

<b>Table S2A</b>						
<b><i>ftt-2</i> or <i>ftt-2</i> gene specific RNAi and <i>hcf-1(pk924)</i> epistasis analysis in lifespan</b>						
Strain	RNAi	Mean LS + SEM(Days)	Total N	% lifespan extension by <i>hcf-1(-)+</i> RNAi vs. corresponding N2+RNAi	p-value vs. N2+vector	p-value vs. <i>hcf-1(-)</i> + vector RNAi
N2	vector	18.6 ± 0.2	90			<0.001
	<i>ftt-2</i>	14.0 ± 0.3	95		<0.001	<0.001
	<i>ftt-2gs</i>	17.0 ± 0.2	89		<0.001	<0.001
	<i>daf-16</i>	11.7 ± 0.2	93		<0.001	<0.001
<i>hcf-1(pk924)</i>	vector	22.5 ± 0.4	98	21.0	<0.001	
	<i>ftt-2</i>	12.4 ± 0.3	97	-11.9	<0.001	<0.001
	<i>ftt-2gs</i>	20.5 ± 0.4	106	20.4	<0.001	<0.001
	<i>daf-16</i>	11.8 ± 0.1	109	0.7	<0.001	<0.001

<b>Table S2B</b>						
<b><i>par-5</i> or <i>par-5</i> gene specific RNAi and <i>hcf-1(pk924)</i> epistasis analysis in lifespan</b>						
Strain	RNAi	Mean LS + SEM(Days)	Total N	% lifespan extension by <i>hcf-1(-)</i> +RNAi vs. corresponding N2+RNAi	p-value vs. N2+vector	p-value vs. <i>hcf-1(-)</i> + vector RNAi
N2	vector	18.6 ± 0.2	120			<0.001
	<i>par-5</i>	13.3 ± 0.2	114		<0.001	<0.001
	<i>par-5gs</i>	18.6 ± 0.2	115		<0.001	<0.001
	<i>daf-16</i>	11.1 ± 0.1	103		<0.001	<0.001
<i>hcf-1(pk924)</i>	vector	25.0 ± 0.6	97	34.6	<0.001	
	<i>par-5</i>	10.8 ± 0.2	97	-18.6	<0.001	<0.001
	<i>par-5gs</i>	25.0 ± 0.5	92	34.3	<0.001	0.645
	<i>daf-16</i>	10.7 ± 0.2	91	-3.6	<0.001	<0.001

Table S2C							
<i>ftt-2</i> RNAi and <i>hcf-1(pk924)</i> , <i>sir-2.1(O/E)</i> , or <i>daf-2(e1370)</i> epistasis analysis in lifespan							
Experiment	Strain	RNAi	Mean LS + SEM(Days)	Total N	% lifespan extension on vector RNAi	% lifespan extension on <i>ftt-2</i> RNAi	p-value vs. control+ RNAi
#1	N2	vector	16.7 ± 0.3	103			
		<i>ftt-2</i>	15.8 ± 0.2	100			
	<i>hcf-1(pk924)</i>	vector	18.3 ± 0.3	103	9 (vs. N2)		<0.001 <sup>a</sup>
		<i>ftt-2</i>	15.6 ± 0.2	106		-1	0.885 <sup>b</sup>
	<i>pkls1641[sir-2.1(wt)]</i>	vector	18.7 ± 0.3	107			
		<i>ftt-2</i>	16.0 ± 0.2	111			
	<i>pkls1642[sir-2.1(O/E)]</i>	vector	21.0 ± 0.3	107	12 (vs. <i>pkls1641</i> )		<0.001 <sup>c</sup>
		<i>ftt-2</i>	16.6 ± 0.3	112		-4	0.050 <sup>d</sup>
	<i>daf-2(e1370)</i>	vector	30.3 ± 1.1	100	81 (vs. N2)		<0.001 <sup>a</sup>
		<i>ftt-2</i>	26.9 ± 1.2	99		71	<0.001 <sup>b</sup>
#2	N2	vector	16.8 ± 0.2	104			
		<i>ftt-2</i>	16.3 ± 0.2	108			
	<i>hcf-1(pk924)</i>	vector	18.0 ± 0.3	104	7 (vs. N2)		0.002 <sup>a</sup>
		<i>ftt-2</i>	15.6 ± 0.3	102		-4	0.070 <sup>b</sup>
	<i>pkls1641[sir-2.1(wt)]</i>	vector	19.0 ± 0.3	107			
		<i>ftt-2</i>	17.1 ± 0.3	105			
	<i>pkls1642[sir-2.1(O/E)]</i>	vector	20.9 ± 0.4	95	10 (vs. <i>pkls1641</i> )		<0.001 <sup>c</sup>
		<i>ftt-2</i>	16.1 ± 0.3	104		-6	0.013 <sup>d</sup>
	<i>daf-2(e1370)</i>	vector	26.1 ± 1.0	93	55 (vs. N2)		<0.001 <sup>a</sup>
		<i>ftt-2</i>	22.6 ± 0.8	103		38	<0.001 <sup>b</sup>
<b>Kaplan Meier Analysis - experiments pooled</b>							
Experiment	Strain	RNAi	Mean LS + SEM(Days)	Total N	% lifespan extension on vector RNAi	% lifespan extension on <i>ftt-2</i> RNAi	p-value vs. control+ RNAi
#1, 2 pooled Figure S3A-C	N2	vector	16.8 ± 0.2	207			
		<i>ftt-2</i>	16.1 ± 0.1	208			
	<i>hcf-1(pk924)</i>	vector	18.1 ± 0.2	207	8 (vs. N2)		<0.001 <sup>a</sup>
		<i>ftt-2</i>	15.6 ± 0.2	208		-3	0.139 <sup>b</sup>
	<i>pkls1641[sir-2.1(wt)]</i>	vector	18.9 ± 0.2	214			
		<i>ftt-2</i>	16.5 ± 0.2	216			
	<i>pkls1642[sir-2.1(O/E)]</i>	vector	20.9 ± 0.2	202	11 (vs. <i>pkls1641</i> )		<0.001 <sup>c</sup>
		<i>ftt-2</i>	16.3 ± 0.2	216		-1	0.529 <sup>d</sup>
	<i>daf-2(e1370)</i>	vector	28.4 ± 0.7	198	69 (vs. N2)		<0.001 <sup>a</sup>
		<i>ftt-2</i>	24.5 ± 0.7	199		50	0.007 <sup>b</sup>

Table S2D

***ftt-2(n4426)* and *hcf-1(pk924)* epistasis analysis in lifespan**

Experiment	Strain	Mean LS + SEM(Days)	Total N	% lifespan extension vs. N2	% lifespan extension vs. <i>ftt-2(-)</i>	p-value vs. N2
<b>#1</b>	N2	15.8 ± 0.2	107			
	<i>hcf-1(pk924)</i>	22.2 ± 0.4	105	41		<0.001
	<i>ftt-2(n4426)</i>	12.6 ± 0.2	100	-20		<0.001
	<i>hcf-1(-);ftt-2(-)</i> (#1)	18.9 ± 0.4	94	20	50	<0.001
	<i>hcf-1(-);ftt-2(-)</i> (#2)	19.2 ± 0.4	81	22	53	<0.001
<b>#2</b>	N2	15.1 ± 0.2	105			
	<i>hcf-1(pk924)</i>	19.8 ± 0.4	104	31		<0.001
	<i>ftt-2(n4426)</i>	14.2 ± 0.2	100	-6		0.002
	<i>hcf-1(-);ftt-2(-)</i> (#1)	18.8 ± 0.3	88	24	32	<0.001
	<i>hcf-1(-);ftt-2(-)</i> (#2)	19.4 ± 0.4	78	28	37	<0.001

**Kaplan Meier analysis - experiments pooled**

Experiment	Strain	Mean LS + SEM(Days)	Total N	% lifespan extension vs. N2	% lifespan extension vs. <i>ftt-2(-)</i>	p-value vs. N2
<b>#1,2 pooled</b>	N2	15.5 ± 0.1	212			
<b>Figure S3D</b>	<i>hcf-1(pk924)</i>	21.0 ± 0.3	209	36		<0.001
	<i>ftt-2(n4426)</i>	13.4 ± 0.2	200			<0.001
	<i>hcf-1(-);ftt-2(-)</i>	19.1 ± 0.2	341		43	<0.001