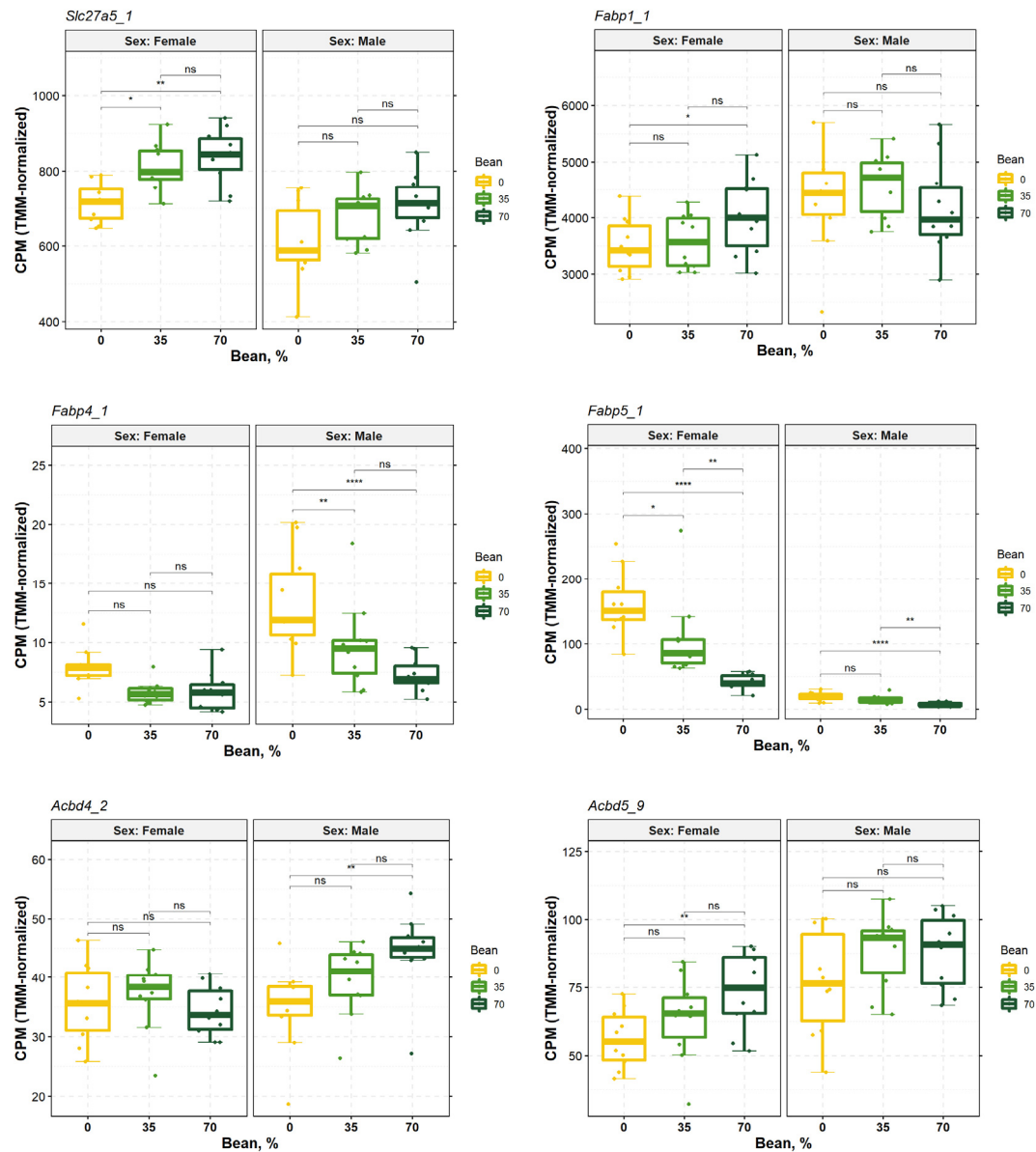
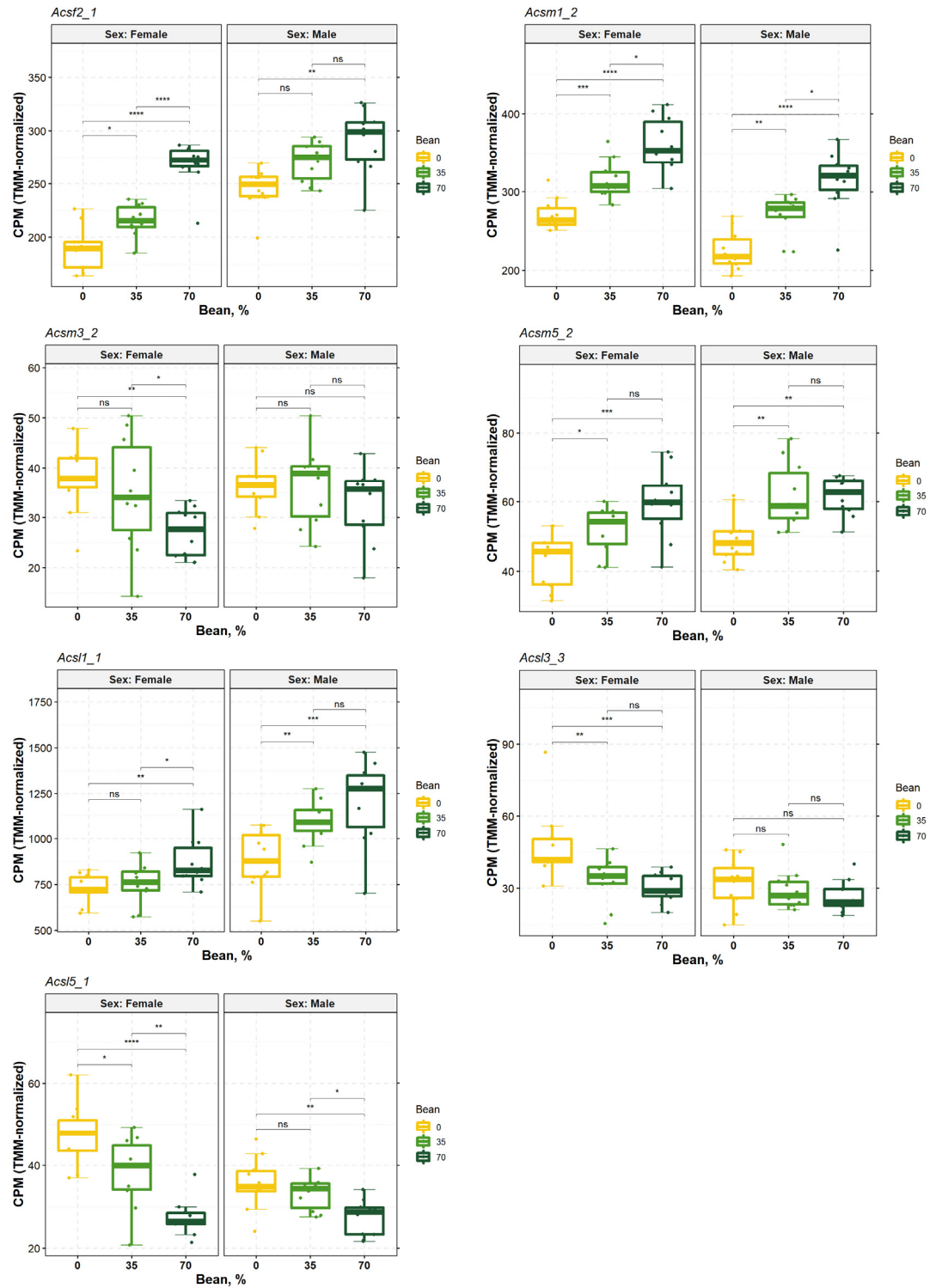


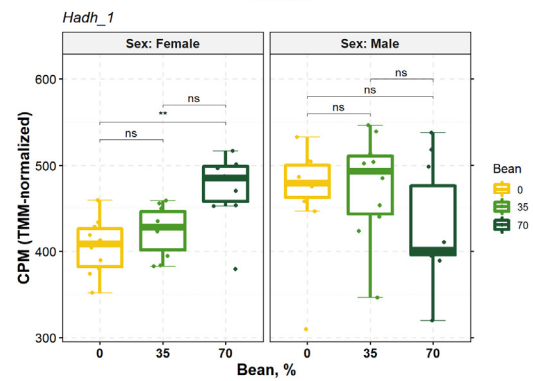
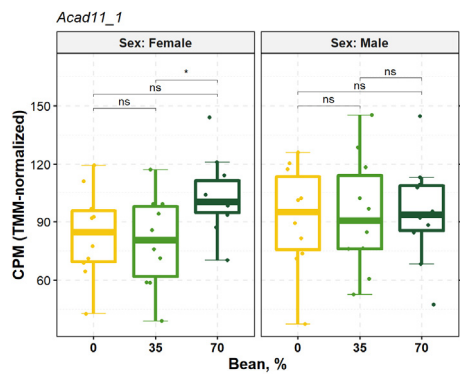
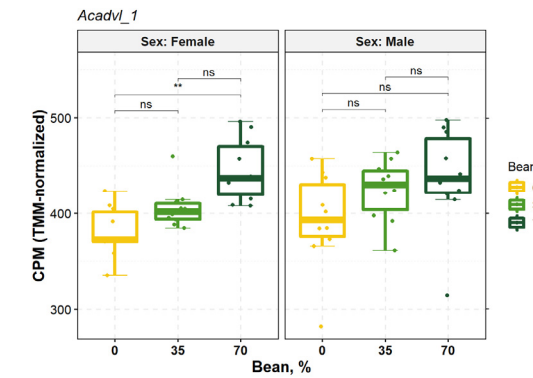
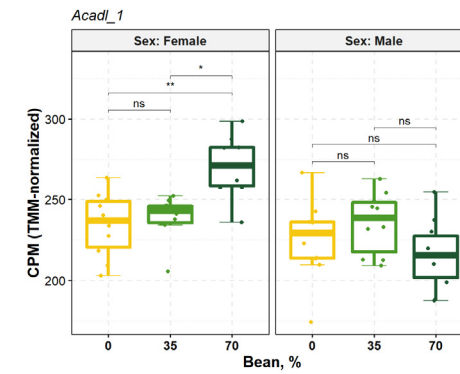
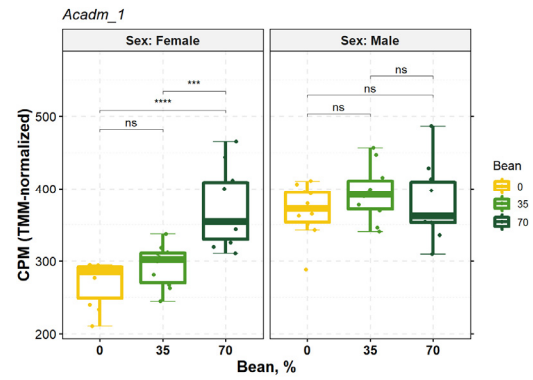
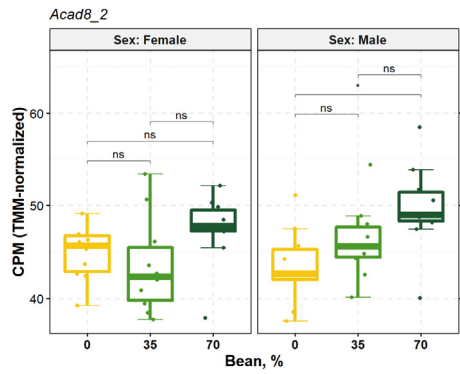
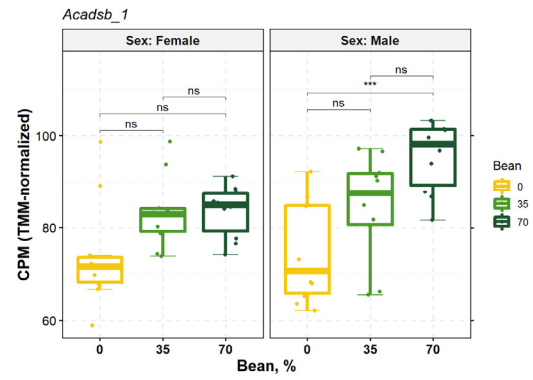
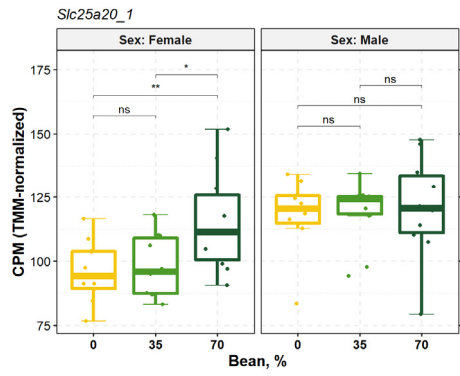
**Figure S1.** Effects of dietary bean on gene expression involved in triacylglycerol metabolism in both female and male mice. Differential expression analysis performed in CLC Genomic Workbench. \*  $p$ -value < 0.05; \*\*  $p$ -value < 0.01; \*\*\*  $p$ -value < 0.001; \*\*\*\*  $p$ -value < 0.0001

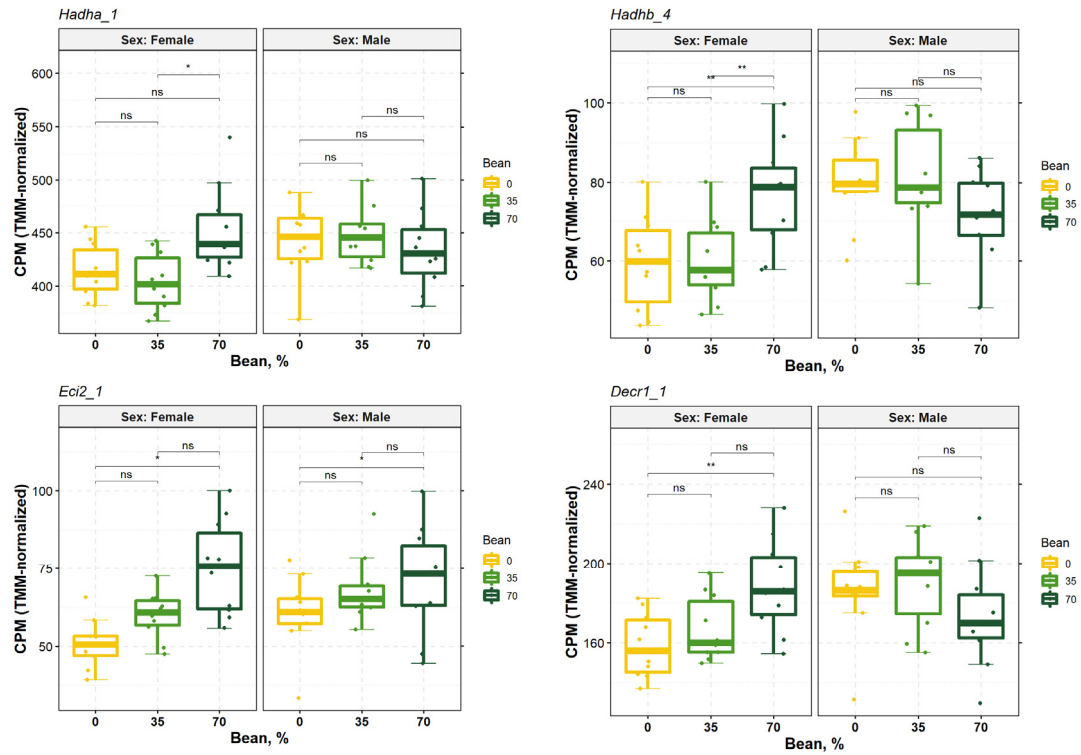


**Figure S2.** Dietary bean effects on expression of hepatic fatty acid transport genes in female and male mice. Differential expression analysis performed in CLC Genomic Workbench. \*  $p$ -value < 0.05; \*\*  $p$ -value < 0.01; \*\*\*  $p$ -value < 0.001; \*\*\*\*  $p$ -value < 0.0001

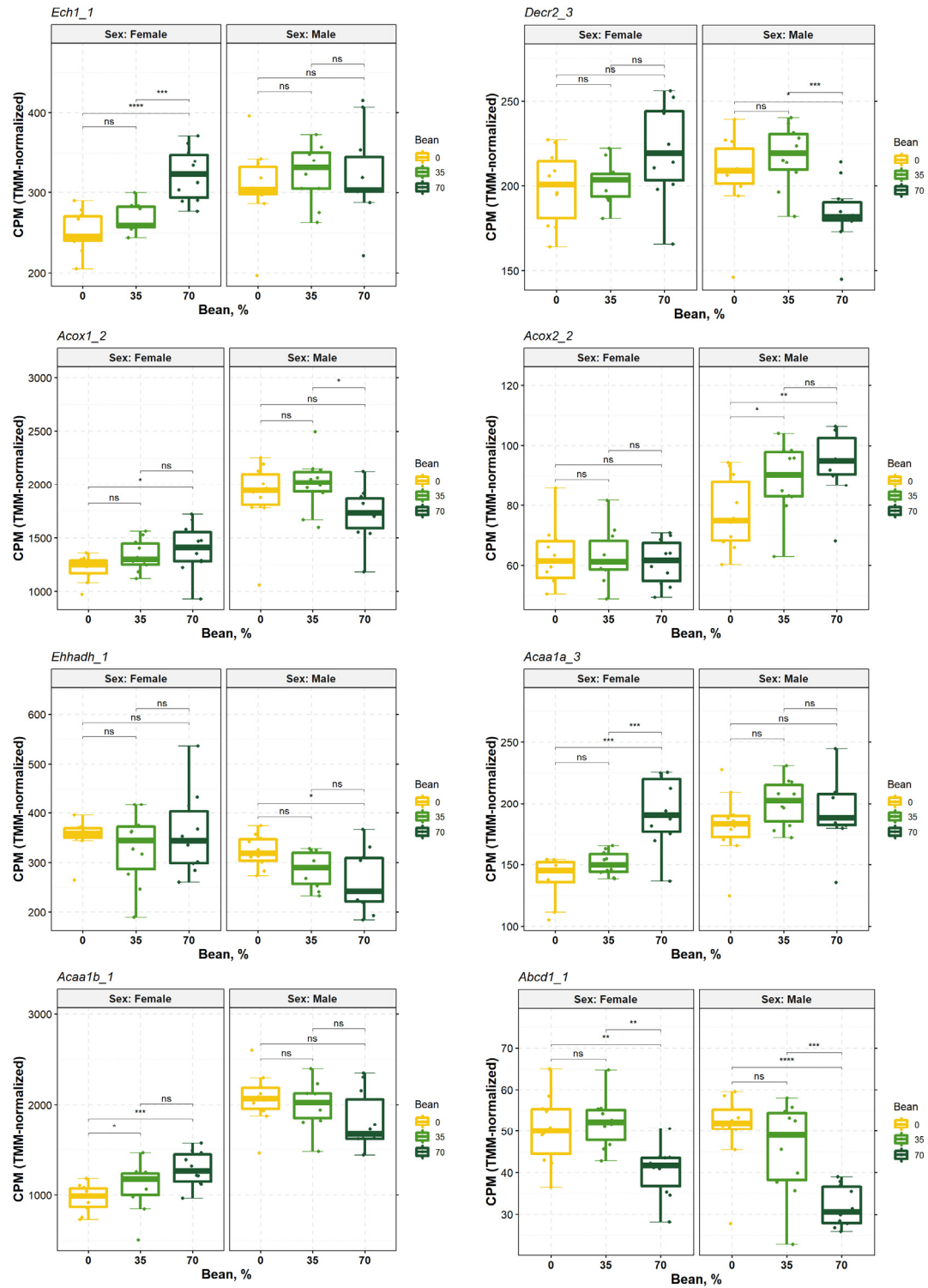


**Figure S3.** Dietary bean dose-dependently affects expression of acyl-CoA synthetases in the livers of female and male mice. Differential expression analysis performed in CLC Genomic Workbench.  
 \*  $p$ -value < 0.05; \*\*  $p$ -value < 0.01; \*\*\*  $p$ -value < 0.001; \*\*\*\*  $p$ -value < 0.0001



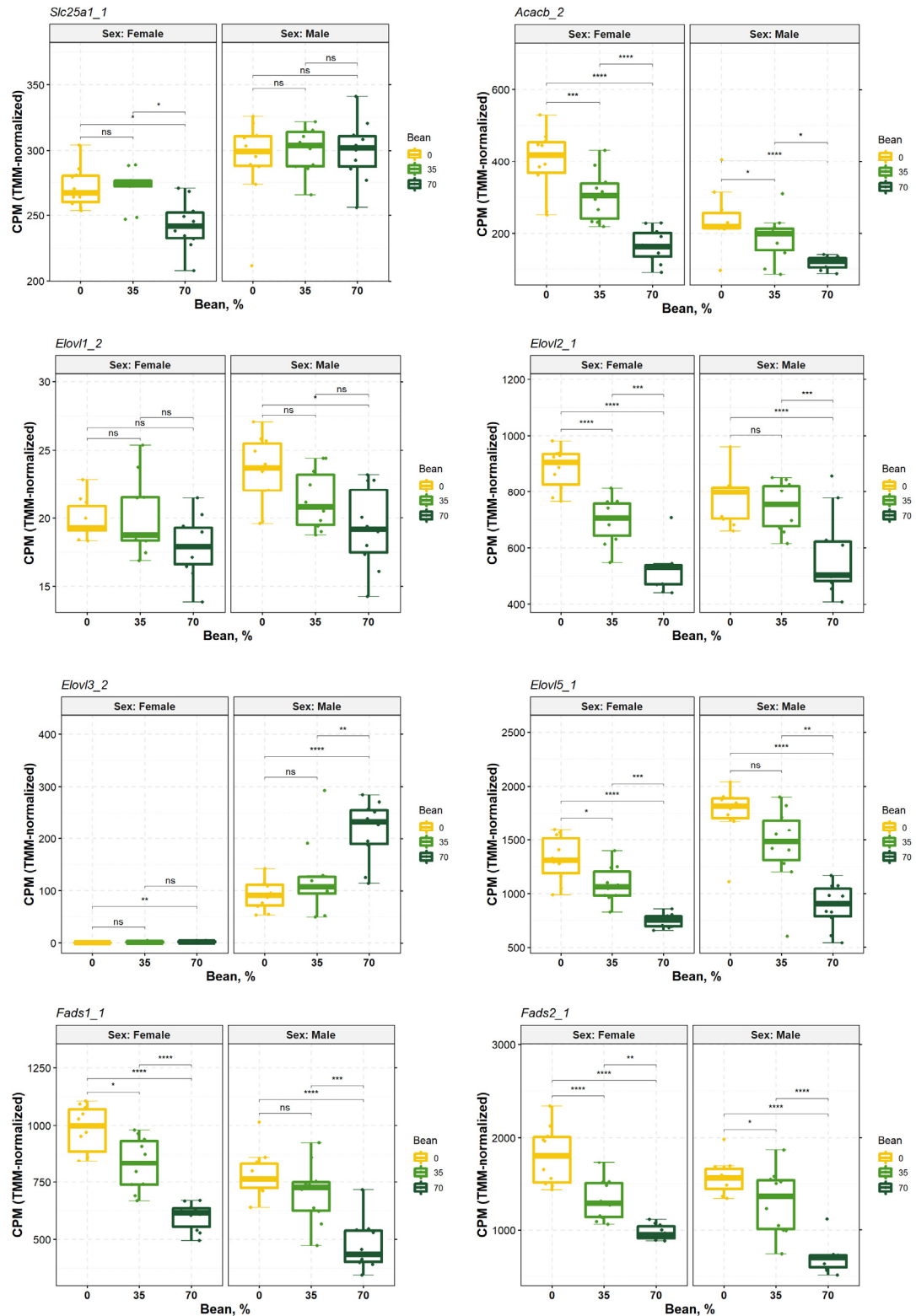


**Figure S4.** Consumption of beans promotes sex-dependent changes in gene expression regulating mitochondrial  $\beta$ -oxidation in the livers of mice. Differential expression analysis performed in CLC Genomic Workbench. \*  $p$ -value < 0.05; \*\*  $p$ -value < 0.01; \*\*\*  $p$ -value < 0.001; \*\*\*\*  $p$ -value < 0.0001



**Figure S5.** Effects of dietary bean on peroxisomal  $\beta$ -oxidation in the livers of mice. Differential expression analysis performed in CLC Genomic Workbench. \*  $p$ -value < 0.05; \*\*  $p$ -value < 0.01; \*\*\*  $p$ -value < 0.001; \*\*\*\*  $p$ -value < 0.0001

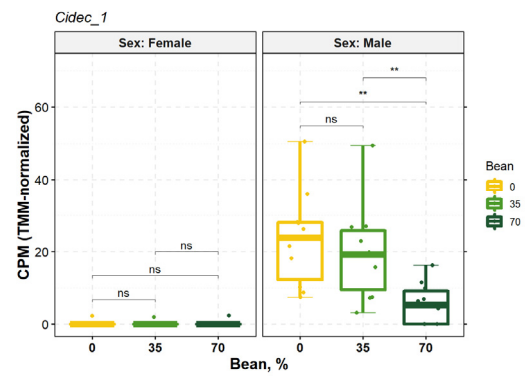
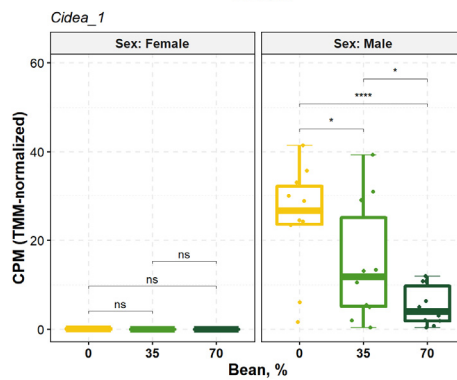
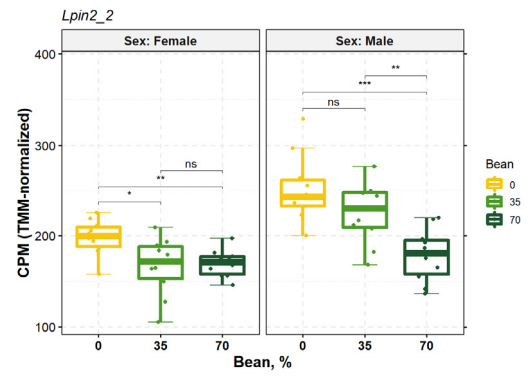
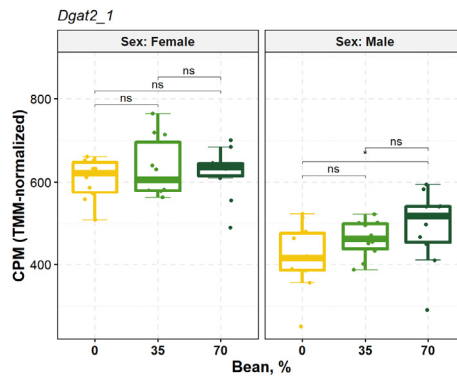
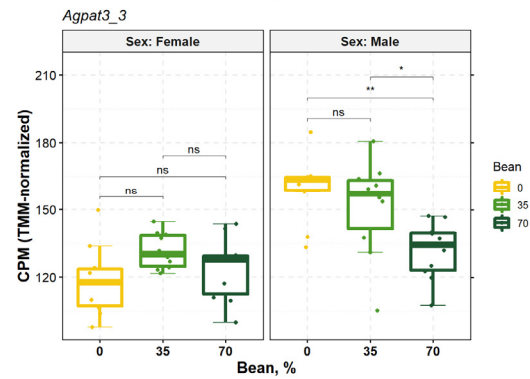
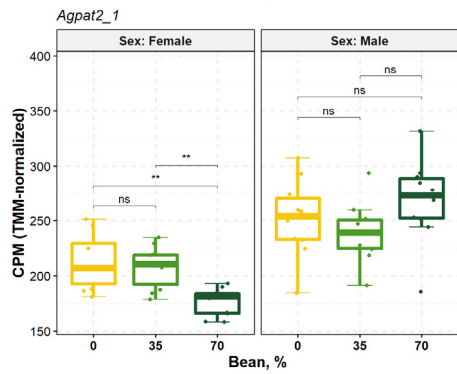
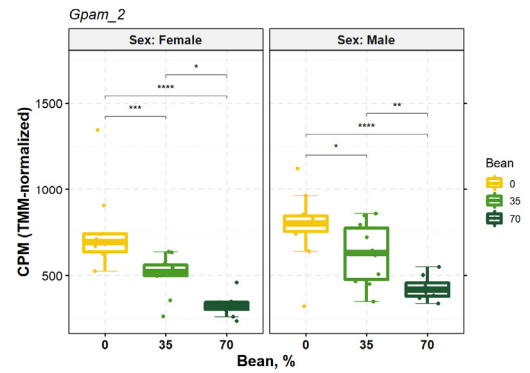
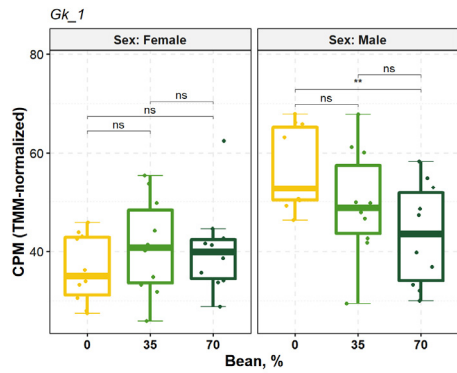


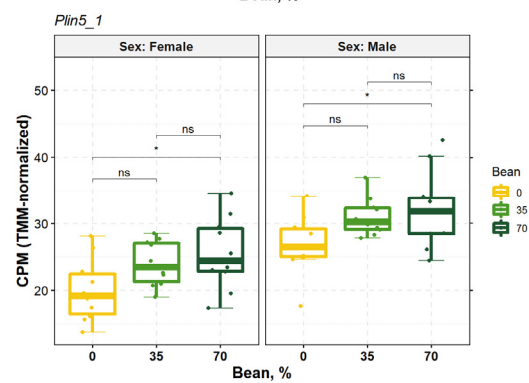
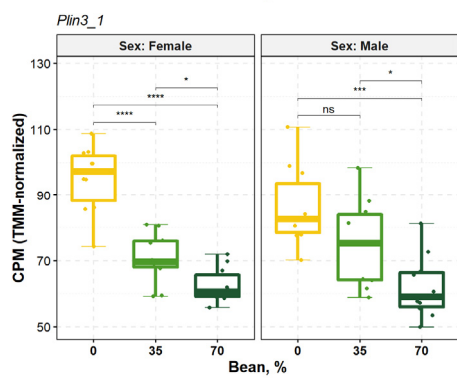
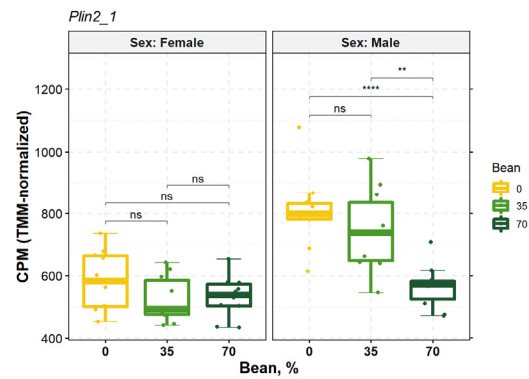
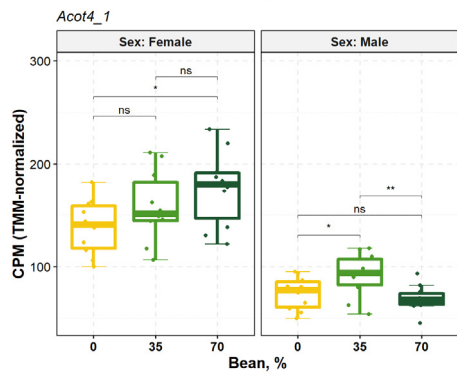
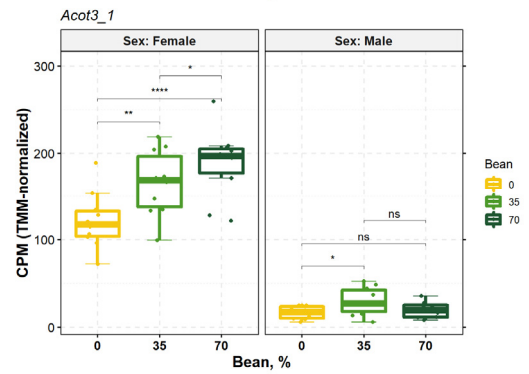
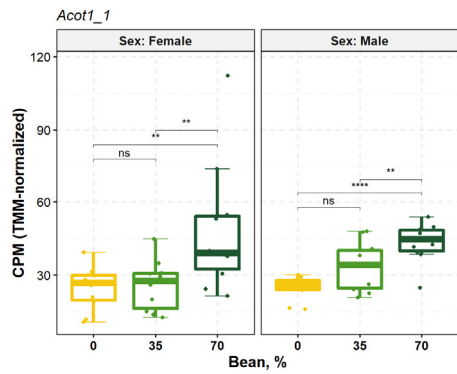
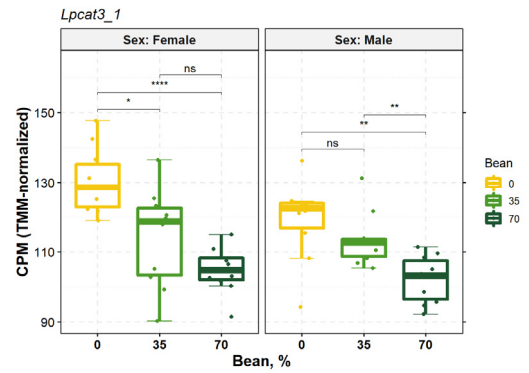
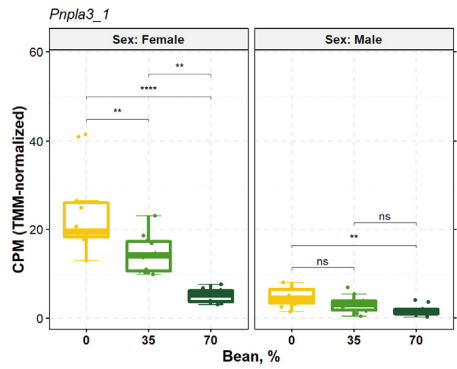


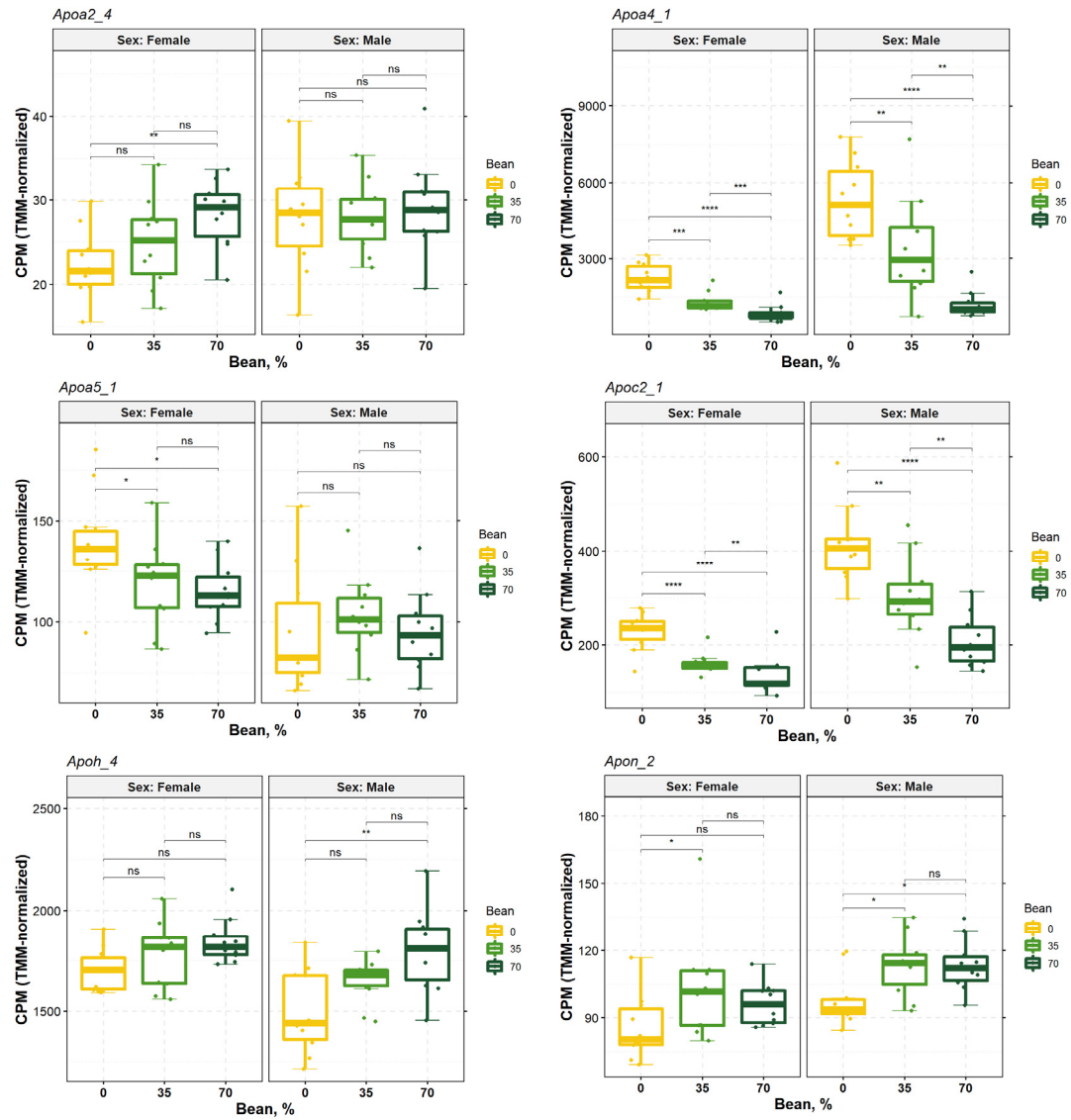
**Figure S6.** Expression of genes involved in *de novo* lipogenesis in the livers of female and male mice upon consumption of beans. Differential expression analysis performed in CLC Genomic Workbench.

\*  $p$ -value < 0.05; \*\*  $p$ -value < 0.01; \*\*\*  $p$ -value < 0.001; \*\*\*\*  $p$ -value < 0.0001









**Figure S7.** Dietary beans affect expression of genes involved in lipid droplet and lipoprotein formation and clearance in both female and male mice. Differential expression analysis performed in CLC Genomic Workbench. \*  $p$ -value < 0.05; \*\*  $p$ -value < 0.01; \*\*\*  $p$ -value < 0.001; \*\*\*\*  $p$ -value < 0.0001

