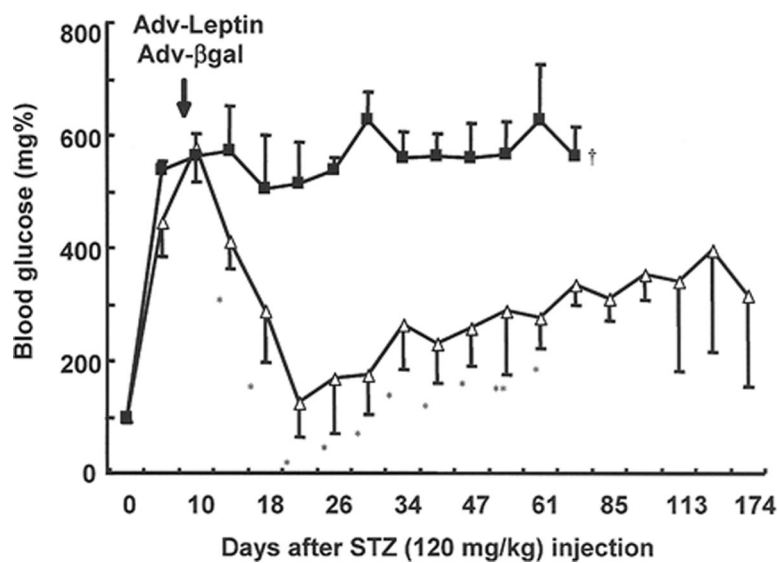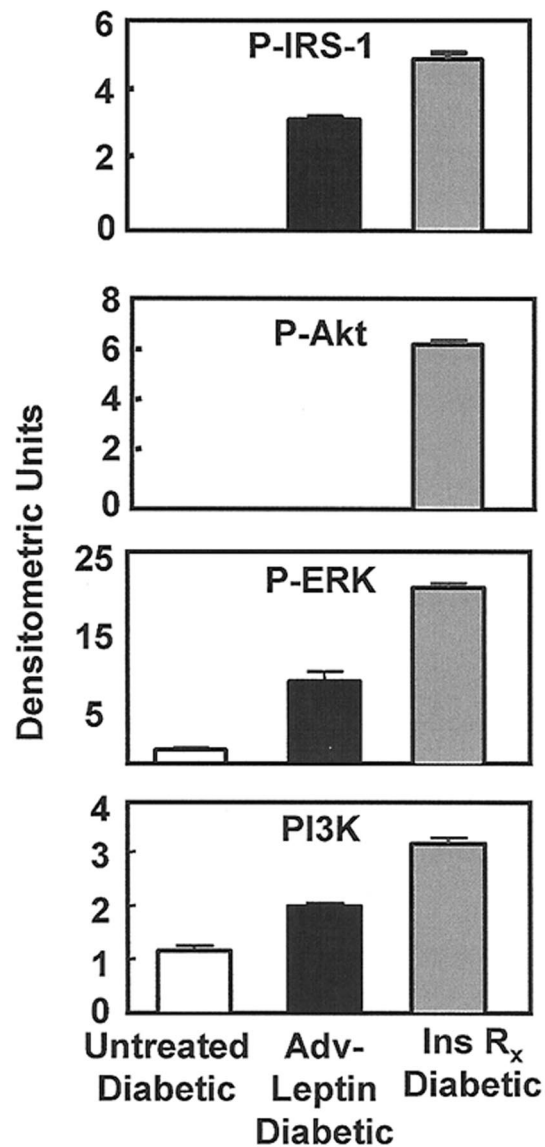# Supporting Information

Yu *et al.* 10.1073/pnas.0806993105

Fig. S1. A long-term study showing a gradual return of hyperglycemia that nevertheless remains below pretreatment levels. The animals retained body weight and appeared to be in normal health. (■ = Adv-leptin; △ = Adv-β-gal; ∗, $P < 0.01$; ∗∗, $P < 0.05$).

Fig. S2. Hyperleptinemia increases activation of certain components of the insulin signaling pathway in skeletal muscle. Immunoblotting for phosphoproteins of the insulin signaling transduction pathway in skeletal muscle of double-dose STZ-diabetic rats. Rats were untreated (□) ($n = 4$), or they received Adv-leptin 3 days earlier (■) ($n = 5$) or insulin 3 h earlier (▨) ($n = 3$). Results are expressed as densitometric units.

Table S1. Metabolic profiles of untreated STZ and Adv-leptin-treated STZ rats, and nondiabetic (nd) controls 30 days after time of treatment (*n* = 6)

Measurement	Untreated	Adv-leptin	nd	P value (untreated vs. Adv-leptin)	P value (Adv-leptin vs. lean)
Blood glucose, mg/dl	678 ± 17	99 ± 57.4	74 ± 6	0.001	0.18
Urine glucose, mg/dl	1,000–2,000	negative	negative		
Insulin, ng/ml	0	0	1.4 ± 0.1		
Leptin, ng/ml	0.02 ± 0.02	20.4 ± 5.9	1.7 ± 0.5	0.006	0.008
TAG, mg/dl	1,062 ± 236	9 ± 2	50 ± 12	0.011	0.02
FFA, mEq/ml	2.2 ± 1.2	0.19 ± 0.1	0.3 ± 0.2	0.04	0.42
Liver TAG, mg/g	1.1 ± 0.5	4.7 ± 0.8	6.8 ± 0.8	0.003	0.02
Muscle TAG, mg/g	0.3 ± 0.1	1.6 ± 0.3	3.4 ± 1.1	0.02	0.04

Table S2. Primer sequences used for real-time RT-PCR

Gene	Forward	Reverse
Rat AKT-1	GGCCACTGGCCGCTATT	GCGACTTCATCCTTTGCAATG
Rat IGF-1	ATTCATTTCGCGTTTGGAAAA	CAGACCCAGCACGGAAAGAA
Rat PEPCK	GCCTGTGGGAAAACCAACCT	CACCCACACATTCAACTTTCCA
Rat PGC-1	CAGCCAGTACAGCCCTGATGA	TGGTAAGCGCAGCCAAGAG
Rat preproinsulin	TTTGTCAAACAGCACCTTTGTG	GGGTGTGTAGAAGAAACCACGTT
Mouse preproinsulin	GGGGAGCGTGGCTTCTTCTA	GGGGACAGAATTCAGTGGCA