Electronic Supplementary Material (ESI) for Environmental Science: Nano.

SUPPORTING INFORMATION

Figures S1: Treatment of chlorfenapyr on *Drosophila* larvae. (A) Chlorfenapyr were added in fly food to test the effects on third instar larvae. (B) Lethality was observed at both larval and pupal stages.

Figures S2: Gene Ontology (GO) analysis of DEGs upon chlorfenapyr treatment in fly larvae. X-axis is qvalue of enrichment (-log10), and Y-axis is the GO term. Number in each column represents the number of differentially expressed genes under the GO term.

Figure S3: Validation of larvae RNA-seq results by qRT-PCR. Expression levels of selected genes were examined in third instar larvae with or without exposure to 3 μg/mL chlorfenapyr. The mRNA levels were normalized to *Actin5C* as a standard. Each treatment contained 3 independent samples. The results are presented as mean ± SE. Asterisks indicate significant differences (independent *t* test, **P*<0.05, ***P*<0.01 and ****P*<0.001).

Figure S4: Validation of adult RNA-seq results by qRT-PCR. Expression levels of selected genes were examined in adults with or without exposure to 3 μg/mL chlorfenapyr. The mRNA levels were normalized to *Actin5C* as a standard. Each treatment contained 3 independent samples. The results are presented as mean ± SE. Asterisks indicate significant differences (independent *t* test, ***P*<0.01 and ****P*<0.001).

Table S1. Primer sequences used in qRT-PCR.

Table S2. DEGs in response to chlorfenapyr treatment in fly larvae.

Table S3. DEGs in response to chlorfenapyr treatment in adult flies.

Table S4. Summary of genes affected by chlorfenapyr in both fly larvae and adults.

Table S5. Particle size of chlorfenapyr and chlorfenapyr/SPc complex.