

**Supplementary Table 1**

<b>Variables</b>	<b>Cases</b>	<b>Controls</b>	<b>Median Difference (IC95%)</b>	<b>T-Student p-value</b>
<b>Age, year;</b> <i>median (SD)</i>	44 (5)	45 (5)	0:2	0.74
<b>Age at menarche, year;</b> <i>median (Interquartile Range)</i>	13 (12-14)	13 (12-14)	0.7:1.3	0.64
<b>IGF1;</b> <i>median, (Interquartile Range)</i>	157 (130-190)	151 (125.5-185)	-6.5:10.5	0.15
<b>TTS;</b> <i>median (Interquartile Range)</i>	0.26 (0.2-0.36)	0.25 (0.19-0.33)	-0.03:0.03	0.21
<b>BMI, kg/m<sup>2</sup>;</b> <i>median (Interquartile Range)</i>	24.1 (23.3-28.3)	24.04 (23.6-28.4)	-1.1:0.68	0.6
<b>Fasting glucose;</b> <i>median (Interquartile Range)</i>	84 (77-91)	84 (77-90)	-1:3	0.65
<b>Alcohol intake, g/d</b> <i>median (Interquartile Range)</i>	1.7 (0-12)	1.7 (0-12)	-0.8:4.2	0.59
<b>Age at first birth</b> <i>median (SD)</i>	26 (3.7)	25 (3.8)	-1.7:-0.26	0.19
<b>Full term pregnancies</b> <i>median (SD)</i>	2 (0.95)	2 (1.1)	-0.21:0.21	0.02
<b>Smoking</b> <i>% of smoker/ex smoker/not smoker</i>	21/19/60	19/11/70	-	0.4*

**Supplementary Table 2**

<i>Down-Regulated microRNAs</i>			
<b>microRNA</b>	<b>Log FC <sup>1</sup></b>	<b>P values <sup>2</sup></b>	<b>FDR <sup>3</sup></b>
miRNA-431	-0.5448	0.0006	0.1301
miRNA-550*	-0.4235	0.0008	0.1301
miRNA-23b	-0.3405	0.0008	0.1301
miRNA-654-3p	-0.4179	0.0021	0.2548
miRNA-183*	-0.464	0.0028	0.2627
miRNA-326	-0.2396	0.0036	0.3002
miRNA-197	-0.2239	0.0048	0.3234
miRNA-361-3p	-0.2194	0.0059	0.3343
miRNA-128	-0.2769	0.0063	0.3343
miRNA-155	-0.1877	0.0079	0.3775
miRNA-92a	-0.1419	0.0089	0.3948
<i>Up-Regulated microRNAs</i>			
miRNA-513c-5p	0.5737	0.0001	0.087
miRNA-513a-5p	0.753	0.0004	0.1301
miRNA-1275	0.5052	0.0021	0.2548
miRNA- 498	0.3348	0.0024	0.2568
miRNA-513b-5p	0.4786	0.0039	0.3002
miRNA- let-7c*	0.2745	0.0049	0.3234
miRNA- 370	0.5398	0.0059	0.3343
miRNA- 518-3p	0.189	0.008	0.3775
miRNA-1254	0.4851	0.0094	0.3948

**Supplementary Table 3**

<b>pathway</b>	<b>source</b>	<b>genes</b>	<b>p-value</b>
NFAT and hypertrophy of the heart	BioCarta	HDAC9; NFATC1; SHC1	2.37E-04
IL-6 signaling pathway	BioCarta	SHC1; IL6R	5.69E-04
MAPK signaling pathway	KEGG	NFATC1; DUSP6; GNA12; TP53; CACNB2	6.32E-04
Role of ERBB2 in signal transduction and oncology	BioCarta	SHC1; IL6R	2.88E-03
Th17 cell differentiation	KEGG	NFATC1; IL6ST; IL6R	3.16E-03
BCR signaling pathway	BioCarta	NFATC1; SHC1	3.50E-03
Sphingolipid signaling pathway	KEGG	TP53; GNA12; SGMS1	4.36E-03

**Supplementary Table 4**

<b>pathway</b>	<b>source</b>	<b>genes</b>	<b>p-value</b>
Hypertrophic cardiomyopathy (HCM)	KEGG	TGFB3; ITGB8; SGCD; TPM2; TPM1; ITGA7; CACNA2D2	2.58E-03
Dilated cardiomyopathy	KEGG	TGFB3; ITGB8; SGCD; TPM2; TPM1; ITGA7; CACNA2D2	3.82E-03
Insulin signaling pathway role of EGFR	KEGG	ACACB; PPP1R3B; SOCS2; MKNK1; IRS1; IKBKB; SORBS1; SHC1; TSC1	4.31E-03
Transactivation by GPCRS in cardiac hypertrophy	BioCarta	IKBKB; EDNRA; GNB1; SHC1	6.09E-03
Pathways in cancer	KEGG	IKBKB; ARHGEF12; TGFB3; AXIN2; PDGFRB; GNB1; GNB3; CASP9; GLI2; RUNX1; RUNX1T1; TPR; EDNRA; AGTR1; LAMC1; DAPK2; FGF1	8.30E-03
MAPK signaling pathway	BioCarta	IKBKB; MAP3K8; MAP4K5; MAPK11; MEF2D	8.89E-03
Neuroactive ligand-receptor interaction	KEGG	MC1R; APLNR; CALCRL; GRIA3; GLRB; HTR1F; MCHR2; GRM8; EDNRA; F2RL2; AGTR1; P2RX2; GABRB2	9.56E-03
Sprouty regulation of tyrosine kinase signals	BioCarta	SPRY1; SHC1; PTPRB	9.61E-03
PI3K-Akt signaling pathway	KEGG	PDGFRB; TEK; TNN; THBS2; ITGB8; GNB1; IRS1; GNB3; ITGA7; IKBKB; CASP9; PDGFD; LAMC1; FGF1; TSC1	9.92E-03

**Supplementary table 5**

<b>miRNA</b>	<b><math>\beta</math></b>	<b>pval</b>
hsa-miR-23b	0.37	0.1
hsa-miR-361-3p	0.16	0.47
hsa-miR-128	-0.16	0.48
hsa-miR-1275	0.18	0.41
hsa-miR-197	0.25	0.25
hsa-miR-326	-0.2	0.35
hsa-miR-183*	0.06	0.77
hsa-miR-550*	0.21	0.33
hsa-miR-155	0.09	0.69
hsa-miR-370	0.13	0.54
hsa-miR-1254	0.1	0.62
hsa-miR-513a-5p	0.39	0.07
hsa-miR-513b	0.26	0.24
hsa-miR-513c	-0.02	0.9
hsa-miR-654-3p	-0.08	0.7
hsa-miR-431	0.03	0.87
hsa-miR-498	-0.06	0.78
hsa-miR-518d-3p	-0.29	0.28
hsa-miR-92a	-0.08	0.7

**Supplementary Table 6**

<b>Gene</b>		<b>Sequence</b>
GAPDH	FW	5'---GAGTCAACGGATTTGGTCGT---3'
	RV	5'---GACAAGCTTCCCGTTCTCAG---3'
PR	FW	5'---ATGACTGCATCGTTGATAAAAATCC---3'
	RV	5'---TTTTCGACCTCCAAGGACCAT---3'
ATP1B1	FW	5'---TGGCATCTTCATCGGAACCA---3'
	RV	5'---TGCCTCATAGCTCTTGGGAT---3'