

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**

Featured

[bioRxiv: Understanding dietary restriction requires dietary reaction norms](#)

Headline vs Study

[Headline: Running a marathon could help you live longer](#)

[Study: Training for a first-time marathon reverses age-related aortic stiffening](#)

[Headline: Study reveals a new way that stress and aging lead to Alzheimer's](#)

[Study: The epichaperome is a mediator of toxic hippocampal stress and leads to protein connectivity-based dysfunction](#)

Contrary or Null Findings

[Intestinal barrier function is maintained in healthy older adults](#)

[The dietary supplement and creatine analog \$\beta\$ -guanidinopropionic acid fails to lengthen life in worms](#)

[Lack of reproducibility of 3 biomarkers of Alzheimer's disease](#)

[No effect of walnut consumption on cognitive decline: Two year randomized controlled trial](#)

[Every other day feeding exacerbates neuronal deficits in an Alzheimer's mouse model](#)

Energetics/Nutrition

[Acarbose supplementation improves survival of Apc +/-min male mice](#)

[Ten days of bed rest leads to impaired mitochondrial energetics in older adults](#)

[Nrf2 knockout male mice are shorter lived than wildtype animals when ad lib fed, but calorie restriction restores longevity to wildtype level](#)

[Calorie restriction induced changes in metabolism play a role in delayed skeletal muscle aging in rhesus monkeys](#)

[Supplementation of probiotic protects against alpha-synuclein aggregation in worms](#)

[Review: Genes required for lifespan-extending effects of calorie restriction](#)

[Review: mTOR in nutrition, growth, aging, disease](#)

Basic Biology

[Intestinal stem cell aging is driven by mTORC1](#)

[Age-associated mitochondrial dysfunction accelerates plaque buildup in arteries in mice](#)

[Cysteine toxicity drives age-related mitochondrial decline in yeast](#)

[Glial cells can regulate endoplasmic reticulum stress resistance and longevity in worms](#)

[bioRxiv: Blood-based biomarker of aging of mice](#)

[Activation of the neuronal endoplasmic reticulum unfolded protein response increases lifespan in worms independently from chaperone induction](#)

[Novel loci associated with human healthspan](#)

[Proteomic atlas of senescence associated secretory markers in human cells](#)

[Celsr1a knockdown displays an early aging phenotype in zebrafish](#)

[Four distinct aging modules determined by longitudinal changes in multiple "omics" markers](#)

[Review: Targeting tryptophan metabolism to promote longevity and healthspan](#)

[Review: Neuroendocrine aging of non-human primates](#)

[Review: Bring back the rat!](#)

Ecology & Evolution

[Male sparrows respond less aggressively to the songs of old versus young males](#)

[Number of CD33rSIGLEC genes strongly correlates with reproductive lifespan across species](#)

Novel Organisms/ Comparative

[Naked mole rats maintain mRNA splicing regulation throughout their lifespan](#)

[Red-crowned crane genomics identifies multiple genes under positive selection associated with longevity and metabolism](#)

[Longevity of surfclams](#)

[No sex differences in survival in meerkats](#)

[Longevity mechanisms of the ginkgo tree](#)

[Review: Non-human primates as models of Alzheimer's disease](#)

Epidemiology/Demography

[Cancer deaths have declined 29% from 1991-2017](#)

[Alcohol related deaths increased 51% from 1999-2017](#)

[Menopause before age 40 is associated with increased risk of multimorbidity in later life](#)

[Low socioeconomic status and poor health condition in childhood are associated with late-life frailty](#)

[Exposure to nature may reduce the risk of cognitive impairment in non-APOE e4 carriers](#)

[Vegans don't live longer, it just seems that way](#)

[Review: Air pollution and skin aging](#)

Clinical

[Weak predictive power of a mid-life dementia risk score](#)

[Sleep tight, stay healthy](#)

Care-giving

[Older homeless adults as caregivers](#)

Commentary

[Older people need geriatricians: Where will they come from?](#)

Odd and Ends

[Podcast: The aging clinician](#)

[Cognitive testing of older clinicians prior to recredentialing](#)

[The joy of gardening in later life](#)

[Could changes in body temperature drive increases in longevity? Mean body temperature has decline significantly over the last 150 years](#)

Aging Biology Update is brought to you by the UAB Nathan Shock Center and compiled by Jessica Hoffman, Steven Austad, Ashley Turner, Heather Patterson, Katelynn Corder, and Ana Sogorovic. [Subscribe to this newsletter.](#)