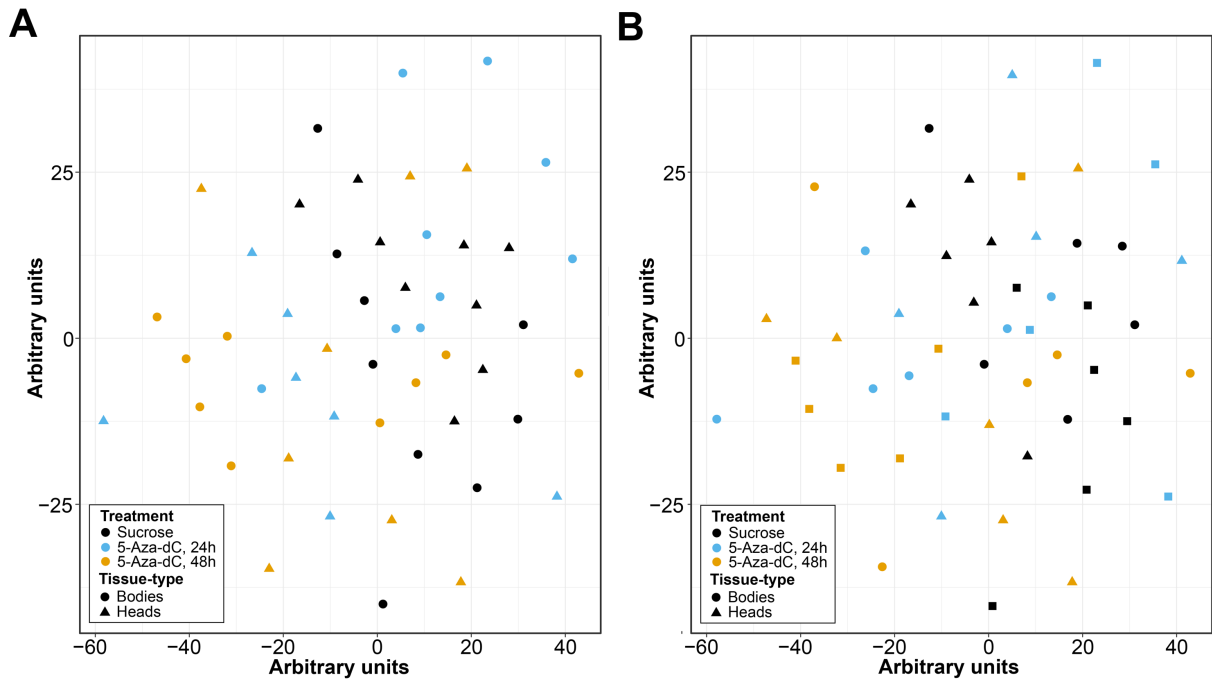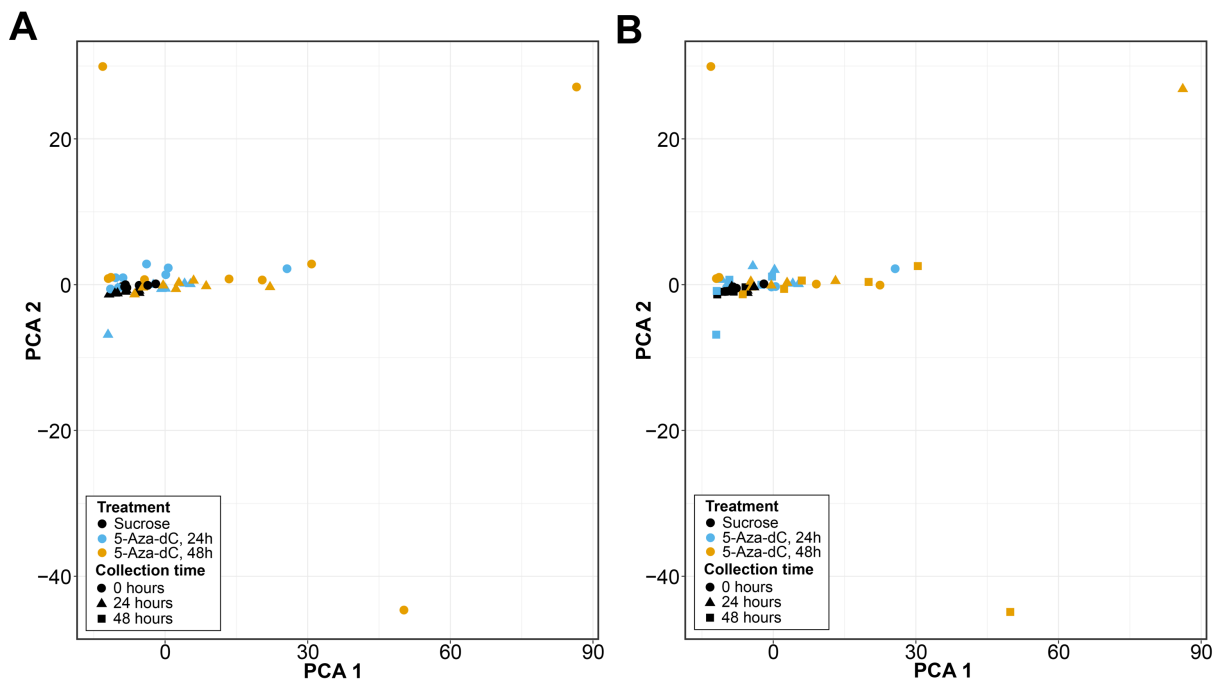**Supporting Information**

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4 **Fig S1. t-SNE of the proportion of methylated reads per CpG locus**. Shows the effects of (A)
5 Exposure regime and tissue type and (B) Exposure regime and harvest time.
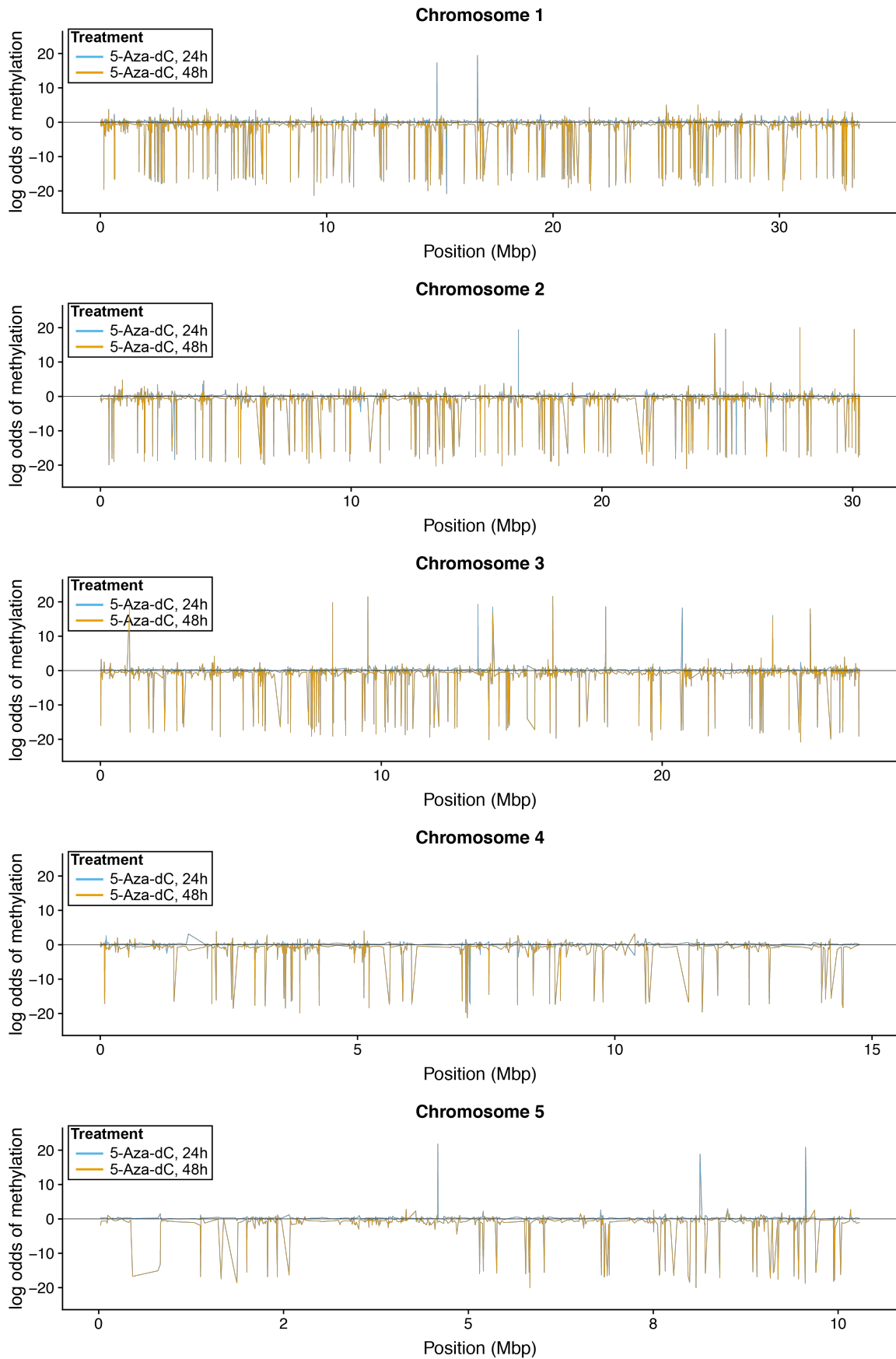
6

7

8 **Fig S2. PCA of the proportion of methylated reads per CpG locus.** Shows the effects of (A) Exposure
9 regime and tissue type and (B) Exposure regime and harvest time.

10

Fig S3. Effect of 5-aza-dC exposure regime on gene methylation status (log odds of methylation) for each gene ordered along each chromosome.

14   **Table S1. Number of reads and coverage of each sample.**

15   **Table S2. Output of coefficients and significance values from the GLM analysis.**

16   **Table S3. Enriched GO terms for treatment using *Nasonia vitripennis* GO terms.**

17   **Table S4. Enriched GO terms for treatment using *D. melanogaster* GO terms, when GO-terms from**
18   **multiple orthologs are combined together.**

19   **Table S5. Enriched GO terms for treatment using *D. melanogaster* GO terms, when only GO-terms**
20   **which are the same are kept (when a *Nasonia vitripennis* gene has multiple *D. melanogaster***
21   **orthologs).**

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