

SUPPLEMENTARY DATA

Supplementary Table 1. Primer sequences for real time PCR.

Gene	Forward Primer	Reverse Primer
<i>FAS</i>	CGGGCGGGAAGGGTGTGAC	CACGCTGGCCTGCAGCTTCT
<i>DGAT1</i>	CCGGGAGTTCTACCGGGACTGG	CCATCCACCTGCTGCTGCC
<i>PPARA</i>	CGTGGCTGCTATCATTGCTGTGG	CGTCCGGGTGGTTGCTCTGC
<i>PEPCK</i>	TCATGACGCGGATGGGCACG	CGTCAGCTCCGGGTTGCAGG
<i>TNFA</i>	TCGAACCCCAAGTGACAAGCCT	GCCATTGGCCAGGAGGGCAT
<i>TLR4</i>	GCTTCTCCGTTTTCCAGAACTGC	TGGAGAGGTGGCTTAGGCTCTGA
<i>LPIN1</i>	TCGGATGAGGCCATGGAGCTG	TGAGGGTAAATCACGGTCGGGG
<i>ACCI</i>	CACACCAGGCCGGATGCAGG	ACGCCTCAGCCGCCAGTAGA
<i>MCP1</i>	GCACTTCTGTGCCTGCTGCTCA	GCAGCAAGTGACGGGGGCAT
<i>SCD1</i>	TCCCGGCATCCGAGAGCCAA	CCTGGAGGGAGGCGCTGTGA
<i>SREBP1</i>	CCGCTCCTCCATCAATGACA	GCTGTGTTGCAGAAAGCGAA
<i>SREBP2</i>	ACTTCGCCAGGAGAACATGG	ACCAGACTGCCTAGGTCGAT
<i>APOB</i>	ACAGGCGTCAGCCACTTGC	TCCTCTTGGCGTCCAGGGTGT
<i>PEMT</i>	GGGTCCCCTACCTGGCCTG	TTGGGCTGGCTCAGCATGGC
<i>NLRP3</i>	GCGAGCCATGCAGGCCAAGA	GGAGACGCCCCAGCTCTCCA
<i>CASP1</i>	TGGCAGGGACGCTGGGACTT	AGCTGGGTTGCTCCTGCATTGCC
<i>SERCA2</i>	GCCCTGGCCACTCACGACAA	CCCACGCAGCCAACGAAGGT
<i>IL1B</i>	GCTCTCCACCTCCAGGGACAGG	TGAGGCCCAAGGCCACAGGT
<i>CD11B</i>	ACGCGCAGGCAGACGAAGAC	TCAGGCGCAGCACAAATGGGG
<i>CD68</i>	AGGCTCCAGGCTGCTCAGCT	ATGGACCGGTCCTGGGGCA
<i>ARG1</i>	TCAGCCTGGTGCTGGGTGGA	CAGGGTGGACGCTGGCATGG
<i>PPARG</i>	GGCGAGGGCGATCTTGACAGG	GCTCTGCTCCTGCAGTGGGG
<i>PPARD</i>	TGGGGGACCACAGCATGCAC	TCCAGCAGTGAGGGTGGCGA
<i>CCR2</i>	TTGACGTGAAGCAAATCGGG	CCAGCATGTTGCCACAAAA
<i>INOS</i>	AAGACCAGGCTGTGTTGAG	GGATTCTGCAGCTGAGTGGT
<i>DGAT2</i>	AAACTGGGCTGTGTGGCGCT	GGCCCATGATGCCATGGGGG
<i>GPAT1</i>	GTGGATTTTGCACAGCCGTT	AGAAAGTGGAGCAGACACCG
<i>AGPAT1</i>	TTGTCTCCAACCACAGAGC	AGTAGCTCACGCTTGGCAAT
<i>AGPAT2</i>	GTCATCGTCTCCAACCACCA	CGAGGTACATGATGAGGCC

SUPPLEMENTARY DATA

Supplementary Table 2. Liver fatty acid composition.

Fatty Acid (%)*	CON/CON	CON/HF	HF+IR/CON	HF+IR/HF	Diet Effects		
					Maternal	Post-wean	INT
<i>Triglycerides</i>							
Saturated	28.6 ± 1.1	32.7 ± 0.5	28.5 ± 0.7	31.5 ± 1.1	0.58	<0.005	0.63
Mono-unsaturated	18.7 ± 0.1	39.8 ± 3.5	24.3 ± 2.1	41.9 ± 1.5	0.11	<0.0001	0.44
Poly-unsaturated	52.7 ± 1.1	27.6 ± 3.1	47.2 ± 2.5	26.7 ± 1.1	0.15	<0.0001	0.29
Essential	45.2 ± 0.9	22.5 ± 1.4	42.5 ± 1.9	23.5 ± 0.8	0.57	<0.0001	0.20
all n-6	44.5 ± 0.2	26.1 ± 2.9	41.1 ± 1.9	25.4 ± 1.1	0.28	<0.0001	0.46
all n-3	8.2 ± 1.3	1.5 ± 0.3	6.1 ± 0.8	1.2 ± 0.1	0.06	<0.0001	0.13
n-6:n-3	5.7 ± 1.1	18.0 ± 1.4	7.3 ± 1.0	21.7 ± 2.5	0.28	<0.0001	0.66
<i>Diacylglycerides</i>							
Saturated	33.9 ± 1.4	35.5 ± 1.8	30.7 ± 0.7	33.9 ± 0.8	<0.05	<0.05	0.49
Mono-unsaturated	15.9 ± 0.9	32.7 ± 2.9	20.9 ± 1.6	33.6 ± 1.6	0.17	<0.0001	0.35
Poly-unsaturated	50.2 ± 0.6	31.8 ± 1.9	48.5 ± 2.0	32.5 ± 0.9	0.75	<0.0001	0.46
Essential	43.6 ± 0.6	26.0 ± 1.2	44.2 ± 1.9	27.3 ± 0.5	0.43	<0.0001	0.76
all n-6	46.0 ± 0.3	31.1 ± 1.9	44.5 ± 1.6	31.7 ± 0.9	0.75	<0.0001	0.46
all n-3	4.2 ± 0.7	0.7 ± 0.1	4.0 ± 0.4	0.8 ± 0.1	0.86	<0.0001	0.70
n-6:n-3	12.0 ± 2.6	45.6 ± 8.8	11.6 ± 1.1	40.8 ± 3.3	0.60	<0.0001	0.64
<i>Phospholipids</i>							
Saturated	45.2 ± 0.1	44.9 ± 0.5	45.5 ± 0.4	44.1 ± 0.3	0.54	0.08	0.25
Mono-unsaturated	5.1 ± 0.6	8.1 ± 0.8	4.9 ± 0.3	8.6 ± 0.5	0.80	<0.0001	0.55
Poly-unsaturated	49.7 ± 0.5	47.0 ± 0.6	49.7 ± 0.3	47.2 ± 0.3	0.76	<0.0001	0.77
Essential	22.2 ± 0.6	18.2 ± 0.7	20.5 ± 0.9	19.7 ± 0.6	0.89	<0.01	0.06
all n-6	37.4 ± 0.4	41.1 ± 0.2	37.6 ± 0.4	41.9 ± 0.4	0.24	<0.0001	0.48
all n-3	12.3 ± 0.2	5.9 ± 0.4	12.1 ± 0.6	5.3 ± 0.4	0.45	<0.0001	0.72
n-6:n-3	3.0 ± 0.0	7.1 ± 0.5	3.1 ± 0.2	8.6 ± 1.2	0.46	<0.0005	0.52

* Measured in each lipid class by mass spec in a subset of offspring ($n = 3 - 8$ per group).

Supplementary Table 3. Gene expression in isolated hepatocyte and hepatic macrophages from juvenile offspring.

Expression*	Hepatocytes		Hepatic Macrophages		Diet Effect		
	CON/CON	HF+IR/CON	CON/CON	HF+IR/CON	Cell	Maternal	INT
<i>CD45</i>	1.0 ± 0.5	0.5 ± 0.1	22.1 ± 1.1	33.1 ± 5.8	<0.01	0.27	0.22
<i>CD11B</i>	1.0 ± 0.3	1.1 ± 0.3	4.4 ± 1.9	8.5 ± 1.6	<0.05	0.22	0.19
<i>CD68</i>	1.0 ± 0.4	0.9 ± 0.2	12.6 ± 1.7	25.5 ± 4.3	<0.01	0.11	0.09

* Gene expression measured in $n = 2$ CON/CON and 3 HF+IR/CON sets of hepatocytes and hepatic macrophages from same animal.