 [1.01-1.35]	0.615	N	P	N	Sep-05
APOE	Xu, 2006	16567081	APOE ε2/3/4	5223 (11)	4202 (15)	ε4 v non-ε4, Caucasian (genotypic dominant)	1.25 [1.04-1.49]	n.g.	1.19 [1.01-1.39]	0.7	N	P	N	Sep-05
APOE	Schuhoff, 2003	12707932	APOE ε2/3/4	4303 (15)	7996 (24)	**ε2 v non-ε2	[0.77-1.10]	n.g.	0.99 [0.87-1.13]	0.014	N	P	N	n.g.
APOE	Schuhoff, 2003	12707932	APOE ε2/3/4	3318 (12)	4202 (15)	**ε2 v non-ε2, Caucasian	n.g.	n.g.	0.90 [0.75-1.10]	0.67	N	P	N	n.g.
APOE	Schuhoff, 2003	12707932	APOE ε2/3/4	4303 (15)	7996 (24)	**ε3 v non-ε3	[0.88-1.11]	n.g.	0.89 [0.83-1.16]	<0.001	N	P	N	n.g.
APOE	Schuhoff, 2003	12707932	APOE ε2/3/4	3318 (12)	4202 (15)	**ε3 v non-ε3, Caucasian	n.g.	n.g.	0.92 [0.82-1.04]	0.59	N	P	N	n.g.
APOE	Schuhoff, 2003	12707932	APOE ε2/3/4	4303 (15)	7996 (24)	**ε4 v non-ε4	[0.92-1.22]	n.g.	1.18 [1.06-1.31]	0.015	N	P	N	n.g.
APOE	Schuhoff, 2003	12707932	APOE ε2/3/4	3318 (12)	4202 (15)	**ε4 v non-ε4, Caucasian	n.g.	n.g.	1.17 [1.01-1.35]	0.615	N	P	N	n.g.
APOE	Schuhoff, 2003	12707932	APOE ε2/3/4	985 (3)	3211 (5)	**ε2 v non-ε2, Asian	[0.44-0.91]	n.g.	1.19 [0.80-1.19]	<0.001	N	P	N	n.g.
APOE	Schuhoff, 2003	12707932	APOE ε2/3/4	985 (3)	3211 (5)	**ε3 v non-ε3, Asian	1.53 [1.20-1.97]	n.g.	0.90 [0.78-1.03]	<0.001	N	P	N	n.g.
APOE	Schuhoff, 2003	12707932	APOE ε2/3/4	985 (3)	3211 (5)	**ε4 v non-ε4, Asian	[0.50-0.95]	n.g.	1.22 [1.02-1.46]	<0.001	N	P	N	n.g.
BDNF	Zintzaras, 2007	17413445	270C/T	1356 (4)	3009 (6)	T v C, Caucasian	1.54 [0.86-2.76]	0.06	1.27 [0.88-1.83]	0.14	P	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	270C/T	1356 (4)	3009 (6)	(TT + TC) v CC, Caucasian	1.58 [0.85-2.94]	0.06	1.30 [0.88-1.91]	0.13	P	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	270C/T	1866 (5)	4091 (8)	TT v (TC + CC)	1.90 [0.31-5.37]	0.91	2.11 [0.20-23.65]	n.a.	P	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	270C/T	1356 (4)	3009 (6)	TT v (TC + CC), Caucasian	1.23 [0.27-5.63]	0.8	2.11 [0.20-23.65]	n.a.	P	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	270C/T	1866 (5)	4091 (8)	**TT v (TC + CC)	1.43 [0.23-8.80]	0.91	2.11 [0.20-23.65]	n.a.	P	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	270C/T	1356 (4)	3009 (6)	**TT v (TC + CC), Caucasian	1.43 [0.23-8.80]	0.8	2.11 [0.20-23.65]	n.a.	P	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	270C/T	1866 (5)	4091 (8)	T v C	1.63 [1.01-2.65]	0.07	1.29 [0.94-1.78]	0.11	P	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	270C/T	1866 (5)	4091 (8)	**T v C	1.54 [1.14-2.07]	0.07	1.24 [0.98-1.57]	0.11	P	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	270C/T	1356 (4)	3009 (6)	**T v C, Caucasian	1.43 [1.03-1.99]	0.06	1.21 [0.92-1.59]	0.14	P	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	270C/T	1866 (5)	4091 (8)	(TT + TC) v CC	1.68 [1.02-2.79]	0.06	1.13 [0.94-1.84]	0.09	P	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	270C/T	1866 (5)	4091 (8)	**(TT + TC) v CC	1.57 [1.16-2.16]	0.06	1.26 [0.98-1.61]	0.09	P	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	270C/T	1356 (4)	3009 (6)	**(TT + TC) v CC, Caucasian	1.46 [1.04-2.06]	0.06	1.23 [0.93-1.63]	0.13	P	N	N	Mar-06
BDNF	Xu, 2007	17289348	270C/T	1463 (5)	3009 (6)	C v T, Caucasian	0.74 [0.48-1.14]	0.095	0.79 [0.55-1.14]	0.14	N	N	N	Jul-06
BDNF	Xu, 2007	17289348	270C/T	3281 (8)	4091 (8)	C v T	0.59 [0.36-0.96]	<0.001	0.77 [0.56-1.06]	0.11	N	N	N	Jul-06
BDNF	Jonsson, 2006	16581172	270C/T	2328 (6)	4091 (8)	**T v C	1.35 [1.03-1.77]	n.g.	1.24 [0.98-1.57]	0.11	P	N	N	Oct-05
BDNF	Kanazawa, 2007	17417060	rs6265	6990 (13)	13307 (21)	G v A	1.00 [0.89-1.11]	0.078	1.02 [0.96-1.09]	0.22	N	N	N	Feb-06
BDNF	Zintzaras, 2007	17413445	rs6265	3001 (5)	13307 (21)	G v A	1.08 [0.88-1.32]	0.05	1.02 [0.96-1.09]	0.22	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	1574 (3)	6267 (9)	G v A, Caucasian	1.24 [0.96-1.60]	0.19	1.05 [0.93-1.20]	0.08	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	1427 (2)	6650 (10)	G v A, Asian	0.94 [0.81-1.09]	0.92	1.01 [0.94-1.08]	0.73	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	1427 (2)	6650 (10)	**G v A, Asian	0.94 [0.81-1.09]	0.92	1.01 [0.95-1.09]	0.73	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	2518 (3)	12352 (18)	G v A, excl HWE	1.16 [0.88-1.54]	0.02	1.02 [0.95-1.10]	0.14	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	2518 (3)	12352 (18)	**G v A, excl HWE	1.15 [0.98-1.35]	0.02	1.01 [0.96-1.08]	0.14	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	3001 (5)	13307 (21)	(GG + AG) v AA	0.81 [0.66-1.01]	0.67	0.95 [0.85-1.08]	0.38	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	1574 (3)	6267 (9)	(GG + AG) v AA, Caucasian	1.03 [0.58-1.83]	0.7	0.83 [0.63-1.09]	0.51	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	3001 (5)	13307 (21)	**(GG + AG) v AA	0.81 [0.65-1.01]	0.67	0.95 [0.86-1.08]	0.38	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	1574 (3)	6267 (9)	**(GG + AG) v AA, Caucasian	1.04 [0.59-1.83]	0.7	0.83 [0.63-1.09]	0.51	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	2518 (3)	12352 (18)	(GG + AG) v AA, excl HWE	0.84 [0.65-1.08]	0.8	0.95 [0.84-1.07]	0.6	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	2518 (3)	12352 (18)	**(GG +AG) v AA, excl HWE	0.84 [0.65-1.08]	0.8	0.95 [0.84-1.07]	0.6	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	3001 (5)	13307 (21)	GG v (AG + AA)	1.23 [0.97-1.57]	0.09	1.05 [0.97-1.15]	0.25	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	1574 (3)	6267 (9)	GG v (AG + AA), Caucasian	1.28 [0.89-1.85]	0.08	1.09 [0.93-1.27]	0.078	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	1427 (2)	6650 (10)	GG v (AG + AA), Asian	1.08 [0.85-1.37]	0.36	1.04 [0.93-1.15]	0.82	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	1427 (2)	6650 (10)	**GG v (AG + AA), Asian	1.08 [0.85-1.37]	0.36	1.04 [0.93-1.15]	0.82	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	2518 (3)	12352 (18)	GG v (AG + AA), excl HWE	1.29 [0.97-1.73]	0.06	1.06 [0.96-1.16]	0.19	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	3001 (5)	13307 (21)	**G v A	1.27 [1.06-1.53]	0.05	1.02 [0.96-1.08]	0.22	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	1574 (3)	6267 (9)	**G v A, Caucasian	1.27 [1.06-1.53]	0.19	1.03 [0.93-1.14]	0.08	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	1427 (2)	6650 (10)	(GG + AG) v AA, Asian	0.77 [0.61-0.96]	0.37	0.98 [0.85-1.14]	0.24	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	1427 (2)	6650 (10)	**(GG +AG) v AA, Asian	0.77 [0.61-0.96]	0.37	0.99 [0.88-1.12]	0.24	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	3001 (5)	13307 (21)	**GG v (AG + AA)	1.23 [1.05-1.44]	0.09	1.05 [0.97-1.13]	0.25	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	1574 (3)	6267 (9)	**GG v (AG + AA), Caucasian	1.37 [1.11-1.69]	0.08	1.07 [0.96-1.20]	0.078	N	N	N	Mar-06
BDNF	Zintzaras, 2007	17413445	rs6265	2518 (3)	12352 (18)	**GG v (AG + AA), excl HWE	1.26 [1.07-1.50]	0.06	1.05 [0.97-1.14]	0.19	N	N	N	Mar-06
BDNF	Xu, 2007	17289348	rs6265	7112 (11)	13307 (21)	G v A	0.96 [0.87-1.14]	0.002	1.02 [0.96-1.09]	0.22	N	N	N	Jul-06
BDNF	Xu, 2007	17289348	rs6265	3831 (6)	6267 (9)	G v A, Caucasian	1.03 [0.80-1.33]	0.002	1.05 [0.93-1.20]	0.08	N	N	N	Jul-06
BDNF	Xu, 2007	17289348	rs6265	3281 (5)	6650 (10)	G v A, Asian	0.96 [0.82-1.13]	0.061	1.01 [0.94-1.08]	0.73	N	N	N	Jul-06

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Summary

❶ SzGene provides a comprehensive and up-to-date synopsis of genetic association studies in schizophrenia

❷ SzGene almost doubles the number of meta-analyzed genes, highlighting eight novel significant findings

❸ Genetic effect sizes are generally small (ORs ~1.25)

❹ Current samples employed in association studies have very little power to detect typical summary ORs

❺ Application of Venice interim guidelines yields four associations with “strong epidemiologic credibility” (*DRD1*, *DTNBP1*, *MTHFR*, *TPH1*)

Outlook to part 2 (Session III):

1. **Examples of online database structure**
   - ⇨ Example: SzGene (Schizophrenia)
2. **Inclusion and analysis of GWA studies**
   - ⇨ Example: PDGene (Parkinson's disease)
3. **Testing "Top Results" in family-based samples**
   - ⇨ Example: AlzGene (Alzheimer's disease)

Database Content & Development

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Cure Alzheimer's FUND

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