

## Supplementary Materials: Polymorphisms in Four Genes (*KCNQ1* rs151290, *KLF14* rs972283, *GCKR* rs780094 and *MTNR1B* rs10830963) and Their Correlation with Type 2 Diabetes Mellitus in Han Chinese in Henan Province, China

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**Table S1.** Single nucleotide polymorphisms (SNPs) selected for study in Han Chinese in Henan province, China.

Gene	SNP	Allele	Ancestral Allele	MAF in CHB
<i>KCNQ1</i>	rs151290	A/C	A	0.433
<i>KLF14</i>	rs972283	G/A	G	0.667
<i>GCKR</i>	rs780094	G/A	G	0.366
<i>MTNR1B</i>	rs10830963	C/G	C	0.634

MAF, minor allele frequency; CHB, Han Chinese in Beijing.

**Table S2.** Single nucleotide polymorphism (SNP) probes used for genotyping.

Gene Name	SNP	TaqMan Probe Context Sequence
<i>KCNQ1</i>	rs151290	CCTCAGTGCAGGCAGCTGAGCCCAG[A/C]CCCCTGGG CTGTCCTTGGAAACCACT
<i>KLF14</i>	rs972283	TGTATACTTGGAATAAATCCTACCT[A/G]GTCATGGC GCATACTTATTTTTACA
<i>GCKR</i>	rs780094	CTCAACAAATGTATTGATCAGCAAA[C/T]ATGTGTCA GTCATGGTCTAAAAAA
<i>MTNR1B</i>	rs10830963	GTGATGCTAAGAATTCACACCATCT[C/G]CTATCCAG AACCAGTAACTGCCTGG

**Table S3.** Verification primers.

Name	GKP Primer Sequence	Product Length (bp)
<i>KCNQ1</i> -rs151290-F	ACTTCCTGCTCCATCCCAGT	297
<i>KCNQ1</i> -rs151290-R	CTCAGAGCAGGCAAAGTGG	
<i>KLF14</i> -rs972283-F	CTCCTCCCCATTCTCATCA	297
<i>KLF14</i> -rs972283-R	CCAAGAAAATACAAAGAGGAAAGG	
<i>GCKR</i> -rs780094-F	CATGTTCTCTGAGTCCTTCCA	296
<i>GCKR</i> -rs780094-R	AGGCTTGTTGAGAACTCCTGA	
<i>MTNR1B</i> -rs10830963-F	GAATTGGCATTCTGGGGTA	397
<i>MTNR1B</i> -rs10830963-R	CTAGGCCTTCCAGAGCCTTT	

**Table S4.** Clinical characteristics of T2DM cases and controls in terms of biochemical measurements (SBP, DBP, TC, TG, HDL-C, LDL-C).

Characteristics		Cases ( <i>n</i> = 738) <i>n</i> (%)	Controls ( <i>n</i> = 768) <i>n</i> (%)	<i>p</i> #
SBP * (mmHg)	Normal	557 (75.5)	636 (82.8)	<0.001 #
	Abnormal	181 (24.5)	132 (17.2)	
DBP * (mmHg)	Normal	481 (65.2)	643 (83.7)	<0.001 #
	Abnormal	257 (34.8)	125 (16.3)	
TC * (mmol/L)	Normal	673 (91.2)	760 (99.0)	<0.001 #
	Abnormal	65 (8.8)	8 (1.0)	
TG * (mmol/L)	Normal	101 (13.7)	152 (19.8)	<0.002 #
	Abnormal	637 (86.3)	616 (80.2)	
HDL-C * (mmol/L)	Normal	370 (50.1)	455 (59.2)	<0.001 #
	Abnormal	368 (49.9)	313 (40.8)	
LDL-C * (mmol/L)	Normal	481 (65.2)	698 (90.9)	<0.001 #
	Abnormal	257 (34.8)	70 (9.1)	

\*: Chi-square test; #: *p* value between cases and controls were less than 0.002; SBP: systolic blood pressure; DBP: diastolic blood pressure; TC: total cholesterol; TG: Triglyceride; HDL-C: high-density lipoprotein cholesterol; LDL-C: low-density lipoprotein cholesterol; Normal range of the clinical properties has been described in "Biochemical Measurements".



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