**SUPPLEMENTARY FIGURES**

**Supplementary Figure 1. Localization of various candidate proteins.**

**A:** left panel: GFP-tagged SMO-1 is detected in the head of adult animals. \* marks background autofluorescence.

right panel: GFP-tagged SMO-1 is expressed in the gonad. \* marks gut autofluorescence. Bar indicates 10 microns.

**B:** GFP-tagged RPT-3 is broadly expressed in the head of adult animals. Bar indicates 10 microns.

**C:** left panel: GFP-tagged SMN-1 is expressed in the head of adult animals.

right panel: GFP-tagged SMN-1 is expressed in the gonad, forming foci in germ cells. Bar indicates 10 microns.

**D:** FOX-1::GFP is expressed in some but not all neurons (all neurons are circled in the region of the RVG). Bar indicates 10 microns

**E:** Sometimes, GFP-tagged RPC-1 forms foci in hypodermal and germ cells. White arrows point to RPC-1 foci. Scale bar represents 1 micron.

**F:** In germ cells, GFP-tagged FUST-1 co-localizes with PGL-1::TagRFP, a P-granule marker. Bar indicates 10 microns.

**G:** GFP-tagged FUST-1 is broadly expressed in the head of adult worms. Bar indicates 10 microns.

**Supplementary Figure S2: NUN bodies sometimes correspond to areas of high DNA or RNA density**

**A:** Nomarski micrograph of neuronal nuclei and Hoechst staining. Nuclei outlined in white. NUN bodies and nucleolus outlined in pink. Bar indicates 1 micron.

**B:** Table summarizing result of DNA staining in nervous system nuclei.

**C:** Nomarski micrograph of excretory gland nucleus and SYTO RNA staining. Arrow points to nucleolus. Bar indicates 1 micron.

**D:** Nomarski micrograph of neuronal nuclei and SYTO RNA staining. Nuclei outlined in white. NUN bodies and nucleolus outlined in blue. Bar indicates 1 micron.

**E:** Table summarizing result of RNA staining in nervous system nuclei.

**Supplementary Figure S3: Deletion of *wac-1.1* and *wac-1.2* has no effect on NUN bodies.**

**A:** Genetic locus deleted in *wac-1.2& wac-1.1(syb2587)*.

**B:** Nomarski micrograph of neuronal nuclei in wild-type and *wac-1.2& wac-1.1(syb2587)* animals. Bar indicates 1 micron.