

a)

The 25 MDD genes

probe_id, gene_symbol, entrez_id

1059351, "ADRA2A", 150

1059352, "ADRA2A", 150

1059353, "ADRA2A", 150

1058915, "AVPR1B", 553

1058914, "AVPR1B", 553

1058916, "AVPR1B", 553

1029156, "CHRM2", 1129

1029155, "CHRM2", 1129

1029150, "CHRM2", 1129

1029149, "CHRM2", 1129

1029146, "CHRM2", 1129

1029142, "CHRM2", 1129

1029138, "CHRM2", 1129

1029136, "CHRM2", 1129

1029135, "CHRM2", 1129

1029134, "CHRM2", 1129

1029133, "CHRM2", 1129

1029126, "CHRM2", 1129

1029125, "CHRM2", 1129

1029124, "CHRM2", 1129

1029123, "CHRM2", 1129

1029122, "CHRM2", 1129

1029121, "CHRM2", 1129

1025133, "CHRM2", 1129

1023492, "CHRM2", 1129

1029129,"CHRM2",1129
1029128,"CHRM2",1129
1029127,"CHRM2",1129
1028516,"CNR1",1268
1028515,"CNR1",1268
1028514,"CNR1",1268
1028513,"CNR1",1268
1028512,"CNR1",1268
1028511,"CNR1",1268
1028510,"CNR1",1268
1028509,"CNR1",1268
1028508,"CNR1",1268
1028507,"CNR1",1268
1028506,"CNR1",1268
1028505,"CNR1",1268
1028504,"CNR1",1268
1028503,"CNR1",1268
1028502,"CNR1",1268
1028484,"CNR1",1268
1028483,"CNR1",1268
1028478,"CNR1",1268
1028477,"CNR1",1268
1028474,"CNR1",1268
1028473,"CNR1",1268
1028472,"CNR1",1268
1028471,"CNR1",1268
1028470,"CNR1",1268
1028469,"CNR1",1268

1028466,"CNR1",1268
1028465,"CNR1",1268
1028464,"CNR1",1268
1028462,"CNR1",1268
1028461,"CNR1",1268
1028458,"CNR1",1268
1028457,"CNR1",1268
1028456,"CNR1",1268
1028455,"CNR1",1268
1028454,"CNR1",1268
1028453,"CNR1",1268
1028452,"CNR1",1268
1028451,"CNR1",1268
1028450,"CNR1",1268
1028448,"CNR1",1268
1028447,"CNR1",1268
1028446,"CNR1",1268
1028445,"CNR1",1268
1028444,"CNR1",1268
1028442,"CNR1",1268
1028441,"CNR1",1268
1028440,"CNR1",1268
1028439,"CNR1",1268
1028438,"CNR1",1268
1028437,"CNR1",1268
1028434,"CNR1",1268
1028433,"CNR1",1268
1028432,"CNR1",1268

1028431,"CNR1",1268
1028430,"CNR1",1268
1028429,"CNR1",1268
1028428,"CNR1",1268
1028427,"CNR1",1268
1028426,"CNR1",1268
1028425,"CNR1",1268
1028424,"CNR1",1268
1015329,"CNR1",1268
1028436,"CNR1",1268
1028435,"CNR1",1268
1028501,"CNR1",1268
1028500,"CNR1",1268
1028499,"CNR1",1268
1028498,"CNR1",1268
1028497,"CNR1",1268
1028494,"CNR1",1268
1028493,"CNR1",1268
1028492,"CNR1",1268
1028491,"CNR1",1268
1028490,"CNR1",1268
1028489,"CNR1",1268
1028488,"CNR1",1268
1028487,"CNR1",1268
1028486,"CNR1",1268
1028485,"CNR1",1268
1028548,"CNR1",1268
1028547,"CNR1",1268

1028542,"CNR1",1268
1028536,"CNR1",1268
1028535,"CNR1",1268
1028534,"CNR1",1268
1028527,"CNR1",1268
1028526,"CNR1",1268
1028518,"CNR1",1268
1028517,"CNR1",1268
1057976,"CREB1",1385
1057975,"CREB1",1385
1057974,"CREB1",1385
1059659,"CREB1",1385
1057967,"CRH",1392
1057966,"CRH",1392
1057965,"CRH",1392
1019360,"CRHR1",1394
1019310,"CRHR1",1394
1013314,"CRHR1",1394
1011485,"CRHR1",1394
1057962,"CRHR2",1395
1057961,"CRHR2",1395
1057960,"CRHR2",1395
1028346,"CUX2",23316
1028345,"CUX2",23316
1028344,"CUX2",23316
1056548,"GAD2",2572
1056547,"GAD2",2572
1056546,"GAD2",2572

1056545,"GAD2",2572
1056544,"GAD2",2572
1013593,"GAD2",2572
1013489,"GAD2",2572
1013359,"GAD2",2572
1013692,"GAD2",2572
1012504,"GAD2",2572
1012098,"GAD2",2572
1011320,"GAD2",2572
1011137,"GAD2",2572
1010770,"GAD2",2572
1010725,"GAD2",2572
1010443,"GAD2",2572
1010639,"GAD2",2572
1056550,"GAD2",2572
1048801,"GPR50",9248
1048800,"GPR50",9248
1024804,"HTR1A",3350
1024803,"HTR1A",3350
1024812,"HTR1A",3350
1055392,"HTR1B",3351
1055381,"HTR1B",3351
1055378,"HTR1B",3351
1055374,"HTR1D",3352
1055373,"HTR1D",3352
1055372,"HTR1D",3352
1055361,"HTR1D",3352
1055357,"HTR1D",3352

1055356,"HTR1D",3352
1055355,"HTR1D",3352
1055354,"HTR1D",3352
1055347,"HTR1D",3352
1055346,"HTR1D",3352
1055345,"HTR1D",3352
1055342,"HTR1D",3352
1055377,"HTR1D",3352
1024617,"HTR3A",3359
1024606,"HTR3A",3359
1024594,"HTR3A",3359
1024593,"HTR3A",3359
1024592,"HTR3A",3359
1021988,"HTR5A",3361
1021983,"HTR5A",3361
1021982,"HTR5A",3361
1021981,"HTR5A",3361
1021979,"HTR5A",3361
1021975,"HTR5A",3361
1021974,"HTR5A",3361
1021973,"HTR5A",3361
1021972,"HTR5A",3361
1021970,"HTR5A",3361
1021969,"HTR5A",3361
1021968,"HTR5A",3361
1054369,"MAOA",4128
1054368,"MAOA",4128
1054364,"MAOA",4128

1054362,"MAOA",4128
1054360,"MAOA",4128
1054359,"MAOA",4128
1054358,"MAOA",4128
1054357,"MAOA",4128
1054353,"MAOA",4128
1054352,"MAOA",4128
1054350,"MAOA",4128
1054349,"MAOA",4128
1054348,"MAOA",4128
1054347,"MAOA",4128
1054345,"MAOA",4128
1054344,"MAOA",4128
1054343,"MAOA",4128
1054342,"MAOA",4128
1054341,"MAOA",4128
1054340,"MAOA",4128
1054339,"MAOA",4128
1054338,"MAOA",4128
1054337,"MAOA",4128
1054336,"MAOA",4128
1054335,"MAOA",4128
1054334,"MAOA",4128
1054380,"MAOA",4128
1054379,"MAOA",4128
1054375,"MAOA",4128
1054372,"MAOA",4128
1054370,"MAOA",4128

1053289,"PDE1A",5136
1053288,"PDE1A",5136
1053287,"PDE1A",5136
1063261,"PDE1A",5136
1023147,"SLC6A2",6530
1023146,"SLC6A2",6530
1051465,"SLC6A4",6532
1051464,"SLC6A4",6532
1051461,"SLC6A4",6532
1051460,"SLC6A4",6532
1051459,"SLC6A4",6532
1051458,"SLC6A4",6532
1051457,"SLC6A4",6532
1051489,"SLC6A4",6532
1051483,"SLC6A4",6532
1051472,"SLC6A4",6532
1051466,"SLC6A4",6532
1025754,"SST",6750
1025749,"SST",6750
1025748,"SST",6750
1025747,"SST",6750
1051004,"TAC1",6863
1029261,"TAC1",6863
1029258,"TAC1",6863
1029257,"TAC1",6863
1029256,"TAC1",6863
1029255,"TAC1",6863
1029254,"TAC1",6863

1029253,"TAC1",6863
1029252,"TAC1",6863
1029251,"TAC1",6863
1029250,"TAC1",6863
1029249,"TAC1",6863
1028377,"TAC1",6863
1050663,"TPH1",7166
1050662,"TPH1",7166
1050661,"TPH1",7166
1035832,"TPH2",121278
1035831,"TPH2",121278
1028612,"HTR2A",3356
1028611,"HTR2A",3356
1028610,"HTR2A",3356
1028609,"HTR2A",3356
1028608,"HTR2A",3356
1028607,"HTR2A",3356
1028606,"HTR2A",3356
1028605,"HTR2A",3356
1028604,"HTR2A",3356
1028603,"HTR2A",3356
1028602,"HTR2A",3356
1028601,"HTR2A",3356
1028634,"HTR2A",3356
1028633,"HTR2A",3356
1028631,"HTR2A",3356
1028627,"HTR2A",3356
1028626,"HTR2A",3356

1028625,"HTR2A",3356
1028620,"HTR2A",3356
1028619,"HTR2A",3356
1028618,"HTR2A",3356
1028617,"HTR2A",3356
1028615,"HTR2A",3356
1028614,"HTR2A",3356
1028613,"HTR2A",3356

b)

The 25 random genes

probe_id, gene_symbol, entrez_id

1039532,"C8orf33",65265
1039531,"C8orf33",65265
1039530,"C8orf33",65265
1046477,"FZD10",11211
1046476,"FZD10",11211
1047556,"TNIP1",10318
1047555,"TNIP1",10318
1020557,"C9orf84",158401
1015178,"C9orf84",158401
1015147,"C9orf84",158401
1021638,"61E3.4",440345
1014742,"61E3.4",440345
1011169,"61E3.4",440345
1011981,"61E3.4",440345
1069865,"61E3.4",440345
1019428,"ASAH1",427

1032727,"ASPM",259266
1032726,"ASPM",259266
1032725,"ASPM",259266
1045100,"PTCD1",26024
1045099,"PTCD1",26024
1045844,"FBXW11",23291
1045843,"FBXW11",23291
1026527,"CBFB",865
1026526,"CBFB",865
1044801,"GREM1",26585
1044800,"GREM1",26585
1019663,"CERKL",375298
1013827,"CERKL",375298
1013746,"CERKL",375298
1041456,"LENEP",55891
1041455,"LENEP",55891
1033718,"HTR3C",170572
1033713,"HTR3C",170572
1033704,"HTR3C",170572
1033702,"HTR3C",170572
1033701,"HTR3C",170572
1033700,"HTR3C",170572
1056207,"GPS2",2874
1056206,"GPS2",2874
1032891,"LCE5A",254910
1032890,"LCE5A",254910
1014716,"AC002472.9",439931
1014210,"AC002472.9",439931

1012353,"AC002472.9",439931
1032756,"KLHL34",257240
1032755,"KLHL34",257240
1057292,"ELAVL2",1993
1057291,"ELAVL2",1993
1015679,"SSR4P1",728039
1013573,"SSR4P1",728039
1031320,"OR5D13",390142
1031319,"OR5D13",390142
1042732,"FNDC8",54752
1042731,"FNDC8",54752
1042092,"TMEM206",55248
1042091,"TMEM206",55248
1056459,"GDF2",2658
1056458,"GDF2",2658
1047601,"SIGMAR1",10280
1047600,"SIGMAR1",10280

c)

The 14 color genes

probe_id, gene_symbol, entrez_id

1059034,"ASIP",434
1059033,"ASIP",434
1042687,"BNC2",54796
1042685,"BNC2",54796
1042684,"BNC2",54796
1042686,"BNC2",54796
1049193,"EIF2S2",8894

1049192,"EIF2S2",8894
1049191,"EIF2S2",8894
1049190,"EIF2S2",8894
1055897,"GSS",2937
1055896,"GSS",2937
1049158,"HERC2",8924
1054961,"IRF4",3662
1054960,"IRF4",3662
1054275,"MC1R",4157
1054274,"MC1R",4157
1054273,"MC1R",4157
1053495,"OCA2",4948
1053494,"OCA2",4948
1024061,"RALY",22913
1024060,"RALY",22913
1024059,"RALY",22913
1027233,"SLC24A4",123041
1027232,"SLC24A4",123041
1032553,"SLC24A5",283652
1032552,"SLC24A5",283652
1043703,"SLC45A2",51151
1043702,"SLC45A2",51151
1050524,"TYR",7299
1050523,"TYR",7299
1050522,"TYR",7299
1019628,"VASH2",79805
1015046,"VASH2",79805
1014927,"VASH2",79805

Year	Journal	Trait	PMID	Implicated genes
2015	Journal of Investigative Dermatology	skin color	25705849	IRF4, MC1R, ASIP, RALY, BNC2
2015	Human Genetics	skin color	25963972	ASIP, SLC45A2, IRF4, HERC2, OCA2, MC1R, EIF2S2, GSS
2016	Nature Communications	hair color	26926045	SLC45A2, IRF4, TYR, HERC2, SLC24A5
2013	Human Molecular Genetics	eye color	23548203	SLC24A4, HERC2, VASH2
2010	PLOS Genetics	hair color	20585627	OCA2, IRF4, SLC45A2, SLC24A4, MC1R
2010	PLOS Genetics	red hair	20585627	MC1R, ASIP
2010	PLOS Genetics	eye color	20585627	OCA2, SLC24A4, IRF4, SLC45A2, TYR
2010	PLOS Genetics	green eyes	20585627	OCA2, SLC24A4, TYR