

AGING BIOLOGY UPDATE

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

Featured

[Changes in total daily energy expenditure across the human lifespan](#)

[Increased VEGF signaling lengthens mouse life](#)

Upcoming conference of interest:

[2nd Euro Geroscience Conference in Toulouse, France](#)

Headline vs study

Headline: [Doctors claim to have discovered how to reverse cell aging](#)

Study: [Peripheral B-cells repress B-cell regeneration in aging through TNFalpha/IGFBP-I/IGF1 immune-endocrine axis](#)

Contrary or Null Findings

[No association with optimism and risk of mortality in older adults](#)

[No association of age at menarche or menopause on risk of Alzheimer's disease](#)

[Rapamycin supplementation negatively effects bone health in adult mice](#)

[IGF-I knockdown leads to impaired cerebrovascular health in mice](#)

Energetics/Nutrition

[Aging and exercise: does exercise increase daily energy expenditure?](#)

[High dietary flavonoid intake correlates with decreased risk of cognitive decline](#)

[Extreme obesity but longer life and protection from metabolic disease in FBF1 knockout mice on high fat diet](#)

[Effects of time-restricted feeding of a Western diet are both age and sex dependent in C57BL/6 mice](#)

[Low protein intake improves wound healing in young adult male mice](#)

[Metabolic rates are similar between worker and long-lived queen honeybees, but queens have different fatty acid membrane compositions](#)

[Pickleball as an intervention to improve physical function and cognition in older adults](#)

[Higher mortality risk from nutritional frailty compared with physical or cognitive frailty](#)

[Diets associated with dilated cardiomyopathy in dogs](#)

[Review: White adipose dysfunction in obesity and aging](#)

[Review: Nutrition and frailty](#)

Basic Biology

[How many mice will I need?](#)

[Heritability of nine common diseases decreases with age](#)

[Age-related changes in proteome ubiquitination and longevity in worms](#)

[Enrichment of novel bile acid biosynthetic pathways in the microbiome of centenarians](#)

[Fecal transplants from young to old male mice improves immune function and cognition](#)

[Higher circulating omega-3 fatty acids associate with improved blood brain barrier function in older adults](#)

[Extracellular matrix homeostasis as a marker of lifespan extending compounds in worms](#)

[Pre-weaning antibiotic exposure shortens life in male mice depending on later life microbiome](#)

[Main genetic variants associated with human menopause also affect reproductive aging in mice](#)

[Describing sex and age effects on the circulating immunocyte transcriptome](#)

[Changes in gait signatures as markers of end of life in mice](#)

[Genetic factors associated with frailty linked to expression in the brain](#)

[Review: The degree of frailty as a measure of health](#)

[Review: Procaine less bogus than thought?](#)

[Review: Retrotransposable elements in aging](#)

[Review: Endoplasmic reticulum stress response in cellular aging and Alzheimer's](#)

[Review: Autophagy in human disease](#)

[Review: Hallmarks of lens aging](#)

[Review: Sex differences in frailty](#)

[Review: The role of cellular senescence in type II diabetes](#)

[Review: tRNA-derived fragments in aging](#)

[Review: Maintaining proteostasis under mechanical stress](#)

[Review: Healthy aging and the blood-brain barrier](#)

Ecology & Evolution

[Is circulating insulin-like growth factor 1 concentration antagonistically pleiotropic?](#)

[New evolutionary convergence rate analysis program discovers novel gene sets evolving with longevity](#)

[Genetic variation effects on longevity costs of reproduction](#)

[Review: Cancer evolution: Darwin and beyond](#)

Novel Organisms/Comparative

[Larger speckled cockroaches are longer lived than smaller individuals](#)

[Changes in the microbiome with age in yaks](#)

[Amyloid-beta levels in the companion dog brain correlate with canine cognitive dysfunction scores](#)

[Evidence of immunosenescence and inflammaging in a natural population of great tits](#)

[Episodic-like memory is preserved with age in cuttlefish](#)

[Age-related changes in the microbiome of companion dogs](#)

[Big dogs die sooner and die from cancer](#)

[Is there tree senescence? The fecundity evidence](#)

[New book: The extraordinary biology of the naked mole rat](#)

[The killifish visual system as a model to study brain aging and rejuvenation](#)

[Review: Fish models of human disease](#)

[Review: Telomeres and bat longevity](#)

[Review: Aging in non-model vertebrate animals](#)

Epidemiology/Demography

[50% of Canadian older adults may be taking potentially inappropriate medications](#)

[Widening of longevity gap between high and low education groups](#)

Clinical

[Older cancer survivors have reduced physical function compared to those without a history of cancer](#)

[Blood markers of aging rate predict mortality in COVID-19 patients better than chronological age](#)

Policy/Ethics

[The economic benefits of targeting aging](#)

[Aging in the 21st century](#)

[Regulatory changes needed to maintain stability in the life insurance sector](#)

[Mental health services for autistic individuals across the lifespan](#)

Commentary

[Centenarians may hold a key to continued rise of human longevity](#)

[Potential for companion animal aging research in China](#)

[Learning from centenarians who survive COVID-19](#)

[Yoga for healthy aging](#)

[Geroscience approaches to women's health in an aging world](#)

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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