Supplementary materials

Transcriptomic changes underlying the anti-steatotic effects of DHA supplementation in aged obese female mice

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Table S1. Effects of long term DHA supplementation on body weight, body composition, food intake, serum cholesterol profile and markers of MASLD in 18-month-old obese female mice.

	DIO	DIO + DHA
Body weight (g)	48.7 ± 3.1	44.9 ± 1.6
Fat mass (%)	52.6 ± 2.4	50.6 ± 1.6
Lean mass (%)	37.5 ± 1.8	37.6 ± 1.4
Food intake (kcal/day)	11.7 ± 0.2	11.2 ± 0.2
Total-cholesterol (mg/dL)	130.8 ± 10.1	95.8 ± 9.1 *
LDL-cholesterol (mg/dL)	68.3 ± 7.8	32.1 ± 5.8***
HDL-cholesterol (mg/dL)	49.9 ± 3.0	53.8 ± 4.9
ALT (U/L)	172.1 ± 30.6	83.2 ± 2.3 *
Liver weight (g)	1.5 ± 0.1	1.2 ± 0.0 **
Liver triglyceride (mg/g tissue)	177.5 ± 9.3	100.9 ± 6.5 ***

Data are expressed as mean ± SEM. n = 6 (DIO) or n= 5 (DIO + DHA) animals/group. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ vs DIO group.

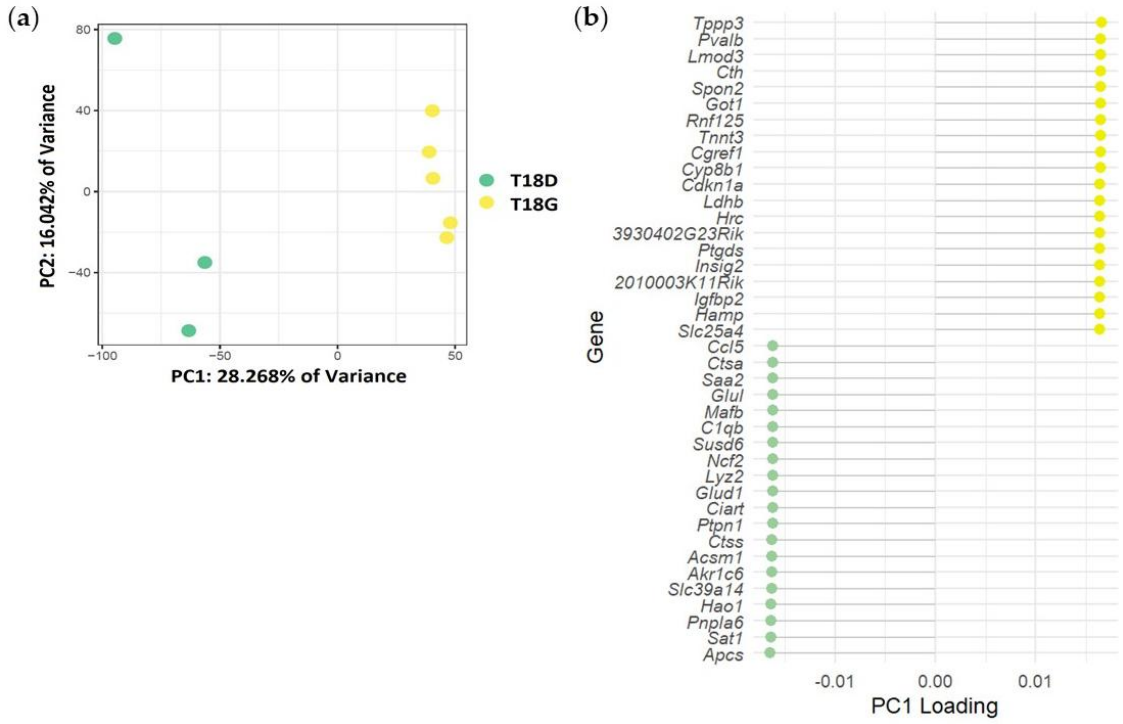


Figure S1. a) PCA analysis of the samples of DIO (green) and DIO+DHA groups (yellow). b) Top Genes Contributing to PC1 that explain 28% of variance.

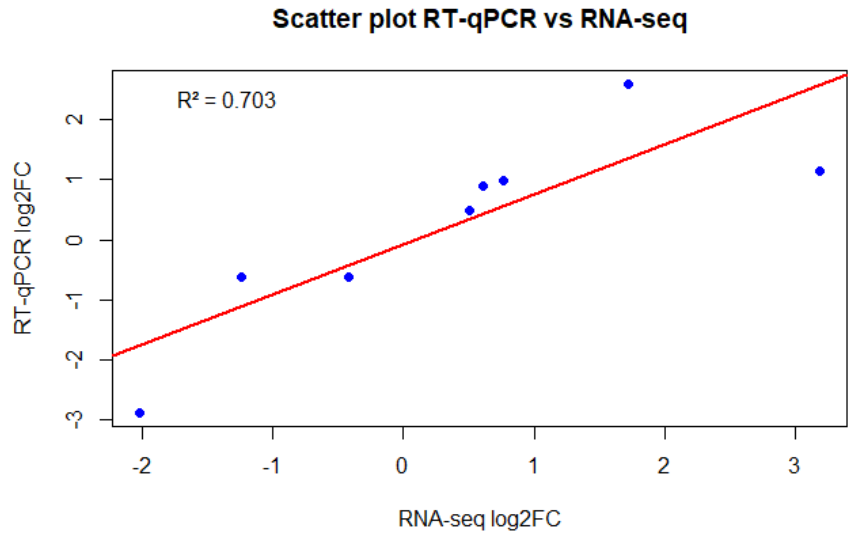


Figure S2. Concordance between RNA-seq and RT-qPCR results. Scatter plot of log2 fold-change (log2FC) values measured by RNA-seq (x-axis) versus RT-qPCR (y-axis) for the 8 selected genes. Each point represents one gene. The red line indicates the linear regression fit. The coefficient of determination (R^2 = 0.70) are shown.

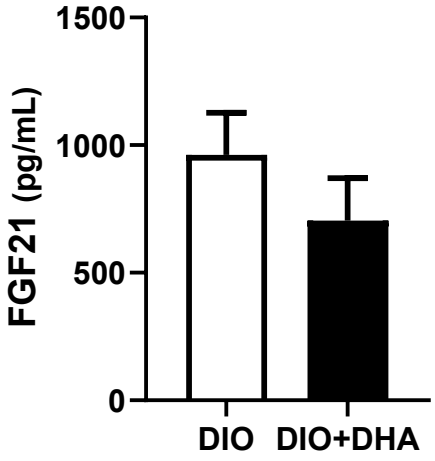


Figure S3. Effects of long-term DHA supplementation on FGF21 serum levels of aged diet-induced obese (DIO) female mice. Data are mean ± SEM (n = 6-5 animals per group)