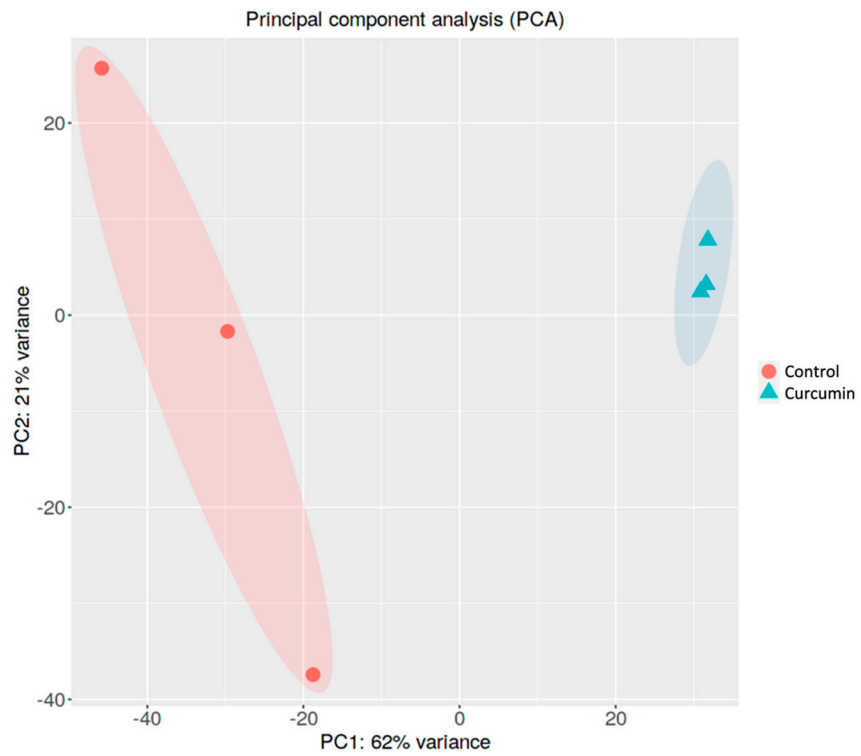
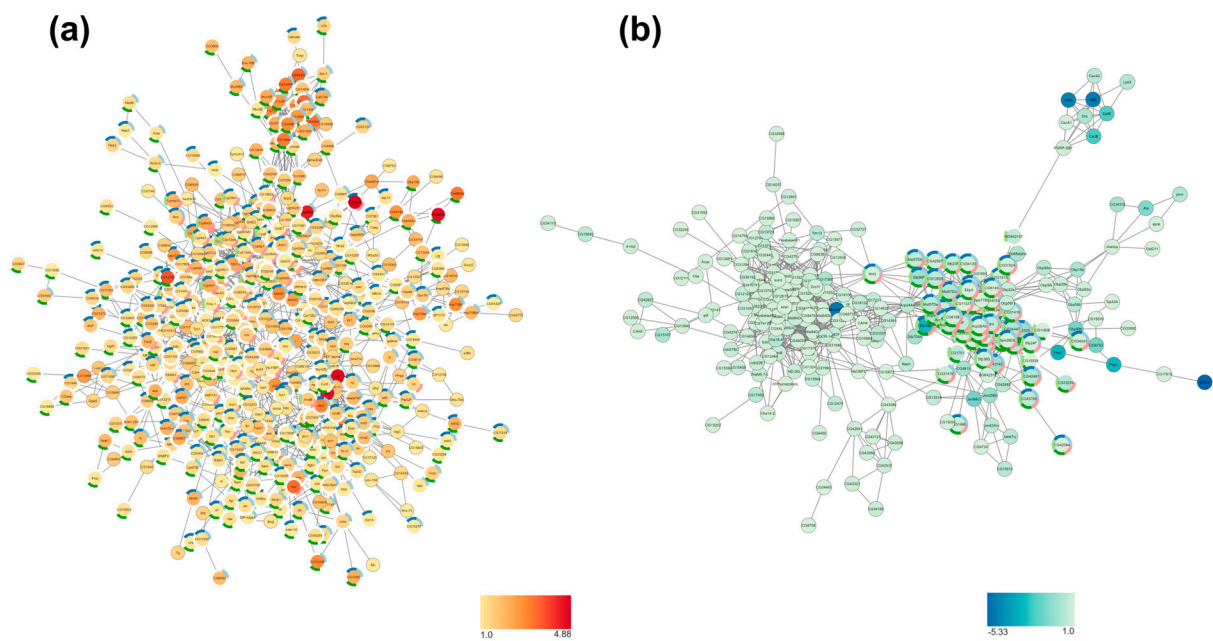


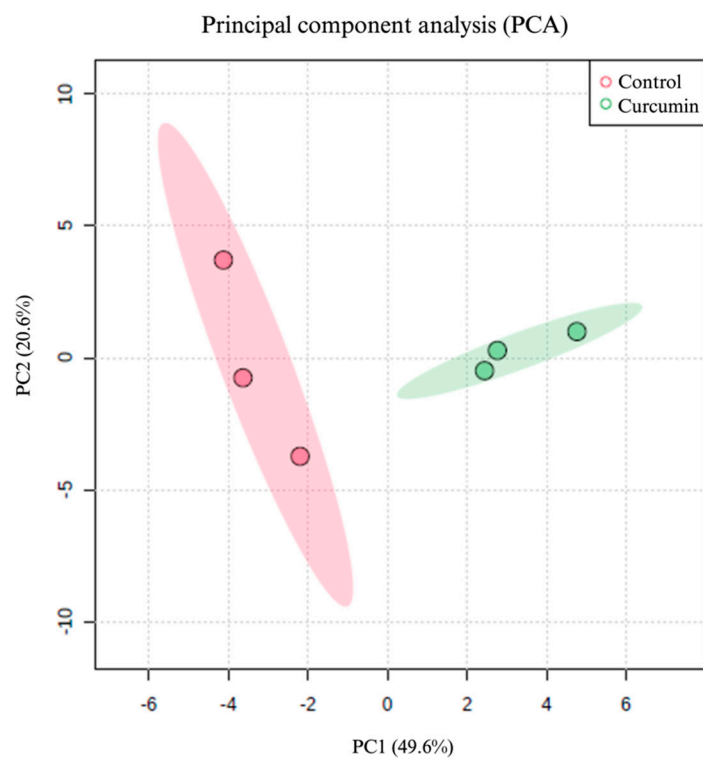
**Figure S1.** Male and Female food intake of *D. melanogaster* on control and curcumin diets. CAFE assay in (μL/fly). Data are mean  $\pm$  SEM for n = 5 independent replicates. \*,  $p \leq 0.05$ , \*\*,  $p \leq 0.01$ ,  $p \leq 0.001$ , NS, not significant, compared to control versus treatment.



**Figure S2.** The 2-D principal component analysis score plot demonstrates the statistical clustering of genes in response to a curcumin (blue) and control (red) diet.



**Figure S3.** Gene links of the top 100 (a) up- and (b) down-regulated genes in response to curcumin treatment with a cutoff of  $p < 0.05$ .



**Figure S4.** Principal component analysis (PCA) on the metabolomics profiles of *Drosophila* under a regular diet and a curcumin-supplemented diet.