Supplemental material

JCB

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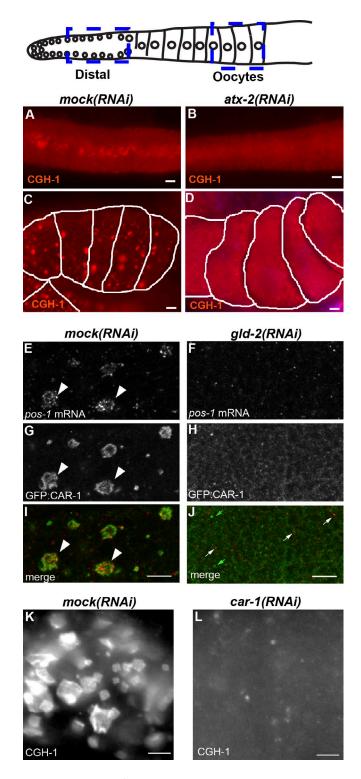


Figure S1. RNP granule modulators promote condensation of grPB proteins and mRNA. Top diagram depicts unfolded arrested gonad with distal and oocyte regions marked. (A–D) Epifluorescence images show arrested female gonads that were dissected, fixed, and stained for endogenous CGH-1 by IF. In control gonads, CGH-1 localized to grPBs in distal gonad (A) and oocytes (C). ATX-2 depletion caused CGH-1 dispersal (B and D), similar to disruption of GFP:CAR-1 condensation in live animals (see Fig. 4). (E–J) Confocal images show arrested oocytes from dissected and fixed gonads costained for pos-1 mRNA and GFP:CAR-1 by FISH-IF. In control oocytes, pos-1 mRNPs and GFP:CAR-1 localized to grPBs (arrowheads in I). GLD-2 depletion caused dispersal and separation of pos-1 mRNPs (white arrows in J) from GFP:CAR-1 particles (green arrows in J). (K–L) CAR-1 depletion disrupted solid square sheet granules in cgh-1(tn691) gonads, similar to loss of RBP repressors and other RAP regulators like ATX-2 and IFET-1 (see Fig. 2, Table 1, and Table S2). Images show IF staining of CGH-1 in oocytes. Bars, 5 μm.

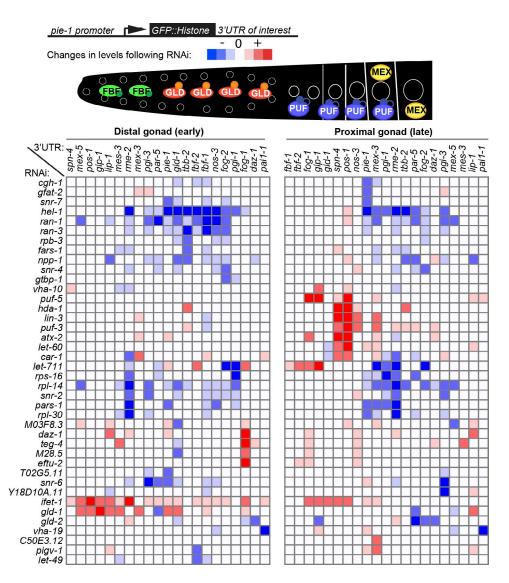


Figure S2. **RNP** regulators control reporter mRNA expression. Heatmaps show clustered expression changes for all genes that increase or decrease H2B: GFP from one or more 3' UTR reporters in distal and proximal gonad regions (see Fig. 7). These include "repressive genes" that induce increase expression after RNAi (red shades) and "activating genes" that decrease expression after RNAi (blue shades). Color coding and scoring was done as described in Fig. 7 B and Materials and methods.

Available online are four supplemental Excel tables. Table S1 shows all genes in the screened RNAi sublibrary. Table S2 shows genes found as solid granule modifiers in *cgh-1(tn691)* or in a previous P granule modifier screen. Table S3 shows genes that modify normal semiliquid grPBs in arrested germlines. Table S4 shows solid modifiers also found in a previous screen for Q35 aggregation suppressors.

References

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