

Figure S1. Metformin and salicylate act synergistically to reduce polyQ neuronal stress. 112Q::TdTom worms were treated with or without 150 µm metformin and different doses of salicylate (0, 5 and 10 µM) and the touch response assayed in each combination. Statistical interaction of all combination treatment shows that 150 µM metformin/5 µM salicylate is the minimal dose to rescue mechanosensorial function in 112Q::TdTom young adults animals compared to untreated 112Q::TdTom animals (Estimate = 0.55, CI95% [1.20, 2.53], p = 0.004). At least fifty animals were tested per condition and the experiment was repeated three independent times.

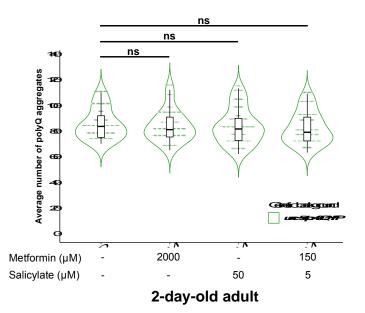




Figure S2. Synergic combination of metformin and salicylate are unable to 16 eliminate preformed polyQ aggregates in 2-day old worms. Aggregate analysis of 2-17 day-old adult 40Q animals treated with 2,000 µM metformin or 50 µM salicylate alone, 18 19 or the synergistic combination (150 µM metformin and 5 µM salicylate). Late treatment 20 with metformin, salicylate and both drugs does not modify aggregation in treated 2-day-21 old adult 40Q animals compared to untreated 2-day-old adult animals (OR = 0.98, CI95%[0.91, 1.06], p = 0.661; OR = 0.98, CI95%[0.91, 1.06], p = 0.616; OR = 0.97, 22 CI95%[0.90, 1.04], p = 0.355, respectively). Odds Ratio (OR), lower and upper 23 confidence interval 95% (CI95%) and p-value show the significance of the data. At least 24 thirty animals were tested and experiments were performed three times. 25

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