

Supplemental Table 1. Primer sequences for quantitative PCR

Gene	Forward	Reverse
<i>COL1A1</i>	GAGGGCCAAGACGAAGACATC	CAGATCACGTCATCGCACAAC
<i>COL3A1</i>	GGAGCTGGCTACTTCTCGC	GGGAACATCCTCCTTCAACAG
<i>COL6A1</i>	ACTCAGAGGGACACCAGACC	GAGCCTGGGATGAAGTCAAA
<i>FN1</i>	CTGGCCGAAAATACATTGTAAA	CCACAGTCGGGTGGTCAGGAG
<i>MMP2</i>	CCATTTTGATGACGATGAGCCTATG	GTTGTACTCCTTGCCATTGAACAA
<i>HIF1A</i>	TGCTCATCAGTTGCCACTTC	CAAATCACCAGCATCCAGAA
<i>CYCB</i>	GGAGATGGCACAGGAGGAAA	CGTAGTGCTTCAGTTTGAAGTTCTCA
<i>TIMP-1</i>	ACTTCCACAGGTCCCACAAC	TTTGCAGGGGATGGATAAAC
<i>TIMP-2</i>	CAGAAAAGCTGGGTCTTGC	CATAGTGCCTGGAGGCTGAG
<i>ACTB</i>	CTCTTCCAGCCTTCCTTCT	AGCACTGTGTTGGCGTACAG
<i>TNF- alpha</i>	CCCCAGGGACCTCTCTCTAATC	ACATGGGCTACAGGCTTGTC
<i>MCP1</i>	GATCTCAGTGCAGAGGCTCG	AATGGTCTTGAAGATCACAGCTTCT
<i>CD68</i>	GCTTCTCTCATTCCCCTATGGA	ATGTAGCTCAGGTAGACAACCTTCTG
<i>IL-6</i>	TTTTGTAATCATCTGCACAGC	GGATTCAATGAGGAGACTTGC
<i>IL-8</i>	TTGGCAGCCTTCCTGATTTT	AACTTCTCCACAACCCTCTG

**Supplemental Table 2.** Characteristics of Study Subjects Undergoing SCAT biopsy

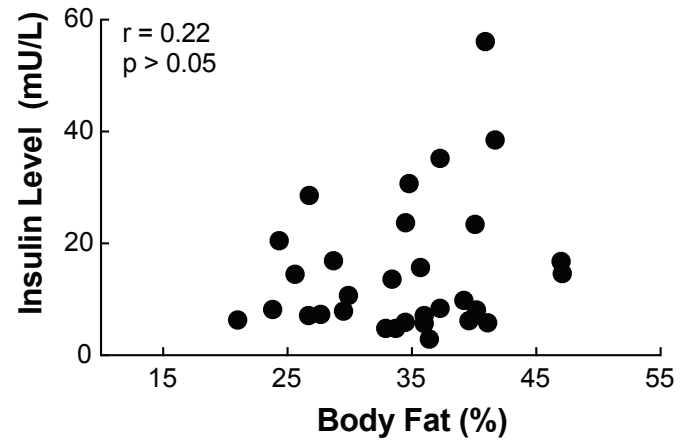
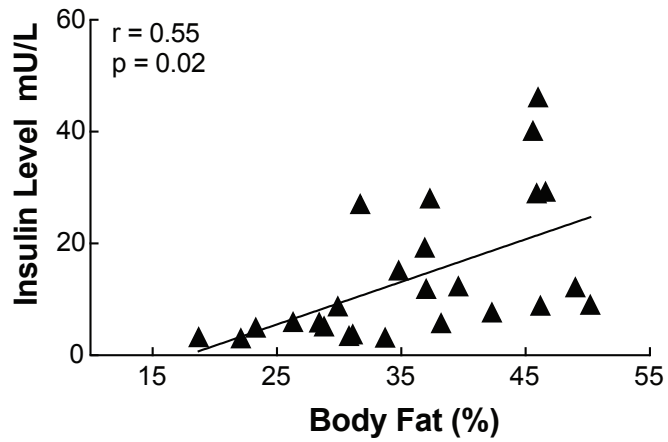
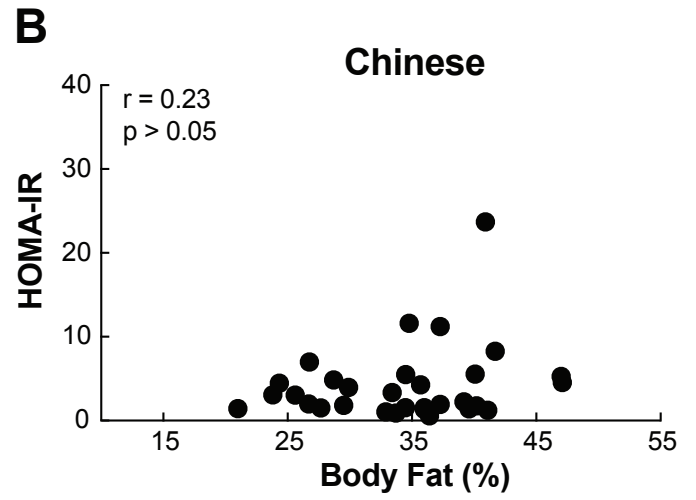
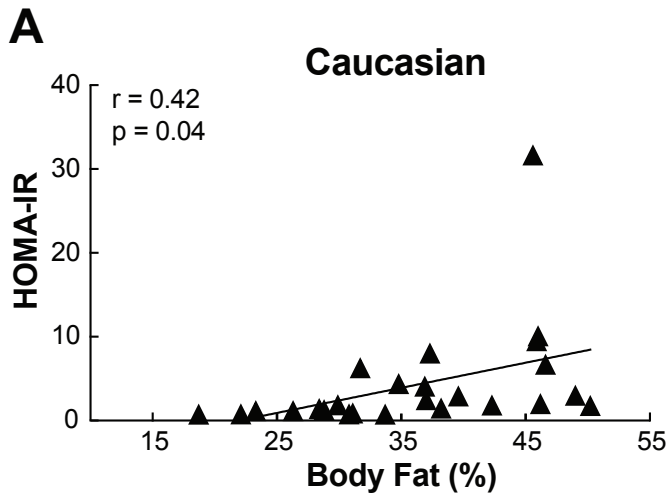
Characteristic	Caucasian (n = 22)	Chinese (n = 26)	p value
Age (years)	46 ± 14	45 ± 10	ns
Gender (female/male)	13/9	14/12	
BMI (kg/m <sup>2</sup> )	32.0 ± 10.4	27.3 ± 5.3	0.04
Weight (kg)	90.0 ± 28.0	76.3 ± 17.4	0.02
WC (cm)	106.3 ± 26.3	91.1 ± 14.4	0.02
FM (kg)	35.6 ± 16.7	26.7 ± 8.1	0.01
%BF	37.1 ± 9.1	33.3 ± 6.6	ns
VAT mass (kg)	0.63 ± 0.4	0.47 ± 0.2	ns
% VAT/FM	1.7 ± 0.7	1.9 ± 0.6	ns
% VAT/ weight	0.6 ± 0.5	0.5 ± 0.2	ns
Insulin (mIU/L) *	15.7 ± 12.4	15.1 ± 12.1	ns
FPG (mg/dL) *	104.3 ± 50.5	102.6 ± 27.6	ns
HOMA-IR*	4.9 ± 7.1	4.4 ± 4.8	ns

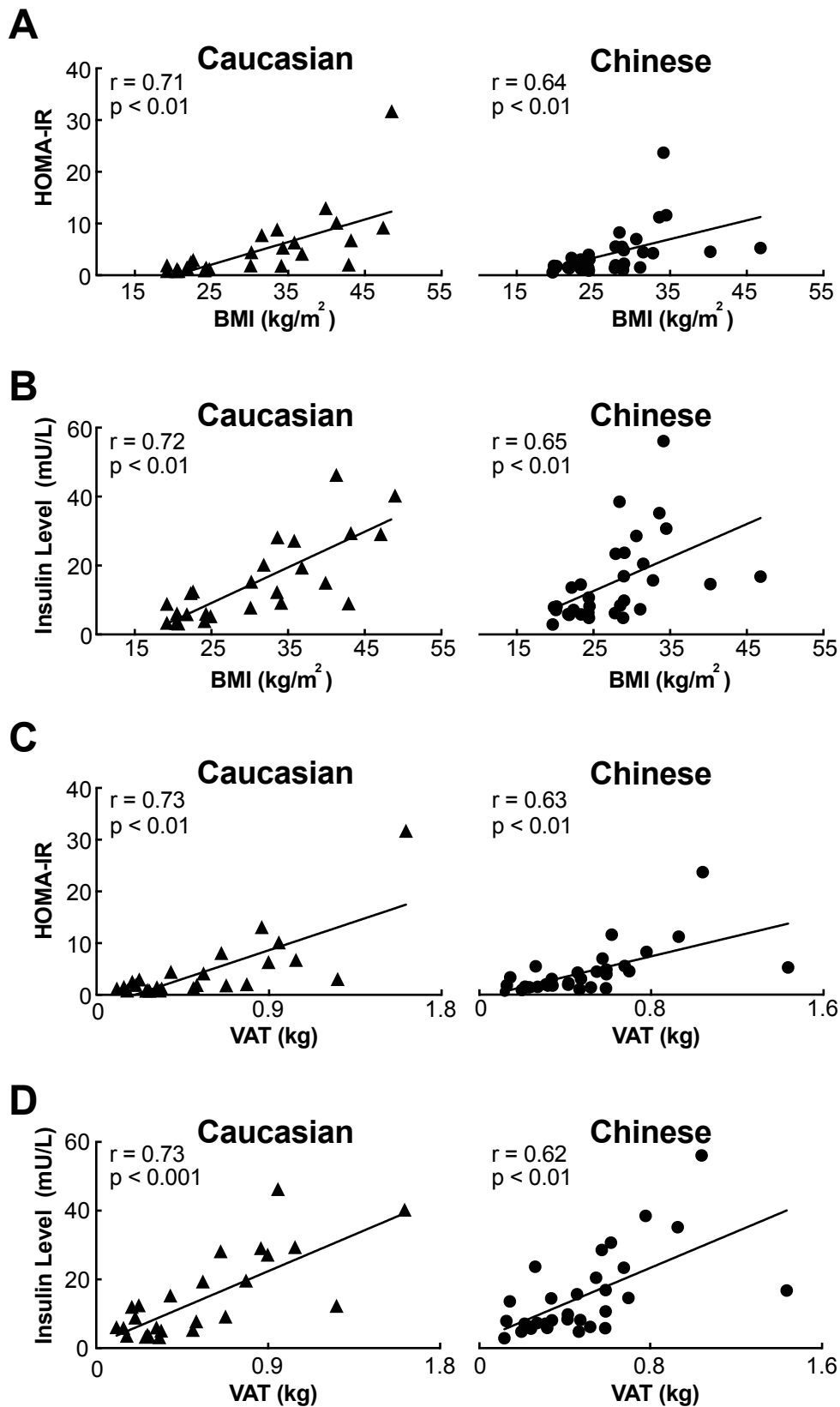
\*Subjects on insulin were excluded from the analysis (2 Caucasian and 1 Chinese individuals). WC: waist circumference; FM: fat mass; %BF: percent body fat; VAT: visceral adipose tissue; FPG: fasting plasma glucose. ns: not significant. HOMA-IR = Fasting insulin (mIU/L) x [FPG (mg/dL)/405]. Values are presented as mean ± SD. Differences between groups were analyzed by Student's t-test (significance: p<0.05).

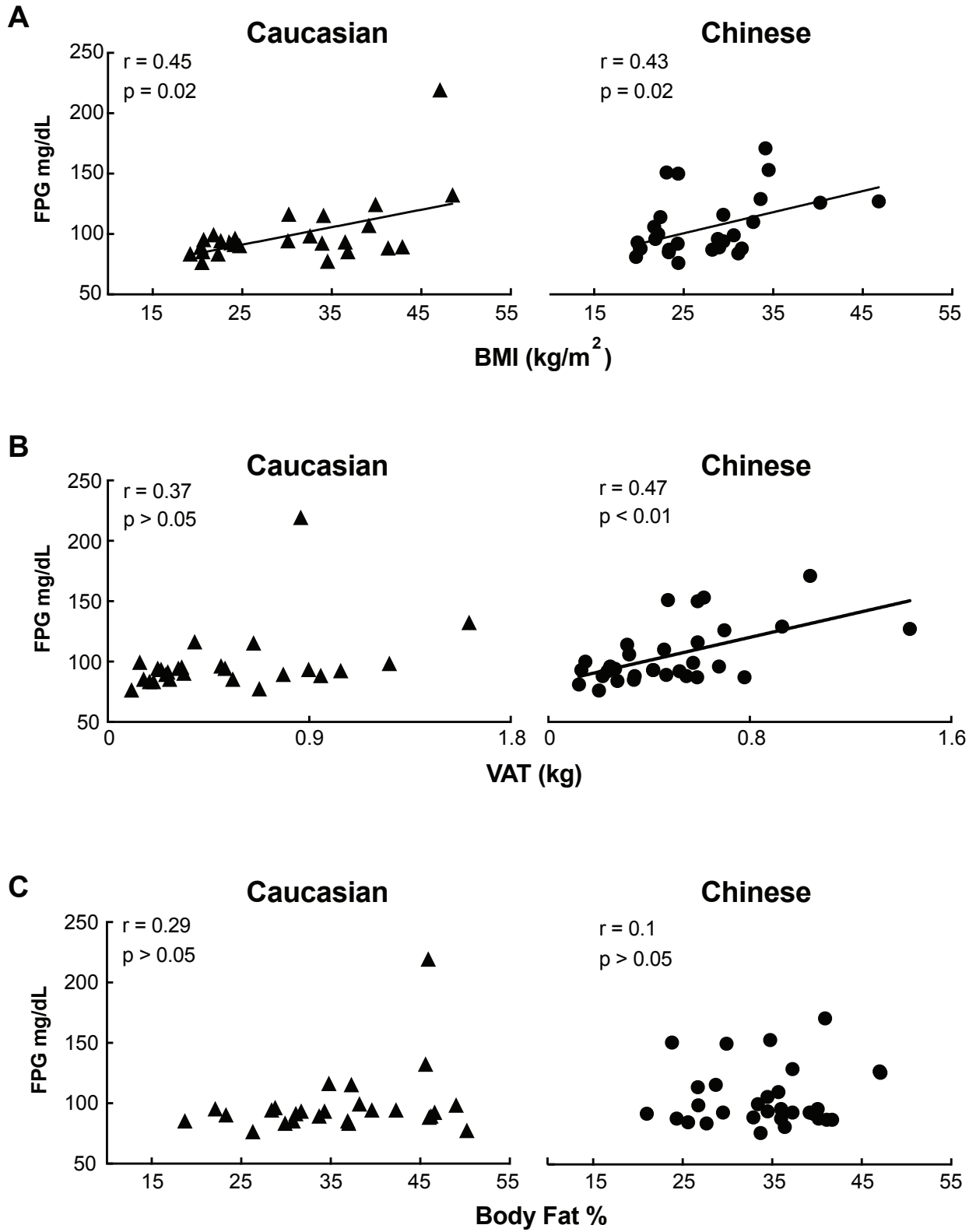
**Supplemental Table 3.** Correlation between the mRNA levels of pro-inflammatory genes in SCAT and specific clinical parameters

mRNA levels of pro-inflammatory genes					
CAUCASIAN					
	<i>TNF-alpha</i>	<i>MCP-1</i>	<i>CD68</i>	<i>IL-6</i>	<i>IL-8</i>
<b>BMI (kg/m<sup>2</sup>)</b>	0.54*	0.65‡	0.56*	0.49*	0.59*
<b>%BF</b>	0.49*	0.36	0.38	0.36	0.45*
<b>VAT mass (kg)</b>	0.59‡	0.62‡	0.56‡	0.69‡	0.57*
<b>FPG (mg/dL)<sup>a</sup></b>	0.30	0.47*	0.35	0.41*	0.45*
<b>Insulin (mU/L)<sup>a</sup></b>	0.63‡	0.55*	0.53*	0.66‡	0.51*
<b>HOMA-IR<sup>a</sup></b>	0.57*	0.64‡	0.51*	0.57*	0.50*
CHINESE					
Parameter	<i>TNF-alpha</i>	<i>MCP-1</i>	<i>CD68</i>	<i>IL-6</i>	<i>IL-8</i>
<b>BMI (kg/m<sup>2</sup>)</b>	0.51*	0.61‡	0.45*	0.45*	0.52*
<b>%BF</b>	0.48*	0.46*	0.39	0.33	0.36
<b>VAT mass (kg)</b>	0.55*	0.56*	0.64‡	0.56*	0.40
<b>FPG (mg/dL)<sup>a</sup></b>	0.43*	0.37	0.46*	0.37	0.46*
<b>Insulin (mU/L)<sup>a</sup></b>	0.65‡	0.55*	0.68‡	0.56*	0.52*
<b>HOMA-IR<sup>a</sup></b>	0.59*	0.54*	0.61*	0.54*	0.54*

\*  $p < 0.05$ . ‡  $p < 0.01$ . mRNA levels were measured by qPCR and normalized using the  $2^{-\Delta CT}$  method, with both beta-actin (*ACTB*) and cyclophilin B (*CYCB*) as endogenous controls. Relationships between parameters were analyzed by Spearman's rho. BMI, body mass index; %BF, percentage body fat; VAT, visceral adipose tissue; FPG, fasting blood glucose. HOMA-IR: Fasting insulin<sup>(mIU/L)</sup> x Fasting glucose<sup>(mg/dL)</sup> / 405. Caucasian n= 22 subjects and Chinese n= 26 subjects. <sup>a</sup> Subjects on insulin were excluded from the analysis (2 Caucasian and 1 Chinese subjects).







## **Supplemental Figure Legends**

**Supplemental Figure 1. Associations between %BF and markers of insulin resistance in Caucasian and Chinese subjects.** (A and B) Scatter plots showing that %BF positively correlates with fasting insulin levels and HOMA-IR in Caucasian (A), but not Chinese (B) individuals. N = 28 (Caucasian), and 31 (Chinese). Relationships between parameters were analyzed using Pearson correlation coefficient. For all plots, solid lines represent correlations through the data. Subjects on insulin were excluded from analysis (2 Caucasian and 1 Chinese subjects).

**Supplemental Figure 2. Associations between BMI and VAT mass, respectively, and components of insulin resistance.** (A and B) Scatter plots showing that BMI positively correlates with HOMA-IR (A) and fasting plasma insulin levels (B) in both Caucasian and Chinese subjects. (C and D) Plots showing that VAT mass correlates with HOMA-IR and fasting plasma insulin levels in both Caucasian and Chinese subjects. N = 28 (Caucasian), and 31 (Chinese). Relationships between parameters were analyzed using Pearson correlation coefficient. For all plots, solid lines represent correlations through the data. Subjects on insulin were excluded from analysis (2 Caucasian and 1 Chinese subjects).

**Supplemental Figure 3. Associations between indicators of adiposity and fasting plasma glucose (FPG).** (A and B) Scatter plots showing a positive correlation between FPG and BMI (A) in both Caucasian and Chinese subjects, however FPG correlated with VAT mass (B) only in Chinese individuals. (C) Plots showing no correlation between %BF and FPG in either Caucasian or Chinese subjects. N = 28 (Caucasian), and 31 (Chinese). Relationships between parameters were analyzed using Pearson correlation coefficient. For all plots, solid lines represent correlations through the data. Subjects on insulin were excluded from analysis (2 Caucasian and

1 Chinese subjects).