

**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**

## **Featured**

[Whale's tale: improved DNA repair in long-lived bowhead whale](#)

## **Basic Biology**

[Inhibition of ISG15 prevents inflammation-dependent ovarian aging in mice](#)

[Sirt6 maintains youthful hepatic hydrogen sulfide \(H<sub>2</sub>S\) levels, a molecule linked to the benefits of caloric restriction, by regulating cystine uptake and methionine metabolism in male mice and human cells](#)

[Chemical modulation of gut bacterial extends \*C. elegans\*' life](#)

[Genomic and epigenomic variation in the dark genome of Alzheimer's disease](#)

[Cell-autonomous and non-cell-autonomous effects of Arginase 2 on cardiac aging](#)

[Activity and cognitive measures better predict age at death in female than male mice](#)

[Mouse cytotoxic T lymphocytes show sex-specific changes during aging](#)

[The natural history of thymic involution and peripheral T cell aging](#)

[Age-related changes in hematology of C57BL/6J and C57BL/6N strains differ](#)

[Humans show age- and sex-specific lipoprotein profiles with distinct inflection points](#)

Review: [Circadian system and aging](#)

Review: [GrimAge epigenetic-age acceleration is consistently correlated with frailty](#)

## **Energetics/Nutrition**

[Deletion of protein phosphatase 6 subunit SAPS3 improves health and extends lifespan of female and male mice](#)

[The protein phosphatase 6 subunit SAPS3 modulates lifespan by regulating metabolism](#)

[Higher levels of plasma polyunsaturated fatty acid are associated with higher odds of healthy aging](#)

[Metabolic and bariatric surgery associated with 75% reduction in mortality in septuagenarians in matched cohort study](#)

[Higher protein intake associated with reduced frailty incidence in middle-aged and older adults](#)

[Mind the gap: sex differences in athletic performance change across the lifespan](#)

Review: [Metabolic impact of endogenously produced estrogens across the lifespan](#)

Review: [How diet affects epigenetic aging](#)

### **Epidemiology/Demography**

[Unique variants affect epigenetic aging in African populations](#)

[Speaking in tongues: multilingualism protects against accelerated aging](#)

[Higher levels of C-reactive protein associated with cognitive impairment in aging men, but not women, with atrial fibrillation](#)

### **Clinical**

[SGLT2 inhibitors improve kidney outcomes](#)

[A single dose of RSV vaccine prevents RSV-associated hospitalization among older adults over two seasons](#)

[Higher physical activity associated with slower cognitive and functional decline in individuals with elevated amyloid](#)

[Mid-life hearing loss may be early indicator of brain aging and dementia](#)

Review: [Von Willebrand factor in aging and disease](#)

### **Women's Health and Aging**

[Physical activity has multiple health benefits for postmenopausal women even if they had previously been sedentary](#)

[Asian women with polycystic ovary syndrome appear to have slowed reproductive aging relative to women with normal ovaries](#)

[New analysis of Women's Health Initiative Clinical Trials on hormone replacement find it safe and effective for hot flashes/night sweats for women in their 50's, less so for older women](#)

[Elinzanetant: a nonhormonal option for treatment of menopause symptoms](#)

[Radiation may not improve survival in people with breast cancer](#)

[Bone health during aging starts in early adulthood](#)

Review: [Cardiovascular disease in women: understudied, underdiagnosed and undertreated](#)

## **Negative or Null Results**

[Sirolimus shows no clinical benefit or reduction in senescent cell markers in hematopoietic cell transplant recipients](#)

[RCT: Sixty days of NMN supplementation finds that NMN-induced increase in blood NAD is associated with increased red blood cell parameters but not other laboratory blood parameters](#)

[Genetic polymorphisms in androgen receptor do not correlate with measures of biological age](#)

## **Evolution/Comparative**

Perspective: [Oxytocin signaling proposed to be a developmental mechanism that biases energy allocation toward sustained parental investments, somatic maintenance, and stable affiliative networks, hallmarks of a slow life history strategy.](#)

[Famine imposed a measurable longevity cost of reproduction in a historical Finnish population](#)

Review: [Does early cognitive ability in Huntington's disease constitute antagonistic pleiotropy?](#)

## **Novel Organisms**

[Histone deacetylase inhibition extends lifespan in the rotifer \*Brachionus manjavacas\*](#)

[Average telomere length in hatchling sand lizards is associated with greater lifespan](#)

[Accelerated growth increases the somatic epimutation rate in European beech trees](#)

## **Resources**

[Biolearn: an open-source tool for evaluating aging biomarkers](#)

## **Care-giving**

[US health care workers experience poverty, food insecurity and housing instability](#)

[Serious illness motivates people to engage in advanced care planning](#)

[The hospice caregiving gap under Medicare](#)

Review: [Psychosocial interventions can reduce family caregivers' burdens when caring for people with dementia](#)

## **Policy/Ethics**

[Reconceptualizing aging societies: a global perspective](#)

[Visa policy will make healthcare shortages worse in underserved areas](#)

[Should workers in physically demanding jobs be able to retire early?](#)

[F.D.A. Will Remove Black Box Warnings From Hormone Treatments for Menopause](#)

[Mama Mia, here we go again: menopausal hormone therapy treatment on the rebound](#)

## **Commentary/Opinion**

Editorial: [Are GLP-1s the first longevity drugs?](#)

[100 unsolved problems in aging science](#)

[Menopause is predictable and inevitable, care for women's health during menopause is not](#)

[Does predicting who will fall tomorrow tell you who is frail today?](#)

**Odd and Ends**

[New record: 83 years of marriage](#)

[Vaccine Integrity Project: evidence-based, data- and volunteer-driven](#)

[China joins serious healthspan science](#)

[Could humans live to 150? Who would say such a thing?](#)

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



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