

Supplementary Data 1 | Summary of survival data
Lennicke *et al.*

Fig. 1a	<i>w^{Dah}</i>	female	UAS-cat/+	10	20	200	186	12	198	65.3	0
			da-GAL4/+	10	20	200	189	11	200	64.6	-1.07
			da-GAL4>UAS-cat	10	20	200	159	39	198	69.3	+6.13
	<i>w^{Dah}</i>	male	UAS-cat/+	10	20	200	122	75	197	52.1	0
			da-GAL4/+	10	20	200	145	55	200	51.8	-0.58
			da-GAL4>UAS-cat	10	20	200	127	67	194	52.8	+1.34

p-value (Log-Rank test)

<i>b</i>	<i>c</i>
0.7504	5.7E-07
	3.3E-06

<i>e</i>	<i>f</i>
0.5654	0.0779
	0.1925

Background/ Sex	Genotype	Condition	Flies per vial	# vials	Total flies (set-up)	Deaths	Censors	Total flies (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i> female	da-GS/+	-RU (0 μM)	15	15	225	215	2	217	77.3	0
		+RU (200 μM)	15	15	225	224	1	225	76.9	-0.52
	da-GS>	-RU (0 μM)	15	20	300	295	3	298	77.8	+0.65
		+RU (200 μM)	15	20	300	285	1	286	85.1	+10.09

p-value (Log-Rank test)

<i>b</i>	<i>c</i>	<i>d</i>
0.7161	0.0737	1.3E-21
	0.1751	1.0E-18
		1.1E-16

Background/ Sex	Condition	Genotype	Flies per vial	# vials	Total flies (set-up)	Deaths	Censors	Total flies (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i> female	5% H ₂ O ₂	UAS-cat/+	15	8	120	120	0	120	3.150	0
		da-GAL4/+	15	8	120	114	6	120	3.325	+5.56
		da-GAL4>UAS-cat	15	8	120	120	0	120	12.200	+287.30
<i>w^{Dah}</i> male	5% H ₂ O ₂	UAS-cat/+	15	7	105	105	0	105	3.975	0
		da-GAL4/+	15	7	105	105	0	105	3.825	-3.77
		da-GAL4>UAS-cat	15	5	75	74	1	75	6.625	+66.67

p-value (Log-Rank test)

<i>b</i>	<i>c</i>
0.0164	5.0E-61
	4.9E-62

<i>e</i>	<i>f</i>
0.8243	3.2E-33
	4.6E-33

Background/ Sex	Condition	Genotype	Flies per vial	# vials	Total flies (set-up)	Deaths	Censors	Total flies (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i> female	20 mM paraquat	UAS-cat/+	10	10	100	100	0	100	0.925	0
		da-GAL4>UAS-cat	10	10	100	99	1	100	3.550	+283.78
<i>w^{Dah}</i> male	20 mM paraquat	UAS-cat/+	10	10	100	100	0	100	3.625	0
		da-GAL4>UAS-cat	10	10	100	100	0	100	6.050	+66.90

p-value (Log-Rank test)

<i>b</i>
6.9E-31

<i>d</i>
8.0E-16

Background/ Sex	Condition	Genotype	Flies per vial	# vials	Total flies (set-up)	Deaths	Censors	Total flies (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i> female	90% O ₂	UAS-cat/+	10	9	90	90	0	90	4.525	0
		da-GAL4/+	10	12	120	120	0	120	4.375	-3.31
		da-GAL4>UAS-cat	10	12	120	118	2	120	4.975	+9.94
<i>w^{Dah}</i> male	90% O ₂	UAS-cat/+	10	12	120	119	0	119	5.475	0
		da-GAL4/+	10	12	120	110	10	120	5.400	-1.37
		da-GAL4>UAS-cat	10	12	120	120	0	120	5.575	+1.83

p-value (Log-Rank test)

<i>b</i>	<i>c</i>
0.6057	1.7E-08
	1.4E-10

<i>e</i>	<i>f</i>
0.4073	8.1E-03
	5.2E-04

Background	Sex	Genotype	Flies per vial	# vials	Total flies (set-up)	Deaths	Censors	Total flies (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah+}</i>	female	da-GAL4/+	15	10	150	145	3	148	57.0	0
		UAS-cat/+	15	10	150	149	2	151	57.3	+0.53
		da-GAL4>UAS-cat	15	10	150	146	1	147	63.0	+10.53
		UAS-mito-cat/+	15	10	150	147	1	148	54.8	-3.86
		da-GAL4>UAS-mito-cat	15	10	150	146	4	150	56.7	-0.53
<i>w^{Dah+}</i>	male	da-GAL4/+	20	10	200	187	9	196	61.5	0
		UAS-cat/+	20	10	200	195	6	201	61.4	-0.16
		da-GAL4>UAS-cat	20	10	200	192	4	196	62.0	+0.81
		UAS-mito-cat/+	20	10	200	203	4	207	59.8	-2.76
		da-GAL4>UAS-mito-cat	20	10	200	192	6	198	62.1	+0.98

p-value (Log-Rank test)

<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
0.8414	3.5E-07	0.0539	0.3451
	4.4E-08	0.0541	0.4352
		9.07E-12	1.5E-09
			0.2589

<i>g</i>	<i>h</i>	<i>i</i>	<i>j</i>
0.6437	0.7669	0.1325	0.4905
	0.4550	0.2864	0.9281
		0.0616	0.3259
			0.3096

Background/ Sex	Genotype	Condition	Flies per vial	# vials	Total flies (set-up)	Deaths	Censors	Total flies (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i> female	da-GS> UAS-cat	0 μM RU	15	17	255	252	4	256	75.3	0
		50 μM RU	15	16	240	241	2	243	82.5	+9.56
		200 μM RU	15	17	255	246	5	251	83.8	+11.29
		400 μM RU	15	17	255	215	40	255	86.7	+15.14
<i>w^{Dah}</i> male	da-GS> UAS-cat	0 μM RU	15	17	255	239	16	255	60.9	0
		50 μM RU	15	17	255	247	3	250	63.1	+3.61
		200 μM RU	15	17	255	244	6	250	61.3	+0.66
		400 μM RU	15	17	255	245	8	253	61.4	+0.82

p-value (Log-Rank test)

<i>b</i>	<i>c</i>	<i>d</i>
3.94E-12	1.26E-16	4.82E-27
	0.1145	3.90E-06
		0.0016

<i>f</i>	<i>g</i>	<i>h</i>
0.0027	0.2355	0.4520
	0.0620	0.0280
		0.7127

Background	Sex	Genotype	Flies per vial	# vials	Total flies (set-up)	Deaths	Censors	Total flies (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i>	female	+/+	10	20	200	191	8	199	72.1	0
		UAS-cat/+	10	20	200	184	11	195	69.9	-3.05
		act5c-GAL4/+	10	20	200	192	5	197	74.3	+3.05
		act5c-GAL4>UAS-cat	10	20	200	192	7	199	81.3	+12.76

p-value (Log-Rank test)

<i>b</i>	<i>c</i>	<i>d</i>
0.7335	0.0663	3.0E-11
	0.0266	3.6E-12
		1.4E-06

Background	Sex	Genotype	Flies per vial	# vials	Total flies (set-up)	Deaths	Censors	Total flies (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah+}</i>	female	+/+	10	20	200	185	10	195	58.5	0
		UAS-cat/+	10	20	200	191	13	204	61.7	+5.47
		da-GAL4/+	10	20	200	195	8	203	61.8	+5.64
		da-GAL4>UAS-cat	10	20	200	191	5	196	70.4	+20.34

p-value (Log-Rank test)

<i>b</i>	<i>c</i>	<i>d</i>
0.0060	0.0014	3.9E-21
	0.7162	4.7E-12
		1.5E-11

<i>f</i>	<i>g</i>	<i>h</i>
0.1594	0.0251	0.4451
	0.0004	0.0477
		0.1916

Background/ Sex	Genotype	Condition	Flies per vial	# vials	Total flies (set-up)	Deaths	Censors	Total flies (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i> female	da-GS> UAS-cat	-RU (0 μM)	15	18	270	255	3	258	78.0	0
		+RU (200 μM) from d2	15	18	270	260	3	263	85.3	+9.36
		+RU (200 μM) from d28	15	18	270	261	1	262	81.7	+4.74
		+RU (200 μM) from d42	15	18	270	250	2	252	82.0	+5.13
		+RU (200 μM) from d56	15	18	270	261	1	262	80.9	+3.72

p-value (Log-Rank test)

<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>
2.4E-22	7.2E-08	1.0E-07	1.4E-03
	1.7E-05	4.8E-05	8.0E-12
		0.8959	0.0144
			0.0153

Fig. S1n

Background	Sex	Condition	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i>	female	UAS-cat/+	15	19	285	279	5	284	68.8	0
		Uo-GAL4/+	15	20	300	276	13	289	67.8	-1.45
		Uo-GAL4>UAS-cat	15	20	300	287	7	294	69.9	+1.60

b

c

0.01490.5810

b

c

0.0025

Fig. S1o

Background	Sex	Condition	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i>	female	UAS-cat/+	15	19	285	279	5	284	68.8	0
		diIIP2-GAL4/+	15	20	300	280	8	288	68.0	-1.16
		diIIP2-GAL4>UAS-cat	15	20	300	293	11	304	70.7	+2.76

b

c

0.22700.0023

b

c

3.7E-05

Fig. S1p

Background/ Sex	Genotype	Condition	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i> female	elav-GS>UAS-cat	-RU (0 μM)	15	10	150	134	17	151	57.4	0
		+RU (200 μM)	15	10	150	148	5	153	59	+2.79

b

c

0.0317

Fig. S1q

Background/ Sex	Genotype	Condition	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i> female	S,106-GS>UAS-cat	-RU (0 μM)	15	15	225	221	5	226	65.8	0
		+RU (200 μM)	15	15	225	208	14	222	67.6	+2.74

b

c

0.0941

Fig. S1r

Background/ Sex	Genotype	Condition	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i> female	TIGS2>UAS-cat	-RU (0 μM)	15	10	150	141	4	145	66.8	0
		+RU (200 μM)	15	10	150	148	4	152	67.4	+0.90

b

c

0.6981

Fig. S1s

Background/ Sex	Genotype	Condition	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i> female	MHC-GS>UAS-cat	-RU (0 μM)	15	10	150	150	2	152	67.6	0
		+RU (200 μM)	15	10	150	139	5	144	62.1	-8.14

b

c

4.96E-05

Fig. 2b

Background/ Sex	Condition	Genotype	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i> female	0.1x yeast	UAS-cat/+	10	16	160	157	4	161	18.25	0
		da-GAL4>UAS-cat	10	16	160	158	2	160	21.45	+17.53

b

c

3.6E-10

Fig. 2c

Background/ Sex	Condition	Genotype	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah}</i> female	starvation (1.5% agar)	UAS-cat/+	10	8	80	80	0	80	7.050	0
		da-GAL4/+	10	12	120	120	0	120	7.125	+1.06
		da-GAL4>UAS-cat	10	12	120	120	0	120	6.275	-10.99
<i>w^{Dah}</i> male	starvation (1.5% agar)	UAS-cat/+	10	12	120	120	0	120	3.650	0
		da-GAL4/+	10	12	120	120	0	120	3.700	+1.37
		da-GAL4>UAS-cat	10	12	120	120	0	120	3.625	-0.68

b

c

0.75215.6E-05

b

c

7.6E-07

e

f

0.77460.3292

e

f

0.4287

Fig. 2h

Background/ Sex	Condition	Genotype	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah+}</i> female	da-GS>UAS-Atg5RNAi	-RU (0 μM)	15	16	240	231	10	241	81.6	0
		+RU (200 μM)	15	5	225	229	2	231	79.5	-2.57

b

c

0.4177

Fig. 2i

Background/ Sex	Condition	Genotype	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah+}</i> female	da-GS>UAS-cat	-RU (0 μM)	15	5	225	224	2	226	79.4	0
		+RU (200 μM)	15	5	225	224	1	225	89.0	+12.09
		da-GS>UAS-cat/+	15	5	225	223	4	227	80.8	+1.76
		da-GS>UAS-cat/+	15	5	225	214	12	226	83.7	+5.42

d

e

f

7.2E-150.19380.0026

b

c

3.4E-092.0E-06

b

c

0.1701

Fig. S2h

Background/ Sex	Condition	Genotype	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah+}</i> female	10 mM chloroquine	UAS-cat/+	20	8	160	147	0	147	10.4	0
		da-GAL4/+	20	8	160	156	0	156	10.8	+3.85
		da-GAL4>UAS-cat	20	8	160	156	0	156	9.45	-9.13

b

c

0.09882.6E-05

b

c

3.5E-09

Fig. S2j

Background/ Sex	Condition	Genotype	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah+}</i> female	starvation (1.5% agar)	+/+	20	6	120	114	0	114	8.825	0
		UAS-Atg5RNAi/+	20	7	140	130	0	130	8.675	-1.70
		da-GAL4/+	20	5	100	103	0	103	8.975	+1.70
		da-GAL4>UAS-Atg5RNAi	20	1	20	22	0	22	7.000	-20.68

b

c

d

0.40350.18463.9E-18

b

c

0.02971.6E-17

b

c

7.4E-22

Fig. 4e

Background/ Sex	Atg4a	Genotype	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah+}</i> female	Atg4a-WT	+/+	15	9	135	125	2	127	67.1	0
		da-GAL4/+	15	10	150	139	2	141	67.9	+1.19
		da-GAL4>UAS-cat	15	10	150	144	2	146	74.5	+11.03

b

c

0.48571.8E-08

b

c

6.0E-08

Fig. 4f

Background/ Sex	Atg4a-C102S	Genotype	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah+}</i> female	Atg4a-C102S	+/+	15	10	150	144	1	145	68.9	0
		da-GAL4/+	15	10	150	145	3	148	65.1	-5.52
		da-GAL4>UAS-cat	15	10	150	141	1	142	67.8	-1.60

e

f

4.9E-040.2154

e

f

0.0165

Fig. S4d

Background/ Sex/Condition	Atg4a	Genotype	Files per vial	# vials	Total files (set-up)	Deaths	Censors	Total files (actual)	Median (d)	ΔMedian (%)
<i>w^{Dah+}</i> female, 5% H ₂ O ₂	Atg4a-WT	+/+	20	10	200	199	0	199	4.15	0
		UAS-cat/+	20	10	200	200	0	200	4.60	10.84
		da-GAL4/+	20	8	160	149	0	149	4.25	2.41
		da-GAL4>UAS-cat	20	10	200	189	0	189	11.05	166.27
<i>w^{Dah+}</i> female, 5% H ₂ O ₂	Atg4a-C102S	+/+	20	10	200	196	0	196	4.40	0
		UAS-cat/+	20	10	200	194	0	194	4.60	+4.55
		da-GAL4/+	20	8	160	160	0	160	4.35	-1.14
		da-GAL4>UAS-cat	20	10	200	199	0	199	10.75	+144.32

f

g

h

0.00940.30015.0E-93

b

c

d

0.08360.04219.98E-95

b

c

0.56794.80E-92

b

c

6.19E-86

e

f

g

h

0.15314.8E-90

e

f

3.6E-87