

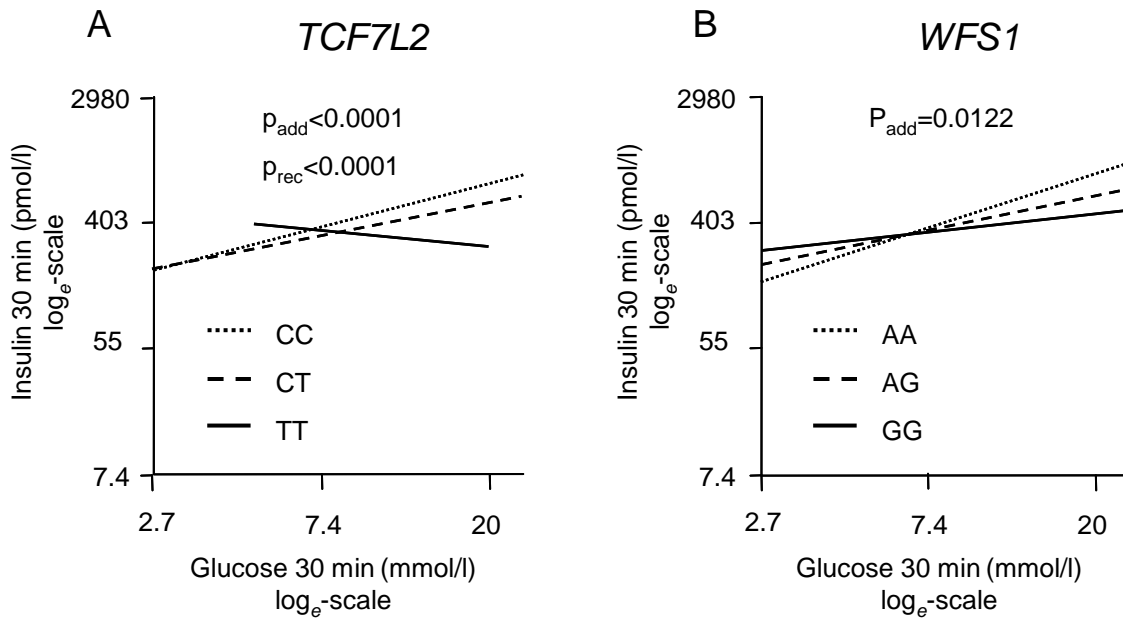
ONLINE APPENDIX

Glycemia determines the effect of type 2 diabetes risk genes on insulin secretion

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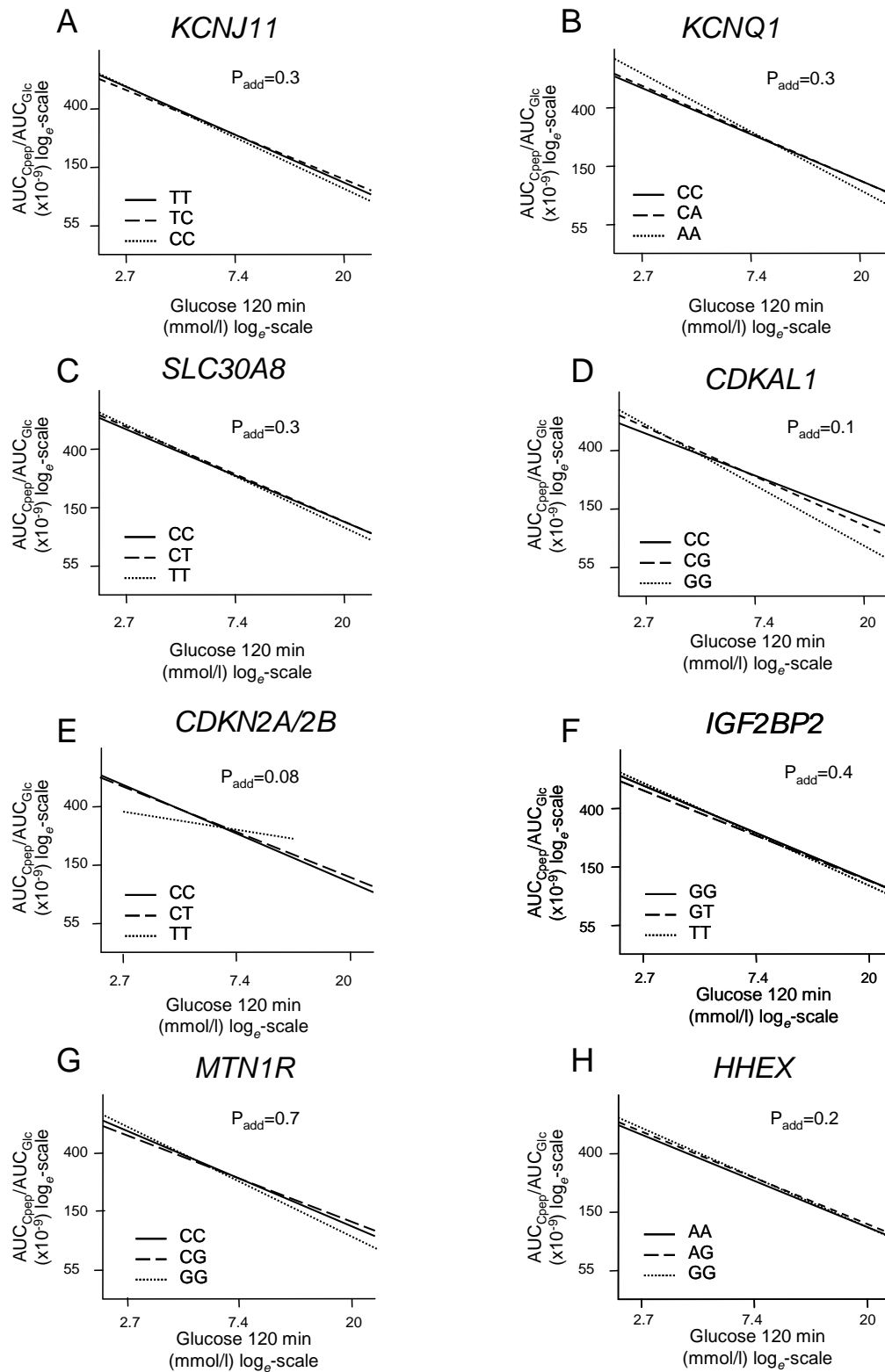
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Supplemental figure 1 Association between insulin levels at 30 minutes of the OGTT and glucose levels at 30 minutes during the OGTT by *TCF7L2* SNP rs7903146 (A) and *WFS1* SNP rs10010131 (B). Lines represent regression lines.

Data were \log_e -transformed prior to statistical analysis. Insulin data were adjusted for gender, age, and BMI by multivariate linear regression analysis.



Supplemental figure 2 Association between $AUC_{C_{\text{pep}}}/AUC_{Glc}$ and Glucose 120 min by genotypes.

Shown are data for rs5215 (*KCNJ11*, **A**), rs151290 (*KCNQ1*, **B**), rs13266634 (*SLC30A8*, **C**), rs7754840 (*CDKAL1*, **D**), rs10811661 (*CDKN2A/2B*, **E**), rs4402960 (*IGF2BP2*, **F**), rs10830963 (*MTNR1B*, **G**), and rs7923837 (*HHEX*, **H**).

Lines represent regression lines. Data were \log_e -transformed prior to statistical analysis and adjusted for gender, age, BMI, and OGTT-derived insulin sensitivity index by multivariate linear regression analysis.

Supplemental table 1. Clinical characteristics of the study population.

	Cross-sectional study	<i>TCF7L2</i> rs7903146 (Lifestyle intervention)	Lifestyle intervention study baseline	Lifestyle intervention study follow up	P Change during lifestyle inter-vention	P Difference in change between <i>TCF7L2</i> genotype
Gender (female / male)	1025/529		197/118			
NGT / IFG / IGT / IFG&IGT / DIA	1079/143/138/112/82		186/39/45/41/4	244/0/41/25/5	<0.0001	
Age (y)	40±13		46±11			
BMI (kg/m ²)	28.6±7.9		30.1±5.6	29.2±5.6	<0.0001	
Fasting insulin (pM)	65±58		62±37	53±33	<0.0001	
Fasting glucose (mM)	5.2±0.8	CC (n=156) XT (n=159)	5.2±0.5 5.3±0.5	5.1±0.5 5.2±0.6	<0.0001 0.04	p=0.2*
Glucose, 120min OGTT (mM)	6.5±2.1	CC (n=156) XT (n=159)	6.9±1.6 7.2±1.7	6.6±1.5 6.9±1.8	0.03 0.006	p=0.9*

Values are given as mean ± SD

*Difference in change of parameter between *TCF7L2* genotype is calculated using a multivariate linear model including, age, gender, change in BMI and baseline value of the parameter