Table S4:

A. Candidate genes identified by Florez et al.(1)

Florez et al. 2003	Ensembl Gene ID
ABCC8	ENSG00000006071
ACE	ENSG00000159640
ADRB2	ENSG00000169252
ADRB3	ENSG00000188778
ADIPOQ (APM1)	ENSG00000181092
CD4	ENSG00000010610
FXN (FRDA)	ENSG00000165060
GCGR	ENSG00000187805
GCK	ENSG00000106633
GYS1	ENSG00000104812
HFE	ENSG00000010704
HTR2C	ENSG00000147246
IGF1	ENSG00000017427
INS	ENSG00000129965
INSR	ENSG00000171105
IPF1	ENSG00000139515
IRS1	ENSG00000169047
KCNJ11	ENSG00000187486
LPL	ENSG00000175445
PCSK2	ENSG00000125851
PPARGC1A (PGC-1)	ENSG00000109819
PKLR	ENSG00000143627
PPARG	ENSG00000132170
PPP1R3F (PPP1R3)	ENSG00000049769
PTPN1	ENSG00000196396
RRAD	ENSG00000166592
SLC2A1	ENSG00000117394
SLC2A2	ENSG00000163581
SORBS1	ENSG00000095637
SPINK1	ENSG00000164266
UCP1	ENSG00000109424
UCP3	ENSG00000175564
VDR	ENSG00000111424

common genes T2D	
ENSG00000104812	GYS1
ENSG00000125851	PCSK2
ENSG00000171105	INSR
ENSG00000175445	LPL

common genes Obesity	
ENSG00000125851	PCSK2
ENSG00000171105	INSR
ENSG00000175445	LPL

B. Candidate genes identified by Sreekumar et al. (2)

Structural/contractile		
HG2743-HT2846	Caldesmon 1	CALD1
HG1862-HT1897	Calmodulin type I	CALM1
HG2175-HT2245	Myosin heavy chain polypeptide	
HG2260-HT2349	Duchenne Muscular Dystrophy protein	
M21984	Troponin-T	TNNT3
M21665	MHC-I	MYH7
HG3514-HT3708	Tropomyosin (cytoskeletal)	
X04201	Tropomyosin (1.3 kb)	TPM3
X66276	Skeletal muscle C-protein	MYBPC1
L21715	Troponin-I fast-twitch	TNNI2
J04760	Troponin-I slow-twitch	
M20642	Myosin light chain	MYL1
M20543	Skeletal muscle -actin	ACTA1
U35637	Nebulin	NEB
X13839	Smooth muscle -actin	ACTA2
M33772	Troponin-C fast-twitch	TNNC2
Mitochondrial maintenance/chaperone		
X93511	Telomeric DNA binding protein	TERF1
X83416	PrP	PRNP
V00594	MT	MT2A
X82200	Staf50	TRIM22
X65965	SOD2	SOD2
HG2855-HT2995	Heat shock protein, 70 kDa	
Growth factors/tissue development/maintenance		
L27560	IGFBP-5	IGFBP5
M55210	Laminin B2 chain	LAMC1
L08246	MCL1	MCL1
AB000897	Cadherin FIB3	PCDHGA12
Insulin signaling/signal transduction/glucose metabolism		
HG2702-HT2798	Serine/threonine kinase	
D23673	IRS-1	M-RIP
L10717	T-cell–specific tyrosine kinase	
L33881	Protein kinase C-	PRKCI
K03515	Neuroleukin	GPI
J04501	Muscle glycogen synthase	GYS1
U27460	UDP-glucose pyrophosphorylase	UGP2
M91463	GLUT4	SLC2A4
M32598	Muscle glycogen phosphorylase	PYGM
Energy metabolism		
D16480	Mitochondrial enoyl-CoA hydratase	HADHA
D10523	2-Oxoglutarate dehydrogenase	OGDH
AF001787	UCP-3	UCP3
X13794	Lactate dehydrogenase B	LDHB
M83186	COX VIIa	COX7A1
M19483	ATP synthase ß subunit	ATP5B
U65579	NADH dehydrogenase-ubiquinone	NDUFS8

in common - T2D
ENSG00000104812
ENSG00000105220
ENSG00000135862
GYS1
GPI
IGFBP5
in common - obesity
ENSG00000105220
ENSG00000115461
ENSG00000135862

X69433	Mitochondrial isocitrate dehydrogenase	IDH2
U94586	NADH-ubiquinone oxidoreductase	NDUFA4
HG4747-HT5195	NADH-ubiquinone oxidoreductase MLRQ	
M22760	COX Va	COX5A
U09813	ATP synthase subunit 9	ATP5G3
X83218	ATP synthase	ATP5O
U17886	Succinate dehydrogenase (SDHB)	SDHB
L32977	Ubiquinol cytochrome C reductase	UQCRFS1
Transcription factors/protein metabolism		
HG1428-HT1428	Globin-ß	
HG3635-HT3845	Zinc finger protein, krupple	
X69116	Zinc finger protein	
X16064	Translationally controlled tumor protein	TPT1
U37690	RNA polymerase II subunit	POLR2L
U95040	hKAP1/TIF1B	TRIM28
U65928	Jun activation domain binding protein	COPS5
HG3214-HT3391	Metallopanstimulin 1	
U73379	Cyclin-selective ubiquitin carrier	UBE2C
X03689	Elongation factor TU	EEF1A1
M17886	Acidic ribosomal phosphoprotein P1	RPLP1
U49869	Ubiquitin	
Z21507	Elongation factor-1	EEF1D
U14968	Ribosomal protein L27a	RPL27A
U14973		RPS29
HG2239-HT2324	Potassium channel protein	
U90546	Butyrophilin 4	BTN3A2
X89267	Uroporphyrinogen decarboxylase	UROD
L24564	Rad	BRAD
D43951	KIAA0099	PUM1
D79986	KIAA0164	BCLAF1
J02611	Apolipoprotein D	APOD
L11238	Platelet membrane glycoprotein V	GP5
X59405	Membrane cofactor protein	MCP
X63575	Calcium ATPase	ATP2B2
M16714	MHC I lymphocyte antigen	HLA-E
X00371	Myoglobin	MB
X91103	Hr44	
X01060	Transferrin receptor	TFRC
U90313	Glutathione-S-transferase	GSTO1
X75755	PR264	SFRS2
U33286	Chromosome segregation gene CAS	CSE1L
X15729	Nuclear p68 protein	DDX5
X06700	Pro- (III) collagen	
AB000220	Semaphorin E	SEMA3C

C. Candidate genes identified by Patti et al. (3)

Lipid Transport and Metabolism: fatty acid oxidation (decreased expr)	
3-hydroxyacyl CoA dehydrogenase	ENSG00000138796
mit 3,2-transenoyl-CoA isomerase	
2,4-dienoyl CoA reductase 1	
monogylceride lipase	ENSG00000074416
lipoprotein lipase	ENSG00000175445
Oxidative Metabolism: glycolysis/tricarboxylic acid cycle (decreased)	
glucose phosphate isomerase	ENSG00000105220
fructose-1,6 bisphosphatase 2	ENSG00000130957
pyruvate kinase	ENSG00000067225
pyruvate dehydrogenase A1	ENSG00000131828
alpha keotglutarate dehydrogenase	ENSG00000142046
succinate dehydrogenase B	ENSG00000117118
ATP synthase	
ATP5D	ENSG00000099624
ANT1	
voltage dependent anion channel porin	
NRF-1 regulated genes reduced NRF-1 transcriptional activation	
PGC1alpha	
PGC1beta	

in common T2D	
ENSG00000105220	GPI
ENSG00000142046	BCKDHA
ENSG00000175445	LPL

In common obesity	
ENSG00000105220	GPI
ENSG00000142046	BCKDHA
ENSG00000175445	LPL

Reference List

1. Florez,J.C., Hirschhorn,J. and Altshuler,D. (2003) The inherited basis of diabetes mellitus: implications for the genetic analysis of complex traits. *Annu.Rev.Genomics Hum.Genet.*, **4**, 257-291.

2. Sreekumar,R., Halvatsiotis,P., Schimke,J.C. and Nair,K.S. (2002) Gene expression profile in skeletal muscle of type 2 diabetes and the effect of insulin treatment. *Diabetes*, **51**, 1913-1920.

3. Patti,M.E., Butte,A.J., Crunkhorn,S., Cusi,K., Berria,R., Kashyap,S., Miyazaki,Y., Kohane,I., Costello,M., Saccone,R. *et al.* (2003) Coordinated reduction of genes of oxidative metabolism in humans with insulin resistance and diabetes: Potential role of PGC1 and NRF1. *Proc.Natl.Acad.Sci.U.S.A*, **100**, 8466-8471.