

Supplementary Table I: Age-, sex-, and population stratification-adjusted univariate GCTA models for cognition and height.

	n	V(G)	SE	V(e)	SE	Vp	SE	V(G)/Vp	SE
g	6,609	0.269	0.052	0.685	0.051	0.954	0.017	0.282	0.054
Height	6,792	22.903	2.194	16.836	2.048	39.739	0.694	0.576	0.052

g: general intelligence derived from principal components analysis.

V(G): genetic variance, V(e): residual variance, Vp: phenotypic variance, V(G)/Vp: ratio of genetic variance to phenotypic variance.

Supplementary Table II: Age-, sex-, and population stratification-adjusted bivariate GCTA model of cognition and height.

	n	V(G) <sub>tr1</sub>	SE	V(G) <sub>tr2</sub>	SE	C(G) <sub>tr12</sub>	SE	V(e) <sub>tr1</sub>	SE	V(e) <sub>tr2</sub>	SE	C(e) <sub>tr12</sub>	SE	Vp <sub>tr1</sub>	SE	Vp <sub>tr2</sub>	SE	V(G)/Vp <sub>tr1</sub>	SE	V(G)/Vp <sub>tr2</sub>	SE	r <sub>G</sub>	SE
g :	6,609:																						
Height	6,792	0.264	0.052	22.878	2.194	0.682	0.242	0.690	0.052	16.859	2.048	0.285	0.233	0.954	0.017	39.737	0.694	0.277	0.054	0.576	0.052	0.277	0.095

g: general intelligence derived from principal components analysis.

$V(G)_{tri}$ : genetic variance for trait  $i$ ,  $V(e)_{tri}$ : residual variance for trait  $i$ ,  $Vp_{tri}$ : phenotypic variance for trait  $i$ ,  $V(G)/Vp_{tri}$ : ratio of genetic variance to phenotypic variance for trait  $i$ ,  $C(G)_{tri}$ : genetic covariance for trait  $i$ ,  $C(e)_{tri}$ : residual covariance for trait  $i$ ,  $r_G$ : genetic correlation.

Bivariate heritability was calculated as  $C(G)_{tr12} / (C(G)_{tr12} + C(e)_{tr12})$

## **Supplementary Figures**

Supplementary Figure 1: Comparison of log-Likelihoods and residual errors for linear regression models of age-, sex-, and population stratification (up to 20 principal components)-adjusted cognition and height.