

Table S1. Fatty acyl composition of total cell membrane phospholipids from liver in mice from four experimental groups

	Experimental group				Feeding regimen			Line type		
	H-AL	H-DR	L-AL	L-DR	F	d.f.	P	F	d.f.	P
16:0	31.8±0.3	32.7±0.3	32.1±0.3	32.6±0.3	4.51	1,84	0.036	0.06	1,84	0.80
16:1	2.6±0.1	3.5±0.1	2.6±0.1	3.6±0.1	45.69	1,84	<0.0001	0.13	1,84	0.72
18:0*	15.5±0.3	13.3±0.3	15.6±0.3	12.7±0.3	69.9	1,46	<0.0001	0.86	1,46	0.36
18:1†	8.5±0.2 ^a	11.5±0.2 ^b	7.9±0.2 ^a	11.9±0.2 ^b	214	1,83	<0.0001	0.12	1,83	0.73
18:2	16.8±0.2	16.8±0.2	17.0±0.2	16.5±0.2	1.67	1,84	0.20	0.04	1,84	0.85
20:4	12.4±0.2	10.4±0.2	12.4±0.2	10.0±0.2	135.5	1,84	<0.0001	1.11	1,84	0.29
20:5	1.2±0.1	1.3±0.1	1.0±0.1	1.3±0.1	15.14	1,84	0.0002	1.54	1,84	0.22
22:6	9.8±0.1	9.3±0.1	10.1±0.1	10.0±0.1	3.85	1,84	0.053	15.06	1,84	0.0002

H-AL, high-basal metabolic rate (BMR) mice fed *ad libitum*; H-DR, high-BMR mice subject to dietary restriction (DR); L-AL, low-BMR mice fed *ad libitum*; L-DR, low-BMR mice subject to DR.

Values are means ± s.e.m. Units are percentage of total fatty acids.

*For 18:0, there was a significant effect of family ($F_{38,46}=1.72$, $P=0.04$).

†For 18:1, there was a significant interaction between line type and feeding regimen ($F_{1,83}=4.08$, $P=0.047$); different letters indicate significant differences between groups.

Table S2. Fatty acyl composition of total cell membrane phospholipids from kidney in mice from four experimental groups

	Experimental group				Feeding regimen			Line type		
	H-AL	H-DR	L-AL	L-DR	F	d.f.	P	F	d.f.	P
16:0	27.3±0.3	28.7±0.3	27.2±0.3	28.6±0.3	22.11	1,83	<0.0001	0.14	1,83	0.71
16:1	1.0±0.1	1.5±0.1	1.1±0.1	1.5±0.1	49.38	1,83	<0.0001	1.29	1,83	0.26
18:0	18.3±0.2	17.5±0.2	17.7±0.2	17.0±0.2	12	1,83	0.0008	6.08	1,83	0.016
18:1*	7.0±0.1 ^a	8.3±0.1 ^b	6.6±0.1 ^a	8.7±0.1 ^b	132.5	1,82	<0.0001	0	1,82	0.98
18:2	12.3±0.2	12.7±0.2	12.0±0.2	12.7±0.2	5.81	1,83	0.018	0.14	1,83	0.7
20:4	16.5±0.2	16.0±0.2	16.2±0.2	16.2±0.2	1.76	1,83	0.19	0.09	1,83	0.76
22:6	14.2±0.4	11.8±0.4	15.7±0.4	11.8±0.4	67.5	1,83	<0.0001	3.68	1,83	0.058
24:0	1.0±0.1	1.1±0.1	1.1±0.1	1.1±0.1	4.8	1,83	0.03	8.73	1,83	0.0041

Values are means ± s.e.m. Units are percentage of total fatty acids.

*For 18:1, there was a significant interaction between line type and feeding regimen ($F_{1,82}=6.03$, $P=0.016$); different letters indicate significant differences between groups.