

## Characteristics of Genome-wide Association Studies in Complex Disorders and Traits, 2005-2007

(includes studies attempting  $\geq 100,000$  SNP assays in unrelated individuals and/or trios)

No.	Author/Date	Disease/Trait	Initial Sample Size	Replication Sample Size	Platform Manufacturer [SNPs passing QC]
1	Klein 10 Mar 2005 <i>Science</i>	Age-related macular degeneration	96 cases 50 controls	--	Affymetrix [103,611]
2	Maraganore 9 Sep 2005 <i>Am J Hum Genet</i>	Parkinson disease	443 cases 443 controls	332 cases 332 controls	Perlegen [198,345]
3	Herbert 14 Apr 2006 <i>Science</i>	Obesity	694 offspring	3,489 cases 6,392 controls 361 trios	Affymetrix [86,604]
4	Arking 30 Apr 2006 <i>Nat Genet</i>	QT interval prolongation	100 > 445ms 100 < 386ms	200 > 85th pct 200 < 15th pct 7,817 cohort members	Affymetrix [88,500]
5	Fung 28 Sep 2006 <i>Lancet Neurol</i>	Parkinson's disease	276 cases 276 controls	--	Illumina [408,803]
6	DeWan 19 Oct 2006 <i>Science</i>	Wet age-related macular degeneration	96 cases 130 controls	--	Affymetrix [97,824]
7	Papassotiropoulos 20 Oct 2006 <i>Science</i>	Memory performance	341	680	Affymetrix [502,627]
8	Duerr 26 Oct 2006 <i>Science</i>	Inflammatory bowel disease	547 cases 548 controls	401 cases 433 controls 883 families, 1,119 affected offspring	Illumina [308,332]
9	Bierut 7 Dec 2006 <i>Hum Molec Genet</i>	Nicotine dependence	1,050 cases 879 controls	--	Perlegen (pooled) [2.4 million]
10	Sladek 11 Feb 2007 <i>Nature</i>	Type 2 diabetes	1,380 cases 1,323 controls	2,617 cases 2,894 controls	Illumina [392,935]

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11	Schymick 20 Feb 2007 <i>Lancet Neurol</i>	Amyotrophic lateral sclerosis	276 cases 276 controls	--	Illumina [555,352]
12	Libioulle 5 Mar 2007 <i>PLoS Genet</i>	Crohn disease	547 cases 928 controls	1,266 cases 559 controls 428 trios	Illumina [302,451]
13	Gudmundson 1 Apr 2007 <i>Nat Genet</i>	Prostate cancer	1,453 cases 3,064 controls	1,210 EA cases; 2,445 EA controls; 373 AA cases; 372 AA controls	Illumina [316,515]
14	Yeager 1 Apr 2007 <i>Nat Genet</i>	Prostate cancer	1,172 cases 1,157 controls	3,124 cases 3,142 controls	Illumina [538,548]
15	Uhl 3 Apr 2007 <i>BMC Genet</i>	Nicotine dependence and abstinence	134 dependent cases 320 controls 55 dependent quitters 79 dependent non-quitters	--	Affymetrix (pooled) [520,000]
16	Frayling 12 Apr 2007 <i>Science</i>	Obesity	10,657	19,424 adults 10,172 children	Affymetrix [490,032]
17	Rioux 15 Apr 2007 <i>Nat Genet</i>	Crohn disease	946 cases 977 controls	530 trios 353 cases 207 controls	Illumina [304,413]
18	Scott 26 Apr 2007 <i>Science</i>	Type 2 diabetes	1,161 cases 1,174 controls	1,215 cases 1,258 controls	Illumina [315,635]
19	Saxena 26 Apr 2007 <i>Science</i>	Type 2 diabetes	1,464 cases 1,467 controls	5,065 cases 5,785 controls	Affymetrix [386,731]

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20	Zeggini 26 Apr 2007 <i>Science</i>	Type 2 diabetes	1,924 cases 2,938 controls	3,757 cases 5,346 controls	Affymetrix [393,453]
21	Coon April 2007 <i>J Clin Psych</i>	Late onset Alzheimers	664 cases 422 controls	--	Affymetrix [502,627]
22	Melquist April 2007 <i>AJHG</i>	Progressive supranuclear palsy	288 cases 344 controls	213 cases 391 controls	Affymetrix [428,867]
23	Helgadottir 3 May 2007 <i>Science</i>	Myocardial infarction	1,607 cases 6,728 controls	2,980 cases 6,041 controls	Illumina [305,953]
24	McPherson 3 May 2007 <i>Science</i>	Coronary disease	322 cases 312 controls	311 326	Perlegen [72,864]
25	Baum 8 May 2007 <i>Molec Psych</i>	Bipolar disorder	461 cases 563 controls	772 cases 876 controls	Illumina (pooled) [555,235]
26	Easton 27 May 2007 <i>Nature</i>	Breast cancer	390 cases 364 controls	26,646 cases 24,889 controls	Perlegen [205,586]
27	Hunter 27 May 2007 <i>Nat Genet</i>	Breast cancer	1,145 cases 1,142 controls	1,176 cases 2,072 controls	Illumina [528,173]
28	Stacey 27 May 2007 <i>Nat Genet</i>	Breast cancer	1,599 cases 11,546 controls	2,934 cases 5,967 controls	Illumina [311,524]
29	Parkes 6 Jun 2007 <i>Nat Genet</i>	Crohn disease	1,748 cases 2,938 controls	1,182 cases 2,024 controls	see WTCCC

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30	Todd 6 Jun 2007 <i>Nat Genet</i>	Type 1 diabetes	1,963 cases 2,938 controls	4,000 cases 5,000 controls 2,997 trios	see WTCCC
31	WTCCC 7 Jun 2007 <i>Nature</i>	Bipolar disorder	1,868 cases 2,938 controls	--	Affymetrix [469,557]
32	"	Coronary disease	1,926 cases 2,938 controls	--	"
33	"	Crohn disease	1,748 cases 2,938 controls	(see Parkes 2007)	"
34	"	Hypertension	1,952 cases 2,938 controls	--	"
35	"	Rheumatoid arthritis	1,860 cases 2,938 controls	--	"
36	"	Type 1 diabetes	1,963 cases 2,938 controls	--	"
37	"	Type 2 diabetes	1,924 cases 2,938 controls	(see Zeggini 2007)	"
38	Reiman 7 Jun 2007 <i>Nat Genet</i>	Late onset Alzheimer disease	446 cases 290 controls	415 cases 260 controls	Affymetrix [502,627]
39	van Heel 10 Jun 2007 <i>Nat Genet</i>	Celiac disease	778 cases 1,422 controls	991 cases 1,489 controls	Illumina [310,605]
40	Gudbjartsson 1 Jul 2007 <i>Nature</i>	Atrial fibrillation/ atrial flutter	550 cases 4,476 controls	3,363 cases 17,616 controls	Illumina [316,515]
41	Gudmundsson 1 Jul 2007 <i>Nat Genet</i>	Prostate cancer	1,501 cases 11,290 controls	1,992 cases 3,058 controls	Illumina [316,515]

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42	Tomlinson 8 Jul 2007 <i>Nat Genet</i>	Colorectal cancer	930 cases 960 controls	7,334 cases 5,246 controls	Illumina [547,647]
43	Zanke 8 Jul 2007 <i>Nat Genet</i>	Colorectal cancer	1,257 cases 1,336 controls	6,223 cases 6,443 controls	Illumina and Affymetrix [99,632]
44	Buch 15 Jul 2007 <i>Nat Genet</i>	Gallstones	280 cases 360 controls	2,000 cases 1,202 controls	Affymetrix [382,492]
45	Hakonarson 15 Jul 2007 <i>Nature</i>	Type 1 diabetes	563 cases 1,146 controls 483 trios	2,350 individuals in 549 families; 390 trios	Illumina [534,071]
46	Samani 18 Jul 2007 <i>NEJM</i>	Coronary disease	1,926 cases 2,938 controls	875 cases 1,644 controls	Affymetrix [377,857]
47	Stefansson 18 Jul 2007 <i>NEJM</i>	Periodic limb movements in sleep	306 cases 15,664 controls	311 cases 1,895 controls	Illumina [306,937]
48	Winklemann 18 Jul 2007 <i>Nat Genet</i>	Restless legs syndrome	401 cases 1,644 controls	1,158 cases 1,178 controls	Affymetrix [236,758]
49	Fellay 19 Jul 2007 <i>Science</i>	HIV1 viral setpoint	486 patients	140 patients	Illumina [535,101]
50	Scuteri 20 Jul 2007 <i>PLoS Genet</i>	Obesity (BMI)	1,412	3,205	Affymetrix [362,129]
51	Moffatt 26 Jul 2007 <i>Nature</i>	Childhood asthma, <i>ORMDL3</i> expression	994 cases 1,243 controls	2,320 cases 3,501 controls	Illumina [307,328]

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52	Hafler 29 Jul 2007 <i>NEJM</i>	Multiple sclerosis	931 trios 2,431 controls	609 trios 2,322 cases 2,987 controls	Affymetrix [334,923]
53	Shifman 31 Jul 2007 <i>Mol Psych</i>	Neuroticism	1,038 high neuroticism score; 1,016 low score	831 high score 702 low score	Affymetrix (pooled) [452,574]
54	Dunckley 1 Aug 2007 <i>NEJM</i>	Amyotrophic lateral sclerosis	386 cases 542 controls	901 cases 975 controls	Affymetrix and Illumina [776,955]
55	Thorleifsson 9 Aug 2007 <i>Science</i>	Exfoliation glaucoma	75 cases 14,474 controls	254 cases 198 controls	Illumina [304,250]
56	Salonen August 2007 <i>AJHG</i>	Type 2 diabetes	500 cases 497 controls	2,573 cases 2,776 controls	Illumina [315,917]
57	Weedon 2 Sep 2007 <i>Nat Genet</i>	Height	4,921	29,098 (19,064 adults)	Affymetrix [364,301]
58	Plenge 5 Sep 2007 <i>NEJM</i>	Rheumatoid arthritis	1,493 cases 1,831 controls	1,053 cases 1,858 controls	Illumina [297,086]
59	Raelson 5 Sep 2007 <i>PNAS</i>	Crohn's disease	382 trios	521 trios 750 cases 828 controls	Perlegen [164,279]
60	Van Es 7 Sep 2007 <i>Lancet Neurol</i>	Amyotrophic lateral sclerosis	461 cases 450 controls	876 cases 906 controls	Illumina [311,946]
61	Florez 10 Sep 2007 <i>Diabetes</i>	Type 2 diabetes and 6 quantitative traits	1,087 family members	1,465 unrelated subjects	Affymetrix [66,543]

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62	Hanson 10 Sep 2007 <i>Diabetes</i>	Type 2 diabetes	300 cases, 140 sibs 334 controls, 121 sibs	1207 cases 1627 controls	Affymetrix [80,044]
63	Hayes 10 Sep 2007 <i>Diabetes</i>	Type 2 diabetes	291 cases 323 controls	760 cohort	Affymetrix [88,142]
64	Rampersaud 10 Sep 2007 <i>Diabetes</i>	Type 2 diabetes, post-challenge glucose	124 cases 295 controls	427 non-diabetic Amish; 2,142 cases; 2,117 controls	Affymetrix [82,485]
65	Cupples 19 Sep 2007 <i>BMC Med Genet</i>	Monocyte chemoattractant protein-1 (MCP-1)	1,345	--	Affymetrix [70,897]
66	Broderick 14 Oct 2007 <i>Nat Genet</i>	Colorectal Cancer	940 cases 965 controls	7,473 cases 5,984 controls	Illumina [547,647]
67	Sulem 21 Oct 2007 <i>Nat Genet</i>	Freckles	2,986 Icelanders	3,932 Icelanders and Dutch	Illumina [317,511]
	"	Blond vs brown hair	"	"	"
	"	Blue vs green eyes	"	"	"