

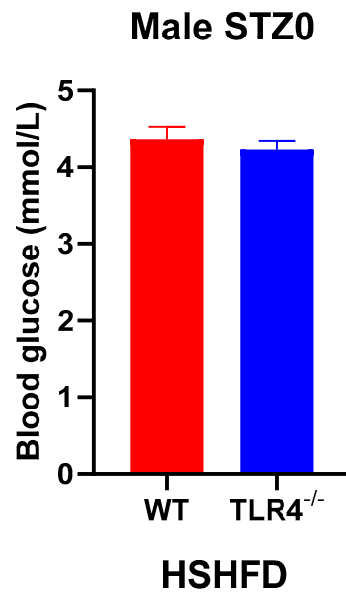
## Supplementary Materials

**Table S1.** The composition of feeds.

Composition	Normal feed		45% High-fat feed		60% High-fat feed	
	Energy supply	Quality	Energy supply	Quality	Energy supply	Quality
	proportion	proportion	proportion	proportion	proportion	proportion
	(calorie ratio)		(calorie ratio)		(calorie ratio)	
Fat	10%	4.5%	45%	23.6%	60%	35%
Protein	20%	23%	20%	23.7%	20%	26%
Carbohydrates (including fructose and cellulose)	70%	40.9%	35%	41.4%	20%	36%

**Table S2.** The detail ingredients of mice high-fat feeds.

	45% High-fat feed		60% High-fat feed	
	Energy supply	Quality	Energy supply	Quality
	/ kcal	/ gm	/ kcal	/ gm
Casein	800	200	800	200
L-Cytine	12	3	12	3
Corn Starch	291	72.8	0	0
Maltodextrin	400	100	500	125
Sucrose	691.2	172.8	275	68.8
Cellulose	0	50	0	50
Soybean oil	225	25	225	25
Lard	1598	177.5	2205	245
Mineral Mix S10026	0	10	0	10
DiCalcium Phosphate	0	13	0	13
Calcium Carbonate	0	5.5	0	5.5
Potassium Citrate, 1	0	16.5	0	16.5
H <sub>2</sub> O				
Vitamin Mix V10001	40	10	40	10
Choline Bitartrate	0	2	0	2



**Figure S1.** Comparison on blood glucose of male mice before the first streptozotocin (STZ) injection between wild type (WT) and TLR4 gene knockout (TLR4<sup>-/-</sup>) mice. Data are represented as the mean  $\pm$  standard error of mean (SEM, n = 27-63).