

## Supplementary Materials

### GPSs evaluated in the study and the risk score calculation.

GPS: genetic prediction risk score. SNP: single nucleotide polymorphism. GPSs are calculated by using an additive model based on the total number of risk alleles in each genotype of the assessed SNP.

#### GPS diabetes

SNP	GENE	Minor Allele	Major allele	Risk allele	Protective allele	Risk homozygote	Risk heterozygote
rs4343	ACE	G	A	G	n.a.	2	1
rs16861209	ADIPOQ	A	C	A	n.a.	2	1
rs5186	AGTR1	C	A	C	n.a.	2	1
CD010	APOC3	A	G	A	n.a.	2	1
rs7754840	CDKAL1	C	G	C	n.a.	2	1
rs10811661	CDKN2B	C	T	C	n.a.	2	1
rs696217	GHRL	T	G	T	n.a.	2	1
rs1800795	IL6	C	G	n.a.	C	-2	-1
rs12970134	MC4R	A	G	A	n.a.	2	1
rs1800206	PPARA	G	C	G	n.a.	2	1
rs1801282	PPARG	G	C	C	n.a.	2	1
rs7903146	TCF7L2	T	C	T	n.a.	2	1
rs10010131	WFS1	A	G	n.a.	A	-2	-1
CD014	PON1	T	A	A	n.a.	1	0

#### GPS Appetite regulation

SNP	GENE	Minor Allele	Major allele	Risk allele	Protective allele	Risk homozygote	Risk heterozygote
rs6265	BDNF	A	G	G	n.a.	2	1
rs925946	BDNFOS	T	G	T	n.a.	2	1
rs12535708	LEP	A	C	C	n.a.	2	1
rs52820871	MC4R	G	T	n.a.	G	-2	-1
rs17700633	MC4R	A	G	A	n.a.	2	1
rs2229616	MC4R	A	G	n.a.	A	-2	-1

rs10838738	MTCH2	G	A	G	n.a.	2	1
rs4580704	CLOCK	G	C	C	n.a.	1	0
rs4864548	CLOCK	A	G	A	n.a.	2	1
rs17782313	MC4R	C	T	C	n.a.	2	1

### GPS- Weight loss in response to exercise

SNP	GENE	Minor Allele	Major allele	Risk allele	Protective allele	Risk homozygote	Risk heterozygote
rs328	LPL	G	C	n.a.	G	2	1
rs696217	GHRL	T	G	n.a.	T	2	1
rs4994	ADRB3	C	T	n.a.	C	2	1
rs1800795	IL6	C	G	n.a.	C	2	1
rs9693898	Chr.8	G	A	G	n.a.	2	1

### GPS weight loss in response to diet

SNP	GENE	Minor Allele	Major allele	Risk allele	Protective allele	Risk homozygote	Risk heterozygote
rs2419621	ACSL5	T	C	n.a.	T	2	2
rs5082	APOA2	T	C	n.a.	C	2	0
rs651821	APOA5	C	T	n.a.	C	2	1
rs894160	PLIN1	A	G	n.a.	A	2	1
rs1137100	LEPR	G	A	n.a.	A	2	0
rs1800849	UCP3	T	C	n.a.	C	2	0
rs659366	UCP2	T	C	n.a.	T	2	1
rs1801282	PPARG	G	C	G	n.a.	-2	-2
rs6824447	Chr.4	G	A	G	n.a.	2	1
rs1052700	PLIN	A	T	n.a.	A	2	0

**GPS-life style interventions (Moleres)**

<b>SNP</b>	<b>GENE</b>	<b>Minor Allele</b>	<b>Major allele</b>	<b>Risk allele</b>	<b>Protective allele</b>	<b>Risk homozygote</b>	<b>Risk heterozygote</b>
rs9939609	FTO	A	T	A	n.a.	2	1
rs17782313	MC4R	C	T	C	n.a.	2	1
rs1800795	IL-6	C	G	C	n.a.	2	1
rs1801282	PPARG	G	C	G	n.a.	2	1
rs2241766	ADIPOQ	G	T	T	n.a.	2	1

**GPS-bariatric surgery (Still)**

<b>SNP</b>	<b>GENE</b>	<b>Minor Allele</b>	<b>Major allele</b>	<b>Risk allele</b>	<b>Protective allele</b>	<b>Risk homozygote</b>	<b>Risk heterozygote</b>
rs7566605	INSIG2	C	G	C	n.a.	2	1
rs9939609	FTO	A	T	A	n.a.	2	1
rs17782313	MC4R	C	T	C	n.a.	2	1
rs6235	PCSK1	C	G	C	n.a.	2	1