

Title: **Elevated adipose tissue associated IL-2 expression in obesity correlates with metabolic inflammation and insulin resistance**

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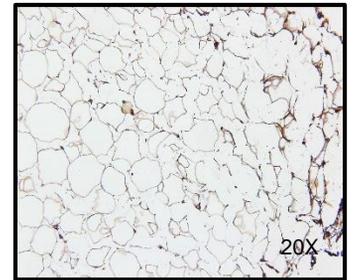
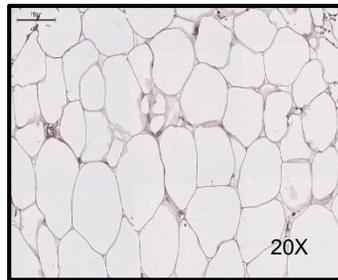
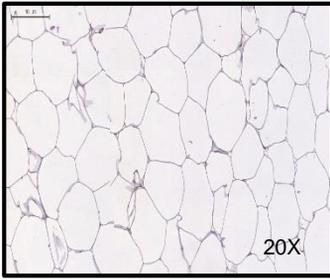
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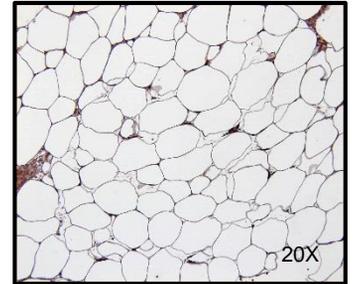
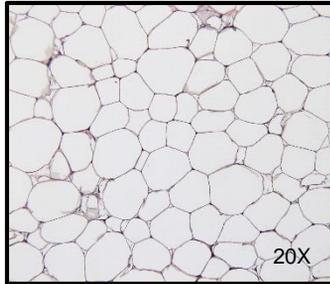
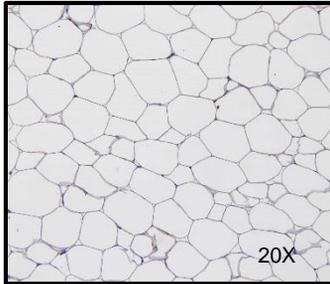
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A**LEAN****OVERWEIGHT****OBESE**

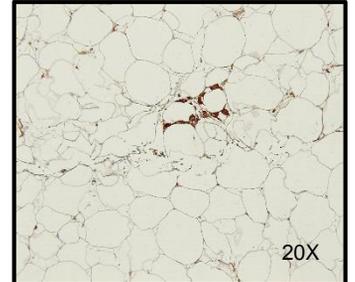
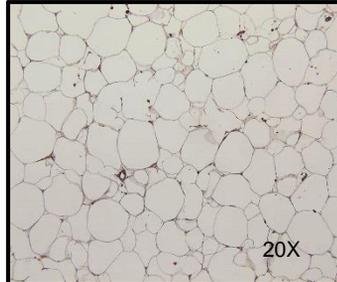
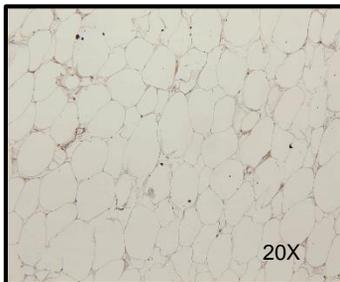
IL8



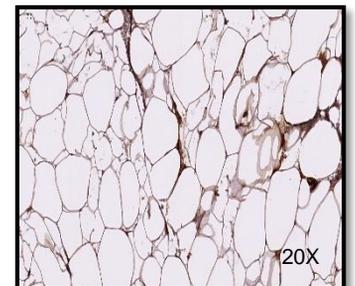
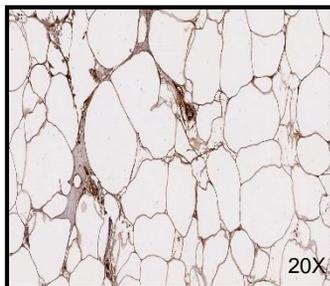
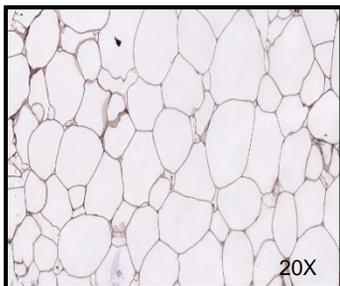
CCL5



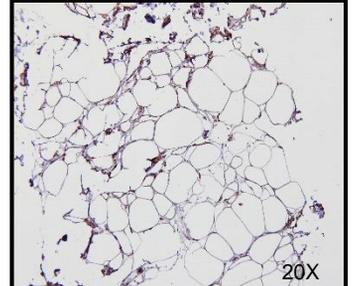
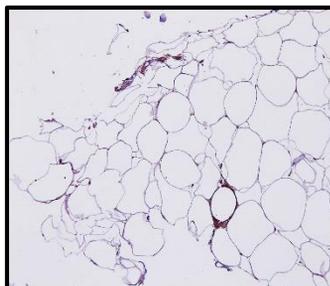
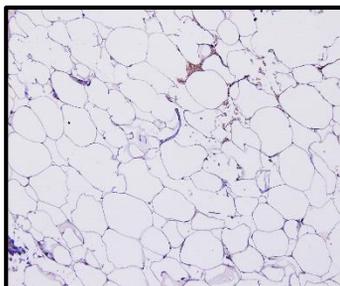
CD11c



TLR10



IRF5



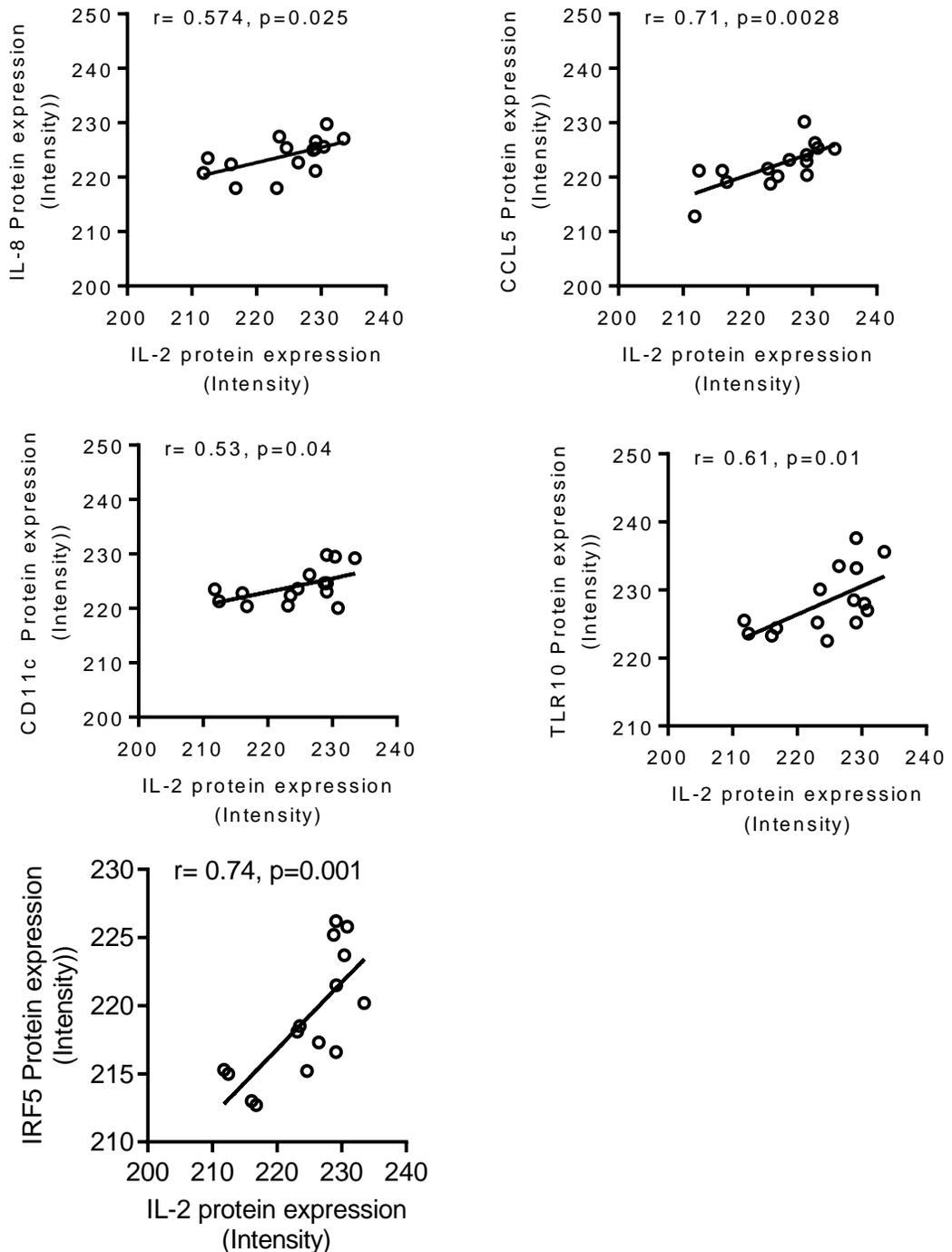
B

Figure S1. Increased protein expression of IL-8, CCL5, CD11c, TLR10 and IRF5 in adipose tissues and its correlation with IL-2. Protein expression of IL-8, CCL5, CD11c, TLR10 and IRF5 expression was determined in five lean, 5 overweight, and 5 obese non-diabetic individuals using immunohistochemistry (IHC) as described in Materials and Methods. (A) The representative IHC images obtained from three independent determinations with similar results show increased adipose tissue IL-8, CCL5, CD11c, TLR10 and IRF5 expression (20X magnification) in overweight and obese individuals compared with lean. (B) Staining intensity was determined based on Aperio-positive pixel counts (Aperio software algorithm version 9.0). IL-2 protein was expressed as IHC intensity in arbitrary units correlated with protein expression of IL-8, CCL5, CD11c, TLR10 and IRF5. All p-values ≤ 0.05 were considered as statistically significant.

Table S1: Partial Correlation of IL-2 with other markers adjusted for High/Low IL-2 cluster variances

control Variable	Variable	r-value	p-value
High/Low IL-2 Clusters			
	IL8	0.406	0.004
	IL12A	0.168	0.287
	CCL5	0.572	<0.0001
	CCL19	0.582	<0.0001
	CCR2	0.599	<0.0001
	CCR5	0.561	<0.0001
	ITGAX	0.279	0.043
	CD163	0.116	0.395
	TLR2	0.323	0.027
	TLR8	0.269	0.049
	TLR10	0.366	0.007
	IRF5	0.263	0.063

To validate the possibility of significant associations seen between IL-2 and cytokines/chemokines in Lean/OW/obese subjects could be because of the variances in High/Low IL-2 clusters, Partial Correlation was performed with IL-2 and other markers while controlling for the effect of High/Low IL-2 variances. After adjustment for IL-2 clusters variances all the cytokine/chemokine markers remain significantly correlated except with IL-12A and CD163.

Table S2: List of TaqMan Assays used for qRT-PCR

Primer List	Assay ID	Primer List	Assay ID
IL-1 β	Hs01555410_m1	ITGAX/CD11c	Hs00174217_m1
IL-5	Hs01548712_g1	CD163	Hs00174705_m1
IL-6	Hs00985639_m1	CXCL9	Hs00171065_m1
IL-8	Hs00174103_m1	CXCL10	Hs01124251_g1
IL-10	Hs00961622_m1	CXCL11	Hs04187682_g1
IL-12A	Hs01073447_m1	TNF α	Hs01113624_g1
IL-13	Hs00174379_m1	TGF β	Hs00820148_g1
IL-18	Hs01038788_m1	IFNB1	Hs01077958_s1
CCL2	Hs00234140_m1	TLR2	Hs01872448_s1
CCL3	Hs04194942_s1	TLR3	Hs01551078_m1
CCL5	Hs00982282_m1	TLR4	Hs00152939_m1
CCL8	Hs04187715_m1	TLR7	Hs01933259_s1
CCL11	Hs00237013_m1	TLR8	Hs00152972_m1
CCL15	Hs00361122_m1	TLR9	Hs00370913_s1
CCL19	Hs00171149_m1	TLR10	Hs01935337_s1
CCL20	Hs01011368_m1	MyD88	Hs01573837_g1
CCR1	Hs00928897_s1	IRAK1	Hs01018347_m1
CCR2	Hs00704702_s1	TRAF6	Hs00371512_g1
CCR5	Hs99999149_s1	IRF5	Hs00158114_m1
CD16	Hs04334165_m1	GAPDH	Hs03929097_g1