Supplementary table 1 – Three Study results for all 126 SNPs in WNT-signalling pathway

Gene	SNP	Chr	Pos	Risk allele	Risk Freq	WTCCC OR	WTCCC P	Replication OR	Replication P	3Study OR	3Study P
DKK2	rs10028834	4	108211197	T	0.08	1.22 (1.05-1.43)	0.01	1.11 (0.95-1.29)	0.19	1.16 (1.04-1.3)	0.007
CAMK2A	rs10066581	5	149595874	G	0.86	1.13 (1.01-1.27)	0.03	1.04 (0.91-1.17)	0.59	1.09 (1-1.18)	0.05
NKD2	rs10071261	5	1066694	T	0.11	1.1 (0.96-1.26)	0.17	1.03 (0.9-1.18)	0.63	1.07 (0.97-1.17)	0.19
RAC1	rs10234438	7	6196040	A	0.97	1.27 (1-1.6)	0.05	0.95 (0.76-1.19)	0.65	1.09 (0.92-1.28)	0.31
PPP3CB	rs1041532	10	74877493	T	0.06	0.98 (0.83-1.17)	0.85	1.07 (0.89-1.28)	0.47	1.02 (0.9-1.16)	0.72
SMAD4	rs10502913	18	46822269	G	0.77	1.06 (0.96-1.16)	0.27	1.06 (0.97-1.16)	0.23	1.06 (0.99-1.13)	0.10
WNT7A	rs1077524	3	13905134	C	0.36	1.09 (1-1.18)	0.06	0.99 (0.91-1.08)	0.85	1.04 (0.98-1.1)	0.23
FZD4	rs10898552	11	86296526	T	0.7	1.09 (1-1.2)	0.05	0.97 (0.88-1.08)	0.60	1.04 (0.97-1.11)	0.24
FZD8	rs11010252	10	35987557	T	0.09	1.16 (1-1.35)	0.05	0.86 (0.73-1.01)	0.06	1.01 (0.9-1.12)	0.89
PLCB2	rs11070264	15	38399153	T	0.93	1.13 (0.97-1.32)	0.13	1 (0.86-1.15)	0.97	1.06 (0.95-1.17)	0.32
PRKACB	rs11163905	1	84306420	G	0.46	1.12 (1.03-1.22)	0.006	1 (0.92-1.09)	0.97	1.06 (1-1.12)	0.05
FRAT1	rs11189119	10	99057279	T	0.1	1.17 (1.01-1.35)	0.03	1 (0.87-1.15)	0.98	1.08 (0.98-1.19)	0.13
MAP3K7	rs1145721	6	91225674	G	0.36	1.12 (1.03-1.22)	0.010	1 (0.92-1.09)	0.97	1.06 (1-1.12)	0.07
WNT3A	rs11589040	1	224495280	A	0.91	1.16 (1.01-1.33)	0.04	1.06 (0.93-1.2)	0.40	1.1 (1-1.21)	0.04
PPP2R1B	rs11601674	11	111139564	T	0.74	1.06 (0.97-1.17)	0.19	1.01 (0.92-1.1)	0.85	1.04 (0.97-1.1)	0.29
SFRP2	rs11732581	4	155077843	C	0.96	1.33 (1.09-1.62)	0.004	1.15 (0.84-1.56)	0.39	1.28 (1.08-1.51)	0.004
CCND2	rs11833537	12	4150368	C	0.41	1.12 (1.03-1.22)	0.008	1.06 (0.98-1.15)	0.13	1.09 (1.03-1.16)	0.003
DKK1	rs1194742	10	53883556	G	0.05	1.19 (0.98-1.45)	0.08	1.31 (1.07-1.59)	0.008	1.25 (1.09-1.44)	0.002
CCND3	rs11970772	6	42033268	T	0.8	1.12 (1.01-1.23)	0.03	0.97 (0.89-1.07)	0.59	1.04 (0.97-1.11)	0.30
VANGL2	rs12090877	1	157189133	C	0.92	1.2 (1.03-1.39)	0.02	1.03 (0.9-1.17)	0.68	1.1 (1-1.21)	0.06
CTNNBIP1	rs12128766	1	9871307	C	0.52	1.05 (0.96-1.13)	0.28	1.02 (0.94-1.11)	0.61	1.04 (0.98-1.1)	0.26
LRP6	rs12425946	12	12302231	G	0.85	1.14 (1.02-1.28)	0.02	1.01 (0.9-1.14)	0.89	1.08 (0.99-1.17)	0.08
CTBP1	rs1250108	4	1218924	G	0.44	1.1 (1.02-1.2)	0.02	1.02 (0.94-1.11)	0.69	1.06 (1-1.12)	0.05
PPP3CC	rs12545909	8	22365997	G	0.55	1.04 (0.96-1.13)	0.37	1 (0.92-1.08)	0.98	1.02 (0.96-1.08)	0.52
NFATC4	rs12590407	14	23904955	A	0.71	1.06 (0.97-1.16)	0.22	1.04 (0.95-1.13)	0.44	1.05 (0.98-1.11)	0.16
NFATC3	rs12597573	16	66725022	C	0.89	1.02 (0.89-1.15)	0.82	1.01 (0.91-1.14)	0.81	1.01 (0.93-1.1)	0.74

FZD5	rs12694091	2	208467450	T	0.14	1.05 (0.93-1.18)	0.44	1.05 (0.91-1.21)	0.53	1.05 (0.96-1.15)	0.33
WNT8B	rs12762598	10	102217746	C	0.32	1.03 (0.94-1.12)	0.51	0.98 (0.89-1.07)	0.58	1 (0.94-1.07)	0.94
CREBBP	rs130005	16	3768349	G	0.11	0.92 (0.81-1.05)	0.23	1.18 (1.04-1.34)	0.009	1.05 (0.96-1.15)	0.31
ROCK1	rs1318841	18	17138521	A	0.04	1.29 (1.04-1.61)	0.02	1.05 (0.79-1.41)	0.73	1.2 (1.01-1.43)	0.04
RUVBL1	rs1554534	3	129282367	T	0.86	1.02 (0.91-1.15)	0.69	1.06 (0.96-1.18)	0.26	1.04 (0.97-1.13)	0.27
FZD3	rs164658	8	28497485	A	0.31	1.1 (1.01-1.2)	0.04	1.06 (0.98-1.16)	0.16	1.08 (1.02-1.15)	0.01
CER1	rs16932212	9	14716000	C	0.96	0.85 (0.68-1.07)	0.17	1.51 (1.15-2)	0.003	1.08 (0.9-1.28)	0.41
NFAT5	rs16959025	16	68253090	T	0.84	1.11 (0.99-1.24)	0.07	1.11 (1-1.24)	0.05	1.11 (1.03-1.2)	0.008
MMP7	rs17098236	11	101892901	T	0.1	1.23 (1.07-1.42)	0.005	1.03 (0.86-1.24)	0.77	1.15 (1.03-1.29)	0.01
WNT2	rs17139625	7	116529429	G	0.92	1.12 (0.97-1.29)	0.13	1.01 (0.88-1.15)	0.95	1.06 (0.96-1.17)	0.28
FZD1	rs17163799	7	90590566	G	0.72	1.12 (1.02-1.22)	0.02	0.97 (0.88-1.06)	0.49	1.04 (0.98-1.11)	0.22
PRKACG	rs17408309	9	68861819	T	0.98	1.13 (0.83-1.55)	0.43	1.01 (0.71-1.45)	0.95	1.08 (0.85-1.37)	0.53
MAPK9	rs17627880	5	179626784	C	0.79	1.08 (0.98-1.2)	0.12	0.97 (0.88-1.07)	0.57	1.02 (0.96-1.1)	0.51
PRKCA	rs17643302	17	62201284	T	0.11	1.19 (1.04-1.36)	0.01	0.87 (0.77-0.99)	0.04	1.01 (0.92-1.1)	0.88
MAPK8	rs17697885	10	49239736	T	0.12	1.14 (1-1.3)	0.05	1.02 (0.9-1.15)	0.82	1.07 (0.98-1.17)	0.12
CHD8	rs17792659	14	20952489	G	0.86	1.12 (1-1.26)	0.05	0.94 (0.84-1.05)	0.25	1.02 (0.94-1.11)	0.60
SMAD2	rs17815568	18	43729855	C	0.97	1.24 (1-1.55)	0.05	1.08 (0.82-1.42)	0.58	1.18 (0.99-1.4)	0.06
SIAH1	rs17825174	16	46981974	A	0.07	1.1 (0.94-1.3)	0.24	0.99 (0.84-1.18)	0.93	1.05 (0.93-1.18)	0.43
PRICKLE1	rs1796390	12	41164871	T	0.28	1.15 (1.05-1.26)	0.003	1.08 (0.98-1.18)	0.11	1.11 (1.04-1.19)	0.001
WNT3	rs199496	17	42221887	G	0.92	1.1 (0.95-1.26)	0.22	0.96 (0.82-1.13)	0.64	1.03 (0.93-1.15)	0.54
DKK4	rs2073664	8	42350943	G	0.94	1.01 (0.85-1.19)	0.92	1.01 (0.89-1.15)	0.86	1.01 (0.91-1.12)	0.84
WNT5B	rs2270037	12	1620102	T	0.29	1.09 (0.99-1.19)	0.07	1 (0.91-1.1)	1.00	1.04 (0.98-1.11)	0.20
WNT2B	rs2273368	1	112775813	C	0.82	1.18 (1.06-1.31)	0.002	1.05 (0.96-1.15)	0.30	1.1 (1.03-1.18)	0.005
WNT9B	rs2277614	17	42325945	G	0.98	1.09 (0.84-1.43)	0.50	1.04 (0.79-1.39)	0.77	1.07 (0.88-1.3)	0.49
WNT10A	rs2385199	2	219576251	G	0.19	0.98 (0.89-1.09)	0.75	1.06 (0.95-1.18)	0.29	1.02 (0.95-1.1)	0.60
CSNK2A2	rs2550380	16	56813871	C	0.26	1.14 (1.03-1.25)	0.007	1.08 (0.97-1.2)	0.15	1.11 (1.04-1.19)	0.003
SOX17	rs2656272	8	55424453	A	0.4	1.15 (1.06-1.25)	0.001	1.05 (0.97-1.14)	0.25	1.1 (1.04-1.17)	0.002
CAMK2G	rs2664280	10	75287350	T	0.56	1.08 (0.99-1.17)	0.08	1.06 (0.98-1.15)	0.17	1.07 (1.01-1.13)	0.03
WNT16	rs2707469	7	120570837	G	0.17	0.98 (0.88-1.1)	0.75	1.08 (0.97-1.2)	0.16	1.03 (0.96-1.11)	0.42
CSNK2B	rs2844463	6	31723146	A	0.11	1.01 (0.89-1.15)	0.84	1.08 (0.94-1.24)	0.29	1.04 (0.95-1.15)	0.39

TP53	rs2909430	17	7519370	C	0.12	1.04 (0.91-1.18)	0.60	1.07 (0.94-1.22)	0.29	1.05 (0.96-1.15)	0.26
PPP2R2B	rs3096085	5	146026611	G	0.04	1.31 (1.06-1.62)	0.01	1.11 (0.83-1.49)	0.47	1.24 (1.05-1.47)	0.01
FBXW11	rs33830	5	171080775	A	0.36	1.11 (1.02-1.21)	0.02	1.09 (1-1.2)	0.05	1.1 (1.03-1.17)	0.003
CSNK1A1	rs353249	5	148804949	T	0.91	1.17 (1.02-1.35)	0.02	1.04 (0.9-1.21)	0.58	1.11 (1-1.23)	0.04
PSEN1	rs362340	14	72708891	G	0.1	1.13 (0.98-1.3)	0.09	1.04 (0.87-1.23)	0.68	1.09 (0.98-1.22)	0.12
FZD10	rs3741571	12	129161657	T	0.06	1.35 (1.12-1.62)	0.001	1.12 (0.95-1.33)	0.18	1.22 (1.08-1.38)	0.002
WNT10B	rs3782353	12	47645147	A	0.39	1.04 (0.96-1.13)	0.35	0.98 (0.9-1.06)	0.60	1.01 (0.95-1.07)	0.77
SFRP4	rs3807612	7	37731011	G	0.25	1.08 (0.98-1.19)	0.12	1.01 (0.92-1.11)	0.88	1.04 (0.98-1.12)	0.21
CAMK2B	rs3934888	7	44107093	G	0.4	1.02 (0.94-1.11)	0.69	1.09 (1-1.18)	0.05	1.05 (0.99-1.11)	0.09
FZD2	rs4098686	17	39985263	C	0.76	1.08 (0.98-1.18)	0.12	1.05 (0.95-1.16)	0.34	1.06 (0.99-1.14)	0.08
NLK	rs4239211	17	23333545	G	0.28	1.07 (0.98-1.18)	0.13	0.99 (0.91-1.08)	0.84	1.03 (0.97-1.1)	0.36
PPP2R2C	rs4272078	4	6487456	T	0.09	1.18 (1.02-1.38)	0.03	1.05 (0.89-1.25)	0.57	1.12 (1-1.26)	0.04
APC	rs4365835	5	111977339	C	0.34	1.13 (1.03-1.23)	0.008	0.91 (0.83-1.01)	0.07	1.03 (0.96-1.09)	0.46
BTRC	rs4436485	10	103235351	G	0.63	1.11 (1.02-1.2)	0.02	1.08 (0.99-1.17)	0.09	1.09 (1.03-1.16)	0.004
CTNNB1	rs4459874	3	41041225	A	0.79	1.16 (1.05-1.28)	0.003	0.98 (0.89-1.08)	0.64	1.06 (0.99-1.14)	0.09
PLCB1	rs4496390	20	8709068	A	0.38	1.1 (1.01-1.2)	0.03	0.93 (0.86-1.01)	0.09	1.01 (0.95-1.07)	0.70
TCF7L2	rs4506565	10	114746031	T	0.39	1.36 (1.25-1.48)	5.7E-13	1.3 (1.19-1.43)	2.4E-08	1.34 (1.26-1.42)	4.48E-19
WNT5A	rs460001	3	55281493	A	0.67	1.08 (0.99-1.18)	0.07	0.98 (0.9-1.06)	0.62	1.03 (0.97-1.09)	0.37
WNT4	rs4654792	1	22345978	G	0.78	1.18 (1.07-1.3)	0.001	0.99 (0.9-1.08)	0.76	1.07 (1-1.15)	0.04
ROCK2	rs4668722	2	11460078	A	0.86	1.08 (0.96-1.21)	0.20	1.02 (0.9-1.16)	0.76	1.05 (0.97-1.15)	0.25
MYC	rs4733739	8	128647197	T	0.8	1.11 (1-1.22)	0.05	0.98 (0.88-1.08)	0.65	1.04 (0.97-1.12)	0.28
RBX1	rs4821981	22	39740144	G	0.61	1.05 (0.97-1.14)	0.24	0.99 (0.91-1.07)	0.72	1.02 (0.96-1.08)	0.57
EP300	rs4822012	22	39875539	A	0.64	1.06 (0.97-1.15)	0.19	1.03 (0.94-1.12)	0.59	1.04 (0.98-1.11)	0.18
VANGL1	rs4839469	1	115918465	G	0.86	1.16 (1.03-1.3)	0.01	0.9 (0.8-1.01)	0.09	1.03 (0.95-1.11)	0.55
CXXC4	rs488076	4	105873027	A	0.36	1.13 (1.04-1.23)	0.005	1.01 (0.92-1.11)	0.84	1.07 (1.01-1.14)	0.03
SFRP5	rs4919146	10	99560323	A	0.47	1.06 (0.98-1.15)	0.13	1.03 (0.95-1.12)	0.44	1.05 (0.99-1.11)	0.11
LEF1	rs4956041	4	109471518	T	0.6	1.11 (1.02-1.21)	0.01	1.04 (0.96-1.13)	0.32	1.07 (1.01-1.14)	0.02
RAC2	rs6000632	22	35968615	T	0.25	0.96 (0.87-1.05)	0.36	1.05 (0.95-1.16)	0.34	1 (0.94-1.07)	1.00
NFATC2	rs6123004	20	49311277	G	0.88	1.21 (1.07-1.37)	0.002	1 (0.9-1.13)	0.95	1.1 (1.01-1.19)	0.03
PLCB4	rs6140908	20	9204439	G	0.05	1.36 (1.11-1.66)	0.002	1.04 (0.86-1.27)	0.69	1.18 (1.03-1.36)	0.02

CCND1	rs642661	11	69115806	T	0.97	1.3 (1.02-1.64)	0.03	0.93 (0.71-1.23)	0.63	1.13 (0.95-1.35)	0.18
NKD1	rs6500315	16	49065602	G	0.79	1.1 (1-1.21)	0.06	0.98 (0.88-1.09)	0.71	1.04 (0.97-1.12)	0.26
PPP3CA	rs6532916	4	102227529	G	0.13	1.24 (1.1-1.4)	0.0007	0.99 (0.89-1.11)	0.86	1.09 (1.01-1.19)	0.03
PPP3R1	rs6546359	2	68329729	C	0.74	1.06 (0.96-1.16)	0.26	1.04 (0.94-1.15)	0.46	1.05 (0.98-1.12)	0.18
JUN	rs6684750	1	59040156	C	0.74	1.13 (1.03-1.24)	0.01	0.94 (0.86-1.04)	0.24	1.04 (0.97-1.11)	0.29
CACYBP	rs6686962	1	171685226	A	0.97	1.25 (1-1.56)	0.05	0.97 (0.79-1.19)	0.76	1.09 (0.94-1.27)	0.26
WNT6	rs6747776	2	219550823	C	0.85	1.03 (0.92-1.16)	0.59	0.98 (0.86-1.1)	0.70	1.01 (0.93-1.09)	0.89
TCF7L1	rs6748258	2	85417638	T	0.77	1.16 (1.06-1.28)	0.002	0.98 (0.9-1.07)	0.59	1.06 (0.99-1.13)	0.09
FZD7	rs6755553	2	202790866	T	0.55	1.08 (0.99-1.17)	0.09	1 (0.92-1.08)	0.91	1.03 (0.98-1.09)	0.27
SENP2	rs6762208	3	186813867	A	0.36	1.09 (1-1.19)	0.04	0.99 (0.91-1.08)	0.84	1.04 (0.98-1.11)	0.19
GSK3B	rs6805251	3	121043296	T	0.4	1.13 (1.04-1.23)	0.004	0.97 (0.89-1.05)	0.41	1.04 (0.99-1.11)	0.15
CAMK2D	rs6850980	4	115067898	G	0.34	1.1 (1.01-1.2)	0.03	1.06 (0.98-1.16)	0.15	1.08 (1.02-1.15)	0.009
PRICKLE2	rs696224	3	64142292	T	0.06	1.27 (1.06-1.53)	0.008	1.08 (0.88-1.33)	0.44	1.19 (1.04-1.36)	0.01
CUL1	rs6971248	7	147814215	T	0.27	1.11 (1.01-1.21)	0.03	1.01 (0.92-1.11)	0.86	1.06 (0.99-1.13)	0.10
PPP2R2A	rs6996634	8	26159815	A	0.45	1.09 (1.01-1.19)	0.03	1.05 (0.97-1.14)	0.21	1.07 (1.01-1.14)	0.02
DAAM1	rs7145688	14	58861795	T	0.26	1.1 (1-1.21)	0.04	1.01 (0.92-1.11)	0.85	1.05 (0.99-1.13)	0.12
CHP	rs7163649	15	39374090	A	0.68	0.97 (0.88-1.05)	0.42	1.04 (0.95-1.13)	0.39	1 (0.94-1.06)	0.96
SMAD3	rs7178347	15	65108440	T	0.35	1.16 (1.06-1.26)	0.0009	1.07 (0.98-1.16)	0.13	1.11 (1.05-1.18)	0.0006
AXIN1	rs7195617	16	316782	A	0.67	1.11 (1.02-1.21)	0.01	0.96 (0.88-1.04)	0.27	1.03 (0.97-1.09)	0.35
AXIN2	rs7213080	17	60852046	C	0.97	1.33 (1.04-1.7)	0.02	0.9 (0.69-1.16)	0.40	1.1 (0.92-1.32)	0.29
PPP2R1A	rs7256300	19	57434028	G	0.88	1.16 (1.02-1.31)	0.03	0.99 (0.89-1.1)	0.80	1.05 (0.97-1.14)	0.20
CSNK2A1	rs7267034	20	441609	T	0.86	1.13 (1-1.26)	0.05	0.96 (0.84-1.09)	0.52	1.05 (0.96-1.15)	0.28
TCF3	rs7351116	19	1633776	T	0.19	1.03 (0.93-1.14)	0.60	1.06 (0.92-1.22)	0.42	1.04 (0.96-1.13)	0.37
WNT9A	rs7552818	1	224407626	G	0.14	1.13 (1-1.27)	0.05	1.06 (0.95-1.18)	0.29	1.09 (1.01-1.18)	0.03
TBL1XR1	rs7612873	3	178082147	A	0.87	1.17 (1.04-1.31)	0.008	1.01 (0.9-1.12)	0.93	1.08 (1-1.17)	0.06
MAPK10	rs7668374	4	87465689	T	0.22	1.13 (1.02-1.25)	0.02	1.02 (0.92-1.14)	0.69	1.08 (1-1.16)	0.05
WNT8A	rs7705323	5	137428572	T	0.83	1.03 (0.93-1.15)	0.56	1.07 (0.97-1.19)	0.19	1.05 (0.98-1.13)	0.17
SFRP1	rs7834090	8	41261852	T	0.04	1.32 (1.07-1.64)	0.01	1.01 (0.81-1.26)	0.93	1.16 (1-1.35)	0.06
PLCB3	rs7943988	11	63780547	G	0.71	1.06 (0.97-1.16)	0.18	1.01 (0.82-1.25)	0.92	1.05 (0.97-1.15)	0.20
WIF1	rs7960504	12	63732203	T	0.39	1.1 (1.01-1.2)	0.03	1.01 (0.92-1.1)	0.86	1.06 (0.99-1.12)	0.08

NFATC1	rs8090560	18	75314143	A	0.2	1.15 (1.04-1.28)	0.009	1.03 (0.92-1.14)	0.63	1.09 (1.01-1.17)	0.03
FZD6	rs827536	8	104392202	C	0.54	0.95 (0.87-1.03)	0.21	1.07 (0.98-1.15)	0.13	1.01 (0.95-1.07)	0.82
LRP5	rs901824	11	67962749	C	0.09	1.08 (0.94-1.25)	0.27	1.03 (0.86-1.23)	0.77	1.06 (0.95-1.19)	0.30
CTBP2	rs9422860	10	126906113	G	0.92	1.27 (1.1-1.47)	0.001	0.98 (0.84-1.16)	0.83	1.13 (1.02-1.26)	0.03
PPARD	rs9470015	6	35477062	A	0.19	1.1 (0.99-1.22)	0.09	1.17 (1.03-1.32)	0.02	1.12 (1.04-1.22)	0.004
DAAM2	rs9471186	6	39919545	G	0.54	1.12 (1.03-1.21)	0.009	1 (0.92-1.09)	0.93	1.06 (1-1.12)	0.05
CSNK1A1L	rs9576222	13	36687910	C	0.24	1.12 (1.02-1.23)	0.02	1.07 (0.98-1.17)	0.11	1.09 (1.03-1.16)	0.007
CSNK1E	rs9622773	22	37003246	A	0.18	1.08 (0.97-1.21)	0.14	1.01 (0.9-1.14)	0.84	1.05 (0.97-1.14)	0.22
WNT11	rs9787822	11	75567110	A	0.71	1.11 (1.01-1.21)	0.02	0.98 (0.9-1.07)	0.68	1.04 (0.98-1.11)	0.21
PRKCB1	rs9930905	16	23977481	C	0.27	1.11 (1.01-1.22)	0.03	0.96 (0.87-1.06)	0.42	1.03 (0.97-1.11)	0.34

Allele freq is based on WTCCC case samples. Three Study P-values are from the imputed meta-analysis of WTCCC, DGI, FUSION cohorts, produced by DIAGRAM consortium. SNP and gene positions are based on NCBI Build 35. Alleles are based on the forward strand

Supplementary Table 2: SNPs within the top 12 ranking pathways (excluding WNT signaling)

PathwayID	Gene	SNP	Chr	Position	Risk / Non – Risk Allele	Risk Freq	3Study OR	3Study P
1	*PDC*	rs480075	1	183187993	A / G	0.18	1.14 (1.05-1.23)	0.002
1	*PRKG1*	rs11000542	10	53469271	G / A	0.73	1.1 (1.03-1.17)	0.003
1	*CAMK2D*	rs6850980	4	115067898	G / A	0.34	1.08 (1.02-1.15)	0.009
1	*CNGA3*	rs3769754	2	98448218	C / A	0.42	1.07 (1.01-1.14)	0.02
1	*CAMK2G*	rs2664280	10	75287350	T / A	0.56	1.07 (1.01-1.13)	0.03
1	*CALML3*	rs4076513	10	5607417	A / C	0.97	1.2 (1.02-1.41)	0.03
1	*PDE1C*	rs10247918	7	31627635	A / G	0.34	1.07 (1-1.13)	0.04
1	*CLCA1*	rs1547036	1	86700643	C / A	0.26	1.07 (1-1.15)	0.05
1	*CAMK2A*	rs10066581	5	149595874	G / A	0.86	1.09 (1-1.18)	0.05
1	*PRKACB*	rs11163905	1	84306420	G / A	0.46	1.06 (1-1.12)	0.05
1	*CLCA4*	rs12734135	1	86704654	T / C	0.27	1.07 (1-1.15)	0.05
1	*CALM2*	rs11125126	2	47307030	A / G	0.77	1.07 (1-1.14)	0.06
1	*CALM1*	rs2300500	14	89935470	G / C	0.45	1.06 (1-1.12)	0.07
1	*CAMK2B*	rs3934888	7	44107093	G / A	0.40	1.05 (0.99-1.11)	0.09
1	*CALM3*	rs710889	19	51804580	T / C	0.37	1.05 (0.98-1.11)	0.15
1	*CNGB1*	rs3784900	16	56513317	G / A	0.19	1.05 (0.98-1.13)	0.16
1	*ADRBK2*	rs738194	22	24229975	G / C	0.58	1.04 (0.98-1.11)	0.17
1	*ARRB2*	rs2089480	17	4558548	C / G	0.78	1.03 (0.95-1.1)	0.48
1	*ADCY3*	rs17046666	2	24982002	C / G	0.09	1.04 (0.93-1.16)	0.50
1	*CLCA2*	rs1931363	1	86610578	G / A	0.73	1.02 (0.96-1.08)	0.57
1	*GUCA1B*	rs9369346	6	42267110	G / C	0.62	1.01 (0.95-1.07)	0.78
1	*GUCA1C*	rs2715719	3	110143381	C / G	0.16	1 (0.92-1.09)	0.98
2	*PGDS*	rs10084984	4	95611753	T / C	0.84	1.18 (1.09-1.27)	0.00002
2	*HPGD*	rs4624634	4	175716919	T / C	0.31	1.09 (1.02-1.16)	0.007
2	*CYP7B1*	rs7841297	8	65711896	C / G	0.86	1.12 (1.03-1.22)	0.008
2	*ALOX5AP*	rs17074898	13	30183532	G / A	0.96	1.2 (1.05-1.37)	0.008
2	*OXSM*	rs4527340	3	25861745	T / G	0.84	1.1 (1.02-1.19)	0.01
2	*LTA4H*	rs2660851	12	94947165	T / G	0.50	1.08 (1.02-1.14)	0.01
2	*TGS2*	rs2383529	1	183400749	A / G	0.79	1.09 (1.02-1.17)	0.02
2	*CYP39A1*	rs1534357	6	46641731	C / G	0.97	1.21 (1.03-1.41)	0.02
2	*SYK*	rs158688	9	90738409	A / G	0.67	1.07 (1.01-1.14)	0.02
2	*ALOX5*	rs7099684	10	45217161	A / T	0.22	1.09 (1.01-1.17)	0.02
2	*ALOX12*	rs11571353	17	6855064	C / T	0.94	1.12 (1.01-1.24)	0.03
2	*AKR1D1*	rs6467733	7	137207117	G / C	0.14	1.1 (1.01-1.19)	0.03
2	*TBXAS1*	rs12703395	7	138880556	T / C	0.82	1.08 (1-1.16)	0.04
2	*BRCA1*	rs8176198	17	38484063	T / A	0.36	1.07 (1-1.13)	0.04
2	*PTGS1*	rs1332408	9	122271713	A / C	0.24	1.07 (1-1.14)	0.07
2	*FCER1A*	rs2427837	1	156071618	G / A	0.72	1.06 (1-1.13)	0.07
2	*ALOX12B*	rs2304906	17	7924406	A / G	0.03	1.12 (0.97-1.3)	0.12
2	*AGPAT1*	rs408359	6	32249861	A / G	0.07	1.08 (0.96-1.21)	0.23
2	*MGST2*	rs8192100	4	140974588	C / A	0.14	1.05 (0.97-1.15)	0.23
2	*QKI*	rs7742234	6	164119586	C / T	0.91	1.05 (0.96-1.14)	0.27
2	*UGDH*	rs1450	4	39323080	C / T	0.49	1.03 (0.97-1.09)	0.32
2	*ALOX15B*	rs4468690	17	7881479	T / C	0.16	1.04 (0.96-1.12)	0.39
2	*PTGES3*	rs17444799	12	55350666	C / T	0.94	1.04 (0.93-1.16)	0.52

2	*AGT*	rs4847008	1	227171961	T / G	0.22	1.02 (0.95-1.1)	0.53
2	*MIF*	rs5751761	22	22568290	T / C	0.56	1.02 (0.96-1.08)	0.54
2	*GGTLA1*	rs2275985	22	22954647	C / A	0.88	1.02 (0.94-1.11)	0.60
2	*ALOXE3*	rs3027209	17	7955141	G / A	0.18	1.02 (0.94-1.1)	0.64
2	*CYP7A1*	rs17202769	8	59548908	T / C	0.84	1 (0.92-1.09)	0.98
3	*TCF7L2*	rs4506565	10	114746031	T / A	0.39	1.34 (1.26-1.42)	4.48E-19
3	*DKK2*	rs10028834	4	108211197	T / G	0.08	1.16 (1.04-1.3)	0.007
3	*TCF4*	rs1261134	18	51082761	T / A	0.40	1.08 (1.01-1.14)	0.02
3	*CXXC4*	rs488076	4	105873027	A / C	0.36	1.07 (1.01-1.14)	0.03
3	*PPAP2B*	rs6666317	1	56616906	A / C	0.29	1.07 (1-1.15)	0.04
3	*TLE1*	rs11794108	9	81244452	T / C	0.13	1.1 (1-1.21)	0.05
3	*LRP6*	rs12425946	12	12302231	G / A	0.85	1.08 (0.99-1.17)	0.08
3	*TCF7L1*	rs6748258	2	85417638	T / A	0.77	1.06 (0.99-1.13)	0.09
3	*SIX3*	rs895636	2	45100004	C / T	0.81	1.05 (0.98-1.14)	0.16
3	*SENP2*	rs6762208	3	186813867	A / C	0.36	1.04 (0.98-1.11)	0.19
3	*PPP2R1A*	rs7256300	19	57434028	G / A	0.88	1.05 (0.97-1.14)	0.20
3	*LRP1*	rs4759277	12	55819957	C / A	0.65	1.04 (0.98-1.1)	0.21
3	*PPP2R1B*	rs11601674	11	111139564	T / C	0.74	1.04 (0.97-1.1)	0.29
3	*AXIN2*	rs7213080	17	60852046	C / T	0.97	1.1 (0.92-1.32)	0.29
3	*FRZB*	rs288248	2	183537854	A / G	0.68	1.03 (0.97-1.09)	0.34
3	*AXIN1*	rs7195617	16	316782	A / G	0.67	1.03 (0.97-1.09)	0.35
3	*NLK*	rs4239211	17	23333545	G / C	0.28	1.03 (0.97-1.1)	0.36
3	*BARX1*	rs1316814	9	93822273	A / G	0.52	1.02 (0.97-1.08)	0.44
3	*LRP4*	rs7112060	11	46848477	T / C	0.08	1.02 (0.92-1.13)	0.73
3	*DKK4*	rs2073664	8	42350943	G / A	0.94	1.01 (0.91-1.12)	0.84
4	*FOXC1*	rs9405496	6	1553630	C / A	0.12	1.17 (1.07-1.28)	0.0009
4	*SOSTDC1*	rs10214948	7	16334138	T / C	0.86	1.12 (1.03-1.21)	0.005
4	*LEF1*	rs4956041	4	109471518	T / C	0.60	1.07 (1.01-1.14)	0.02
4	*TUFT1*	rs12121608	1	148328261	C / T	0.86	1.09 (1.01-1.18)	0.02
4	*FGF4*	rs3168175	11	69295251	A / C	0.87	1.09 (1-1.18)	0.04
4	*ITGA6*	rs7564591	2	173183034	G / C	0.22	1.07 (1-1.15)	0.04
4	*ACVR2B*	rs11926767	3	38502917	C / T	0.40	1.06 (1-1.13)	0.05
4	*CTNNB1*	rs4459874	3	41041225	A / G	0.79	1.06 (0.99-1.14)	0.09
4	*RUNX2*	rs4510673	6	45458085	G / A	0.60	1.05 (0.99-1.11)	0.11
4	*ZNF22*	rs10793586	10	44931083	T / C	0.49	1.05 (0.99-1.11)	0.11
4	*NFIC*	rs918171	19	3287539	C / T	0.94	1.08 (0.97-1.19)	0.16
4	*FST*	rs4865763	5	52632147	G / A	0.51	1.04 (0.98-1.1)	0.22
4	*PDGFRA*	rs1507968	4	55150421	C / G	0.93	1.06 (0.96-1.18)	0.25
4	*JAG2*	rs2816661	14	104667055	C / A	0.13	1.05 (0.96-1.15)	0.30
4	*CHUK*	rs11597086	10	101943695	A / C	0.59	1.03 (0.97-1.09)	0.32
4	*DLL1*	rs9460089	6	170466353	T / G	0.84	1.04 (0.96-1.12)	0.35
4	*BMP7*	rs13040929	20	55159138	T / C	0.08	1.05 (0.94-1.16)	0.39
4	*LAMB1*	rs17154667	7	107197382	C / A	0.29	1.03 (0.96-1.09)	0.43
4	*BMP4*	rs8009420	14	53333601	A / C	0.10	1.03 (0.92-1.14)	0.65
5	*CHST3*	rs731027	10	73442342	C / T	0.51	1.12 (1.05-1.18)	0.0002
5	*EXT1*	rs9656922	8	118925250	C / T	0.06	1.2 (1.05-1.38)	0.007
5	*HAS1*	rs1868940	19	56879614	C / A	0.83	1.12 (1.03-1.21)	0.007
5	*EXT2*	rs7108467	11	44114729	C / G	0.79	1.08 (1.01-1.15)	0.03

5	CHGN	rs6981526	8	19635482	C / G	0.33	1.07 (1.01-1.14)	0.03
5	XYLT1	rs4782006	16	17319208	G / C	0.65	1.06 (1.01-1.13)	0.03
5	XYLT2	rs2586465	17	45780966	T / G	0.49	1.06 (1-1.13)	0.04
5	CHST9	rs10502482	18	22839434	T / C	0.22	1.08 (1-1.16)	0.04
5	SLC35D1	rs12082503	1	67201530	C / T	0.92	1.11 (1-1.24)	0.05
5	ITIH5	rs927723	10	7569625	G / A	0.73	1.06 (1-1.14)	0.07
5	ITIH4	rs2276817	3	52835976	T / C	0.23	1.06 (0.99-1.14)	0.09
5	SGSH	rs7207000	17	75806953	T / C	0.62	1.05 (0.99-1.11)	0.12
5	CHST11	rs11112069	12	103369485	A / T	0.20	1.06 (0.98-1.14)	0.14
5	ARSB	rs3857405	5	78153340	A / G	0.37	1.04 (0.98-1.11)	0.18
5	MGAT1	rs6884018	5	180141456	C / T	0.26	1.04 (0.97-1.11)	0.24
5	CHST12	rs10227362	7	2230040	A / G	0.21	1.04 (0.97-1.12)	0.26
5	UGDH	rs1450	4	39323080	C / T	0.49	1.03 (0.97-1.09)	0.32
5	SUMF1	rs1625605	3	4431185	T / G	0.69	1.03 (0.97-1.09)	0.32
5	ITIH3	rs2240920	3	52806049	C / T	0.66	1.02 (0.97-1.09)	0.41
5	GUSB	rs12698511	7	64919069	C / A	0.94	1.05 (0.93-1.17)	0.43
5	CHST6	rs247445	16	74078531	G / A	0.37	1.02 (0.96-1.08)	0.53
5	HS2ST1	rs6686833	1	87395858	A / G	0.25	1.02 (0.95-1.1)	0.54
5	GLCE	rs4116076	15	67278521	G / T	0.79	1.02 (0.95-1.09)	0.55
5	GALNT5	rs2166487	2	157970751	C / G	0.93	1.03 (0.93-1.14)	0.56
5	GCNT2	rs16870442	6	10603222	A / G	0.98	1.06 (0.87-1.29)	0.56
5	GALNS	rs3826067	16	87412581	C / T	0.71	1.02 (0.96-1.08)	0.59
5	HEXB	rs16872173	5	74004814	C / A	0.14	1.02 (0.94-1.11)	0.60
5	CLN6	rs10431808	15	66294326	A / G	0.57	1.01 (0.96-1.07)	0.63
5	ITIH2	rs11255291	10	7776910	C / T	0.56	1.01 (0.96-1.07)	0.64
5	ITIH1	rs2071508	3	52801886	A / G	0.35	1.01 (0.95-1.07)	0.81
5	HEXA	rs4777506	15	70456934	A / G	0.05	1.01 (0.87-1.17)	0.89
5	GNS	rs1445442	12	63577561	A / G	0.33	1 (0.95-1.07)	0.92
6	PACSIN1	rs9296115	6	34542693	A / C	0.80	1.11 (1.04-1.19)	0.002
6	GULP1	rs11688935	2	189001411	G / A	0.34	1.1 (1.03-1.17)	0.003
6	SPACA3	rs28909	17	28327481	C / T	0.15	1.13 (1.04-1.23)	0.006
6	CORO1C	rs10746129	12	107593555	C / T	0.45	1.08 (1.02-1.14)	0.007
6	MIB1	rs2959510	18	17579480	A / G	0.12	1.13 (1.03-1.25)	0.01
6	ACTN4	rs12984247	19	43844748	C / T	0.76	1.09 (1.02-1.16)	0.01
6	GATA2	rs7641386	3	129727360	A / G	0.90	1.14 (1.03-1.26)	0.01
6	FGF10	rs6451758	5	44341272	T / A	0.82	1.08 (1.01-1.16)	0.03
6	ABCA1	rs1809924	9	104894024	G / C	0.31	1.07 (1.01-1.14)	0.03
6	ADORA1	rs10800901	1	199842961	A / G	0.32	1.07 (1.01-1.14)	0.03
6	M6PR	rs12423746	12	9004269	T / G	0.47	1.06 (1-1.12)	0.04
6	ELMO2	rs2297056	20	44429857	G / A	0.08	1.13 (1.01-1.27)	0.04
6	MYO7A	rs2276293	11	76594868	G / A	0.49	1.06 (1-1.12)	0.04
6	ELMO1	rs1882079	7	37164506	C / T	0.49	1.06 (1-1.12)	0.04
6	DOCK1	rs11017787	10	129076888	T / A	0.31	1.07 (1-1.14)	0.05
6	RAMP3	rs2877307	7	44951531	A / G	0.23	1.08 (1-1.15)	0.05
6	ITSN1	rs9979150	21	34163750	A / G	0.43	1.06 (1-1.12)	0.05
6	MSR1	rs12675898	8	16223671	T / C	0.95	1.14 (1-1.3)	0.05
6	GRIA1	rs545098	5	152884481	C / T	0.72	1.06 (1-1.13)	0.06
6	IGF2R	rs9295118	6	160378126	A / T	0.87	1.08 (1-1.18)	0.07

6	PPT1	rs3131650	1	40224816	T / G	0.29	1.06 (0.99-1.13)	0.10
6	RBED1	rs17026285	2	85528416	T / C	0.77	1.06 (0.99-1.13)	0.10
6	AHSG	rs4498037	3	187823965	C / T	0.75	1.05 (0.99-1.12)	0.11
6	CEBPE	rs4982731	14	22655173	T / C	0.74	1.05 (0.99-1.12)	0.12
6	CUBN	rs17336427	10	16968595	C / G	0.97	1.13 (0.96-1.33)	0.14
6	FCN2	rs6537958	9	135006768	C / T	0.79	1.05 (0.98-1.13)	0.15
6	ADRB2	rs11959615	5	148181509	A / T	0.56	1.04 (0.98-1.11)	0.16
6	ELMOD1	rs7123473	11	106986661	A / G	0.03	1.14 (0.94-1.37)	0.18
6	ADORA2A	rs1041749	22	23170945	T / C	0.41	1.04 (0.98-1.1)	0.18
6	PICALM	rs3894654	11	85529106	T / A	0.06	1.09 (0.96-1.24)	0.18
6	DNM1	rs7875406	9	128050572	A / G	0.96	1.09 (0.96-1.23)	0.20
6	VAV1	rs2546133	19	6750677	T / C	0.11	1.07 (0.96-1.2)	0.22
6	LRP2	rs11887007	2	169975361	A / C	0.61	1.04 (0.98-1.1)	0.23
6	SFTPD	rs4255480	10	81725868	C / T	0.04	1.11 (0.93-1.33)	0.25
6	ELMOD2	rs2874478	4	141761994	A / G	0.21	1.04 (0.97-1.12)	0.25
6	SYNJ1	rs845007	21	32953744	A / G	0.06	1.08 (0.94-1.25)	0.27
6	LRP1B	rs10190295	2	142309956	T / C	0.36	1.03 (0.97-1.1)	0.28
6	COLEC12	rs2341746	18	495472	T / G	0.80	1.04 (0.97-1.11)	0.29
6	RAC1	rs10234438	7	6196040	A / G	0.97	1.09 (0.92-1.28)	0.31
6	CAP1	rs16826852	1	40200187	G / A	0.09	1.05 (0.95-1.16)	0.31
6	EEA1	rs6538379	12	91979163	G / A	0.44	1.02 (0.97-1.08)	0.45
6	LDLRAP1	rs4075441	1	25591233	A / G	0.76	1.03 (0.96-1.1)	0.48
6	PACSIN3	rs7937410	11	47162658	G / C	0.23	1.02 (0.96-1.09)	0.58
6	FCN1	rs11103623	9	135112990	T / C	0.60	1.02 (0.96-1.08)	0.58
6	CD14	rs2569192	5	139995392	C / G	0.29	1.02 (0.96-1.08)	0.59
6	PLD2	rs2286672	17	4659581	T / C	0.07	1.03 (0.93-1.13)	0.60
6	LRP3	rs8101468	19	38372622	C / A	0.76	1.02 (0.95-1.09)	0.63
6	HFE	rs707889	6	26203910	A / G	0.23	1.01 (0.95-1.09)	0.72
6	CLTCL1	rs2800973	22	17543170	C / T	0.65	1.01 (0.94-1.07)	0.86
6	MFGE8	rs1850324	15	87273271	C / T	0.40	1 (0.95-1.06)	0.89
6	CBL	rs7113047	11	118613322	A / G	0.73	1 (0.94-1.07)	0.89
6	CLN3	rs151181	16	28398018	C / T	0.41	1 (0.95-1.07)	0.90
6	PACSIN2	rs5996250	22	41678832	C / T	0.08	1.01 (0.91-1.11)	0.91
6	AP1S1	rs4727480	7	100393008	A / G	0.46	1 (0.95-1.06)	0.91
6	ASGR1	rs4464125	17	6991999	G / A	0.77	1 (0.94-1.07)	0.92
6	ARF6	rs11849760	14	49462470	A / G	0.90	1 (0.92-1.1)	0.93
6	CLEC7A	rs11053608	12	10166951	G / T	0.55	1 (0.94-1.06)	0.94
6	NEDD4L	rs17064520	18	54060610	T / C	0.15	1 (0.93-1.09)	0.95
7	NLGN1	rs573553	3	174686967	G / T	0.90	1.17 (1.06-1.28)	0.002
7	CDH23	rs7910896	10	72979896	T / C	0.46	1.1 (1.04-1.17)	0.002
7	ATP2C1	rs643417	3	132096892	C / T	0.05	1.2 (1.05-1.36)	0.009
7	CDH20	rs8088963	18	57198294	A / G	0.67	1.06 (1-1.12)	0.07
7	CDH19	rs508987	18	62337483	C / T	0.78	1.06 (1-1.13)	0.07
7	CDH17	rs13256327	8	95244285	G / A	0.71	1.05 (0.99-1.13)	0.13
7	PCDHB5	rs7730410	5	140499455	T / C	0.41	1.04 (0.98-1.11)	0.17
7	PCDHB7	rs17286891	5	140532958	A / G	0.12	1.07 (0.96-1.18)	0.21
7	FXYD5	rs11084803	19	40350568	C / T	0.80	1.04 (0.97-1.12)	0.26
7	DSG1	rs11876192	18	27194032	C / A	0.77	1.03 (0.97-1.1)	0.36

7	ME2	rs1789223	18	46716208	A / G	0.63	1.03 (0.97-1.09)	0.40
7	PCDHGB4	rs3805698	5	140801305	G / T	0.92	1.04 (0.93-1.16)	0.47
7	PCDHB10	rs629168	5	140555395	T / G	0.59	1.02 (0.96-1.08)	0.51
7	PCDHB9	rs2910324	5	140550383	G / A	0.59	1.02 (0.96-1.08)	0.52
7	PCDHB4	rs3776100	5	140482361	A / G	0.23	1.02 (0.95-1.09)	0.54
7	PCDH12	rs3761762	5	141319011	G / A	0.89	1.03 (0.94-1.13)	0.55
7	PCDHB6	rs17629011	5	140508197	T / C	0.08	1.03 (0.92-1.14)	0.64
7	CDH2	rs8084703	18	23750943	A / G	0.92	1.01 (0.91-1.11)	0.88
7	PCDHB2	rs31861	5	140445772	G / A	0.08	1.01 (0.9-1.12)	0.91
8	HSD17B12	rs6485456	11	43723478	T / C	0.33	1.1 (1.04-1.17)	0.002
8	PGM1	rs855351	1	63838471	A / G	0.15	1.11 (1.02-1.2)	0.01
8	GANC	rs10518763	15	40427287	G / A	0.08	1.13 (1.02-1.26)	0.02
8	GLB1	rs4234236	3	32994420	C / T	0.17	1.1 (1.01-1.2)	0.02
8	PGM3	rs477061	6	83953352	T / A	0.77	1.08 (1.01-1.15)	0.03
8	AKR1B1	rs6967329	7	133543678	T / C	0.27	1.08 (1.01-1.15)	0.03
8	PFKP	rs12762013	10	3097539	T / A	0.95	1.09 (0.97-1.23)	0.14
8	GCK	rs2300586	7	43992096	A / G	0.16	1.06 (0.98-1.15)	0.18
8	RDH13	rs8113032	19	60245950	A / G	0.43	1.04 (0.98-1.11)	0.18
8	HK3	rs4976662	5	176247905	C / T	0.68	1.04 (0.98-1.1)	0.21
8	GALK2	rs8025550	15	47302359	G / C	0.24	1.04 (0.97-1.11)	0.25
8	LCT	rs2322660	2	136391051	C / T	0.22	1.04 (0.97-1.11)	0.25
8	AKR1B10	rs3735041	7	133674984	G / A	0.26	1.04 (0.97-1.12)	0.27
8	RDH14	rs4832602	2	18635083	G / A	0.31	1.03 (0.97-1.1)	0.31
8	LALBA	rs2114322	12	47237874	C / T	0.57	1.03 (0.97-1.09)	0.32
8	PFKL	rs8134520	21	44548483	A / G	0.19	1.04 (0.96-1.11)	0.35
8	GAA	rs12600845	17	75692309	C / T	0.53	1.02 (0.97-1.08)	0.46
8	RDH11	rs1117516	14	67242647	C / T	0.38	1.02 (0.96-1.08)	0.60
8	RDH12	rs910315	14	67258676	A / G	0.96	1.03 (0.88-1.21)	0.70
8	UGP2	rs6546038	2	64028240	G / A	0.21	1.01 (0.94-1.09)	0.76
8	PFKM	rs10875746	12	46804531	A / C	0.76	1.01 (0.94-1.08)	0.80
8	G6PC	rs161634	17	38312011	G / A	0.13	1.01 (0.92-1.1)	0.89
9	TGFBR3	rs7524679	1	91891469	A / G	0.10	1.17 (1.07-1.29)	0.001
9	TGFB3	rs3917201	14	75499308	T / C	0.77	1.12 (1.05-1.2)	0.001
9	GATA4	rs11250163	8	11633846	A / C	0.54	1.09 (1.03-1.16)	0.003
9	BMP5	rs10485070	6	55679281	G / A	0.06	1.2 (1.06-1.35)	0.004
9	SMAD6	rs9888681	15	64720962	T / C	0.76	1.09 (1.02-1.16)	0.01
9	MEF2C	rs2161228	5	88037554	T / C	0.11	1.13 (1.02-1.24)	0.01
9	NKX2-5	rs7356620	5	172577126	G / A	0.33	1.08 (1.01-1.16)	0.02
9	BMP10	rs4605401	2	69022667	C / T	0.69	1.06 (1-1.13)	0.05
9	TGFBR2	rs6790706	3	30666477	A / G	0.88	1.09 (1-1.19)	0.06
9	MAP3K7	rs1145721	6	91225674	G / A	0.36	1.06 (1-1.12)	0.07
9	CTNNB1	rs4459874	3	41041225	A / G	0.79	1.06 (0.99-1.14)	0.09
9	ACVR1	rs10168000	2	158518590	C / T	0.83	1.07 (0.99-1.16)	0.09
9	SMAD4	rs10502913	18	46822269	G / A	0.77	1.06 (0.99-1.13)	0.10
9	BMPR2	rs16839090	2	203038567	C / T	0.13	1.07 (0.98-1.17)	0.13
9	GSK3B	rs6805251	3	121043296	T / C	0.40	1.04 (0.99-1.11)	0.15
9	MYL2	rs933296	12	109815568	C / A	0.69	1.04 (0.98-1.11)	0.19
9	FZD1	rs17163799	7	90590566	G / A	0.72	1.04 (0.98-1.11)	0.22

9	*TGFBR1*	rs10819641	9	99015786	C / T	0.94	1.06 (0.95-1.2)	0.30
9	*BMPR1A*	rs10887652	10	88501217	G / C	0.38	1.03 (0.97-1.09)	0.31
9	*AXIN1*	rs7195617	16	316782	A / G	0.67	1.03 (0.97-1.09)	0.35
9	*NPPA*	rs5065	1	11840334	A / G	0.86	1.04 (0.95-1.14)	0.38
9	*BMP7*	rs13040929	20	55159138	T / C	0.08	1.05 (0.94-1.16)	0.39
9	*SMAD5*	rs7701291	5	135519864	G / C	0.68	1.03 (0.97-1.09)	0.41
9	*APC*	rs4365835	5	111977339	C / T	0.34	1.03 (0.96-1.09)	0.46
9	*NPPB*	rs4846064	1	11869108	T / C	0.41	1.02 (0.96-1.08)	0.49
9	*ATF2*	rs17270532	2	175842703	A / C	0.92	1.03 (0.92-1.14)	0.62
9	*NOG*	rs12150511	17	52006359	G / A	0.92	1.03 (0.92-1.15)	0.63
9	*BMP4*	rs8009420	14	53333601	A / C	0.10	1.03 (0.92-1.14)	0.65
9	*CHRD*	rs7630982	3	185627348	A / G	0.08	1.02 (0.92-1.14)	0.68
9	*SMAD1*	rs11100883	4	146808575	G / A	0.53	1 (0.95-1.06)	0.98
10	*KL*	rs7321110	13	32428155	C / T	0.05	1.29 (1.13-1.47)	0.0002
10	*MEPE*	rs1463095	4	89149800	A / G	0.43	1.09 (1.03-1.15)	0.005
10	*SPP1*	rs4693920	4	89221954	C / T	0.09	1.17 (1.04-1.32)	0.009
10	*ANKH*	rs26306	5	14868699	T / G	0.58	1.07 (1.01-1.14)	0.02
10	*TUFT1*	rs12121608	1	148328261	C / T	0.86	1.09 (1.01-1.18)	0.02
10	*EIF2AK3*	rs4449134	2	88686223	A / G	0.70	1.07 (1.01-1.14)	0.03
10	*CTNNB1*	rs4459874	3	41041225	A / G	0.79	1.06 (0.99-1.14)	0.09
10	*CD276*	rs7177814	15	71786642	G / C	0.10	1.08 (0.98-1.19)	0.11
10	*AHSG*	rs4498037	3	187823965	C / T	0.75	1.05 (0.99-1.12)	0.11
10	*P2RX7*	rs503720	12	120067794	G / A	0.70	1.05 (0.99-1.11)	0.14
10	*ACHE*	rs3903230	7	100172362	A / T	0.90	1.08 (0.97-1.19)	0.15
10	*ADRB2*	rs11959615	5	148181509	A / T	0.56	1.04 (0.98-1.11)	0.16
10	*PTN*	rs322347	7	136450439	A / G	0.41	1.04 (0.98-1.1)	0.18
10	*OSTN*	rs7638730	3	192378732	C / G	0.35	1.04 (0.97-1.1)	0.27
10	*AXIN2*	rs7213080	17	60852046	C / T	0.97	1.1 (0.92-1.32)	0.29
10	*SOST*	rs4793022	17	39154381	G / C	0.61	1.03 (0.97-1.09)	0.30
10	*PTHLH*	rs7978444	12	27951898	T / C	0.48	1.03 (0.97-1.09)	0.30
10	*AMBN*	rs1907078	4	71619801	G / C	0.05	1.09 (0.92-1.29)	0.31
10	*PEX7*	rs6926680	6	137271220	G / A	0.03	1.09 (0.92-1.28)	0.34
10	*FGF23*	rs11063112	12	4348341	T / A	0.72	1.02 (0.96-1.09)	0.56
10	*BMP4*	rs8009420	14	53333601	A / C	0.10	1.03 (0.92-1.14)	0.65
10	*CHRD*	rs7630982	3	185627348	A / G	0.08	1.02 (0.92-1.14)	0.68
10	*STATH*	rs776833	4	71055427	T / C	0.59	1.01 (0.95-1.07)	0.75
10	*MINPP1*	rs2147287	10	89308314	G / A	0.62	1 (0.95-1.06)	0.91
10	*KLF10*	rs2511694	8	103784402	G / A	0.32	1 (0.94-1.07)	0.95
10	*TOB1*	rs4626	17	46295421	T / C	0.30	1 (0.94-1.07)	0.99
11	*HIP1*	rs237238	7	74856065	A / G	0.94	1.22 (1.09-1.37)	0.0006
11	*DNM3*	rs10798751	1	168621004	G / T	0.35	1.1 (1.04-1.17)	0.002
11	*PACSIN1*	rs9296115	6	34542693	A / C	0.80	1.11 (1.04-1.19)	0.002
11	*GULP1*	rs11688935	2	189001411	G / A	0.34	1.1 (1.03-1.17)	0.003
11	*SPACA3*	rs28909	17	28327481	C / T	0.15	1.13 (1.04-1.23)	0.006
11	*CORO1C*	rs10746129	12	107593555	C / T	0.45	1.08 (1.02-1.14)	0.007
11	*GHR*	rs4866954	5	42782919	T / C	0.72	1.08 (1.02-1.15)	0.01
11	*SNX1*	rs3816385	15	62205708	G / A	0.22	1.1 (1.02-1.18)	0.01
11	*MIB1*	rs2959510	18	17579480	A / G	0.12	1.13 (1.03-1.25)	0.01

11	*AP3B1*	rs7729157	5	77296459	A / G	0.05	1.23 (1.05-1.46)	0.01
11	*ACTN4*	rs12984247	19	43844748	C / T	0.76	1.09 (1.02-1.16)	0.01
11	*GATA2*	rs7641386	3	129727360	A / G	0.90	1.14 (1.03-1.26)	0.01
11	*RIN3*	rs7142236	14	92081630	C / T	0.49	1.07 (1.01-1.14)	0.02
11	*AP1S3*	rs658055	2	224425534	G / A	0.03	1.27 (1.04-1.54)	0.02
11	*TOM1*	rs2267332	22	34048818	G / C	0.92	1.14 (1.02-1.27)	0.02
11	*CLEC10A*	rs732428	17	6909787	T / C	0.13	1.11 (1.01-1.22)	0.02
11	*FNBP1L*	rs6541379	1	93608786	A / G	0.11	1.12 (1.01-1.24)	0.03
11	*FGF10*	rs6451758	5	44341272	T / A	0.82	1.08 (1.01-1.16)	0.03
11	*ABCA1*	rs1809924	9	104894024	G / C	0.31	1.07 (1.01-1.14)	0.03
11	*EPN2*	rs3862148	17	19109505	T / G	0.18	1.09 (1.01-1.18)	0.03
11	*ADORA1*	rs10800901	1	199842961	A / G	0.32	1.07 (1.01-1.14)	0.03
11	*AP2A1*	rs10404868	19	54963736	T / G	0.27	1.07 (1-1.15)	0.04
11	*M6PR*	rs12423746	12	9004269	T / G	0.47	1.06 (1-1.12)	0.04
11	*ELMO2*	rs2297056	20	44429857	G / A	0.08	1.13 (1.01-1.27)	0.04
11	*MYO7A*	rs2276293	11	76594868	G / A	0.49	1.06 (1-1.12)	0.04
11	*ELMO1*	rs1882079	7	37164506	C / T	0.49	1.06 (1-1.12)	0.04
11	*DOCK1*	rs11017787	10	129076888	T / A	0.31	1.07 (1-1.14)	0.05
11	*RAMP3*	rs2877307	7	44951531	A / G	0.23	1.08 (1-1.15)	0.05
11	*ITSN1*	rs9979150	21	34163750	A / G	0.43	1.06 (1-1.12)	0.05
11	*SORT1*	rs17585355	1	109569857	A / C	0.94	1.12 (1-1.27)	0.05
11	*MSR1*	rs12675898	8	16223671	T / C	0.95	1.14 (1-1.3)	0.05
11	*EHD1*	rs17146413	11	64394617	T / C	0.06	1.14 (1-1.29)	0.06
11	*GRIA1*	rs545098	5	152884481	C / T	0.72	1.06 (1-1.13)	0.06
11	*IGF2R*	rs9295118	6	160378126	A / T	0.87	1.08 (1-1.18)	0.07
11	*DNM2*	rs1560734	19	10702049	T / C	0.92	1.11 (0.99-1.24)	0.08
11	*LRP6*	rs12425946	12	12302231	G / A	0.85	1.08 (0.99-1.17)	0.08
11	*DNM1L*	rs11052187	12	32742631	A / G	0.09	1.11 (0.99-1.24)	0.09
11	*PPT1*	rs3131650	1	40224816	T / G	0.29	1.06 (0.99-1.13)	0.10
11	*RBED1*	rs17026285	2	85528416	T / C	0.77	1.06 (0.99-1.13)	0.10
11	*TFRC*	rs6583286	3	197256495	T / C	0.97	1.14 (0.97-1.34)	0.11
11	*LRP12*	rs4461873	8	105653739	G / C	0.79	1.06 (0.99-1.13)	0.11
11	*AHSG*	rs4498037	3	187823965	C / T	0.75	1.05 (0.99-1.12)	0.11
11	*AP1G1*	rs11645475	16	70380618	T / C	0.95	1.11 (0.97-1.27)	0.12
11	*CEBPE*	rs4982731	14	22655173	T / C	0.74	1.05 (0.99-1.12)	0.12
11	*AP3B2*	rs10906984	15	81163350	A / C	0.39	1.05 (0.99-1.11)	0.13
11	*CUBN*	rs17336427	10	16968595	C / G	0.97	1.13 (0.96-1.33)	0.14
11	*ZFYVE9*	rs553648	1	52331911	A / G	0.04	1.13 (0.96-1.35)	0.15
11	*FCN2*	rs6537958	9	135006768	C / T	0.79	1.05 (0.98-1.13)	0.15
11	*CLEC4F*	rs2110978	2	70963884	C / T	0.67	1.05 (0.98-1.11)	0.16
11	*ST7*	rs193588	7	116444721	C / G	0.37	1.04 (0.98-1.11)	0.16
11	*LY75*	rs2292387	2	160560229	C / T	0.83	1.06 (0.98-1.14)	0.16
11	*ADRB2*	rs11959615	5	148181509	A / T	0.56	1.04 (0.98-1.11)	0.16
11	*SNX4*	rs7636858	3	126659411	G / C	0.43	1.04 (0.98-1.1)	0.17
11	*SNX2*	rs4836196	5	122092320	A / C	0.13	1.07 (0.97-1.17)	0.17
11	*ELMOD1*	rs7123473	11	106986661	A / G	0.03	1.14 (0.94-1.37)	0.18
11	*LDLR*	rs1799898	19	11088554	C / T	0.88	1.06 (0.97-1.15)	0.18
11	*ADORA2A*	rs1041749	22	23170945	T / C	0.41	1.04 (0.98-1.1)	0.18

11	PICALM	rs3894654	11	85529106	T / A	0.06	1.09 (0.96-1.24)	0.18
11	MYO6	rs10943282	6	76512109	G / T	0.18	1.05 (0.98-1.14)	0.18
11	APP	rs2409168	21	26495816	T / G	0.94	1.08 (0.96-1.21)	0.19
11	DNM1	rs7875406	9	128050572	A / G	0.96	1.09 (0.96-1.23)	0.20
11	RAB5A	rs4241540	3	19957976	G / C	0.63	1.04 (0.98-1.1)	0.21
11	LRP1	rs4759277	12	55819957	C / A	0.65	1.04 (0.98-1.1)	0.21
11	AMPH	rs10278233	7	38415143	T / C	0.83	1.05 (0.97-1.13)	0.22
11	VAV1	rs2546133	19	6750677	T / C	0.11	1.07 (0.96-1.2)	0.22
11	LRP2	rs11887007	2	169975361	A / C	0.61	1.04 (0.98-1.1)	0.23
11	AP1B1	rs2267138	22	28118195	G / A	0.13	1.05 (0.97-1.14)	0.24
11	SFTPD	rs4255480	10	81725868	C / T	0.04	1.11 (0.93-1.33)	0.25
11	ELMOD2	rs2874478	4	141761994	A / G	0.21	1.04 (0.97-1.12)	0.25
11	AP1G2	rs12897422	14	23102867	A / G	0.16	1.05 (0.97-1.14)	0.26
11	SYNJ1	rs845007	21	32953744	A / G	0.06	1.08 (0.94-1.25)	0.27
11	LRP1B	rs10190295	2	142309956	T / C	0.36	1.03 (0.97-1.1)	0.28
11	NPC1	rs2435307	18	19381908	C / T	0.55	1.03 (0.97-1.09)	0.28
11	COLEC12	rs2341746	18	495472	T / G	0.80	1.04 (0.97-1.11)	0.29
11	VLDLR	rs10966485	9	2480339	C / T	0.06	1.07 (0.94-1.23)	0.30
11	LRP10	rs10132585	14	22399286	T / C	0.37	1.03 (0.97-1.1)	0.30
11	EPN1	rs11882031	19	60885474	T / C	0.91	1.06 (0.95-1.17)	0.30
11	ITSN2	rs2702042	2	24458193	T / C	0.37	1.03 (0.97-1.1)	0.30
11	ANKFY1	rs16953766	17	4019456	A / G	0.02	1.11 (0.91-1.34)	0.30
11	RAC1	rs10234438	7	6196040	A / G	0.97	1.09 (0.92-1.28)	0.31
11	CAP1	rs16826852	1	40200187	G / A	0.09	1.05 (0.95-1.16)	0.31
11	LRP8	rs2027261	1	53531047	A / G	0.68	1.03 (0.97-1.1)	0.32
11	FNBP1	rs10119739	9	129770167	G / A	0.86	1.04 (0.96-1.13)	0.33
11	RABEP1	rs2251155	17	5139824	T / C	0.52	1.03 (0.97-1.09)	0.35
11	AP1GBP1	rs11870876	17	33007030	T / C	0.83	1.03 (0.96-1.11)	0.42
11	EEA1	rs6538379	12	91979163	G / A	0.44	1.02 (0.97-1.08)	0.45
11	LDLRAP1	rs4075441	1	25591233	A / G	0.76	1.03 (0.96-1.1)	0.48
11	EPS15L1	rs10410427	19	16416985	G / A	0.85	1.03 (0.95-1.11)	0.48
11	LMBR1L	rs10783302	12	47784397	T / G	0.36	1.02 (0.96-1.08)	0.49
11	DNER	rs10933307	2	230346805	G / T	0.46	1.02 (0.96-1.08)	0.52
11	RAB18	rs717287	10	27819196	T / G	0.75	1.02 (0.96-1.09)	0.53
11	DBNL	rs7793194	7	43860511	T / C	0.23	1.02 (0.96-1.09)	0.54
11	RAB22A	rs1537479	20	56260074	C / T	0.47	1.02 (0.96-1.08)	0.54
11	PACSIN3	rs7937410	11	47162658	G / C	0.23	1.02 (0.96-1.09)	0.58
11	FCN1	rs11103623	9	135112990	T / C	0.60	1.02 (0.96-1.08)	0.58
11	CD14	rs2569192	5	139995392	C / G	0.29	1.02 (0.96-1.08)	0.59
11	PLD2	rs2286672	17	4659581	T / C	0.07	1.03 (0.93-1.13)	0.60
11	CLINT1	rs10476226	5	157393065	A / G	0.07	1.03 (0.93-1.14)	0.60
11	ASGR2	rs12951306	17	6961231	C / T	0.48	1.02 (0.96-1.08)	0.60
11	LRP3	rs8101468	19	38372622	C / A	0.76	1.02 (0.95-1.09)	0.63
11	RABGEF1	rs2707856	7	65655160	A / T	0.54	1.01 (0.96-1.07)	0.68
11	SNX3	rs217132	6	108662892	G / A	0.94	1.02 (0.91-1.14)	0.70
11	TRIP10	rs184628	19	6698394	A / C	0.80	1.01 (0.94-1.09)	0.72
11	HFE	rs707889	6	26203910	A / G	0.23	1.01 (0.95-1.09)	0.72
11	LRP4	rs7112060	11	46848477	T / C	0.08	1.02 (0.92-1.13)	0.73

11	*RASSF4*	rs7903148	10	44723477	G / A	0.14	1.01 (0.92-1.1)	0.85
11	*CLTCL1*	rs2800973	22	17543170	C / T	0.65	1.01 (0.94-1.07)	0.86
11	*NECAP1*	rs11057123	12	8122982	C / G	0.64	1.01 (0.94-1.07)	0.88
11	*MFGE8*	rs1850324	15	87273271	C / T	0.40	1 (0.95-1.06)	0.89
11	*AP2A2*	rs7394783	11	995108	A / G	0.46	1 (0.95-1.06)	0.89
11	*CBL*	rs7113047	11	118613322	A / G	0.73	1 (0.94-1.07)	0.89
11	*CLN3*	rs151181	16	28398018	C / T	0.41	1 (0.95-1.07)	0.90
11	*PACSIN2*	rs5996250	22	41678832	C / T	0.08	1.01 (0.91-1.11)	0.91
11	*TSC2*	rs2516737	16	2041750	G / A	0.92	1.01 (0.9-1.12)	0.91
11	*AP1S1*	rs4727480	7	100393008	A / G	0.46	1 (0.95-1.06)	0.91
11	*ASGR1*	rs4464125	17	6991999	G / A	0.77	1 (0.94-1.07)	0.92
11	*ARF6*	rs11849760	14	49462470	A / G	0.90	1 (0.92-1.1)	0.93
11	*CLEC7A*	rs11053608	12	10166951	G / T	0.55	1 (0.94-1.06)	0.94
11	*NEDD4L*	rs17064520	18	54060610	T / C	0.15	1 (0.93-1.09)	0.95
11	*ATP6V1H*	rs7008117	8	54747208	A / C	0.22	1 (0.94-1.07)	0.99
12	*FGF9*	rs7995502	13	21310584	T / C	0.07	1.19 (1.03-1.37)	0.02
12	*LHCGR*	rs2956355	2	48892026	G / A	0.92	1.16 (1.02-1.32)	0.03
12	*MKKS*	rs6514111	20	10331981	G / A	0.14	1.1 (1.01-1.2)	0.03
12	*SRD5A2*	rs564310	2	31803993	G / A	0.51	1.06 (1-1.12)	0.04
12	*DMRT1*	rs6477322	9	862418	C / T	0.89	1.11 (1-1.22)	0.04
12	*WNT4*	rs4654792	1	22345978	G / C	0.78	1.07 (1-1.15)	0.04
12	*NR5A1*	rs7852843	9	124313377	C / T	0.48	1.05 (1-1.12)	0.07
12	*FSHR*	rs17037707	2	49009826	A / T	0.88	1.08 (0.99-1.18)	0.09
12	*DMRT2*	rs1509186	9	1085922	G / A	0.84	1.07 (0.99-1.15)	0.09
12	*WT1*	rs6484562	11	32246470	G / T	0.76	1.06 (0.99-1.14)	0.09
12	*OSR1*	rs4666485	2	19514913	T / G	0.20	1.06 (0.99-1.14)	0.11
12	*ANKRD7*	rs41943	7	117554924	C / T	0.50	1.05 (0.99-1.11)	0.11
12	*SOX9*	rs11077598	17	67786460	A / G	0.38	1.04 (0.98-1.1)	0.19
12	*FST*	rs4865763	5	52632147	G / A	0.51	1.04 (0.98-1.1)	0.22
12	*RXFP2*	rs9548957	13	31225091	G / A	0.27	1.04 (0.97-1.11)	0.28
12	*NCOA4*	rs11597667	10	51256520	T / A	0.87	1.04 (0.96-1.13)	0.29
12	*FANCA*	rs12599180	16	88366807	A / G	0.61	1.02 (0.96-1.08)	0.46
12	*MIF*	rs5751761	22	22568290	T / C	0.56	1.02 (0.96-1.08)	0.54
12	*HMGCR*	rs3761740	5	74667889	A / C	0.10	1.02 (0.93-1.12)	0.73
12	*CSDE1*	rs6668128	1	114976031	A / G	0.24	1 (0.94-1.07)	0.98

Pathway IDs are as follows: 1. Olfactory transduction 2. Organic acid biosynthetic process 3. Regulation of Wnt receptor signaling pathway 4. Odontogenesis 5. Aminoglycan metabolic process 6. Membrane invagination 7. Calcium-dependent cell-cell adhesion 8. Galactose metabolism 9. ALK in cardiac myocytes 10. Biomineral formation 11. Endocytosis 12. Gonad development

Allele freq is based on WTCCC case samples. Three Study P-values are from the imputed meta-analysis of WTCCC, DGI, FUSION cohorts, produced by DIAGRAM consortium. SNP and gene positions are based on NCBI Build 35. Alleles are based on the forward strand.

Supplementary Table 3: The 18 confirmed gene loci in type 2 diabetes

Gene	Current evidence (p value)	Odds ratio (per allele)	RAF (UK)
TCF7L2	1×10^{-48}	1.37 (1.31-1.43)	0.31
CDKN2A / 2B	8×10^{-15}	1.20 (1.14-1.25)	0.83
FTO	1×10^{-12}	1.17 (1.12-1.22)	0.4
SLC30A8	1×10^{-19}	1.15 (1.12-1.19)	0.69
THADA	1×10^{-9}	1.15 (1.10-1.20)	0.9
HHEX / IDE / KIF11	7×10^{-17}	1.15 (1.10-1.19)	0.65
IGF2BP2	9×10^{-16}	1.14 (1.11-1.18)	0.32
CDKAL1	2×10^{-18}	1.14 (1.11-1.17)	0.32
KCNJ11	5×10^{-11}	1.14 (1.10-1.19)	0.35
PPARG	2×10^{-6}	1.14 (1.08-1.20)	0.87
NOTCH2	4×10^{-8}	1.13 (1.08-1.17)	0.10
WFS1	4×10^{-11}	1.12 (1.09 - 1.15)	0.6
CDC123 / CAMK1D	1×10^{-10}	1.11 (1.07-1.14)	0.18
TCF2	8×10^{-10}	1.10 (1.07-1.14)	0.47
JAZF1	5×10^{-14}	1.10 (1.07-1.13)	0.5
TSPAN8 / LGR5	1×10^{-9}	1.09 (1.06-1.12)	0.27
ADAMTS9	1×10^{-8}	1.09 (1.06-1.12)	0.76
MC4R	0.003	1.09 (1.03-1.15)	0.24

18 Gene loci, 4 of which have a number of possible genes implicated. Approximate P values and odds ratios calculated by meta-analysis of published GWA study ORs, adapted from: Frayling TM. Genome-wide association studies provide new insights into type 2 diabetes aetiology. Nat Rev Genet 2007;8:657-662. RAF: Risk Allele Frequency (based on WTCCC). Possible genes determined by recombination windows surrounding the highest associated SNP from published GWA studies.