

Supporting Information

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Table S1. Metabolic parameters in *Pparg*^{B/B} (B/B) and *Pparg*^{+/+} (+/+) mice

	4 months, regular chow				8 months, high-fat diet			
	Female		Male		Female		Male	
	B/B	+/+	B/B	+/+	B/B	+/+	B/B	+/+
Number of mice	6–7	7–10	8–9	8–10	5–8	7–8	6–8	9
BW, g	21 ± 1	20 ± 1	26 ± 1	26 ± 1	32 ± 3	36 ± 3	37 ± 3	40 ± 2
Kidney, % BW	0.7 ± 0.0	0.7 ± 0.0	0.7 ± 0.0	0.7 ± 0.0	0.5 ± 0.0	0.5 ± 0.0	0.6 ± 0.0	0.5 ± 0.0
Liver, % BW	4.0 ± 0.2	4.0 ± 0.1	4.3 ± 0.1	4.5 ± 0.1	2.9 ± 0.2	2.9 ± 0.1	3.2 ± 0.2	3.6 ± 0.2
Heart, % BW	0.5 ± 0.0	0.5 ± 0.0	0.5 ± 0.0	0.5 ± 0.0	0.4 ± 0.0	0.4 ± 0.0	0.4 ± 0.0	0.5 ± 0.0
Spleen, % BW	0.4 ± 0.0	0.4 ± 0.0	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.0	0.2 ± 0.0	0.2 ± 0.0	0.2 ± 0.0
Pancreas, % BW	0.7 ± 0.0	0.7 ± 0.0	0.6 ± 0.0	0.6 ± 0.0	0.7 ± 0.1	0.7 ± 0.1	0.7 ± 0.0	0.7 ± 0.1
Brown adipose tissue, % BW	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.0	0.3 ± 0.0	0.6 ± 0.1	0.5 ± 0.1
Perigonadal WAT, % BW	1.3 ± 0.1	1.2 ± 0.1	1.1 ± 0.2	1.2 ± 0.1	5.3 ± 1.3	7.6 ± 1.6	4.7 ± 0.7	4.3 ± 0.7
Retroperitoneal WAT, % BW	ND	ND	0.2 ± 0.0	0.3 ± 0.1	0.9 ± 0.2	1.2 ± 0.2	1.2 ± 0.2	1.0 ± 0.1
Inguinal WAT, % BW	0.9 ± 0.0	1.0 ± 0.1	0.8 ± 0.1	0.8 ± 0.1	2.8 ± 0.6	3.3 ± 0.5	2.7 ± 0.5	2.0 ± 0.4
Glucose, mg/dL	291 ± 7	273 ± 12	290 ± 21	249 ± 19	290 ± 9	297 ± 9	285 ± 26	282 ± 13
Insulin, ng/mL	ND	ND	0.6 ± 0.1	0.6 ± 0.1	ND	ND	2.5 ± 0.6	2.3 ± 0.5
Triglycerides, mg/dL	30 ± 1*	42 ± 3	35 ± 1*	41 ± 3	25 ± 2	29 ± 2	30 ± 4	32 ± 1
Total cholesterol, mg/dL	34 ± 2	37 ± 3	43 ± 2	42 ± 2	57 ± 5	60 ± 4	80 ± 7	87 ± 4
Free fatty acids, mmol/L	0.7 ± 0.1	0.9 ± 0.2	1.0 ± 0.1	1.0 ± 0.1	0.9 ± 0.1	0.9 ± 0.1	0.8 ± 0.0	1.0 ± 0.0

BW, body weight; ND, not determined. Data are mean ± SEM measured at age 4 months in mice fed with regular chow and 8 months in mice fed with a high-fat diet for 6 months. Organ weights represent % body weight.

**P* < .05 compared with WT littermates within each group.

Table S2. Blood pressures of *Pparg* mutants compared with their WT littermates. A. *Pparg*^{B/+} × *Pparg*^{+/+}

	Age, diet	B/+	+/+
Females			
[d]	4 months, RC	100 ± 1* (8)	107 ± 2 (8)
[e]	9 months, RC	102 ± 4 (8)	104 ± 2 (10)
[f]	12 months, HF	92 ± 2 (10)	90 ± 2 (10)
Males			
[d]	4 months, RC	101 ± 3 (8)	97 ± 2 (8)
[e]	9 months, RC	98 ± 4 (7)	99 ± 4 (8)
[f]	12 months, HF	81 ± 3 (10)	80 ± 3 (10)

Table S2B. *Pparg*^{C/+} × *Pparg*^{C/+}

	Age, diet	C/C	C/+	+/+
Females				
[g]	4 months, RC	118 ± 4 (7)	115 ± 2 (15)	116 ± 4 (6)
[h]	16 months, RC	106 ± 5 (6)	98 ± 3 (11)	100 ± 2 (5)
[i]	4 months, HF	115 ± 2 (7)	109 ± 2 (16)	111 ± 3 (9)
Males				
[g]	4 months, RC	113 ± 4 (8)	114 ± 3 (12)	112 ± 3 (9)
[h]	16 months, RC	105 ± 4 (6)	99 ± 3 (8)	96 ± 3 (6)
[i]	4 months, HF	105 ± 3 (6)	109 ± 2 (18)	113 ± 3 (8)

Table S2C. *Pparg*^{C/+} × *Pparg*^{+/-}

	Age, diet	C/-	+/-	C/+	+/+
Females					
[j]	4 months, RC	109 ± 1* (13)	ND	ND	104 ± 2 (17)
[k]	4 months, RC	108 ± 3 (9)	105 ± 3 (15)	106 ± 2 (16)	106 ± 2 (16)
[l]	7 months, RC	107 ± 5 (6)	108 ± 3* (6)	ND	101 ± 2 (16)
Males					
[j]	4 months, RC	104 ± 2 (11)	ND	ND	106 ± 2 (12)
[k]	4 months, RC	119 ± 6* (5)	113 ± 2 (10)	110 ± 2 (12)	108 ± 1 (18)
[l]	7 months, RC	110 ± 5 (6)	111 ± 2 (7)	106 ± 2 (7)	107 ± 2 (15)

RC, regular chow; HF, Western-style high-fat diet; ND, not determined.

Data are mean ± SEM, in mm Hg. The numbers of mice are given in parentheses. [d]-[l] indicate experiment numbers.

**P* < .05 against WT littermates (+/+) by Student *t* test.

Table S3. Parameter estimates of blood pressure. ANCOVA

Term	Estimate	SE	Prob > t
Intercept	111.14	3.59	<.0001
Expression (fold WT)	-2.79	0.86	0.0012
Age	-1.36	0.45	0.0173
Sex	0.88	0.35	0.0115
Diet	-1.25	1.57	0.4520
Expression × age	-0.53	0.26	0.0432
Expression × sex	0.70	0.52	0.1737
Expression × diet	0.44	0.88	0.6170
Age × sex	0.17	0.09	0.0734
Age × diet	-1.04	0.46	0.0516
Sex × diet	0.67	0.37	0.0690

Table S3 (continued). Random-effect predictions

Term	BLUP	SE	Prob > t
Experiment [a]	-3.70	2.12	0.1085
Experiment [b]	3.67	2.54	0.1845
Experiment [c]	-5.88	2.83	0.0690
Experiment [d]	-2.91	2.24	0.2164
Experiment [e]	-0.75	2.34	0.7534
Experiment [f]	-0.37	4.25	0.9342
Experiment [g]	8.40	2.10	0.0022
Experiment [h]	-3.13	3.97	0.4517
Experiment [i]	2.57	3.70	0.5094
Experiment [j]	-0.80	2.14	0.7155
Experiment [k]	2.32	2.11	0.2974
Experiment [l]	0.57	1.91	0.7728

Table S3 (continued). REML variance component estimates

Random effect	Variance ratio	Variance component	SE	% of total
Experiment	0.32	21.51	12.10	24.348
Residual		66.84	3.76	75.652
Total		88.35		100.000

PPAR γ expression levels (fold WT), with sex, diet, and age as variables with fixed effects. Experiment was used as a categorical variable with random effects. Three-way and 4-way interactions of the fixed terms were not significant and were not included in this model.