

Electronic supplementary material

ESM Table 1 Association of *GCK*, *GCKR*, *G6PC2* and *MTNR1B* with clinical variables in non-diabetic participants from the NHS ($n=2361$)

Variant	FPG (mmol/l)	2 h glucose (mmol/l)	HbA_{1c} (%)	TG (mmol/l)	LDL (mmol/l)	HDL (mmol/l)	TC (mmol/l)	BMI (kg/m²)	WHR
<i>GCK</i> (rs1799884)									
GG	5.39 (0.01)	5.37 (0.04)	5.34 (0.01)	1.39 (0.02)	3.31 (0.02)	1.53 (0.01)	5.45 (0.03)	25.97 (0.10)	0.89 (0.001)
GA	5.45 (0.02)	5.49 (0.06)	5.40 (0.01)	1.39 (0.03)	3.36 (0.04)	1.51 (0.02)	5.50 (0.04)	25.91 (0.15)	0.89 (0.002)
AA	5.47 (0.05)	5.68 (0.18)	5.44 (0.03)	1.31 (0.09)	3.29 (0.11)	1.48 (0.05)	5.36 (0.12)	25.89 (0.47)	0.89 (0.006)
<i>p</i> value	0.001	0.06	5×10^{-8}	0.86 ^a	0.39	0.46	0.40	0.94	0.79
<i>GCKR</i> (rs1260326)									
TT	5.35 (0.03)	5.40 (0.08)	5.33 (0.02)	1.56 (0.05)	3.33 (0.05)	1.52 (0.02)	5.54(0.06)	25.85 (0.23)	0.89 (0.003)
TC	5.39 (0.01)	5.36 (0.04)	5.35 (0.01)	1.39 (0.02)	3.32 (0.03)	1.52 (0.01)	5.46 (0.03)	25.78 (0.12)	0.89 (0.002)
CC	5.38 (0.01)	5.19 (0.04)	5.35 (0.01)	1.30 (0.02)	3.35 (0.03)	1.54 (0.01)	5.47 (0.03)	25.94 (0.12)	0.89 (0.002)
<i>p</i> value	0.23	0.008	0.50	9×10^{-7a}	0.76	0.37	0.53	0.66	0.63
<i>G6PC2</i> (rs560887)									
AA	5.32 (0.03)	5.42 (0.09)	5.30 (0.02)	1.33 (0.05)	3.23 (0.06)	1.57 (0.03)	5.39 (0.07)	25.87 (0.26)	0.89 (0.004)
AG	5.36 (0.01)	5.34 (0.05)	5.34 (0.01)	1.37 (0.03)	3.31 (0.03)	1.51 (0.01)	5.44 (0.03)	25.93 (0.12)	0.89 (0.002)

Variant	FPG (mmol/l)	2 h glucose (mmol/l)	HbA_{1c} (%)	TG (mmol/l)	LDL (mmol/l)	HDL (mmol/l)	TC (mmol/l)	BMI (kg/m²)	WHR
GG	5.43 (0.01)	5.33 (0.04)	5.37 (0.01)	1.39 (0.02)	3.36 (0.03)	1.52 (0.01)	5.50 (0.03)	25.87 (0.12)	0.89 (0.002)
<i>p</i> value	5×10 ⁻⁶	0.67	3×10 ⁻⁵	0.30 ^a	0.12	0.18	0.18	0.93	0.99
<i>MTNR1B</i> (rs10830963)									
CC	5.37 (0.01)	5.40 (0.04)	5.35 (0.01)	1.38 (0.02)	3.34 (0.03)	1.52 (0.01)	5.48 (0.03)	25.88 (0.11)	0.89 (0.001)
CG	5.44 (0.01)	5.38 (0.05)	5.37 (0.01)	1.38 (0.03)	3.28 (0.03)	1.54 (0.01)	5.43 (0.03)	25.93 (0.13)	0.89 (0.002)
GG	5.52 (0.04)	5.50 (0.12)	5.40 (0.02)	1.45 (0.07)	3.34 (0.08)	1.48 (0.03)	5.47 (0.08)	26.63 (0.33)	0.89 (0.004)
<i>p</i> value	7×10 ⁻⁸	0.62	0.01	0.26 ^a	0.29	0.27	0.54	0.09	0.82

Association of fasting plasma glucose (FPG), 2 h glucose (2hrG), HbA_{1c}, triacylglycerol (TG), LDL, HDL, total cholesterol (TC), BMI and waist:hip ratio (WHR) with SNPs in *GCK*, *GCKR*, *G6PC2* and *MTNR1B*

Data are estimated means, adjusted for age, sex and BMI and SDs are given

The *p* values are calculated with log₁₀-transformed triacylglycerol values

^aNon-transformed values are shown