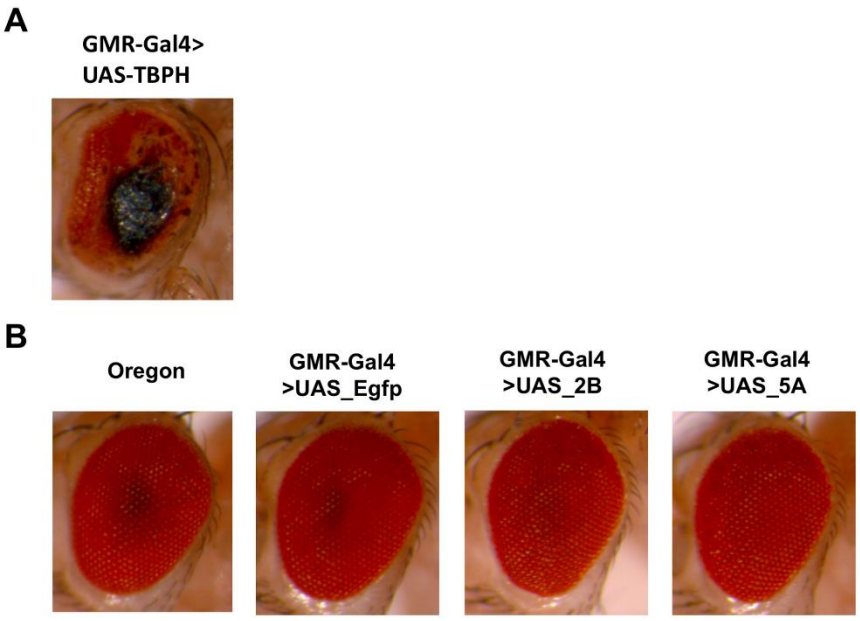

Fig. S1. Effect of transgenes expression on external eye structure.

(A) External eye phenotype of 1-day old GMR-Gal4>UAS_TBPH flies: overexpression of wild-type TBPH results in the formation of large necrotic patches.

(B) External eye phenotype of 15-day old transgenic flies of the following genotypes: GMR-Gal4>UAS_Egfp; GMR-Gal4>UAS_2B; GMR-Gal4>UAS_5A. No appreciable anatomic differences nor increased signs of toxicity are detectable in AggIn transgenic flies in comparison to the 1-day-old eye photos shown in the Figure 4B.

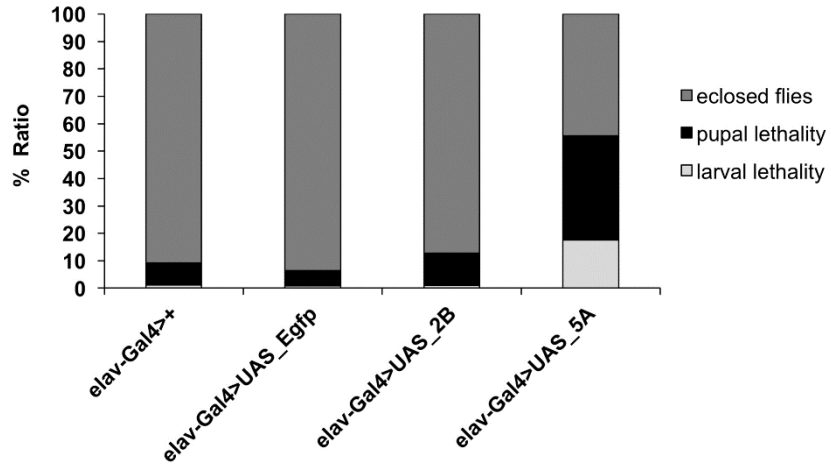

Fig. S2. Assessment of early lethality in AggIn flies.

Third instar larvae (at least 100 animals, for each of the following genotypes: elav-Gal4>+, elav-Gal4>UAS_Egfp, elav-Gal4>UAS_2B, elav-Gal4>UAS_5A) were selected and transferred to fresh food tubes. 6 day after it was estimated: the number of eclosed flies; the number of pupae unable to eclose and of larvae unable to reach the pupal stage, that were present in the food or on the tube walls. The percent ratio between eclosed flies:pupal lethality:larval lethality was determined and reported in a graph.

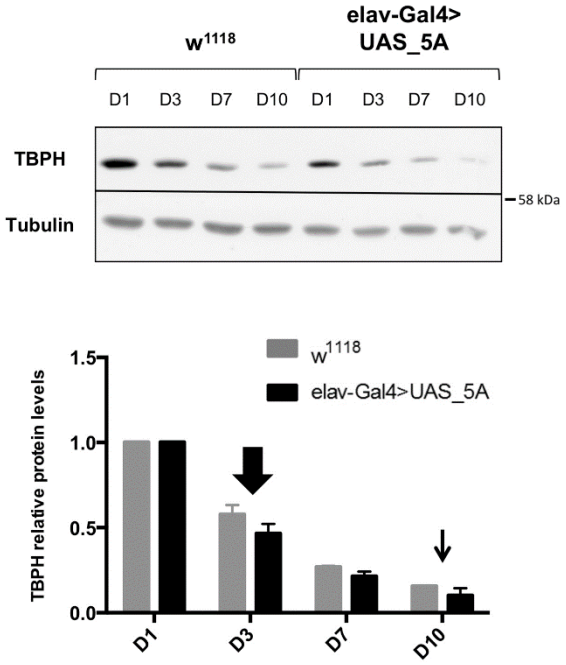

Fig. S3. TBPH levels in fly heads physiologically drop during aging.

Upper panel: Western blot analysis of endogenous TBPH in the heads of adult wild-type (w^{1118}, left panel) and elav-Gal4>UAS_5A (right panel) flies aged at 25 °C. Lower panel: the relative TBPH expression (normalized with tubulin) is shown in the graph. The arrows indicate the time-points when the climbing ability of the transgenic flies start to be significantly reduced (thin arrow for elav-Gal4>UAS_EGFP-12xQ/N; thick arrow for elav-Gal4>UAS_5A). Error bars indicate SD. D stands for day.