

Online Appendix B

Table. Summary of published results for bivariate genetic analysis of metabolic syndrome-related traits for which ρ_g was significantly different from zero

Trait Pair or Group	Statistical Method	h_1^2 / h_2^2	ρ_g	Study Population (reference number)
BMI, IR, TG, HDL-C, and SBP	Structural-equation models	Not reported	6% - 52%*	289 Swedish twin pairs (1)
BMI/TG	Variance-components models	0.36/0.27	0.29	537 adults from 89 healthy white families in UK (2)
BMI/SBP	Variance-components models	0.359/0.300	0.146	5376 individuals from 2184 households in Italy (3)
BMI/SBP	Path analysis	0.54/0.57	14.0%†	331 individuals of 73 Hispanic families with a hypertensive proband (4)
BMI/SBP	Variance-components models	0.36/0.29	0.63	537 adults from 89 healthy white families in UK (2)
BMI/DBP	Variance-components models	0.359/0.175	0.286	5376 individuals from 2184 households in Italy (3)
BMI/URIC	Variance-components models	0.359/0.214	0.234	5376 individuals from 2184 households in Italy (3)
BMI/Glucose	Variance-components models	0.359/0.160	0.307	5376 individuals from 2184 households in Italy (3)
Insulin/BMI	Variance-components models	0.442/0.530	0.486	767 nondiabetic individuals from 41 Mexican-American families (5)
Insulin/TG	Variance-components models	0.442/0.498	0.297	767 nondiabetic individuals from 41 Mexican-American families (5)
Insulin/HDL-C	Variance-components models	0.442/0.543	-0.356	767 nondiabetic individuals from 41 Mexican-American families (5)
Insulin/HDL-C	Variance-components models	0.42/0.47	-0.334	1116 nondiabetic individuals from 42 Mexican-American families (6)
PAI-1/TG	Structural-equation models	0.42/0.38	1.00	217 Swedish twin pairs (7)
PAI-1/TG	Variance-components models	0.27/0.27	0.59	537 adults from 89 healthy white families in UK (2)
PAI-1/BMI	Structural-equation models	0.42/0.30	0.63	217 Swedish twin pairs (7)
PAI-1/BMI	Variance-components models	0.27/0.36	0.49	537 adults from 89 healthy white families in UK (2)
PAI-1/WHR	Variance-components models	0.27/0.15	0.42	537 adults from 89 healthy white families in UK (2)
PAI-1/SBP	Variance-components models	0.27/0.29	0.61	537 adults from 89 healthy white families in UK (2)
PAI-1/CRP	Variance-components models	0.24/0.46	0.46	1294 American Indian relative pairs (8)
ICAM-1/Insulin	Variance-components models	0.56/0.43	0.45	428 adults from 20 extended Mexican-American families (9)
ICAM-1/BMI	Variance-components models	0.56/0.50	0.32	428 adults from 20 extended Mexican-American families (9)
ICAM-1/Waist	Variance-components models	0.56/0.43	0.45	428 adults from 20 extended Mexican-American families (9)

*Common genetic factors accounted for 6% (SBP) to 52% (BMI) of variation in these traits (genetic correlations were not reported);

†14.0% of variation in SBP was accounted for by heritable effects related to BMI;

h_1^2 = heritability for trait 1; h_2^2 = heritability for trait 2; ρ_g = additive genetic correlation unless otherwise explained;

IR = insulin resistance represented by the homeostasis model assessment index; WHR = waist-hip ratio; ICAM-1 = endothelial intercellular adhesion molecular-1;

See table 2 of the paper for abbreviations of other variables.

References

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