DGI Trait Document: 2 hour Glucose (during an OGTT)

Measurement:
Plasma glucose (mmol/L) measured by a glucose oxidase method

1) Blood glucose from venous blood (B-Gluc) and converted to plasma glucose value (correction factor 1.13)
2) Plasma from venous blood using Beckman or Hemocue Glucose Analyzers
3) Plasma from capillary blood using a Hemocue Glucose Analyzer

Trait Distribution:

Sample	n	Mean (μU/ml)	SD (μU/ml)	Median (μU/ml)	IQR (μU/ml)
Non-diabetes controls	1437	5.61	1.28	5.65	4.70, 6.50 (1.80)
Males	695	5.46	1.30	5.50	4.51, 6.40 (1.89)
Females	742	5.75	1.26	5.76	4.86, 6.67 (1.81)

SD=standard deviation, IQR=interquartile range

Description of Trait Modeling:
2 hour glucose values were close to normally distributed. Residuals were prepared by regression of trait against age, gender, log BMI, and recruiting center.

Covariates:
Age, gender, log BMI and recruiting center

Counts of individuals used to generate results on Web-site:

Trait	Analysis sample	Unaffected			T2D Affected			Total analyzed
		Sibs	UNR	Total	Sibs	UNR	Total	
2 hour glucose	controls only	376	1061	1437				1437

Summary of association testing method:
Linear regression was used to test the association between SNP genotype and trait residuals. Unrelated individuals and siblings were included in this analysis. *P* values are reported after correction by genomic control. Genomic inflation factor (based on the median chi-squared) was 1.02.