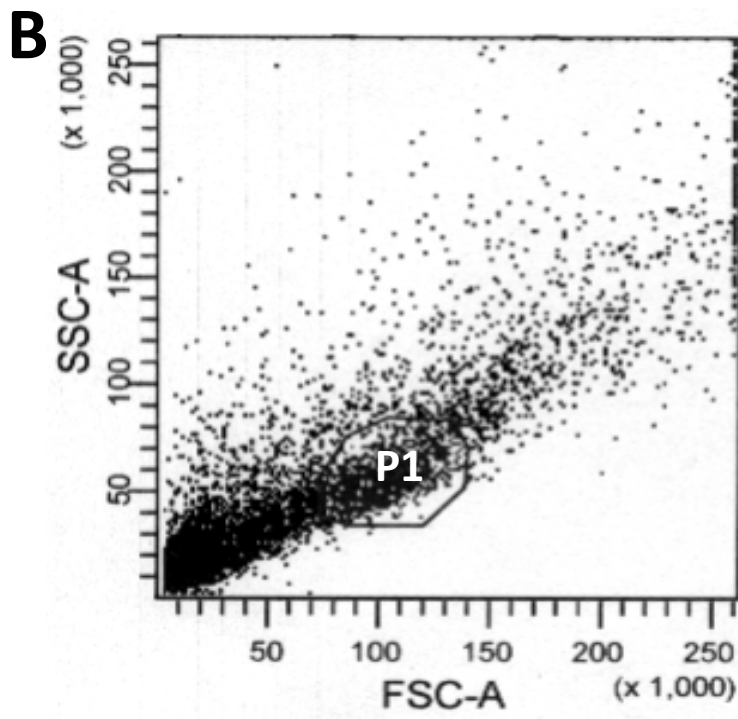
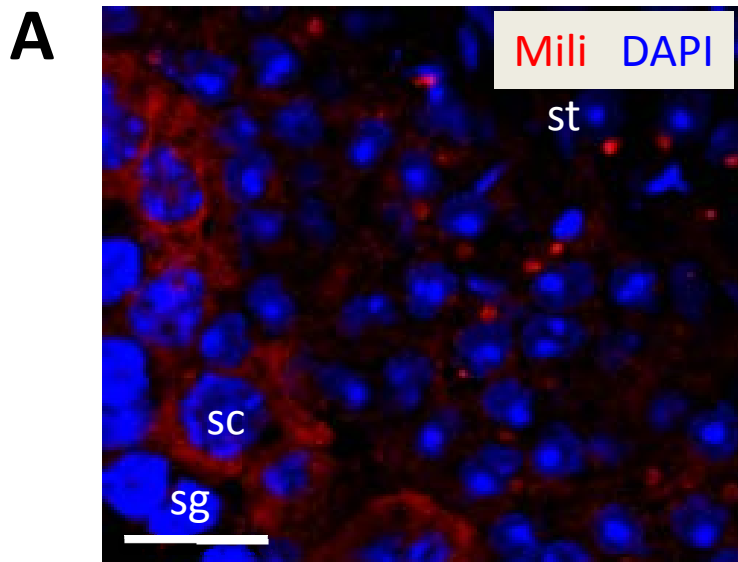


## SUPPLEMENTARY FIGURE LEGENDS

**Figure S1.** Mili is expressed in round spermatids. **A**, Immunostaining of a sectioned wildtype seminiferous tubule, indicating that Mili is expressed in spermatogonia (sg), spermatocytes (sc), and spermatids (st). **B**, Round spermatids were collected from the P1 (population 1) area based on cell size (forward light scattering, FSC) and cell density (side light scattering, SSC). **C**, A table showing that out of 10 million spermatogenic cells, 1.258 million round spermatids were collected. **D**, the isolated spermatids show their characteristic DAPI staining. **E**, Western blot showing that Mili is expressed in the isolated spermatids. 13 dpp wildtype and *mili* mutant testes were used as the positive and negative control, respectively. The bars in (A) and (D) are 25  $\mu$ m.

**Figure S2.** *Tdrd1* mRNA is down-regulated in *mili* mutant during the spermatogenesis. **A**, Quantitative real-time RT-PCR showing that the levels of *tldr1* mRNA is significant down-regulated in *mili* mutant at 7dpp and 13 dpp. **B**, Protein level of TDRD1 is also down-regulated in the *mili* mutant in both 7dpp and 13 dpp mouse testis. (n= 3). **C**, Quantitative analysis of the relative level of the Trdr1 protein as compared to GAPDH in *mili*<sup>+/+</sup>, *mili*<sup>+/-</sup>, and *mili*<sup>-/-</sup> mice at 7 dpp and 13 dpp. Results show that the reduction of the Tdrd1 protein at these time points essentially mirrors that of Tdrd1 mRNA.

**Figure S3.** Mili expression and localization is not affected in *Trdr1* mutants. **A**, In 18 dpp *tldr1* wildtype testis, Mili is expressed in cytoplasm of spermatogonia and spermatocytes, and round spermatids, where it is enriched in the chromatoid body. **B**, Mili shows similar expression and subcellular localization pattern in 18 dpp *tldr1* mutant testes. The bars are 25 $\mu$ m.



**C**

Population	# Events (Million)	% Parent	% total
All Events	10 .000	100	100
P1	1.258	12.6	12.6

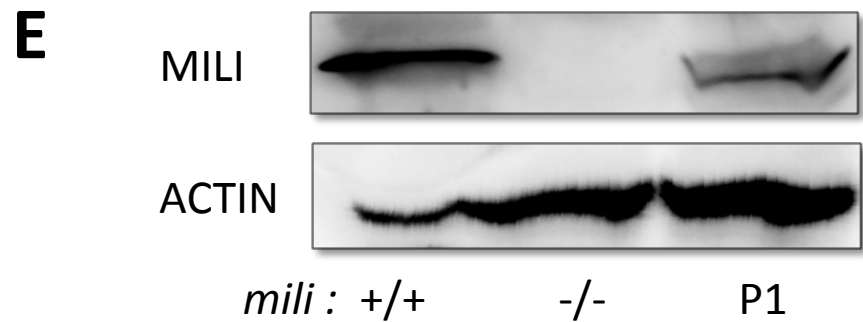
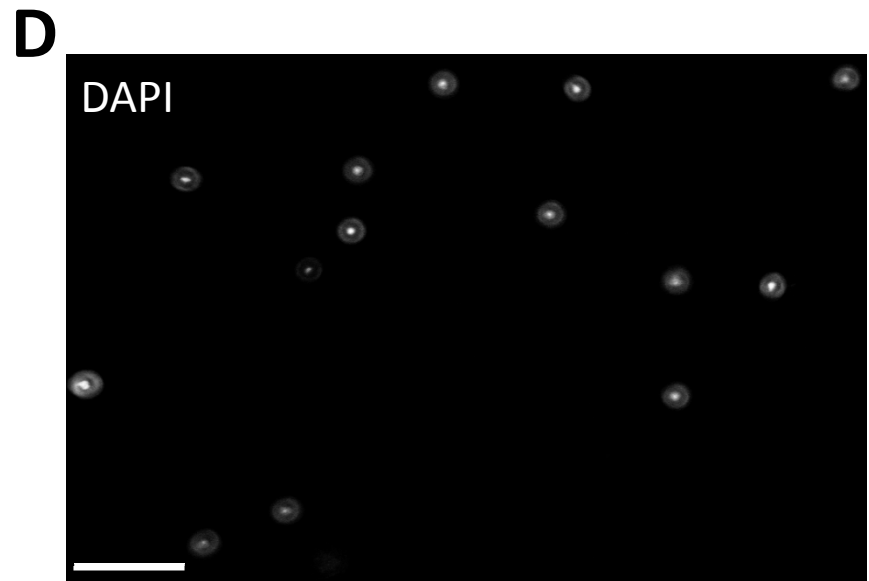


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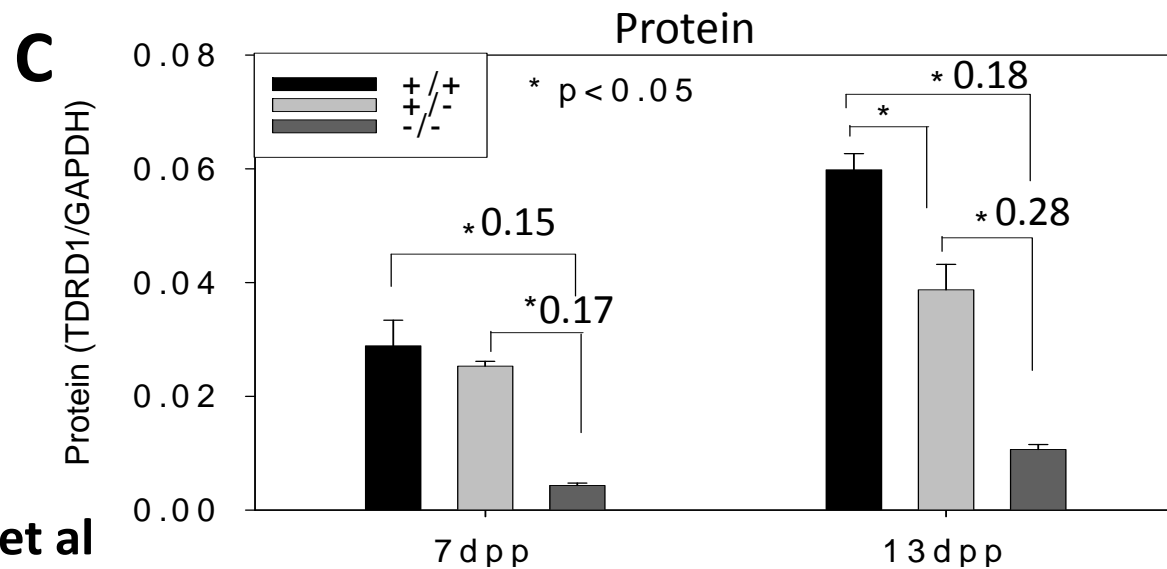
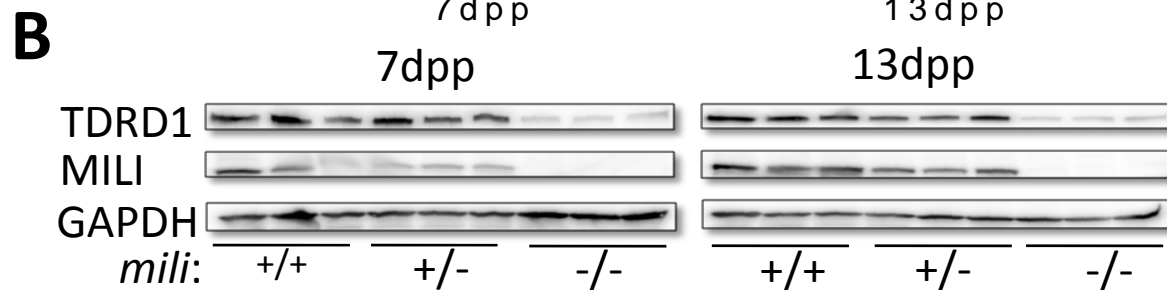
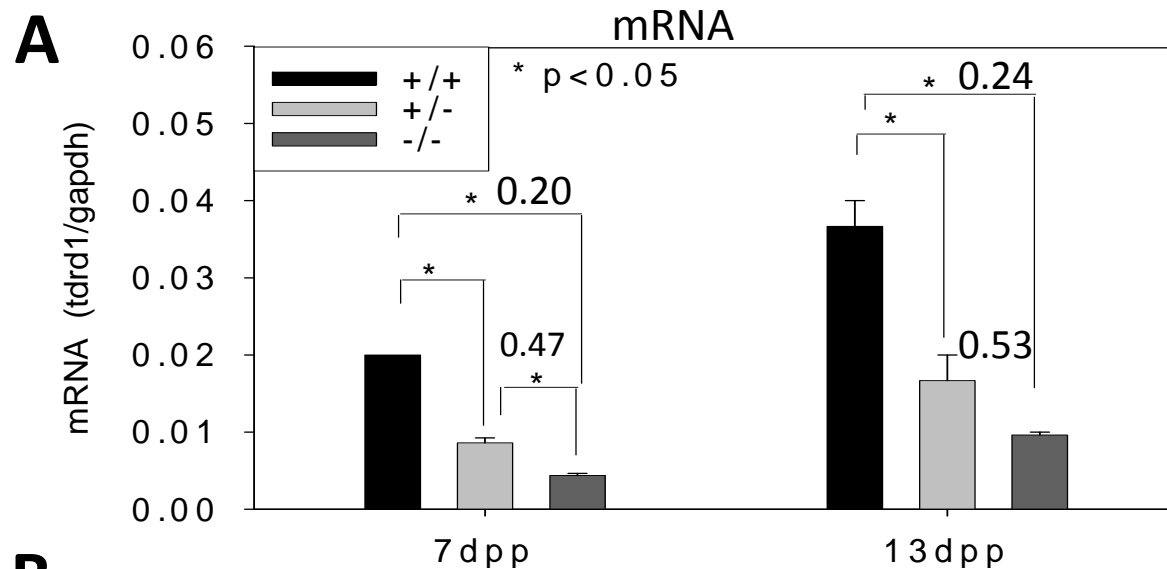


Figure S2 Wang et al

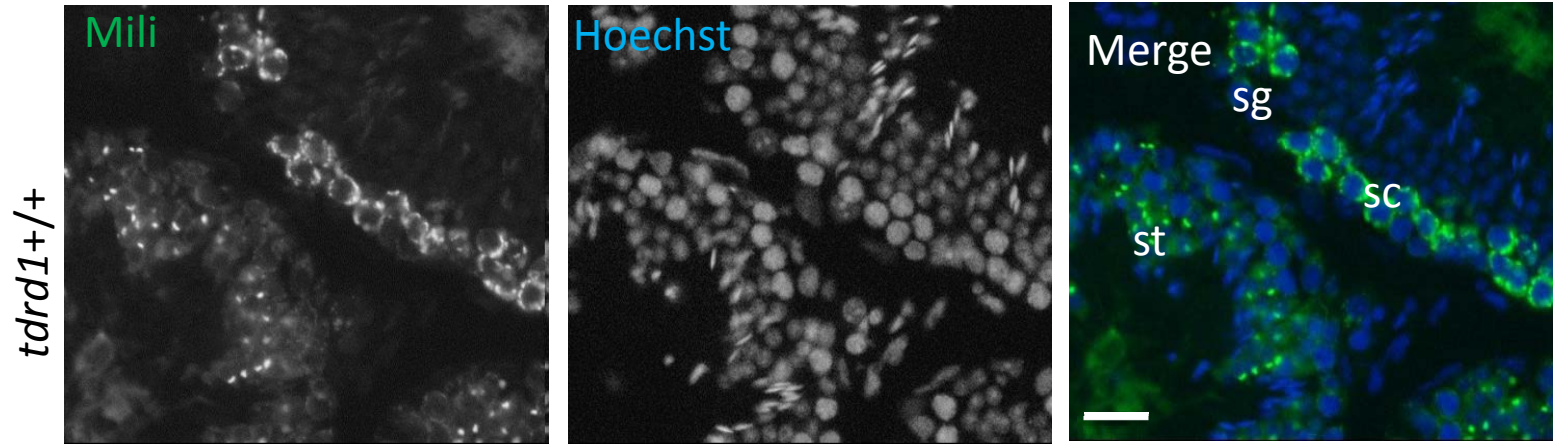
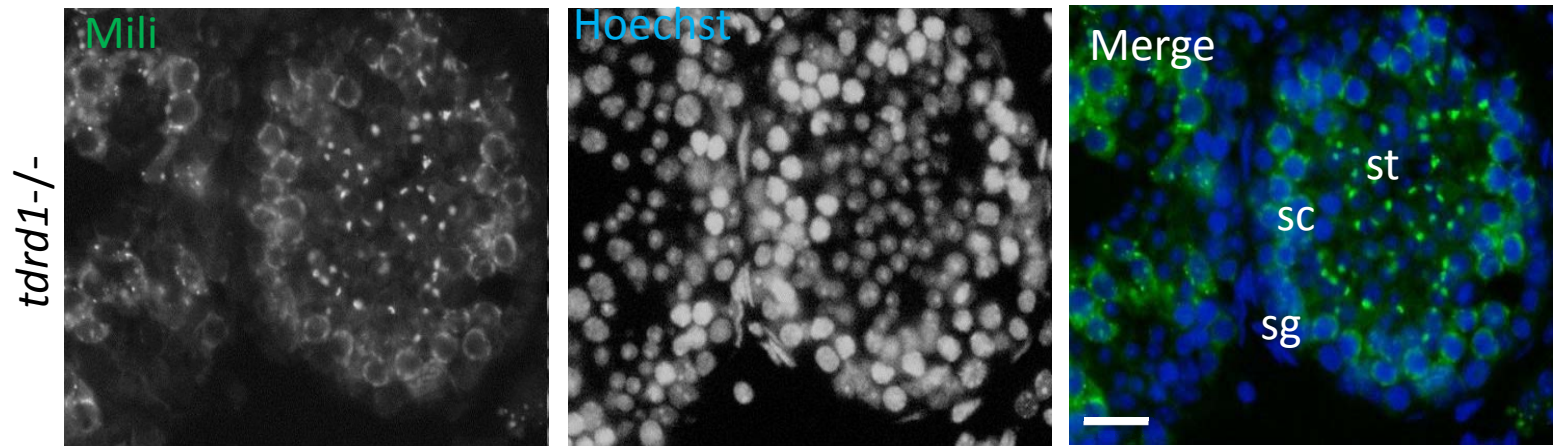
**A****B**

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