



**Figure S4: A deficit of H3.3 induces a vitellogenic checkpoint response.**

Wild type (A) and H3.3 null ovaries (B, C) labeled with DAPI. In contrast to the wild type ovariole (A), both *H3.3B<sup>o</sup>; H3.3A<sup>2\*1</sup> / Df(2L)BSC110* (B) and *H3.3B<sup>o</sup>; H3.3A<sup>2\*1</sup> / Df(2L)Exel7022* null females (C) had frequent follicle cell death (indicated by red arrows in B and C), nurse cell death (indicated by yellow arrows in B and C), and degeneration of mid stage egg chambers.

Scale bars are 25 μm.