

## **SUPPLEMENTAL DATA:**

**Supplemental Figure 1. Hourly appearance of radioactive sterols in lymph and isolated chylomicron triglyceride mass throughout 8 hours.** Percent of (A) [<sup>14</sup>C]-cholesterol and (B) [<sup>3</sup>H]-sitosterol dose appearance in whole lymph at hourly collections. (C) Triglyceride (TG) mass (μg) was measured in isolated chylomicron samples for every hourly collection. The data are expressed as mean±SEM, (n=5/genotype).

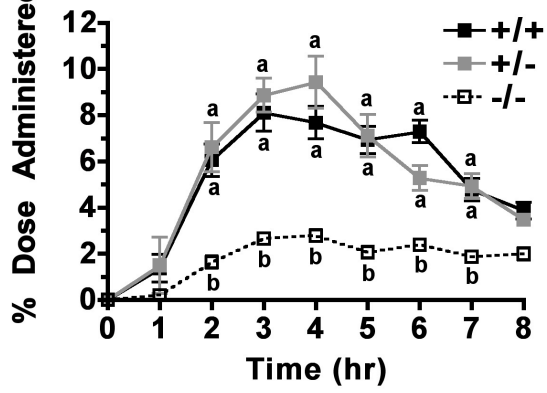
**Supplemental Figure 2. Lymph flow rate during 8 hours of thoracic duct lymph collection.** Lymph was collected into tubes with 5% EDTA plus protease inhibitor cocktail at one-hour intervals for 8 continuous hours after thoracic lymph duct cannulation. Data are expressed as percent of radioactive sterol dose recovered in lymph for each animal and represent mean±SEM (n=7-9/genotype). No statistically significant difference (p<0.05) was found by Two-Way ANOVA the 8<sup>th</sup> hour.

**Supplemental Table 1. mRNA expression of genes involved in lipid metabolism.** Mice were fed the sat. diet for 5 weeks and fasted for 4 hours prior to necropsy. Liver and five equidistant segments of the small intestinal (SI-1 to 5) were collected. Pools (n=5/genotype) of each tissue were used to quantify mRNA expression by real-time PCR. Data are in arbitrary units normalized by cyclophilin mRNA expression in the same sample pool. *Mtp*, microsomal transfer protein; *Apob*, apolipoprotein B; *Abca1*, ATP-binding cassette type A1; *Apoa1*,

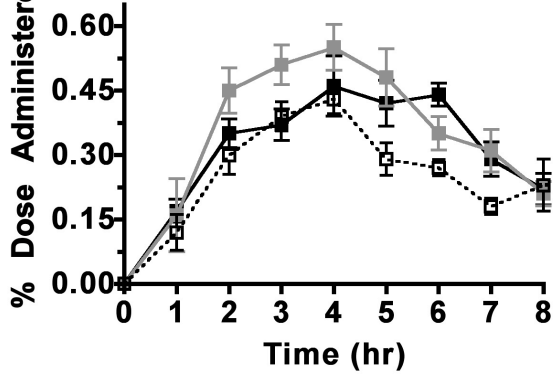
apolipoprotein A1; *HmgCoAs*; 3-hydroxy-3-methylglutaryl coenzyme A synthase; *HmgCoAr*, 3-hydroxy-3-methylglutaryl coenzyme A reductase; *Lxr*, liver X receptor; *Srebp-1c*; sterol regulatory element-binding protein 1c; *Ppar*, peroxisome proliferator-activated receptor; *Acc*, acetyl-CoA carboxylase.

Supplemental Figure 1

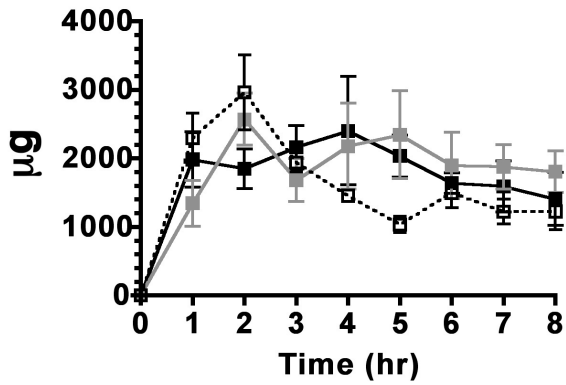
**A** [14C]-Cholesterol in Lymph



**B** [3H]-Sitosterol in Lymph

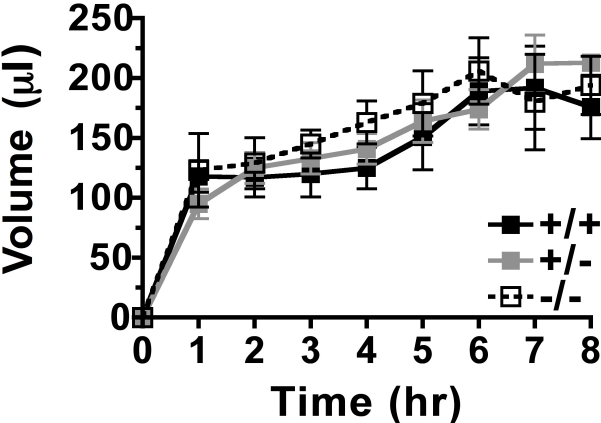


**C** Chylomicron TG



Supplemental Figure 2

### Lymph Flow



Supplemental Table 1: mRNA Expression of Lipid Metabolism Genes in Pooled Tissue Samples (n=5/genotype)							
Gene	Genotype	Arbitrary Units (normalized to cyclophilin)					Liver
		SI-1	SI-2	SI-3	SI-4	SI-5	
<b><i>Mtp</i></b>	<b>+/+</b>	1162	1285	998	860	454	144
	<b>+/-</b>	1268	1393	1074	872	460	106
	<b>-/-</b>	1398	1167	952	773	407	101
<b><i>Apob</i></b>	<b>+/+</b>	1709	2223	1952	2194	1427	2193
	<b>+/-</b>	1795	2268	2493	1876	1313	1668
	<b>-/-</b>	1776	1545	1336	1119	1135	1422
<b><i>Abca1</i></b>	<b>+/+</b>	58	98	107	95	69	149
	<b>+/-</b>	67	126	154	105	65	113
	<b>-/-</b>	99	142	106	87	75	97
<b><i>Apoa1</i></b>	<b>+/+</b>	5287	6421	5687	5746	3358	4310
	<b>+/-</b>	5474	7144	6534	5707	3586	3255
	<b>-/-</b>	5038	6011	4900	3911	2985	3676
<b><i>HmgCoAs</i></b>	<b>+/+</b>	26	31	31	41	68	21
	<b>+/-</b>	28	36	37	37	78	12
	<b>-/-</b>	26	24	22	24	43	9
<b><i>HmgCoAr</i></b>	<b>+/+</b>	18	22	24	33	38	10
	<b>+/-</b>	17	24	28	31	39	9
	<b>-/-</b>	19	17	20	21	26	7
<b><i>Srebp-1c</i></b>	<b>+/+</b>	6	6	6	5	4	2
	<b>+/-</b>	6	6	6	4	4	1
	<b>-/-</b>	6	4	4	3	3	1