

# AGING BIOLOGY UPDATE

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

**Note: Due to the U.S. government shutdown, release of information on new publications has slowed.**

## **Featured**

[Sex specific life expectancy and all-cause mortality estimates for 204 countries 1950-2023](#)

[Healthy life expectancy estimates for 204 countries 1990-2023](#)

## **Basic Biology**

[Aging alters genomic instability variably by tissue at endogenous mutation hotspots in mice](#)

[Mice transgenic for human APOE variants show that age, not genotype, contributes most to differential brain transcriptome](#)

[Increased intestinal permeability predicts impending death in long- and short-lived mice](#)

[Intermittent treatment of old frail mice with ALK5 and oxytocin extended life and restored function in males only](#)

[Methodology: improved culture systems for 3D mesenchymal stem cell research](#)

## **Energetics/Nutrition**

[Ad lib-fed low-protein, high-carbohydrate diet diluted 25% with non-digestible fiber is as beneficial as traditional calorie restriction in mice](#)

[Larval versus adult dietary protein levels interact to impact fly longevity and fecundity](#)

[Meta-analysis: Time-restricted eating more effective than chronic calorie restriction for managing metabolic syndrome](#)

## **Epidemiology/Demography**

[The post-2010 stagnation of decline in cardiovascular disease deaths disproportionately limited longevity gains for Black Americans](#)

[More proteomics from participants in the UK biobank with some new possible drug targets](#)

[MRI-based multi-organ clocks for healthy aging and disease assessment](#)

[Can an Apple watch tell \*your\* time? An aging clock using passively collected data](#)

[Education level associates with better episodic memory even for those over age 90](#)

[Centenarians exhibit better cognitive function and slower cognitive decline than the rest of us](#)

### **Clinical**

[Benzodiazepine and antipsychotic use associated with substantial risk of mortality among people with dementia in hospice care](#)

Podcast: [Geroscience in Medicine](#)

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

Review: [Synthesizing current knowledge on how reproductive aging, normal reproductive phases and major reproductive dysfunctions influence women's long-term health](#)

[Women's stroke care and management is poor and needs to be improved](#)

### **Negative or Null Results**

[No association found between metformin usage and age-related macular degeneration](#)

[Neither statin nor aspirin exposure modified the negative effects of hormone replacement therapy on thrombotic outcome in the Women's Health Initiative](#)

[Men, not women, show greater age-related structural brain changes over time](#)

### **Evolution/Comparative**

[A decade of post-reproductive life observed in one-third of wild female gorillas](#)

[Distinct age-related changes in sex-chromosome-DNA methylation in female birds](#)

[Age-related decreases in transcriptome conservation occur in diverse animal taxa and tissues](#)

[Can evolution explain aspects of Parkinson's disease, Huntington's disease and Tourette syndrome?](#)

[Chimp ApoE is structurally close to human ApoE4 but differs in protein folding and developmental functions](#)

### **Novel Organisms**

[Parental age differentially affects offspring fitness in a wild population of lizards](#)

[Long-lived ant queens display lower metabolic rates and mitochondrial density, yet maintain higher cellular energy availability compared to workers](#)

[Dolphin longevity collapses over 12-year period in the Bay of Biscay](#)

[Prepupal diapause reduces adult lifespan in the solitary alfalfa leafcutter bee](#)

[Migratory female monarchs show unique post diapause gene expression patterns](#)

[linked to longevity](#)

[Neutered male dogs more susceptible to late-life frailty](#)

[Repeated experimental stressors do not shorten adult telomeres in a songbird](#)

### Caregiving

[A fate worse than death? States Worse Than Death survey reveals high congruence between family caregivers and healthy older adults](#)

### Policy/Ethics

[Medicare access in underserved communities decreased between 2013-2023 even though physician participation in Medicare increased](#)

### Commentary

[Forgotten people—medical research centered on overlooked and marginalized communities](#)

[NAD+ Supplements. Do They Work?](#)

### Odd and Ends

[If the hat fits, wear it: Modeling differences in patterns of head growth with aging in Chinese versus Caucasian population ages 5 -70](#)

[A 250-year-old potion for prolonging life: hype and nonsense about longevity is not new](#)

[Evolutionary simulation suggests aging as a loss of goal-directedness](#)

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Aging Biology Update is brought to you by the **UAB Nathan Shock Center** and compiled ***without AI***, by Kathleen Fischer and Steven Austad. [Subscribe to this newsletter](#).



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