

AGING BIOLOGY UPDATE

BROUGHT TO YOU BY THE
UAB NATHAN SHOCK CENTER OF EXCELLENCE
IN THE BASIC BIOLOGY OF AGING

Featured

[Identification of a new mitochondrial microprotein, SHMOOSE, with activity in the central nervous system and association with Alzheimer's disease](#)

[Better transposon regulation in fertile, long-lived termite queens than in sterile workers](#)

Headline vs Study

Headline: [Increasing longevity: Vigorous exercise 2 minutes a day may be enough](#)

Study: [Vigorous physical activity, incident heart disease, and cancer: how little is enough?](#)

Headline: ['Zombie cells' in the body tied to aging may actually help heal tissue damage](#)

Study: [Sentinel p16INK4a+ cells in the basement membrane form a reparative niche in the lung](#)

Headline: [New study reveals how the reproductive system can accelerate aging and worsen health](#)

Study: [Meiotic dysfunction accelerates somatic aging in *Caenorhabditis elegans*](#)

Headline: ["Unexpected" – scientists discover an anti-aging mechanism](#)

Study: [An intercellular transfer of telomeres rescues T cells from senescence and promotes long-term immunological memory](#)

Headline: [Drinking coffee linked to a longer lifespan](#)

Study: [The impact of coffee subtypes on incident cardiovascular disease, arrhythmias, and mortality: long-term outcomes from the UK Biobank](#)

Contrary or Null Findings

[Short sleep associated with increased risk of chronic disease but not death](#)

[Three sets of ineffective criteria for prescribing drugs in older people](#)

[Treatment with metformin in Danish patients with Type 2 diabetes did not improve survival compared to the general population without diabetes](#)

[Wizard of Oz munchkins did not live longer than normal size contemporaries](#)

Energetics/Nutrition

[Impact of aging and oxidative stress on mechanisms related to muscle weakness in mice](#)

[Modest level of resistance exercise and all levels of vigorous physical-activity associate with lower mortality in 65+ year old US adults](#)

[Muscle-strengthening exercise beneficial to health with or without aerobic physical activity](#)

[Lipid hydroperoxides and oxylipins are mediators of denervation induced muscle atrophy](#)

[Obesity paradox and aging: Older overweight people have the lowest death rates](#)

[Metabolomics of healthy centenarians from Bama County, China](#)

Review: [A new therapeutic target for obesity and its complications](#)

Basic Biology

[Early or late-life treatment with acarbose or rapamycin alters physical performance and cardiac structure in aging UM-HET3 mice](#)

[Blocking PD-L1-PD-1 improves senescence surveillance and aging phenotypes in human cells and mice](#)

[Intestine-specific removal of DAF-2 increases lifespan in *C. elegans* with little fitness cost](#)

[Lysosomal proteome contributes to senescent secretome](#)

[Age-associated changes in grip strength and tremors are ovarian somatic tissue-dependent, but germ cell and estradiol independent in 20-month-old CBA female mice](#)

[Continuous exposure to dim light during dark phase compromises immune response in aged female mice only](#)

[B cells from old, but not young, mice induce the generation of inflammatory T cells](#)

[9-month treatment with atorvastatin reduces cognitive decline in middle-aged male rats](#)

[Previous estradiol treatment alters interaction of brain IGF-1 signaling and estrogen synthesis enhancing cognition in a rat menopause model](#)

[Senescence-associated secretory phenotype and oral immune homeostasis](#)

[Partial reprogramming extends life and health in genetically short-lived mice](#)

Review: [Evaluating aging measures](#)

Review: [Lamin A to Z in normal aging](#)

Review: [Neutrophils and aging](#)

Review: [Role of inter-organelle communication in aging](#)

Review: [Potential role of DEK in AD & age-related dementias](#)

Review: [Mitophagy in the aging nervous system](#)

Review: [The exposome and environmental determinants of age-related diseases](#)

Review: [Targeting small heat proteins in neurodegenerative diseases](#)

Review: [Role of DNA sensor IFI16 proteins in modulating aging hallmarks](#)

Review: [Sexual dimorphism in insulin signaling](#)

Review: [High-fat diet and female fertility in mammals across the lifespan](#)

Review: [SGLT-2 inhibitors and longevity](#)

Ecology & Evolution

[A \$\beta\$ in Alzheimer's Disease: an evolutionary outcome of optimized innate immune defense?](#)

[Patterns and consequences of age-linked change in local relatedness in mammal societies](#)

[Step it up: evolution of human step counts and chronic disease](#)

Review: [Evolutionary approaches in aging research](#)

Novel Organisms/Comparative

[Sweet are the uses of adversity: anoxia hormesis improves longevity in mealworm beetles](#)

[Stem cell pool is reinforced in aged brain of CR-fed compared to overfed zebrafish](#)

[Telomere rate of change but not telomere length correlated with lifespan and mass-independent lifespan in 30 bird species](#)

[Automated feeding system for the African killifish reveals effects of dietary restriction on lifespan](#)

[Longevity of a solitary mole-rat species: implications for understanding naked mole-rat longevity](#)

Epidemiology/Demography

[Quality of life generally improving, but its complicated](#)

[Japan births at new low as population shrinks and ages](#)

[Getting better: age-related activity limitations declined in French >80 year-olds during 2008-2015](#)

[Social engagement in late life associates with reduced mortality in African Americans regardless of health](#)

[Combining analytical and machine learning tools to describe the aging process](#)

Clinical

[US Preventive Services Task Force recommends against hormone treatment for chronic conditions in postmenopausal persons](#)

[Morning influenza vaccination induces greater immune response than afternoon vaccinations](#)

[Healthy aging reflected in innate and adaptive immune parameters](#)

[Men and women differ in some, but not all, effectiveness measures in targeted clinical interventions in AD](#)

[Polypharmacy and dependency transitions: data from Newcastle 85+ study](#)

[Reproductive lifespan influences progression of Parkinson's disease in female, but not male, patients](#)

[Handgrip strength rather than chair stand test should be used to diagnose sarcopenia in geriatric rehabilitation inpatients](#)

Caregiving

[Structured student visits to nursing homes improves health of residents](#)

[Men are lonelier and less happy than women in nursing homes](#)

[Factors associated with gaps in care needed to maintain late life independence](#)

[Shaping policy to care for the caregivers](#)

Policy/Ethics

[Lies, damned lies and manipulated data](#)

[Aging, equality and human healthspan](#)

[National Academy of Medicine: Global roadmap for healthy longevity](#)

Commentary

[Menopausal hormone therapy for prevention of chronic conditions: when is enough, enough?](#)

[Early environmental adversity associated with accelerated epigenetic aging](#)

Odd and Ends

[Proceedings of a workshop on sex and gender differences in aging](#)

[Bird, but not dog and cat, ownership risky for older Europeans](#)

[But in Alabama, dog owners age better cognitively](#)

[Hygiene: Aging Japan upgrades men's restrooms with diapers](#)

[Who wants to live to 100 on a diet of lentil and broccoli slurry? Mostly rich men](#)

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

[Subscribe to this newsletter.](#)



NATHAN SHOCK CENTERS
OF EXCELLENCE IN THE
BASIC BIOLOGY OF AGING



Copyright © 2022 The University of Alabama at Birmingham, All rights reserved.
1701 2nd Ave S, Birmingham, AL, 35294 US

[Privacy Policy](#) | [Terms of Use](#) | uab.edu