Figure S2. Pathway analysis of the effects of HFD on liver gene transcription in C57BL/6J and 129S6 mice. Only KEGG biological pathways identified by GSEA as significantly affected by HFD in at least one of the strains are reported. False discovery rate (FDR) q-values (<0.05) were used to test for statistically significant pathway upregulation (red) or downregulation (green) in response to fat feeding in 129S6 (*) and C57BL/6J (\$) mice.

Proteasome

Normalised enrichment score 0.5 1.0 1.5 0 2.0 2.5 3.0 \$ * Ubiguitin mediated proteolysis 129S6 C57BL/6J

Protein export Spliceosome Aminoacyl trna biosynthesis Ppar signaling pathway Peroxisome Fatty acid metabolism Biosynthesis of unsaturated fatty acids Steroid hormone biosynthesis Primary bile acid biosynthesis Valine leucine and isoleucine degradation Complement and coagulation cascades N glycan biosynthesis Adherens junction Vibrio cholerae infection Pathogenic escherichia coli infection Propanoate metabolism Basal cell carcinoma Neuroactive ligand receptor interaction Metabolism of xenobiotics by cytochrome p450 Type i diabetes mellitus Calcium signaling pathway Hedgehog signaling pathway Glutathione metabolism Drug metabolism cytochrome p450 Cysteine and methionine metabolism Arginine and proline metabolism Autoimmune thyroid disease Intestinal immune network for iga production Allograft rejection Pentose phosphate pathway Hematopoietic cell lineage Mapk signaling pathway Snare interactions in vesicular transport Antigen processing and presentation \$ \$ \$ Rna polymerase Ribosome Amino sugar and nucleotide sugar metabolism \$ Purine metabolism \$ \$ Pyrimidine metabolism