

# AGING BIOLOGY UPDATE

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

## **Featured**

[Apoptotic stress causes mtDNA release during senescence and drives the SASP](#)

[Wild chimpanzees do have menopause](#)

## **Energetics/Nutrition**

[Obesity induces a senescent phenotype in adipose-derived stem cells](#)

[Calorie restriction modulates transcription of stress response and longevity genes in human muscle](#)

Preprint: [Caloric restriction promotes beta cell longevity](#)

## **Basic Biology**

[Spermidine enhances oocyte mitophagy and fertility in aged female mice](#)

[SIRT2 counteracts cardiac aging in cynomolgus monkeys](#)

[Female mouse pheromone impairs genome stability in male mice](#)

[Unique patterns in amino acid sequences of aging-related proteins](#)

[Knockdown of IM33 in glia alters gut microbiota composition and shortens lifespan in flies](#)

[Myeloid cell CD300f immune receptor contributes to healthy aging in mice](#)

[New mouse models to study the role of necroptosis in aging and age-related diseases](#)

[Reduction of RAD51-mediated homologous recombination triggers mouse aging](#)

[17 \$\alpha\$ -Estradiol Signals Primarily Through Nongenomic Mechanisms: Implications For Its Longevity Effects](#)

[Protein retention in the endoplasmic reticulum rescues A \$\beta\$  toxicity in flies](#)

[Spindle assembly checkpoint insensitivity allows meiosis-II in defective, aged mouse eggs](#)

[Glial-derived mitochondrial signals affect neuronal proteostasis and aging in worms](#)

[A small molecule that disrupts embryogenesis and extends \*C. elegans\* lifespan](#)

[Cellular correlates of protection against Alzheimer's disease](#)

Preprint: [Death-seq identifies regulators of cell death and senolytic therapies](#)

Preprint: [When a parasite improves \*Drosophila\* survival](#)

Review: [Combinatorial interventions in aging](#)

Review: [Actionable autophagy checkpoints in cardiovascular aging](#)

Review: [Sex steroids, disease risk and the female brain across the lifespan](#)

Review: Genome Instability and DNA Repair in Somatic and Reproductive Aging

Review: [Complex role of lysosome in cellular senescence](#)

[HALL: a comprehensive omics database of human longevity](#)

[AgeAnnoMO: a knowledgebase of multi-omics annotation for animal aging](#)

### **Epidemiology/Demography**

[Old-age, not mid-life, mortality increase drove life expectancy stagnation between 2010 and 2019 in the United States](#)

[Some measures of air pollution are linked to higher epigenetic aging in Black relative to White Americans according to some DNA methylation clocks](#)

[Healthy lifestyle in late-life, longevity genes, and life expectancy among older adults](#)

[The effect of neuter status on longevity in Rottweiler dogs](#)

[Single gene associated with longevity of Golden Retrievers](#)

[Herpes zoster and influenza vaccinations associated with lower risk of dementia diagnosis](#)

[New bone formation correlates with survival in the 1918 influenza pandemic](#)

Review: [Mendelian randomization identifies factors underlying early and late age at natural menopause](#)

## **Clinical**

[Yes, greater physical activity is good for the brain too](#)

[Optimum Dose of Resistance Exercise for Cardiovascular Health and Longevity: Is More Better?](#)

[Hilly neighborhoods associated with sedentary behavior, frailty and chronic disease status in older adults](#)

Op Ed: [Dietary strategies for healthy longevity](#)

Op Ed: [Senolytics: tools to mitigate age-related pulmonary disease](#)

Review: [Prevention and detection of adverse drug events in older emergency room patients](#)

Review: [Role of diet and exercise in aging, Alzheimer's disease, and other chronic diseases](#)

## **Evolution/Ecology**

[Social isolation shortens lifespan through oxidative stress in ants](#)

[Guppy telomere length is negatively correlated with sperm production](#)

[Microbes role in the evolution of life histories and aging in \*C. elegans\*](#)

[Can directional and kin selection explain the evolution of senescence?](#)

## **Novel Organisms/Comparative**

[Flight promotes longevity and antioxidant production in monarch butterflies](#)

[Is the African non-annual killifish, \*Fundulopanchax gardneri\*, actually non-annual?](#)

[Association between gene duplication and placental mammal lifespan](#)

[Aged Chinese tree shrew as model for Alzheimer's Disease](#)

[Weather and hibernation affect telomere dynamics in long-lived greater horseshoe bats](#)

[Oxidative damage varies in response to antigen challenges in greater mouse-eared bats](#)

[Linkage between oral-gut microbiomes and inflammaging in elderly pigs](#)

[Improved husbandry leads to longer life in captive marine mammals](#)

[Hundred year longevity of three species of freshwater buffalofishes \(\*Ictiobus\*\)](#)

### **Caregiving**

[Primary care workers vital for healthy longevity](#)

Review: [Prevalence of pain in nursing home residents with dementia](#)

### **Policy/Ethics**

[Majority of 50+ people disagree with life-expectancy-based cancer screening](#)

[Twenty-five years of aging research and innovation in the Living Lab](#)

### **Commentary**

Editorial: [Heat Waves & Climate Change: Implications for an Aging Population](#)

[The fountain of youth of mitochondrial research?](#)

[Palliative care can contribute to meaningful longevity for the frail elderly](#)

### **Odd and Ends**

[Religiosity does not prevent cognitive decline](#)

Review: [Development, regeneration and aging: a bizarre love triangle](#)

[Special Feature: Washington Post on U.S. life expectancy](#)

[The Economist: Living to 120: A special report on how to slow aging](#)

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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.

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