

Table S1. Characteristics of Published GWA studies for Type 2 Diabetes

Characteristic	McGill/ Imperial College	Decode	WTCCC	Fusion	DGI
<u>Screening set</u>					
Race	White	White	White	White	White
Ethnicity	French	Icelandic	British/Irish	Finnish	Scandinavian
N (cases/controls)	661/614	1,399/5,275	1,999/3,004	1,161/1,174	1,464/1,467
Cases					
Selection Criteria	Unrelated T2D BMI <30 Positive family history	Unrelated T2D	Unrelated T2D Age at dx 25-75 y	Unrelated T2D	Unrelated T2D Age at dx >35 y
Age at dx	45.0 (8.4) <sup>†</sup>	56.2 (12.3) <sup>†</sup>	50.3 (9.2) <sup>†</sup>	53.0 (12.0) <sup>¶</sup>	57.1 (10.0) <sup>†</sup>
BMI	25.8 (2.8) <sup>†</sup>	29.8 (5.4) <sup>†</sup>	30.7 (25.4, 37.1) <sup>‡</sup>	29.8 (6.1) <sup>¶</sup>	28.5 (4.4) <sup>†</sup>
Controls					
Selection Criteria	NGT Unmatched	Undetermined GT Unmatched	Undetermined GT Unmatched	NGT Age-, sex-, and origin- matched	NGT Age-, sex-, BMI-, and origin- matched
Age at examination	53.4 (5.6) <sup>†</sup>	58.3 (17.4) <sup>†</sup>	NA	64.0 (11.7) <sup>¶</sup>	58.8 (10.0) <sup>†</sup>
BMI	23.2 (1.8) <sup>†</sup>	27.1 (4.9) <sup>†</sup>	NA	26.8 (5.0) <sup>¶</sup>	27.3 (3.9) <sup>†</sup>
<u>Replication sets</u>					
Race	White	White/Chinese/Africans	White	White	White
Ethnicity	French	Danish/Dutch/US/Hong Kong/ West Africans	British/Irish	Finnish	Scandinavian?US/ Polish
N (cases/controls)	2,617/2,894	4,759/9,379 <sup>*</sup>	3,757/3,771	1,215/1258	5,065/5,785
Age at Dx of cases	50.4 (11.0) <sup>†</sup>	NA	54.3 (9.0)	56.0 (12.0) <sup>¶</sup>	NA
BMI of cases	28.9 (3.6) <sup>†</sup>	27.6 (4.9) <sup>†</sup>	31.1 (25.6, 38.0)	30.1 (6.7) <sup>¶</sup>	30.4 (5.7)
<u>Platform</u>	Illumina 100K/300K	Illumina 300K	Affymetrix 500K	Illumina 300K	Affymetrix 500K

Characteristic	DiaGen	Framingham	Starr County	Old Order Amish	NIH Phoenix
<u>Screening set</u>					
Race	White	White	White	White	Native-Americans
Ethnicity	Finnish/Ashkenazi/German/British	US	Mexican-American	US Amish	Pima
N (cases/controls)	500/497	91/996	281/280	124/295	300/334
Cases					
Selection Criteria	Unrelated T2D	Incident T2D cases from 307 families	Unrelated T2D Youngest age at onset from multiplex families	Unrelated T2D Age at dx >35 y	Unrelated T2D Age at dx <25 y
Age at dx	NA	NA	45.8 (10.1) <sup>†</sup>	NA	19.2 (4.5) <sup>†</sup>
BMI	NA	NA	31.5 (6.2) <sup>†</sup>	29.3 (5.8) <sup>†</sup>	38.9 (8.4) <sup>†</sup>
Controls					
Selection Criteria	NGT Sex-matched	NGT Cohort based	Undetermined GT Unmatched	NGT Unmatched	NGT Age >45 y
Age at examination	NA	59 (9.8) <sup>†</sup>	NA	64.4 (12.9) <sup>†</sup>	55.5 (9.8) <sup>†</sup>
BMI	NA	NA	NA	27.4 (4.7) <sup>†</sup>	35.4 (8.0) <sup>†</sup>
<u>Replication sets</u>					
Race	White	White	White	White	Native-Americans
Ethnicity	French	US	Mexican-American	US Amish	Pima
N (cases/controls)	2,573/2,776	150/1240	411//349 <sup>#</sup>	427 <sup>§</sup>	1,200/1,627
Age at Dx of cases	NA	NA	46.0 (10.2) <sup>†</sup>	NA	39.7 (10.6) <sup>†</sup>
BMI of cases	NA	NA	31.6 (6.3) <sup>†</sup>	NA	38.3 (8.2) <sup>†</sup>
<u>Platform</u>	Illumina 300K	Affymetrix 100K	Affymetrix 100K	Affymetrix 100K	Affymetrix 100K

T2D = type 2 diabetes diagnosed according to the WHO or ADA criteria, NGT = Normal Glucose Tolerance, NA = not available

<sup>†</sup>Mean (SD), <sup>‡</sup>Geometric Mean (Range), <sup>¶</sup>Median (IQR); \*2,437/7,287 White, 1,457/986 Chinese, 865/1,106 Africans.

<sup>#</sup>Include 555 of the 561 individuals in the screening set. <sup>§</sup>Normoglycemic subjects investigated for association with quantitative traits.