

**Supplementary Table 1:** Genes with significant SNP associations with diabetes, glycemic measures and blood pressure measurements.

DIAGRAM Diabetes					
Gene	index SNP	P-value	in GWAS Catalog	OMIM number	monogenic phenotype
<i>HNF1A</i>	rs12427353	1.0E-6	Other traits	612520 142330 600496 144700 222100 125853	Diabetes mellitus, insulin-dependent, 20 Hepatic adenoma, somatic MODY, type III Renal cell carcinoma {Diabetes mellitus, insulin-dependent} {Diabetes mellitus, noninsulin-dependent, 2}
<i>WFS1</i>	rs1801214	1.3E-8	Type 2 diabetes	222300	Wolfram syndrome
<i>PPARG</i>	rs11709077	1.1E-9	Type 2 diabetes And other traits	609338 604367 604367 601665 125853	Carotid intimal medial thickness 1 Insulin resistance, severe, digenic Lipodystrophy, familial partial, type 3 Obesity, severe [Obesity, resistance to] {Diabetes, type 2}
<i>IDE</i>	rs11187007	1.8E-12	Type 2 diabetes And other traits		
<i>KCNJ11</i>	rs5215	4.4E-6	Type 2 diabetes and other traits	606176 610582 606176 601820 616329 125853	Diabetes mellitus, permanent neonatal, with neurologic features Diabetes mellitus, transient neonatal, 3 Diabetes, permanent neonatal Hyperinsulinemic hypoglycemia, familial, 2 Maturity-onset diabetes of the young, type 13 {Diabetes mellitus, type 2, susceptibility to}
<i>CDKAL1</i>	rs7756992	1.3E-22	Type 2 diabetes Diabetes (gestation) Glycated hemoglobin levels And other traits	125853	{Diabetes mellitus, noninsulin-dependent, susceptibility to}
<i>FTO</i>	rs17817449	5.6E-11	other traits	612938 612460	Growth retardation, developmental delay, facial dysmorphism {Obesity, susceptibility to, BMIQ14}
<i>SLC30A8</i>	rs3802177	2.1E-11	Glycolated hemoglobin levels And other traits	125853	{Diabetes mellitus, noninsulin-dependent, susceptibility to}
<i>TCF7L2</i>	rs7901695	2.5E-65	Type 2 diabetes Glycated hemoglobin levels Proinsulin levels Two-hour glucose challenge	125853	{Diabetes mellitus, type 2, susceptibility to}

<b>MAGIC fasting insulin</b>					
<b>Gene</b>	<b>index SNP</b>	<b>P-value</b>	<b>in GWAS Catalog</b>	<b>OMIM number</b>	<b>monogenic phenotype</b>
<i>IGF1</i>	rs35767	9.58E-005	Fasting insulin realted traits Fasting glucose related traits And other traits	608747	Growth retardation with deafness and mental retardation due to IGF1 deficiency
<b>MAGIC fasting glucose</b>					
<b>Gene</b>	<b>index SNP</b>	<b>P-value</b>	<b>in GWAS Catalog</b>	<b>OMIM number</b>	<b>monogenic phenotype</b>
<i>G6PC2</i>	rs5560887	4.61E-75	Fasting plasma glucose Glycated hemoglobin levels		
<i>GCK</i>	rs1799884	6.36E-37	Fasting plasma glucose Glycated hemoglobin levels	125853 606176 602485 125851	Diabetes mellitus, noninsulin-dependent, late onset Diabetes mellitus, permanent neonatal Hyperinsulinemic hypoglycemia, familial, 3 MODY, type II
<i>GCKR</i>	rs780093	2.91E-10	Hyperglyceridemia And other traits	613463	[Fasting plasma glucose level QTL 5]
<i>SLC2A2</i>	rs11920090	1.87E-6	Fasting glucose realted traits And other traits	227810 125853	Fanconi-Bickel syndrome {Diabetes mellitus, noninsulin-dependent}
<i>SLC30A8</i>	rs11558471	2.62E-8	Glycolated hemoglobin levels And other traits	125853	{Diabetes mellitus, noninsulin-dependent, susceptibility to}
<i>TCF7L2</i>	rs4506565	1.24E-5	Type 2 diabetes Glycated hemoglobin levels Proinsulin levels Two-hour glucose challenge	125853	{Diabetes mellitus, type 2, susceptibility to}
<i>WFS1</i>	rs10012946	4.17E-7	Type 2 diabetes	222300	Wolfram syndrome
<b>ICBP systolic blood pressure</b>					
<b>Gene</b>	<b>index SNP</b>	<b>P-value</b>	<b>in GWAS Catalog</b>	<b>OMIM number</b>	<b>monogenic phenotype</b>
<i>ADM</i>	rs1450266	1.56E-6	Diastolic blood pressure Systolic blood pressure		
<i>NPPA</i>	rs5068	1.86E-7	Systolic blood pressure	612201 615745	Atrial fibrillation, familial, 6 Atrial standstill 2
<i>NPR3</i>	rs1173747	7.38E-7	Blood pressure And other traits		?Hypertension, salt-resistant
<i>PTPN11</i>	rs11066320	4.56E-8	Blood pressure Hematological parameters And other traits	151100 607785 156250 163950	LEOPARD syndrome 1 Leukemia, juvenile myelomonocytic, somatic Metachondromatosis Noonan syndrome 1