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## Study shows genes are read faster and more sloppily in old age

а  $\Theta$ 1 day ama-1 vs 1 day 50 days Rpll215 vs 50 days 50 days Rpll215 vs 10 days Rpll215 θ  $\Theta$ - $\Theta$ ÷ 10 days Rpll215 vs 10 days 150 days vs 10 days 14 days vs 1 day 14 days ama-1 vs 14 days -1.5 -1.0 -0.5 0 0.5 1.0 1.5 -1.0-0.5 0 0.5 1.0 Transcriptional elongation speed Transcriptional elongation speed (log,FC) (log\_FC) ● Slow mutant vs control O All introns ● Consistently changing introns Old vs young b 100 100 80 80 Survival (%) Survival (%) 60 60 40 40 WT WT 20 20 RpII215<sup>C4</sup> ama-1 0 0 10 20 80 100 0 30 0 20 40 60 Time (days) Time (days)

Molecular and lifespan effects of reduced Pol II elongation speed in C. elegans and D. melanogaster. a, Differences of average Pol II elongation speeds between Pol II-mutant and wild-type (WT) worms (left; 509 introns) and flies (right; 1,354 introns). Error bars show median variation  $\pm$  95% CI. All average changes of Pol II elongation speeds are significantly different from zero (P

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