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Aging Biology Update

Brought to you by the **UAB NATHAN SHOCK CENTER OF EXCELLENCE IN THE BASIC BIOLOGY OF AGING**

Featured

[Dogs and humans share biomarkers of mortality.](#)

Basic Biology

[Senolytic treatment induces oligodendrocyte dysfunction in laboratory rodent brains and brain slices](#)

[Contrary to previous studies, aging leads to deterioration of thymic sympathetic innervation in mice](#)

[Liver exerkine stabilizes blood-brain barrier and slows cognitive decline in mouse Alzheimer's model](#)

[Endoplasmic reticulum remodeling is a feature of aging mediated by autophagy in yeast, worms and mice](#)

[Disease tolerance and infection pathogenesis age-related tradeoffs in mice](#)

[Inhibition of gut-brain signaling drives myeloid inflammation and age-related cognitive decline in mice](#)

[Sacubitril/valsartan plus dapagliflozin improve function in a female rat model of heart failure](#)

[No evidence lithium supplementation extends lifespan in male flies](#)

Clinical

Metformin use is associated with lower risk of esophageal squamous cell carcinoma

Older adults and their caregivers struggle to recover after major elective noncardiac surgery.

Review: Fanconi anemia: a case of premature aging?

Review: Sex differences in cardiometabolic diseases

Review: Exposome, neuroimaging and Alzheimer's disease and related dementias

Epidemiology/Demography

Faster increases in several epigenetic clocks are associated with higher mortality risk over 24 years

Female reproductive cancers play a significant role in narrowing the sex gap in survival across 20 first-world countries

Radiographic thymic health associates with multiple health measures in older adults

Histone modification: an evolutionarily conserved clock to measure biological age?

Birth cohort mortality dynamics yield insights into stagnating US life expectancy.

Japan's mortality advantage associated with better long-term care

Women with more than three live births show reduced risk of stroke relative to nulliparous women

Missing teeth and missing years: Oral health and survival in a Brazilian aging cohort

Review: Sex differences in X chromosome-encoded microRNAs associated with immune regulation

Review: Lifelong micro- and nano-plastic exposure: implications for aging and longevity.

Women's Health and Aging

[Low BMI is correlated with earlier menopause](#)

[Bone mineral density is poor predictor of vertebral fractures in older women](#)

[Menopause before age 40 is associated with elevated risk of coronary heart disease in women](#)

[Improving menopausal hormone therapy treatment](#)

Energetics/Nutrition

[Circulating high-molecular-weight adiponectin levels increase in oldest-old adults](#)

[Small impact of two years of multivitamin supplementation on two out of five epigenetic clocks in healthy older adults \(>60\)](#)

[Adipose-specific GHR knockout extends healthspan but not lifespan in male mice](#)

[Heterochronic gut microbiota transplantation fails to restore low bone and muscle mass in older mice](#)

Review: [Treating age-related loss of muscle mass and function](#)

Review: [Thyroid hormones and the evolution of human longevity, reproduction and aging](#)

Evolution/Comparative

[What Earth's longest-lived animals can teach us about aging better](#)

[Sex-specific effects of laboratory selection for faster development and longer life in flies](#)

[DNA methylation in invertebrate genomes finds greater DNA methylation is associated with increased regenerative capacity](#)

[Methodology matters: does mitochondrial nucleotide substitution rate predict longevity across vertebrates?](#)

[What doesn't kill you makes you age? Non-consumptive predator effects as a model for aging research](#)

[The pathogen control hypothesis: a model of lifespan plasticity in eusocial](#)

[insects](#)

Theory: [DNA as a quantum system in evolution and aging](#)

Review: [An evolutionary and comparative biological reappraisal of aging](#)

Novel Organisms

[Captive husbandry accelerates epigenetic aging but increases lifespan in male king penguins](#)

[Lifelong behavioral observations of adult African turquoise killifish reveal distinct aging trajectories](#)

[Hello darkness my old friend: genetic or environmental loss of light perception extends growth and lifespan of a marine bristleworm](#)

[Dietary alteration reveals trade-off between growth and somatic maintenance in the Mexican spadefoot toad](#)

Resources

[An R package for modelling excess lifetimes](#)

Caregiving

[Evidence-based interventions needed for residential aged care workers experiencing burnout anxiety and depression](#)

Review: [Acceptance and commitment therapy for family caregivers of persons with dementia](#)

Perspective: [Use of AI in long-term care of older people as if caring matters](#)

Policy/Ethics

[One-third of Americans cut back to cover healthcare expenses](#)

[Kickback penalties insignificant in pharmaceutical manufacturers' revenue for drugs implicated in kickback schemes](#)

[Health insurance coverage and access to care among older immigrants in the US](#)

Commentary

[Is the mouse or the mouse cage the proper statistical entity? It makes a difference](#)

[Form or function? Affordability and The Great Healthcare Plan](#)

[Go with the flow? Can a focus on energy transform biomedicine?](#)

[When disregard for population health becomes US policy: widening the gap in life expectancy](#)

Odds and Ends

[Does longevity have a liberal bias?](#)

[To err is human; to admit it is science at its best](#)

[After 35 years, Ig Nobel ceremony to leave the U.S.](#)

[Are “science-backed supplements” science fictions?](#)

Announcements

[Multiple NIH Institutes announce interest in multidisciplinary studies of HIV/AIDS and aging](#)

Aging Biology Update is brought to you by the UAB Nathan Shock Center and compiled by Kathleen Fischer and Steven Austad.

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