

Table S1. Human genes used to query the Connectivity Map and their relative change in the CR transcriptional profile used.

	Genes
Up	MDM2, HSD17B4, RPS8, HSPA8, SMPD2, KPNB1, DNAJB6 /// TMEM135, CXXC1, SETDB1, CA4, JAK1, ING1, WRNIP1, KPNB1, POLR2A, DNAJB6, CA4, MOGS, UBB, SUCLA2, KPNB1, UBB, ARNT, CRYZ, CCT7, RPS8 /// RPS8P8
Down	CAPRIN1, RPL23, RPL3, ACTG1, PPP3CB, MAP7, FDFT1, TFPI, RBBP4, LOC100294182 /// RPL3, LAMA1

Table S3. The variation seen in lifespan effects of drugs compared to controls in N2 and *eat-2* worm strains. The maximum and minimum change in lifespan in all of the trials performed and the number of trials performed of each lifespan assay in drug-treated *C. elegans*. Abbreviations: TSA

Treatment	% Difference observed	Number of replicates
N2 + RAPAMYCIN	10.4 to 22.8	5
N2+ TSA	8.71 to 23.2	5
N2 + GELDANAMYCIN	1.52 to 3.06	4
N2 + LY-294002	13.8 to 22.8	4
N2 + ALLANTOIN	20.4 to 25.0	3
<i>eat-2</i> + RAPAMYCIN	-3.30 to 10.7	5
<i>eat-2</i> + TSA	-0.317 to 5.81	5
<i>eat-2</i> + GELDANAMYCIN	-20.9 to 9.71	4
<i>eat-2</i> + LY-294002	-1.15 to 13.6	4
<i>eat-2</i> + ALLANTOIN	1.97 to 8.63	3