

# **AGING BIOLOGY UPDATE**

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

## **Featured**

[Women are credited less in science than men](#)

Two studies suggest low rates of aging and negligible senescence in some species of turtles ([one](#), [two](#), [commentary](#))

## **Headline vs Study**

Headline: [Researchers identify novel cellular process that help us understand the mechanisms of aging-related diseases](#)

Study: [GMAP is an Atg8a-interacting protein that regulates Golgi turnover in Drosophila](#)

## **Contrary or Null Findings**

[17alpha-estradiol does not adversely affect sperm parameters or fertility in male mice](#)

[Malnutrition fails to increase risk of mortality in the oldest old with COVID-19](#)

[Heterochronic parabiosis for three months fails to lengthen life in older, but shortens life in younger male mice](#)

## **Energetics/Nutrition**

[More older adults in Europe are consuming a Mediterranean diet than 10 years ago](#)

[Late onset caloric restriction improves lipid profiles but increases inflammatory markers in livers of old male rats](#)

[Long-term moderate to high intensity exercise improves perceived quality of life and enhances healthy nutrition compared to low-impact activity in older adults](#)

[Metabolomic profiles are associated with diet quality and decreased frailty in older adults](#)

[Review: Does diet influence aging? Evidence from animal studies](#)

[Review: Dietary interventions and molecular mechanisms for healthy musculoskeletal aging](#)

[Review: Can caloric restriction increase the number of centenarians?](#)

## **Basic Biology**

Two studies on the changes in clonal hematopoiesis with age ([one](#), [two](#))

[Canagliflozin supplementation is neuroprotective in older male but not female mice](#)

[Reproductive lifespan is extended by removal of fibrotic collagen from mouse ovaries](#)

[Novel genes with dysregulated expression in Alzheimer's disease](#)

[Surveying low-cost methods to measure lifespan and healthspan in worms](#)

[Isotopic labeling can determine metabolic changes with age in male fruit flies](#)

[Delaying eye aging can lead to organismal lifespan extension in female fruit flies](#)

[Overexpressing conserved essential genes in yeast can lengthen life](#)

[Serotonin and dopamine modulate worm aging in response to food odor and availability](#)

[Increased lysosomal lipolysis in fat can increase worm longevity](#)

[Psychosocial stress may accelerate immune aging](#)

[Genetic risk factors for complex disease and their association with longevity](#)

[Review: Measuring biological age using omics data](#)

[Review: Effects of age on extracellular vesicle characteristics](#)

[Review: Parkin: A potential target to promote healthy aging](#)

[Review: RNA modifications in aging-related diseases](#)

[Review: Blood pressure variability as a potential marker of aging](#)

## **Ecology & Evolution**

[Review: Evolution of aging in eusocial insects](#)

## **Novel Organisms/ Comparative**

[Tooth growth rings indicate maximum lifespan of 31 and 38 years for male and female Southern Hemisphere long-finned pilot whales, respectively.](#)

[Long-lived naked mole-rats and Damaraland mole-rats have low metabolic rates and rely on glycolysis more than oxidative phosphorylation for ATP synthesis](#)

[Increased expression of longevity-associated genes in aging skin of long-lived naked mole-rats](#)

[Unique stem and progenitor cell patterns in naked mole-rat hematopoiesis](#)

[Oxidative stressors elicit different age and sex responses in the splashpool copepod](#)

[Review: The Damaraland mole-rat as a model of human health and aging](#)

[Review: Long-term field studies to understand demography and maximum lifespan of bat species](#)

**Epidemiology/Demography**

[COVID-19 kills incarcerated people at almost 3-times the rate of the general population](#)

[Moderate alcohol use broadly reduces cardiovascular risk in middle-aged men](#)

[Short-term activity program achieved increases in physical activity and quality of life in low-income older adults, over 2 years of follow up](#)

[Racial-ethnic changes in life expectancy in the United States from 2000-2019](#)

[Optimistic older women live longer](#)

[Mild cognitive impairment more common in the socially isolated](#)

[Increased prostate cancer risk is associated with high circulating IGF-1](#)

[Light at night in older age is associated with obesity, diabetes, and hypertension](#)

**Clinical**

[Decreased risk of cancer-related deaths in middle-aged, obese adults after bariatric surgery](#)

[Increased risk of serious cognitive impairment in people with vision or hearing loss](#)

[Review: Long term cognitive function after cardiac arrest](#)

**Caregiving**

[Grandchildren as caregivers](#)

[Most older caregivers unaware of the potential health risks of caregiving](#)

[Review: Suicidal ideation is high in caregivers of people with dementia](#)

**Policy/Ethics**

[A playbook for effective age advocacy on Twitter](#)

[Policies needed to improve economic insecurity and reduce suicide rates in older adults](#)

**Commentary**

[Is it time to restructure the National Institutes of Health?](#)

**Odd and Ends**

[Hypothesis: Care-giving species and individuals naturally selected for better health](#)

[Achieving STEM diversity: Fix the classrooms](#)

[Southwest heat drives health fears](#)

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



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