

Supplementary Table 1: *Physical characteristics of study participants stratified by sex*

Physical characteristics of subjects	Males (n=96)	Females (n=102)	p-value
Age (years)	31.7 ± 5.4	32.4 ± 4.9	0.332
Weight (kg)	76.9 ± 12.7	68.42 ± 13.4	<0.0001
Height (cm)	178.0 ± 8.3	159.7 ± 7.2	<0.0001
BMI (kg/m ²)	26.4 ± 5.3	27.0 ± 5.1	0.4693
Waist circumference(inch)	33.5 ± 5.9	33.2 ± 6.0	0.6949
Hip circumference (inch)	41.3 ± 9.5	41.4 ± 4.4	0.9709
Waist to Hip Ratio	0.83 ± 0.12	0.80 ± 0.11	0.0854
fat %	24.0 ± 9.7	31.7 ± 7.0	<0.0001
Metabolic Parameters	Males (n=96)	Females (n=102)	p-value
Fasting glucose (mmol/l)	5.0 ± 0.58	5.6 ± 6.1	0.3307
Triglycerides (mmol/l)	0.92 ± 0.42	0.92 ± 0.30	0.9527
Total cholesterol (mmol/l)	4.7 ± 1.2	4.9 ± 0.72	0.3663
HDL cholesterol (mmol/l)	1.4 ± 0.35	1.37 ± 0.28	0.2023
Insulin Con. (U/ml)	3.8 ±1.98	4.1 ±1.62	0.3485
HOMA-IR	1.98 ±1.3	1.93±1.17	0.8073
% HOMA-B	58.6±46.5	61.1±43.0	0.6921
C-Peptide Concentration (ng/mL)	1.34±0.34	1.33±0.40	0.8895
BP/ systolic (mmHg)	111.0 ± 11.3	108.3 ± 10.6	0.0813
BP/diastolic (mmHg)	66.6 ± 9.9	68.9 ± 6.3	0.0611
HR	69.3 ± 8.7	70.9 ± 8.9	0.2011
T Cell Subset Counts (cells/μL)	Males (n=96)	Females (n=102)	p-value
Absolute CD3+ T Cell Count (cells/μL)	1230 ± 281.8	1214 ± 308.1	0.7143
Absolute CD4+ T Cell Count (cells/μL)	737.8 ± 185	704.9 ± 155.5	0.1755
Absolute CD8+ T Cell Count (cells/μL)	470.9 ± 277.2	514.1 ± 287.6	0.2829

Date presented in ± SD with p = 0.05 significance

Supplementary Table 2: Association between Active CD8+HLA-Dr+ subsets and circulatory cytokines expression

Circulatory Cytokines expression	LH (88) (95% CI), P value		OB (69) (95% CI), P value		Pre-OB (95% CI), P value	
IL-12P40 (pg/ml)	-0.26 to 0.15	0.57	-0.61 to 0.47	0.73	-0.42 to 0.29	0.69
IL-13 (pg/ml)	-0.58 to 0.27	0.42	-0.33 to 0.74	0.35	-0.81 to 0.54	0.53
MCP-1 (pg/ml)	-0.22 to 0.36	0.64	-0.20 to 0.26	0.77	0.03 to 0.58	0.02
VEGF (pg/ml)	-0.48 to 0.08	0.15	-0.49 to -0.05	0.01	-0.68 to 0.80	0.76
IL-12P70 (pg/ml)	-0.08 to 0.33	0.57	-0.22 to 0.79	0.19	-0.38 to 0.23	0.60
IL- 6 (pg/ml)	-0.03 to 0.37	0.09	-0.16 to 0.32	0.51	0.10 to 0.63	0.009
IL-1α(pg/ml)	-0.34 to 0.06	0.18	-0.20 to 0.80	0.17	-0.40 to 0.37	0.92
IL-1RA (pg/ml)	-0.23 to 0.35	0.67	-0.27 to 0.77	0.26	-0.82 to 0.53	0.50
IL-1β (pg/ml)	-0.36 to 0.22	0.63	-0.17 to 0.29	0.61	-0.21 to 0.39	0.52
IL-8 (pg/ml)	-0.10 to 0.30	0.33	-0.27 to 0.21	0.79	-0.35 to 0.37	0.96
Eotoxin (pg/ml)	-0.20 to 0.22	0.92	-0.63 to 0.50	0.76	-0.23 to 0.50	0.43
IL-7 (pg/ml)	- 0.18 to 0.26	0.81	-0.52 to 0.66	0.74	-0.82 to 0.51	0.47
MCP-3 (pg/ml)	-0.15 to 0.25	0.63	-0.31 to 0.72	0.34	-0.20 to 0.41	0.47
sCSD40L (pg/ml)	-0.27 to 0.32	0.86	-0.56 to 0.53	0.94	-0.35 to 0.84	0.27
G-CSF (pg/ml)	-0.45 to 0.11	0.22	-0.68 to 0.37	0.47	-0.56 to 0.74	0.37
TNF-β (pg/ml)	-0.21 to 0.37	0.58	-0.50 to 0.55	0.90	-0.74 to 0.65	0.82
GM-CSF (pg/ml)	-0.39 to 0.18	0.45	-0.56 to 0.49	0.85	-0.45 to 0.85	0.67
Fractalkine (pg/ml)	-0.41 to 0.16	0.37	-0.52 to 0.57	0.90	-0.73 to 0.76	0.93
TGF-α (pg/ml)	-0.12 to 0.29	0.39	-0.75 to 0.25	0.25	-0.06 to 0.51	0.11
IP-10 (pg/ml)	- 0.39 to 0.18	0.46	-0.051 to 0.84	0.07	0.10 to 0.95	0.03
IL-15 (pg/ml)	-0.34 to 0.25	0.74	-0.50 to 0.45	0.88	-0.14 to 0.82	0.12
IL-9 (pg/ml)	-0.18 to 0.23	0.83	-0.78 to 0.23	0.21	-0.67 to 0.73	0.89

IL-17A (pg/ml)	-0.18 to 0.23	0.82	-0.24 to 0.22	0.92	0.21 to 0.69	0.001
TNF-α (pg/ml)	-0.35 to 0.054	0.14	-0.25 to 0.21	0.88	0.08 to 0.61	0.01
Fit-3L (pg/ml)	-0.34 to 0.24	0.74	-0.70 to 0.34	0.39	-0.70 to 0.70	0.98
FGF-2 (pg/ml)	-0.44 to 0.13	0.27	-0.57 to 0.52	0.90	-0.66 to 0.66	0.99
IFNγ (pg/ml)	- 0.14 to 0.26	0.56	-0.31 to 0.15	0.48	0.03 to 0.58	0.02
IL-10 (pg/ml)	-0.31 to 0.27	0.87	-0.70 to 0.29	0.33	-0.33 to 0.88	0.22
MDC (pg/ml)	-0.17 to 0.41	0.38	-0.74 to 0.27	0.28	-0.44 to 0.85	0.35
GRO (pg/ml)	-0.42 to 0.41	0.34	-0.61 to 0.48	0.77	-0.88 to 0.52	0.39
MIP-1β (pg/ml)	-0.20 to 0.38	0.54	-0.35 to 0.56	0.61	-0.89 to 0.28	0.18
INF-α2 (pg/ml)	-0.17 to 0.24	0.71	-0.36 to 0.10	0.25	-0.29 to 0.32	0.92
MIP-1α (pg/ml)	-0.14 to 0.43	0.31	-0.33 to 0.57	0.54	-0.71 to 0.78	0.86
IL-3 (pg/ml)	-0.26 to 0.15	0.60	-0.77 to 0.20	0.18	-0.49 to 0.83	0.44
EGF (pg/ml)	-0.21 to 0.37	0.57	-0.64 to 0.44	0.63	-0.59 to 0.85	0.52
IL-5 (pg/ml)	-0.29 to 0.29	0.98	-0.43 to 0.81	0.39	-0.86 to 0.56	0.47
IL-2 (pg/ml)	-0.54 to 0.27	0.45	-0.79 to 0.48	0.48	0.00 to 0.75	0.04
IL-4 (pg/ml)	-0.28 to 0.52	0.52	-0.71 to 0.60	0.79	-0.83 to 0.78	0.90

Date presented in $\pm$ SD with p = 0.05 significance