Intertwined Functions of Separase and Caspase in Cell Division and Programmed Cell Death

Pan-Young Jeong¹, Ashish Kumar¹, Pradeep Joshi¹, and Joel H. Rothman^{1*}

Supplemental material

Supplemental Figure S1. Compromised SEP-1 separase function results in extra surviving nuclei

L1 larvae stained with DAPI show presence of extra nuclei (arrows) in the anterior pharynx of either *sep-1(e2406)* alone (middle panel) or in conjunction with the weak reduction of function *ced-3(n2443)* allele (bottom panel), as compared to the laboratory reference strain N2 (top panel)

Supplemental Figure S2. *ced-3* enhances reduction of function defects of *sep-1* RNAi treated animals

(A) Embryonic lethality of embryos from parents fed with HT115 *E. coli* strain expressing dsRNA against *sep-1* (from the Ahringer RNAi library collection) diluted with bacteria carrying an empty vector. (B) % of males among the surviving progeny of L4 parents fed diluted *sep-1* RNAi bacteria.

Supplemental movies

Movie S1. *ced-3(n717); ruls32.* Normal chromosome segregation in *ced-3* mutant strain expressing histone 2B-GFP fusion protein

Movie S2. *sep-1(e2406); ruls32*. Normal chromosome segregation in *sep-1* mutant strain expressing histone 2B-GFP fusion protein at the permissive temperature of 19.5°C.

Movie S3. sep-1(e2406); ced-3(n717); ruls32. Failure of egg shell formation and chromosome segregation at the permissive temperature of 19.5 ±0.2°C

Movie S4 *sep-1(e2406); ced-3(n717); ruls32.* No apparent defects in either egg shell formation or chromosome segregation at 18.2 ±0.2°C

Supplementary Figures

Figure S1 Extra surviving pharyngeal cells in *sep-1(e2406)*

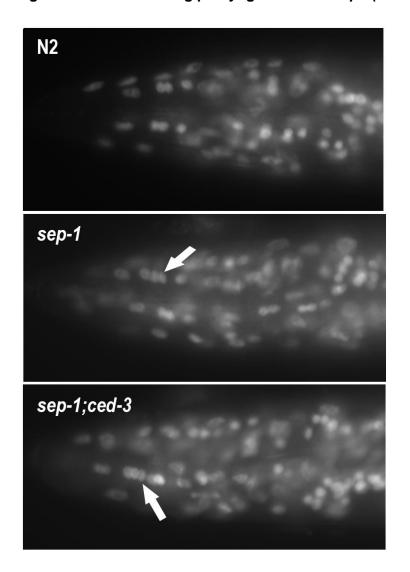


Figure S2. ced-3 enhances reduction of function defects of sep-1 RNAi treated animals

