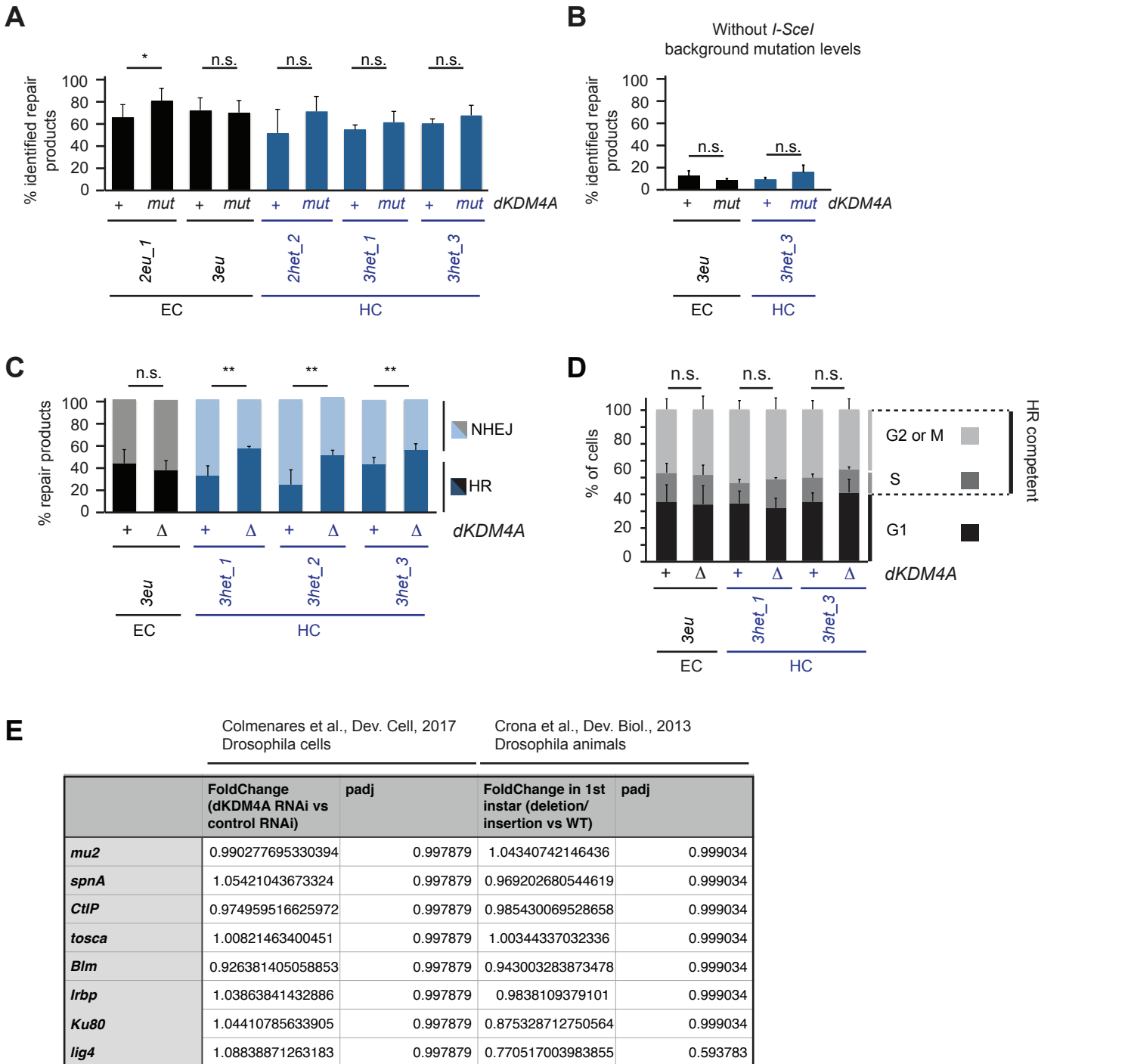


## Supplemental figure 5



### Supplemental figure 5.

A) Quantification of the percentage of total identified repair products (indels + HR) in the DR-*white* PCR products using the TIDE-algorithm. Averages + STDEV are shown of  $n \geq 5$  DR-*white*/*I-SceI* larvae per condition. n.s. = p-value  $\geq 0.05$ , \* = p-value  $< 0.05$ , \*\* = p-value  $< 0.01$  (t-test, unpaired). B) Quantification of the percentage of identified background mutations in the DR-*white* PCR products using the TIDE-algorithm in control wild type and dKDM4A mutant larvae without *I-SceI* transgene expression. Averages + STDEV are shown of  $n = 3$  DR-*white* larvae per condition. n.s. = p-value  $\geq 0.05$ , \* = p-value  $< 0.05$ , \*\* = p-value  $< 0.01$  (t-test, unpaired). C) TIDE algorithm-dependent extraction of the percentage of HR products (dark colored bars) and insertions and deletions (NHEJ) (light colored bars) from the total pool of DR-*white* repair products identified using Sanger Sequencing. PCR was performed on genomic DNA from larvae with indicated DR-*white* insertions in the presence or absence of the dKDM4A homozygous mutation.  $n \geq 3$  DR-*white*/*I-SceI* larvae per condition + STDEV. n.s. = p-value  $\geq 0.05$ , \* = p-value  $< 0.05$ , \*\* = p-value  $< 0.01$  (t-test, unpaired). D) Cell cycle analysis using *FUCCI* expressing larval tissue with indicated genotypes. Cell cycle phase of individual cells was determined based on expression of mRFP1-CycB1-266 or GFP-E2F-230; G2 or mitotic cells (G2 or M, RFP + GFP positive), S phase (S, RFP positive, GFP negative) and G1 phase (G1, RFP negative, GFP positive). n.s. = p-value  $\geq 0.05$ , \* = p-value  $< 0.05$ , \*\* = p-value  $< 0.01$  (t-test, unpaired). Averages + STDEV are plotted for  $n = 3$  tissues/condition with  $\geq 99$  cells/tissue. E) Relative changes in mRNA levels of indicated repair genes in dKDM4A depleted cells (Colmenares et al., Dev. Cell, 2017) and dKDM4A mutant flies (Crona et al., Dev. Biol, 2013).