

Supplemental table 1: Metabolic syndrome definition according to the International Diabetes Federation (IDF, 2006)^a

♂ Waist circumference (cm)	≥ 94
♀ Waist circumference (cm)	≥ 80
Fasting plasma glucose (mmol/L)	≥ 5.6 ^{b,c}
Systolic bloodpressure (mm Hg)	≥ 130 ^c
Diastolic blood pressure (mm Hg)	≥ 85 ^c
♂ HDL-Cholesterol (mmol/L)	< 1.03 ^c
♀ HDL-Cholesterol (mmol/L)	< 1.29 ^c
Triglycerides (mmol/L)	≥ 1.7 ^c

^a Europids

^b included previously diagnosed type 2 diabetes patients

^c included treatment patients.

Supplemental table 2: Partial correlation coefficients of plasma adiponectin with the MetS, its individual components and MetS related traits.

	Women (n=1258)	Men (n=967)
Metabolic syndrome and its individual components		
Metabolic Syndrome	-0.20 **	-0.13 **
Waist circumference	-0.23 **	-0.12 *
Glucose	-0.10 **	-0.04
HDL-cholesterol	0.35 **	0.27 **
Triglycerides	-0.21 **	-0.15 **
SBP	-0.03	0.01
DBP	0.03	-0.04
Metabolic syndrome related traits		
Body mass index ¥	-0.29 **	-0.20 **
Insulin	-0.17 **	-0.10 **
HOMA-IR	-0.18 **	-0.10 **
CRP	-0.12 **	-0.08 *

SBP: systolic blood pressure; DBP: diastolic blood pressure; HOMA-IR: Homeostatic Model Assessment-Insulin Resistance; CRP: C-reactive protein. Partial correlation coefficient: * P-value < 0.05; ** P-value < 0.01, covariates age and body mass index, ¥ covariate age only.

Supplemental table 3: Gender specific heritability of the MetS related traits

	Women			Men			ρ_G	SE	P
	h^2 (%)	SE	P	h^2 (%)	SE	P			
Adiponectin	52.9	6.5	<10 ⁻¹⁵	59.6	7.5	<10 ⁻¹⁴	100.0	-	-
Insulin	28.2	7.4	<10 ⁻⁰³	21.6	7.3	<10 ⁻⁰³	100.0	-	-
HOMA-IR	28.1	7.7	<10 ⁻⁰³	24.5	9.4	<10 ⁻⁰³	100.0	-	-
CRP	32.2	8.1	<10 ⁻⁰⁴	17.1	9.8	0.08	91.7	28.6	0.77

ρ_G : genetic correlation (%); ρ_E : environmental correlation (%). HOMA: Homeostatic Model Assessment-Insulin Resistance; CRP: C-reactive protein. P: P-values were derived using the χ^2 test.

Supplemental table 4: Bayesian information criterion for 5 *ADIPOQ* SNPS with plasma adiponectin

nr	rs822387	rs17300539	rs182052	rs1501299	rs6773957	BIC/1000
1	0	0	0	0	0	2.567
2	1	0	0	0	0	2.491
3	0	1	0	0	0	2.498
4	0	0	1	0	0	2.505
5	0	0	0	1	0	2.510
6	0	0	0	0	1	2.498
7	1	1	0	0	0	2.463
8	0	0	0	1	1	2.452
9	1	0	1	0	0	2.460
10	1	0	0	1	0	2.446
11	1	0	0	0	1	2.453
12	0	1	1	0	0	2.463
13	0	1	0	1	0	2.454
14	0	1	0	0	1	2.493
15	0	0	1	1	0	2.482
16	0	0	1	0	1	2.501
17	1	1	1	0	0	2.424
18	1	0	1	1	0	2.433
19	1	1	0	1	0	2.422
20	1	1	0	0	1	2.449
21	0	1	1	1	0	2.439
22	0	1	1	0	1	2.485
23	0	0	1	1	1	2.457
24	1	0	0	1	1	2.450
25	0	1	0	1	1	2.435
26	1	0	1	0	1	2.448
27	1	1	1	1	0	2.420
28	1	1	1	0	1	2.410
29	0	1	1	1	1	2.441
30	1	1	0	1	1	2.426
31	1	0	1	1	1	2.439
32	1	1	1	1	1	2.413

Thirty two Bayesian information criterion (BIC) models based on the log-likelihood estimates, calculated using the parameters gender, age, BMI and SNP(s). N=1914. BIC presented as BIC/1000.