Supporting information for:

Impact of housing temperature on adipose tissue HDAC9 expression and adipogenic differentiation in high fat fed mice

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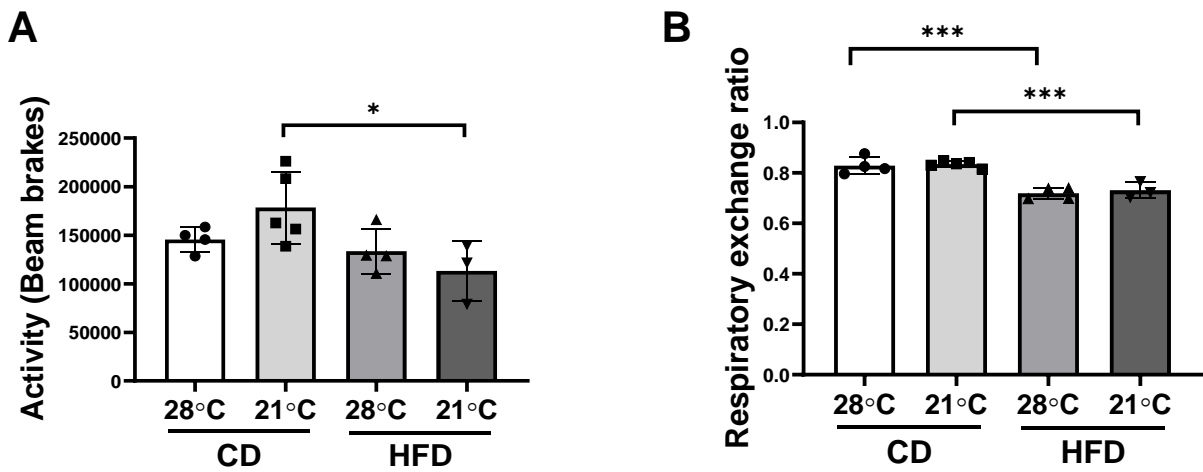
Supplemental Figure S1

A

B

Figure S1: Quantification of activity and respiratory exchange ratio. **(A)** Locomotor activity measured as beam breaks over 48 hr measurement period of mice fed CD or HFD under ambient or thermoneutral housing (n=3-5). **(B)** Respiratory exchange ratio (VCO_2 production/VO_2 consumption) (n=3-5). Data are represented as mean ± SD. *p<0.05, ****p<0.0001.

Supplemental Figure S2

Descriptive Statistics

Dependent Variable: Expenditure_24hr

Conditions	Mean	Std. Deviation	N
0	11.9334	.61379	5
1	8.9475	.71304	4
2	11.4525	.88228	4
3	15.9300	.64969	3
Total	11.8161	2.45625	16

- 0: CD 28°C
- 1: CD 21°C
- 2: HFD 28°C
- 3: HFD 21°C

Levene's Test of Equality of Error Variances[a]

Dependent Variable: Expenditure_24hr

F	df1	df2	Sig.
.346	3	12	.793

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Massg + Conditions

- Dependent variable: energy expenditure
- Independent variable: conditions
- Covariate analyzed: mass (in grams)

Tests of Between-Subjects Effects

Dependent Variable: Expenditure_24hr

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	84.766[a]	4	21.191	40.672	<.001	.937
Intercept	15.430	1	15.430	29.614	<.001	.729
Massg	.480	1	.480	.922	.358	.077
Conditions	54.606	3	18.202	34.934	<.001	.905
Error	5.731	11	.521			
Total	2324.407	16				
Corrected Total	90.497	15				

a. R Squared = .937 (Adjusted R Squared = .914)

Figure S2. One way ANCOVA was performed to assess one independent variable (conditions) within four groups (CD 28°C, CD 21°C, HFD 28°C, HFD 21°C). Conditions (CD/HFD, 28°C/21°C), when controlled for body mass, had a statistically significant effect in controlling the mean of 24 hr energy expenditure ($p<0.001$). Mass in grams did not have a statistically significant effect in controlling the mean of 24 hr energy expenditure. Homogenous distribution of variance was confirmed before ANCOVA analysis (p=0.793).