

AGING BIOLOGY UPDATE

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

Featured

[“Re-wilded” mice display accelerated epigenetic aging](#)

Basic Biology

[Chemical reprogramming ameliorates cellular hallmarks of aging and extends worm life](#)

[Impaired capillary-venous drainage contributes to mouse brain aging](#)

[Which cortical brain layers age, which don't in mice and humans?](#)

[Nicotinamide mononucleotide mitigates aging in human cells and mouse models of in Hutchinson–Gilford Progeria Syndrome](#)

[Low-dose metformin requires brain Rap1 for its antidiabetic action in mice](#)

[Translational fidelity and longevity are genetically linked in yeast](#)

Review: [Aging, loss of regenerative capacity and the epigenome](#)

Review: [Aging reshapes the adaptive immune system from healer to saboteur](#)

Meta-analysis: [Does L-deprenyl really extend life in laboratory rodents?](#)

Perspective: [Does maintaining a youthful immune system become deleterious with age?](#)

Resources

[T-CLASS: An online tool for the identification and classification of aging and senescence using transcriptome data](#)

Clinical

[An integrative palliative, geriatric, and rehabilitative approach for older people and their caregivers](#)

[Frailty in the perioperative setting strongly correlated with adverse outcomes and mortality](#)

[Accelerated brain aging in subjects with cardiovascular diseases](#)

[Severe COVID-19 associated with persistent reductions in the blood levels of growth hormone, IGF-1, BDNF, and platelet-derived growth factor](#)

Review: [Improving vaccine efficacy in older adults](#)

Review: [Parathyroid hormone receptor agonists may reduce osteoporosis](#)

Women's Health and Aging

[Early menarche and childbirth accelerate aspects of aging: evidence for antagonistic pleiotropy in humans](#)

Review: [Cardiovascular consequences of premature menopause](#)

Epidemiology/Demography

[COVID-19 infection is associated with early vascular aging, especially in women](#)

[GLP-1 drugs may reduce dementia, stroke risk and all-cause mortality in some adults with type 2 diabetes](#)

[Swedish centenarians have lower disease burden, later disease onset and fewer co-occurring diseases than peers](#)

[Location, location, location: spatial variation of life expectancy by sex in the US](#)

[PathwayAge: a new epigenetic clock based on pathway-level methylation signals](#)

Energetics/Nutrition

[Long-term obesity associated with biological aging in young \(28-31 yrs\) adults](#)

[Epigenetic aging may mediate survival in older individuals with high, but not low, body mass index](#)

[Dose-response meta-analysis: 7,000 steps per day yields improvements in health outcomes](#)

Evolution/Comparative

[Chance explains the positive link between fecundity and longevity in social insects](#)

[Do metabolism and cell cycle regulate avian longevity?](#)

[Endocrine-based hypothesis for the evolution of human menopause and grandmothers](#)

Novel Organisms

[How long do small carnivores live in the wild?](#)

[Early life, but not late life, exposure to predator cues reduce lifespan and reproductive output of freshwater snails](#)

[Hypoxia extends lifespan but does not alter telomere length or oxidative stress in a solitary bee](#)

Contrary or Null Findings

[Does brain age actually improve Alzheimer's disease prediction?](#)

[Corn syrup, rather than honey, extends lifespan of European honeybee workers](#)

RCT: [Low-dose estrogen replacement therapy does not confer additional benefits when combined with resistance exercise in women who have knee osteoarthritis](#)

Caregiving

[Nursing home physician and advanced practitioner patient volume does not affect post-acute care outcomes](#)

[Solutions for eating and swallowing problems in people with advanced dementia](#)

[How to measure and monitor the quality of death](#)

[Chronic caregiving stress linked to accelerated cellular aging, inflammation, and poor cardiometabolic health in Black family caregivers of persons with dementia](#)

Policy/Ethics

[Can technology replace animals for drug and chemical testing?](#)

[Residents in red-lined neighborhoods lack rapid emergency medical access](#)

Commentary

[Our aging disconnect: billions for longevity, pennies for dignity](#)

[What if readmission prevents death? The challenge of composite outcomes](#)

[Study suggests that hospital readmissions are undercounted](#)

[Scientists in defense of democracy](#)

[Deceit and self-diagnosis: direct-to-consumer self-tests performance is flawed](#)

Odd and Ends

[Hope for a cure? How progeria accelerates aging](#)

[Sex reversal in wild birds more common than expected](#)

[Respiratory viral infections disrupt the quiescence of dormant disseminated cancer cells](#)

[Does a prospective father's gut microbiota matter?](#)

[What do astronauts, older people and those affected by disaster have in common?](#)

[AI should be co-author on at least 200,000 biomedical papers published in 2024](#)

Aging Biology Update is brought to you by the **UAB Nathan Shock Center** and compiled ***without AI***, by Kathleen Fischer and Steven Austad. [Subscribe to this newsletter](#).



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