

mediate the effects of insulin/IGF-1 signaling on aging in *C. elegans*. PLoS Genet. 2013; In press.

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SUPPLEMENTAL TABLES

Table S1. Effect of *mdl-1* on life span in *C. elegans*. The trials were performed at 25°C without FUdR. Genotype: N2 wildtype, GA1200 *mdl-1(tm311)*, DR1567 *daf-2 (m577)*, GA1204 *daf-2(m577); mdl-1(tm311)*. *p*, log rank test. [n] biological replicates number. [C], combined data from 4 trials.

| Genotype | Deaths/ censored | Mean life span (days) | % vs. wild type | <i>p</i> vs. wild type | % vs. <i>daf-2</i> | <i>p</i> vs. <i>daf-2</i> |
|--------------------------------------|---------------------|--------------------------|--------------------|---------------------------|-----------------------|------------------------------|
| Wild type | [C] 513/18 | 14.7 | | | | |
| | [1] 120/5 | 15.2 | | | | |
| | [2] 121/5 | 14.1 | | | | |
| | [3] 133/7 | 15.3 | | | | |
| | [4] 139/1 | 14.3 | | | | |
| <i>mdl-1(tm311)</i> | [C] 500/17 | 12.8 | -13.1 | <.0001 | | |
| | [1] 119/4 | 14.4 | -5.4 | 0.0288 | | |
| | [2] 115/4 | 12.0 | -15.1 | <.0001 | | |
| | [3] 125/8 | 12.9 | -16.0 | <.0001 | | |
| | [4] 141/1 | 12.1 | -15.5 | <.0001 | | |
| <i>daf-2 (m577)</i> | [C] 412/57 | 35.2 | +139.2 | <.0001 | | |
| | [1] 87/26 | 31.0 | +104.4 | <.0001 | | |
| | [2] 86/3 | 34.0 | +141.1 | <.0001 | | |
| | [3] 121/8 | 35.1 | +129.2 | <.0001 | | |
| | [4] 118/20 | 39.2 | +174.1 | <.0001 | | |
| <i>daf-2(m577); mdl-1(tm311)</i> | [C] 438/78 | 26.6 | +80.9 | <.0001 | -24.5 | <.0001 |
| | [1] 75/59 | 21.2 | +39.4 | <.0001 | -31.7 | <.0001 |
| | [2] 113/1 | 28.0 | +98.5 | <.0001 | -17.6 | <.0001 |
| | [3] 132/4 | 27.0 | +76.4 | <.0001 | -22.9 | <.0001 |
| | [4] 118/14 | 28.3 | +97.9 | <.0001 | -27.9 | <.0001 |

Table S2. *glp-4(bn2)* and FUDR do not suppress *mdl-1* shortevity. Genotypes: N2 wildtype, GA1200 *mdl-1(tm311)*, SS104 *glp-4(bn2)*, GA1230 *glp-4; mdl-1*. p, log rank test. [n] biological replicates number. *glp-4* trial, worms raised at 15°C to L4, then shifted to 25°C.

| Genotype | Deaths/ censored | Mean life span (days) | % vs. wild type | p vs. wild type | % vs. <i>glp-4</i> | p vs. <i>glp-4</i> |
|--|---------------------|--------------------------|-----------------|-----------------|--------------------|--------------------|
| <i>glp-4</i> Trials (worms raised at 15°C, shifted at L4 stage to 25°C) | | | | | | |
| Wild type | [1] 77/11 | 15.5 | | | | |
| | [2] 69/11 | 13.2 | | | | |
| <i>mdl-1(tm311)</i> | [1] 61/11 | 12.9 | -17.0 | 0.0002 | | |
| | [2] 48/11 | 11.3 | -14.5 | 0.0023 | | |
| <i>glp-4(bn2)</i> | [1] 86/14 | 15.7 | +1.59 | 0.46 | | |
| | [2] 64/9 | 14.3 | +8.4 | 0.43 | | |
| <i>glp-4; mdl-1</i> | [1] 120/4 | 12.3 | -4.4 | <0.0001 | -21.6 | <0.0001 |
| | [2] 75/6 | 9.1 | -19.2 | <0.0001 | -36.3 | <0.0001 |
| <i>glp-4</i> Trials (worms raised and maintained at 25°C) | | | | | | |
| Wild type | [1] 87/7 | 12.2 | | | | |
| | [2] 78/12 | 14.2 | | | | |
| <i>mdl-1(tm311)</i> | [1] 78/19 | 11.4 | -6.6 | 0.20 | | |
| | [2] 76/22 | 12.7 | -10.7 | 0.05 | | |
| <i>glp-4(bn2)</i> | [1] 94/9 | 14.0 | +14.8 | 0.0035 | | |
| | [2] 77/16 | 17.6 | +24.0 | 0.0002 | | |
| <i>glp-4; mdl-1</i> | [1] 83/17 | 12.3 | +0.8 | 0.21 | -12.0 | 0.024 |
| | [2] 70/17 | 15.0 | -15.2 | 0.36 | -14.7 | 0.0051 |
| FUDR Trials | | | | | | |
| Wild type | [1] 46/14 | 17.5 | | | | |
| | [2] 41/19 | 16.8 | | | | |
| <i>mdl-1(tm311)</i> | [1] 49/11 | 12.4 | -41.1 | <0.0001 | | |
| | [2] 49/11 | 13.3 | -26.3 | 0.0027 | | |
| Wild type (50µM FUDR) | [1] 55/5 | 17.3 | -1.2 | 0.55 | -1.2 | 0.55 |
| | [2] 57/3 | 14.6 | -15.1 | 0.022 | -15.1 | 0.022 |
| <i>mdl-1(tm311)</i> (50µM FUDR) | [1] 54/6 | 12.7 | -37.8 | <0.0001 | +2.4 | 0.80 |
| | [2] 49/11 | 11.6 | -44.8 | <0.0001 | -14.7 | 0.032 |

Table S1. Effect of *mdl-1* on life span in *C. elegans*.

| Strain | Deaths/ censored | Mean life span (days) | % vs. wild type | <i>p</i> vs. wild type | % vs. <i>mdl-1</i> | <i>p</i> vs. <i>mdl-1</i> |
|--|------------------------------------|--------------------------------|-----------------------------------|---|-----------------------------------|---|
| Wild type | [C] 198/0 [1] 99/0 [2] 99/0 | 11.30 11.83 10.97 | | | | |
| <i>mdl-1(tm311)</i> | [C] 198/1 [1] 99/0 [2] 99/1 | 9.36 9.57 9.15 | -17.97 -19.10 -15.20 | <0.0001 <0.0001 <0.0001 | | |
| <i>mdl-1; wuEx267</i> <i>[mdl-1 rol-6]</i> | [C] 191/0 [1] 80/0 [2] 111/0 | 10.91 11.36 10.59 | -3.45 -3.97 -1.85 | 0.0060 0.04 0.22 | +19.55 +18.70 +15.74 | <0.0001 <0.0001 <0.0001 |
| <i>mdl-1; wuEx268</i> <i>[pges-1::mdl-1</i> <i>rol-6].</i> | [C] 210/0 [1] 94/0 [2] 116/0 | 9.97 10.47 9.56 | -11.77 -11.50 -11.40 | <0.0001 <0.0001 <0.0001 | +9.51 +9.40 +4.48 | <0.0001 <0.0001 0.0059 |