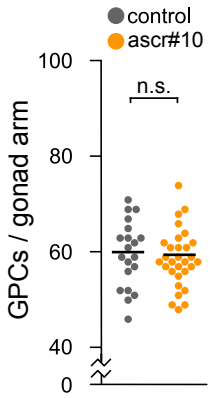
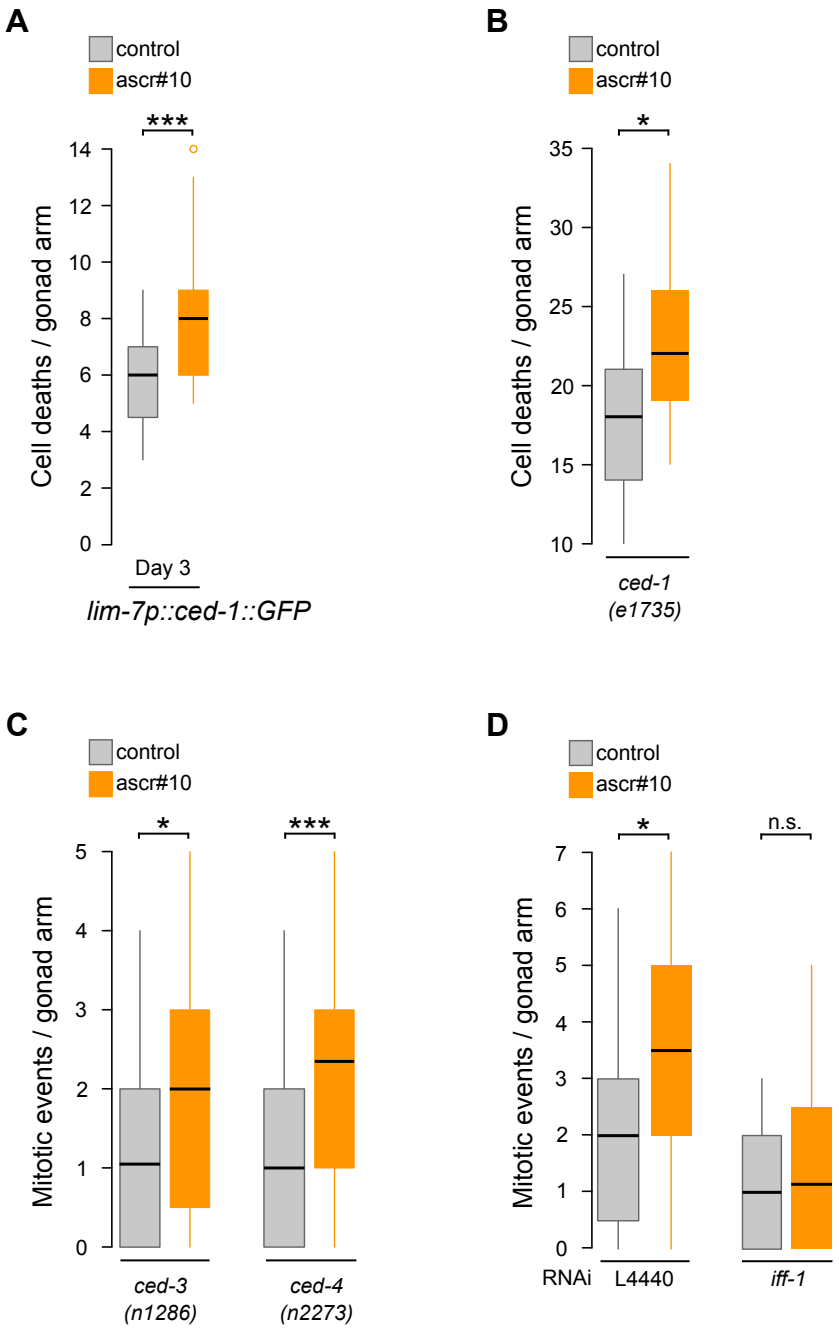
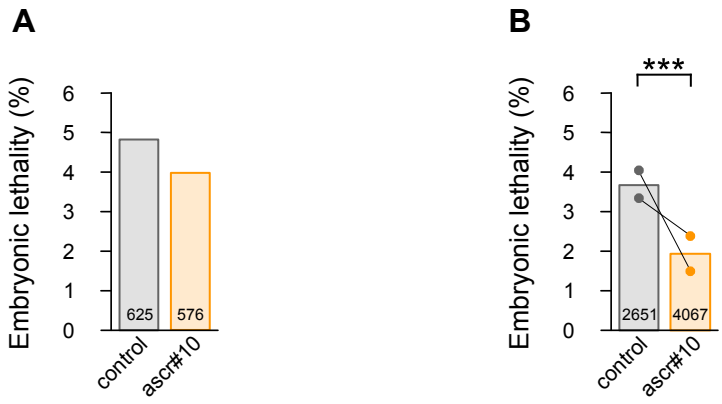

control
ascr#10
GPCs / gonad arm
100
80
60
40
0
n.s.


A
control
ascr#10
***
Cell deaths / gonad arm
14
12
10
8
6
4
2
0
Day 3
lim-7p::ced-1::GFP
B
control
ascr#10
*
Cell deaths / gonad arm
35
30
25
20
15
10
ced-1
(e1735)
C
control
ascr#10
*
***
Mitotic events / gonad arm
5
4
3
2
1
0
ced-3
(n1286)
ced-4
(n2273)
D
control
ascr#10
*
n.s.
Mitotic events / gonad arm
7
6
5
4
3
2
1
0
RNAi
L4440
iff-1


A
Embryonic lethality (%)
0
1
2
3
4
5
6
625
576
control
ascr#10
B
***
Embryonic lethality (%)
0
1
2
3
4
5
6
2651
4067
control
ascr#10

SUPPLEMENTAL FIGURE LEGENDS

Figure S1. The number of germline precursor cells in aged hermaphrodites are not affected by exposure to ascr#10 during larval stages.

Germline precursor cells in hermaphrodites that were exposed to ascr#10 from the time of hatching until 48 hours after hatching. GPCs were measured on Day 5 of adulthood. Dots represent the GPC counts of individual hermaphrodites. Black bars denote means. See Table S1 for primary data and details of statistical analyses.

Figure S2. Additional experiments regarding cell death and mitotic events.

(A) Numbers of cell deaths per gonad arm with or without exposure to ascr#10 in the strain carrying *lim-7p::ced-1::GFP*. **(B)** Numbers of cell deaths per gonad arm identified by SYTO 12 staining in *ced-1(e1735)* with or without exposure to ascr#10. *ced-1(e1735)* mutants are deficient in engulfment and phagocytosis of cell corpses so numbers are considerably higher than in wild type N2 animals. **(C)** The number of mitotic events per gonad arm in mutants carrying different alleles of *ced-3* and *ced-4* genes than those shown in Figure 2. **(D)** RNAi against *iff-1*prevents germline proliferation. Black bars denote means. *, $p<0.05$, ***, $p<0.001$ See Table S1 for primary data and details of statistical analyses.

Figure S3. Additional experiments that show that ascr#10 improves the embryonic lethality in older mothers.

(A) Embryonic lethality of N2 self-progeny produced on Days 5 and 6 of adulthood is improved on ascr#10. **(B)** Embryonic lethality in the progeny of N2 hermaphrodites aged on ascr#10 and mated to young *tra-2(q276)* males on Day 5. Numbers inside bars represent total numbers of tested embryos. Each dot represents an individual experiment paired with its control. ***, $p<0.001$. See Table S1 for primary data and details of statistical analyses.

Table S1. Summary of experiments in this study.

Table S2. Strains used in this study.

Table S3. Differentially expressed genes.