

# **Supplemental Material**

**Table S1. Associations between circulating adipokine concentrations and echocardiographic indices: adjusted for BMI instead of height and weight.**

	Cardiac structural measures				Left ventricular function measures			
	Log left ventricular mass Index		Left atrial dimension at end-systole		Fractional shortening		Log E/e'	
	Estimate	p value	Estimate	p value	Estimate	p value	Estimate	p value
Leptin	-0.035	<b>&lt;0.0001*</b>	-0.032	<b>0.0005*</b>	0.005	0.95	0.008	0.17
LR	0.007	0.0097	0.004	0.51	-0.105	0.09	-0.016	<b>0.0002*</b>
FLI	-0.022	<b>&lt;0.0001*</b>	-0.022	0.0082	0.046	0.55	0.013	0.007
FABP4	-0.018	<b>&lt;0.0001*</b>	-0.006	0.42	0.044	0.55	0.002	0.73
RBP4	0.012	<b>0.0001*</b>	0.025	<b>0.0002*</b>	-0.067	0.30	-0.007	0.11
Fetuin-A	-0.001	0.60	-0.005	0.41	0.113	0.04	0.005	0.15
Adiponectin	-0.0006	0.83	0.011	0.10	-0.063	0.32	0.004	0.30

Estimates are beta coefficients per sex-standardized 1 standard deviation increase for each adipokine.

Models are adjusted for cohort, age, sex, BMI, systolic blood pressure, diastolic blood pressure, heart rate, diabetes, anti-hypertensive treatment, smoking, serum creatinine, high density lipoprotein, low density lipoprotein, triglycerides.

\* Bonferroni corrected  $p \leq 0.002$ .

FABP: Fatty Acid-Binding Protein; FLI: Free Leptin index; LR: Leptin receptor; RBP: Retinol-Binding Protein.

**Table S2. Secondary analysis of associations between adipokine levels and the components of LVMI and LV end-systolic dimensions.**

	Left ventricular diastolic dimension		Left ventricular systolic dimension		Left ventricular wall thickness	
	Estimate	p-value	Estimate	p-value	Estimate	p-value
Leptin	-0.066	<b>&lt;0.0001*</b>	-0.044	<b>&lt;0.0001*</b>	-0.021	<b>0.0003*</b>
LR	-0.004	0.44	0.003	0.57	0.014	<b>&lt;0.0001*</b>
FLI	-0.035	<b>&lt;0.0001*</b>	-0.025	<b>&lt;0.0001*</b>	-0.017	<b>&lt;0.0001*</b>
FABP4	-0.030	<b>&lt;0.0001*</b>	-0.022	<b>0.0002*</b>	-0.014	<b>0.0001*</b>
RBP4	0.019	<b>0.0009*</b>	0.016	<b>0.002*</b>	0.008	0.008
Fetuin-A	-0.0002	0.96	-0.006	0.17	-0.002	0.42
Adiponectin	0.001	0.83	0.003	0.50	-0.003	0.38

Estimates are beta coefficients per 1 standard deviation increase for each sex-standardized adipokine.

Models are adjusted for cohort, age, sex, height, weight, systolic blood pressure, diastolic blood pressure, heart rate, diabetes, anti-hypertensive treatment, smoking, serum creatinine, high density lipoprotein, low density lipoprotein, triglycerides

\* Bonferroni corrected p value:  $p \leq 0.002$ .

FABP: Fatty Acid-Binding Protein; FLI: Free Leptin index; LR: Leptin receptor; RBP: Retinol-Binding Protein.

**Table S3. Associations of circulating adipokine concentrations and echocardiographic indices stratified by sex-specific median weight.**

	Overall sample		Stratified by sex-specific median		
	Estimate	p-value	Stratum	Estimate	p-value
<b>Left ventricular mass Index</b>					
LR	0.009	<b>0.002</b>	<median weight	0.008	0.0263
			≥median weight	0.011	0.0095
FABP4	-0.019	<b>&lt;0.0001*</b>	<median weight	-0.035	<0.0001
			≥median weight	-0.011	0.0026
<b>Left atrial end-systolic diameter</b>					
Leptin	-0.039	<b>&lt;0.0001*</b>	<median weight	-0.062	0.0046
			≥median weight	-0.028	0.0053

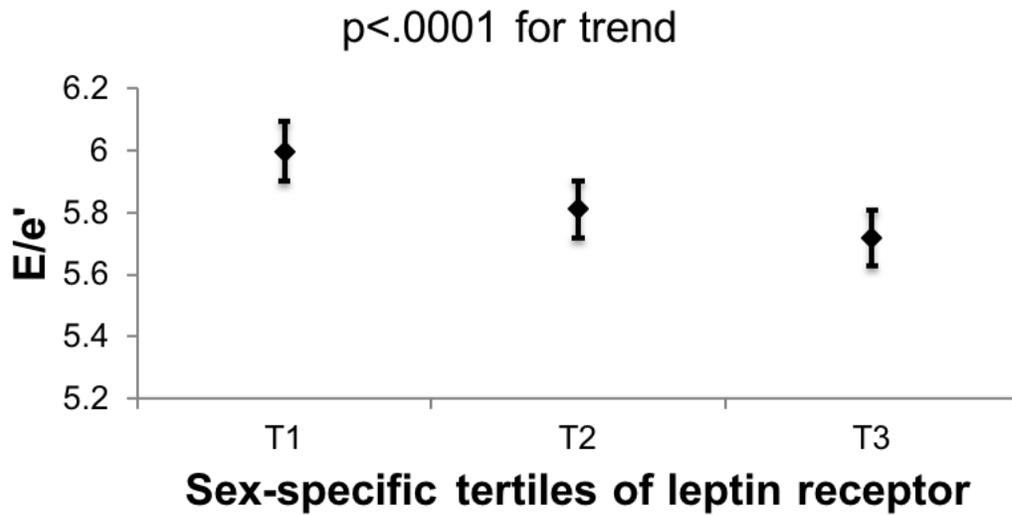
Estimates are beta coefficients per sex-standardized 1 standard deviation increase for each adipokine. See Table 1 for sex-specific median weight.

Models are adjusted for cohort, age, sex, height, weight, systolic blood pressure, diastolic blood pressure, heart rate, diabetes, anti-hypertensive treatment, smoking, serum creatinine, high density lipoprotein, low density lipoprotein, triglycerides.

\* Bonferroni corrected  $p \leq 0.002$

FABP: Fatty Acid-Binding Protein; LR: Leptin receptor.

**Figure S1. Least square means of E/e' according to sex-specific tertile of circulating concentrations of soluble leptin receptor.**



Least squares means and their standard errors of E/e' according to sex-specific tertiles of leptin receptor, adjusted for cohort, age, sex, height, weight, systolic blood pressure, diastolic blood pressure, heart rate, diabetes, anti-hypertensive treatment, smoking, serum creatinine, high density lipoprotein, low density lipoprotein, triglycerides.