

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

September ABU 2024

Featured

[Intermittent reduction of p21-highly-expressing cells extends health and life of older mice](#)

[Best proteomic aging clock yet predicts mortality and age-related disease risk in diverse populations](#)

[Goals and opportunities from Fourth Geroscience Summit](#)

Basic Biology

[Common transcription factor pattern for chromatin remodeling links maturation and aging](#)

[Pilot study of tolerability of 17 \$\alpha\$ -estradiol in male monkeys](#)

[Overexpression of FOXO target gene OSER1 extends life, and inhibition shortens life, in multiple invertebrate species](#)

[Mitochondrial transplantation reverses aging of mesenchymal stromal cells](#)

[Spermidine enables fasting-mediated autophagy and contributes to longevity in model organisms](#)

[Rejuvenation of gut microbiota by co-housing aged mice with young mice restored brain bile acid homeostasis and improved aged brain neurological function](#)

[Rubicon-WIPI axis regulates age-dependent changes in exosome quantity and quality in male mice](#)

[Guidelines for minimal information on cellular senescence experimentation *in vivo*](#)

[Astrocytes of aged mouse brains display morphologically damaged mitochondria along with functional alterations in mitochondrial respiration](#)

Review: [Lifespan-extending interventions upregulate oxidative phosphorylation and fatty acid oxidation enzymes in mice](#)

Preprint: [A second X chromosome improves cognition in aging male and female mice](#)

Clinical

RCT: [Semaglutide reduces cardiovascular and all-cause mortality in overweight subjects with established cardiovascular disease](#)

[Intrinsic capacity inversely related to recent falls in adults 80+ years old](#)

[A pragmatic approach to introducing translational geroscience into the clinic](#)

[Women less likely than men to be prescribed pain medication in emergency room visits](#)

[An opportunity for deprescribing: antiplatelet use in nursing home residents with atrial fibrillation](#)

[A new era in menopause management?](#)

CT: [Longitudinal, multiple vaccine comparison reveals age-related response patterns](#)

Review: [Pregnancy-induced physiological changes relevant to aging biology](#)

Review: [Can geroscience be translated into healthcare?](#)

Review: [Adipose tissue and sarcopenia in elderly people](#)

Epidemiology/Demography

[US Inequalities in lifespan by social determinants of health](#)

[Despite increasing over time, the prevalence of meeting physical activity guidelines remains low among older Americans](#)

[Impact of early-life malaria on lifespan differs by ethnicity](#)

[Intergenerational transmission of lifespan and longevity in US cohorts born between 1700 and 1900](#)

[Leading causes of death in the US, 2019-2023](#)

[Homicide is leading contributor to disparities in life expectancy between Black and White American males during COVID-19 pandemic](#)

Preprint: [Descendants of long-lived siblings exhibit health advantages in the perinatal period](#)

Energy/Nutrition

[Female mice selected for high running behavior, but not controls, run less on 40% food restriction](#)

[Effects of high fat diet on metabolic health vary by age of induced reproductive cessation in female mice](#)

[Uncoupling reproduction and lifespan extension during methionine restriction in flies](#)

[How do variations in nutrient levels influence cellular lifespan—insights from yeast](#)

[Mitochondrial background can explain variable costs of immune deployment in flies](#)

Contrary/Null Results

RCT: [Secondary analysis also shows no effect of rapamycin on overall survival or recurrence-free survival of post-surgical kidney cancer patients](#)

[Short physical performance battery does not predict risk of falling or injurious falls in elders](#)

[Age-related differences in body composition in obese individuals are not reflected in BMI](#)

Evolution/Comparative Biology

[Convergent genomic signals associated with high metabolism and longevity in birds and bats](#)

[A unique feature of human brain aging in great ape evolution](#)

[New longevity gene identified through evolutionary rate covariation of insect mitochondrial and nuclear genomes](#)

[Body size and lifespan may be uncoupled in Jurassic mammals](#)

[How old is aging?](#)

Review: [Seasonal telomere length dynamics in hibernating mammals](#)

Preprint: [Diversity in p53-mediated regulation of longevity across taxonomical orders](#)

Preprint: [Lifespan and healthspan of nonhuman primates in biomedical research](#)

Novel Organisms

[The longest living gannet, a seabird](#)

[Sex-specific social aging in wild African lions](#)

[Flight distance and duration increase with age in the bumblebee *Bombus terrestris*](#)

[Aging, oxidative stress and locomotion in a leaf-cutting bee, *Megachile rotundata*](#)

[Cumulative adversity and survival in wild marmots](#)

[Selection for late reproduction leads to loss of complex I mitochondrial capacity and increased lifespan in a seed beetle](#)

[Wolbachia-infection extends lifespan of worker, but not queen, pharaoh ants](#)

[DNA damage and telomere length in long-lived and short-lived parrots](#)

Caregiving

[Lucidity in the midst of dementia: perspectives from family and professional caregivers](#)

Review: [Five books on caregiving](#)

Commentary

[Translation is a constraint on protein homeostasis in aging](#)

[Sex-bias and sex differences in preclinical animal models of osteoarthritis](#)

[Can aging be stopped? A conversation with Venki Ramakrishnan](#)

[Great expectations: the strange craze for translational research on aging](#)

Policy/Opinion

[Why we need the National Institute on Aging more than ever](#)

[Progress in clinical and behavioral research at the National Institute on Aging](#)

[The National Institute on Aging role in transformative geroscience](#)

[Leading health-related concerns of older adults: surprise! Cost](#)

[Advantages and disadvantages of using geriatric mice to test possible health-extending interventions](#)

Odds and Ends

[The right stuff: supercentenarian reflect on what it takes to live past 110](#)

[Elder care and blended families](#)

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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