

SUPPLEMENTAL MATERIAL

Supplementary Table 1. SNPs included in the Genetic Risk Scores.

SNP	GRS	Risk allele	Trait	Reference	Genotype source	Alleles		Call Rate	HWE	MAF	O/E ratio	risk
						minor	major					
rs11206510	13 SNP	C	MI	Kathiresan et al (1)	Illumina	C	T	100	0.901391	0.187422		+
rs1122608	13 SNP	G	MI	MIgen (2)	Illumina	T	G	100	0.927459	0.257584		+
rs12526453	13 SNP	C	MI	MIgen	Illumina	G	C	100	0.490701	0.338967		+
rs1746048	13 SNP	C	MI	MIgen	Illumina	T	C	100	0.607481	0.144341		+
rs17465637	13 SNP	C	MI	MIgen	Illumina	A	C	100	0.976142	0.297548		+
rs2259816	13 SNP	T	MI	Erdmann et al.(3)	Illumina	A	C	100	0.906508	0.381355		+
rs3184504	13 SNP	T	MI	Gudbjartsson et al (4)	Illumina	T	C	100	0.920563	0.494598		+
rs3798220	13 SNP	C	MI	Clarke et al (5)	SHARe genotyped	C	T	99.82367	0.506117	0.016133		+
rs4977574	13 SNP	G	MI	MIgen	Illumina	A	G	100	1	0.476797		+
rs646776	13 SNP	T	MI	MIgen	Illumina	G	A	100	0.62563	0.216789		+
rs6725887	13 SNP	C	MI	MIgen	Illumina	C	T	99.9861	0.923596	0.122679		+
rs9818870	13 SNP	T	MI	MIgen	Illumina	T	C	99.9861		0.143876		+
rs9982601	13 SNP	T	MI	MIgen	Illumina	T	C	100	0.991943	0.136376		+
rs10838738	102 SNP	G	BMI	Willer et al. (6)	Illumina	G	A	100	0.992439	0.357252		+
rs10938397	102 SNP	G	BMI	Willer et al.	Illumina	G	A	99.9584	0.667494	0.428769		+
rs11084753	102 SNP	G	BMI	Willer et al	Illumina	A	G	99.9723	0.919315	0.335527		+
rs17782313	102 SNP	C	BMI	Willer et al.	Illumina	C	T	100	0.65171	0.216373		+
rs2568958	102 SNP	A	BMI	Thorleifsson et al. (7)	SHARe imputed	G	A			0.366943	1.018409	+
rs6265	102 SNP	G	BMI	Thorleifsson et al.	SHARe genotyped	T	C	99.98824	0.70728	0.188749		+
rs6499640	102 SNP	A	BMI	Thorleifsson et al.	SHARe imputed	G	A			0.401886	0.976767	+
rs6548238	102 SNP	C	BMI	Willer et al.	Illumina	T	C	100	0.989963	0.176063		+
rs7498665	102 SNP	G	BMI	Willer et al.	Illumina	G	A	100	0.880818	0.357044		+
rs7647305	102 SNP	C	BMI	Thorleifsson et al.	Illumina	T	C	100	0.782279	0.221776		+

rs925946	102 SNP	T	BMI	Thorleifsson et al.	SHARe imputed	T	G			0.2865	0.997901	+
rs1004467	102 SNP	A	BP	Levy et al. (8)	Illumina	C	T	100	0.979605	0.102646		+
rs11014166	102 SNP	A	BP	Levy et al.	Illumina	T	A	100	0.849542	0.35462		+
rs12946454	102 SNP	T	BP	Newton-Cheh et al.(9)	SHARe imputed	T	A			0.261302	0.915865	+
rs1530440	102 SNP	T	BP	Newton-Cheh et al.	SHARe imputed	T	C			0.176648	0.949084	-
rs16948048	102 SNP	G	BP	Newton-Cheh et al.	SHARe genotyped	G	A	99.90596	0.537301	0.363337		+
rs16998073	102 SNP	T	BP	Newton-Cheh et al.	SHARe imputed	T	A			0.226478	0.691973	+
rs17367504	102 SNP	G	BP	Newton-Cheh et al.	SHARe genotyped	G	A	99.07135	0.582622	0.14612		-
rs1918974	102 SNP	T	BP	Newton-Cheh et al.	SHARe genotyped	C	T	99.94122	0.039117	0.472595		-
rs2384550	102 SNP	A	BP	Levy et al.	SHARe genotyped	A	G	99.98824	0.935303	0.37068		-
rs2681472	102 SNP	A	BP	Levy et al.	Illumina	C	T	100	0.848595	0.190747		+
rs381815	102 SNP	T	BP	Levy et al.	Illumina	T	C	99.9861	0.423616	0.272721		+
rs6495122	102 SNP	A	BP	Levy et al.	Illumina	A	C	100	0.928355	0.432955		+
rs9815354	102 SNP	A	BP	Levy et al.	Illumina	A	G	99.626	0.304112	0.178184		+
rs4537545	102 SNP	T	CRP	Elliott et al.(10)	SHARe genotyped	T	C	98.5894	0.937062	0.417313		-
rs6700896	102 SNP	T	CRP	Elliott et al.	SHARe imputed	T	C			0.353084	0.960002	-
rs7553007	102 SNP	A	CRP	Elliott et al.	SHARe genotyped	A	G	99.8942	0.481445	0.3269		-
rs10811661	102 SNP	T	DIABGLUC	Scott et al. (11)	Illumina	C	T	100	0.736653	0.173639		+
rs10830963	102 SNP	G	DIABGLUC	Dupuis et al. (12)	Illumina	G	C	100	0.959713	0.262571		+
rs10885122	102 SNP	G	DIABGLUC	Dupuis et al.	SHARe imputed	T	G			0.110118	0.948183	+
rs10923931	102 SNP	T	DIABGLUC	Zeggini et al.(13)	Illumina	T	G	100	0.768142	0.096274		+
rs10946398	102 SNP	C	DIABGLUC	Zeggini et al.	Illumina	C	A	99.9861	0.988127	0.321973		+
rs11071657	102 SNP	A	DIABGLUC	Dupuis et al.	SHARe imputed	G	A			0.367333	0.674072	+
rs1111875	102 SNP	C	DIABGLUC	Saxena et al. (14)	Illumina	A	G	100	0.999957	0.395484		+
rs11605924	102 SNP	A	DIABGLUC	Dupuis et al.	SHARe imputed	C	A			0.537347	0.998308	+
rs11708067	102 SNP	A	DIABGLUC	Dupuis et al.	SHARe imputed	G	A			0.208443	0.936832	+
rs11920090	102 SNP	T	DIABGLUC	Dupuis et al.	SHARe imputed	A	T			0.132244	0.995684	+
rs12779790	102 SNP	G	DIABGLUC	Zeggini et al	Illumina	G	A	99.9446	0.947797	0.177339		+
rs13266634	102 SNP	C	DIABGLUC	Saxena et al.	Illumina	C	T	99.9584	0.997859	0.295316		+
rs2191349	102 SNP	T	DIABGLUC	Dupuis et al	SHARe imputed	T	G			0.555056	0.973185	+

rs2237897	102 SNP	C	DIABGLUC	Unoki et al. (15)	SHARe imputed	T	C			0.064321	0.650195	+
rs2943641	102 SNP	C	DIABGLUC	Rung et al. (16)	SHARe imputed	T	C			0.365702	0.990504	+
rs340874	102 SNP	C	DIABGLUC	Dupuis et al.	SHARe imputed	T	C			0.472598	0.711865	+
rs4402960	102 SNP	T	DIABGLUC	Zeggini et al.	llumina	T	G	100	0.225574	0.325807		+
rs4607103	102 SNP	C	DIABGLUC	Zeggini et al.	llumina	T	C	100	0.982455	0.263956		+
rs4607517	102 SNP	A	DIABGLUC	Dupuis et al.	llumina	A	G	99.9861	0.91579	0.179205		+
rs4689388	102 SNP	T	DIABGLUC	Rung et al	SHARe imputed	G	A			0.390698	0.765166	+
rs5219	102 SNP	T	DIABGLUC	Scott et al.	llumina	T	C	100	0.403681	0.363277		+
rs560887	102 SNP	C	DIABGLUC	Dupuis et al	llumina	A	G	100	0.970398	0.294431		+
rs7034200	102 SNP	A	DIABGLUC	Dupuis et al	SHARe imputed	C	A			0.509832	0.986822	+
rs7578597	102 SNP	T	DIABGLUC	Zeggini et al	SHARe genotyped	C	T	97.7783	0.666328	0.100625		+
rs7756992	102 SNP	G	DIABGLUC	Steithorsdottir et al (17)	llumina	G	A	100	0.946147	0.282172		+
rs780094	102 SNP	C	DIABGLUC	Dupuis et al.	llumina	A	G	99.9584	0.301372	0.44138		+
rs7901695	102 SNP	C	DIABGLUC	Zeggini et al.	llumina	C	T	99.9861	0.870641	0.328692		+
rs7944584	102 SNP	A	DIABGLUC	Dupuis et al.	SHARe genotyped	T	A	99.90596	0.785999	0.296211		+
rs7961581	102 SNP	C	DIABGLUC	Zeggini et al.	llumina	C	T	99.9307	0.992047	0.297477		+
rs8050136	102 SNP	A	DIABGLUC	Zeggini et al.	llumina	A	C	100	0.984615	0.403796		+
rs864745	102 SNP	T	DIABGLUC	Zeggini et al.	llumina	G	A	100	0.794844	0.497714		+
rs9300039	102 SNP	C	DIABGLUC	Scott et al.	llumina	A	C	100	0.991408	0.091841		+
rs10468017	102 SNP	T	HDL	Kathiresan et al (1)	llumina	T	C	99.9723	0.735977	0.29091		-
rs173539	102 SNP	T	HDL	Kathiresan et al.	llumina	T	C	100	0.984585	0.326984		-
rs1800588	102 SNP	T	HDL	Kathiresan et al (18)	SHARe genotyped	T	C	99.95298	0.647233	0.216159		-
rs1800961	102 SNP	T	HDL	Kathiresan et al (1)	llumina	T	C	100	0.999355	0.031168		+
rs1883025	102 SNP	T	HDL	Kathiresan et al (1)	llumina	A	G	100	0.788467	0.267004		-
rs2156552	102 SNP	T	HDL	Willer et al. (19)	SHARe genotyped	A	T	99.96473	0.156618	0.162041		+
rs2271293	102 SNP	A	HDL	Kathiresan et al (1)	llumina	A	G	100	0.326955	0.106109		-
rs2338104	102 SNP	C	HDL	Kathiresan et al (1)	llumina	C	G	100	0.784938	0.45401		+
rs2967605	102 SNP	T	HDL	Kathiresan et al (1)	llumina	A	G	100	0.824427	0.168791		+
rs471364	102 SNP	C	HDL	Kathiresan et al (1)	llumina	G	A	100	0.81402	0.118437		+
rs4846914	102 SNP	G	HDL	Kathiresan et al (18)	llumina	G	A	100	0.963632	0.396246		+

rs7679	102 SNP	C	HDL	Kathiresan et al (1)	Illumina	C	T	100	0.963093	0.181812	+
rs9989419	102 SNP	G	HDL	Willer et al (19)	SHARe genotyped	A	G	99.84718	0.132589	0.394455	-
rs10401969	102 SNP	C	LDL	Kathiresan et al (1)	Illumina	C	T	100	0.698997	0.070647	-
rs11591147	102 SNP	T	LDL	Kathiresan et al (18)	Illumina	T	G	100	0.874035	0.016138	-
rs1501908	102 SNP	G	LDL	Kathiresan et al (1)	SHARe genotyped	G	C	99.88245	0.626716	0.373779	-
rs3846663	102 SNP	T	LDL	Kathiresan et al (18)	Illumina	T	C	100	0.939244	0.375814	+
rs4420638	102 SNP	G	LDL	Kathiresan et al. (1)	Illumina	G	A	99.9307	0.508047	0.1626	+
rs515135	102 SNP	T	LDL	Kathiresan et al (1)	Illumina	A	G	100	0.154704	0.208824	+
rs6102059	102 SNP	T	LDL	Kathiresan et al (1)	Illumina	T	C	100	0.954961	0.313686	-
rs693	102 SNP	A	LDL	Kathiresan et al (1)	Illumina	T	C	100	0.0028	0.497437	+
rs10503669	102 SNP	C	TG	Willer et al (19)	Illumina	A	C	100	0.988998	0.091218	+
rs10892151	102 SNP	A	TG	Pollin et al (20)	SHARe genotyped	T	C	99.97649	1	0.029336	-
rs12130333	102 SNP	T	TG	Kathiresan et al (18)	Illumina	T	C	100	0.972053	0.198296	-
rs174547	102 SNP	C	TG	Kathiresan et al (1)	Illumina	C	T	100	0.920265	0.324976	+
rs2954029	102 SNP	T	TG	Kathiresan et al (1)	Illumina	T	A	100	0.901494	0.438634	-
rs3812316	102 SNP	C	TG	Kooner et al. (21)	Illumina	G	C	100	0.251248	0.118992	+
rs7557067	102 SNP	G	TG	Kathiresan et al (1)	Illumina	G	A	100	0.77048	0.221568	-
rs7819412	102 SNP	G	TG	Kathiresan et al (1)	Illumina	G	A	99.9861	0.993425	0.482613	-
rs964184	102 SNP	G	TG	Kathiresan et al (1)	Illumina	G	C	100	0.858193	0.142679	+

The 13 SNP MI/CHD GRS consists of the first 13 SNPs (for “MI” trait) in the Supplementary Table.

HWE – Hardy-weinberg equilibrium p-value; MAF – mean allele frequency; O/E ratio – observed to expected ratio for imputed SNPs; Risk – direction of risk for CVD/MI (+ denotes increased risk whereas negative denotes decreased risk); MI – myocardial infarction or coronary heart disease; BMI – body mass index; BP – blood pressure; CRP – C-reactive protein; DIABGLUC – diabetes or high fasting glucose; LDL – low density lipoprotein; HDL – high density lipoprotein; TG - triglycerides

Supplementary Table 2. Additional MI/CHD SNPs included in the Genetic Risk Score

SNP	Reference	Risk Allele	Genotype Source	minor	major	Call Rate	HWE.p	MAF	O/E ratio
rs10953541	C4D (22)	C	SHARe imputed	T	C			0.252	0.982
rs11556924	Cardiogram (23)	C	SHARe genotyped	T	C	98.88	0.095	0.378	
rs12190287	Cardiogram	G	SHARe imputed	G	C			0.373	0.792
rs12413409	Cardiogram	C	SHARe genotyped	A	G	99.48	0.009	0.088	
rs12936587	Cardiogram	C	SHARe imputed	G	A			0.539	0.822
rs1412444	C4D	T	SHARe genotyped	T	C	99.93	0.610	0.333	
rs17114036	Cardiogram	A	SHARe imputed	G	A			0.110	0.859
rs17609940	Cardiogram	G	SHARe genotyped	C	G	99.48	0.269	0.196	
rs216172	Cardiogram	C	SHARe imputed	C	G			0.364	0.979
rs2505083	C4D	C	SHARe imputed	C	T			0.404	0.874
rs2895811	Cardiogram	C	SHARe imputed	C	T			0.389	0.761
rs3825807	Cardiogram	A	SHARe imputed	G	A			0.432	0.989
rs46522	Cardiogram	T	SHARe genotyped	C	T	99.60	0.399	0.469	
rs4773144 - excluded	Cardiogram	G	SHARe genotyped	A	G	90.20	2.29E-25	0.463	
rs579459	Cardiogram	C	SHARe imputed	C	T			0.218	0.934
rs964184	Cardiogram	G	Illumina	G	C	100	0.858	0.143	
rs974819	C4D	T	SHARe imputed	T	C			0.304	0.966

References:

1. Kathiresan S, Willer CJ, Peloso GM, Demissie S, Musunuru K, Schadt EE, Kaplan L, Bennett D, Li Y, Tanaka T, Voight BF, Bonnycastle LL, Jackson AU, Crawford G, Surti A, Guiducci C, Burt NP, Parish S, Clarke R, Zelenika D, Kubalanza KA, Morken MA, Scott LJ, Stringham HM, Galan P, Swift AJ, Kuusisto J, Bergman RN, Sundvall J, Laakso M, Ferrucci L, Scheet P, Sanna S, Uda M, Yang Q, Lunetta KL, Dupuis J, de Bakker PI, O'Donnell CJ, Chambers JC, Kooner JS, Hercberg S, Meneton P, Lakatta EG, Scuteri A, Schlessinger D, Tuomilehto J, Collins FS, Groop L, Altshuler D, Collins R, Lathrop GM, Melander O, Salomaa V, Peltonen L, Orho-Melander M, Ordovas JM, Boehnke M, Abecasis GR, Mohlke KL, Cupples LA. Common variants at 30 loci contribute to polygenic dyslipidemia. *Nat Genet.* 2009;41(1):56-65.
2. Myocardial Infarction Genetics C, Kathiresan S, Voight BF, Purcell S, Musunuru K, Ardissino D, Mannucci PM, Anand S, Engert JC, Samani NJ, Schunkert H, Erdmann J, Reilly MP, Rader DJ, Morgan T, Spertus JA, Stoll M, Girelli D, McKeown PP, Patterson CC, Siscovick DS, O'Donnell CJ, Elosua R, Peltonen L, Salomaa V, Schwartz SM, Melander O, Altshuler D, Merlini PA, Berzuini C, Bernardinelli L, Peyvandi F, Tubaro M, Celli P, Ferrario M, Fetiveau R, Marziliano N, Casari G, Galli M, Ribichini F, Rossi M, Bernardi F, Zoncin P, Piazza A, Yee J, Friedlander Y, Marrugat J, Lucas G, Subirana I, Sala J, Ramos R, Meigs JB, Williams G, Nathan DM, MacRae CA, Havulinna AS, Berglund G, Hirschhorn JN, Asselta R, Duga S, Spreafico M, Daly MJ, Nemesh J, Korn JM, McCarroll SA, Surti A, Guiducci C, Gianniny L, Mirel D, Parkin M, Burt N, Gabriel SB, Thompson JR, Braund PS, Wright BJ, Balmforth AJ, Ball SG, Hall AS, Wellcome Trust Case Control C, Linsel-Nitschke P, Lieb W, Ziegler A, Konig I, Hengstenberg C, Fischer M, Stark K, Grosshennig A, Preuss M, Wichmann HE, Schreiber S, Ouwehand W, Deloukas P, Scholz M, Cambien F, Li M, Chen Z, Wilensky R, Matthai W, Qasim A, Hakonarson HH, Devaney J, Burnett MS, Pichard AD, Kent KM, Satler L, Lindsay JM, Waksman R, Epstein SE, Scheffold T, Berger K, Huge A, Martinelli N, Olivieri O, Corrocher R, McKeown P, Erdmann E, Konig IR, Holm H, Thorleifsson G, Thorsteinsdottir U, Stefansson K, Do R, Xie C, Siscovick D. Genome-wide association of early-onset myocardial infarction with single nucleotide polymorphisms and copy number variants. *Nat Genet.* 2009;41(3):334-341.
3. Erdmann J, Grosshennig A, Braund PS, Konig IR, Hengstenberg C, Hall AS, Linsel-Nitschke P, Kathiresan S, Wright B, Tregouet D-A, Cambien F, Bruse P, Aherrahrou Z, Wagner AK, Stark K, Schwartz SM, Salomaa V, Elosua R, Melander O, Voight BF, O'Donnell CJ, Peltonen L, Siscovick DS, Altshuler D, Merlini PA, Peyvandi F, Bernardinelli L, Ardissino D, Schillert A, Blankenberg S, Zeller T, Wild P, Schwarz DF, Tiret L, Perret C, Schreiber S, Mokhtari NEE, Schafer A, Marz W,

Renner W, Bugert P, Kluter H, Schrezenmeir J, Rubin D, Ball SG, Balmforth AJ, Wichmann HE, Meitinger T, Fischer M, Meisinger C, Baumert J, Peters A, Ouwehand WH, Deloukas P, Thompson JR, Ziegler A, Samani NJ, Schunkert H. New susceptibility locus for coronary artery disease on chromosome 3q22.3. *Nat Genet.* 2009;41(3):280-282.

4. Gudbjartsson DF, Bjornsdottir US, Halapi E, Helgadottir A, Sulem P, Jonsdottir GM, Thorleifsson G, Helgadottir H, Steinthorsdottir V, Stefansson H, Williams C, Hui J, Beilby J, Warrington NM, James A, Palmer LJ, Koppelman GH, Heinzmann A, Krueger M, Boezen HM, Wheatley A, Altmuller J, Shin HD, Uh S-T, Cheong HS, Jonsdottir B, Gislason D, Park C-S, Rasmussen LM, Porsbjerg C, Hansen JW, Backer V, Werge T, Janson C, Jonsson U-B, Ng MCY, Chan J, So WY, Ma R, Shah SH, Granger CB, Quyyumi AA, Levey AI, Vaccarino V, Reilly MP, Rader DJ, Williams MJA, van Rij AM, Jones GT, Trabetti E, Malerba G, Pignatti PF, Boner A, Pescollderung L, Girelli D, Olivieri O, Martinelli N, Ludviksson BR, Ludviksdottir D, Eyjolfsson GI, Arnar D, Thorgeirsson G, Deichmann K, Thompson PJ, Wjst M, Hall IP, Postma DS, Gislason T, Gulcher J, Kong A, Jonsdottir I, Thorsteinsdottir U, Stefansson K. Sequence variants affecting eosinophil numbers associate with asthma and myocardial infarction. *Nat Genet.* 2009;41(3):342-347
5. Clarke R, Peden JF, Hopewell JC, Kyriakou T, Goel A, Heath SC, Parish S, Barlera S, Franzosi MG, Rust S, Bennett D, Silveira A, Malarstig A, Green FR, Lathrop M, Gigante B, Leander K, de Faire U, Seedorf U, Hamsten A, Collins R, Watkins H, Farrall M, Consortium P. Genetic variants associated with Lp(a) lipoprotein level and coronary disease. *N Engl J Med.* 2009;361(26):2518-2528.
6. Willer CJ, Speliotes EK, Loos RJ, Li S, Lindgren CM, Heid IM, Berndt SI, Elliott AL, Jackson AU, Lamina C, Lettre G, Lim N, Lyon HN, McCarroll SA, Papadakis K, Qi L, Randall JC, Roccascocca RM, Sanna S, Scheet P, Weedon MN, Wheeler E, Zhao JH, Jacobs LC, Prokopenko I, Soranzo N, Tanaka T, Timpson NJ, Almgren P, Bennett A, Bergman RN, Bingham SA, Bonnycastle LL, Brown M, Burtt NP, Chines P, Coin L, Collins FS, Connell JM, Cooper C, Smith GD, Dennison EM, Deodhar P, Elliott P, Erdos MR, Estrada K, Evans DM, Gianniny L, Gieger C, Gillson CJ, Guiducci C, Hackett R, Hadley D, Hall AS, Havulinna AS, Hebebrand J, Hofman A, Isomaa B, Jacobs KB, Johnson T, Jousilahti P, Jovanovic Z, Khaw KT, Kraft P, Kuokkanen M, Kuusisto J, Laitinen J, Lakatta EG, Luan J, Luben RN, Mangino M, McArdle WL, Meitinger T, Mulas A, Munroe PB, Narisu N, Ness AR, Northstone K, O'Rahilly S, Purmann C, Rees MG, Ridderstrale M, Ring SM, Rivadeneira F, Ruokonen A, Sandhu MS, Saramies J, Scott LJ, Scuteri A, Silander K, Sims MA, Song K, Stephens J, Stevens S, Stringham HM, Tung YC, Valle TT, Van Duijn CM, Vimalaswaran KS, Vollenweider P, Waeber G, Wallace C, Watanabe RM, Waterworth DM, Watkins N, Wellcome Trust Case Control C, Witteman JC, Zeggini E, Zhai G, Zillikens MC, Altshuler D, Caulfield MJ, Chanock SJ, Farooqi IS, Ferrucci L, Guralnik JM, Hattersley AT, Hu FB, Jarvelin MR, Laakso M, Mooser V, Ong KK, Ouwehand WH, Salomaa V, Samani NJ, Spector TD, Tuomi T, Tuomilehto J, Uda M, Uitterlinden AG, Wareham NJ, Deloukas P, Frayling TM, Groop LC, Hayes RB, Hunter DJ, Mohlke KL, Peltonen L, Schlessinger D, Strachan DP,

- Wichmann HE, McCarthy MI, Boehnke M, Barroso I, Abecasis GR, Hirschhorn JN, Genetic Investigation of ATC. Six new loci associated with body mass index highlight a neuronal influence on body weight regulation. *Nat Genet.* 2009;41(1):25-34.
7. Thorleifsson G, Walters GB, Gudbjartsson DF, Steinthorsdottir V, Sulem P, Helgadóttir A, Styrkarsdóttir U, Gretarsdóttir S, Thorlacius S, Jonsdóttir I, Jonsdóttir T, Olafsdóttir EJ, Olafsdóttir GH, Jonsson T, Jonsson F, Borch-Johnsen K, Hansen T, Andersen G, Jorgensen T, Lauritzen T, Aben KK, Verbeek AL, Roeleveld N, Kampman E, Yanek LR, Becker LC, Tryggvadóttir L, Rafnar T, Becker DM, Gulcher J, Kiemeneý LA, Pedersen O, Kong A, Thorsteinsdóttir U, Stefansson K. Genome-wide association yields new sequence variants at seven loci that associate with measures of obesity. *Nat Genet.* 2009;41(1):18-24.
 8. Levy D, Ehret GB, Rice K, Verwoert GC, Launer LJ, Dehghan A, Glazer NL, Morrison AC, Johnson AD, Aspelund T, Aulchenko Y, Lumley T, Kottgen A, Vasan RS, Rivadeneira F, Eiriksdóttir G, Guo X, Arking DE, Mitchell GF, Mattace-Raso FU, Smith AV, Taylor K, Scharpf RB, Hwang SJ, Sijbrands EJ, Bis J, Harris TB, Ganesh SK, O'Donnell CJ, Hofman A, Rotter JJ, Coresh J, Benjamin EJ, Uitterlinden AG, Heiss G, Fox CS, Witteman JC, Boerwinkle E, Wang TJ, Gudnason V, Larson MG, Chakravarti A, Psaty BM, van Duijn CM. Genome-wide association study of blood pressure and hypertension. *Nat Genet.* 2009;41(6):677-687.
 9. Newton-Cheh C, Johnson T, Gateva V, Tobin MD, Bochud M, Coin L, Najjar SS, Zhao JH, Heath SC, Eyheramendy S, Papadakis K, Voight BF, Scott LJ, Zhang F, Farrall M, Tanaka T, Wallace C, Chambers JC, Khaw KT, Nilsson P, van der Harst P, Polidoro S, Grobbee DE, Onland-Moret NC, Bots ML, Wain LV, Elliott KS, Teumer A, Luan J, Lucas G, Kuusisto J, Burton PR, Hadley D, McArdle WL, Wellcome Trust Case Control C, Brown M, Dominiczak A, Newhouse SJ, Samani NJ, Webster J, Zeggini E, Beckmann JS, Bergmann S, Lim N, Song K, Vollenweider P, Waeber G, Waterworth DM, Yuan X, Groop L, Orho-Melander M, Allione A, Di Gregorio A, Guarrera S, Panico S, Ricceri F, Romanazzi V, Sacerdote C, Vineis P, Barroso I, Sandhu MS, Luben RN, Crawford GJ, Jousilahti P, Perola M, Boehnke M, Bonnycastle LL, Collins FS, Jackson AU, Mohlke KL, Stringham HM, Valle TT, Willer CJ, Bergman RN, Morken MA, Doring A, Gieger C, Illig T, Meitinger T, Org E, Pfeufer A, Wichmann HE, Kathiresan S, Marrugat J, O'Donnell CJ, Schwartz SM, Siscovick DS, Subirana I, Freimer NB, Hartikainen AL, McCarthy MI, O'Reilly PF, Peltonen L, Pouta A, de Jong PE, Snieder H, van Gilst WH, Clarke R, Goel A, Hamsten A, Peden JF, Seedorf U, Syvanen AC, Tognoni G, Lakatta EG, Sanna S, Scheet P, Schlessinger D, Scuteri A, Dorr M, Ernst F, Felix SB, Homuth G, Lorbeer R, Reffelmann T, Rettig R, Volker U, Galan P, Gut IG, Herberg S, Lathrop GM, Zelenika D, Deloukas P, Soranzo N, Williams FM, Zhai G, Salomaa V, Laakso M, Elosua R, Forouhi NG, Volzke H, Uitterwaal CS, van der Schouw YT, Numans ME, Matullo G, Navis G, Berglund G, Bingham SA, Kooner JS, Connell JM, Bandinelli S, Ferrucci L, Watkins H, Spector TD, Tuomilehto J, Altshuler D, Strachan DP, Laan M, Meneton P, Wareham NJ, Uda M, Jarvelin MR, Mooser V, Melander O, Loos RJ, Elliott P, Abecasis GR, Caulfield M, Munroe PB. Genome-wide association study identifies eight loci associated with blood pressure. *Nat Genet.* 2009;41(6):666-676.

10. Elliott P, Chambers JC, Zhang W, Clarke R, Hopewell JC, Peden JF, Erdmann J, Braund P, Engert JC, Bennett D, Coin L, Ashby D, Tzoulaki I, Brown IJ, Mt-Isa S, McCarthy MI, Peltonen L, Freimer NB, Farrall M, Ruokonen A, Hamsten A, Lim N, Froguel P, Waterworth DM, Vollenweider P, Waeber G, Jarvelin MR, Mooser V, Scott J, Hall AS, Schunkert H, Anand SS, Collins R, Samani NJ, Watkins H, Kooner JS. Genetic Loci associated with C-reactive protein levels and risk of coronary heart disease. *JAMA*. 2009;302(1):37-48.
11. Scott LJ, Mohlke KL, Bonnycastle LL, Willer CJ, Li Y, Duren WL, Erdos MR, Stringham HM, Chines PS, Jackson AU, Prokunina-Olsson L, Ding CJ, Swift AJ, Narisu N, Hu T, Pruim R, Xiao R, Li XY, Conneely KN, Riebow NL, Sprau AG, Tong M, White PP, Hetrick KN, Barnhart MW, Bark CW, Goldstein JL, Watkins L, Xiang F, Saramies J, Buchanan TA, Watanabe RM, Valle TT, Kinnunen L, Abecasis GR, Pugh EW, Doheny KF, Bergman RN, Tuomilehto J, Collins FS, Boehnke M. A genome-wide association study of type 2 diabetes in Finns detects multiple susceptibility variants. *Science*. 2007;316(5829):1341-1345.
12. Dupuis J, Langenberg C, Prokopenko I, Saxena R, Soranzo N, Jackson AU, Wheeler E, Glazer NL, Bouatia-Naji N, Gloyn AL, Lindgren CM, Magi R, Morris AP, Randall J, Johnson T, Elliott P, Rybin D, Thorleifsson G, Steinthorsdottir V, Henneman P, Grallert H, Dehghan A, Hottenga JJ, Franklin CS, Navarro P, Song K, Goel A, Perry JR, Egan JM, Lajunen T, Grarup N, Sparso T, Doney A, Voight BF, Stringham HM, Li M, Kanoni S, Shrader P, Cavalcanti-Proenca C, Kumari M, Qi L, Timpson NJ, Gieger C, Zabena C, Rocheleau G, Ingelsson E, An P, O'Connell J, Luan J, Elliott A, McCarroll SA, Payne F, Roccasecca RM, Pattou F, Sethupathy P, Ardlie K, Ariyurek Y, Balkau B, Barter P, Beilby JP, Ben-Shlomo Y, Benediktsson R, Bennett AJ, Bergmann S, Bochud M, Boerwinkle E, Bonnefond A, Bonnycastle LL, Borch-Johnsen K, Bottcher Y, Brunner E, Bumpstead SJ, Charpentier G, Chen YD, Chines P, Clarke R, Coin LJ, Cooper MN, Cornelis M, Crawford G, Crisponi L, Day IN, de Geus EJ, Delplanque J, Dina C, Erdos MR, Fedson AC, Fischer-Rosinsky A, Forouhi NG, Fox CS, Frants R, Franzosi MG, Galan P, Goodarzi MO, Graessler J, Groves CJ, Grundy S, Gwilliam R, Gyllensten U, Hadjadj S, Hallmans G, Hammond N, Han X, Hartikainen AL, Hassanali N, Hayward C, Heath SC, Hercberg S, Herder C, Hicks AA, Hillman DR, Hingorani AD, Hofman A, Hui J, Hung J, Isomaa B, Johnson PR, Jorgensen T, Jula A, Kaakinen M, Kaprio J, Kesaniemi YA, Kivimaki M, Knight B, Koskinen S, Kovacs P, Kyvik KO, Lathrop GM, Lawlor DA, Le Bacquer O, Lecoeur C, Li Y, Lyssenko V, Mahley R, Mangino M, Manning AK, Martinez-Larrad MT, McAteer JB, McCulloch LJ, McPherson R, Meisinger C, Melzer D, Meyre D, Mitchell BD, Morken MA, Mukherjee S, Naitza S, Narisu N, Neville MJ, Oostra BA, Orru M, Pakyz R, Palmer CN, Paolisso G, Pattaro C, Pearson D, Peden JF, Pedersen NL, Perola M, Pfeiffer AF, Pichler I, Polasek O, Posthuma D, Potter SC, Pouta A, Province MA, Psaty BM, Rathmann W, Rayner NW, Rice K, Ripatti S, Rivadeneira F, Roden M, Rolandsson O, Sandbaek A, Sandhu M, Sanna S, Sayer AA, Scheet P, Scott LJ, Seedorf U, Sharp SJ, Shields B, Sigurdsson G, Sijbrands EJ, Silveira A, Simpson L, Singleton A, Smith NL, Sovio U, Swift A, Syddall H, Syvanen AC, Tanaka T, Thorand B, Tichet J, Tonjes A, Tuomi T, Uitterlinden AG, van Dijk KW, van Hoek M, Varma D, Visvikis-Siest S,

Vitart V, Vogelzangs N, Waeber G, Wagner PJ, Walley A, Walters GB, Ward KL, Watkins H, Weedon MN, Wild SH, Willemsen G, Witteman JC, Yarnell JW, Zeggini E, Zelenika D, Zethelius B, Zhai G, Zhao JH, Zillikens MC, Consortium D, Consortium G, Global BC, Borecki IB, Loos RJ, Meneton P, Magnusson PK, Nathan DM, Williams GH, Hattersley AT, Silander K, Salomaa V, Smith GD, Bornstein SR, Schwarz P, Spranger J, Karpe F, Shuldiner AR, Cooper C, Dedoussis GV, Serrano-Rios M, Morris AD, Lind L, Palmer LJ, Hu FB, Franks PW, Ebrahim S, Marmot M, Kao WH, Pankow JS, Sampson MJ, Kuusisto J, Laakso M, Hansen T, Pedersen O, Pramstaller PP, Wichmann HE, Illig T, Rudan I, Wright AF, Stumvoll M, Campbell H, Wilson JF, Anders Hamsten on behalf of Procardis C, investigators M, Bergman RN, Buchanan TA, Collins FS, Mohlke KL, Tuomilehto J, Valle TT, Altshuler D, Rotter JI, Siscovick DS, Penninx BW, Boomsma DI, Deloukas P, Spector TD, Frayling TM, Ferrucci L, Kong A, Thorsteinsdottir U, Stefansson K, van Duijn CM, Aulchenko YS, Cao A, Scuteri A, Schlessinger D, Uda M, Ruukonen A, Jarvelin MR, Waterworth DM, Vollenweider P, Peltonen L, Mooser V, Abecasis GR, Wareham NJ, Sladek R, Froguel P, Watanabe RM, Meigs JB, Groop L, Boehnke M, McCarthy MI, Florez JC, Barroso I. New genetic loci implicated in fasting glucose homeostasis and their impact on type 2 diabetes risk. *Nat Genet.*42(2):105-116.

13. WTTC Consortium. Genome-wide association study of 14,000 cases of seven common diseases and 3,000 shared controls. *Nature.* 2007;447: 661–678.
14. Saxena R, Hivert MF, Langenberg C, Tanaka T, Pankow JS, Vollenweider P, Lyssenko V, Bouatia-Naji N, Dupuis J, Jackson AU, Kao WH, Li M, Glazer NL, Manning AK, Luan J, Stringham HM, Prokopenko I, Johnson T, Grarup N, Boesgaard TW, Lecoeur C, Shrader P, O'Connell J, Ingelsson E, Couper DJ, Rice K, Song K, Andreasen CH, Dina C, Kottgen A, Le Bacquer O, Pattou F, Taneera J, Steinthorsdottir V, Rybin D, Ardlie K, Sampson M, Qi L, van Hoek M, Weedon MN, Aulchenko YS, Voight BF, Grallert H, Balkau B, Bergman RN, Bielinski SJ, Bonnetfond A, Bonnycastle LL, Borch-Johnsen K, Bottcher Y, Brunner E, Buchanan TA, Bumpstead SJ, Cavalcanti-Proenca C, Charpentier G, Chen YD, Chines PS, Collins FS, Cornelis M, G JC, Delplanque J, Doney A, Egan JM, Erdos MR, Firmann M, Forouhi NG, Fox CS, Goodarzi MO, Graessler J, Hingorani A, Isomaa B, Jorgensen T, Kivimaki M, Kovacs P, Krohn K, Kumari M, Lauritzen T, Levy-Marchal C, Mayor V, McAteer JB, Meyre D, Mitchell BD, Mohlke KL, Morken MA, Narisu N, Palmer CN, Pakyz R, Pascoe L, Payne F, Pearson D, Rathmann W, Sandbaek A, Sayer AA, Scott LJ, Sharp SJ, Sijbrands E, Singleton A, Siscovick DS, Smith NL, Sparso T, Swift AJ, Syddall H, Thorleifsson G, Tonjes A, Tuomi T, Tuomilehto J, Valle TT, Waeber G, Walley A, Waterworth DM, Zeggini E, Zhao JH, consortium G, investigators M, Illig T, Wichmann HE, Wilson JF, van Duijn C, Hu FB, Morris AD, Frayling TM, Hattersley AT, Thorsteinsdottir U, Stefansson K, Nilsson P, Syvanen AC, Shuldiner AR, Walker M, Bornstein SR, Schwarz P, Williams GH, Nathan DM, Kuusisto J, Laakso M, Cooper C, Marmot M, Ferrucci L, Mooser V, Stumvoll M, Loos RJ, Altshuler D, Psaty BM, Rotter JI, Boerwinkle E, Hansen T, Pedersen O, Florez JC, McCarthy MI, Boehnke M, Barroso I, Sladek R, Froguel P, Meigs JB, Groop L, Wareham NJ, Watanabe RM. Genetic variation in GIPR influences the glucose and insulin responses to an oral glucose challenge. *Nat Genet.*42(2):142-148.

15. Unoki H, Takahashi A, Kawaguchi T, Hara K, Horikoshi M, Andersen G, Ng DP, Holmkvist J, Borch-Johnsen K, Jorgensen T, Sandbaek A, Lauritzen T, Hansen T, Nurbaya S, Tsunoda T, Kubo M, Babazono T, Hirose H, Hayashi M, Iwamoto Y, Kashiwagi A, Kaku K, Kawamori R, Tai ES, Pedersen O, Kamatani N, Kadowaki T, Kikkawa R, Nakamura Y, Maeda S. SNPs in KCNQ1 are associated with susceptibility to type 2 diabetes in East Asian and European populations. *Nat Genet.* 2008;40(9):1098-1102.
16. Rung J, Cauchi S, Albrechtsen A, Shen L, Rocheleau G, Cavalcanti-Proenca C, Bacot F, Balkau B, Belisle A, Borch-Johnsen K, Charpentier G, Dina C, Durand E, Elliott P, Hadjadj S, Jarvelin MR, Laitinen J, Lauritzen T, Marre M, Mazur A, Meyre D, Montpetit A, Pisinger C, Posner B, Poulsen P, Pouta A, Prentki M, Ribel-Madsen R, Ruokonen A, Sandbaek A, Serre D, Tichet J, Vaxillaire M, Wojtaszewski JF, Vaag A, Hansen T, Polychronakos C, Pedersen O, Froguel P, Sladek R. Genetic variant near IRS1 is associated with type 2 diabetes, insulin resistance and hyperinsulinemia. *Nat Genet.* 2009;41(10):1110-1115.
17. Steinthorsdottir V, Thorleifsson G, Reynisdottir I, Benediktsson R, Jonsdottir T, Walters GB, Styrkarsdottir U, Gretarsdottir S, Emilsson V, Ghosh S, Baker A, Snorraddottir S, Bjarnason H, Ng MC, Hansen T, Bagger Y, Wilensky RL, Reilly MP, Adeyemo A, Chen Y, Zhou J, Gudnason V, Chen G, Huang H, Lashley K, Doumatey A, So WY, Ma RC, Andersen G, Borch-Johnsen K, Jorgensen T, van Vliet-Ostaptchouk JV, Hofker MH, Wijmenga C, Christiansen C, Rader DJ, Rotimi C, Gurney M, Chan JC, Pedersen O, Sigurdsson G, Gulcher JR, Thorsteinsdottir U, Kong A, Stefansson K. A variant in CDKAL1 influences insulin response and risk of type 2 diabetes. *Nat Genet.* 2007;39(6):770-775.
18. Kathiresan S, Melander O, Guiducci C, Surti A, Burt NP, Rieder MJ, Cooper GM, Roos C, Voight BF, Havulinna AS, Wahlstrand B, Hedner T, Corella D, Tai ES, Ordovas JM, Berglund G, Vartiainen E, Jousilahti P, Hedblad B, Taskinen MR, Newton-Cheh C, Salomaa V, Peltonen L, Groop L, Altshuler DM, Orho-Melander M. Six new loci associated with blood low-density lipoprotein cholesterol, high-density lipoprotein cholesterol or triglycerides in humans. *Nat Genet.* 2008;40(2):189-197.
19. Willer CJ, Sanna S, Jackson AU, Scuteri A, Bonnycastle LL, Clarke R, Heath SC, Timpson NJ, Najjar SS, Stringham HM, Strait J, Duren WL, Maschio A, Busonero F, Mulas A, Albai G, Swift AJ, Morken MA, Narisu N, Bennett D, Parish S, Shen H, Galan P, Meneton P, Hercberg S, Zelenika D, Chen WM, Li Y, Scott LJ, Scheet PA, Sundvall J, Watanabe RM, Nagaraja R, Ebrahim S, Lawlor DA, Ben-Shlomo Y, Davey-Smith G, Shuldiner AR, Collins R, Bergman RN, Uda M, Tuomilehto J, Cao A, Collins FS, Lakatta E, Lathrop GM, Boehnke M, Schlessinger D, Mohlke KL, Abecasis GR. Newly identified loci that influence lipid concentrations and risk of coronary artery disease. *Nat Genet.* 2008;40(2):161-169.
20. Pollin TI, Damcott CM, Shen H, Ott SH, Shelton J, Horenstein RB, Post W, McLenithan JC, Bielak LF, Peyser PA, Mitchell BD, Miller M, O'Connell JR, Shuldiner AR. A null mutation in human APOC3 confers a favorable plasma lipid profile and apparent cardioprotection. *Science.* 2008;322(5908):1702-1705

21. Kooner JS, Chambers JC, Aguilar-Salinas CA, Hinds DA, Hyde CL, Warnes GR, Gomez Perez FJ, Frazer KA, Elliott P, Scott J, Milos PM, Cox DR, Thompson JF. Genome-wide scan identifies variation in MLXIPL associated with plasma triglycerides. *Nat Genet.* 2008;40(2):149-151.
22. C4D Consortium. A genome-wide association study in Europeans and South Asians identifies five new loci for coronary artery disease. *Nat Genet.* 2011;43(4):339-344.
23. Schunkert H, König IR, Kathiresan S, Reilly MP, Assimes TL, Holm H, Preuss M, Stewart AFR, Barbalic M, Gieger C, Absher D, Aherrahrou Z, Allayee H, Altshuler D, Anand SS, Andersen K, Anderson JL, Ardissino D, Ball SG, Balmforth AJ, Barnes TA, Becker DM, Becker LC, Berger K, Bis JC, Boekholdt SM, Boerwinkle E, Braund PS, Brown MJ, Burnett MS, Buyschaert I, Carlquist JF, Chen L, Cichon S, Codd V, Davies RW, Dedoussis G, Dehghan A, Demissie S, Devaney JM, Diemert P, Do R, Doering A, Eifert S, Mokhtari NEE, Ellis SG, Elosua R, Engert JC, Epstein SE, de Faire U, Fischer M, Folsom AR, Freyer J, Gigante B, Girelli D, Gretarsdottir S, Gudnason V, Gulcher JR, Halperin E, Hammond N, Hazen SL, Hofman A, Horne BD, Illig T, Iribarren C, Jones GT, Jukema JW, Kaiser MA, Kaplan LM, Kastelein JJP, Khaw K-T, Knowles JW, Kolovou G, Kong A, Laaksonen R, Lambrechts D, Leander K, Lettre G, Li M, Lieb W, Loley C, Lotery AJ, Mannucci PM, Maouche S, Martinelli N, McKeown PP, Meisinger C, Meitinger T, Melander O, Merlini PA, Mooser V, Morgan T, Muhleisen TW, Muhlestein JB, Munzel T, Musunuru K, Nahrstaedt J, Nelson CP, Nothen MM, Olivieri O, Patel RS, Patterson CC, Peters A, Peyvandi F, Qu L, Quyyumi AA, Rader DJ, Rallidis LS, Rice C, Rosendaal FR, Rubin D, Salomaa V, Sampietro ML, Sandhu MS, Schadt E, Schafer A, Schillert A, Schreiber S, Schrezenmeir J, Schwartz SM, Siscovick DS, Sivananthan M, Sivapalaratnam S, Smith A, Smith TB, Snoep JD, Soranzo N, Spertus JA, Stark K, Stirrups K, Stoll M, Tang WHW, Tennstedt S, Thorgeirsson G, Thorleifsson G, Tomaszewski M, Uitterlinden AG, van Rij AM, Voight BF, Wareham NJ, Wells GA, Wichmann HE, Wild PS, Willenborg C, Witteman JCM, Wright BJ, Ye S, Zeller T, Ziegler A, Cambien F, Goodall AH, Cupples LA, Quertermous T, Marz W, Hengstenberg C, Blankenberg S, Ouwehand WH, Hall AS, Deloukas P, Thompson JR, Stefansson K, Roberts R, Thorsteinsdottir U, O'Donnell CJ, McPherson R, Erdmann J. Large-scale association analysis identifies 13 new susceptibility loci for coronary artery disease. *Nat Genet.* 2011;43(4):333-338.