

TABLES

Genotype	<i>W¹¹¹⁸;UAS-myr-tdTomato /+;UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>			
Age (days)	5-10	19-23	29-31	38-42
	Axon diameter			
Number of values (axons)	145	143	104	241
Number specimens	10	14	11	29
Mean	0.7094	0.6716	0.4997	0.4878
Std. Deviation	0.1546	0.1	0.07939	0.1029
Std. Error of Mean	0.01284	0.008363	0.007785	0.00663
	Axon swellings			
Number of values (μ m of axon)	303	303	240	319
Number specimens	24	22	24	28
Mean	0.007629	0.01310	0.01397	0.02427
Std. Deviation	0.01474	0.02056	0.02106	0.02773
Std. Error of Mean	0.0008466	0.001181	0.001359	0.001552
	Terminal area			
Number of values (terminals)	366	535	426	467
Number specimens	14	15	23	33
Mean	36.18	37.67	32.45	27.95
Std. Deviation	12.58	13.47	12.12	11.59
Std. Error of Mean	0.6575	0.5824	0.5874	0.5362
	Terminal morphology			
Number of values (terminals)	1238	826	1118	1696
Number of normal	826	814	1050	1501
Number of swollen+broken	32	12	68	195
Number specimens	14	15	23	31

Table A: Correspondent statistical details for Fig 1 “Axons and synaptic terminals within the *Drosophila* visual system deteriorate during ageing”.

Age (days)	5	14	23	31
Genotype	<i>W¹¹¹⁸;UAS-GFP-α-tubulin84B /+;UAS- RedStinger, GMR31F10-Gal4/+</i>			
	T1 neurons			
Number of values-specimens	12	5	10	11
Mean	140.8	230.2	200.6	241.0
Std. Deviation	39.38	40.55	41.04	38.26
Std. Error of Mean	11.37	18.14	12.98	11.54

Table B: Correspondent statistical details for S2 Fig “Absence of neuronal death amongst T1 neurons during ageing”.

Age (days)	3 days 18°C + 4 days 29°C	56 days 18°C + 4 days 29°C
Genotype	<i>W¹¹¹⁸;tub-Gal80^{ts}/UAS-my-tdTomato;UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	
	Axon diameter	
Number of values (axons)	66	85
Number specimens	5	8
Mean	0.7732	0.5885
Std. Deviation	0.1393	0.1052
Std. Error of Mean	0.01714	0.01141
	Axon swellings	
Number of values (μ m of axon)	123	98
Number specimens	5	8
Mean	0.006378	0.01722
Std. Deviation	0.01307	0.02129
Std. Error of Mean	0.001178	0.002151
	Terminal morphology	
Number of values (terminals)	300	485
Number of normal	298	371
Number of swollen+broken	2	114
Number specimens	5	8

Table C: Correspondent statistical details for S3 Fig “The deterioration of T1 neurons during ageing is independent of temperature and marker expression”.

Age (days)	5-10	19-24	29-31	38-42
Genotype	<i>W¹¹¹⁸;UAS-myr-tdTomato;UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>			
	MT unbundling			
Number of values (axonal bundle segment)	562	713	616	264
Number specimens	22	23	17	17
Mean	0.08007	0.1445	0.1851	0.3030
Std. Deviation	0.3027	0.4404	0.4887	0.6034
Std. Error of Mean	0.01277	0.01649	0.01969	0.03714
	MT breaks			
Number of values (axonal bundle segment)	563	696	500	266
Number specimens	22	23	17	17
Mean	0.04263	0.1710	0.1420	0.5489
Std. Deviation	0.2022	0.4562	0.4629	1.046
Std. Error of Mean	0.008522	0.01729	0.02070	0.06413
	Synaptic MTs			
Number of values (terminal)	297	458	333	252
Number specimens	15	18	15	13
Mean	10.25	7.175	5.186	3.988

Std. Deviation	2.646	2.226	1.874	1.633
	MT bundle diameter Airyscan			
Age (days)	8-10		34-36	
Number of values (axons)	57		57	
Number specimens	14		13	
Mean	0.7610		0.6040	
Std. Deviation	0.1702		0.1433	
Std. Error of Mean	0.02254		0.01897	
	MT bundle diameter STED			
Age (days)	3		3	
Number of values (axons)	9		8	
Number specimens	3		3	
Mean	0.9265		0.5552	
Std. Deviation	0.1785		0.1255	
Std. Error of Mean	0.05950		0.04438	

Table D: Correspondent statistical details for Fig 2 and S5 Fig “MT aberration precedes axonal and synaptic decay during ageing”

Age (days)	3 days 18°C + 15 days 29°C	56 days 18°C + 15 days 29°C
Genotype	<i>W¹¹¹⁸;tub-Gal80^{ts}/UAS-myr-tdTomato;UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	
	MT unbundling	
Number of values (axonal bundle segment)	108	132
Number specimens	6	8
Mean	0.04630	0.3636
Std. Deviation	0.2515	0.6910
Std. Error of Mean	0.02420	0.06014
	MT breaks	
Number of values (axonal bundle segment)	108	132
Number specimens	6	8
Mean	0.009259	0.3864
Std. Deviation	0.09623	0.9050
Std. Error of Mean	0.009259	0.07877
	Synaptic MTs	
Number of values (terminal)	108	132
Number specimens	6	8
Mean	7.350	3.994
Std. Deviation	2.285	1.643
Std. Error of Mean	0.1931	0.09044

Table E: Correspondent statistical details for S6 Fig “MT alterations during ageing are independent of the MT reporter and are specific for aged specimens”.

Age (days)	30-35	
Genotype	<i>W¹¹¹⁸;UAS-myr-tdTomato /+; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;UAS-myr-tdTomato /Chico¹; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>
	Axon swellings	
Number of values (axonal bundle segment)	536	629
Number specimens	28	28
Mean	0.998	0.551
Std. Deviation	1.880	1.278
Std. Error of Mean	0.08119	0.05098
	MT breaks	
Number of values (axonal bundle segment)	563	629
Number specimens	28	28
Mean	0.998	0.630
Std. Deviation	1.676	1.222
Std. Error of Mean	0.070	0.048
	MT unbundling	
Number of values (axonal bundle segment)	555	620
Number specimens	28	28
Mean	0.998	0.462
Std. Deviation	4.255	3.315
Std. Error of Mean	0.180	0.1331
	Axon diameter	
Age (days)	30-35	
Number of values (segment)	128	170
Number specimens	14	16
Mean	1	1.2
Std. Deviation	0.201	0.1918
Std. Error of Mean	0.017	0.014
	Synaptic MTs	
Age (days)	30-35	
Number of values (terminal)	756	785
Number specimens	25	28
Mean	4.438	6.413
Std. Deviation	1.599	1.751
Std. Error of Mean	0.05815	0.06250

Table F: Correspondent statistical details for Fig 3 “A mutation in the insulin receptor substrate CHICO, known to increases lifespan, improves neuronal ageing hallmarks and MT decay”.

	Ratio GFP/Tom	
Age (days)	3 days 18°C + 4 days 29°C	56 days 18°C + 4 days 29°C
Genotype	<i>W¹¹¹⁸;tub-Gal80^{ts}/ UAS-myr-tdTomato; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	
Number of values (axons)	127	200
Number specimens	5	7
Mean	1.848	1.076
Std. Deviation	0.4595	0.2338
Std. Error of Mean	0.04078	0.01653
	Ratio GFP/Tom	
Age (days)	3 days 18°C + 15 days 29°C	56 days 18°C + 15 days 29°C
Genotype	<i>W¹¹¹⁸;tub-Gal80^{ts}/ UAS-myr-tdTomato; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	
Number of values (axons)	126	225
Number specimens	6	8
Mean	1.701	1.352
Std. Deviation	0.5551	0.4969
Std. Error of Mean	0.04946	0.03313

Table G: Correspondent statistical details for Fig 4 “Decreased presence of tubulin-GFP at axonal microtubules in a pulse chase experiment suggests changes in MT turnover with age”.

	EB1 in axons	
Age (days)	3-6 days	28-35 days
Genotype	<i>WT</i>	
Number of values (medullas)	26	29
Number specimens	15	17
Mean	1.000	0.8534
Std. Deviation	0.2688	0.3349
Std. Error of Mean	0.05271	0.06219
	Tau in axons	
Age (days)	5-7 days	33-35 days
Genotype	<i>Tau^{wee304}/+</i>	
Number of values (medullas)	46	41
Number specimens	25	22
Mean	29.21	13.10
Std. Deviation	18.85	13.62
Std. Error of Mean	2.779	2.127
	Total EB1	
Age (days)	3-9 days	28-34 days
Genotype	<i>WT</i>	
Number of values	6	6

Mean	1.024	1.080
Std. Deviation	0.1688	0.4631
Std. Error of Mean	0.06890	0.1891
	Total Tau	
Age (days)	6-9 days	30-35 days
Genotype	WT	
Number of values	10	11
Mean	0.9664	0.6505
Std. Deviation	0.1582	0.2655
Std. Error of Mean	0.05002	0.08005
	EB1-MT enrichment assay	
Age (days)	2-6 days	28-31 days
Genotype	WT	
Number of values	9	10
Mean MT pellet	1.110	0.5600
Std. Deviation	0.3633	0.2073
Std. Error of Mean	0.1211	0.06556
Mean supernatant	1.062	1.069
Std. Deviation	0.1577	0.2732
Std. Error of Mean	0.04988	0.08638
	Tau-MT enrichment assay	
Age (days)	2-6 days	28-31 days
Genotype	WT	
Number of values	10	10
Mean MT pellet	1.193	0.8550
Std. Deviation	0.3165	0.2171
Std. Error of Mean	0.1001	0.06866
Mean supernatant	1.062	1.069
Std. Deviation	0.1577	0.2732
Std. Error of Mean	0.04988	0.08638

Table H: Correspondent statistical details for Fig 5 “The function of EB1 and Tau is altered during ageing”.

Genotype	<i>W¹¹¹⁸;UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;UAS-GFP-α-tubulin84B, GMR31F10-Gal4/UAS-Tau^{RNI}</i>	<i>W¹¹¹⁸;UAS-myr-tdTomato /+ ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;UAS-myr-tdTomato /UAS-Shot^{RNI} ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>
Age (days)	30-37	30-37	30-33	30-33
	Axon swellings			
Number of values (axonal bundle segment)	511	502	310	295

Number specimens	19	17	14	12
Mean	1.000	1.278	1.001	2.109
Std. Deviation	1.198	1.389	1.440	2.566
Std. Error of Mean	0.05302	0.06198	0.08179	0.1494
MT unbundling				
Number of values (axonal bundle segment)	511	502	310	289
Number specimens	19	17	14	12
Mean	1.000	3.885	0.9999	4.704
Std. Deviation	5.597	12.42	2.810	8.794
Std. Error of Mean	0.2476	0.5542	0.1596	0.5173
MT breaks				
Number of values (axonal bundle segment)	511	502	311	289
Number specimens	19	17	14	12
Mean	1.000	1.421	0.9967	1.756
Std. Deviation	3.280	3.686	2.720	3.848
Std. Error of Mean	0.1451	0.1645	0.1543	0.2229
Genotype	<i>W¹¹¹⁸;UAS-myristoylated-Tomato /+ ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;UAS-myristoylated-Tomato / UAS-Shot^{RNI} ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/UAS-Tau^{RNI}</i>	<i>W¹¹¹⁸;UAS-myristoylated-Tomato /+ ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;UAS-myristoylated-Tomato /EB1 Df; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/UAS-EB1^{RNI}</i>
Age (days)	28-32	28-32	25-28	25-28
Axon swellings				
Number of values (axonal bundle segment)	340	446	464	457
Number specimens	19	18	14	14
Mean	1.000	3.366	1.000	2.907
Std. Deviation	1.806	3.892	2.351	4.458
Std. Error of Mean	0.09792	0.1843	0.1091	0.2085
MT unbundling				
Number of values (axonal bundle segment)	340	442	465	461
Number specimens	19	18	14	14
Mean	1.000	5.103	1.000	2.143
Std. Deviation	3.237	8.556	3.639	6.860
Std. Error of Mean	0.1756	0.4070	0.1687	0.3195
MT breaks				

Number of values (axonal bundle segment)	344	437	466	465
Number specimens	19	18	14	14
Mean	0.9999	3.173	1.000	2.795
Std. Deviation	3.013	6.000	3.267	5.571
Std. Error of Mean	0.1622	0.2870	0.1514	0.2583

Table I: Correspondent statistical details for Fig 6 “Knocking down of Eb1, Tau and Shot exacerbates age-related MT decay and ageing hallmarks”.

Genotype	<i>W¹¹¹⁸;UAS-myr-tdTomato /+ ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;UAS-myr-tdTomato / UAS-Shot^{RNI} ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/UAS-Tau^{RNI}</i>	<i>W¹¹¹⁸;UAS-myr-tdTomato /+ ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;UAS-myr-tdTomato /+; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/ UAS-mcherry-EB1</i>
Age (days)	28-32	28-32	25-28	25-28
	Synaptic MTs			
Number of values (terminals)	340	446	219	184
Number specimens	14	20	17	14
Mean	5.703	2.574	4.909	6.658
Std. Deviation	2.116	1.598	1.668	1.761
Std. Error of Mean	0.1614	0.1027	0.1127	0.1298
	Terminal Morphology			
Number of values (terminals)	1143	1220	2006	1770
Number of normal	1028	663	1506	1623
Number of swollen+broken	115	557	500	147
Number specimens	14	20	17	14
Genotype	<i>W¹¹¹⁸;UAS-myr-tdTomato /+ ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;UAS-myr-tdTomato /+; GMR31F10-Gal4/ UAS-Shot^{EGC}-GFP</i>		
Age (days)	27-31	27-31		
	Synaptic MTs			
Number of values (terminals)	194	146		
Number specimens	15	13		
Mean	5.701	6.411		
Std. Deviation	2.057	2.237		
Std. Error of Mean	0.1477	0.1851		
	Terminal Morphology			

Number of values (terminals)	340	442		
Number of normal	725	654		
Number of swollen+broken	188	78		
Number specimens	15	13		

Table J: Correspondent statistical details for S9 Fig “The deterioration of synaptic terminals during ageing can be exacerbated or rescued by altering the function of MT regulators”

Genotype	<i>W¹¹¹⁸;UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;UAS-GFP-α-tubulin84B, GMR31F10-Gal4/UAS-Tau^{RNI}</i>	<i>W¹¹¹⁸;UAS-myr-tdTomato /+ ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;UAS-myr-tdTomato /UAS-Shot^{RNI} ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>
Age (days)	3-8	3-8	5-7	5-7
Axon swellings				
Number of values (axonal bundle segment)	567	598	73	311
Number specimens	19	24	6	8
Mean	1.000	1.102	0.9999	1.056
Std. Deviation	1.766	2.280	1.948	2.154
Std. Error of Mean	0.07417	0.09325	0.2280	0.1221
MT unbundling				
Number of values (axonal bundle segment)	478	598	73	319
Number specimens	19	24	6	8
Mean	1.000	0.1802	1.000	0.5035
Std. Deviation	4.789	1.963	3.714	2.668
Std. Error of Mean	0.2191	0.08029	0.4346	0.1494
MT breaks				
Number of values (axonal bundle segment)	478	597	73	321
Number specimens	19	24	6	8
Mean	1.000	1.021	0.9999	0.6822
Std. Deviation	2.054	2.118	4.863	4.023
Std. Error of Mean	0.09393	0.08668	0.5692	0.2245
Genotype	<i>W¹¹¹⁸;UAS-myrystoylated-Tomato /+ ; UAS-GFP-α-tubulin84B,</i>	<i>W¹¹¹⁸;UAS-myrystoylated-Tomato / UAS-Shot^{RNI} ; UAS-GFP-α-tubulin84B,</i>	<i>W¹¹¹⁸;UAS-myrystoylated-Tomato /+ ; UAS-GFP-α-tubulin84B,</i>	<i>W¹¹¹⁸;UAS-myrystoylated-Tomato /EB1 Df; UAS-GFP-α-tubulin84B,</i>

	<i>GMR31F10-Gal4/+</i>	<i>GMR31F10-Gal4/UAS-Tau^{RNI}</i>	<i>GMR31F10-Gal4/+</i>	<i>GMR31F10-Gal4/UAS-EB1^{RNI}</i>
Age (days)	3-7	3-7	3-8	3-8
	Axon swellings			
Number of values (axonal bundle segment)	383	450	329	359
Number specimens	17	18	13	17
Mean	0.9973	0.7563	1.000	0.7590
Std. Deviation	1.065	1.080	1.366	1.176
Std. Error of Mean	0.05449	0.05093	0.07533	0.06234
	MT unbundling			
Number of values (axonal bundle segment)	382	450	329	357
Number specimens	17	18	13	17
Mean	1.000	1.313	0.9999	0.4280
Std. Deviation	8.320	9.268	5.362	4.219
Std. Error of Mean	0.4257	0.4369	0.2956	0.2233
	MT breaks			
Number of values (axonal bundle segment)	382	450	329	356
Number specimens	17	18	13	17
Mean	1.000	1.352	1.000	0.7732
Std. Deviation	8.504	10.80	2.071	1.837
Std. Error of Mean	0.4351	0.5093	0.1142	0.09734

Table K: Correspondent statistical details for S10 Fig “MT decay and ageing hallmarks are not present in young specimens with EB1, Tau and Shot knockdowns”.

Genotype	<i>W¹¹¹⁸;UAS-myr-tdTomato /+ ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;UAS-myr-tdTomato /+ ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/UAS-mcherry-EB1</i>	<i>W¹¹¹⁸;UAS-myr-tdTomato /+ ; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;UAS-myr-tdTomato /+ ; GMR31F10-Gal4/UAS-Shot^{EGC}-GFP</i>
Age (days)	28-30	28-30	27-31	27-31
	MT unbundling			
Number of values (axonal bundle segment)	377	308	382	303
Number specimens	17	14	14	13
Mean	0.9999	0.4584	1.000	0.03287
Std. Deviation	2.579	1.938	2.825	0.4039

Std. Error of Mean	0.1328	0.1104	0.1445	0.02321
	MT breaks			
Number of values	371	302	238	241
Number specimens	17	14	14	13
Mean	0.9421	0.4247	0.9998	0.4481
Std. Deviation	2.996	1.779	2.844	1.744
Std. Error of Mean	0.1555	0.1024	0.1844	0.1123
	Axon Swellings			
Number of values (axonal bundle segment)	375	301	381	303
Number specimens	17	14	14	13
Mean	0.9999	0.6126	1.000	0.01488
Std. Deviation	1.499	1.076	1.828	0.1829
Std. Error of Mean	0.07742	0.06201	0.09366	0.01051
	MT bundle diameter			
Age (days)	25-28	25-28	29-30	29-30
Number of values (axonal bundle segment)	31	40	145	129
Number specimens	5	7	10	10
Mean	1.000	1.261	1.000	1.377
Std. Deviation	0.2152	0.3327	0.2281	0.2584
Std. Error of Mean	0.03865	0.05261	0.01894	0.02275
	Axon diameter			
Age (days)	35-38	35-38	27-31	27-31
Number of values (axons)	291	165	207	242
Number specimens	16	12	13	12
Mean	1.000	1.137	1.000	1.468
Std. Deviation	0.1673	0.1976	0.1789	0.2858
Std. Error of Mean	0.009805	0.01539	0.01243	0.01837

Table L: Correspondent statistical details for Fig 7 “Expression of EB1 and Shot^{EGC} ameliorates axonal ageing phenotypes”

Genotype	<i>W¹¹¹⁸;tub-Gal80^{ts}/UAS-myr-tdTomato; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;tub-Gal80^{ts}/UAS-myr-tdTomato; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/UAS-mcherry-EB1</i>	<i>W¹¹¹⁸;tub-Gal80^{ts}/UAS-myr-tdTomato; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	<i>W¹¹¹⁸;tub-Gal80^{ts}/UAS-myr-tdTomato; GMR31F10-Gal4/UAS-Shot^{EGC}-GFP</i>
Age (days)	27-31	27-31	27-31	27-31
	MT unbundling			

Number of values (axonal bundle segment)	721	449	721	697
Number specimens	34	24	26	23
Mean	1.000	0.7952	1.000	0.3564
Std. Deviation	4.104	3.441	4.104	2.440
Std. Error of Mean	0.1529	0.1624	0.1529	0.09242
MT breaks				
Number of values (axonal bundle segment)	721	449	721	697
Number specimens	34	24	26	23
Mean	1.000	0.6500	1.000	0.2334
Std. Deviation	3.441	2.785	3.441	1.849
Std. Error of Mean	0.1282	0.1314	0.1282	0.07003
Axon Swellings				
Number of values (axonal bundle segment)	721	449	721	697
Number specimens	34	24	26	23
Mean	1.000	0.6801	1.000	0.2759
Std. Deviation	1.148	0.9823	1.148	0.6025
Std. Error of Mean	0.04274	0.04636	0.04274	0.02282

Table M: Correspondent statistical details for S14 Fig “Post-developmental expression of Shot^{EGC} but not of EB1 is sufficient to rescue all axonal ageing phenotypes”.

Genotype	<i>W¹¹¹⁸;elav-GS/+</i>	<i>W¹¹¹⁸; elav-GS/UAS-Shot^{EGC}-GFP</i>	<i>W¹¹¹⁸; elav-GS/UAS-EB1-GFP</i>	<i>W¹¹¹⁸;elav-GS/+</i>	<i>W¹¹¹⁸; elav-GS/UAS-Shot^{EGC}-GFP</i>	<i>W¹¹¹⁸; elav-GS/UAS-EB1-GFP</i>
Females						
Age (days)	6-10			22-25		
Number specimens	- RU486 189 +RU486 182	- RU486 104 +RU486 111	- RU486 55 +RU486 96	- RU486 137 +RU486 140	- RU486 60 +RU486 88	- RU486 54 +RU486 98
Mean	- RU486 1 +RU486 1.188	- RU486 1 +RU486 0.9881	- RU486 1 +RU486 1.164	- RU486 1 +RU486 1.137	- RU486 1 +RU486 1.609	- RU486 1 +RU486 1.253
Std. Deviation	- RU486 0.6845 +RU486 0.6559	- RU486 0.6197 +RU486 0.5638	- RU486 0.598 +RU486 0.7889	- RU486 0.8816 +RU486 1.087	- RU486 0.8452 +RU486 0.8657	- RU486 0.7896 +RU486 0.7036
Std. Error of Mean	- RU486 0.04979 +RU486	- RU486 0.06076 +RU486	- RU486 0.08073 +RU486	- RU486 0.07532 +RU486	- RU486 0.04979 +RU486	- RU486 0.1075 +RU486

	0.04862	0.05352	0.08052	0.1091	0.09228	0.04862
Males						
Age (days)	6-10			22-25		
Number specimens	- RU486	- RU486	- RU486	RU486	- RU486	- RU486
	180	105	42	187	92	56
	+RU486	+RU486	+RU486	+RU486	+RU486	+RU486
	185	85	90	180	89	109
Mean	- RU486	- RU486	- RU486	- RU486	- RU486	- RU486
	1	1	1	1	1	1
	+RU486	+RU486	+RU486	+RU486	+RU486	+RU486
	0.9731	1.056	0.7269	0.8237	1.033	0.9327
Std. Deviation	- RU486	- RU486	- RU486	- RU486	- RU486	- RU486
	0.7819	0.6893	0.3029	0.7994	0.7166	0.3207
	+RU486	+RU486	+RU486	+RU486	+RU486	+RU486
	0.8123	0.7375	0.4873	0.7501	0.6547	0.3878
Std. Error of Mean	- RU486	- RU486	- RU486	- RU486	- RU486	- RU486
	0.05828	0.06727	0.04674	0.05846	0.07471	0.04285
	+RU486	+RU486	+RU486	+RU486	+RU486	+RU486
	0.05972	0.08000	0.05136	0.05591	0.06940	0.03714

TableN: Correspondent statistical details for Fig 8 “Expression of Shot^{EGC} and EB1 in adult *Drosophila* using the Geneswitch system improves locomotion of aged flies “.

Genotype	<i>W¹¹¹⁸;tub-Gal80^{ts}/+; elav-Gal4/+</i>	<i>W¹¹¹⁸;tub-Gal80^{ts}/+; elav-Gal4/UAS-mcherry-EB1</i>	<i>W¹¹¹⁸;tub-Gal80^{ts}/+; elav-Gal4/UAS-Shot^{EGC}-GFP</i>	<i>W¹¹¹⁸;tub-Gal80^{ts}/+; elav-Gal4/+</i>	<i>W¹¹¹⁸;tub-Gal80^{ts}/+; elav-Gal4/UAS-mcherry-EB1</i>	<i>W¹¹¹⁸;tub-Gal80^{ts}/+; elav-Gal4/UAS-Shot^{EGC}-GFP</i>
Age (days)	4-5	4-5	4-5	25-26	25-26	25-26
Number specimens	239	162	146	230	143	168
Mean	15.00	10.02	14.71	1.004	0.9091	2.012
Std. Deviation	4.733	5.817	4.489	1.884	1.524	2.189
Std. Error of Mean	0.3061	0.4570	0.3715	0.1242	0.1274	0.1689

Table O: Correspondent statistical details for S15 Fig “The decline in locomotion of aged flies improves upon adult expression of Shot^{EGC}”.

	Synaptic MTs	
	Ice anaesthesia	CO2 anaesthesia
Genotype	<i>W¹¹¹⁸;tub-Gal80^{ts}/ UAS-myr-tdTomato; UAS-GFP-α-tubulin84B, GMR31F10-Gal4/+</i>	
Number of values (axons)	250	224
Number specimens	15	13
Mean	1	0.907
Std. Deviation	0.3017	0.2944
Std. Error of Mean	0.01908	0.01967

Table P: Correspondent statistical details for S16 Fig “Comparison of the effect on T1 MTs of Ice/cold or CO2 based anaesthesia treatments “.

	Gapdh/total protein	
Age (days)	4 to 9 days 29°C	29 to 32 days 29°C
Genotype	<i>W¹¹¹⁸</i>	
Number of values (axons)	13	13
Mean	1.02	1.03
Std. Deviation	0.15	0.30
Std. Error of Mean	0.04	0.08
	Actin/total protein	
Age (days)	4 to 9 days 29°C	29 to 32 days 29°C
Genotype	<i>W¹¹¹⁸</i>	
Number of values (axons)	9	9
Mean	0.941	0.7595
Std. Deviation	0.128	0.2912
Std. Error of Mean	0.042	0.09

Table Q: Correspondent statistical details for S17 Fig “The levels of loading control proteins Gapdh and Actin do not change during ageing “.