

AGING BIOLOGY UPDATE

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UAB NATHAN SHOCK CENTER OF EXCELLENCE
IN THE BASIC BIOLOGY OF AGING

Featured

[An open science study of aging in companion dogs](#)

[A process and prioritization for repurposing FDA-approved drugs to target aging](#)

Headline vs Study

Headline: [Circadian clock may protect aging eyes](#)

Study: [The clock:cycle complex is a major transcriptional regulator of Drosophila photoreceptors that protects the eye from retinal degeneration and oxidative stress](#)

Headline: [Scientists stop and reverse aging in mice](#)

Study: [In vivo partial reprogramming alters age-associated molecular changes during physiological aging in mice](#)

Headline: [Mayo clinic study shows oral drug could delay or alleviate diseases, aging](#)

Study: [Orally-active, clinically-translatable senolytics restore alpha-klotho in mice and humans](#)

Contrary or Null Findings

[No relationship between total protein intake and quality of life in older adults](#)

[Methionine restriction benefits in adult mice do not require functional methionine sulfoxide reductase A](#)

[No effect of optimism on longevity among older Japanese adults](#)

Energetics/Nutrition

[Effects of diet composition on the liver transcriptome and serum metabolome in male mice](#)

[The flavonoid corylin slows aging in high fat diet fed male mice](#)

[Higher environmental temperature leads to higher body temperature, but lower metabolic rate and shorter life in mice and hamsters](#)

[Mediterranean and DASH diets are associated with decreased biological age according to composite clinical blood-based biomarkers](#)

[Overweight and obesity at age 40 associates with greater morbidity and higher economic costs in later life](#)

Review: [Role of mTOR in metabolism and aging](#)

Review: [Exerkines in health, resilience, and disease](#)

Basic Biology

[The CD38 inhibitor 78c prolongs life in male, but not female, mice](#)

[Delayed ossification of bone fractures in old mice of undescribed sex](#)

[Microfluidics approach finds no compression nor extension of healthspan in long-lived worm mutants](#)

[Brain cellular senescence in mouse models of Alzheimer's disease](#)

[Association of the hallmarks of aging with age-related disease in humans](#)

[Diverse biological ages of human organs and systems determined from a multi-omics approach](#)

[Novel system-level metabolic modeling identifies fatty acid oxidation as significantly upregulated in centenarians](#)

[Age-related changes in heart proteomic and transcriptomic profiles in genetically diverse mice](#)

[Review: The complicated nature of somatic mtDNA mutations in aging](#)

[Review: The microbiome, menopause, and healthy aging](#)

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[Review: Genistein as a geroprotector](#)

[Review: Circulating biomarkers of inflammaging as potential biomarkers of COVID-19 severe outcomes](#)

Ecology & Evolution

[Natural selection and the evolution of asynchronous aging](#)

[Hypothesis: An evolution-based model of causation for aging-related diseases and intrinsic mortality](#)

[Review: Sex chromosomes, sex ratios, and sex gaps in longevity in plants](#)

[Review: Evolutionary conserved transcription factors as regulators of longevity](#)

Novel Organisms/ Comparative

[Donkeys as a model of Alzheimer's disease?](#)

[Guinea pig strains as models of natural brain aging and Alzheimer's disease](#)

[Correlation of relative brain size with longevity in captive parrots](#)

[Increased insulin-like signaling in long-lived termite reproductives compared to shorter-lived workers](#)

[Age-related declines in brain hemispheric asymmetry during visual tasks in pigeons](#)

[Hibernation slows epigenetic aging in yellow-bellied marmots](#)

[Transcriptomic differences in the prefrontal cortex of young and old dogs](#)

[Review: Endocrine regulation of lifespan in insect diapause](#)

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[Review: Advances in the study of long-lived, cave-dwelling salamanders](#)

[Review: Canine geriatric rehabilitation](#)

[Review: Genetic mechanisms of aging in plants](#)

Epidemiology/Demography

[Mother's but not father's age at conception associates with longevity of male offspring only in mouse lemurs](#)

[Low prevalence of dementia and MCI among indigenous forager-horticulturists](#)

[Increasing life expectancy and decreasing life expectancy disparity in urban vs rural China](#)

Clinical

[Geriatric medicine and healthcare for older people in Australia](#)

[Chronic HIV infection and aging: Application of a geroscience-guided approach](#)

[Review: Clinical electrophysiology of the aging heart](#)

Caregiving

[Review: Interventions to reduce loneliness in caregivers](#)

[Cessation of care of frail older adults is associated with improved self-reported health and financial stability in caregivers but decreased life satisfaction](#)

[Older caregivers: Who they are and how to support them](#)

Policy/Ethics

[Involving socially excluded groups in age-friendly programs](#)

Commentary

[Could drugs prevent Alzheimer's? These trials aim to find out](#)

Odd and Ends

[Financial overconfidence declines with increasing age and education level](#)

Aging Biology Update is brought to you by the UAB Nathan Shock Center and compiled by Jessica Hoffman, Heather Patterson, and Steven Austad. [Subscribe to this newsletter.](#)



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