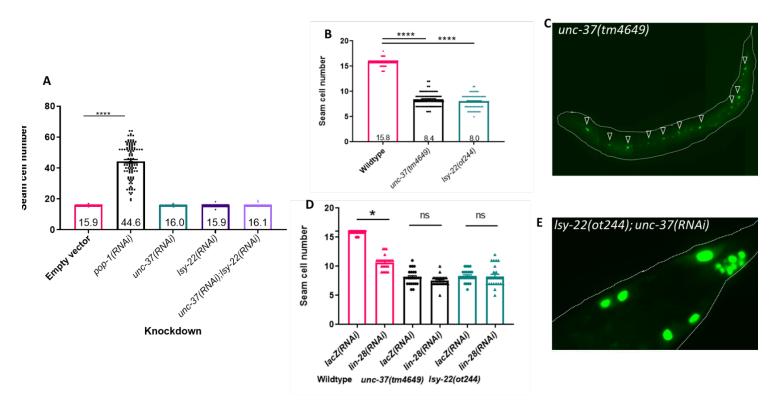
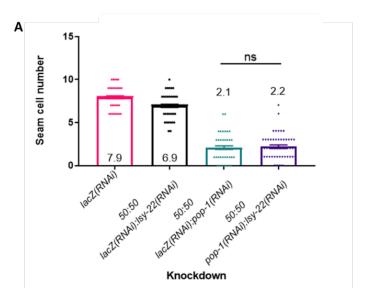


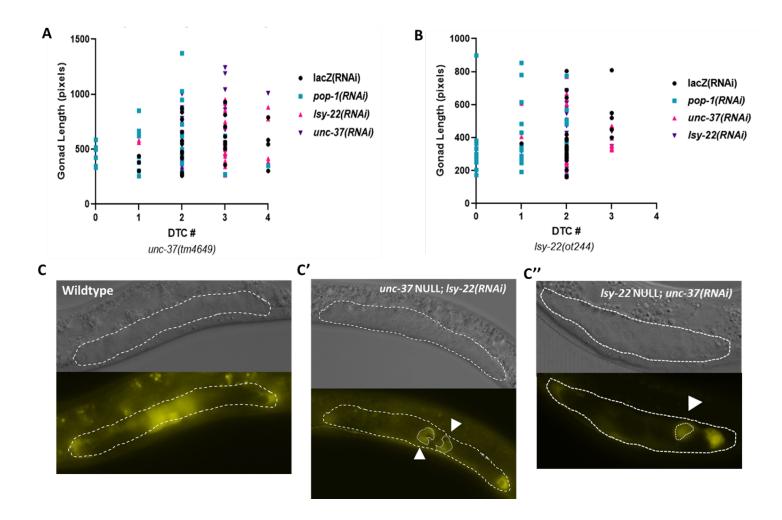
Supplemental Figure 1: Evaluating Groucho knockdown and graphics of null alleles. A) Corepressor knockdown does not change DTC fate. B) Double Groucho knockdown partially suppressed DTC loss from defective POP-1 activation allele. C) Graphic of *unc-37* null allele tm4649 D) Graphic of tsy-22 null allele tsy-22 null allele tsy-24. N value listed above each bar. \*-tsy-20.5, \*\*-tsy-20.01, \*\*\*-tsy-20.001, \*\*\*-



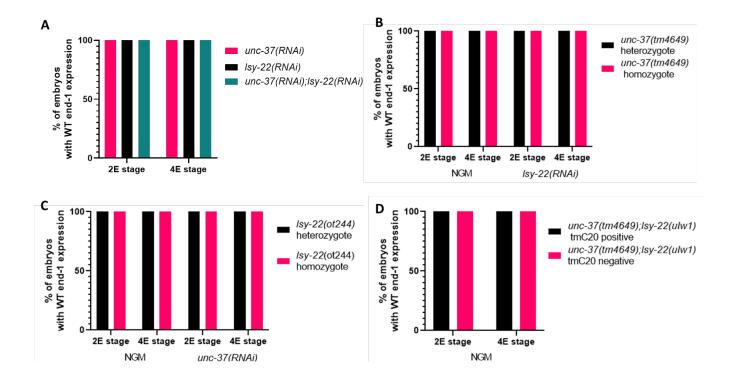
Supplemental Figure 2: Groucho nulls, but not knockdown, skip the symmetric division and misspecify tail SC lineage. A) Corepressor knockdown does not affect SC fate (mean value listed inside the bar; n=100 all conditions). B) SC fate decreases in *unc-37* and *lsy-22* nulls (mean value listed inside the bar; n=75 all conditions). C) Representative image of decreased SCs in the *unc-37* null. Arrow heads denote SCs. D) Loss of symmetric division does not affect SC fate in Groucho nulls (n=25, all conditions). E) Representative image of tail cells misexpressing  $P_{scm}$ ::GFP in the *lsy-22* null with *unc-37*(RNAi). \*-p $\leq$ 0.5, \*\*-p<0.01, \*\*\*-p<0.001, \*\*\*\*-p<0.0001 via unpaired t-Test.



Supplemental Figure 3: Decreased SC number in *unc-37* null with *pop-1* knockdown is not a function of excess LSY-22. A) *Isy-22* knockdown does not rescue decreased SC phenotype in *unc-37* null with *pop-1* knockdown (N=55, for all conditions)



Supplemental Figure 4: Wnt target gene expression is independent of gonadal development. A) *qIs90*[P<sub>ceh-22</sub>::YFP] misexpression in *unc-37* null and RNAi conditions does not cluster around one gonadal developmental timepoint (n=30, all conditions). B) *qIs90*[P<sub>ceh-22</sub>::YFP] misexpression in *Isy-22* null and RNAi conditions do not cluster around one gonadal developmental timepoint (n=30, all conditions). C) Representative images of wildtype *qIs90*[P<sub>ceh-22</sub>::YFP] expression and misexpression in *C'*) *unc-37* null with *Isy-22(RNAi)* or *C''*) *Isy-22* null with *unc-37(RNAi)*. Here, the gonad is outlined with white dashed lines and cells ectopically expressing *qIs90*[P<sub>ceh-22</sub>::YFP] are outlined with a white dotted line and denoted by white arrowheads.



Supplemental Figure 5: Corepressors function in embryonic endoderm specification Groucho proteins are maternally inherited in the early embryo A) Groucho knockdown does not affect endoderm fate from *tels46*[P<sub>end-1</sub>::GFP::H2B](n=20, all conditions). B) *unc-37* null does not affect endoderm development with *tels46*[P<sub>end-1</sub>::GFP::H2B](heterozygotes NGM, n=12; homozygotes NGM n=5; heterozygotes *lsy-22(RNAi)* n=10; homozygotes *lsy-22(RNAi)* n=5). C) *lsy-22* null does not affect endoderm development with *tels46*[P<sub>end-1</sub>::GFP::H2B](heterozygotes NGM, n=14; homozygotes NGM n=5; heterozygotes *lsy-22(RNAi)* n=10; homozygotes *lsy-22(RNAi)* n=5). D) Double *unc-37*, *lsy-22* null does not affect endoderm development with *tels46*[P<sub>end-1</sub>::GFP::H2B](tmC20 positive n=10; tmC20 negative n=5).