Fig. S1. Expression and localization of transgenic Mael. (A) Germaria harbouring transgenes of indicated genotypes were stained for FLAG-Mael (green) and Vasa (red). Wild-type and both S138A and S138D localise to both to the perinuclear nuage and nucleus. Insets show magnified images of single nurse cell nuclei (arrows). Scale bar: 10 μm. (B) Western blots showing expression of FLAG-Mael, FLAG-Mael-S138A and FLAG-Mael-S138D in the mael mutant background. (C) RT-PCR showing the relative expression of mael endogenous and transgenic mRNA.
Fig. S2. DNA double-strand breaks. Ovaries of indicated genotypes were stained for pH2Av to visualize DNA double-strand breaks. Asterisks indicate anterior tips of germaria. Dotted lines mark germarium. Scale bars: 10 μm.

Fig. S3. Phosphorylation of Mael is required for normal fertility. Chart showing egg-laying rate of indicated genotypes (n=3). Data are mean ± s.d.
**Fig. S4. polo is not required for transposon silencing and GSC/CB differentiation.** (A) RT-PCR showing expression of transposons in ovaries of indicated genotypes. (B) Germaria of indicated genotypes stained for α-Spectrin (green) and Vasa (red) to visualize fusome and germline cells. Asterisks indicate anterior tips of germaria. Scale bar: 10 μm. (C) Quantification of germaria with the indicated numbers of spectrome-containing cells (n>20).