

Supplement Material

Supplemental Table I. Dietary composition for Chow and HFD used in the study:

Macronutrients	Units	Chow diet (Harlan 8904)	HFD (RD12079B)
Crude Protein	%	24.3	20.0
Fat (ether extract)	%	4.7	21.0
Carbohydrate	%	40.2	50.0
Energy density	kcal/g	3.0	4.7
Calories from protein	%	32	17
Calories from fat	%	14	43
Calories from carbohydrate	%	54	41

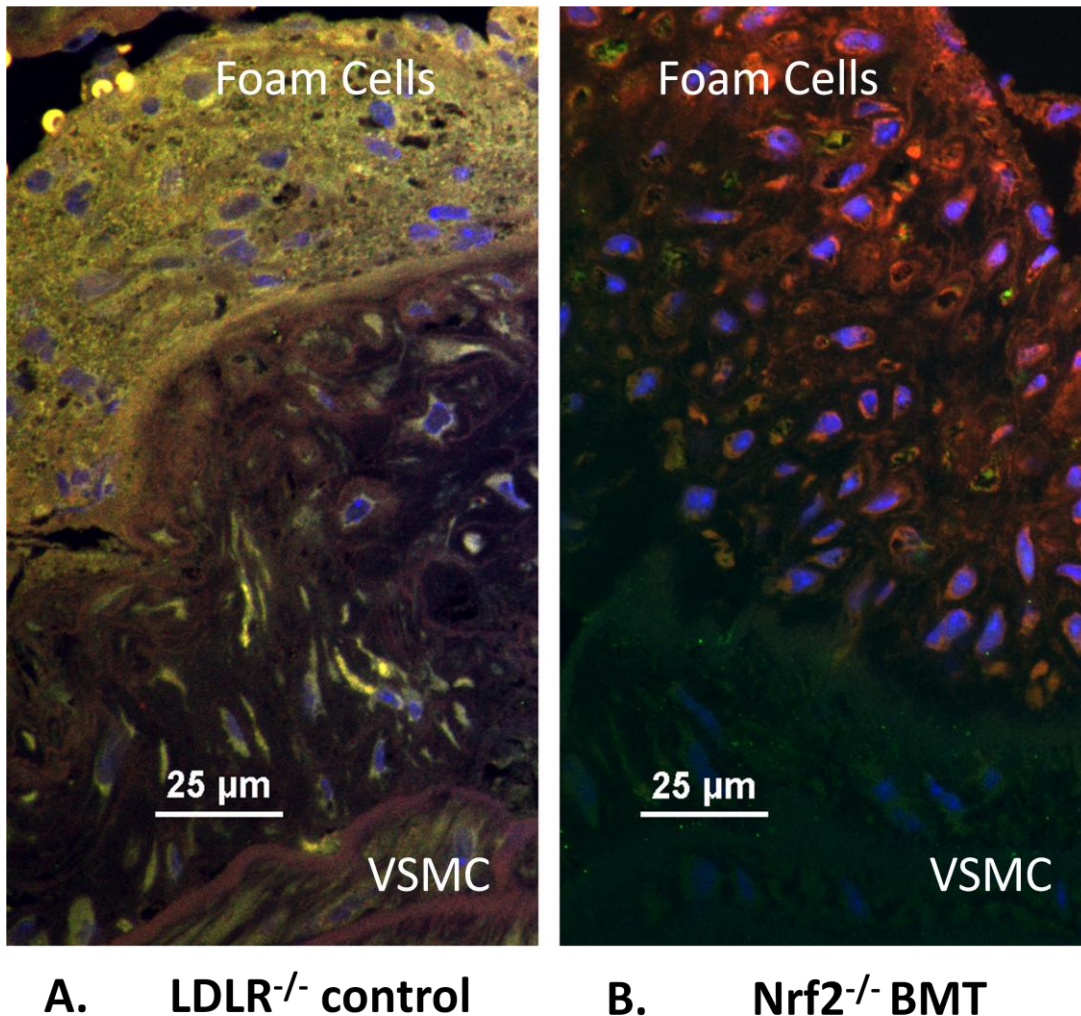
Supplemental Table II. White blood cells (WBC) differentials (reported in k/uI, Mean±SEM):

GENOTYPE	WBC	NEUTROPHIL	LYMPHOCYTES	MONOCYTES	EOSINOPHILS	BASOPHILS
WT	9.7875 (0.467)	12.95 (0.756)	85.55 (0.839)	1.000 (0.091)	0.025 (0.025)	0.475 (0.111)
Nrf2^{-/-}	10.5025 (0.627)	11.90 (0.549)	86.80 (0.274)	0.925 (0.278)	0.000 (0.000)	0.375 (0.075)

Supplemental Figure I. Nrf2 expression is reduced in macrophages in deep lesions and lesion of Nrf2^{-/-}

BMT mice

Immunofluorescent staining of nuclei (DAPI, blue), macrophages (F4/80, red), Nrf2 (green) in lesions from thoracic aortae of HFD-fed A) middle-aged LDLR^{-/-} control and B) Nrf2^{-/-} BMT LDLR^{-/-} mice. Nrf2 is highly co-expressed with F4/80 in foam cells near the surface of lesions in LDLR^{-/-} mice (yellow), but markedly reduced in deeper lesions, and absent in lesion macrophages of Nrf2^{-/-} BMT mice. This staining was compared to similar accelerated lesions found in middle-aged Ldlr^{-/-} mice fed HFD, since young Ldlr^{-/-} mice transplanted with WT bone marrow develop primarily fatty streaks in their aortae in the present study. Nrf2 was detected in lesional macrophages as well as other vascular cells in middle-aged Ldlr^{-/-} mice.



Supplemental Figure II. A) Steatosis was scored as percent area of lobule occupied by lipid; B) Balloon cells were counted per 200X field. Gene expression of C) Nrf2, D) SOD2 and E) Catalase (CAT) in liver of chow and HFD-fed WT or NRF2^{-/-} BMT mice were determined (Means±SEM, n=4-7/group; †vs. Chow for matched genotype).

A. Steatosis scores:

score	steatosis	Chow		HFD	
		WT BMT	NRF2 ^{-/-} BMT	WT BMT	NRF2 ^{-/-} BMT
0	<5%	40%	50%	0%	0%
1	5-33%	60%	50%	0%	0%
2	>33-66%	0%	0%	14.3%	0%
3	>66%	0%	0%	85.7%	100%

B. Hepatocyte ballooning scores:

score	Ballooning	Chow		HFD	
		WT BMT	NRF2 ^{-/-} BMT	WT BMT	NRF2 ^{-/-} BMT
0	None	100%	100%	0%	0%
1	Few balloon cells	0%	0%	100%	100%
2	Many cells/ prominent ballooning	0%	0%	0%	0%

