

Table S1: Effects of *tcer-1* reduction of function on the lifespan of wild-type worms and long-lived *glp-1* mutants.

Table S1. A: Effects of <i>tcer-1</i> RNAi on lifespan							
Genotype	RNAi treatment	Trial	Mean LS $\pm$ SEM (days)	Events/ Obs ^a	% of control lifespan	P vs. RNAi control ^b	P vs. <i>daf-16</i> RNAi
<i>glp-1(-)</i>	Control	1	23.7 $\pm$ 0.7	84/89			
	<i>tcer-1</i>		16.3 $\pm$ 0.4	80/90	-31.2	<0.0001	
	<i>daf-16</i>		15.3 $\pm$ 0.3	88/92	-35.4	<0.0001	
	Control	2*, ^{\$}	27.0 $\pm$ 1.1	112/114			
	<i>tcer-1</i>		18.5 $\pm$ 0.3	119/122	-31.4	<0.0001	<0.0001
	<i>tcer-1(MV)</i>		18.1 $\pm$ 0.4	96/114	-32.2	<0.0001	<0.0001
	<i>daf-16</i>		15.2 $\pm$ 0.2	110/113	-43.7	<0.0001	
	Control	3	24.5 $\pm$ 0.7	112/114			
	<i>tcer-1</i>		19.9 $\pm$ 0.4	96/109	-18.7	<0.0001	<0.0001
	<i>tcer-1(MV)</i>		18.2 $\pm$ 0.4	103/124	-25.7	<0.0001	0.02
	<i>daf-16</i>		16.9 $\pm$ 0.4	61/67	-31.0	<0.0001	
	Control	4	20.0 $\pm$ 0.7	98/105			
	<i>tcer-1</i>		13.9 $\pm$ 0.2	102/105	-30.5	<0.0001	0.04
	<i>daf-16</i>		12.9 $\pm$ 0.3	98/105	-35.5	<0.0001	
	Control	5 ^{\$\$}	23.6 $\pm$ 1.0	83/95			
	<i>tcer-1</i>		18.1 $\pm$ 0.5	101/102	-23.3	<0.0001	<0.0001
	<i>tcer-1(MV)</i>		17.7 $\pm$ 0.5	56/98	-25.0	<0.0001	<0.0001
	<i>daf-16</i>		14.2 $\pm$ 0.2	86/89	-39.8	<0.0001	
	Control	6	21.7 $\pm$ 1.0	86/90			
	<i>tcer-1</i>		18.2 $\pm$ 0.5	71/72	-16.1	<0.0001	<0.0001
	<i>daf-16</i>		15.3 $\pm$ 0.3	87/89	-29.4	<0.0001	
	Control	7	19.8 $\pm$ 1.2	78/84			
	<i>tcer-1</i>		15.1 $\pm$ 0.5	71/72	-23.7	<0.0001	<0.0001
	<i>daf-16</i>		12.9 $\pm$ 0.4	41/72	-34.8	<0.0001	
	Control	8	21.4 $\pm$ 0.9	79/83			
	<i>tcer-1</i>		18.2 $\pm$ 0.3	86/90	-14.9	<0.0001	<0.0001
	<i>daf-16</i>		15.3 $\pm$ 0.3	87/89	-28.5	<0.0001	

N2	Control	1 ^{**} , \$	19.9 ± 0.6	49/72			
	<i>tcer-1</i>		18.7 ± 0.5	66/72	-6.0	0.2	0.002
	<i>daf-16</i>		16.7 ± 0.5	62/72	-16.0	<0.0001	
	Control*	2	19.5 ± 0.3	81/99			
	<i>tcer-1</i>		19.0 ± 0.4	49/90	-2.6	0.25	0.0001
	<i>daf-16</i>		16.7 ± 0.3	76/88	-14.4	<0.0001	
	Control	4	20.8 ± 0.6	80/112			
	<i>tcer-1</i>		19.1 ± 0.6	87/105	-3.6	0.07	0.001
	<i>daf-16</i>		17.0 ± 0.4	74/112	-18.2	<0.0001	
	Control	5 ^{\$\$}	19.5 ± 0.5	70/92			
	<i>tcer-1</i>		17.2 ± 0.4	77/90	-11.7	<0.0001	
	<i>daf-16</i>		16.7 ± 0.4	76/89	-14.3	<0.0001	0.63

Table S1. B: Effect of <i>tcer-1(-)</i> on lifespan of <i>glp-1(-)</i> mutants					
Genotype	Trial	Mean LS ± SEM (days)	Events/ Obs ^a	% of <i>glp-1(-)</i> control lifespan	P vs. <i>glp-1(-)</i>
<i>glp-1(-)</i>	1	31.1 ± 0.7	204/241		
CF2152 <i>tcer-1(-); glp-1(-)</i> Line# 1.1-11.5		25.6 ± 0.9	94/120	-17.6	<0.0001
CF2153 <i>tcer-1(-); glp-1(-)</i> Line# 1.1-4.5		28.0 ± 0.9	105/120	-9.9	0.001
CF2154 <i>tcer-1(-); glp-1(-)</i> Line# 1.1-11.1		23.7 ± 0.9	81/119	-23.7	<0.0001
CF2155 <i>tcer-1(-); glp-1(-)</i> Line# 14.1-12.5		27.0 ± 0.9	96/120	-13.1	<0.0001
<i>glp-1(-)</i> ***	2 ^{\$\$\$}	32.9 ± 0.3	233/258		
CF2152		23.9 ± 0.9	90/120	-28.0	<0.0001
CF2153		31.1 ± 0.9	116/134	-6.3	0.06
CF2154***		21.8 ± 0.5	77/115	-34.3	<0.0001
CF2155		25.7 ± 0.8	116/135	-22.5	<0.0001
<i>glp-1(-)</i>	3	29.5 ± 0.4	166/195		
CF2152		22.5 ± 1.2	76/91	-23.7	<0.0001

CF2153		32.3 ± 1.5	98/121	±9.4	0.004
CF2154		25.0 ± 1.3	75/116	-15.2	0.0007
CF2155		24.5 ± 1.0	86/107	-16.9	<0.0001
<i>glp-1(-)</i>	4	30.1 ± 1.1	102/103		
CF2152		23.5 ± 1.1	81/102	-21.9	0.0003
CF2153		27.1 ± 0.8	103/107	-9.9	0.009
CF2154		24.3 ± 1.0	89/99	-19.2	0.0003
CF2155		21.1 ± 0.8	82/90	-29.9	<0.0001

Table S1. C: Rescue of <i>tcer-1(-); glp-1(-)</i> shortened lifespan by TCER-1::GFP (<i>tcer-1 OE</i>)					
Genotype	Trial	Mean LS ± SEM (days)	Events/ Obs ^a	P vs Control	P vs CF2154
N2	1	18.6 ± 0.4	61/96		
CF2166 [#] <i>tcer-1(-) Line#8</i>		19.1 ± 0.2	50/64	0.28 (vs N2)	
CF2167 <i>tcer-1(-) Line#9</i>		19.8 ± 0.6	68/81	0.08 (vs N2)	
<i>glp-1(-)</i> [#]		31.1 ± 0.7	204/241		
CF2154 [#] <i>tcer-1(-); glp-1(-)</i>		23.4 ± 0.5	81/119	<0.0001 (vs <i>glp-1</i>)	
CF2859a [#] <i>tcer-1(-); glp-1(-); tcer-1 OE Line #24</i>		32.4 ± 0.3	111/116	0.5 (vs <i>glp-1</i>)	<0.0001
CF2859b <i>tcer-1(-); glp-1(-); tcer-1 OE Line #81</i>		30.9 ± 0.8	96/123	0.42 (vs <i>glp-1</i>)	<0.0001
N2	2	18.5 ± 0.5	94/116		
CF2166		18.6 ± 0.5	91/108	0.63 (vs N2)	
CF2167		19.4 ± 0.6	91/105	0.1 (vs N2)	
<i>glp-1(-)</i>		33.2 ± 0.7	233/258		
CF2154		21.8 ± 1.0	77/115	<0.0001 (vs <i>glp-1</i>)	
CF2859a		27.9 ± 0.8	100/102	<0.0001 (vs <i>glp-1</i>)	0.0003

CF2859b		25.8 ± 1.2	67/72	<0.0001 (vs <i>glp-1</i>)	0.02
CF2859c <i>tcer-1(-); glp-1(-); tcer-1 OE</i> Line #91		28.8 ± 1.1	85/89	0.003 (vs <i>glp-1</i>)	<0.0001
N2***	1\$\$\$	18.9 ± 0.5	60/121		
CF2166***		19.0 ± 0.4	96/110	0.84	
CF2167		18.3 ± 0.4	48/120	0.93	
N2	2	17.0 ± 0.3	75/89		
CF2166		13.9 ± 0.4	65/89	<0.0001	
CF2167		13.6 ± 0.6	70/83	<0.0001	

^a Some animals were censored as described in Materials and Methods.

^b RNAi control refers to worms exposed to empty vector plasmid without an RNAi insert.

LS: lifespan, SEM: standard error of the mean.

MV refers to clones obtained from the RNAi library described earlier [1]. All other clones were obtained from the Ahringer collection [2].

*, **, *** Experiments depicted in Figures 1A, 1B and 1C, respectively.

[#] Experiment depicted in Figure 2D.

\$. \$\$, \$\$\$ Experiments performed simultaneously.

References:

1. Lamesch, P, Milstein, S, Hao, T, Rosenberg, J, Li N, *et al.* (2004) *C. elegans* ORFeome version 3.1: increasing the coverage of ORFeome resources with improved gene predictions. *Genome Res* 14: 2064-2069.
2. Kamath, RS, Fraser, AG, Dong, Y, Poulin, G, Durbin, R *et al.* (2003) Systematic functional analysis of the *Caenorhabditis elegans* genome using RNAi. *Nature* 421: 231-237.