Table S1. Statistics for Life Spans of Figure 1, Figure 2, Figure 4, and Figure 6

Strain	Mean Life span ± SEM (days)	Median (days)	75th Percentile (days)	Total # Animals Died/Total	*P*-value
Figure 1					
sid-1(qt9) Ex.rol-6 marker	18.8±0.7	19	24	77/104	
*ges-1*p::*cco-1*HP	23.9±0.8	24	28	74/108	<.0001
wildtype N2	18.2± 0.5	17	21	64/106	
*rab-3*p::*cco-1*HP	21.5±0.5	23	25	74/104	<.0001
sid-1(qt9) Ex.rol-6 marker	18.6±.7	18	22	56/96	
*myo-3*p::*cco-1HP*	16.6±.5	16	20	76/100	0.0574
sid-1(qt9) Ex.rol-6 marker	19.8±0.7	19	23	73/104	
*unc-119*p::*cco-1HP*	23.8±0.8	24	28	65/104	0.0001
Figure 2					
N2 on EV	16.1±0.4	16	20	91/97	<.0001
N2 on *cco-1* RNAi	23.1±0.6	24	27	93/104	
rde-1(ne219) on empty vector	18.0±0.3	16	20	103/113	.4043
rde-1(ne219) on *cco-1*	18.2± 0.4	18	21	96/111	
Intestinal *nhx-1*p::*rde-1* rescue on EV	14.6±0.6	15	17	85/101	<.0001
Intestine *nhx-1*p::*rde-1* on *cco-1* RNAi	22.0±0.2	23	27	77/103	
Muscle *hlh-1*p::*rde-1* rescue on EV	13.5±0.3	14	15	64/115	<.0002
Muscle *hlh-1*p::*rde-1* rescue on *cco-1* RNAi	11.8±0.3	12	13	51/116	
Hypodermis *rde-1* rescue on EV	13.4±0.4	15	16	100/127	0.148
Hypodermis *rde-1* rescue on *cco-1* RNAi	14.3±0.4	15	18	98/122	
Intestinal *nhx-1*p::*rde-1* rescue on EV	16.3±0.4	16	18	79/92	
Intestinal *nhx-1*p::*rde-1* rescue on EV/*daf-16* RNAi (50/50)	16.4±0.4	16	18	92/104	0.8164
Intestinal *nhx-1*p::*rde-1* rescue on *cco-1/daf-16*RNAi (50/50)	19.9±0.6	18	24	51/103	<.0001
sid-1(qt9)	19.2±0.5	19	22	83/109	
rab-3::cco-1HP	23.4±0.6	25	27	68/121	.64 (to cross)
ges-1::cco-1HP	22.9±0.6	23	27	79/133	.75 (to cross)
rab-3::cco-1HPxges-1::cco-1HP	23.2±0.5	24	25	92/130	<.0001 (to control)
Figure 4					
N2 on EV	19.0±0.5	21	22	85/98	0.0834
N2 on *ubl-5* RNAi	20.3±0.4	21	24	87/103	
daf-2(e1370) on EV	40.1±1.2	43	49	67/124	
daf-2(e1370) on *ubl-5* RNAi	39.9±1.2	42	50	58/137	0.3273
eat-2(ad116) on EV	26.4± .6	29	30	77/112	

eat-2(ad116) on *ubl-5* RNAi	23.3±7	23	29	75/105	0.0004
N2 on EV	18.2±0.4	18	21	94/104	
isp-1(qm150) on EV	25.8±1.0	27	33	64/126	<.0001
isp-1(qm150) on *ubl-5* RNAi	15.5±0.7	13	18	37/94	
Transgenic strain analysis					
N2 on EV	17.3±0.4	17	20	92/99	
sid-1(qt9) on EV	19.6±0.5	19	24	88/100	
37.1 *sid-1/rol-6*	18.8±0.6	19	24	77/104	
19.5 *unc-119p::cco-1*HP	21.0±0.6	20	25	84/104	.0341
53.2 *ges-1p::cco-1*HP	21.5±0.6	22	25	86/108	<.0001
54.1 *ges-1p::cco-1*HP	22.1±0.8	22	25	69/105	0.0024
54.3 *ges-1p::cco-1*HP	22.8±0.7	24	28	82/109	0.0067
54.5 *ges-1p::cco-1*HP	21.9±0.6	22	25	86/100	0.0021
55.9 *ges-1p::cco-1*HP	23.9±0.8	24	28	74/108	<.0001
A2 *ges-1p::cco-1*HP	21.8±0.7	22	25	83/111	0.0034
65.11 *myo-3p::cco-1*HP	14.4±0.5	15	15	92/113	<.0001
66.15 *myo-3p::cco-1*HP	15.2±0.5	15	17	81/111	<.0001
66.2 *myo-3p::cco-1*HP	15.9±0.5	15	17	92/122	0.0024
66.2a *myo-3p::cco-1*HP	15.6±0.5	15	17	72/115	<.0001
66.6 *myo-3p::cco-1*HP	17.3±0.8	15	17	72/100	0.2618
70.11 *myo-3p::cco-1*HP	14.5±0.5	15	15	67/103	<.0001
N2 on EV	18.2±0.5	17	21	74/104	
N2 on *cco-1* RNAi	26.1±0.6	27	30	47/64	<.0001
W *rab-1p::cco-1*HP	21.8±0.6	23	25	66/108	<.0001
B3 *rab-1p::cco-1*HP	19.6±0.8	19	25	49/123	0.0180
sid-1(qt9)	17.4±0.7	18	20	49/80	
sid-1(qt9)/rol-6	14.5±0.5	13	18	84/120	
13.14 *unc-119p::cco-1*HP	20.1±0.7	20	24	48/80	<.0001
11.2 *unc-119p::cco-1*HP	17.1±1.5	16	24	17/60	0.1211
13.4 *unc-119p::cco-1*HP	17.2±0.7	17	21	42/80	0.0331
13.9 *unc-119p::cco-1*HP	19.3±0.6	20	23	62/82	<.0001
18.1 *unc-119p::cco-1*HP	18.3±0.8	16	23	47/80	<.0001
19.5 *unc-119p::cco-1*HP	21.9±0.7	21	25	66/108	<.0001
22.1 *unc-119p::cco-1*HP	18.4±0.9	18	23	44/52	<.0001
9.7 *unc-119p::cco-1*HP	16.1±0.6	18	20	35/60	0.1048
N2	19.7±0.7	20	25		
sid-1(qt9)/myo-2:GFP	20.3±1.0	15	28		
Line 10 *ges-1p::cco-1*HP	25.9±0.6	28	.	44/34	<.0001
Line 2 *ges-1p::cco-1*HP	28.2±0.8	33	.	70/34	<.0001
Line 3 *ges-1p::cco-1*HP	29.5±0.8	30	.	36/52	<.0001
Line 4 *ges-1p::cco-1*HP	23.5±0.7	25	.	60/98	0.0009
Line 5 *ges-1p::cco-1*HP	28.4±0.8	30	35	48/64	0.0009
Line 8 *ges-1p::cco-1*HP	28.0±1.3	30	35	27/36	<.0001
Line5 *ges-1p::cco-1*HP	26.3±1.0	28	30	89/113	<.0001

Life-span analysis of transgenic *cco-1* hairpin lines. Animals that died prematurely (exploded out the vulva, bagged, crawled off the plate) were censored at the time of the event. Control and experimental animals were assayed and transferred to fresh plates at the same time. JMP 8 was used for statistical analysis.

Table S2. Statistics for Paraquat Experiments, Related to Experimental Procedures

	% Survival at 7 hours in .01mM paraquat
N2	59.5
N2 on *cco1*	50.0
daf-2(e1370)	95.2
mev-1(kn1)	4.8
sid-1/rol-6	57.1
*ges-1*p HP	50.0
*rab-3*p HP	64.3
*unc-119*p HP	28.6
myo-3 HP	52.3
rde-1(ne219)	54.8
rde-1(ne219) *cco-1* RNAi	76.2
intestinal *rde-1*	54.8
intestinal *rde-1* on *cco-1* RNAi	69.0
muscle *rde-1*	50.0
muscle *rde-1* on *cco-1* RNAi	57.1

Percent survival was determined at 7 hours in 0.01mM paraquat. Mean life span was determined using JMP5.1 statistical analysis. See Supplemental Materials and Methods for assay conditions. Mean life span of animals treated with 1200 J/m^2 of UV. Worms were scored daily for viability. See Supplemental Materials and Methods for assay conditions.

Table S3. Statistics for UV Experiments, Related to Experimental Procedures

Strain	UV treated Mean life span (days)
sid-1/rol-6	4.9±0.21
*ges-1*p HP	4.9±0.13
*unc-119*p HP	4.7±0.15
myo-3 HP	3.5±0.14

Mean life span of animals treated with 1200 J/m^2 of UV. Worms were scored daily for viability. See Supplemental Materials and Methods for assay conditions.

Table S4. Statistics for Heat Shock Experiments, Related to Experimental Procedures

Strain	% survival at 10 hours 35 degrees Celsius
N2	77
daf-2(e1370)	100
mev-1(kn1)	49
sid-1/rol-6	37
*ges-1*p HP	26
*unc-119*p HP	68
myo-3 HP	26

Worms were exposed to 35^{o}C temperature stress and assayed every 2 hours for viability. Shown above is the percent survival at 10 hours. See Supplemental Materials and Methods for assay conditions.