

experiment	median survival	mean lifespan	nt median lifespan change w/	median survival different from w/	deaths recorded (censored animals)	P value (logrank test)	Used in figure (red is supp.)
treatment from birth							
N2 Control	18	19			74		Ⓢ
N2 NP1	25	25	39		97	P<0.0001*	Ⓢ
treatment from birth							
N2 Control	20	20			93(6)		
N2 NP1	25	25	25		84(20)	P<0.0001*	
Blind from adult							
N2 control	19	20			57(5)		
N2 NP1	29	29	53		60(2)	P<0.0001*	
Blind from adult							
N2 control	19	18			53(7)		
N2 NP1	26	24	37		43(16)	0.0001*	
Blind from adult							
N2 control	23	21			55(3)		
N2 NP1	26	24	13		43(14)	0.0383*	
from adulthood							
N2 Control	12	13			56		
N2 NP1	19	18	58		55	P<0.0001*	
from adulthood							
N2 Control	15	16			54		
N2 NP1	21	21	40		57	P<0.0001*	
from adulthood							
N2 Control	13				58(2)		Ⓢ
N2 NP1	27		108		62(1)	P<0.0001*	Ⓢ
*compared to DMSO treated/same strain control							
dosage response							
N2 10µM Control	13	13			49		Ⓢ
N2 10µM NP1	16	16	23		54	P<0.0001	Ⓢ
N2 50µM Control	21	21			40		Ⓢ
N2 50µM NP1	29	27	38		57	P<0.0001	Ⓢ
N2 100µM Control	18	16			63		Ⓢ
N2 100µM NP1	18	19	0		61	P<0.0001	Ⓢ
N2 200µM Control	18	16			56		Ⓢ
N2 200µM NP1	18	17	0		44	0.98	Ⓢ
N2 500µM Control	15	13			60		Ⓢ
N2 500µM NP1	10	10	-33		60	P<0.0001	Ⓢ
Controls contain matching DMSO levels							
longevity pathways							
N2 Control	13	16			43(36)		
N2 NP1	27	25	108		75(6)	P<0.0001	
daf-16(mu86) Control	13	13		0	77(3)		
daf-16(mu86) NP1	16	15	23		75(5)	P<0.0001*	
N2 Control	15	16			70		Ⓢ
N2 NP1	22	22	47		67	P<0.0001*	Ⓢ
daf-16(mu86) Control	12	12		-20	66		Ⓢ
daf-16(mu86) NP1	15	15	25		66	P<0.0001*	Ⓢ
N2 control	17	18			59(5)		
N2 NP1	22	24	29		61(1)	P<0.0001*	
hsf-1(sy441) control	9	9		-47	42(17)		Ⓢ
hsf-1(sy441) NP1	12	12	33		35(24)	P<0.0001*	Ⓢ
RNAi (L4440) Control	20	21			43(17)		
RNAi (L4440) NP1	27	28	35		51(9)	P<0.0001*	
RNAi (hsf-1) Control	15	14		-25	43(21)		
RNAi (hsf-1) NP1	15	16	0		56(14)	0.0019*	
RNAi (L4440) Control	21	20			42(12)		
RNAi (L4440) NP1	29	27	38		52(6)	P<0.0001*	
RNAi (hsf-1) Control	13	14		-38	52(2)		
RNAi (hsf-1) NP1	18	18	38		64(2)	P<0.0001*	
RNAi (L4440) Control	20	21			43(17)		
RNAi (L4440) NP1	27	28	35		51(9)	P<0.0001*	
RNAi (pha-4) Control	25	24		25	55(15)	0.014#	
RNAi (pha-4) NP1	25	24	0		61(9)	0.3072*	
RNAi (skn-1) Control	20	20		0	50(20)		
RNAi (skn-1) NP1	22	22	10		66(1)	0.0173*	
RNAi (L4440) Control	21	20			42(12)		
RNAi (L4440) NP1	29	27	38		52(6)	P<0.0001*	
RNAi (pha-4) Control	21	23		0	53(2)	0.0982#	Ⓢ
RNAi (pha-4) NP1	18	21	-14		57(7)	0.7905*	Ⓢ
RNAi (skn-1) Control	21	19		0	55(5)		Ⓢ
RNAi (skn-1) NP1	21	23	0		25(1)	0.0005*	Ⓢ
*compared to DMSO treated/same strain control #compared to RNAi (L4440) Control							
N2 control	19	19			53		
N2 NP1	26	25	37		23	P<0.0001*	
osm-3(p802) control	33	30		74	35		Ⓢ
osm-3(p802) NP1	35	35	6		28	0.0039*	Ⓢ
N2 control	17	18			59(5)		
N2 NP1	22	24	29		61(1)	P<0.0001*	
osm-3(p802) control	30	29		76	26(38)		
osm-3(p802) NP1	33	32	10		33(30)	0.0308*	
N2 Control	15	15			57(3)		
N2 NP1	16	20	7		54(6)	P<0.0001*	
isp-1(qm150)	19	19		27	55(9)		Ⓢ
isp-1(qm150) NP1	23	23	21		48(10)	P<0.0001*	Ⓢ
*compared to DMSO treated/same strain control							
bacterial dilution							
Trial 1							
10 <sup>-7</sup> Control	19	19			56(2)		Ⓢ
10 <sup>-7</sup> NP1	16	18	-16		54(6)	0.5029*	Ⓢ
10 <sup>-8</sup> Control	21	22			58(1)		Ⓢ
10 <sup>-8</sup> NP1	21	22			60(3)	0.9848*	Ⓢ
10 <sup>-9</sup> Control	19	21			55(7)		Ⓢ
10 <sup>-9</sup> NP1	22	22	16		54(3)	0.0501*	Ⓢ
10 <sup>-11</sup> Control	16	14			53(1)		Ⓢ
10 <sup>-11</sup> NP1	19	19	19		54(1)	P<0.0001*	Ⓢ
Trial 2							
10 <sup>-7</sup> Control	21	20			53(7)		Ⓢ
10 <sup>-7</sup> NP1	16	16	-24		56(4)	P<0.0001*	Ⓢ
10 <sup>-8</sup> Control	21	20			57(4)		Ⓢ
10 <sup>-8</sup> NP1	21	21	0		58(4)	0.0178*	Ⓢ
10 <sup>-9</sup> Control	20	20			56(4)		Ⓢ
10 <sup>-9</sup> NP1	24	23	20		51(9)	P<0.0001*	Ⓢ

10*11 Control	15	15			58(2)		Ⓢ
10*11 NP1	20	18	33		57(4)	P<0.0001*	Ⓢ
Trial 3							
10*7 Control	22	23			37(19)		Ⓢ
10*7 NP1	17	16	-23		22(35)	P<0.0001*	Ⓢ
10*8 Control	22	23			51(8)		Ⓢ
10*8 NP1	20	20	-9		34(26)	0.0054*	Ⓢ
10*9 Control	20	19			44(12)		Ⓢ
10*9 NP1	22	22	10		53(6)	P<0.0001*	Ⓢ
10*11 Control	15	15			45(15)		Ⓢ
10*11 NP1	20	18	33		49(8)	P<0.0001*	Ⓢ
Trial 4							
10*7 Control	20	20			25(24)		Ⓢ
10*7 NP1	15	15	-25		22(36)	P<0.0001*	Ⓢ
10*8 Control	24	23			48(11)		Ⓢ
10*8 NP1	20	20	-17		41(18)	0.0004*	Ⓢ
10*9 Control	20	19			52(8)		Ⓢ
10*9 NP1	24	24	20		45(14)	P<0.0001*	Ⓢ
10*11 Control	15	15			51(8)		Ⓢ
10*11 NP1	20	18	33		53(7)	P<0.0001*	Ⓢ
bacterial dilution assays with T.J1060 strain at 25 °C							all data combined for figure 2G
*compared to DMSO treated concentration control							
compared to 10*11 control (here considered <i>ad libitum</i> )							
<b>glutamatergic signaling</b>							
N2 Control	16	18			54(7)		Ⓢ
N2 NP1	26	25	63		59(2)	P<0.0001*	Ⓢ
eat-4(ad819) Control	15	13			30(30)	P<0.0001#	Ⓢ
eat-4(ad819) NP1	12	13	-20		27(33)	0.7959*	Ⓢ
N2 Control	lost				lost		
N2 NP1	lost				lost		
eat-4(ad819) Control	17	16			51(8)		Ⓢ
eat-4(ad819) NP1	15	14	-12		47(15)	0.0054*	Ⓢ
N2 Control	19	19			95(3)		Ⓢ
N2 NP1	27	27	42		83(5)	P<0.0001*	Ⓢ
avr-15(ad1051) Control	19	18			89(4)		Ⓢ
avr-15(ad1051) NP1	19	18	0		89(9)	0.8721*	Ⓢ
N2 Control	15	17			75(3)		Ⓢ
N2 NP1	17	19	13		59(10)	0.0118*	Ⓢ
avr-15(ad1051) Control	17	17			65(14)	0.9935#	Ⓢ
avr-15(ad1051) NP1	17	17	0		44(29)	0.4245*	Ⓢ
<b>NP1 interactions with eat-2 and qar-3</b>							
N2 Control	19	18			49(6)		Ⓢ
N2 NP1	19	19	0		61(2)	0.2671*	Ⓢ
gar-3(gk305) Control	26	26		37	59(4)	P<0.0001#	Ⓢ
gar-3(gk305) NP1	26	24	0		57(5)	0.3621*	Ⓢ
eat-2(ad1116) Control	21	21		-19	54(4)	0.0106#	Ⓢ
eat-2(ad1116) NP1	26	26	24		68(1)	0.0018*	Ⓢ
N2 Control	17	17			59(2)		Ⓢ
N2 NP1	22	22	18		55(7)	P<0.0001*#	Ⓢ
gar-3(gk305) Control	20	21		18	53(1)	0.0002#	Ⓢ
gar-3(gk305) NP1	21	23	5		56(1)	0.1497*	Ⓢ
eat-2(ad1116) Control	17	18			46(1)	0.3362#	Ⓢ
eat-2(ad1116) NP1	22	23	29		56(7)	P<0.0001*	Ⓢ
N2 Control	16	16			58(3)		Ⓢ
N2 NP1	25	24	56		49(15)	P<0.0001*	Ⓢ
eat-2(ad1116) Control	20	20		25	78(12)	P<0.0001#	Ⓢ
eat-2(ad1116) NP1	25	24	25		98(3)	P<0.0001*	Ⓢ
N2 Control	14	16			32		Ⓢ
N2 NP1	23	23	64		23	0.0001*	Ⓢ
gar-3(vu78) Control	19	18		36	55	0.3873#	Ⓢ
gar-3(vu78) NP1	21	19	11		56	0.1366*	Ⓢ
N2 Control	24	22			32		Ⓢ
N2 NP1	26	25	8		46	0.9066*	Ⓢ
gar-3(vu78) Control	23	24		-4	58	0.0772#	Ⓢ
gar-3(vu78) NP1	23	24	0		52	0.2088*	Ⓢ
N2 control	23	22			62(2)		Ⓢ
N2 NP1	28	24	22		30(0)	0.0383*	Ⓢ
gar-3(vu78) Control	23	24		0	55(3)	0.012#	Ⓢ
gar-3(vu78) NP1	26	27	13		43(14)	0.2042*	Ⓢ
N2 control	16	18			50(8)		Ⓢ
N2 NP1	26	25	63		48(14)	P<0.0001*	Ⓢ
gar-3(vu78) Control	23	24		44	53(3)	0.0002#	Ⓢ
gar-3(vu78) NP1	28	25	22		42(18)	0.7637*	Ⓢ
*compared to DMSO treated/same strain control							
#compared to N2 control							
<b>eat-4, qar-3 epistatic analysis</b>							
N2 Control	12	15			55(5)		Ⓢ
N2 NP1	26	24	117		59(1)	P<0.0001*#	Ⓢ
eat-4(ky5) Control	16	15		33	49(22)	0.4275#	Ⓢ
eat-4(ky5) NP1	16	15	0		49(28)	0.2838*	Ⓢ
gar-3(gk305) Control	21	22		75	57(2)	P<0.0001*	Ⓢ
gar-3(gk305) NP1	16	19	-24		57(5)	0.0251*	Ⓢ
eat-4, qar-3 Control	16	17			52(25)	0.1365%, P<0.0001\$	Ⓢ
eat-4, qar-3 NP1	16	16	0		35(29)	0.9105*	Ⓢ
N2 Control	14	15			22(3)		Ⓢ
N2 NP1	23	21	64		35(23)	P<0.0001*#	Ⓢ
eat-4(ky5) Control	16	17		14	33(25)	0.0392#	Ⓢ
eat-4(ky5) NP1	14	14	-13		45(14)	0.1034*	Ⓢ
gar-3(gk305) Control	16	16		14	24(1)	0.0954#	Ⓢ
gar-3(gk305) NP1	16	18	0		56(6)	0.8005*	Ⓢ
eat-4, qar-3 Control	16	15			47(22)	0.0141%, 0.0201\$	Ⓢ
eat-4, qar-3 NP1	16	17	0		49(20)	0.0406*	Ⓢ
*compared to same strain control							
#compared to N2 control							
% compared to eat-4(ky5) single							
\$compared to gar-3(gk305) single							
<b>laser ablations</b>							
zdfs13 mock ablated Control	15	14			10(2)		Ⓢ
zdfs13 mock ablated NP1	23	24	59		11(1)	0.0005*	Ⓢ
zdfs13 NSM ablated Control	11	12			11(1)		Ⓢ
zdfs13 NSM ablated NP1	25	23	123		12(1)	0.0001*	Ⓢ
zdfs13 mock ablated Control	17	17			10(0)		Ⓢ
zdfs13 mock ablated NP1	23	23	35		3(0)	0.0305*	Ⓢ
zdfs13 NSM ablated Control	14	13			5(0)		Ⓢ
zdfs13 NSM ablated NP1	23	21	64		6(0)	0.0319*	Ⓢ

eat-4 NSM ectopic expression						
eat-4(ky5) non transgenic sibs Control	13	14		39(13)		
eat-4(ky5) non transgenic sibs NP1	15	16	15	35(24)	0.0049*	@
eat-4; rfx228 Control	13	13		28(7)	0.988#	
eat-4; rfx228 NP1	24	21	85	47(22)	P<0.0001*	@
eat-4; rfx229 Control	13	14		51(12)	0.5203#	
eat-4; rfx229 NP1	19	20	46	48(15)	P<0.0001*	@
eat-4; rfx230 Control	13	12		21(10)	0.0478#	
eat-4; rfx230 NP1	19	19	46	25(4)	P<0.0001*	@
eat-4(ky5) non transgenic sibs Control	13	13		31(23)		@
eat-4(ky5) non transgenic sibs NP1	19	18	46	32(17)	P<0.0001*	
eat-4; rfx228 Control	15	16		55(8)	0.0152#	@
eat-4; rfx228 NP1	17	17	13	56(7)	0.4411*	
eat-4; rfx229 Control	13	12		58(2)	0.197#	@
eat-4; rfx229 NP1	19	20	46	55(6)	P<0.0001*	
eat-4; rfx230 Control	10	11		18(6)	0.0013#	@
eat-4; rfx230 NP1	17	18	70	29(2)	P<0.0001*	
rfEx228-230[Ptph-1::eat-4]						
gar-3 tissue specific rescue						
gar-3(gk305) non transgenic sibs Control	22	22		58(4)		@
gar-3(gk305) non transgenic sibs NP1	20	20	-9	54(4)	0.4063*	
gar-3; rfx224 Control	22	22		59(3)	0.5596#	@
gar-3; rfx224 NP1	27	27	23	63(1)	0.0002*	@
gar-3; rfx225 Control	20	20		51(7)	0.0306#	
gar-3; rfx225 NP1	20	22	0	63(3)	0.055*	
rfEx224-225[Pmyo-2::gar-3]						
*compared to same strain control						
#compared to NTS control						
glutamate mutant DR response						
N2 10*8	27	27		46(5)	0.0009*	@
N2 10*9	27	25		8(39)		@
N2 10*10	23	22		45(5)		@
eat-4(ky5) 10*8	34	32		17(31)	P<0.0001*	@
eat-4(ky5) 10*9	27	26		32(18)		@
eat-4(ky5) 10*10	23	23		37(15)		@
avr-15(ad1051) 10*8	32	27		47(5)	0.1356*	@
avr-15(ad1051) 10*9	32	30		49(2)	0.0019*	@
avr-15(ad1051) 10*10	27	27		49(2)		@
* compared to 10*10						
automated lifespan machine (ALM)						
test for dependence on live bacteria						
ALM UV NP1 individual plates						
N2 Control	10.1			27		@
N2 Control	8.7			25		@
N2 NP1	13.9			29		@
N2 NP1	17.5			12		@
N2 UV Control	17.2			27		@
N2 UV Control	22.0			17		@
N2 UV Control	14.7			19		@
N2 UV Control	19.2			26		@
N2 UV NP1	23.4			24		@
N2 UV NP1	22.0			23		@
N2 UV NP1	27.0			25		@
N2 UV NP1	21.1			28		@
ALM UV NP1 data combined plates						
N2 Control	9.4			52		@
N2 NP1	14.0	50		41	P<0.0001#	@
N2 UV Control	17.5			89	P<0.0001#	@
N2 UV NP1	24.0	38		100	P<0.0001*	@
*compared to same strain control						
#compared to N2 control						

1 (Nn1-Control)/(Control)\*100