

AGING BIOLOGY UPDATE

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

Featured

[Sex and surgeon discordance: Female patients are more likely to die when treated by a male surgeon](#)

[The Dog Aging Project: An open science study of aging in companion dogs](#)

Headline vs study

Headline: [New worm study solves mystery of aging, offers hope for better cancer treatments](#)

Study: [Small-molecule Mn antioxidants in Caenorhabditis elegans and Deinococcus radiodurans supplant MnSOD enzymes during aging and irradiation](#)

Headline: [Do you feel old? It could be aging you](#)

Study: [Resolution status and age as moderators for interpersonal everyday stress and stressor-related affect](#)

Contrary or Null Findings

[Late-age onset caloric restriction worsens cognition and increases frailty in female rats](#)

[Respiratory metabolism does not decline with age in Daphnia](#)

[Goldilocks effect: Both high and low IGF-1 levels associate with increased mortality in humans](#)

[Older Chinese adults with treated diabetes show better cognitive function than similar age non-diabetics](#)

[Surprisingly, insulin signaling is upregulated in the fat bodies of a long-lived termite queen relative to shorter-lived workers](#)

Energetics/Nutrition

[Caloric restriction improves blood biomarkers of aging in older adults with heart failure with preserved ejection fraction](#)

[Late-life exercise improves molecular markers of synaptic integrity in the brain](#)

[Caloric restriction but not 17alpha-estradiol enhances ovarian reserve and fertility in older mice](#)

[Perspective: Phenotypic quality, nutrition, and healthy aging](#)

[Review: Inflammaging, frailty, and nutrition in COVID-19](#)

Basic Biology

[In mouse models of neurodegenerative disease increasing protein turnover is associated with increased pathology, but protein turnover slows with aging in wild-type mice](#)

[Older male mice show dysregulated hepatic hedgehog signaling](#)

[Genetic diversity estimates for the Caenorhabditis Intervention Testing Program screening panel](#)

[The metabolome as a biomarker of aging in flies](#)

[Chronic disrupted sleep may cause Alzheimer's like pathology in young wild-type male mice](#)

[Brain markers of cognitive frailty differ from those of Alzheimer's disease](#)

[Brain iron increases with age in female mice](#)

[Aging influences on the molecular presentation of tumors](#)

[Distinguishing fruit fly neurons that are vulnerable or resistant to aging](#)

[Retinal images as predictors of biological age](#)

[Senolytics dasatinib plus quercetin improve cognitive abilities in male rats](#)

[Sirt6 overexpression increases lifespan in fruit flies](#)

[Review: Sex differences in aging](#)

[Review: The hyperfunction theory of aging](#)

[Review: FOXO3 as a key regulator of aging-related vascular diseases](#)

[Review: Targeting cellular senescence with senotherapeutics](#)

[Review: Chromatin and the senescence associated secretory phenotype](#)

[Review: GDF15, an emerging key player in human aging](#)

[Review: A gerophysiology perspective on healthy ageing](#)

Ecology & Evolution

[Rate of selection is associated with maximum longevity in 276 genes across the great ape lineage](#)

[Juniper trees on the Canary Islands can reach over 1000 years of age and still reproduce](#)

Novel Organisms/ Comparative

[Lack of cardiac and body composition aging into the 4th decade in naked mole-rats](#)

[Sex differences in aging and mortality rates across species and populations of killifish](#)

[Metabolic differences between long-lived queens and short-lived worker ants](#)

[Age-related declines in social networks in chimpanzees](#)

[Aging-related episodic-like memory decline in dogs](#)

[Maximum lifespan of the queen triggerfish may be over 40 years, 300% higher than previously reported](#)

[Cognitive decline in coyotes](#)

Epigenetic aging clock in [horses](#) and [naked mole-rats](#)

[Biomarkers of bone health in female sheep: A model of osteoporosis](#)

[Review: Interactions of longevity, cellular senescence, and the microbiome in crocodiles](#)

[Review: The gut microbiome and immune system interactions in long lived reptiles](#)

[Review: The naked mole-rat as a model of resilience to age-related diseases](#)

[Review: Companion cats as a model of aging and age-related diseases](#)

Epidemiology/Demography

[Education, but not occupation, is associated with improved cognition in older adults in a low/middle income country](#)

[Re-assessing BMI cut points for age specificity](#)

[Age-specific differences in modifiable risk factors associated with mortality in a Chinese population](#)

[Mortality due to diabetes has decreased over the last 25 years in high income](#)

[countries](#)

[Countries with greater longevity show higher lifespan variability](#)

Clinical

[Improving geriatric medicine education in undergraduate medicine curricula](#)

[Opportunities to strengthen aging curricula across the health professions](#)

[Clinical history from age 111 of the world's longest-lived man](#)

[Review: Aging and the lower urinary tract](#)

Care-giving

[Patients of paid community caregivers receive worse care than those with unpaid caregivers or those in residential care](#)

[Psychological caregiving burden may be higher for inpatient hospice workers than home-based hospice care workers](#)

Policy/Ethics

[A research framework for the United Nations decade of healthy aging](#)

[Spousal death leads to increased Medicare costs the next year for the surviving spouse](#)

Commentary

[Can you fight aging? Scientists are testing drugs to help](#)

[How COVID-19 might age us](#)

[Does the human lifespan have a limit?](#)

[Accelerated aging in the COVID-19 pandemic: A dilemma for healthy aging](#)

Odd and Ends

[Principles of scientific research conduct, peer review, and publication: An editor's perspective](#)

[How can something so small live so long?](#)

[Social isolation and loneliness increase cardiovascular disease in older women](#)

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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