

UAB THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

AGING BIOLOGY UPDATE

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

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Featured

[New mechanisms of blood-brain barrier disruption in aging mice](#)

[Rare IGF-1 coding variants with reduced IGF-1 activity identified in exceptionally long-lived humans](#)

Basic Biology

[Sex-specific decline in prefrontal cortex mitochondrial bioenergetics in aging baboons correlates with walking speed](#)

[Ganoderic acid A identified as a senotherapeutic via ribosomal homeostasis in worms and mice](#)

[Aged female laboratory mice did not display the profound loss of clonal diversity characteristic of human hematopoietic aging](#)

[Senolytics attenuate dysfunction of the aging brain of male but not female C57BL/6N mice](#)

[Reduced removal of waste products from energy metabolism implicated in human brain aging](#)

[Spermine alleviates doxorubicin-induced myocardial cell damage by inhibiting oxidative stress in rats](#)

[SIRT5 slows primate skeletal muscle ageing by alleviating inflammation](#)

[Is midlife a critical period for metabolic intervention in brain aging?](#)

[FOXM1 expression alters aging chromatin profiles in primary dermal fibroblasts](#)

[Cytokine surge in blood precedes cancer diagnosis in people >80 years](#)

[Social disadvantage accelerates proteomic signatures of aging](#)

Review: [Sex-specific mechanisms in vascular aging of mice and humans](#)

Review: [Time-of-day effects crucial for improving reproducibility and translation of metabolism research](#)

Clinical

[Adrenal cortex senescence: an ageing-related pathology?](#)

[Low score on multiple DNA methylation clocks associated with better physical function in oldest-old living in Singapore](#)

[Anti-retroviral therapy clinical trial for Alzheimer's disease](#)

[Gait changes with aging: an early warning sign for underlying pathology](#)

[COVID-19 booster makes male antibody responses comparable to females in nursing home residents](#)

[Age and cognitive skills: Use it or lose it?](#)

[Quick as a stick? A frailty metric based on plasma CRP, hemoglobin, albumin and vitamin D](#)

Review: [Examining the role of physical exercise to counteract cognitive aging](#)

Contrary/Null Results

[Cocoa flavanol supplement has no effect on occurrence or progression of age-related macular degeneration](#)

[Unmarried individuals may have a lower risk of dementia compared to married adults](#)

[Epigenetic age is not correlated with physical performance in aging captive baboons](#)

Meta-analysis: [No sex differences in the efficacy of treatments for Type 2 diabetes](#)

RCT: [Computerized-brain-training improves performance at computerized brain training](#)

RCT: [Multivitamins do not reduce cardiovascular events in people with chronic coronary disease, diabetes, and a previous MI](#)

RCT: [Little evidence of efficacy in social network intervention to address loneliness and social isolation](#)

RCT: [Metformin did not improve physical performance in frail or prefrail people](#)

Epidemiology/Demography

[Urban dwellers age more successfully than rural dwellers in China too](#)

[Proteomic organ-specific aging signatures and 20-year risk of age-related diseases](#)

[Sex differences in Apolipoprotein E and Alzheimer disease pathology across ethnicities](#)

[Disability-free life expectancy is a decade shorter in disadvantaged areas of England](#)

[Can patterns of medication use predict age-related neurodegenerative diseases?](#)

[Iron deficiency anemia-related mortality in older people increased from 2013 to 2019](#)

Energetics/Nutrition

[Surprise! 30 years of follow-up finds veggies good, fat and sugar bad, for healthy longevity](#)

RCT: [Daily protein-enriched lacto-vegetarian soup supplementation enhanced physical performance and functional assessments among older adults at risk of malnutrition and sarcopenia](#)

[Age, sex, and mitochondrial-haplotype influence rat gut microbiome composition and metabolites](#)

[Age-associated decline of host-microbiome metabolic interactions in male mice](#)

Review: [Health implications of meat-based diets](#)

Evolution/Comparative Biology

[Biological age based on common clinical values in cats, dogs, and humans predict mortality risk in dogs](#)

[Reproductive tradeoff with longevity over four centuries in Spanish women](#)

[Gene copy number in cancer-related pathways associated with cancer prevalence, but not longevity, in mammals](#)

Novel Organisms

[Long-term resveratrol supplementation provides health benefits to middle-age male mouse lemurs but has limited long-term effects on health and longevity](#)

[Genome assembly of *Arctica islandica*, the longest lived non-colonial animal species](#)

[Can adaptation to hypoxia explain the blind mole-rat's longevity and cancer resistance?](#)

Caregiving

[Do Europeans really feel better at home than in a nursing home? It's complicated](#)

[Who receives informal care: the role of multimorbidity and social position](#)

Policy

[Policy ideas to address U.S. rural population health in the 2020's](#)

[HHS proposes to eliminate notice and public comment on agency management, personnel, public property, loans, grants, benefits, and contracts and comment procedures of 5 U.S.C. 553, except as otherwise required by law](#)

Methodology

[Cities, communities and clinics can be testbeds for human exposome and aging research](#)

Commentary

[Postdocs and PhD students hit hard by sudden changes in US science funding](#)

[US PhD admissions decline in response to science funding cuts](#)

[Lysosomal stress for healthy aging](#)

Announcements

[The 2025 AFAR Vincent Cristofalo, George M. Martin, and Irving S. Wright AFAR Scientific Awards of Distinction](#)

[AGE 53rd Annual Meeting: New Frontiers in Aging Research, May 11-14, 2025 | AnchorAGE, Alaska USA](#)

Aging Biology Update is brought to you by the UAB Nathan Shock Center and compiled by Kathleen Fischer and Steven Austad. [Subscribe to this newsletter.](#)



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