

Supplementary Material to: Genetic Determinants of Height and Cardiometabolic Traits in the Hispanic Community Health Study/Study of Latinos

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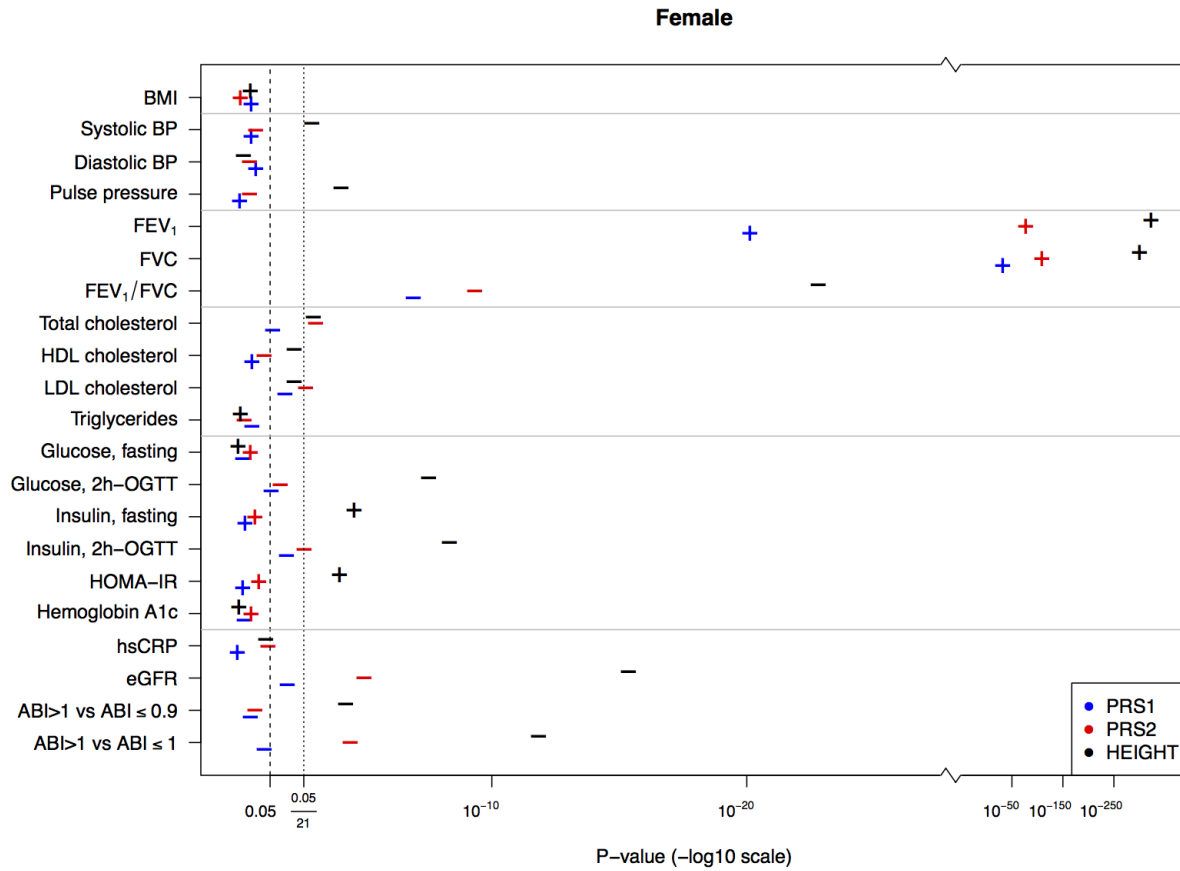
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1 Supplementary methods

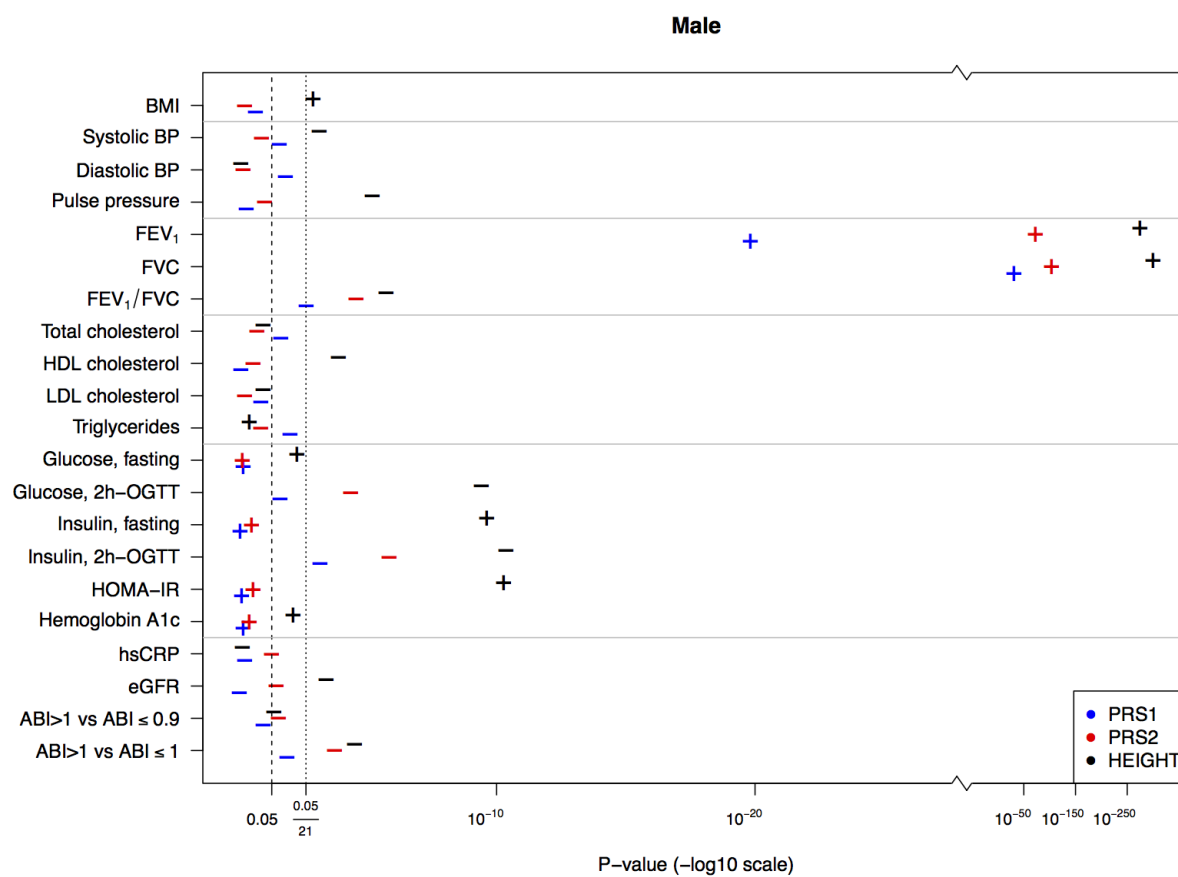
To identify “lead SNPs” in HCHS/SOL for calculation of PRS2, we first defined a genomic region of 5×10^5 base pairs around each of the 804 previously reported height-associated SNPs (see Methods in main text). Then, we used the results of a currently-underway GWAS of height in HCHS/SOL to identify the SNP or indel with the strongest height association in the defined genomic region. The first phase (discovery phase) of this currently-underway GWAS of height in HCHS/SOL used the MetaCor framework (?) because we have shown that stratified (by genetic analysis group (i.e., heritage group)) analysis followed by meta-analysis is useful in studies with heterogeneous sub-strata, particularly when both allele frequencies and trait distributions may differ between strata. Analyses of this currently-underway GWAS used mixed-models with adjustment for age, sex, study-center, nativity, HCHS/SOL sampling weights,

PCs of ancestry and random effects for kinship, household, and community block unit.

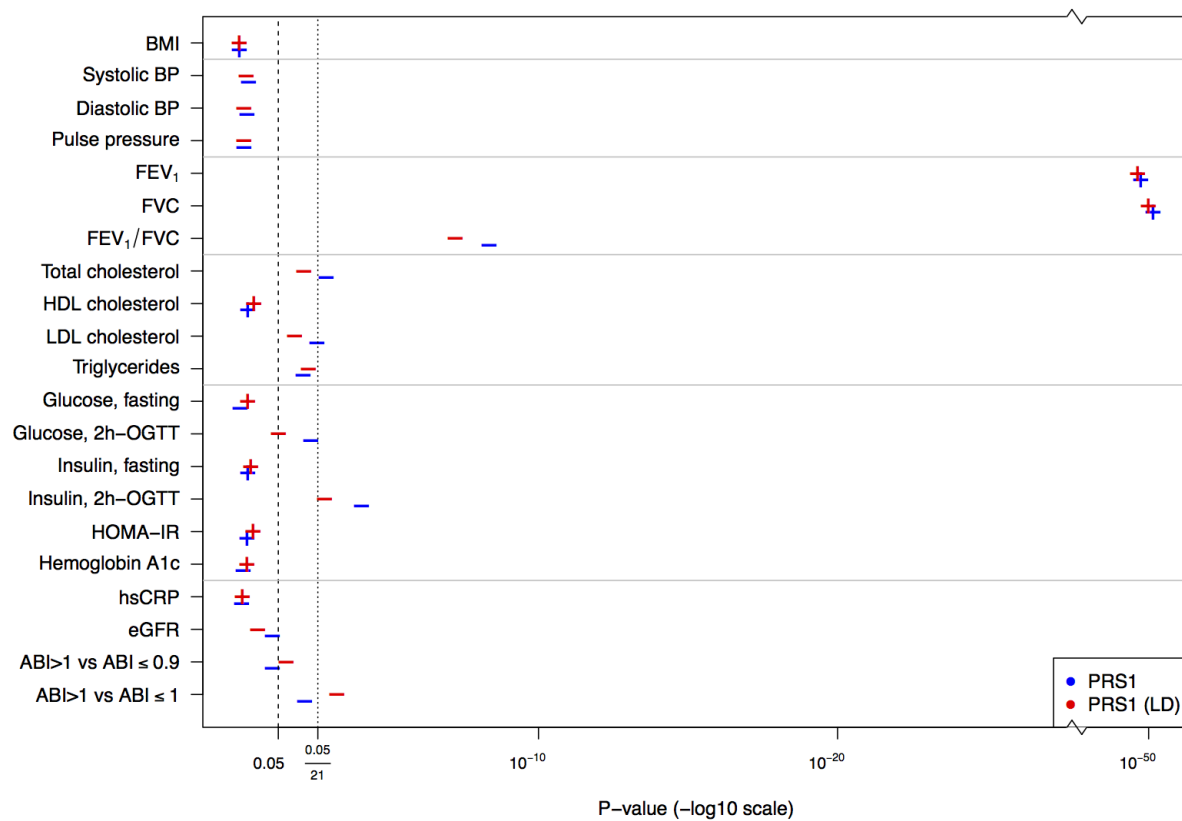
2 Supplementary figures



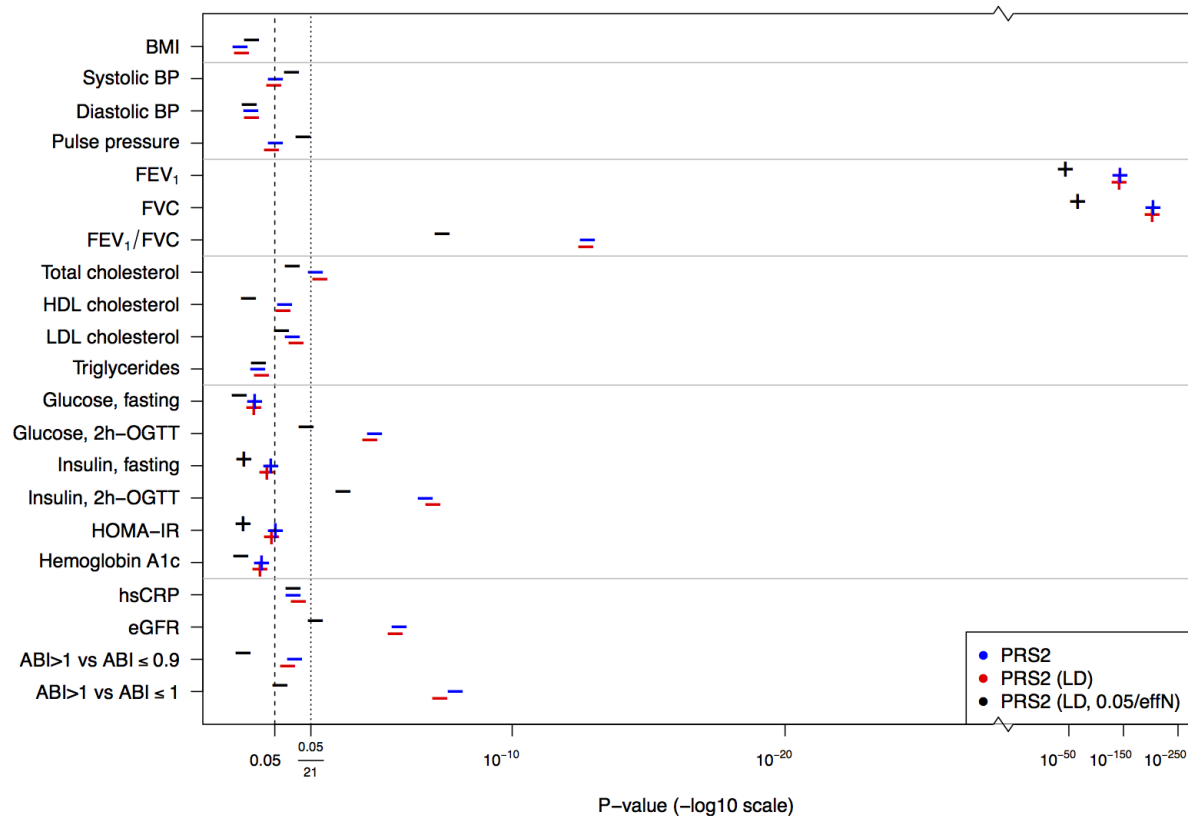
Supplementary figure 1: **Women-only associations.** Significance level for associations of PRS1 (estimated from prior GWAS of European, African and Asian populations), PRS2 (created to predict adult height in Hispanics/Latinos) and measured height with cardiometabolic traits in HCHS/SOL women. Effects are for a one (1) standard deviation (SD) increase in PRS1, PRS2, or measured height. Plus (+) symbols indicate a positive association and minus (-) symbols indicate an inverse association. Two significance level cutoff lines are shown: the nominal level (0.05) and the Bonferroni-corrected significance level (0.05/21 cardiometabolic traits).



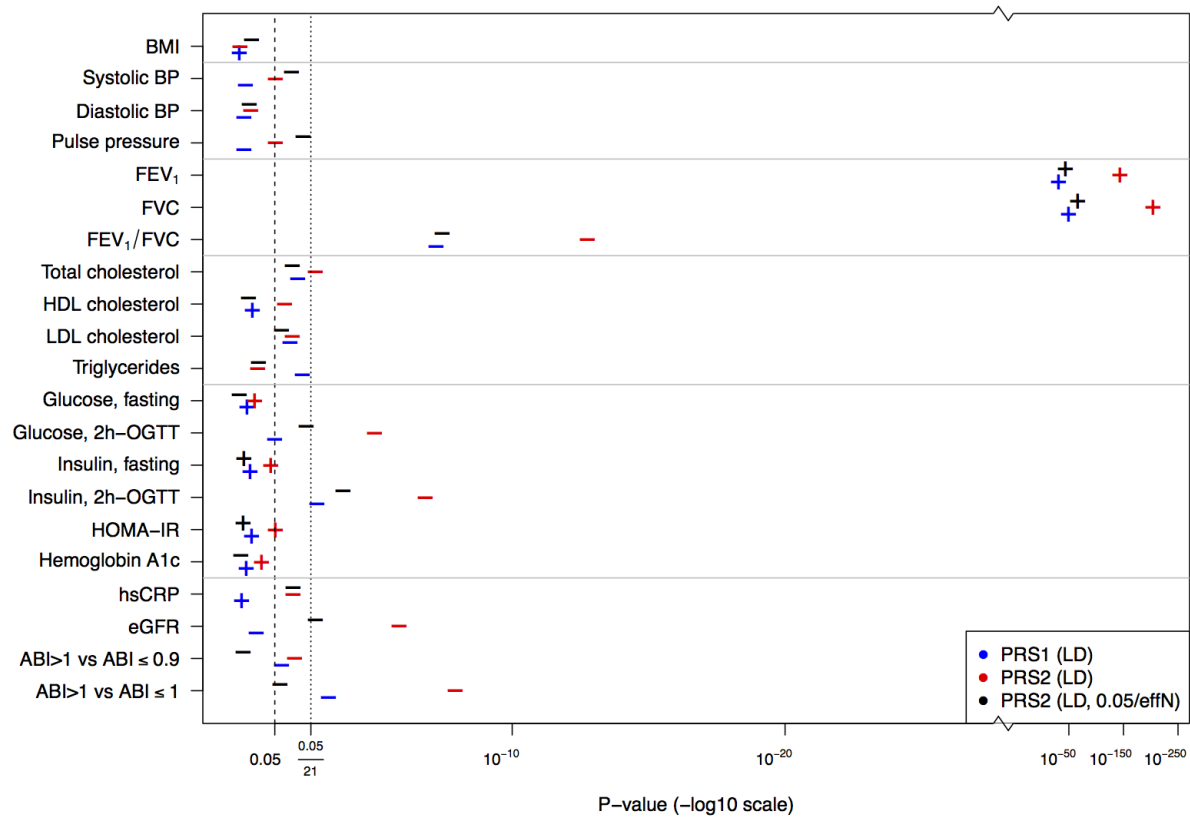
Supplementary figure 2: **Men-only associations.** Significance level for associations of PRS1 (estimated from prior GWAS of European, African and Asian populations), PRS2 (created to predict adult height in Hispanics/Latinos) and measured height with cardiometabolic traits in HCHS/SOL men. Effects are for a one (1) standard deviation (SD) increase in PRS1, PRS2, or measured height. Plus (+) symbols indicate a positive association and minus (-) symbols indicate an inverse association. Two significance level cutoff lines are shown: the nominal level (0.05) and the Bonferroni-corrected significance level ($0.05/21$ cardiometabolic traits).



Supplementary figure 3: **LD-pruned PRS1 versus primary PRS1**. Significance level for associations of PRS1 (estimated from prior GWAS of European, African and Asian populations), LD-pruned PRS1 (75 SNPs removed so that of the remaining SNPs, the LD r^2 between each pair of SNPs is ≤ 0.5) with cardiometabolic traits in the HCHS/SOL. Effects are for a one (1) standard deviation (SD) increase in each PRS. Plus (+) symbols indicate a positive association and minus (-) symbols indicate an inverse association. Two significance level cutoff lines are shown: the nominal level (0.05) and the Bonferroni-corrected significance level (0.05/21 cardiometabolic traits).



Supplementary figure 4: **LD-pruned and multiple testing adjusted PRS versus primary PRS2.** Significance level for associations of PRS2 (created to predict adult height in Hispanics/Latinos), LD-pruned PRS2 (7 SNPs removed so that of the remaining SNPs, the LD r^2 between each pair of SNPs is ≤ 0.5), and a PRS adjusted for multiple testing (SNPs are used only if their p -values are $\leq 0.05/\text{effSNP}$, the effective number of SNPs in the genomic region) with cardiometabolic traits in the HCHS/SOL. Effects are for a one (1) standard deviation (SD) increase in each PRS. Plus (+) symbols indicate a positive association and minus (-) symbols indicate an inverse association. Two significance level cutoff lines are shown: the nominal level (0.05) and the Bonferroni-corrected significance level ($0.05/21$ cardiometabolic traits).



Supplementary figure 5: **Sensitivity analyses associations.** Significance level for associations of LD-pruned PRS1, PRS2, and PRS2 adjusted for multiple testing, with cardiometabolic traits in the HCHS/SOL. Effects are for a one (1) standard deviation (SD) increase in each PRS. Plus (+) symbols indicate a positive association and minus (-) symbols indicate an inverse association. Two significance level cutoff lines are shown: the nominal level (0.05) and the Bonferroni-corrected significance level (0.05/21 cardiometabolic traits).

3 Supplementary tables

3.1 Associations of the PRSs and of height with cardiometabolic traits in men and women, and combined

Supplementary tables 1 and 2 provides effect size estimates and 95% confidence intervals from association analysis of PRS1, PRS2, and height with the cardiometabolic traits, in strata of HCHS/SOL men and women, respectively. Supplementary table 3 provides the same results for the analysis of the combined cohort. All association models were adjusted for age and 5 principal components (PCs) of genomic race/ethnicity to prevent biases due to population stratification. To account for the HCHS/SOL sampling design that included genetically related individuals and individuals living in the same household and community block unit, we used linear or logistic mixed models (for quantitative and binary traits, respectively), with correlations modeled via kinship, household sharing, and community block unit sharing matrices.

Trait	Sample size	PRS1		PRS2		Height	
		Effects (95% CI) ^a	P-value	Effects (95% CI) ^a	P-value	Effects (95% CI) ^a	P-value
Anthropometry							
BMI	5229	-0.1 (-0.25,0.06)	0.214	-0.04 (-0.19,0.1)	0.565	0.34 (0.13,0.55)	0.001
Blood pressure							
Systolic BP	5242	-0.48 (-0.89,-0.06)	0.025	-0.31 (-0.71,0.08)	0.123	-1 (-1.6,-0.4)	0.001
Diastolic BP	5239	-0.37 (-0.67,-0.07)	0.015	-0.07 (-0.35,0.22)	0.638	-0.06 (-0.48,0.36)	0.773
Pulse pressure	5239	-0.11 (-0.4,0.19)	0.480	-0.24 (-0.52,0.04)	0.094	-0.95 (-1.36,-0.54)	< 0.001
Lung function							
FEV1	4896	79.1 (62.4,95.8)	< 0.001	143.4 (127.8,159)	< 0.001	377 (356.2,397.9)	< 0.001
FVC	4896	119.9 (99.7,140.1)	< 0.001	207.2 (188.5,225.9)	< 0.001	520 (495.6,544.3)	< 0.001
FEV1/FVC	4878	-0.31 (-0.51,-0.11)	0.002	-0.41 (-0.6,-0.22)	< 0.001	-0.68 (-0.96,-0.4)	< 0.001
Lipid measures							
Total cholesterol	5242	-1.4 (-2.7,-0.2)	0.023	-0.8 (-2,0.4)	0.183	-1.4 (-3.1,0.3)	0.110
HDL cholesterol	5241	-0.05 (-0.38,0.29)	0.787	-0.18 (-0.5,0.13)	0.259	-0.9 (-1.36,-0.44)	< 0.001
LDL cholesterol	5067	-0.8 (-1.8,0.3)	0.137	-0.3 (-1.3,0.7)	0.576	-1.2 (-2.6,0.3)	0.109
Triglycerides	5242	-0.021 (-0.037,-0.005)	0.010	-0.012 (-0.027,0.004)	0.130	0.01 (-0.012,0.033)	0.365
Glycemic traits							
Glucose, fasting	5242	0.3 (-0.8,1.4)	0.627	0.2 (-0.8,1.3)	0.665	2.2 (0.6,3.7)	0.005
Glucose, 2h-OGTT	4346	-1.4 (-2.7,-0.2)	0.024	-2.5 (-3.6,-1.3)	< 0.001	-5.5 (-7.2,-3.8)	< 0.001
Insulin, fasting	5219	0.002 (-0.019,0.022)	0.865	0.01 (-0.009,0.03)	0.298	0.093 (0.064,0.122)	< 0.001
Insulin, 2h-OGTT	4333	-0.05 (-0.079,-0.021)	0.001	-0.068 (-0.095,-0.04)	< 0.001	-0.136 (-0.177,-0.096)	< 0.001
HOMA-IR	5218	0.004 (-0.019,0.026)	0.752	0.012 (-0.009,0.034)	0.267	0.106 (0.074,0.137)	< 0.001
Hemoglobin A1c	5224	0.002 (-0.005,0.009)	0.624	0.003 (-0.004,0.01)	0.382	0.014 (0.004,0.024)	0.008
Inflammation, kidney, peripheral artery disease							
hsCRP	5241	-0.009 (-0.038,0.021)	0.567	-0.028 (-0.056,0)	0.051	-0.009 (-0.05,0.032)	0.673
eGFR	5196	-0.03 (-0.47,0.41)	0.897	-0.45 (-0.87,-0.03)	0.035	-1.1 (-1.7,-0.5)	< 0.001
		OR (95% CI) ^a	P-value	OR (95% CI) ^a	P-value	OR (95% CI) ^a	P-value
ABI> 1 vs ABI ≤ 0.9	2556	0.85 (0.71,1.04)	0.108	0.81 (0.68,0.98)	0.028	0.75 (0.57,0.99)	0.042
ABI> 1 vs ABI ≤ 1	2872	0.87 (0.79,0.97)	0.013	0.83 (0.75,0.91)	< 0.001	0.73 (0.63,0.84)	< 0.001

Supplementary table 1: **Associations of PRS1, PRS2, and measured height with cardiometabolic traits in HCHS/SOL men.** PRS: genetic risk score; CI: confidence interval; BMI: body mass index; FEV1: forced expiratory volume in 1 second; FVC: forced vital capacity; HDL: high-density lipoprotein; LDL: low-density lipoprotein; 2h-OGTT: 2-h post-oral glucose tolerance test; HOMA-IR: homeostatic model assessment of insulin resistance; hsCRP: high sensitivity C-reactive protein; eGFR: estimated glomerular filtration rate; OR: odds ratio.

^a Effects are for a one (1) standard deviation (SD) increase in PRS1, PRS2, or measured height.

Trait	Sample size	PRS1		PRS2		Height	
		Effects (95% CI) ^a	P-value	Effects (95% CI) ^a	P-value	Effects (95% CI) ^a	P-value
Anthropometry							
BMI	7521	0.08 (-0.07,0.23)	0.272	0.03 (-0.12,0.18)	0.710	0.12 (-0.11,0.36)	0.300
Blood pressure							
Systolic BP	7534	0.21 (-0.16,0.58)	0.273	-0.25 (-0.62,0.12)	0.186	-1 (-1.5,-0.4)	0.001
Diastolic BP	7531	0.16 (-0.08,0.4)	0.183	-0.12 (-0.36,0.12)	0.320	-0.12 (-0.48,0.25)	0.539
Pulse pressure	7531	0.04 (-0.23,0.3)	0.778	-0.13 (-0.4,0.13)	0.327	-0.83 (-1.24,-0.42)	< 0.001
Lung function							
FEV1	6930	46.4 (36.7,56.1)	< 0.001	91.5 (81.9,101.1)	< 0.001	272.4 (258.5,286.3)	< 0.001
FVC	6930	71.5 (59.7,83.2)	< 0.001	130.9 (119.3,142.4)	< 0.001	383 (366.8,399.3)	< 0.001
FEV1/FVC	6890	-0.39 (-0.54,-0.25)	< 0.001	-0.46 (-0.61,-0.32)	< 0.001	-1.16 (-1.39,-0.93)	< 0.001
Lipid measures							
Total cholesterol	7534	-1 (-1.9,0)	0.040	-1.6 (-2.5,-0.7)	0.001	-2.4 (-3.9,-1)	0.001
HDL cholesterol	7534	0.17 (-0.13,0.48)	0.261	-0.27 (-0.57,0.03)	0.083	-0.67 (-1.14,-0.19)	0.006
LDL cholesterol	7445	-1 (-1.8,-0.2)	0.013	-1.3 (-2.1,-0.5)	0.002	-1.8 (-3,-0.5)	0.005
Triglycerides	7534	-0.007 (-0.018,0.005)	0.251	-0.004 (-0.015,0.008)	0.514	0.003 (-0.015,0.021)	0.735
Glycemic traits							
Glucose, fasting	7533	-0.2 (-1,0.6)	0.584	0.4 (-0.4,1.2)	0.294	0.1 (-1.2,1.3)	0.917
Glucose, 2h-OGTT	6147	-1 (-2,0)	0.047	-1.2 (-2.2,-0.2)	0.020	-4.4 (-6,-2.9)	< 0.001
Insulin, fasting	7518	0.006 (-0.01,0.021)	0.473	0.01 (-0.005,0.026)	0.196	0.052 (0.028,0.076)	< 0.001
Insulin, 2h-OGTT	6143	-0.025 (-0.045,-0.006)	0.011	-0.03 (-0.05,-0.011)	0.002	-0.091 (-0.122,-0.061)	< 0.001
HOMA-IR	7518	0.005 (-0.013,0.022)	0.582	0.013 (-0.004,0.03)	0.142	0.054 (0.027,0.081)	< 0.001
Hemoglobin A1c	7507	-0.002 (-0.007,0.003)	0.518	0.003 (-0.002,0.008)	0.279	0.001 (-0.007,0.009)	0.841
Inflammation, kidney, peripheral artery disease							
hsCRP	7533	0.001 (-0.025,0.026)	0.958	-0.025 (-0.05,0.001)	0.059	-0.036 (-0.076,0.003)	0.074
eGFR	7491	-0.45 (-0.8,-0.1)	0.011	-0.78 (-1.13,-0.43)	< 0.001	-2.2 (-2.8,-1.7)	< 0.001
		OR (95% CI) ^a	P-value	OR (95% CI) ^a	P-value	OR (95% CI) ^a	P-value
ABI> 1 vs ABI ≤ 0.9	3558	0.94 (0.83,1.06)	0.303	0.92 (0.81,1.04)	0.195	0.66 (0.53,0.81)	< 0.001
ABI> 1 vs ABI ≤ 1	4619	0.94 (0.88,1.01)	0.086	0.87 (0.81,0.93)	< 0.001	0.67 (0.61,0.75)	< 0.001

Supplementary table 2: **Associations of PRS1, PRS2, and measured height with cardiometabolic traits in HCHS/SOL women.** PRS: genetic risk score; CI: confidence interval; BMI: body mass index; FEV1: forced expiratory volume in 1 second; FVC: forced vital capacity; HDL: high-density lipoprotein; LDL: low-density lipoprotein; 2h-OGTT: 2-h post-oral glucose tolerance test; HOMA-IR: homeostatic model assessment of insulin resistance; hsCRP: high sensitivity C-reactive protein; eGFR: estimated glomerular filtration rate; OR: odds ratio.

^a Effects are for a one (1) standard deviation (SD) increase in PRS1, PRS2, or measured height.

Trait	Sample size	PRS1		PRS2		Height	
		Effects (95% CI) ^a	P-value	Effects (95% CI) ^a	P-value	Effects (95% CI) ^a	P-value
Anthropometry							
BMI	12750	0 (-0.11,0.11)	0.999	-0.01 (-0.12,0.09)	0.807	0.21 (0.05,0.37)	0.010
Blood pressure							
Systolic BP	12776	-0.1 (-0.38,0.18)	0.503	-0.27 (-0.54,0.01)	0.056	-1 (-1.42,-0.58)	< 0.001
Diastolic BP	12770	-0.06 (-0.24,0.13)	0.564	-0.08 (-0.27,0.1)	0.365	-0.07 (-0.35,0.21)	0.605
Pulse pressure	12770	-0.04 (-0.24,0.16)	0.715	-0.19 (-0.38,0.01)	0.064	-0.91 (-1.21,-0.61)	< 0.001
Lung function							
FEV1	11826	58.7 (49.6,67.7)	< 0.001	113.7 (104.9,122.5)	< 0.001	319.7 (307.5,331.8)	< 0.001
FVC	11826	89.5 (78.6,100.4)	< 0.001	163 (152.5,173.5)	< 0.001	444.9 (430.6,459.1)	< 0.001
FEV1/FVC	11768	-0.36 (-0.48,-0.24)	< 0.001	-0.44 (-0.56,-0.33)	< 0.001	-0.94 (-1.11,-0.76)	< 0.001
Lipid measures							
Total cholesterol	12776	-1.2 (-2,-0.5)	0.001	-1.2 (-2,-0.5)	0.001	-2 (-3.1,-0.8)	0.001
HDL cholesterol	12775	0.08 (-0.15,0.3)	0.515	-0.26 (-0.48,-0.03)	0.025	-0.85 (-1.18,-0.51)	< 0.001
LDL cholesterol	12512	-1 (-1.6,-0.4)	0.003	-0.9 (-1.5,-0.2)	0.008	-1.5 (-2.4,-0.5)	0.002
Triglycerides	12776	-0.013 (-0.022,-0.003)	0.007	-0.007 (-0.016,0.003)	0.156	0.007 (-0.008,0.021)	0.365
Glycemic traits							
Glucose, fasting	12775	0 (-0.7,0.6)	0.930	0.3 (-0.3,1)	0.297	1 (0,1.9)	0.043
Glucose, 2h-OGTT	10493	-1.2 (-1.9,-0.4)	0.004	-1.7 (-2.5,-0.9)	< 0.001	-4.9 (-6.1,-3.7)	< 0.001
Insulin, fasting	12737	0.004 (-0.009,0.017)	0.531	0.01 (-0.002,0.023)	0.097	0.07 (0.052,0.089)	< 0.001
Insulin, 2h-OGTT	10476	-0.034 (-0.05,-0.017)	< 0.001	-0.045 (-0.061,-0.029)	< 0.001	-0.11 (-0.135,-0.085)	< 0.001
HOMA-IR	12736	0.004 (-0.01,0.018)	0.553	0.013 (-0.001,0.026)	0.067	0.077 (0.057,0.098)	< 0.001
Hemoglobin A1c	12731	-7e-04 (-0.0049,0.0035)	0.743	0.0029 (-0.0013,0.007)	0.177	0.006 (0,0.013)	0.049
Inflammation, kidney, peripheral artery disease							
hsCRP	12774	-0.002 (-0.021,0.018)	0.852	-0.026 (-0.045,-0.007)	0.007	-0.024 (-0.053,0.005)	0.103
eGFR	12687	-0.25 (-0.52,0.03)	0.077	-0.66 (-0.93,-0.39)	< 0.001	-1.68 (-2.09,-1.27)	< 0.001
		OR (95% CI) ^a	P-value	OR (95% CI) ^a	P-value	OR (95% CI) ^a	P-value
ABI> 1 vs ABI ≤ 0.9	6114	0.91 (0.82,1.01)	0.077	0.88 (0.8,0.98)	0.017	0.69 (0.59,0.81)	< 0.001
ABI> 1 vs ABI ≤ 1	7491	0.92 (0.87,0.98)	0.006	0.855 (0.809,0.904)	< 0.001	0.69 (0.63,0.76)	< 0.001

Supplementary table 3: **Associations of PRS1, PRS2, and measured height with cardiometabolic traits in the HCHS/SOL** (men and women combined). PRS: polygenic risk score; CI: confidence interval; BMI: body mass index; FEV1: forced expiratory volume in 1 second; FVC: forced vital capacity; HDL: high-density lipoprotein; LDL: low-density lipoprotein; 2h-OGTT: 2-h post-oral glucose tolerance test; HOMA-IR: homeostatic model assessment of insulin resistance; hsCRP: high sensitivity C-reactive protein; eGFR: estimated glomerular filtration rate; OR: odds ratio.

^a Effects are for a one (1) standard deviation (SD) increase in PRS1, PRS2, or measured height.

3.2 The variants composing PRS1 and PRS2

Variants composing PRS1 were (1) 697 SNPs that reached genome-wide significance ($P < 5 \times 10^{-8}$) in a GWAS meta-analysis of adult height from 79 studies consisting of 253,288 individuals of European ancestry (?), (2) 71 SNPs that reached genome-wide significance in GWAS meta-analyses of adult height in 93,926 individuals from East Asia (?), and (3) 36 SNPs identified in a study of 20,427 individuals of African ancestry (?). Variants composing PRS2 were lead variants in the HCHS/SOL in 500Kbp regions around the SNPs identified in the previous, discovery, studies.

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs425277	1	2069172	T	C	0.28	0.028(0.003)	EU	0.31	0.018(0.009)	1.00
rs9434723	1	9292282	A	G	0.16	0.029(0.004)	EU	0.26	-0.007(0.01)	1.00
rs10779751	1	11284336	A	G	0.28	0.021(0.003)	EU	0.25	-0.001(0.01)	1.00
rs2284746	1	17306675	G	C	0.52; 0.28	0.04(0.003); 0.057(0.006)	EU; Asian	0.44	0.03(0.009)	1.00
rs3738814	1	17331676	A	G	0.3	0.056(0.006)	Asian	0.50	0.029(0.008)	1.00
rs12137162	1	19763396	A	C	0.28	0.019(0.003)	EU	0.24	0.008(0.01)	1.00
rs212524	1	21583311	C	T	0.6	0.021(0.003)	EU	0.67	0.01(0.009)	1.00
rs1014987	1	22498824	G	C	0.25	0.02(0.004)	EU	0.26	0.004(0.01)	1.00
rs2806561	1	23504795	A	G	0.57	0.027(0.003)	EU	0.43	0(0.008)	1.00
rs4601530	1	25044111	C	T	0.74	0.025(0.003)	EU	0.73	0.004(0.009)	1.00
rs926438	1	25753638	T	C	0.54	0.015(0.003)	EU	0.51	0.008(0.008)	1.00
rs17163588	1	26450009	T	C	0.18	0.027(0.004)	EU	0.15	0.025(0.012)	1.00
rs2219320	1	26803430	T	C	0.76	0.022(0.004)	EU	0.65	0.017(0.009)	1.00
rs12119525	1	27503662	A	T	0.36	0.018(0.003)	EU	0.22	0.009(0.01)	1.00
rs16834765	1	32371442	T	C	0.06	0.045(0.006)	EU	0.08	0.017(0.016)	1.00
rs7544462	1	37962756	A	C	0.91	0.032(0.005)	EU	0.97	-0.007(0.025)	1.00
rs209918	1	40777842	A	G	0.78	0.023(0.004)	EU	0.63	0.004(0.009)	1.00
rs6600365	1	41556253	C	T	0.43	0.027(0.003)	EU	0.47	0.025(0.009)	1.00
rs3014219	1	46024454	G	A	0.54	0.021(0.003)	EU	0.47	0.019(0.008)	0.99
rs564914	1	47915233	T	A	0.39	0.024(0.003)	EU	0.43	0.018(0.008)	1.00

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs12855	1	51440093	T	C	0.09	0.038(0.005)	EU	0.10	0.021(0.014)	1.00
rs17387330	1	54119578	A	G	0.32	0.017(0.003)	EU	0.20	0.016(0.01)	1.00
rs6691924	1	54954245	T	C	0.9	0.032(0.005)	EU	0.71	0.035(0.011)	1.00
rs2815379	1	67510474	G	A	0.71	0.018(0.003)	EU	0.73	0.008(0.009)	1.00
rs12731056	1	78512566	A	T	0.03	0.138(0.022)	EU	0.00	0.877(0.278)	0.23
rs17391694	1	78623626	T	C	0.12	0.043(0.005)	EU	0.05	0.022(0.019)	1.00
rs567401	1	85988158	T	C	0.17	0.025(0.004)	EU			
rs2046158	1	86330770	C	T	0.84	0.021(0.004)	EU	0.90	-0.018(0.013)	1.00
rs7551732	1	89139041	A	T	0.61	0.027(0.003)	EU	0.59	0.007(0.009)	0.99
rs2811594	1	93343282	G	A	0.63	0.024(0.003)	EU	0.69	0.014(0.009)	1.00
rs17113369	1	95787223	T	C	0.97	0.073(0.013)	EU	0.97	0.038(0.022)	0.99
rs7517682	1	103519589	G	A	0.44	0.023(0.003)	EU	0.42	0.028(0.009)	1.00
rs12120956	1	113202571	G	A	0.77	0.025(0.004)	EU	0.73	0.008(0.01)	1.00
rs1321666	1	118492052	C	T	0.48	0.017(0.003)	EU	0.46	0.006(0.008)	1.00
rs7513464	1	118849762	G	C	0.63	0.058(0.005)	Asian	0.69	0.027(0.009)	0.99
rs9428104	1	118855587	G	A	0.75	0.043(0.003)	EU	0.73	0.028(0.009)	1.00
rs1409156	1	119491784	G	A	0.37	0.014(0.003)	EU	0.36	0.016(0.009)	1.00
rs12144094	1	120264823	C	G	0.84	0.025(0.004)	EU	0.91	0(0.015)	1.00
rs6658763	1	146692373	C	T	0.92	0.036(0.005)	EU	0.90	0.027(0.013)	1.00
rs7534365	1	149876124	C	T	0.19	0.047(0.005)	EU	0.10	0.007(0.014)	1.00
rs11205277	1	149892872	G	A	0.33	0.044(0.006)	Asian	0.29	0.02(0.009)	1.00
rs3767627	1	149938898	T	C	0.84	0.036(0.004)	EU	0.76	0.034(0.01)	1.00
rs956796	1	150186091	G	A	0.9	0.022(0.005)	EU	0.89	0.002(0.013)	1.00
rs2298265	1	151259043	C	T	0.88	0.03(0.005)	EU	0.86	0.01(0.012)	1.00
rs6688100	1	160399586	T	C	0.48	0.016(0.003)	EU	0.47	-0.012(0.009)	1.00
rs4656220	1	170649277	T	C	0.39	0.021(0.003)	EU	0.29	0.016(0.009)	1.00
rs6694089	1	172083881	A	G	0.28	0.039(0.003)	EU	0.15	0.038(0.012)	1.00
rs12125882	1	172141403	T	A	0.43	0.027(0.003)	EU	0.38	0.016(0.009)	1.00
rs12410416	1	172193820	C	T	0.31	0.031(0.005)	Asian	0.20	0.035(0.01)	1.00
rs2421992	1	172241251	T	C	0.7	0.024(0.003)	EU	0.69	0.001(0.009)	1.00
rs17369123	1	172355841	T	C	0.19	0.031(0.004)	EU	0.11	0.005(0.013)	1.00

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs1325598	1	176792249	G	A	0.76	0.037(0.006)	Asian	0.59	0.014(0.008)	1.00
rs1325596	1	176794066	A	G	0.57	0.025(0.003)	EU	0.61	0.017(0.009)	1.00
rs4652773	1	183054827	A	G	0.46	0.024(0.003)	EU	0.42	0.025(0.009)	1.00
rs3814333	1	184007119	T	C	0.32	0.049(0.003)	EU	0.26	0.014(0.009)	0.98
rs1926872	1	184018475	C	T	0.48	0.046(0.005)	Asian	0.27	0.017(0.009)	1.00
rs2275325	1	203800735	C	G	0.28	0.019(0.003)	EU	0.33	-0.002(0.009)	1.00
rs10863936	1	212237798	G	A	0.47	0.02(0.003)	EU	0.33	0.007(0.009)	1.00
rs6540834	1	214627419	C	T	0.66	0.027(0.003)	EU	0.53	0.023(0.008)	1.00
rs1244981	1	215046892	A	G	0.84	0.025(0.004)	EU	0.75	0.008(0.01)	0.99
rs10495098	1	218516310	T	G	0.41	0.019(0.003)	EU	0.39	-0.005(0.009)	1.00
rs1890995	1	218604678	A	G	0.73	0.039(0.005)	Asian	0.45	0.018(0.009)	1.00
rs991967	1	218615451	C	A	0.28	0.034(0.003)	EU	0.48	0.018(0.009)	1.00
rs12411277	1	218975475	G	A	0.63	0.022(0.003)	EU	0.67	0.022(0.009)	1.00
rs4428898	1	219739966	G	A	0.54	0.023(0.003)	EU	0.68	-0.009(0.009)	1.00
rs1935157	1	221317258	G	C	0.3	0.025(0.003)	EU	0.28	0.011(0.009)	1.00
rs1544196	1	224632782	G	A	0.77	0.019(0.004)	EU	0.79	0.004(0.011)	1.00
rs6696239	1	227750068	G	A	0.81	0.038(0.004)	EU	0.86	-0.004(0.012)	1.00
rs11799609	1	243618317	T	G	0.16	0.026(0.004)	EU	0.09	-0.048(0.014)	0.99
rs17038954	2	1645673	T	C	0.06	0.044(0.006)	EU	0.09	0.017(0.014)	1.00
rs10048625	2	1775648	T	C	0.18	0.026(0.004)	EU	0.12	0.014(0.013)	1.00
rs3885668	2	10178479	C	T	0.43	0.022(0.003)	EU	0.33	0.013(0.009)	0.99
rs2345835	2	18574952	C	T	0.54	0.018(0.003)	EU	0.60	0.011(0.008)	1.00
rs13006748	2	20151819	C	G	0.3	0.022(0.003)	EU	0.27	-0.011(0.009)	0.98
rs7561273	2	24247514	G	A	0.54	0.025(0.003)	EU	0.67	0.022(0.009)	1.00
rs2278483	2	25040082	T	C	0.24	0.041(0.003)	EU	0.14	0.008(0.012)	1.00
rs4665736	2	25187599	T	C	0.55	0.029(0.006)	Asian	0.56	0.036(0.009)	1.00
rs2289195	2	25463483	A	G	0.43	0.038(0.003)	EU	0.50	0.031(0.008)	1.00
rs11694842	2	25482970	A	G	0.92	0.053(0.008)	Asian	0.85	0.008(0.012)	1.00
rs10460566	2	25483121	A	G	0.76	0.007(0.004)	EU	0.74	0.023(0.009)	1.00
rs780094	2	27741237	C	T	0.61	0.021(0.003)	EU	0.66	0.012(0.009)	1.00
rs7605699	2	33315750	G	C	0.81	0.028(0.004)	EU	0.83	0.008(0.011)	1.00

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs6714546	2	33361425	G	A	0.72	0.03(0.003)	EU	0.81	0.034(0.011)	1.00
rs6751657	2	33405151	C	T	0.53	0.024(0.003)	EU	0.50	0.013(0.008)	1.00
rs3769528	2	33471192	A	G	0.82	0.06(0.006)	Asian	0.98	0.059(0.028)	1.00
rs711245	2	36768875	G	A	0.67	0.024(0.003)	EU	0.50	0.008(0.009)	1.00
rs6544089	2	37758745	T	C	0.39	0.02(0.003)	EU	0.38	0.008(0.009)	1.00
rs17511102	2	37960613	T	A	0.09	0.053(0.006)	EU	0.04	0.036(0.021)	0.96
rs12615742	2	37995727	T	C	0.48	0.026(0.004)	EU	0.34	0.019(0.009)	1.00
rs13416119	2	42462930	A	G	0.9	0.028(0.005)	EU	0.95	0.004(0.019)	0.98
rs9309101	2	43629612	G	A	0.33	0.021(0.003)	EU	0.27	0.001(0.01)	1.00
rs897080	2	44774202	C	T	0.26	0.028(0.003)	EU	0.18	-0.004(0.011)	1.00
rs17032525	2	44907331	A	G	0.13	0.025(0.005)	EU	0.15	0.021(0.011)	1.00
rs12474201	2	46921285	A	G	0.36	0.028(0.003)	EU	0.38	0.022(0.009)	1.00
rs354196	2	54966407	G	A	0.53	0.021(0.003)	EU	0.61	0.002(0.009)	0.99
rs2589113	2	55516323	T	G	0.48	0.043(0.009)	African	0.10	0.021(0.015)	1.00
rs4146922	2	56067182	T	A	0.18	0.061(0.006)	Asian	0.81	0.035(0.011)	1.00
rs1367226	2	56089540	G	A	0.57	0.005(0.003)	EU	0.53	-0.004(0.009)	1.00
rs3791679	2	56096892	A	G	0.77	0.06(0.004)	EU	0.80	0.04(0.01)	1.00
rs3791675	2	56111309	C	T	0.23	0.07(0.006)	Asian	0.79	0.039(0.01)	1.00
rs3791673	2	56113538	G	A	0.96	0.012(0.008)	EU	0.97	-0.025(0.024)	0.99
rs2120335	2	68495002	G	A	0.59	0.019(0.003)	EU	0.49	0.003(0.008)	0.99
rs4315565	2	69287943	G	A	0.8	0.067(0.012)	African	0.47	0.011(0.009)	1.00
rs7568069	2	71584485	G	A	0.42	0.022(0.003)	EU	0.43	0.028(0.009)	1.00
rs867529	2	88913273	C	G	0.46	0.036(0.005)	Asian	0.28	0.021(0.009)	1.00
rs11684404	2	88924622	C	T	0.34	0.032(0.003)	EU	0.35	0.02(0.009)	1.00
rs11683207	2	98333290	T	C	0.8	0.023(0.004)	EU	0.90	0.01(0.014)	1.00
rs13388725	2	109047190	G	A	0.41	0.018(0.003)	EU	0.52	0.009(0.009)	1.00
rs2166898	2	121612659	G	A	0.84	0.027(0.004)	EU	0.84	0.008(0.011)	1.00
rs7567288	2	134434824	C	T	0.2	0.028(0.004)	EU	0.18	0.016(0.011)	1.00
rs4953951	2	136187345	C	T	0.9	0.036(0.005)	EU	0.71	0.02(0.009)	1.00
rs749234	2	145231349	A	G	0.32	0.017(0.003)	EU	0.46	0.001(0.008)	0.99
rs540652	2	169707428	T	C	0.46	0.021(0.003)	EU	0.49	0.005(0.009)	1.00

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs12987566	2	172152646	T	C	0.27	0.024(0.003)	EU	0.23	0.01(0.01)	1.00
rs6746356	2	174815898	A	C	0.75	0.019(0.003)	EU	0.71	0.006(0.009)	1.00
rs7567851	2	178684720	C	G	0.08	0.039(0.006)	EU	0.09	-0.003(0.014)	1.00
rs833152	2	183219101	C	A	0.42	0.017(0.003)	EU	0.36	0.01(0.009)	0.99
rs12693589	2	191832662	C	T	0.25	0.022(0.003)	EU	0.15	0.024(0.012)	1.00
rs6435143	2	203194256	A	C	0.44	0.019(0.003)	EU	0.39	0.005(0.009)	1.00
rs4425077	2	216410516	G	C	0.41	0.02(0.003)	EU	0.38	0.009(0.008)	1.00
rs12329133	2	217935116	C	T	0.61	0.017(0.003)	EU	0.72	-0.006(0.009)	1.00
rs17181956	2	218146080	C	T	0.87	0.028(0.005)	EU	0.92	-0.006(0.015)	1.00
rs994533	2	218284278	G	C	0.67	0.027(0.003)	EU	0.50	0.003(0.009)	1.00
rs1864439	2	218616633	T	C	0.89	0.027(0.005)	EU	0.90	0.027(0.014)	0.92
rs992157	2	219154781	A	G	0.57	0.022(0.003)	EU	0.47	0.019(0.008)	1.00
rs2305833	2	219305404	C	G	0.58	0.028(0.003)	EU	0.53	0.014(0.009)	1.00
rs611203	2	219472325	A	G	0.77	0.035(0.006)	Asian	0.61	0.011(0.008)	1.00
rs1541777	2	219587291	A	G	0.84	0.037(0.007)	Asian	0.54	0.009(0.008)	1.00
rs4674354	2	219903723	T	C	0.77	0.004(0.004)	EU	0.63	-0.004(0.009)	1.00
rs12470505	2	219908369	T	G	0.9	0.048(0.005)	EU	0.84	0.028(0.012)	1.00
rs16859517	2	219949184	T	C	0.04	0.067(0.008)	EU	0.15	0.017(0.012)	1.00
rs7588654	2	219983030	C	T	0.47	0.047(0.005)	Asian	0.19	0.003(0.011)	0.99
rs6753739	2	220028900	A	G	0.54	0.033(0.005)	Asian	0.37	0.003(0.009)	1.00
rs12621643	2	223917983	G	T	0.7	0.017(0.003)	EU	0.70	0.003(0.009)	0.98
rs6761041	2	225030129	T	C	0.55	0.023(0.003)	EU	0.52	0.001(0.008)	1.00
rs6733349	2	232268312	T	C	0.66	0.022(0.003)	EU	0.70	0.008(0.009)	0.98
rs6754426	2	232322779	G	A	0.55	0.027(0.003)	EU	0.54	0.005(0.008)	1.00
rs4973429	2	232377818	G	T	0.66	0.028(0.003)	EU	0.55	0.015(0.008)	1.00
rs2679184	2	232779223	T	C	0.77	0.031(0.004)	EU	0.69	0.029(0.009)	1.00
rs749052	2	232796610	T	C	0.94	0.067(0.006)	EU	0.94	0.044(0.018)	1.00
rs10460436	2	232815341	G	A	0.49	0.062(0.005)	Asian	0.83	0.034(0.012)	1.00
rs11677466	2	232982257	T	A	0.09	0.064(0.006)	EU	0.03	0.011(0.023)	1.00
rs3116168	2	232989831	C	T	0.73	0.039(0.003)	EU	0.63	0.026(0.009)	1.00
rs6728302	2	233053961	A	G	0.48	0.065(0.005)	Asian	0.81	0.031(0.011)	1.00

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs2343240	2	233087483	T	C	0.97	0.078(0.01)	EU	0.87	0.043(0.013)	0.99
rs13393800	2	233442091	A	G	0.29	0.027(0.003)	EU	0.13	0.023(0.012)	1.00
rs4344931	2	241818527	C	A	0.71	0.02(0.003)	EU	0.61	0.007(0.009)	1.00
rs11687941	2	242191410	C	G	0.75	0.025(0.003)	EU	0.81	0.027(0.011)	1.00
rs2633761	3	4728104	A	G	0.5	0.016(0.003)	EU	0.35	-0.001(0.009)	1.00
rs13078528	3	11646954	A	G	0.94	0.045(0.006)	EU	0.85	0.011(0.012)	1.00
rs2596831	3	12632652	G	C	0.57	0.017(0.003)	EU	0.63	0.007(0.009)	1.00
rs2597513	3	13555836	C	T	0.11	0.039(0.005)	EU	0.11	0.035(0.013)	1.00
rs11708412	3	13733624	A	G	0.26	0.019(0.004)	EU	0.16	0.001(0.012)	0.95
rs9816693	3	38047954	C	G	0.17	0.031(0.004)	EU	0.15	-0.021(0.012)	1.00
rs3915129	3	41243742	G	T	0.47	0.016(0.003)	EU	0.37	0.007(0.009)	1.00
rs13088462	3	51071713	C	T	0.06	0.059(0.007)	EU	0.02	0.045(0.029)	1.00
rs4256170	3	51192126	A	G	0.01	0.191(0.028)	EU	0.01	0.032(0.039)	0.96
rs2240919	3	52831701	C	G	0.66	0.027(0.003)	EU	0.62	-0.003(0.009)	1.00
rs2581830	3	53134098	T	C	0.4	0.031(0.003)	EU	0.41	0.021(0.009)	1.00
rs2034172	3	55411763	G	A	0.68	0.018(0.003)	EU	0.79	-0.004(0.01)	1.00
rs9835332	3	56667682	G	C	0.54	0.028(0.003)	EU	0.31	0.011(0.01)	1.00
rs1658351	3	58013573	C	T	0.35	0.022(0.003)	EU	0.25	-0.004(0.01)	1.00
rs6794009	3	61513495	G	A	0.44	0.016(0.003)	EU	0.40	0.015(0.008)	1.00
rs17806888	3	67416322	T	C	0.88	0.034(0.005)	EU	0.91	0.036(0.014)	1.00
rs2175513	3	68622366	G	A	0.43	0.017(0.003)	EU	0.52	-0.001(0.009)	0.99
rs12330322	3	72455355	C	T	0.78	0.034(0.004)	EU	0.76	0.03(0.01)	1.00
rs13072744	3	72509637	C	T	0.52	0.034(0.006)	Asian	0.46	0.014(0.008)	0.99
rs7633464	3	98715823	A	G	0.48	0.019(0.003)	EU	0.41	0.018(0.008)	1.00
rs9825951	3	99269921	T	A	0.35	0.022(0.003)	EU	0.44	0.029(0.009)	0.98
rs1797625	3	112826415	T	A	0.36	0.019(0.003)	EU	0.31	0.031(0.009)	1.00
rs1533269	3	114214611	C	A	0.7	0.02(0.003)	EU	0.56	0(0.008)	1.00
rs1546391	3	114697457	G	C	0.07	0.039(0.006)	EU	0.14	0(0.012)	1.00
rs7636293	3	129045906	T	C	0.69	0.035(0.005)	Asian	0.60	0.013(0.008)	1.00
rs6439168	3	129050943	G	A	0.79	0.037(0.004)	EU	0.79	0.034(0.01)	1.00
rs4974480	3	134178562	T	A	0.68	0.026(0.003)	EU	0.67	0.017(0.009)	0.99

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs6762606	3	134379752	C	T	0.71	0.001(0.003)	EU	0.82	0.003(0.011)	1.00
rs9880211	3	136107549	G	A	0.75	0.03(0.003)	EU	0.85	0.013(0.012)	1.00
rs6440003	3	141094209	A	G	0.81	0.064(0.012)	African	0.45	0.044(0.008)	1.00
rs6764769	3	141100280	G	A	0.81	0.061(0.012)	African	0.45	0.044(0.008)	1.00
rs6763931	3	141102833	A	G	0.33; 0.81	0.059(0.005); 0.061(0.012)	Asian; African	0.45	0.043(0.008)	1.00
rs724016	3	141105570	G	A	0.44; 0.74	0.078(0.003); 0.049(0.011)	EU; African	0.44	0.042(0.008)	1.00
rs2871960	3	141121814	C	A	0.81	0.066(0.012)	African	0.45	0.045(0.008)	1.00
rs1344674	3	141125186	G	A	0.81	0.065(0.012)	African	0.45	0.043(0.008)	1.00
rs11714558	3	141163045	T	C	0.97	0.134(0.019)	EU	0.99	0.025(0.036)	1.00
rs936339	3	142535505	T	C	0.19	0.022(0.004)	EU	0.15	0.004(0.012)	0.97
rs4325879	3	156851984	C	T	0.73	0.021(0.004)	EU	0.60	-0.007(0.009)	1.00
rs6441170	3	157806960	C	T	0.38	0.022(0.003)	EU	0.50	0.015(0.008)	1.00
rs7652177	3	171969077	G	C	0.51	0.038(0.003)	EU	0.56	0.028(0.009)	1.00
rs4243400	3	171970859	G	A	0.48	0.045(0.005)	Asian	0.55	0.027(0.009)	1.00
rs509035	3	172163449	A	G	0.32	0.031(0.003)	EU	0.31	0.02(0.009)	1.00
rs9858528	3	183355405	A	G	0.74	0.022(0.003)	EU	0.68	0.019(0.009)	1.00
rs16860216	3	185488882	A	G	0.24	0.001(0.004)	EU	0.22	-0.005(0.01)	1.00
rs720390	3	185548683	A	G	0.38	0.035(0.003)	EU	0.28	0.023(0.009)	1.00
rs2300921	3	185651001	C	T	0.42	0.018(0.003)	EU	0.27	0.027(0.009)	1.00
rs4686904	3	187438522	C	T	0.35	0.021(0.003)	EU	0.34	0.016(0.009)	1.00
rs7646824	3	190815978	A	G	0.89	0.026(0.005)	EU	0.89	0.01(0.013)	1.00
rs9841435	3	191111160	G	A	0.32	0.02(0.003)	EU	0.41	0.017(0.008)	1.00
rs3958122	4	1693931	T	C	0.35	0.027(0.003)	EU	0.33	-0.007(0.009)	1.00
rs867245	4	2218888	C	G	0.94	0.041(0.006)	EU	0.81	0.038(0.011)	1.00
rs11722554	4	5016883	G	A	0.96	0.063(0.01)	EU	0.97	0.005(0.022)	1.00
rs6446315	4	5035587	G	A	0.17	0.028(0.004)	EU	0.14	0.017(0.012)	1.00
rs868489	4	7055253	C	T	0.78	0.02(0.004)	EU	0.77	-0.003(0.01)	1.00
rs6829680	4	7912333	A	G	0.44	0.017(0.003)	EU	0.26	0.002(0.01)	1.00
rs2302580	4	8608634	C	T	0.58	0.028(0.004)	EU	0.50	0.016(0.008)	1.00

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs763318	4	12963574	G	A	0.53	0.021(0.003)	EU	0.54	0.005(0.008)	1.00
rs4834927	4	13194091	G	A	0.34	0.019(0.003)	EU	0.30	0.013(0.009)	1.00
rs7678436	4	17797966	G	A	0.67	0.075(0.006)	Asian	0.78	0.021(0.01)	1.00
rs2074974	4	17812615	A	C	0.31	0.056(0.012)	African	0.34	0.032(0.009)	1.00
rs16895802	4	17815889	C	G	0.88	0.09(0.006)	Asian	0.99	-0.03(0.042)	0.99
rs6844379	4	17856801	C	T	0.35	0.05(0.01)	African	0.35	0.036(0.009)	1.00
rs13131350	4	17877487	A	G	0.74	0.085(0.006)	Asian	0.86	0.039(0.012)	0.99
rs925098	4	17919811	G	A	0.35	0.056(0.01)	African	0.35	0.038(0.009)	1.00
rs7663818	4	17936443	C	T	0.61	0.049(0.01)	African	0.80	0.043(0.01)	1.00
rs7692995	4	17936634	T	C	0.85; 0.61	0.074(0.004); 0.049(0.01)	EU; African	0.80	0.043(0.01)	1.00
rs2707450	4	17942560	C	T	0.26	0.053(0.011)	African	0.32	0.04(0.009)	1.00
rs6853216	4	17970655	C	T	0.53	0.044(0.009)	African	0.78	0.035(0.01)	1.00
rs2320299	4	17972372	G	A	0.37	0.049(0.01)	African	0.35	0.036(0.009)	1.00
rs16896210	4	17992332	A	G	0.56	0.044(0.009)	African	0.79	0.034(0.01)	1.00
rs724577	4	17993410	A	C	0.31	0.054(0.01)	African	0.33	0.036(0.009)	1.00
rs961014	4	18010384	A	G	0.42	0(0.003)	EU	0.56	0.008(0.008)	1.00
rs16896261	4	18011202	A	G	0.65	0.049(0.01)	African	0.82	0.045(0.011)	1.00
rs1380294	4	18024121	C	T	0.56	0.044(0.009)	African	0.79	0.037(0.01)	1.00
rs16994718	4	38688362	C	T	0.85	0.025(0.004)	EU	0.73	0.001(0.009)	1.00
rs2306596	4	39343940	A	C	0.52	0.019(0.003)	EU	0.53	0.002(0.009)	0.99
rs1996422	4	48687351	G	A	0.28	0.022(0.003)	EU	0.24	0.009(0.01)	0.99
rs13113518	4	56399648	C	T	0.36	0.018(0.003)	EU	0.43	0.012(0.009)	1.00
rs2227901	4	57798189	A	G	0.39	0.029(0.005)	Asian	0.20	0.024(0.01)	1.00
rs17081935	4	57823476	T	C	0.2	0.031(0.004)	EU	0.18	0.017(0.011)	1.00
rs3733309	4	57857188	G	A	0.41	0.027(0.005)	Asian	0.16	0.007(0.011)	1.00
rs9993613	4	73476014	T	G	0.47	0.03(0.003)	EU	0.45	0.035(0.009)	1.00
rs16848425	4	73515825	T	C	0.2	0.039(0.006)	Asian	0.13	0.035(0.012)	1.00
rs710841	4	82149831	T	C	0.65	0.046(0.01)	African	0.32	0.037(0.009)	1.00
rs17556750	4	82155568	A	C	0.31	0.046(0.003)	EU	0.22	0.014(0.01)	1.00
rs1662840	4	82156409	T	C	0.69	0.051(0.01)	African	0.32	0.037(0.009)	0.99

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs994014	4	82165790	C	T	0.71	0.052(0.01)	African	0.34	0.037(0.009)	1.00
rs2167645	4	82184049	T	C	0.04	0.139(0.021)	EU	0.04	0.022(0.02)	0.95
rs17499117	4	82204091	G	A	0.04	0.14(0.021)	EU	0.01	0.04(0.035)	1.00
rs2011962	4	82220324	C	A	0.18	0.047(0.006)	Asian	0.34	0.035(0.009)	1.00
rs11731978	4	88194170	A	G	0.86	0.023(0.004)	EU	0.85	0.014(0.012)	1.00
rs6813055	4	88630031	A	T	0.49	0.016(0.003)	EU	0.46	-0.002(0.008)	1.00
rs2454206	4	106196951	A	G	0.79	0.032(0.006)	Asian	0.76	0.01(0.01)	1.00
rs12639764	4	106216205	T	C	0.62	0.027(0.003)	EU	0.74	0.01(0.01)	1.00
rs1562975	4	109408608	A	G	0.3	0.025(0.003)	EU	0.20	0.002(0.011)	1.00
rs7659107	4	114742249	G	A	0.23	0.024(0.004)	EU	0.23	0.002(0.01)	1.00
rs6838153	4	122720999	G	A	0.34	0.022(0.003)	EU	0.30	0.008(0.009)	1.00
rs12513181	4	123835656	C	A	0.26	0.02(0.003)	EU	0.36	-0.004(0.009)	1.00
rs11100790	4	144442611	C	T	0.2	0.025(0.004)	EU	0.26	0.001(0.01)	1.00
rs7654571	4	145321006	A	G	0.23	0.022(0.004)	EU	0.19	-0.003(0.011)	1.00
rs6845999	4	145565826	T	C	0.44; 0.22	0.051(0.003); 0.042(0.006)	EU; Asian	0.41	0.026(0.009)	1.00
rs1812175	4	145574844	G	A	0.84	0.079(0.004)	EU	0.78	0.029(0.01)	1.00
rs17777628	4	145592686	G	A	0.96	0.052(0.008)	EU	0.97	0.015(0.025)	1.00
rs4240326	4	145839264	A	G	0.46	0.04(0.003)	EU	0.35	0.025(0.009)	1.00
rs6823268	4	145982563	G	A	0.18	0.043(0.006)	Asian	0.29	0.022(0.009)	1.00
rs996743	4	146128884	A	G	0.92	0.063(0.006)	EU	0.94	0.014(0.016)	1.00
rs13133465	4	146192618	C	G	0.93	0.045(0.006)	EU	0.94	0.008(0.018)	0.95
rs13150868	4	152180671	T	G	0.44	0.017(0.003)	EU	0.44	0.016(0.008)	1.00
rs955748	4	184215675	G	A	0.76	0.028(0.003)	EU	0.67	0.005(0.009)	1.00
rs17410035	5	31541142	T	G	0.33	0.019(0.003)	EU	0.20	0.016(0.01)	1.00
rs7731703	5	32694942	C	T	0.68	0.03(0.003)	EU	0.75	0.022(0.01)	0.98
rs3811958	5	32772043	G	A	0.26	0.027(0.003)	EU	0.30	0.012(0.009)	1.00
rs9292468	5	32819073	T	C	0.4	0.036(0.003)	EU	0.42	0.017(0.008)	1.00
rs13183624	5	32821168	A	G	0.76	0.018(0.003)	EU	0.79	0.021(0.01)	1.00
rs11745439	5	33230034	G	A	0.72	0.026(0.003)	EU	0.58	0.02(0.009)	1.00
rs1004202	5	36065463	G	C	0.39	0.016(0.003)	EU	0.31	0.005(0.009)	0.99

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs301901	5	37046626	A	G	0.57	0.024(0.003)	EU	0.38	0.011(0.009)	1.00
rs3812040	5	39426020	T	C	0.72	0.024(0.003)	EU	0.76	0.034(0.01)	1.00
rs17574650	5	42436916	C	A	0.11	0.038(0.005)	EU	0.04	0.012(0.022)	1.00
rs2961830	5	50454732	A	T	0.35	0.02(0.003)	EU	0.41	-0.001(0.008)	1.00
rs7704138	5	54944262	C	T	0.53	0.031(0.005)	Asian	0.42	-0.003(0.008)	1.00
rs7716219	5	54955071	T	C	0.31	0.03(0.003)	EU	0.26	-0.004(0.009)	1.00
rs2662027	5	56254485	G	T	0.9	0.033(0.005)	EU	0.78	0.007(0.01)	1.00
rs7727731	5	64674446	T	C	0.11	0.033(0.005)	EU	0.12	-0.006(0.013)	1.00
rs10059761	5	67156083	G	A	0.73	0.02(0.003)	EU	0.75	-0.002(0.009)	1.00
rs9291926	5	67599656	T	G	0.49	0.019(0.003)	EU	0.36	0.016(0.009)	1.00
rs34651	5	72144005	C	T	0.08	0.041(0.006)	EU	0.10	0.019(0.014)	0.99
rs820848	5	73964660	G	A	0.29	0.021(0.004)	EU	0.18	0.03(0.011)	0.99
rs12519505	5	77505876	C	T	0.78	0.022(0.004)	EU	0.76	0.021(0.01)	1.00
rs7712162	5	78945171	T	C	0.19	0.023(0.004)	EU	0.34	-0.009(0.009)	1.00
rs32855	5	79836192	A	G	0.78	0.024(0.004)	EU	0.72	0.008(0.009)	1.00
rs6894139	5	88327782	T	G	0.56	0.03(0.003)	EU	0.41	0.03(0.008)	1.00
rs10037512	5	88354675	T	C	0.42	0.031(0.005)	Asian	0.40	0.03(0.009)	1.00
rs2247870	5	90151589	A	G	0.55	0.016(0.003)	EU	0.61	0.008(0.009)	1.00
rs12186664	5	95630225	T	A	0.32	0.021(0.003)	EU	0.23	0.006(0.01)	0.99
rs6594336	5	108073085	C	T	0.56	0.017(0.003)	EU	0.44	0.023(0.009)	1.00
rs13177718	5	108113344	C	T	0.93	0.043(0.006)	EU	0.95	0.015(0.019)	1.00
rs1582931	5	122657199	G	A	0.52	0.028(0.003)	EU	0.48	0.011(0.008)	1.00
rs7708474	5	122676525	T	G	0.67	0.028(0.005)	Asian	0.73	0.004(0.01)	1.00
rs6887276	5	127378294	G	C	0.45	0.018(0.003)	EU	0.55	0.008(0.008)	1.00
rs26024	5	127696022	C	A	0.35	0.023(0.003)	EU	0.39	-0.011(0.009)	1.00
rs39623	5	129054621	A	T	0.08	0.034(0.005)	EU	0.05	0.01(0.018)	1.00
rs7701414	5	131585958	G	A	0.44	0.036(0.003)	EU	0.33	0.018(0.009)	1.00
rs6596075	5	131742228	G	C	0.16	0.014(0.004)	EU	0.22	-0.004(0.01)	0.99
rs537930	5	134348703	G	T	0.72	0.034(0.006)	Asian	0.76	0.022(0.01)	1.00
rs526896	5	134356705	T	G	0.73	0.036(0.003)	EU	0.70	0.017(0.009)	1.00
rs9327705	5	134510303	A	G	0.23	0.02(0.004)	EU	0.16	0.008(0.011)	1.00

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs165189	5	139145747	G	A	0.15	0.029(0.005)	EU	0.12	0.004(0.013)	1.00
rs4624820	5	141681788	A	G	0.52	0.018(0.003)	EU	0.59	0.001(0.008)	1.00
rs2974438	5	168250903	G	A	0.8	0.037(0.004)	EU	0.85	0.014(0.012)	0.99
rs4282339	5	168256240	G	A	0.82	0.031(0.006)	Asian	0.85	0.011(0.012)	1.00
rs4620037	5	170875097	A	C	0.8	0.032(0.004)	EU	0.74	0.029(0.009)	1.00
rs1529701	5	171000977	C	T	0.7	0.021(0.003)	EU	0.75	0.017(0.01)	0.99
rs33852	5	171189571	G	A	0.33	0.03(0.003)	EU	0.41	0.019(0.009)	1.00
rs12153391	5	171203438	C	A	0.74	0.033(0.004)	EU	0.78	0.016(0.01)	1.00
rs4868126	5	171283469	G	T	0.6	0.036(0.003)	EU	0.64	0.016(0.009)	1.00
rs1368380	5	171285632	T	C	0.44	0.032(0.003)	EU	0.40	0.031(0.009)	1.00
rs17075869	5	172811280	T	C	0.08	0.027(0.005)	EU	0.13	0.015(0.013)	1.00
rs889014	5	172984114	C	T	0.56	0.039(0.007)	Asian	0.56	0.015(0.008)	1.00
rs7733195	5	172994624	G	A	0.64	0.029(0.003)	EU	0.57	0.016(0.008)	1.00
rs4868645	5	175947118	G	T	0.49	0.014(0.003)	EU	0.49	0.006(0.008)	1.00
rs422421	5	176517326	C	T	0.78	0.034(0.004)	EU	0.82	0.019(0.011)	1.00
rs11950938	5	176576293	G	C	0.03	0.061(0.009)	EU	0.01	0.016(0.035)	1.00
rs12055154	5	176675423	A	G	0.97	0.059(0.01)	EU	0.98	-0.002(0.031)	1.00
rs11750568	5	178535713	A	G	0.33	0.02(0.003)	EU	0.28	0.003(0.009)	1.00
rs6879260	5	179731014	C	T	0.61	0.027(0.003)	EU	0.61	0.007(0.009)	1.00
rs932445	6	2167225	T	C	0.59	0.018(0.003)	EU	0.66	0.003(0.009)	1.00
rs163071	6	2193062	C	G	0.98	0.061(0.011)	EU	0.83	-0.003(0.011)	1.00
rs4246079	6	6889818	G	A	0.88	0.038(0.005)	EU	0.92	0.029(0.015)	0.99
rs17603945	6	7213016	A	G	0.2	0.03(0.004)	EU	0.07	0.008(0.016)	1.00
rs9392918	6	7708631	C	T	0.47	0.038(0.003)	EU	0.32	0.015(0.009)	1.00
rs9328445	6	7792947	C	T	0.54	0.014(0.003)	EU	0.63	0.026(0.009)	1.00
rs9405356	6	7804377	T	C	0.61	0.004(0.003)	EU	0.55	0.005(0.008)	0.99
rs17330192	6	17589375	C	T	0.28	0.019(0.003)	EU	0.21	0.003(0.01)	1.00
rs1047014	6	19841493	C	T	0.25	0.032(0.004)	EU	0.19	0.025(0.011)	1.00
rs4141885	6	26157481	A	T	0.92	0.073(0.008)	EU	0.80	0.026(0.01)	0.99
rs806794	6	26200677	A	G	0.71; 0.27	0.06(0.003); 0.075(0.006)	EU; Asian	0.62	0.036(0.008)	1.00

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs1233627	6	28751727	T	C	0.5	0.024(0.003)	EU	0.39	-0.002(0.008)	1.00
rs9404952	6	29804165	A	G	0.44	0.018(0.003)	EU	0.52	0.001(0.008)	1.00
rs1265097	6	31106459	C	A	0.89	0.059(0.005)	EU	0.82	0.028(0.01)	1.00
rs6457374	6	31272261	C	T	0.27	0.041(0.003)	EU	0.15	0.011(0.011)	1.00
rs2857693	6	31588384	G	T	0.62	0.034(0.003)	EU	0.60	0.015(0.008)	1.00
rs3129254	6	33108287	A	G	0.59	0.018(0.003)	EU	0.50	-0.008(0.008)	1.00
rs12204421	6	33628863	A	G	0.74	0.026(0.003)	EU	0.77	0.028(0.01)	1.00
rs3957165	6	33784864	T	C	0.81	0.022(0.004)	EU	0.85	0.008(0.011)	1.00
rs12214804	6	34188866	C	T	0.08	0.084(0.006)	EU	0.31	0.065(0.009)	1.00
rs1776897	6	34195011	G	T	0.12	0.084(0.008)	Asian	0.31	0.065(0.009)	1.00
rs1150781	6	34214322	C	G	0.42	0.044(0.01)	African	0.32	0.066(0.009)	1.00
rs6918981	6	34238514	G	A	0.16	0.07(0.006)	Asian	0.39	0.048(0.008)	1.00
rs3800461	6	34616322	C	G	0.13	0.053(0.004)	EU	0.05	0.034(0.018)	1.00
rs6919534	6	35246903	A	G	0.87	0.05(0.004)	EU	0.87	0.025(0.012)	1.00
rs16874062	6	35251195	A	G	0.83	0.075(0.013)	African	0.96	0.058(0.02)	1.00
rs16874262	6	35265711	C	T	0.83	0.072(0.013)	African	0.96	0.056(0.02)	1.00
rs6899744	6	35286295	G	T	0.98	0.132(0.014)	EU	0.97	0.067(0.025)	0.99
rs9470003	6	35337931	G	C	0.85	0.073(0.013)	African	0.97	0.082(0.025)	1.00
rs9470004	6	35341850	C	T	0.83	0.078(0.012)	African	0.97	0.065(0.023)	1.00
rs9462078	6	35357974	A	G	0.84	0.068(0.013)	African	0.97	0.081(0.024)	1.00
rs4713902	6	35614026	T	C	0.73	0.027(0.004)	EU	0.69	-0.015(0.009)	1.00
rs16895130	6	41924931	G	A	0.28	0.023(0.003)	EU	0.18	0.004(0.011)	1.00
rs1040941	6	44539761	A	G	0.4	0.016(0.003)	EU	0.37	-0.004(0.009)	1.00
rs10948222	6	45244415	C	T	0.58	0.031(0.003)	EU	0.38	0.021(0.008)	1.00
rs9395264	6	47475022	G	T	0.68	0.02(0.003)	EU	0.53	0.007(0.009)	1.00
rs12190423	6	72202711	G	C	0.62	0.017(0.003)	EU	0.59	0.012(0.008)	1.00
rs12209223	6	76164589	A	C	0.12	0.05(0.005)	EU	0.05	0.019(0.019)	1.00
rs6903448	6	76173832	C	T	0.84	0.035(0.004)	EU	0.80	0.004(0.01)	1.00
rs648831	6	80956208	T	C	0.5	0.031(0.003)	EU	0.42	0.006(0.008)	1.00
rs1341278	6	81038921	G	T	0.06	0.056(0.006)	EU	0.07	0.027(0.016)	1.00
rs9443804	6	81315597	G	A	0.44	0.024(0.003)	EU	0.49	0.01(0.008)	1.00

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs310421	6	81792063	T	G	0.54	0.032(0.003)	EU	0.46	-0.001(0.008)	1.00
rs3828760	6	82456984	T	C	0.12	0.03(0.005)	EU	0.21	0.009(0.01)	1.00
rs761391	6	85448103	C	T	0.46	0.019(0.003)	EU	0.52	0.01(0.008)	0.99
rs7759938	6	105378954	C	T	0.44	0.028(0.005)	Asian	0.29	0.023(0.009)	1.00
rs314263	6	105392745	C	T	0.32	0.043(0.003)	EU	0.26	0.03(0.009)	1.00
rs479744	6	109020032	G	T	0.79	0.025(0.004)	EU	0.67	0.02(0.009)	1.00
rs6920372	6	109723939	G	A	0.59	0.025(0.003)	EU	0.47	0.011(0.009)	1.00
rs2145357	6	116451442	G	A	0.27	0.021(0.003)	EU	0.22	0.003(0.01)	1.00
rs1405212	6	117490664	C	T	0.59	0.023(0.003)	EU	0.76	0.022(0.01)	1.00
rs389663	6	117868051	T	C	0.32	0.022(0.003)	EU	0.24	0.021(0.01)	1.00
rs4895801	6	126216403	G	C	0.47	0.017(0.003)	EU	0.54	0.018(0.009)	1.00
rs1155939	6	126866133	A	C	0.5	0.042(0.003)	EU	0.61	0.019(0.009)	1.00
rs1415701	6	130345835	G	A	0.73; 0.61	0.044(0.004); 0.053(0.005)	EU; Asian	0.67	0.02(0.009)	0.99
rs7740107	6	130374461	T	A	0.26	0.042(0.003)	EU	0.15	0.043(0.012)	1.00
rs6921207	6	131327956	A	G	0.37	0.023(0.003)	EU	0.45	0.014(0.008)	1.00
rs7743622	6	132730372	G	C	0.58	0.017(0.003)	EU	0.75	-0.001(0.01)	1.00
rs7745166	6	142617680	C	A	0.57	0.026(0.003)	EU	0.51	0.01(0.008)	1.00
rs6570507	6	142679572	G	A	0.62	0.034(0.005)	Asian	0.60	0.029(0.009)	1.00
rs4896582	6	142703877	G	A	0.7	0.051(0.003)	EU	0.50	0.022(0.009)	1.00
rs6911389	6	144079629	T	G	0.35	0.015(0.003)	EU	0.33	0.005(0.009)	1.00
rs2748483	6	146335560	A	T	0.55	0.018(0.003)	EU	0.69	0.022(0.009)	1.00
rs6902771	6	152157881	T	C	0.46	0.031(0.003)	EU	0.36	0.012(0.009)	1.00
rs3020418	6	152345162	A	G	0.3	0.032(0.003)	EU	0.25	0.023(0.01)	1.00
rs11156098	6	156587831	T	C	0.12	0.027(0.005)	EU	0.04	0.018(0.021)	0.99
rs1832871	6	158722034	A	G	0.34	0.024(0.003)	EU	0.23	0.005(0.01)	1.00
rs9456307	6	158929442	T	A	0.94	0.053(0.007)	EU	0.94	0.01(0.017)	1.00
rs486359	6	160774441	C	G	0.49	0.016(0.003)	EU	0.44	0.01(0.008)	1.00
rs991946	6	166329862	C	T	0.52	0.021(0.003)	EU	0.52	0.006(0.008)	0.99
rs2763273	6	168834623	C	T	0.76	0.022(0.003)	EU	0.87	0.008(0.013)	1.00
rs7774834	6	169349731	A	C	0.51	0.018(0.003)	EU	0.44	0(0.008)	1.00

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs798497	7	2795957	A	G	0.7	0.057(0.003)	EU	0.73	0.032(0.009)	1.00
rs7777484	7	2814271	A	G	0.78	0.058(0.006)	Asian	0.56	0.022(0.008)	1.00
rs4725061	7	8086639	G	A	0.44	0.02(0.003)	EU	0.36	0.015(0.009)	0.99
rs929637	7	12276522	G	T	0.78	0.021(0.004)	EU	0.81	-0.006(0.011)	1.00
rs17140875	7	19248278	G	T	0.95	0.043(0.007)	EU	0.96	0.025(0.02)	0.96
rs4470914	7	19616522	T	C	0.28	0.037(0.006)	Asian	0.21	0.028(0.01)	1.00
rs2390151	7	19642100	T	G	0.18	0.033(0.004)	EU	0.22	0.022(0.01)	1.00
rs3807931	7	20381674	A	G	0.45	0.027(0.003)	EU	0.61	0.019(0.009)	1.00
rs7782764	7	23475919	G	A	0.86	0(0.004)	EU	0.91	0.003(0.014)	1.00
rs12538407	7	23521316	A	G	0.6	0.032(0.003)	EU	0.68	0.022(0.009)	1.00
rs1055144	7	25871109	T	C	0.19	0.021(0.004)	EU	0.17	0.024(0.011)	1.00
rs552707	7	28205303	T	C	0.31	0.046(0.003)	EU	0.16	0.027(0.011)	1.00
rs12533079	7	28751137	T	G	0.79	0.022(0.004)	EU	0.88	0.001(0.013)	1.00
rs6462432	7	32935524	A	G	0.39	0.017(0.003)	EU	0.38	0.005(0.009)	1.00
rs6974574	7	38110073	T	A	0.69	0.03(0.003)	EU	0.55	0.012(0.008)	1.00
rs1007358	7	46201355	G	A	0.23	0.021(0.004)	EU	0.21	0.016(0.01)	1.00
rs6949739	7	46417403	T	A	0.91	0.038(0.005)	EU	0.94	0.009(0.017)	1.00
rs2715094	7	50730452	G	A	0.25	0.021(0.003)	EU	0.17	0.01(0.011)	1.00
rs1113765	7	55889334	G	A	0.82	0.024(0.004)	EU	0.64	0.005(0.009)	1.00
rs12669267	7	73304636	C	T	0.87	0.029(0.005)	EU	0.78	0.021(0.01)	1.00
rs17807185	7	77308295	G	A	0.38	0.022(0.003)	EU	0.41	0.017(0.008)	1.00
rs2888877	7	92228400	T	C	0.22	0.066(0.004)	EU	0.15	0.025(0.012)	0.94
rs42039	7	92244422	T	C	0.27	0.068(0.003)	EU	0.17	0.027(0.011)	1.00
rs2188177	7	92659160	T	C	0.47	0.014(0.003)	EU	0.71	0.009(0.01)	0.98
rs6971575	7	96039648	C	G	0.29	0.021(0.004)	EU	0.25	0.009(0.009)	1.00
rs17250196	7	99817196	T	G	0.07	0.045(0.007)	EU	0.03	-0.003(0.025)	0.99
rs6952113	7	120777619	G	A	0.62	0.018(0.003)	EU	0.73	0.009(0.009)	1.00
rs6962887	7	135045786	T	G	0.68	0.022(0.003)	EU	0.80	0.011(0.011)	1.00
rs273945	7	137611566	C	A	0.58	0.019(0.003)	EU	0.58	0.005(0.009)	1.00
rs822531	7	148629759	T	C	0.78	0.036(0.004)	EU	0.78	0.026(0.01)	1.00
rs6955948	7	150508720	T	C	0.28	0.031(0.003)	EU	0.44	0.013(0.009)	1.00

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs4875421	8	4827332	T	A	0.46	0.019(0.003)	EU	0.62	0.003(0.009)	1.00
rs429433	8	8747894	A	G	0.05	0.046(0.007)	EU	0.04	0.057(0.021)	1.00
rs7834383	8	13273477	T	G	0.36	0.022(0.003)	EU	0.24	0.004(0.009)	1.00
rs7823327	8	22562352	T	G	0.48	0.019(0.003)	EU	0.42	0.007(0.008)	1.00
rs4273857	8	23173053	A	G	0.23	0.027(0.003)	EU	0.17	0.011(0.011)	1.00
rs17088184	8	23375235	G	C	0.17	0.024(0.004)	EU	0.15	0(0.011)	1.00
rs2013265	8	24092500	C	T	0.75	0.028(0.003)	EU	0.84	0.006(0.011)	1.00
rs3812423	8	25298710	G	C	0.64	0.021(0.003)	EU	0.61	0.011(0.008)	1.00
rs568610	8	27527995	T	C	0.24	0.022(0.003)	EU	0.26	0.005(0.01)	1.00
rs6988484	8	49413780	C	T	0.25	0.022(0.003)	EU	0.29	0.003(0.009)	1.00
rs6999671	8	56998480	A	G	0.04	0.033(0.008)	EU	0.03	0.041(0.022)	1.00
rs10958476	8	57095808	C	T	0.21	0.051(0.004)	EU	0.11	0.016(0.013)	1.00
rs13273123	8	57100791	A	G	0.86	0.103(0.009)	Asian	0.86	0.004(0.012)	1.00
rs9650315	8	57155598	G	T	0.87	0.061(0.004)	EU	0.82	0.023(0.011)	1.00
rs7815909	8	57200362	A	G	0.87	0.111(0.011)	Asian	0.86	0.017(0.012)	1.00
rs2956605	8	75883054	A	C	0.38	0.024(0.003)	EU	0.37	0.013(0.009)	1.00
rs16939034	8	76040583	T	C	0.09	0.025(0.006)	EU	0.07	0.026(0.016)	1.00
rs4735677	8	78148191	T	A	0.28	0.037(0.003)	EU	0.23	0.024(0.01)	1.00
rs7007200	8	109784938	G	C	0.69	0.017(0.003)	EU	0.74	0.003(0.009)	1.00
rs2737220	8	116637685	T	C	0.38	0.017(0.003)	EU	0.32	0.035(0.009)	1.00
rs1550162	8	117563532	G	A	0.29	0.024(0.003)	EU	0.32	-0.001(0.009)	1.00
rs1599473	8	120475358	G	T	0.75	0.027(0.003)	EU	0.86	0.004(0.012)	0.99
rs10283100	8	120596023	G	A	0.96	0.057(0.008)	EU	0.97	-0.004(0.023)	1.00
rs11779459	8	123980551	T	C	0.35	0.016(0.003)	EU	0.40	0.013(0.008)	1.00
rs8180991	8	126500350	C	G	0.77	0.028(0.004)	EU	0.72	0.017(0.01)	1.00
rs4733724	8	130723728	A	G	0.8	0.05(0.004)	EU	0.57	0.021(0.009)	1.00
rs2062078	8	130734461	G	T	0.27	0.035(0.005)	Asian	0.59	0.017(0.009)	1.00
rs894343	8	135612595	A	G	0.29	0.012(0.003)	EU	0.20	-0.004(0.011)	1.00
rs1036821	8	135650483	G	A	0.7	0.037(0.003)	EU	0.66	-0.007(0.009)	1.00
rs6577717	8	135653832	T	G	0.67	0.002(0.003)	EU	0.71	0.005(0.009)	1.00
rs11783655	8	145037573	T	A	0.61	0.018(0.003)	EU	0.72	0.008(0.009)	0.99

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs7033940	9	6440419	G	C	0.87	0.024(0.004)	EU	0.84	-0.003(0.012)	1.00
rs2149163	9	16455833	C	G	0.4	0.02(0.003)	EU	0.54	0.022(0.009)	1.00
rs3927536	9	16787670	T	C	0.78	0.021(0.004)	EU	0.51	0.004(0.009)	1.00
rs10962832	9	17048990	A	T	0.84	0.024(0.004)	EU	0.87	-0.005(0.012)	0.94
rs1576900	9	18629792	G	A	0.7	0.019(0.003)	EU	0.71	0.024(0.009)	1.00
rs3763631	9	35808334	C	G	0.69	0.019(0.003)	EU	0.74	0.032(0.01)	1.00
rs10972628	9	35937611	G	A	0.74	0.017(0.003)	EU	0.77	0.001(0.01)	1.00
rs11144688	9	78542286	G	A	0.89	0.063(0.006)	EU	0.91	0.033(0.014)	1.00
rs958225	9	78759705	A	T	0.05	0.046(0.008)	EU	0.13	-0.007(0.013)	1.00
rs7853235	9	86660782	T	C	0.2	0.029(0.004)	EU	0.15	0(0.012)	1.00
rs181338	9	89108161	T	C	0.51	0.028(0.003)	EU	0.61	0.019(0.009)	1.00
rs10780910	9	90849255	T	A	0.43	0.027(0.003)	EU	0.51	0.017(0.009)	0.99
rs1571892	9	94258836	C	A	0.29	0.016(0.003)	EU	0.33	0.015(0.009)	1.00
rs7043114	9	95387983	C	T	0.44	0.028(0.003)	EU	0.33	0.009(0.009)	1.00
rs1257763	9	96893945	A	G	0.04	0.078(0.01)	EU	0.02	0.038(0.033)	1.00
rs12347744	9	97575273	C	T	0.93	0.039(0.006)	EU	0.91	0.022(0.014)	1.00
rs4448343	9	98266370	G	A	0.35	0.035(0.003)	EU	0.25	0.023(0.01)	1.00
rs1329393	9	98318926	T	C	0.16	0.034(0.005)	EU	0.11	-0.004(0.013)	1.00
rs817300	9	98380222	G	A	0.93	0.085(0.007)	EU	0.97	0.031(0.023)	0.96
rs10990303	9	98410405	T	C	0.23	0.036(0.004)	EU	0.28	-0.002(0.009)	1.00
rs7870753	9	99201585	G	A	0.22	0.042(0.004)	EU	0.19	0.038(0.011)	1.00
rs953199	9	100482976	C	A	0.76	0.018(0.004)	EU	0.79	0.005(0.01)	1.00
rs989393	9	101743336	T	C	0.71	0.022(0.003)	EU	0.63	-0.008(0.009)	1.00
rs10820814	9	108304500	C	A	0.9	0.027(0.005)	EU	0.87	0.011(0.012)	1.00
rs9409082	9	108901049	C	T	0.76	0.028(0.004)	EU	0.76	0.02(0.01)	1.00
rs902143	9	109181911	T	C	0.45	0.02(0.003)	EU	0.42	0.019(0.009)	1.00
rs2451948	9	109518208	G	A	0.16	0.022(0.004)	EU	0.12	0(0.013)	1.00
rs7027110	9	109599046	A	G	0.23	0.032(0.003)	EU	0.16	0.006(0.011)	1.00
rs3739707	9	113792706	C	A	0.75	0.024(0.004)	EU	0.72	0.004(0.009)	1.00
rs999599	9	117011595	T	C	0.37	0.016(0.003)	EU	0.26	-0.01(0.009)	1.00
rs10759774	9	118169080	A	G	0.66	0.011(0.003)	EU	0.65	0.003(0.009)	0.99

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs10119624	9	118305438	A	G	0.67	0.024(0.003)	EU	0.61	0.018(0.008)	1.00
rs12344396	9	118921327	C	G	0.62	0.018(0.003)	EU	0.35	0.008(0.009)	0.99
rs7033487	9	119129257	T	C	0.79	0.037(0.004)	EU	0.91	0.051(0.014)	0.98
rs1742829	9	119422807	T	A	0.08	0.037(0.006)	EU	0.06	0.039(0.017)	1.00
rs10817960	9	119688061	A	G	0.16	0.023(0.004)	EU	0.13	-0.007(0.012)	1.00
rs7466269	9	133464084	A	G	0.64	0.033(0.003)	EU	0.64	0.016(0.009)	1.00
rs3132297	9	137301866	G	A	0.83	0.023(0.004)	EU	0.81	-0.019(0.011)	0.99
rs7849585	9	139111870	T	G	0.33	0.036(0.003)	EU	0.47	0.01(0.008)	1.00
rs10858250	9	139119215	G	A	0.25	0.052(0.005)	Asian	0.34	0.008(0.009)	1.00
rs3812591	9	139341612	C	T	0.27	0.024(0.003)	EU	0.20	0.016(0.01)	1.00
rs4332428	10	4965434	A	G	0.88	0.036(0.004)	EU	0.88	0.029(0.012)	1.00
rs12779328	10	12943973	C	T	0.72	0.028(0.003)	EU	0.81	0.032(0.011)	1.00
rs4350272	10	25056118	A	G	0.28	0.02(0.003)	EU	0.16	0.002(0.012)	0.99
rs7069985	10	27890831	G	A	0.25	0.023(0.003)	EU	0.23	0.014(0.01)	1.00
rs10995319	10	52762887	T	C	0.76	0.019(0.003)	EU	0.78	0.003(0.01)	1.00
rs1171615	10	61469090	C	T	0.22	0.022(0.004)	EU	0.17	0.025(0.011)	1.00
rs10997979	10	69937192	G	A	0.5	0.021(0.003)	EU	0.40	0.006(0.008)	1.00
rs4746769	10	70196580	T	C	0.86	0.029(0.004)	EU	0.75	0.005(0.01)	1.00
rs1815314	10	80928793	G	A	0.58	0.022(0.003)	EU	0.65	0.019(0.009)	1.00
rs703985	10	80940740	T	A	0.41	0.006(0.003)	EU	0.37	-0.007(0.009)	0.99
rs1923367	10	81132829	G	C	0.52	0.03(0.003)	EU	0.34	0.025(0.009)	1.00
rs2631676	10	93037409	G	A	0.19	0.028(0.004)	EU	0.15	0.022(0.011)	1.00
rs915506	10	97805074	G	A	0.65	0.021(0.003)	EU	0.68	0.025(0.009)	1.00
rs11599750	10	101805442	C	T	0.61	0.023(0.003)	EU	0.56	0.009(0.008)	1.00
rs10883563	10	102684380	A	C	0.55	0.023(0.003)	EU	0.42	0.014(0.009)	1.00
rs7899004	10	104341435	T	C	0.56	0.024(0.003)	EU	0.47	0.016(0.009)	1.00
rs6584575	10	105577409	A	G	0.1	0.034(0.005)	EU	0.11	0.004(0.013)	0.99
rs11198820	10	120961043	C	G	0.11	0.025(0.005)	EU	0.13	0.014(0.012)	1.00
rs291979	10	121129797	A	G	0.23	0.029(0.004)	EU	0.18	0.021(0.011)	1.00
rs1614303	10	123396806	T	G	0.83	0.022(0.004)	EU	0.79	0.005(0.01)	1.00
rs7097701	10	124171857	C	T	0.49	0.015(0.003)	EU	0.56	0.008(0.009)	1.00

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs10794175	10	126358073	T	G	0.43	0.02(0.003)	EU	0.50	0.004(0.008)	1.00
rs11245515	10	126824068	T	C	0.56	0.017(0.003)	EU	0.66	0.006(0.009)	1.00
rs11244750	10	127673877	T	C	0.32	0.018(0.003)	EU	0.21	0.018(0.01)	1.00
rs2272566	11	244552	A	G	0.48	0.016(0.003)	EU	0.38	0.018(0.009)	1.00
rs2735469	11	2022804	A	G	0.16	0.029(0.004)	EU	0.09	0.035(0.014)	1.00
rs4320932	11	2171601	T	C	0.82	0.029(0.004)	EU	0.84	0.017(0.011)	1.00
rs17659078	11	2284590	A	C	0.27	0.021(0.003)	EU	0.20	0.008(0.01)	0.99
rs2237886	11	2810731	T	C	0.11	0.043(0.005)	EU	0.09	0.016(0.014)	1.00
rs6485978	11	12678415	C	T	0.46	0.023(0.003)	EU	0.45	0.014(0.008)	1.00
rs2099745	11	12924265	G	A	0.92	0.036(0.006)	EU	0.89	0.015(0.014)	1.00
rs10766065	11	13277961	C	T	0.27	0.018(0.003)	EU	0.32	0.009(0.009)	1.00
rs7126398	11	14268729	C	G	0.08	0.041(0.006)	EU	0.06	0.008(0.017)	0.98
rs2915404	11	14404825	T	C	0.4	0.014(0.003)	EU	0.44	0.017(0.009)	1.00
rs757081	11	17351683	G	C	0.34	0.024(0.003)	EU	0.29	0.001(0.009)	1.00
rs10767838	11	30347927	A	G	0.72	0.025(0.003)	EU	0.70	0.015(0.009)	1.00
rs3802758	11	45936035	A	G	0.94	0.039(0.007)	EU	0.66	0.012(0.009)	1.00
rs1681630	11	47969152	T	C	0.34	0.028(0.003)	EU	0.33	0(0.009)	1.00
rs1945237	11	56230069	C	T	0.09	0.022(0.005)	EU	0.04	0.032(0.02)	1.00
rs3782089	11	65336819	C	T	0.94	0.053(0.007)	EU	0.95	0.01(0.019)	1.00
rs7112925	11	66826160	C	T	0.64	0.024(0.003)	EU	0.68	-0.003(0.009)	1.00
rs2510396	11	68417652	C	G	0.86	0.029(0.004)	EU	0.84	0.021(0.011)	1.00
rs3750972	11	68830628	G	T	0.48	0.019(0.003)	EU	0.57	0.011(0.009)	0.99
rs4357716	11	69163161	T	C	0.14	0.031(0.005)	EU	0.09	0.001(0.015)	1.00
rs2509133	11	69933717	C	T	0.5	0.019(0.003)	EU	0.51	-0.002(0.008)	1.00
rs11236294	11	74739934	T	G	0.29	0.019(0.003)	EU	0.41	0.006(0.009)	1.00
rs606452	11	75276178	A	C	0.14; 0.47	0.043(0.004); 0.039(0.005)	EU; Asian	0.27	0.037(0.009)	1.00
rs632124	11	118613235	A	T	0.42	0.023(0.003)	EU	0.52	0.008(0.009)	1.00
rs2510897	11	118644582	C	A	0.4	0.029(0.005)	Asian	0.52	0.007(0.009)	1.00
rs10790381	11	120257495	A	G	0.82	0.027(0.004)	EU	0.82	0.016(0.011)	1.00
rs1461503	11	122845075	C	A	0.57	0.018(0.003)	EU	0.38	0.012(0.009)	1.00

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs11221442	11	128577624	G	C	0.75	0.027(0.004)	EU	0.83	-0.009(0.011)	1.00
rs11612228	12	576984	T	C	0.38	0.02(0.003)	EU	0.22	0.006(0.01)	0.99
rs7299326	12	1573005	C	T	0.95	0.041(0.007)	EU	0.87	0(0.013)	1.00
rs2856321	12	11855773	G	A	0.36	0.031(0.003)	EU	0.36	0.018(0.009)	1.00
rs1420023	12	12876111	C	G	0.88	0.028(0.005)	EU	0.93	0.013(0.016)	0.98
rs12228415	12	14520701	G	A	0.45	0.015(0.003)	EU	0.36	0.019(0.009)	1.00
rs4326884	12	20536371	A	G	0.51	0.019(0.003)	EU	0.37	0.02(0.009)	0.99
rs10770705	12	20857467	A	C	0.34	0.03(0.003)	EU	0.42	0.012(0.009)	1.00
rs11047239	12	24207780	G	C	0.3	0.023(0.003)	EU	0.27	0.001(0.009)	1.00
rs1861908	12	27997409	C	G	0.2	0.023(0.004)	EU	0.13	0.011(0.012)	0.99
rs10492364	12	28112256	T	C	0.26	0.017(0.004)	EU	0.21	0.019(0.011)	1.00
rs11049611	12	28600244	C	T	0.7	0.038(0.003)	EU	0.85	0.015(0.012)	1.00
rs12820411	12	28952342	G	C	0.68	0.021(0.003)	EU	0.74	0.001(0.01)	0.99
rs10843390	12	29496991	T	C	0.29	0.021(0.003)	EU	0.32	-0.007(0.009)	1.00
rs10880969	12	46827023	C	T	0.7	0.024(0.003)	EU	0.75	0.01(0.01)	1.00
rs11170624	12	54030238	T	G	0.24	0.041(0.005)	Asian	0.24	0.001(0.01)	1.00
rs1971762	12	54058238	T	C	0.44	0.041(0.005)	Asian	0.36	-0.008(0.009)	1.00
rs2306694	12	56680636	G	A	0.07	0.046(0.006)	EU	0.04	0.003(0.021)	1.00
rs2066808	12	56737973	G	A	0.1	0.081(0.012)	Asian	0.13	-0.005(0.013)	1.00
rs10877030	12	58256714	T	G	0.68	0.023(0.003)	EU	0.56	0.014(0.009)	0.99
rs17122659	12	59956923	G	A	0.12	0.031(0.005)	EU	0.08	0.008(0.016)	1.00
rs2164968	12	65677086	C	T	0.38	0.018(0.003)	EU	0.21	0.004(0.01)	1.00
rs7979673	12	66227257	C	T	0.68	0.056(0.012)	African	0.86	0.023(0.012)	1.00
rs12298541	12	66306441	A	C	0.23	0.055(0.012)	African	0.28	0.03(0.009)	1.00
rs867633	12	66354911	G	A	0.65	0.043(0.01)	African	0.48	0.036(0.008)	1.00
rs8756	12	66359752	C	A	0.49	0.058(0.003)	EU	0.36	0.038(0.009)	1.00
rs11175992	12	66391396	T	A	0.72	0.048(0.004)	EU	0.74	0.008(0.01)	1.00
rs10748128	12	69827658	T	G	0.35	0.038(0.003)	EU	0.37	0.018(0.009)	1.00
rs17783015	12	90231386	C	T	0.84	0.023(0.004)	EU	0.88	-0.003(0.012)	1.00
rs11107062	12	93919840	T	C	0.21	0.028(0.004)	EU	0.08	0.028(0.015)	0.97
rs3825199	12	93976954	G	A	0.23	0.051(0.004)	EU	0.24	0.01(0.01)	1.00

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs11107116	12	93978504	T	G	0.31	0.035(0.005)	Asian	0.21	0.017(0.01)	1.00
rs10859567	12	94126925	T	G	0.56	0.035(0.003)	EU	0.60	0.013(0.008)	1.00
rs7971536	12	102373788	T	A	0.54	0.028(0.003)	EU	0.51	-0.001(0.008)	0.99
rs2271266	12	102506044	T	C	0.67	0.075(0.005)	Asian	0.90	0.039(0.014)	1.00
rs7313075	12	102630679	C	A	0.68	0.073(0.005)	Asian	0.77	0.017(0.01)	1.00
rs833706	12	103062597	A	G	0.75	0.021(0.004)	EU	0.81	0.023(0.011)	0.99
rs2164747	12	104344836	G	A	0.1	0.029(0.005)	EU	0.14	0.016(0.012)	1.00
rs2888893	12	107338631	C	T	0.51	0.017(0.003)	EU	0.29	0.012(0.01)	1.00
rs11616067	12	116393174	A	G	0.76	0.02(0.004)	EU	0.85	0.025(0.011)	1.00
rs4767473	12	117365506	A	G	0.86	0.024(0.004)	EU	0.86	0.017(0.012)	0.99
rs497273	12	121204682	C	G	0.38	0.018(0.003)	EU	0.19	0.007(0.011)	1.00
rs11835818	12	122494809	C	T	0.49	0.022(0.003)	EU	0.42	-0.005(0.009)	1.00
rs7980687	12	123822711	A	G	0.2	0.039(0.004)	EU	0.22	0.006(0.01)	1.00
rs11057552	12	124750895	A	T	0.18	0.028(0.004)	EU	0.19	-0.004(0.01)	0.99
rs1809889	12	124801226	T	C	0.29	0.032(0.003)	EU	0.38	0.015(0.009)	1.00
rs1199734	13	21570246	G	T	0.81	0.022(0.004)	EU	0.68	0.005(0.009)	1.00
rs11618507	13	30172751	T	G	0.25	0.023(0.004)	EU	0.20	-0.003(0.011)	1.00
rs12323101	13	33143406	A	G	0.37	0.02(0.003)	EU	0.25	0.026(0.01)	1.00
rs12863103	13	33723244	C	T	0.71	0.019(0.003)	EU	0.68	0.003(0.009)	1.00
rs6561319	13	47112120	A	C	0.64	0.021(0.003)	EU	0.69	0.009(0.009)	1.00
rs12871822	13	49201040	G	T	0.34	0.017(0.003)	EU	0.30	0.005(0.009)	1.00
rs7334755	13	50469913	C	T	0.81	0.032(0.004)	EU	0.84	0.041(0.011)	0.99
rs2687950	13	50718468	T	C	0.25	0.036(0.003)	EU	0.19	0.01(0.011)	1.00
rs1753637	13	51084173	T	G	0.31	0.036(0.003)	EU	0.35	0.016(0.009)	1.00
rs3118905	13	51105334	G	A	0.72	0.058(0.003)	EU	0.81	0.031(0.011)	1.00
rs4883972	13	75058481	C	G	0.55	0.019(0.003)	EU	0.61	0.015(0.008)	1.00
rs3818416	13	78474468	C	A	0.78	0.021(0.004)	EU	0.80	0.001(0.011)	1.00
rs11616380	13	80705315	T	G	0.28	0.019(0.003)	EU	0.31	0.012(0.009)	0.99
rs6563199	13	81550449	T	C	0.35	0.018(0.003)	EU	0.36	0.007(0.009)	0.99
rs7319045	13	92024574	A	G	0.39; 0.47	0.024(0.003); 0.03(0.005)	EU; Asian	0.40	0.011(0.009)	1.00

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs7985356	13	115027462	T	A	0.77	0.023(0.003)	EU	0.68	0.018(0.009)	1.00
rs17792664	14	21890683	G	C	0.14	0.032(0.004)	EU	0.06	-0.002(0.018)	1.00
rs8017130	14	23759156	G	A	0.69	0.023(0.003)	EU	0.58	0.004(0.009)	1.00
rs1950500	14	24830850	T	C	0.3	0.031(0.003)	EU	0.41	0.006(0.009)	1.00
rs12435366	14	35838389	C	T	0.73	0.023(0.004)	EU	0.84	0.012(0.011)	1.00
rs10131337	14	37144516	T	C	0.24	0.027(0.004)	EU	0.13	0.003(0.012)	1.00
rs6571772	14	37477461	A	T	0.7	0.018(0.003)	EU	0.62	0(0.009)	1.00
rs4901537	14	55203126	G	C	0.26	0.022(0.004)	EU	0.18	0.018(0.011)	0.94
rs8006657	14	55245149	G	A	0.59	0.022(0.003)	EU	0.61	-0.004(0.009)	1.00
rs11624136	14	59688820	A	G	0.5	0.018(0.003)	EU	0.50	0.011(0.008)	1.00
rs2093210	14	60957279	C	T	0.42	0.039(0.003)	EU	0.44	0.025(0.009)	1.00
rs2781373	14	65568215	G	A	0.62	0.021(0.003)	EU	0.67	0.015(0.009)	1.00
rs1980850	14	68647188	G	A	0.83	0.03(0.004)	EU	0.80	0.015(0.01)	1.00
rs2058092	14	73932966	T	C	0.56	0.017(0.003)	EU	0.37	0.001(0.009)	1.00
rs699371	14	74989433	C	T	0.8	0.05(0.007)	Asian	0.67	0.004(0.009)	1.00
rs862034	14	74990746	G	A	0.64	0.028(0.003)	EU	0.63	0.005(0.008)	1.00
rs10140101	14	75038689	T	C	0.44	0.014(0.003)	EU	0.55	0.007(0.009)	1.00
rs7153027	14	92427222	A	C	0.74	0.043(0.005)	Asian	0.68	0.018(0.009)	1.00
rs7154721	14	92427348	T	C	0.57	0.027(0.003)	EU	0.68	0.018(0.009)	1.00
rs7158300	14	92482948	C	T	0.69	0.054(0.005)	Asian	0.83	0.018(0.011)	1.00
rs1190545	14	102904179	C	G	0.74	0.025(0.003)	EU	0.54	0.016(0.009)	1.00
rs12882130	14	103878774	C	G	0.63	0.025(0.003)	EU	0.69	0.01(0.009)	0.90
rs10152739	15	38483866	T	A	0.25	0.022(0.003)	EU	0.20	0(0.01)	1.00
rs316618	15	41796498	T	A	0.78	0.026(0.004)	EU	0.83	-0.007(0.011)	0.98
rs1036477	15	48914926	A	G	0.9	0.032(0.005)	EU	0.80	0(0.011)	1.00
rs10744956	15	51269629	G	A	0.78	0.028(0.004)	EU	0.75	0.01(0.01)	1.00
rs16964211	15	51530495	G	A	0.95	0.057(0.007)	EU	0.90	0.04(0.014)	1.00
rs10519302	15	51599683	A	G	0.68	0.057(0.005)	Asian	0.84	0.034(0.012)	1.00
rs782930	15	61408362	G	A	0.65	0.02(0.003)	EU	0.55	-0.006(0.008)	1.00
rs7177711	15	62379971	A	G	0.54	0.021(0.003)	EU	0.47	-0.002(0.009)	1.00
rs7162825	15	63439186	T	C	0.5	0.016(0.003)	EU	0.31	0.004(0.01)	1.00

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs17264185	15	66997087	G	A	0.27	0.02(0.003)	EU	0.20	0.02(0.01)	1.00
rs731874	15	67446831	A	G	0.28	0.018(0.003)	EU	0.15	0.037(0.012)	1.00
rs10152591	15	70048157	A	C	0.9	0.044(0.005)	EU	0.94	0.003(0.016)	1.00
rs975210	15	70364352	A	G	0.18	0.035(0.004)	EU	0.10	0.02(0.014)	1.00
rs11634405	15	72084693	A	G	0.36	0.02(0.003)	EU	0.45	0.004(0.009)	1.00
rs12904334	15	72842705	A	G	0.02	0.084(0.013)	EU	0.01	0.054(0.043)	1.00
rs4337252	15	74226765	C	G	0.5	0.026(0.003)	EU	0.50	0.013(0.008)	1.00
rs5742915	15	74336633	C	T	0.47	0.035(0.003)	EU	0.31	0.02(0.009)	1.00
rs16968242	15	76740219	G	C	0.07	0.035(0.006)	EU	0.06	0.039(0.017)	1.00
rs12914466	15	81836638	A	G	0.62	0.017(0.003)	EU	0.51	0.017(0.008)	1.00
rs17349981	15	82231920	A	T	0.85	0.025(0.004)	EU	0.95	0.021(0.018)	1.00
rs2257011	15	84266145	T	G	0.5	0.044(0.003)	EU	0.69	0.018(0.009)	1.00
rs7162542	15	84514290	G	C	0.55	0.046(0.003)	EU	0.73	0.029(0.01)	1.00
rs2401171	15	84557676	G	T	0.74	0.049(0.005)	Asian	0.72	0.027(0.01)	1.00
rs11855014	15	85728834	G	A	0.71	0.022(0.003)	EU	0.77	0.014(0.01)	0.98
rs1348002	15	89113138	C	G	0.32	0.017(0.003)	EU	0.29	-0.008(0.009)	1.00
rs11633371	15	89356832	T	G	0.49	0.028(0.003)	EU	0.58	0.034(0.009)	1.00
rs16942341	15	89388905	C	T	0.97	0.138(0.01)	EU	0.96	0.09(0.02)	1.00
rs2280470	15	89395626	A	G	0.33	0.044(0.003)	EU	0.47	0.023(0.009)	1.00
rs2351491	15	89398105	T	C	0.25	0.062(0.011)	African	0.40	0.006(0.009)	1.00
rs3817428	15	89415247	C	G	0.72; 0.89	0.039(0.003); 0.052(0.008)	EU; Asian	0.86	0.026(0.012)	0.97
rs2238300	15	89851580	G	A	0.6	0.021(0.003)	EU	0.64	0(0.009)	1.00
rs8028843	15	94028149	T	C	0.64	0.016(0.003)	EU	0.39	0.008(0.009)	1.00
rs7181724	15	94551607	G	A	0.45	0.02(0.003)	EU	0.33	0.021(0.009)	1.00
rs2871865	15	99194896	C	G	0.88; 0.92	0.062(0.005); 0.094(0.009)	EU; Asian	0.82	0.046(0.011)	1.00
rs2573625	15	100513158	T	C	0.67	0.029(0.003)	EU	0.56	0.02(0.008)	1.00
rs2573652	15	100514614	C	T	0.56	0.035(0.005)	Asian	0.61	0.022(0.009)	1.00
rs4246302	15	100687967	G	A	0.32	0.027(0.003)	EU	0.20	0.022(0.01)	1.00
rs4548838	15	100761190	T	C	0.46	0.033(0.003)	EU	0.47	0.006(0.008)	1.00

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs7170986	15	101632867	G	A	0.76	0.019(0.003)	EU	0.55	0.01(0.009)	1.00
rs8042424	15	101762539	C	T	0.74	0.023(0.004)	EU	0.75	0.007(0.01)	1.00
rs11648796	16	792190	G	A	0.25	0.033(0.004)	EU	0.48	0.003(0.01)	0.88
rs12597498	16	990815	T	C	0.37	0.018(0.003)	EU	0.50	0.004(0.008)	1.00
rs26868	16	2249376	A	T	0.47	0.029(0.003)	EU	0.43	0.017(0.009)	1.00
rs2014467	16	2336394	C	T	0.34	0.019(0.003)	EU	0.38	0(0.009)	1.00
rs12926008	16	2488211	C	T	0.68	0.02(0.003)	EU	0.80	0.006(0.01)	1.00
rs1053996	16	3192651	C	T	0.4	0.02(0.003)	EU	0.34	0.01(0.009)	1.00
rs129963	16	3796147	C	T	0.58	0.02(0.003)	EU	0.43	0.001(0.008)	1.00
rs2531992	16	4021734	G	A	0.85	0.027(0.004)	EU	0.84	0.02(0.011)	1.00
rs960006	16	4911195	C	T	0.47	0.02(0.003)	EU	0.62	0.02(0.009)	1.00
rs1659127	16	14388305	A	G	0.34; 0.48	0.03(0.003); 0.032(0.006)	EU; Asian	0.30	0.028(0.009)	1.00
rs2023693	16	20880040	G	A	0.6	0.016(0.003)	EU	0.41	0.011(0.009)	1.00
rs11642612	16	30030195	C	A	0.4	0.016(0.003)	EU	0.28	0.005(0.009)	1.00
rs4785393	16	50259483	G	A	0.16	0.023(0.004)	EU	0.22	0.001(0.01)	1.00
rs9929889	16	51094038	C	T	0.59	0.017(0.003)	EU	0.61	-0.013(0.008)	0.98
rs8058684	16	53515118	A	G	0.3	0.021(0.003)	EU	0.26	0.005(0.01)	1.00
rs1966913	16	67384226	A	T	0.96	0.044(0.007)	EU	0.93	0.041(0.016)	1.00
rs3790086	16	69887707	C	G	0.56	0.023(0.003)	EU	0.45	0.012(0.009)	1.00
rs217181	16	72114002	T	C	0.2	0.024(0.004)	EU	0.31	0.005(0.009)	1.00
rs11640018	16	75328308	C	T	0.37	0.019(0.003)	EU	0.40	0.012(0.009)	1.00
rs4243206	16	81589983	A	C	0.19	0.024(0.004)	EU	0.23	0.013(0.01)	1.00
rs6420435	16	82184201	A	C	0.21	0.023(0.004)	EU	0.14	0.014(0.012)	0.99
rs2326458	16	84987679	C	A	0.25	0.022(0.004)	EU	0.42	0.014(0.009)	1.00
rs4843367	16	86417890	C	T	0.66	0.019(0.003)	EU	0.56	0.008(0.008)	1.00
rs300039	16	86688976	C	T	0.78	0.02(0.004)	EU	0.61	-0.004(0.009)	1.00
rs3748394	16	87360500	G	C	0.61	0.018(0.003)	EU	0.52	0(0.008)	1.00
rs8052560	16	88777242	A	C	0.79	0.036(0.004)	EU	0.83	-0.012(0.011)	0.92
rs2377058	16	89734831	G	A	0.34	0.017(0.003)	EU	0.26	-0.004(0.01)	1.00
rs11861084	16	89875710	A	C	0.41	0.009(0.003)	EU	0.30	-0.01(0.009)	1.00

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs870183	17	599811	G	A	0.53	0.017(0.003)	EU	0.40	0.013(0.008)	1.00
rs9217	17	7363088	C	T	0.37	0.028(0.003)	EU	0.35	0.016(0.009)	1.00
rs8073177	17	7440584	C	T	0.78	0.019(0.004)	EU	0.79	-0.003(0.01)	1.00
rs1625895	17	7578115	C	T	0.88	0.03(0.005)	EU	0.87	0.005(0.013)	1.00
rs8067165	17	8031936	G	C	0.6	0.023(0.003)	EU	0.42	0.008(0.009)	0.97
rs8069300	17	11984232	G	C	0.47	0.016(0.003)	EU	0.52	0.001(0.008)	1.00
rs4640244	17	21284223	A	G	0.61	0.025(0.003)	EU	0.71	-0.004(0.009)	1.00
rs3809790	17	27955540	C	T	0.53	0.016(0.003)	EU	0.53	0.02(0.008)	1.00
rs9889755	17	29234505	T	C	0.11	0.003(0.005)	EU	0.15	-0.012(0.011)	1.00
rs3760318	17	29247715	G	A	0.63	0.041(0.003)	EU	0.64	0.037(0.008)	1.00
rs2028067	17	30239698	C	T	0.17	0.031(0.004)	EU	0.28	0.009(0.009)	1.00
rs2338115	17	36929578	T	C	0.54	0.023(0.003)	EU	0.40	0.013(0.009)	1.00
rs584828	17	38599230	C	T	0.6	0.025(0.003)	EU	0.53	0.02(0.009)	1.00
rs3169906	17	38632761	C	G	0.85	0.017(0.004)	EU	0.81	-0.01(0.011)	1.00
rs9766	17	40852841	A	G	0.54	0.021(0.003)	EU	0.38	0.022(0.008)	1.00
rs4986172	17	43216281	C	T	0.65	0.034(0.003)	EU	0.55	0.005(0.008)	1.00
rs199515	17	44856641	C	G	0.8	0.016(0.004)	EU	0.84	0.006(0.011)	1.00
rs8073371	17	46096276	C	T	0.78	0.025(0.004)	EU	0.90	0.024(0.014)	0.99
rs6504389	17	46643364	C	G	0.16	0.017(0.004)	EU	0.22	0.005(0.01)	1.00
rs318095	17	46974734	T	C	0.46	0.024(0.003)	EU	0.60	0.027(0.008)	1.00
rs2072153	17	47390014	C	G	0.31	0.026(0.003)	EU	0.35	0.023(0.009)	1.00
rs4605213	17	49244747	C	G	0.34	0.018(0.003)	EU	0.40	0.001(0.009)	1.00
rs11867943	17	54229842	T	A	0.12	0.027(0.005)	EU	0.19	0.016(0.011)	1.00
rs227724	17	54778817	T	A	0.35	0.03(0.003)	EU	0.24	0.019(0.01)	1.00
rs1401795	17	54839652	A	G	0.51	0.03(0.003)	EU	0.36	0.027(0.009)	0.97
rs2079795	17	59496649	T	C	0.33	0.044(0.003)	EU	0.42	0.038(0.008)	1.00
rs757608	17	59497277	A	G	0.29	0.044(0.005)	Asian	0.36	0.035(0.009)	1.00
rs2378870	17	59638623	T	C	0.37	0.02(0.003)	EU	0.40	0.006(0.009)	1.00
rs9903897	17	61716705	A	T	0.7	0.047(0.01)	African	0.29	0.032(0.01)	1.00
rs11658329	17	61763031	C	G	0.7	0.049(0.01)	African	0.29	0.031(0.01)	1.00
rs3785574	17	61763185	T	C	0.46	0.036(0.005)	Asian	0.69	0.032(0.009)	0.97

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs15637	17	61772050	G	C	0.7	0.046(0.01)	African	0.29	0.032(0.01)	1.00
rs2044124	17	61845425	T	C	0.06	0.045(0.007)	EU	0.02	-0.002(0.029)	1.00
rs2854207	17	61947107	G	C	0.27	0.046(0.003)	EU	0.23	0.022(0.01)	0.99
rs2854160	17	61977248	C	T	0.46	0.035(0.005)	Asian	0.64	0.028(0.009)	0.99
rs2070776	17	62007498	G	A	0.65	0.042(0.003)	EU	0.56	0.012(0.009)	1.00
rs3923086	17	63549488	C	A	0.6	0.024(0.003)	EU	0.46	0(0.009)	1.00
rs2072268	17	66303352	G	A	0.52	0.02(0.003)	EU	0.32	0.003(0.009)	1.00
rs11867479	17	68090207	T	C	0.35	0.026(0.003)	EU	0.32	0.001(0.009)	1.00
rs10083886	17	69923355	T	C	0.26	0.019(0.003)	EU	0.22	0.018(0.01)	1.00
rs2117563	17	73368985	G	A	0.83	0.024(0.004)	EU	0.71	0.013(0.01)	1.00
rs1552173	17	76718842	C	T	0.46	0.018(0.003)	EU	0.54	0.002(0.008)	0.99
rs1478610	17	79422252	A	G	0.37	0.025(0.004)	EU	0.36	0.008(0.009)	0.98
rs4239020	17	80176641	C	T	0.33	0.021(0.003)	EU	0.19	0.005(0.011)	1.00
rs888403	18	2766938	G	A	0.36	0.019(0.003)	EU	0.23	0.007(0.01)	1.00
rs692964	18	13094132	G	A	0.4	0.019(0.003)	EU	0.31	0.006(0.009)	1.00
rs14062	18	19450303	G	A	0.67	0.018(0.003)	EU	0.57	-0.001(0.009)	1.00
rs8098316	18	20672555	G	T	0.82	0.055(0.006)	Asian	0.68	0.013(0.009)	1.00
rs4369779	18	20735408	C	T	0.79; 0.83	0.056(0.004); 0.061(0.006)	EU; Asian	0.66	0.026(0.009)	1.00
rs11661645	18	45888770	A	G	0.31	0.02(0.003)	EU	0.42	0.003(0.009)	1.00
rs12454567	18	46270114	A	G	0.89	0.026(0.005)	EU	0.88	-0.001(0.013)	0.99
rs2337143	18	46482070	A	G	0.35	0.018(0.003)	EU	0.39	-0.003(0.009)	1.00
rs16950303	18	46582359	A	G	0.73	0.041(0.005)	Asian	0.87	0.028(0.013)	1.00
rs357897	18	46584184	T	C	0.36	0.044(0.01)	African	0.73	0.023(0.01)	1.00
rs1787200	18	46587654	A	G	0.37	0.044(0.01)	African	0.77	0.027(0.01)	1.00
rs12458127	18	46657358	C	T	0.93	0.057(0.006)	EU	0.88	0.029(0.013)	1.00
rs9967417	18	46959500	G	C	0.43	0.04(0.003)	EU	0.26	0.012(0.01)	1.00
rs17782313	18	57851097	C	T	0.21	0.031(0.006)	Asian	0.16	0.016(0.011)	1.00
rs11152213	18	57852948	C	A	0.25	0.025(0.004)	EU	0.16	0.015(0.011)	1.00
rs8097893	18	74983055	A	G	0.95	0.042(0.007)	EU	0.90	0.027(0.014)	1.00
rs11659752	18	77222862	T	G	0.7	0.024(0.003)	EU	0.71	0.01(0.009)	1.00

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SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs11880992	19	2176403	A	G	0.4	0.033(0.003)	EU	0.36	0.023(0.009)	1.00
rs2074977	19	3434028	C	A	0.36	0.029(0.003)	EU	0.56	0.002(0.009)	1.00
rs2123731	19	4929473	A	G	0.73	0.023(0.004)	EU	0.61	0.007(0.008)	1.00
rs891088	19	7184762	G	A	0.26	0.029(0.003)	EU	0.31	0.014(0.009)	1.00
rs1346490	19	7244233	A	C	0.61	0.018(0.003)	EU	0.56	0.002(0.008)	1.00
rs4072910	19	8644031	G	C	0.56	0.032(0.004)	EU	0.40	0.017(0.009)	1.00
rs6511689	19	10321089	T	C	0.69	0.018(0.003)	EU	0.75	0.009(0.01)	1.00
rs8102380	19	10801185	G	A	0.31	0.02(0.003)	EU	0.21	0.011(0.01)	1.00
rs7259684	19	12186611	G	A	0.07	0.035(0.006)	EU	0.10	0.013(0.014)	1.00
rs8103068	19	17522869	T	C	0.86	0.031(0.005)	EU	0.80	0.007(0.01)	0.99
rs10401193	19	19591066	A	G	0.82	0.028(0.004)	EU	0.73	0.006(0.009)	1.00
rs8103992	19	19665643	A	C	0.2	0.029(0.004)	EU	0.17	0.02(0.011)	0.99
rs7253628	19	31047269	G	A	0.16	0.024(0.004)	EU	0.15	-0.004(0.012)	1.00
rs4802134	19	38346685	A	G	0.21	0.026(0.004)	EU	0.13	0.018(0.012)	1.00
rs4803468	19	41922352	A	G	0.42	0.03(0.003)	EU	0.44	0.023(0.009)	1.00
rs11880124	19	42683791	A	G	0.91	0.041(0.005)	EU	0.86	0.021(0.012)	0.99
rs2682587	19	44082429	A	C	0.2	0.023(0.004)	EU	0.12	0.021(0.013)	1.00
rs2059877	19	48188809	T	G	0.26	0.019(0.003)	EU	0.27	-0.002(0.009)	1.00
rs7273787	20	4098567	G	A	0.35	0.022(0.003)	EU	0.25	0.022(0.01)	1.00
rs17721822	20	6469596	G	A	0.63	0.035(0.003)	EU	0.57	-0.002(0.009)	1.00
rs1884897	20	6612832	A	G	0.36	0.044(0.003)	EU	0.29	0.027(0.009)	1.00
rs2145272	20	6626218	G	A	0.12	0.062(0.008)	Asian	0.27	0.029(0.01)	1.00
rs6085662	20	6698372	C	G	0.35	0.02(0.003)	EU	0.36	0.009(0.009)	0.99
rs6080830	20	17771113	A	G	0.56	0.016(0.003)	EU	0.63	0.018(0.009)	1.00
rs7261425	20	20068635	C	G	0.71	0.021(0.003)	EU	0.74	0.033(0.009)	1.00
rs8117259	20	20348253	C	T	0.82	0.023(0.004)	EU	0.77	0.02(0.01)	1.00
rs6137287	20	21180259	T	C	0.31	0.02(0.003)	EU	0.23	0.004(0.01)	1.00
rs1074683	20	32304653	C	G	0.76	0.044(0.003)	EU	0.68	0.014(0.009)	1.00
rs1535466	20	33718706	G	A	0.27	0.027(0.003)	EU	0.14	0.012(0.012)	0.99
rs6060369	20	33907161	C	T	0.3	0.06(0.005)	Asian	0.37	0.034(0.009)	1.00
rs224329	20	34019579	T	C	0.3	0.062(0.005)	Asian	0.35	0.033(0.009)	1.00

Supplementary table 4: Previously reported height SNPs composing GRS1. Position is given in genome build 37. A1 is the reported trait-increasing allele, A2 is the other allele. A1-freq, effects, and SEs, are given in the previously reported discovery study (dscvr) and in the HCHS/SOL. Ethnicity (dscvr) is that of the previously reported study population. Provided imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (dscvr)	Effect-SE (dscvr)	ethnicity (dscvr)	A1-freq (SOL)	Effect-SE (SOL)	Info
rs143384	20	34025756	G	A	0.42	0.075(0.003)	EU	0.42	0.037(0.009)	1.00
rs2236164	20	34097353	C	T	0.3	0.053(0.005)	Asian	0.31	0.021(0.009)	1.00
rs2425163	20	34432670	G	A	0.18	0.058(0.004)	EU	0.21	0.029(0.01)	1.00
rs4812586	20	35544673	A	G	0.84	0.03(0.004)	EU	0.67	0.038(0.009)	1.00
rs2224538	20	38552078	T	C	0.65	0.017(0.003)	EU	0.63	0.012(0.009)	1.00
rs17450430	20	47772264	T	A	0.24	0.035(0.003)	EU	0.17	0.04(0.011)	1.00
rs6020202	20	48634821	G	A	0.78	0.022(0.004)	EU	0.59	0.004(0.009)	1.00
rs1326023	20	54842378	A	G	0.3	0.024(0.003)	EU	0.27	0.011(0.01)	1.00
rs2057291	20	57472043	A	G	0.34	0.02(0.003)	EU	0.28	0.024(0.009)	1.00
rs3026499	20	57948773	G	A	0.67	0.026(0.005)	EU	0.67	-0.008(0.009)	1.00
rs6061231	20	60956917	C	A	0.72	0.021(0.003)	EU	0.72	0.015(0.009)	1.00
rs2829941	21	27208935	T	G	0.61	0.017(0.003)	EU	0.69	0.003(0.009)	1.00
rs2834442	21	35690786	A	T	0.64	0.024(0.003)	EU	0.73	0.018(0.009)	1.00
rs2211866	21	39688107	A	G	0.41	0.022(0.003)	EU	0.47	0.016(0.008)	0.98
rs9977276	21	47436327	G	T	0.78	0.022(0.004)	EU	0.85	0.034(0.012)	1.00
rs2413143	22	33056859	C	T	0.84	0.034(0.004)	EU			
rs7284476	22	38129332	A	G	0.43	0.018(0.003)	EU	0.32	0.014(0.009)	1.00
rs5757318	22	39275656	T	A	0.15	0.029(0.005)	EU	0.08	0.018(0.015)	0.99
rs738288	22	39907661	G	A	0.47	0.02(0.003)	EU	0.39	0.01(0.009)	0.98
rs11090631	22	45846371	T	C	0.2	0.02(0.004)	EU	0.18	0(0.011)	1.00
rs12393627	23	2885723	G	A	0.37	0.093(0.019)	African	0.06	0.024(0.017)	0.75

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs61775410	1	2038062	A	G	0.32	0.294(0.088)	0.86
rs569290878	1	9356665	A	G	0.25	0.352(0.102)	0.74
rs12143751	1	11164672	T	C	0.98	0.927(0.285)	1.00

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs3170740	1	17312743	T	C	0.56	0.344(0.08)	0.98
rs12691495	1	19997180	A	C	0.18	0.333(0.101)	1.00
	1	21533770	A	ATTTT	0.65	0.33(0.083)	0.97
rs113151642	1	22307223	C	A	0.04	0.615(0.198)	0.98
rs187524329	1	23490363	C	T	0.02	0.851(0.294)	0.96
rs6702180	1	24882805	A	G	0.14	0.363(0.112)	0.99
rs11247959	1	25897794	G	A	0.98	0.828(0.312)	0.96
rs12062488	1	26466253	A	G	0.84	0.336(0.109)	0.99
rs374278432	1	26731804	CA	C	0.49	0.22(0.08)	0.96
rs76011508	1	27371370	T	C	0.98	0.956(0.283)	1.00
rs192448023	1	32524620	T	C	0.01	0.993(0.35)	0.90
rs377227580	1	38126133	A	ATCTG	0.42	0.239(0.079)	1.00
rs16827116	1	40764828	C	G	0.02	0.896(0.301)	0.81
rs35358440	1	41744673	AT	A	0.53	0.249(0.082)	0.98
rs56071727	1	46090844	T	G	0.84	0.305(0.109)	0.99
rs545490962	1	47734760	CA	C	0.26	0.367(0.104)	0.70
rs140909239	1	51421279	A	C	0.09	0.487(0.155)	0.84
rs149554311	1	53992239	CCA	C	0.15	0.303(0.117)	0.98
rs550844578	1	54957689	A	ATTT	0.47	0.359(0.086)	0.91
rs2454321	1	67280355	C	G	0.83	0.434(0.107)	0.92
rs148376028	1	78291437	CT	C	0.98	1.113(0.26)	0.95
rs4612587	1	78846539	A	C	0.75	0.284(0.088)	1.00
rs12734233	1	86008536	A	G	0.83	0.218(0.107)	0.92
rs11578202	1	86392577	A	G	0.02	0.764(0.25)	0.96
rs192634734	1	89010041	A	C	0.08	0.488(0.161)	0.86
rs78380111	1	93311922	T	C	0.99	1.161(0.33)	0.99
rs143374573	1	95747514	T	G	0.99	1.109(0.361)	0.86
rs143424888	1	103456996	C	CACGTGATCT	0.50	0.325(0.081)	0.98
rs145128218	1	113372815	T	G	0.96	0.643(0.209)	0.98
rs74798287	1	118517643	G	A	0.99	0.829(0.364)	1.00
rs12738523	1	118855812	A	T	0.30	0.31(0.084)	1.00
rs111962736	1	119281761	A	G	0.03	0.848(0.258)	0.90
rs113138594	1	120265521	C	CA	0.71	0.272(0.091)	0.85
rs138439903	1	146750583	C	T	0.02	1.252(0.361)	0.68
rs6587723	1	149922960	T	C	0.50	0.289(0.078)	0.96

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs34802819	1	149946480	CT	C	0.33	0.322(0.095)	0.83
rs2185838	1	151505708	C	T	0.44	0.177(0.082)	1.00
rs78083675	1	160382619	A	G	0.99	1.103(0.365)	0.84
rs79386777	1	170517853	T	C	0.17	0.308(0.114)	1.00
rs72721175	1	172227532	G	A	0.91	0.545(0.14)	0.96
rs71644479	1	176654220	C	CT	0.93	0.472(0.156)	0.84
rs74951797	1	183185168	C	A	0.02	0.918(0.269)	0.92
rs4652825	1	183793323	A	G	0.31	0.225(0.083)	1.00
rs78695956	1	203551449	C	T	0.03	0.7(0.233)	0.97
rs74667124	1	212376761	G	A	0.01	1.155(0.342)	0.95
rs4655353	1	214645533	A	T	0.45	0.257(0.077)	1.00
rs188240045	1	214992120	C	T	0.03	1.024(0.302)	0.63
rs1764705	1	218648556	C	T	0.30	0.307(0.089)	0.99
rs200863892	1	218804102	A	AT	0.02	0.928(0.329)	0.71
rs1766407	1	219942284	T	C	0.27	0.335(0.087)	1.00
rs77238592	1	221093128	C	T	0.01	1.084(0.37)	0.98
rs116028664	1	224509828	A	G	0.98	0.775(0.272)	0.99
rs34452846	1	227505361	G	GA	0.07	0.452(0.151)	1.00
rs72759884	1	243618209	C	T	0.07	0.582(0.151)	0.99
rs113783575	2	1614042	G	A	0.85	0.429(0.114)	0.89
rs34398693	2	10402673	T	C	0.72	0.293(0.088)	0.99
rs538829651	2	18502128	C	T	0.02	0.801(0.264)	0.92
rs9306887	2	20069242	C	T	0.44	0.263(0.078)	0.96
rs7572352	2	24235049	A	C	0.06	0.677(0.174)	0.88
rs10206196	2	25137323	T	C	0.41	0.417(0.084)	1.00
rs6545884	2	25243469	A	T	0.45	0.358(0.083)	1.00
rs71441090	2	27927968	G	A	0.06	0.45(0.159)	1.00
rs79674009	2	33153484	A	G	0.09	0.547(0.139)	1.00
rs115805714	2	33156052	A	C	0.09	0.538(0.139)	0.99
rs116154825	2	33685899	A	G	0.01	0.841(0.325)	0.99
rs10707574	2	36777377	AT	A	0.58	0.208(0.085)	0.89
rs6708822	2	37572907	G	A	0.97	0.768(0.234)	0.88
rs12617882	2	38053004	C	T	0.32	0.301(0.085)	1.00
rs2719139	2	42306198	G	C	0.98	0.807(0.332)	0.80
rs72873667	2	43424210	C	T	0.01	1.362(0.344)	0.99

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs11902778	2	44664992	A	C	0.01	1.288(0.369)	1.00
rs146576352	2	46704538	A	C	0.99	1.106(0.321)	0.96
rs72906425	2	54902994	G	A	0.01	1.309(0.337)	0.98
rs531485959	2	55489667	CT	C	0.79	0.4(0.121)	0.60
rs77626563	2	56090844	A	G	0.04	0.897(0.206)	1.00
	2	68294557	AC	A	0.99	1.024(0.355)	0.96
rs10668921	2	69529776	C	CAA	0.42	0.296(0.081)	0.99
rs537942317	2	71638604	A	AT	0.70	0.351(0.089)	0.98
rs12466955	2	88829687	G	A	0.03	0.489(0.224)	0.89
rs201857370	2	98159849	C	T	0.86	0.376(0.14)	0.62
rs9646948	2	108915608	T	C	0.67	0.266(0.083)	1.00
rs72955353	2	121666711	A	T	0.01	1.335(0.324)	0.98
rs144582482	2	134426574	C	T	0.98	0.82(0.37)	0.70
rs6735329	2	136273578	T	C	0.74	0.216(0.087)	0.99
rs4662381	2	145319098	A	G	0.99	0.793(0.522)	0.68
rs7563233	2	169842746	T	C	0.07	0.458(0.158)	1.00
rs13428567	2	172382519	G	A	0.27	0.235(0.088)	1.00
rs142822571	2	174771842	T	A	0.01	1.603(0.55)	0.62
rs6712695	2	178447723	A	G	0.98	0.761(0.261)	1.00
rs55987533	2	183174038	T	C	0.03	0.92(0.232)	0.99
rs61016895	2	192006342	C	T	0.46	0.276(0.088)	0.73
rs6738541	2	203353447	T	C	0.32	0.271(0.083)	1.00
rs56129324	2	216175077	CA	C	0.41	0.227(0.087)	0.79
rs4672814	2	217834419	G	A	0.69	0.317(0.083)	0.99
rs139849317	2	217978117	C	CAT	0.98	1.057(0.285)	0.97
rs397987830	2	218504573	T	TA	0.03	0.463(0.24)	0.96
rs929937	2	218709215	T	C	0.39	0.265(0.082)	0.98
rs144108931	2	219258197	A	ATT	0.25	0.377(0.1)	0.82
rs73993327	2	219732897	C	T	0.01	1.033(0.317)	0.99
rs549755504	2	219786236	C	T	0.02	0.906(0.308)	0.93
rs144946248	2	224130150	T	C	0.97	1.045(0.257)	0.82
rs7577127	2	224952821	A	G	0.07	0.489(0.159)	0.99
rs6723976	2	232334678	C	G	0.38	0.251(0.079)	1.00
rs10933385	2	232916068	G	A	0.13	0.424(0.121)	1.00
rs544203612	2	233197798	G	GCCTCCTCCTCTT	0.02	1.061(0.286)	0.83

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs6738308	2	233550893	T	C	0.99	1.079(0.367)	0.85
rs112813828	2	241752341	A	C	0.41	0.299(0.096)	0.62
rs4503983	2	242411069	T	C	0.53	0.29(0.079)	1.00
rs57917131	3	4669222	A	G	0.90	0.592(0.125)	1.00
rs11918599	3	11775596	A	G	0.03	0.809(0.229)	0.98
rs71306019	3	12820483	A	G	0.97	0.848(0.268)	0.80
rs2675228	3	13553380	C	T	0.90	0.441(0.128)	0.99
rs61581857	3	38074260	G	A	0.96	0.799(0.196)	1.00
rs76584487	3	41102198	A	G	0.98	1.055(0.335)	0.83
rs398051942	3	51151541	TA	T	0.91	0.412(0.137)	0.95
rs200209164	3	51364014	TTTGTTG	T	0.81	0.349(0.103)	0.88
rs3806692	3	53080987	G	C	0.86	0.413(0.108)	1.00
rs59658994	3	53174745	C	CTA	0.94	0.663(0.17)	0.87
rs6783998	3	55606476	T	C	0.24	0.297(0.093)	0.99
rs10618279	3	56892271	C	CAAA	0.20	0.317(0.101)	0.88
rs1522390	3	57957762	G	A	0.06	0.534(0.178)	0.94
rs13065105	3	61567888	T	C	0.88	0.342(0.125)	0.91
rs12491074	3	67257637	G	C	0.88	0.474(0.124)	0.99
rs116053124	3	68827723	T	C	0.03	0.67(0.249)	1.00
rs753319	3	72447890	G	C	0.51	0.311(0.078)	1.00
rs114884447	3	98735411	T	C	0.01	1.104(0.375)	1.00
rs2700629	3	99161919	T	C	0.96	0.784(0.189)	0.99
rs5851884	3	112851172	A	AGT	0.64	0.323(0.081)	1.00
rs12496735	3	114064002	G	T	0.96	0.704(0.207)	0.98
rs9817665	3	114611829	G	A	0.54	0.229(0.081)	1.00
rs12633752	3	128887527	A	G	0.91	0.579(0.137)	1.00
rs75907243	3	134387993	C	G	0.99	1.048(0.378)	0.94
rs17200503	3	136102316	T	C	0.91	0.426(0.135)	1.00
rs34466132	3	141117969	CT	C	0.59	0.444(0.081)	0.94
rs1965398	3	142728167	T	C	0.95	0.643(0.183)	0.96
rs78569422	3	156700698	A	G	0.98	0.603(0.28)	0.93
rs140122323	3	157565689	TG	T	0.15	0.412(0.12)	1.00
rs490683	3	172175074	C	G	0.68	0.281(0.084)	1.00
rs11709572	3	183311868	T	G	0.26	0.294(0.092)	0.89
rs9864902	3	185351929	G	T	0.62	0.307(0.084)	0.87

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs9830552	3	185659252	A	G	0.72	0.256(0.087)	0.97
rs520190	3	187552212	G	C	0.66	0.231(0.085)	1.00
rs4687189	3	190799944	A	T	0.68	0.322(0.084)	1.00
rs35418010	3	191241721	C	A	0.08	0.625(0.169)	0.65
rs113373751	4	1617253	C	T	0.02	0.848(0.27)	0.96
rs61383215	4	2175792	C	G	0.25	0.418(0.091)	0.97
rs4450871	4	4990298	A	G	0.44	0.25(0.081)	1.00
rs17806570	4	7074960	G	A	0.01	1.149(0.349)	0.99
rs34598003	4	7855824	A	C	0.09	0.454(0.139)	1.00
rs188523465	4	8460229	C	A	0.01	1.129(0.313)	0.99
rs80156179	4	13127540	A	C	0.04	0.692(0.191)	0.96
rs2610990	4	18008232	A	G	0.69	0.372(0.084)	0.99
rs12510296	4	38864769	T	C	0.87	0.436(0.114)	1.00
rs113273467	4	39433069	C	T	0.04	0.525(0.201)	0.95
rs114517877	4	48882941	G	A	0.99	0.912(0.369)	0.94
rs75876517	4	56231419	A	G	0.02	0.771(0.264)	0.97
rs61471505	4	57709951	T	C	0.99	1.13(0.336)	0.97
rs56215320	4	73326758	A	G	0.94	0.789(0.166)	1.00
rs1712373	4	82155309	T	C	0.87	0.74(0.135)	1.00
rs546862736	4	87951286	T	TA	0.87	0.422(0.129)	0.81
rs4440183	4	88653805	T	C	0.18	0.33(0.103)	1.00
rs76365623	4	106293217	A	G	0.96	0.681(0.222)	0.86
rs200027431	4	109513624	T	TG	0.30	0.239(0.089)	0.87
rs36039505	4	114498912	AT	A	0.47	0.32(0.083)	0.98
rs200724804	4	122605401	CAAATA	C	0.01	1.1(0.314)	0.94
rs72917850	4	123764913	C	T	0.99	1.438(0.332)	0.98
rs77817768	4	144193026	C	T	0.03	1.018(0.263)	0.67
rs144293266	4	145569140	T	TA	0.57	0.276(0.08)	0.96
rs7666450	4	145662842	T	C	0.61	0.316(0.08)	1.00
rs789350	4	145868325	G	A	0.33	0.283(0.082)	0.99
rs7681812	4	146041509	C	A	0.01	1.235(0.347)	1.00
rs6535779	4	152169275	T	G	0.43	0.204(0.079)	1.00
rs13152180	4	184042190	C	A	0.03	0.844(0.261)	0.81
rs58925393	5	31707488	A	G	0.04	0.709(0.193)	1.00
rs6898310	5	32629102	T	C	0.13	0.418(0.119)	1.00

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs10071837	5	33381581	C	T	0.43	0.365(0.083)	1.00
rs73076180	5	35990408	C	T	0.03	0.529(0.241)	0.99
rs66929018	5	36945610	CCTT	C	0.15	0.292(0.109)	1.00
rs3812041	5	39425856	G	T	0.92	0.453(0.144)	1.00
rs34742008	5	42684956	G	A	0.36	0.221(0.081)	1.00
rs116136735	5	50588638	G	C	0.98	0.816(0.281)	0.98
rs199619568	5	54700638	C	T	0.26	0.311(0.091)	0.95
rs116741620	5	55030996	A	C	0.99	1.44(0.386)	0.94
rs145300238	5	56260143	AT	A	0.95	0.421(0.176)	1.00
rs72760562	5	64672716	C	T	0.94	0.472(0.157)	1.00
rs376880321	5	67233975	G	GTA	0.83	0.308(0.104)	0.94
rs184886	5	67611486	C	T	0.26	0.317(0.088)	1.00
rs34360238	5	72389335	G	GA	0.62	0.196(0.087)	0.83
rs113347529	5	74026884	C	T	0.83	0.388(0.105)	1.00
rs143014362	5	77419097	G	A	0.26	0.288(0.089)	1.00
rs10942894	5	78831995	G	A	0.34	0.318(0.085)	1.00
rs374737503	5	79694412	C	CT	0.87	0.275(0.12)	0.95
rs34837872	5	88425656	CT	C	0.58	0.3(0.08)	0.96
rs79693035	5	90281794	G	A	0.01	1.616(0.475)	0.66
rs115187290	5	95531984	A	C	0.98	1.148(0.265)	0.98
rs72785538	5	107992745	G	A	0.95	0.487(0.179)	0.97
rs144052331	5	122650885	T	C	0.07	0.425(0.156)	0.98
rs190496964	5	127212663	T	G	0.06	0.445(0.175)	0.89
rs331077	5	127717797	C	T	0.36	0.164(0.08)	1.00
rs55739237	5	129214686	A	G	0.99	1.227(0.343)	1.00
rs34856425	5	131693717	CA	C	0.61	0.306(0.092)	0.72
rs565244	5	134349385	T	G	0.42	0.271(0.081)	1.00
rs145495948	5	139124845	C	T	0.04	0.752(0.225)	0.80
rs78140389	5	141764150	A	T	0.20	0.418(0.11)	1.00
rs536643285	5	168188926	AT	A	0.26	0.296(0.092)	0.87
rs138988546	5	170905008	T	C	0.98	0.639(0.311)	0.82
rs72845591	5	171193018	G	T	0.03	1.15(0.276)	0.77
rs11134786	5	172707463	C	T	0.13	0.419(0.114)	1.00
rs151255974	5	173067549	A	C	0.03	0.847(0.242)	0.84
rs62402655	5	176116056	C	G	0.17	0.341(0.104)	0.99

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs35091295	5	176572909	CA	C	0.44	0.268(0.088)	0.81
rs2411913	5	178495703	T	C	0.36	0.28(0.081)	0.99
rs4326106	5	179816613	G	C	0.23	0.32(0.095)	0.99
rs189203831	6	2048411	C	G	0.03	0.499(0.243)	0.90
rs3827784	6	6642405	A	G	0.54	0.179(0.081)	1.00
rs17673188	6	7394684	A	G	0.12	0.34(0.118)	1.00
rs270417	6	7729614	T	C	0.20	0.462(0.099)	1.00
rs9477443	6	17466722	G	C	0.03	0.789(0.218)	0.99
	6	19677675	GAA	G	0.92	0.381(0.141)	0.97
rs3999543	6	26259807	G	A	0.45	0.33(0.075)	1.00
rs200754324	6	28529305	C	CTTTTTTTTTTTTTTTTTTTTTTTTTTTT	0.05	0.56(0.176)	0.91
rs6941207	6	29935153	A	G	0.02	0.916(0.305)	0.89
rs9266063	6	31319391	A	C	0.42	0.342(0.076)	0.99
rs2523501	6	31517903	G	C	0.15	0.459(0.105)	1.00
rs28732146	6	31561353	T	A	0.16	0.441(0.103)	1.00
rs117674603	6	32867455	T	G	0.94	0.593(0.158)	1.00
rs9469616	6	33820342	G	A	0.27	0.35(0.087)	0.98
rs79266576	6	33982527	C	T	0.86	0.54(0.116)	1.00
rs2780226	6	34199092	C	T	0.69	0.619(0.083)	1.00
rs202096393	6	34381239	AT	A	0.76	0.566(0.096)	1.00
rs9462078	6	35357974	A	G	0.03	0.757(0.224)	1.00
rs67056409	6	35383699	A	G	0.26	0.396(0.09)	0.95
rs6458239	6	41728916	G	A	0.33	0.28(0.083)	1.00
rs58195789	6	44694772	T	C	0.91	0.446(0.135)	0.99
rs74584915	6	45429621	C	T	0.98	1.009(0.26)	1.00
rs75994591	6	47309659	A	T	0.04	0.72(0.186)	0.99
rs73503193	6	71957899	C	T	0.98	0.674(0.277)	1.00
rs7741596	6	75992476	C	T	0.88	0.28(0.116)	1.00
rs34504496	6	80944546	T	TTA	0.62	0.363(0.082)	0.99
rs10943702	6	81069006	T	C	0.65	0.342(0.083)	0.99
rs7738407	6	81669593	C	T	0.97	0.76(0.234)	1.00
	6	82397025	ATT	A	0.98	1.021(0.291)	0.98
rs75598173	6	85675999	T	A	0.03	0.857(0.216)	0.99
rs314279	6	105402083	C	A	0.95	0.546(0.169)	0.98
rs9384679	6	108864419	C	T	0.43	0.258(0.08)	0.99

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs58292452	6	109840977	CA	C	0.65	0.189(0.085)	0.91
rs75081751	6	116509676	G	A	0.98	0.687(0.303)	0.94
rs74493914	6	117531389	C	A	0.04	0.756(0.202)	0.97
rs112120142	6	117858455	T	C	0.09	0.401(0.139)	0.98
rs9385389	6	126215486	C	G	0.61	0.266(0.081)	0.99
	6	126898932	ATTG	A	0.19	0.33(0.099)	1.00
rs7740107	6	130374461	T	A	0.85	0.4(0.112)	0.99
rs35578859	6	131331554	A	AT	0.67	0.276(0.089)	0.81
rs1074524	6	132531965	C	G	0.76	0.339(0.094)	0.94
rs263180	6	142862768	C	A	0.34	0.357(0.08)	1.00
rs147606953	6	143925986	A	G	0.98	1.019(0.297)	0.99
rs200773052	6	146186073	ACACACT	A	0.24	0.329(0.094)	0.95
rs111825996	6	152129545	AGGAG	A	0.81	0.37(0.102)	0.96
rs11968298	6	156798301	A	G	0.64	0.303(0.089)	0.79
rs77917407	6	158958938	G	C	0.99	1.131(0.334)	0.99
rs144173477	6	160633560	G	T	0.01	1.167(0.304)	0.97
rs4709984	6	166196335	A	G	0.84	0.329(0.104)	1.00
rs61409760	6	168713722	A	T	0.99	1.894(0.37)	0.96
	6	169342214	GGT	G	0.22	0.317(0.103)	0.82
rs1182199	7	2862542	C	A	0.32	0.36(0.082)	1.00
rs6463762	7	8142124	C	G	0.73	0.352(0.092)	0.99
rs62449512	7	12519991	T	A	0.15	0.424(0.109)	0.99
rs2526626	7	19041337	A	G	0.65	0.23(0.083)	1.00
rs142388714	7	19656782	C	G	0.98	1.071(0.276)	0.86
rs79890064	7	20234948	T	A	0.99	1.262(0.358)	0.99
rs540933159	7	23432021	GA	G	0.39	0.322(0.082)	0.94
rs10951112	7	25882839	G	A	0.70	0.31(0.085)	1.00
rs38520	7	28038052	G	A	0.07	0.425(0.149)	0.98
rs564443608	7	28664615	A	AT	0.64	0.249(0.082)	0.96
rs117470456	7	32811569	C	T	0.03	0.523(0.237)	1.00
rs116421406	7	37968672	A	G	0.99	0.999(0.373)	1.00
rs10951848	7	46258755	A	G	0.20	0.29(0.101)	1.00
rs141053408	7	50550761	T	C	0.01	1.228(0.353)	0.97
rs11769548	7	55654767	G	A	0.32	0.297(0.083)	1.00
rs201823613	7	73210583	A	ATT	0.86	0.333(0.11)	0.98

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs117760809	7	77472063	T	C	0.02	1.053(0.286)	1.00
rs3731258	7	92463876	A	T	0.98	1.09(0.295)	0.98
rs117285893	7	92621688	T	G	0.99	1.15(0.348)	1.00
rs10225703	7	96151327	G	A	0.78	0.306(0.095)	0.99
rs138837003	7	99616849	A	G	0.03	0.854(0.256)	0.85
rs798903	7	120919495	C	T	0.43	0.23(0.078)	1.00
rs4281069	7	134938058	C	T	0.24	0.328(0.094)	1.00
rs10241468	7	137661808	C	G	0.95	0.65(0.188)	0.86
rs6967829	7	148460244	T	A	0.98	0.968(0.287)	0.99
rs1077871	7	150714644	T	C	0.98	1.118(0.319)	0.93
rs293882	8	4589028	T	C	0.48	0.313(0.079)	1.00
rs536019322	8	8792228	C	CAAAAAAAAA	0.57	0.291(0.083)	0.86
rs1528624	8	13194983	T	G	0.60	0.302(0.078)	1.00
rs4535741	8	22556424	G	T	0.05	0.465(0.198)	0.94
rs112462737	8	23030280	G	T	0.05	0.668(0.192)	0.91
rs6557710	8	23582292	T	C	0.05	0.485(0.179)	0.99
rs80208218	8	24110312	A	G	0.99	0.862(0.33)	0.94
rs66487916	8	25442824	G	A	0.20	0.289(0.095)	0.99
rs145854061	8	27633704	T	TATTTG	0.96	0.488(0.194)	0.96
rs10957010	8	49195245	T	C	0.97	0.644(0.216)	1.00
rs73594229	8	57056932	C	T	0.01	1.159(0.332)	0.92
rs74855688	8	75823213	C	T	0.88	0.431(0.121)	1.00
rs1397734	8	76247693	A	G	0.89	0.485(0.125)	0.99
rs543360906	8	78215912	TA	T	0.50	0.322(0.08)	0.99
rs75247033	8	109591144	G	T	0.98	0.655(0.285)	0.92
rs2721946	8	116641960	G	T	0.62	0.339(0.08)	1.00
rs143979902	8	117549164	T	C	0.98	0.899(0.334)	0.88
rs544915454	8	120510488	A	T	0.94	0.378(0.204)	0.66
rs57788150	8	124218378	CA	C	0.16	0.305(0.124)	0.69
rs897157	8	126671176	C	T	0.27	0.309(0.086)	1.00
rs60188612	8	130848477	A	G	0.86	0.396(0.113)	0.97
rs113406824	8	135470200	T	TGTTCTTTCTCC	0.89	0.377(0.122)	0.99
rs186521296	8	144932303	G	A	0.93	0.407(0.153)	0.87
rs186440475	9	6213849	C	A	0.02	1.435(0.308)	0.80
rs115245931	9	16678391	G	A	0.99	1.085(0.365)	0.89

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs10962679	9	16905441	T	C	0.59	0.24(0.085)	0.99
rs2809861	9	18393875	G	T	0.67	0.302(0.081)	1.00
	9	35897020	TTTA	TTTATTATTA	0.99	1.1(0.326)	0.96
rs17061731	9	78478639	T	C	0.95	0.709(0.175)	1.00
rs10869713	9	78776057	T	C	0.76	0.345(0.091)	1.00
rs10868097	9	86716873	A	G	0.11	0.368(0.124)	1.00
rs7032797	9	89316235	A	G	0.28	0.297(0.087)	1.00
rs3937594	9	90882154	C	T	0.38	0.281(0.086)	1.00
rs115991603	9	94164312	C	T	0.98	1.141(0.328)	0.88
rs61660598	9	95604861	A	T	0.02	0.863(0.28)	0.82
rs7867660	9	97016564	G	T	0.98	1.025(0.301)	0.94
rs7019540	9	97598150	C	T	0.97	0.609(0.229)	0.94
rs201504349	9	98280324	T	G	0.79	0.384(0.094)	1.00
	9	99202640	TTGTGTGTGTGTGTGTGTGTG		0.95	0.826(0.197)	0.82
rs1156850	9	100573164	G	A	0.79	0.297(0.095)	0.99
rs73493970	9	101555267	C	T	0.97	0.639(0.233)	0.99
rs10739211	9	108474679	A	C	0.44	0.256(0.078)	1.00
rs12552906	9	108668391	G	A	0.03	0.79(0.238)	0.97
rs111486101	9	109415667	C	A	0.02	1.055(0.318)	0.83
rs13285638	9	113577996	A	G	0.01	0.98(0.364)	0.93
rs10982061	9	116852076	T	C	0.25	0.295(0.091)	1.00
rs1414149	9	117969073	G	A	0.12	0.355(0.121)	0.99
rs537922848	9	118190450	G	C	0.01	0.969(0.372)	0.78
rs7033487	9	119129257	T	C	0.09	0.476(0.135)	0.98
rs33973593	9	119466008	T	TA	0.75	0.354(0.095)	0.87
rs59803809	9	133357572	A	G	0.99	1.24(0.373)	1.00
rs370771017	9	137466663	C	T	0.98	1.113(0.311)	0.83
rs12684650	9	139110654	C	T	0.19	0.326(0.099)	1.00
rs111688308	9	139549229	T	C	0.99	1.617(0.375)	0.96
rs200577408	10	5018224	T	C	0.40	0.246(0.08)	0.98
rs2399890	10	12819037	A	G	0.67	0.499(0.082)	0.97
rs72780347	10	25158161	A	C	0.90	0.417(0.128)	1.00
rs16928140	10	27962024	C	A	0.99	1.246(0.37)	1.00
rs71508066	10	52834982	A	G	0.97	0.647(0.245)	0.82
rs7901109	10	61332661	A	G	0.97	0.551(0.235)	1.00

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs10998040	10	70024955	A	G	0.74	0.271(0.093)	0.95
rs11599886	10	70324991	G	T	0.71	0.41(0.09)	0.97
rs58011543	10	81172074	T	C	0.02	0.967(0.265)	1.00
rs9787602	10	92797805	G	A	0.60	0.225(0.08)	1.00
rs117083034	10	97906444	G	A	0.99	1.226(0.349)	1.00
rs12354453	10	101722669	A	G	0.01	1.251(0.358)	0.90
rs2495703	10	102592150	A	G	0.20	0.352(0.103)	1.00
rs11191410	10	104588923	A	C	0.81	0.338(0.099)	0.96
rs7073079	10	105486697	T	C	0.88	0.446(0.12)	1.00
rs79077667	10	121119048	A	G	0.01	1.193(0.394)	0.83
rs1801043	10	123297585	C	T	0.09	0.481(0.137)	0.97
	10	124182941	CA	C	0.29	0.304(0.089)	0.90
rs7478422	10	126182864	G	C	0.55	0.256(0.077)	1.00
	10	126930216	C	CA	0.98	0.916(0.298)	1.00
rs141962143	10	127757565	A	G	0.98	1.055(0.329)	0.83
rs7483271	11	384067	C	T	0.72	0.254(0.084)	1.00
rs112492	11	1989274	G	A	0.67	0.295(0.083)	0.94
rs59148929	11	2118815	A	G	0.96	0.759(0.206)	0.98
rs200208191	11	2974188	T	C	0.32	0.331(0.085)	1.00
rs79583808	11	12550760	C	T	0.02	0.904(0.256)	0.93
rs61879825	11	12684265	T	G	0.05	0.441(0.188)	0.90
rs112950946	11	13127307	CT	C	0.02	0.671(0.272)	0.99
rs76820037	11	14157568	A	G	0.01	1.151(0.33)	0.91
rs76439856	11	17288241	C	T	0.06	0.417(0.167)	0.98
rs499243	11	30504680	G	A	0.90	0.478(0.136)	1.00
rs373797236	11	45806550	T	C	0.95	0.597(0.199)	0.74
rs72895718	11	47853793	T	C	0.97	0.848(0.242)	0.92
rs9734073	11	56358320	C	A	0.07	0.392(0.161)	0.91
rs2307266	11	65116491	T	C	0.98	0.802(0.252)	1.00
rs112965728	11	66629986	A	C	0.98	0.805(0.286)	1.00
rs4930590	11	68421867	T	C	0.39	0.24(0.081)	1.00
rs148130259	11	69076783	G	C	0.94	0.602(0.173)	0.95
rs61885517	11	70023850	T	C	0.99	1.209(0.364)	0.92
rs7949034	11	74575792	C	T	0.99	0.996(0.346)	0.95
rs143746709	11	75276660	GACAC	G	0.73	0.341(0.088)	1.00

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
	11	118821132	A	AT	0.56	0.314(0.088)	0.75
rs61900895	11	120404384	C	T	0.04	0.764(0.228)	0.82
rs11600359	11	123027134	G	A	0.33	0.252(0.081)	0.99
rs116960047	11	128532286	G	C	0.03	0.906(0.254)	0.91
rs143338675	12	740240	T	C	0.97	1.005(0.247)	0.84
rs73601904	12	1580026	G	A	0.01	1.266(0.349)	0.95
rs17818498	12	11873288	C	T	0.75	0.318(0.089)	1.00
rs7977653	12	12812980	T	C	0.10	0.435(0.13)	1.00
rs11522846	12	14447769	A	C	0.81	0.325(0.099)	1.00
rs12370696	12	20539795	G	A	0.17	0.349(0.103)	0.99
rs11045419	12	20885438	G	T	0.03	0.723(0.21)	1.00
rs2686328	12	24414760	A	G	0.05	0.588(0.179)	0.97
rs10843030	12	28095013	G	A	0.89	0.455(0.128)	1.00
rs7954929	12	28822422	G	A	0.02	0.75(0.273)	0.95
rs10843438	12	29648275	G	A	0.40	0.246(0.081)	1.00
rs74385174	12	46764254	A	G	0.01	0.768(0.325)	0.92
rs562541296	12	53981147	C	CAAA	0.49	0.354(0.081)	0.99
rs35497799	12	56448641	TA	T	0.44	0.166(0.088)	0.75
rs137928860	12	56970939	G	A	0.02	0.887(0.28)	0.96
rs61937404	12	58401907	C	T	0.04	0.561(0.188)	0.99
rs61935579	12	60195749	G	A	0.01	0.589(0.317)	0.94
rs73320411	12	65755588	T	C	0.01	1.123(0.344)	0.98
rs1351394	12	66351826	T	C	0.64	0.359(0.081)	1.00
rs549164105	12	69609897	A	G	0.98	0.886(0.332)	0.78
rs4842685	12	90152367	A	G	0.55	0.175(0.081)	0.96
rs117633021	12	93954065	T	C	0.90	0.551(0.128)	0.98
rs199778235	12	94181091	T	G	0.71	0.404(0.093)	0.89
rs66500550	12	102422359	C	G	0.13	0.353(0.118)	1.00
rs56900627	12	102680679	A	G	0.07	0.54(0.152)	1.00
rs4764887	12	102823900	G	A	0.08	0.512(0.148)	1.00
rs61942844	12	103081602	G	A	0.95	0.59(0.169)	1.00
	12	104262029	C	CAA	0.39	0.355(0.087)	0.95
rs6539281	12	107149012	T	C	0.76	0.437(0.092)	1.00
rs4767370	12	116227757	A	G	0.31	0.241(0.082)	1.00
rs58697440	12	117500488	G	A	0.94	0.379(0.164)	1.00

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs10849824	12	121387480	T	C	0.29	0.276(0.088)	1.00
rs114351527	12	122260547	C	T	0.01	1.291(0.367)	1.00
rs150108949	12	123914732	A	G	0.07	0.462(0.162)	0.90
rs79201062	12	124719241	T	C	0.91	0.48(0.133)	1.00
	12	125003673	CACACAG	C	0.02	1.108(0.296)	0.84
rs111917343	13	21576084	T	G	0.99	1.111(0.359)	0.98
rs74691952	13	29991687	T	C	0.98	0.694(0.306)	0.89
rs373928454	13	32993549	ATTTTTTTTTTT	ATTTTTTTTTT	0.96	0.67(0.215)	0.87
rs74045718	13	33807096	G	A	0.97	0.581(0.214)	0.99
rs2477600	13	46865607	C	A	0.07	0.468(0.153)	1.00
rs59602687	13	49377156	T	A	0.89	0.321(0.125)	1.00
rs7334755	13	50469913	C	T	0.16	0.379(0.107)	0.99
rs1149822	13	51134226	C	T	0.65	0.422(0.09)	1.00
rs2210725	13	74977068	T	C	0.54	0.243(0.079)	0.98
rs17740589	13	78677267	T	C	0.08	0.439(0.141)	0.99
rs9601305	13	80613204	T	G	0.27	0.125(0.088)	0.98
rs17073242	13	81321159	C	T	0.15	0.261(0.108)	1.00
rs7323996	13	91991011	T	G	0.91	0.425(0.136)	1.00
rs12018264	13	114942160	A	G	0.09	0.39(0.132)	0.99
rs397719332	14	21861133	G	GA	0.46	0.233(0.091)	0.70
rs35081830	14	23941883	A	G	0.03	0.67(0.216)	1.00
rs4982907	14	24876002	T	C	0.61	0.264(0.084)	1.00
rs117151972	14	35881388	C	T	0.01	1.182(0.373)	0.90
rs4900639	14	37350651	C	T	0.38	0.245(0.083)	1.00
rs141425845	14	37670178	T	G	0.97	0.663(0.215)	0.94
rs73271542	14	55104106	G	A	0.33	0.349(0.086)	0.88
rs1752429	14	59931997	A	G	0.99	1.369(0.363)	1.00
rs12883754	14	61006889	T	C	0.71	0.237(0.087)	1.00
rs8004904	14	65433717	A	G	0.40	0.241(0.081)	0.97
rs112841824	14	68604861	A	AT	0.49	0.193(0.08)	0.96
rs148543698	14	74081376	G	A	0.01	0.826(0.364)	0.99
rs17102009	14	75160123	T	G	0.02	1.123(0.278)	0.96
rs145717876	14	92649836	CATATAT	C	0.23	0.328(0.092)	0.97
rs1007343	14	102980667	A	G	0.94	0.713(0.162)	0.97
	14	103671973	CA	C	0.65	0.245(0.085)	0.89

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs145064777	15	38728466	C	T	0.97	0.606(0.232)	0.87
rs17677811	15	42021512	T	C	0.03	0.799(0.228)	1.00
rs10519170	15	48686175	A	G	0.16	0.312(0.106)	1.00
rs75719128	15	51404622	A	G	0.99	0.858(0.335)	0.99
rs28757154	15	51550667	G	A	0.17	0.481(0.106)	0.99
rs74677486	15	61266411	T	C	0.02	0.824(0.299)	0.92
rs17238210	15	62227395	C	G	0.12	0.368(0.123)	1.00
rs78880342	15	63341262	T	C	0.04	0.555(0.189)	0.99
rs116957410	15	66846232	A	G	0.97	0.962(0.275)	0.78
rs7179840	15	67458930	C	T	0.77	0.34(0.093)	1.00
rs7177804	15	69915374	T	C	0.12	0.402(0.124)	0.95
rs1655216	15	70552355	G	A	0.08	0.502(0.143)	1.00
rs535354133	15	72058133	C	G	0.98	0.984(0.35)	0.63
rs71397246	15	72781549	G	A	0.97	0.76(0.255)	0.92
rs148647622	15	74365264	T	G	0.83	0.33(0.114)	0.80
rs80260619	15	76636106	G	T	0.93	0.566(0.152)	0.96
rs139520377	15	82001442	C	CAGAT	0.20	0.326(0.105)	0.88
rs72749535	15	82448283	T	C	0.01	0.95(0.376)	0.99
rs143995566	15	84206358	AT	A	0.06	0.495(0.167)	0.95
rs34858685	15	84595365	C	CT	0.59	0.329(0.095)	0.65
rs289415	15	85561953	A	G	0.06	0.505(0.164)	0.99
	15	89360788	GA	GAA	0.56	0.316(0.08)	0.98
rs8037675	15	89407786	G	A	0.04	0.967(0.184)	0.99
rs6496581	15	89966555	G	A	0.49	0.35(0.083)	0.99
rs145420978	15	94025417	A	G	0.01	1.224(0.364)	0.86
rs55713638	15	94652520	C	T	0.26	0.3(0.089)	0.99
rs2871865	15	99194896	C	G	0.18	0.424(0.101)	1.00
rs72755233	15	100692953	G	A	0.04	0.776(0.195)	1.00
rs113359671	15	101629363	T	C	0.01	1.264(0.368)	0.97
rs60367374	15	102000365	T	C	0.98	0.873(0.272)	0.97
rs9930455	16	941454	A	G	0.98	1.003(0.282)	0.86
rs61249384	16	1107865	G	A	0.06	0.75(0.205)	0.56
rs546097317	16	2429677	CT	C	0.70	0.241(0.097)	0.71
rs115675162	16	2524885	C	T	0.01	0.912(0.363)	0.99
rs55679833	16	3303817	A	C	0.98	0.759(0.285)	0.74

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs7190663	16	4011223	C	T	0.06	0.478(0.163)	0.90
rs138472327	16	5001600	T	G	0.99	1.373(0.381)	0.88
rs139547389	16	14475955	T	G	0.94	0.485(0.176)	0.85
rs566920319	16	20984061	A	ATTTTTTTT	0.70	0.255(0.087)	0.90
rs554005300	16	29948348	T	A	0.02	0.786(0.27)	0.84
rs12598290	16	50012084	A	G	0.04	0.665(0.221)	0.79
rs61539933	16	51035389	T	C	0.20	0.285(0.098)	0.96
rs568346258	16	53379979	A	G	0.04	0.689(0.227)	0.86
rs397745266	16	67197776	CG	C	0.05	0.723(0.216)	0.65
rs56749289	16	70087637	C	G	0.91	0.465(0.136)	0.93
rs1065360	16	72110781	T	C	0.06	0.493(0.17)	0.97
rs58241006	16	75373485	C	A	0.04	0.808(0.213)	1.00
rs111618805	16	81765989	A	G	0.98	1.018(0.327)	0.85
rs11646832	16	81986537	G	C	0.07	0.408(0.149)	0.99
rs116910794	16	84784094	C	T	0.99	1.201(0.348)	0.95
rs1809844	16	86188011	C	T	0.43	0.193(0.077)	1.00
	16	86810226	CAAAAT	GAAAAT	0.01	1.176(0.353)	0.89
rs75665989	16	87211260	G	A	0.96	0.652(0.191)	1.00
rs72558364	16	88715596	T	C	0.01	1.277(0.376)	0.76
rs455868	16	89649675	G	A	0.71	0.258(0.089)	0.92
rs553336215	16	89994932	A	ATT	0.49	0.318(0.082)	0.99
rs139423936	17	837430	C	A	0.98	1.075(0.338)	0.76
rs6503029	17	7398512	A	G	0.83	0.32(0.102)	1.00
rs4468690	17	7940754	T	C	0.89	0.31(0.12)	1.00
rs201639798	17	12071235	T	G	0.02	1.104(0.324)	0.78
rs12165024	17	21184320	G	C	0.02	0.768(0.27)	0.98
rs61737980	17	27957939	C	T	0.01	0.991(0.348)	1.00
rs6505216	17	29206421	G	T	0.21	0.548(0.101)	0.90
rs568379196	17	30134539	GTT	G	0.06	0.651(0.172)	0.81
rs111500107	17	36990451	A	G	0.97	0.652(0.229)	0.93
rs3136685	17	38719799	T	C	0.77	0.237(0.091)	1.00
rs10671974	17	40911425	G	GT	0.56	0.269(0.078)	0.95
rs4792867	17	43249444	C	T	0.21	0.292(0.094)	1.00
rs60458827	17	44853574	T	C	0.97	0.572(0.241)	0.98
rs59934550	17	46242955	T	C	0.27	0.29(0.087)	1.00

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs35772538	17	46431254	C	T	0.82	0.298(0.104)	1.00
rs2546494	17	46959525	G	A	0.40	0.274(0.079)	0.99
rs634370	17	47287109	G	A	0.32	0.295(0.084)	1.00
rs9908227	17	49388825	A	G	0.98	0.988(0.298)	0.99
rs13341071	17	54215406	C	T	0.99	1.384(0.321)	0.99
rs8073955	17	54685404	A	G	0.98	0.849(0.269)	0.97
rs758467	17	59314257	A	C	0.84	0.465(0.106)	1.00
rs2079795	17	59496649	T	C	0.58	0.353(0.078)	1.00
rs60026833	17	61647986	T	G	0.95	0.739(0.185)	0.98
rs6175	17	61996196	G	C	0.96	0.869(0.216)	0.89
rs8072643	17	63513501	G	T	0.98	0.789(0.294)	0.85
rs884167	17	66471094	T	A	0.12	0.332(0.121)	0.96
rs146263262	17	68144637	A	AT	0.99	0.973(0.329)	0.99
rs12952286	17	70046189	C	T	0.71	0.339(0.084)	0.99
rs1671015	17	73572128	C	T	0.04	0.526(0.199)	1.00
rs117259737	17	76802903	G	A	0.01	1.193(0.359)	0.88
rs111303369	17	79516190	C	T	0.96	0.654(0.203)	0.99
rs373411465	17	79971752	T	G	0.02	1.062(0.307)	0.63
rs58112781	18	2639976	A	G	0.72	0.25(0.089)	1.00
rs80110115	18	13254043	A	G	0.95	0.564(0.168)	1.00
rs7233852	18	19601009	T	C	0.94	0.452(0.163)	1.00
rs369768441	18	20673393	CGT	C	0.65	0.309(0.084)	0.94
rs75026826	18	45884142	T	C	0.98	0.874(0.26)	1.00
rs12963372	18	46184974	G	A	0.93	0.547(0.152)	1.00
rs74561403	18	46378452	A	T	0.90	0.461(0.128)	1.00
rs833502	18	46634577	T	G	0.24	0.255(0.092)	1.00
rs534777750	18	46981114	C	CA	0.21	0.266(0.095)	0.96
rs4609950	18	57643039	C	T	0.03	0.611(0.267)	0.77
rs112925811	18	75047602	A	G	0.99	1.02(0.36)	0.99
rs76338108	18	77280063	C	T	0.06	0.453(0.158)	1.00
rs9967630	19	2099820	G	A	0.45	0.318(0.079)	1.00
rs113124571	19	3306072	G	A	0.63	0.357(0.088)	0.83
rs35299700	19	4828938	T	C	0.82	0.282(0.099)	0.98
rs397976349	19	7207592	C	CA	0.42	0.256(0.077)	0.99
rs62621197	19	8670147	C	T	0.04	0.695(0.207)	0.98

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs12720260	19	10478144	C	T	0.96	0.513(0.195)	1.00
rs76359824	19	10721530	G	A	0.09	0.517(0.144)	0.92
rs538143217	19	12285672	CT	C	0.03	0.715(0.254)	0.74
rs3745163	19	17337555	C	A	0.24	0.34(0.091)	0.99
rs11669075	19	19809052	T	C	0.85	0.368(0.109)	1.00
rs55705533	19	19882950	A	G	0.96	0.789(0.205)	0.88
rs146716239	19	31211704	CT	C	0.98	1.033(0.306)	0.96
rs80097829	19	38520041	T	C	0.98	0.525(0.264)	0.98
rs34326763	19	41729713	C	G	0.96	0.705(0.22)	0.74
rs79680196	19	42680220	A	G	0.03	0.674(0.247)	0.92
rs8100565	19	44308764	G	A	0.61	0.312(0.082)	0.99
rs73036937	19	48318764	T	C	0.86	0.342(0.111)	0.96
rs199841013	20	3970137	CA	C	0.75	0.341(0.099)	0.79
rs6107854	20	6611463	C	G	0.02	0.891(0.3)	0.98
rs6117484	20	6865658	G	A	0.94	0.494(0.157)	1.00
rs34280455	20	17755576	G	A	0.84	0.562(0.105)	1.00
rs7261425	20	20068635	C	G	0.26	0.308(0.088)	0.99
rs34554466	20	20368535	A	T	0.28	0.272(0.087)	0.99
rs79248076	20	21218860	G	T	0.99	1.262(0.328)	1.00
rs574091278	20	32146999	C	T	0.99	0.953(0.329)	1.00
	20	33769075	ATTTT	A	0.54	0.293(0.081)	1.00
rs143384	20	34025756	G	A	0.58	0.343(0.084)	1.00
rs200679606	20	34519992	G	GT	0.79	0.395(0.095)	0.98
rs1291126	20	35509409	G	T	0.34	0.396(0.087)	0.99
rs12479877	20	38669431	C	T	0.03	0.747(0.248)	0.97
rs8119476	20	47690136	T	C	0.83	0.414(0.103)	1.00
rs117909972	20	48791879	A	G	0.97	0.87(0.239)	0.92
rs7272702	20	55033782	T	G	0.98	1.033(0.302)	1.00
rs113294200	20	57479358	TTTAACA	T	0.98	1.105(0.311)	0.94
rs79979196	20	58006680	G	T	0.99	1.207(0.328)	0.96
rs73918285	20	61147693	C	T	0.93	0.413(0.156)	0.97
rs375106574	21	27417594	TA	T	0.03	0.981(0.281)	0.72
rs75524323	21	35659884	G	A	0.86	0.348(0.123)	1.00
rs11910230	21	39439370	C	T	0.60	0.267(0.08)	1.00
rs552062473	21	47553708	T	C	0.98	1.05(0.305)	0.97

Supplementary table 5: SNPs composing GRS2. Position is given in genome build 37. A1 is the trait-increasing allele, A2 is the other allele. A1-freq, effects, SEs, and imputation info scores are in the HCHS/SOL.

SNP	Chr	position	A1	A2	A1-freq (SOL)	Effect-SE (SOL)	Info
rs9621564	22	33182007	G	A	0.75	0.295(0.093)	0.92
rs145530421	22	37921434	T	C	0.98	0.82(0.294)	0.88
rs12157359	22	39113405	C	T	0.01	1.189(0.331)	0.96
rs117210036	22	39732190	G	T	0.97	0.649(0.218)	0.93
rs74408194	22	45624439	G	C	0.97	1.012(0.275)	0.71
	X	3114297	T	TTTA	0.55	0.22(0.071)	0.80

PRS	Descriptions	n SNPs	Height variance explained	Estimated effect size (95% CI)
PRS1 (primary)	Constructed based on GWAS in European, African, and Asian populations	801	9%	1.86 (1.75-1.97)
PRS2 (primary)	Adapted to HCHS/SOL Hispanics/Latinos by using most associated SNPs from each genomic association region	604	29%	3.29 (3.20-3.38)
LD-pruned PRS1	SNPs removed from PRS1 so that of remaining SNPs, every pair of SNP has LD below 0.5	726	8.83%	1.87 (1.76,1.98)
LD-pruned PRS2	SNPs removed from PRS2 so that of remaining SNPs, every pair of SNP has LD below 0.5	597	28.92%	3.3 (3.21,3.39)
PRS2- multiple testing adjusted	SNPs were selected from LD-pruned PRS2 if p -value $\leq 0.05/\text{effSNP}$.	93	9.23%	1.83 (1.73-1.94)

Supplementary table 6: **The PRSs and height.** Comparison between the primary and sensitivity analyses PRSs. Estimated effect sizes refer to change in height per 1-SD increase in the PRS.

Trait	Sample size	PRS1 (LD pruned)		PRS2 (LD pruned)		PRS2 (LD, 0.05/effSNP)	
		Effects (95% CI) ^a	P-value	Effects (95% CI) ^a	P-value	Effects (95% CI) ^a	P-value
Anthropometry							
BMI	12750	0 (-0.018,0.019)	0.993	0 (-0.018,0.017)	0.967	-0.008 (-0.026,0.009)	0.365
Blood pressure							
Systolic BP	12776	-0.005 (-0.021,0.012)	0.581	-0.015 (-0.031,0)	0.047	-0.02 (-0.035,-0.004)	0.012
Diastolic BP	12770	-0.004 (-0.021,0.014)	0.696	-0.008 (-0.024,0.009)	0.372	-0.007 (-0.023,0.01)	0.432
Pulse pressure	12770	-0.003 (-0.019,0.013)	0.695	-0.015 (-0.031,0)	0.049	-0.022 (-0.037,-0.007)	0.005
Lung function							
FEV1	11826	0.07 (0.059,0.082)	< 0.001	0.143 (0.132,0.154)	< 0.001	0.079 (0.068,0.09)	< 0.001
FVC	11826	0.09 (0.078,0.102)	< 0.001	0.172 (0.161,0.183)	< 0.001	0.1 (0.088,0.111)	< 0.001
FEV1/FVC	11768	-0.049 (-0.066,-0.031)	< 0.001	-0.063 (-0.08,-0.046)	< 0.001	-0.047 (-0.064,-0.03)	< 0.001
Lipid measures							
Total cholesterol	12776	-0.025 (-0.042,-0.007)	0.007	-0.027 (-0.044,-0.01)	0.002	-0.022 (-0.039,-0.005)	0.011
HDL cholesterol	12775	0.009 (-0.009,0.027)	0.326	-0.02 (-0.037,-0.003)	0.022	-0.006 (-0.023,0.011)	0.461
LDL cholesterol	12512	-0.023 (-0.041,-0.005)	0.014	-0.023 (-0.04,-0.005)	0.011	-0.019 (-0.037,-0.002)	0.029
Triglycerides	12776	-0.025 (-0.043,-0.008)	0.005	-0.011 (-0.027,0.006)	0.215	-0.011 (-0.028,0.006)	0.202
Glycemic traits							
Glucose, fasting	12775	0.006 (-0.012,0.024)	0.535	0.01 (-0.007,0.027)	0.267	0 (-0.017,0.017)	0.992
Glucose, 2h-OGTT	10493	-0.019 (-0.038,0)	0.050	-0.04 (-0.058,-0.022)	< 0.001	-0.027 (-0.045,-0.009)	0.003
Insulin, fasting	12737	0.008 (-0.011,0.027)	0.403	0.016 (-0.001,0.034)	0.071	0.004 (-0.014,0.022)	0.665
Insulin, 2h-OGTT	10476	-0.032 (-0.052,-0.012)	0.001	-0.05 (-0.069,-0.031)	< 0.001	-0.036 (-0.055,-0.017)	< 0.001
HOMA-IR 12736		0.009 (-0.01,0.027)	0.351	0.018 (0,0.035)	0.048	0.003 (-0.015,0.021)	0.741
Hemoglobin A1c	12731	0.005 (-0.012,0.022)	0.564	0.012 (-0.005,0.028)	0.155	-0.001 (-0.018,0.015)	0.879
Inflammation, kidney, peripheral artery disease							
hsCRP	12774	0.002 (-0.016,0.021)	0.798	-0.022 (-0.04,-0.005)	0.011	-0.022 (-0.04,-0.005)	0.011
eGFR	12687	-0.008 (-0.022,0.006)	0.246	-0.033 (-0.046,-0.02)	< 0.001	-0.021 (-0.035,-0.008)	0.002
		OR (95% CI) ^a	P-value	OR (95% CI) ^a	P-value	OR (95% CI) ^a	P-value
ABI>1 vs ABI ≤0.9	6114	0.89 (0.8,0.99)	0.028	0.87 (0.79,0.97)	0.009	0.98 (0.88,1.09)	0.706
ABI>1 vs ABI ≤1	7491	0.9 (0.85,0.96)	0.001	0.85 (0.804,0.899)	< 0.001	0.94 (0.89,1)	0.033

Supplementary table 7: **Associations of sensitivity analysis PRSs with cardiometabolic traits in the HCHS/SOL** (men and women combined). PRS: polygenic risk score; CI: confidence interval; BMI: body mass index; FEV1: forced expiratory volume in 1 second; FVC: forced vital capacity; HDL: high-density lipoprotein; LDL: low-density lipoprotein; 2h-OGTT: 2-h post-oral glucose tolerance test; HOMA-IR: homeostatic model assessment of insulin resistance; hsCRP: high sensitivity C-reactive protein; eGFR: estimated glomerular filtration rate; OR: odds ratio.

^a Effects are for a one (1) standard deviation (SD) increase in each PRS.