

SUPPLEMENTARY TABLES

Supplementary Table 1. Lifespan of *Drosophila melanogaster* fed a KRG-supplemented diet.

Sex	KRG ($\mu\text{g/mL}$)	Mean lifespan (days)	Median lifespan (days)	<i>p</i> -value	χ^2	N
Male	0	29.89 \pm 0.70	31			254
	10	33.86 \pm 0.57	35	0.031*	4.641	260
	25	34.18 \pm 0.56	35	0.004*	8.159	267
	50	31.46 \pm 0.65	33	0.365	0.822	270
Female	0	22.01 \pm 0.42	22			303
	10	21.51 \pm 0.36	22	0.058	3.589	292
	25	23.81 \pm 0.40	24	0.018*	5.633	284
	50	19.53 \pm 0.36	19	<0.0001*	24.600	291

*Asterisks indicate significant differences compared to control (Log-rank test). Mean lifespan is presented as the average lifespan \pm standard error. N indicates fly numbers analyzed.

Supplementary Table 2. Lifespan of *D. melanogaster* fed various yeast extract diets with or without KRG supplementation.

Sex	Yeast conc. (%)	KRG ($\mu\text{g/mL}$)	Mean lifespan (days)	Median lifespan (days)	<i>p</i> -value	χ^2	N
Male	1	0	58.32 \pm 0.91	61			269
		25	57.30 \pm 0.80	59	0.012*	6.342	259
	4	0	52.26 \pm 0.97	53			266
		25	51.93 \pm 0.88	55	0.331	0.945	266
	8	0	45.20 \pm 0.96	47			273
		25	48.12 \pm 0.89	49	0.032*	4.579	270
Female	1	0	46.99 \pm 0.98	49			283
		25	47.58 \pm 0.85	49	0.466	0.531	278
	4	0	38.20 \pm 0.87	41			271
		25	41.85 \pm 0.82	43	0.013*	6.164	274
	8	0	27.77 \pm 0.72	27			296
		25	29.55 \pm 0.81	31	0.012*	6.275	273

*Asterisks indicate significant differences compared to control (Log-rank test). Mean lifespan is presented as the average lifespan \pm standard error. N indicates fly numbers analyzed.

Supplementary Table 3. Effect of KRG diet supplement on the lifespan of *dSir2* and *chico* mutant fruit flies.

Sex	Strain	KRG (µg/mL)	Mean lifespan (days)	Median lifespan (days)	p-value	χ^2	N
Male	<i>w¹¹¹⁸</i>	0	76.47 ± 1.01	80	<0.0001*	18.417	253
		25	83.11 ± 0.80	86			257
	<i>dSir2^{2A-7-11}</i>	0	47.90 ± 0.75	48	0.280	1.169	268
		25	45.96 ± 0.83	46			272
	<i>chico^{1/+}</i>	0	88.06 ± 0.83	90	0.257	1.287	236
		25	86.67 ± 0.80	89			262
Female	<i>w¹¹¹⁸</i>	0	67.62 ± 1.11	70	<0.0001*	28.885	291
		25	76.55 ± 0.98	82			278
	<i>dSir2^{2A-7-11}</i>	0	48.89 ± 0.93	53	0.011*	6.387	266
		25	45.82 ± 0.91	48			281
	<i>chico^{1/+}</i>	0	99.15 ± 0.77	101	0.003*	9.096	248
		25	92.94 ± 0.97	95			249

* Asterisks indicate significant differences compared to control (Log-rank test). Mean lifespan is presented as the average lifespan ± standard error. N indicates fly numbers analyzed.

Supplementary Table 4. Effect of KRG diet supplement on the lifespan of *dFOXO* mutant fruit flies.

Sex	Strain	KRG (µg/mL)	Mean lifespan (days)	Median lifespan (days)	p-value	χ^2	N
Male	<i>yw</i>	0	55.07 ± 0.56	55	<0.0001*	13.453	287
		25	56.60 ± 0.69	57			249
	<i>foxo^{21/+}</i>	0	59.14 ± 0.69	60	0.003*	8.784	247
		25	61.12 ± 0.77	64			262
	<i>foxo^{22/+}</i>	0	67.04 ± 0.60	70	0.245	1.351	286
		25	64.94 ± 0.75	67			251
<i>foxo^{21/23}</i>	0	54.68 ± 0.92	57	0.772	0.084	280	
	25	55.07 ± 0.88	57			294	
Female	<i>yw</i>	0	52.30 ± 0.77	55	0.025*	5.012	295
		25	53.61 ± 0.85	57			251
	<i>foxo^{21/+}</i>	0	54.28 ± 0.67	57	0.092	2.836	276
		25	54.93 ± 0.66	55			270
	<i>foxo^{22/+}</i>	0	62.57 ± 0.72	64	0.221	1.499	273
		25	64.18 ± 0.67	64			250
<i>foxo^{21/23}</i>	0	52.99 ± 0.84	55	0.646	0.210	227	
	25	52.26 ± 0.86	55			218	

* Asterisks indicate significant differences compared to control. Mean lifespan is presented as the average lifespan ± standard error. N indicates fly numbers analyzed.