

---

# Event Agenda

American Aging Association Annual Meeting

---

## Sunday, May 11, 2025

12:00 PM - 5:00 PM

**Registration Opens**

1:00 PM - 3:30 PM

**Nathan Shock Center Symposium**

Location: Tikahtnu Ballroom

**Introduction**

1:00 PM - 1:30 PM

Speaker: Steven Austad

**Pilot Grantee Presentations**

1:30 PM - 3:30 PM

**Vivek Kumar: Automated assessment of frailty in mice using machine vision**

1:30 PM - 1:45 PM

Speaker: Vivek Kumar

**Andrey Parkhitko: Targeting Age-Related Metabolic Dysfunction to Extend Healthspan**

1:45 PM - 2:00 PM

Speaker: Andrey Parkhitko

**Nicolas Lehrbach: Deciphering the roles of Nrf transcription factors in stress responses and longevity**

2:00 PM - 2:15 PM

Speaker: Nicolas Lehrbach

**Stefanie Krick: Mechanisms of Aging in the Cystic Fibrosis Lung**

2:15 PM - 2:30 PM

Speaker: Stefanie Krick

**Marisol Castillo-Castrejon: Estrogen deficiency modifies B cell molecular phenotype and immune cell responsivity: evidence from mice to women**

2:30 PM - 2:45 PM

Speaker: Marisol Castillo-Castrejon

**Wei Chen: Calciprotein Particles and Vascular Aging**

2:45 PM - 3:00 PM

**Caroline Kumsta: Increased Autophagy Flux in Aging May be Reversed by Exercise**

3:00 PM - 3:15 PM

Speaker: Caroline Kumsta

**Panel Discussion and Q&A**

3:15 PM - 3:30 PM

4:30 PM - 5:30 PM

**Trainee Roundtable Panel Discussion**

Location: Tikahtnu Ballroom

Chair: Agnieszka Borowik, Christina Stevens ; Panelist: Arik Davidyan, Jessica Young, Daniel Promislow, Gavin Pharaoh

5:30 PM - 7:30 PM

**Opening Welcome Reception**

Location: Foyer & Terrace

---

## Monday, May 12, 2025

7:30 AM - 8:30 AM

**Breakfast**

Location: Tikahtnu Ballroom

8:20 AM - 8:30 AM

**Opening Remarks**

Location: Tikahtnu Ballroom

Speaker: Benjamin Miller

8:30 AM - 10:00 AM

**Session 1: Primate and Translation**

Location: Tikahtnu Ballroom

Chair: Adam Salmon ; Co-Chair: Daniel Adekunbi ; Speakers: Noah Snyder-Mackler, Ricki Colman, Aaron Berkowitz, Brett Frye

**Environmental modifiers of molecular aging within and across individuals**

8:30 AM - 8:50 AM

Speaker: Noah Snyder-Mackler

**Mediterranean Diet Promotes Stress Resilience, Protects Against Inflammation, and Slows Aging in a Multi-System, Randomized, Long Term Nonhuman Primate Trial**

8:50 AM - 9:10 AM

Speaker: Brett Frye

**Calorie restriction and beyond: Oh! the places we can go with rhesus monkeys**

9:10 AM - 9:30 AM

Speaker: Ricki Colman

**The Sex Dimorphism of Skeletal Muscle Aging in Rhesus Monkeys**

9:30 AM - 9:50 AM

Speaker: Aaron Berkowitz

10:00 AM - 10:30 AM

**Break**

Location: Foyer

10:30 AM - 12:00 PM

**Session 2: Hormonal Aging**

Location: Tikahtnu Ballroom

Chair: Holly Brown-Borg ; Co-Chair & Speaker: Mina Peyton ; Speakers: Yu-Hua Tseng, Erin Hascup, Cassandra McGill, Victor Ansere

**Phosphoproteomic Changes in Aging Estrogen Deficient Female Mice**

10:30 AM - 10:50 AM

Speaker: Mina Peyton

**Protection against APOE4-associated aging phenotypes with the longevity-promoting intervention 17a-estradiol: Impact of sex**

10:50 AM - 11:00 AM

Speaker: Cassandra McGill

**The Role of Lipid Metabolites in Systemic Metabolism**

11:00 AM - 11:20 AM

Speaker: Yu-Hua Tseng

**Sex reversal mouse model to study hormonal regulation of microglia aging**

11:20 AM - 11:30 AM

Speaker: Victor Ansere

**The influence of sex on brain function, behavior, and metabolism**

11:30 AM - 11:50 AM

Speaker: Erin Hascup

12:00 PM - 1:00 PM

**Public Lecture - Geroscience and the extension of healthspan**

Location: Tikahtnu Ballroom

Speaker: Daniel Promislow

12:00 PM - 1:00 PM

**Lunch On Your Own**

12:00 PM - 1:00 PM

**GeroScience Editorial Board Meeting/Publication Award Ceremony**

Location: K'enahtnu 6

1:00 PM - 2:00 PM

**Cristofalo Award Lecture: Quantification of Biological Aging**

Location: Tikahtnu Ballroom

Speaker: Daniel Belsky

2:00 PM - 3:30 PM

### Session 3. Redox Biology and Aging

Location: Tikahtnu Ballroom

Chair: Holly Van Remmen ; Co-Chair: Ethan Ostrom ; Speakers: David Marcinek, Ann Chiao, Weronika Zarzycka, Jasmine Liu, Ajay Bhat

#### **Mechanistic insights from age-related mitochondrial interactome dynamics**

2:00 PM - 2:23 PM

Speaker: David Marcinek

#### **Microbial evolution to stress enhances host resilience and lifespan through metabolic reprogramming**

2:24 PM - 2:41 PM

Speaker: Ajay Bhat

#### **The role of mitochondrial NAD<sup>+</sup> transporter SLC25A51 in cardiac function and aging**

2:42 PM - 3:05 PM

Speaker: Ann Chiao

#### **Overexpression of SLC25A51 restores mtNAD<sup>+</sup> levels and NAD<sup>+</sup>-dependent PTMs in old mouse hearts**

3:06 PM - 3:18 PM

Speaker: Weronika Zarzycka

#### **Identification of GOT1 as a novel regulator of mitochondrial homeostasis**

3:19 PM - 3:30 PM

Speaker: Jasmine Liu

3:30 PM - 4:00 PM

### Break

Location: Foyer

4:00 PM - 5:30 PM

### Session 4. Mitochondria and Aging (Trainee Chapter Session)

Location: Tikahtnu Ballroom

Chair: Agnieszka Borowik ; Co-Chair: Gavin Pharaoh ; Speakers: Mariya Sweetwyne, Robert Musci, Hanane Hadj-Moussa, Nunaya Polycarp, Abigail Williamson

#### **Kidney as a model of cell-specific approaches in aging mitochondrial dysfunction**

4:00 PM - 4:20 PM

Speaker: Mariya Sweetwyne

#### **Re-engineering acetyl coenzyme A metabolism achieves constitutive healthy ageing**

4:20 PM - 4:35 PM

Speaker: Hanane Hadj-Moussa

#### **Assessing skeletal muscle mitochondrial DNA synthesis, quantity, and quality in aged rats**

4:35 PM - 4:55 PM

Speaker: Robert Musci

#### **B12 SUPPLEMENTATION IMPACTS MITOCHONDRIAL BIOLOGY AND SKELETAL MUSCLE PHYSIOLOGY IN AGED FEMALE MICE**

4:55 PM - 5:10 PM

Speaker: Abigail Williamson

#### **Targeting FKBP<sub>s</sub> to regulate mitochondrial function to impact aging**

5:10 PM - 5:25 PM

Speaker: Nunaya Polycarp

5:30 PM - 6:00 PM

## Poster Pitch Session I

Location: Tikahtnu Ballroom

### **PP1. The Protective Gene APOE2 Enhances Pericyte Function via Efficient Lipid Metabolism**

5:30 PM - 6:00 PM

Speaker: Rais Reskiawan Kadir

### **PP2. Functionally diversified BiP orthologs control body growth, reproduction, stress resistance, aging, and ER-Phagy in *Caenorhabditis elegans***

5:30 PM - 6:00 PM

Speaker: Nick Urban

### **PP4. Implicating Impairment of Plasma Membrane Potential as a Feature of Aging**

5:30 PM - 6:00 PM

Speaker: Adam Hruby

### **PP5. Metabolomic ageing (MileAge) at mid-life predicts incident dementia**

5:30 PM - 6:00 PM

Speaker: Julian Mutz

### **PP6. 17 $\beta$ -estradiol elicits metabolic benefits in male mice independently of aromatase**

5:30 PM - 6:00 PM

Speaker: Roberto Santin-Marquez

### **PP7. Consequences of overactive PDGFR $\alpha$ and PDGFR $\beta$ signaling on skeletal muscle function and metabolism**

5:30 PM - 6:00 PM

Speaker: Mariola Gimla

### **PP8. Proteomic biomarkers are better for predicting age group, and sex using Random Forest compared to metabolomics and lipidomics in heterogenous OKC-HET rats.**

5:30 PM - 6:00 PM

Speaker: Hoang Van Nguyen

### **PP9. Neuronal mTORC1 is a key driver of A $\beta$ -induced cognitive dysfunction**

5:30 PM - 6:00 PM

Speaker: Stacy Hussong

### **PP10. Tissue resident macrophages contribute to ovarian aging**

5:30 PM - 6:00 PM

Speaker: Ewa Poljanska

### **PP00. Genetically bypassing mitochondrial dysfunction cell non-autonomously in *C. elegans***

5:30 PM - 6:00 PM

Speaker: Carmen Ramos

### **PP85. PTGER2-related network of mitochondrial dysfunction and inflammatory response in human monocytes and development of aging-related diseases**

5:30 PM - 6:00 PM

Speaker: Jingzhong Ding

5:59 PM - 8:00 PM

## Virtual Posters

### Age-related changes in DNA methylation networks

5:59 PM - 8:00 PM  
Speaker: Evans Cheruiyot

### The cardio-splenic axis: A key pathway linking doxorubicin-induced immunosenescence to hypertension-associated cardiomyopathy

5:59 PM - 8:00 PM  
Speaker: Mary Raphael Daniel

### ROS targeted new synthetic molecule improves mitochondrial function while reducing cellular senescence in vitro and in vivo.

5:59 PM - 8:00 PM  
Speaker: Chathurika Henpita

### Experimental application of in silico drug repurposing for improving life-span and health span

5:59 PM - 8:00 PM  
Speaker: Byungju Kim

### Associations Between Air Pollution and Markers of Neuroinflammation, Synaptic Dysfunction and AD Pathology by APOE Genotype

5:59 PM - 8:00 PM  
Speaker: Kana Kimura

### Chromosomal Sex Effects of TREM2-R47H on the Skeletal System in Gonadal Male and Female Four Core Genotypes Mice at 4 and 5.5 Months

5:59 PM - 8:00 PM  
Speaker: Gabriel Ramirez

### Low Protein Diet-Induced Changes in the Aging Murine Microbiome

5:59 PM - 8:00 PM  
Speaker: Prerana Vaddi

### Systemic deficits in lipid homeostasis promote aging-associated impairments in B cell progenitor development

5:59 PM - 8:00 PM  
Speaker: Silvia Vicenzi

### Aging-Associated Epigenetic Reprogramming Alters Germinal Center Reactions and Targets Pathways Linked to Lymphomagenesis

5:59 PM - 8:00 PM  
Speaker: Nahuel Zamponi

### A quantitative approach to measure inflammaging within stem cells

5:59 PM - 8:00 PM  
Speaker: Pradeep Ramalingam

### Decoding the chaperone code in ALS

5:59 PM - 8:00 PM  
Speaker: Yevheniia Bushman

### Walking Speed and Brain Connectivity in Older Adults

5:59 PM - 8:00 PM  
Speaker: Nathan Stiehl

6:00 PM - 8:00 PM

## Poster Session I & Trainee/Faculty Mixer

Location: Tikahtnu Ballroom

### PP1. The Protective Gene APOE2 Enhances Pericyte Function via Efficient Lipid Metabolism

6:00 PM - 8:00 PM  
Speaker: Rais Reskiawan Kadir

### PP2. Functionally diversified BiP orthologs control body growth, reproduction, stress resistance, aging, and ER-Phagy in Caenorhabditis elegans

6:00 PM - 8:00 PM  
Speaker: Nick Urban

### PP4. Implicating Impairment of Plasma Membrane Potential as a Feature of Aging

6:00 PM - 8:00 PM  
Speaker: Adam Hruby

### PP5. Metabolomic ageing (MileAge) at mid-life predicts incident dementia

6:00 PM - 8:00 PM  
Speaker: Julian Mutz

### PP6. 17 $\beta$ -estradiol elicits metabolic benefits in male mice independently of aromatase

6:00 PM - 8:00 PM  
Speaker: Roberto Santin-Marquez

### PP7. Consequences of overactive PDGFR $\alpha$ and PDGFR $\beta$ signaling on skeletal muscle function and metabolism

6:00 PM - 8:00 PM  
Speaker: Mariola Gimla

### PP8. Proteomic biomarkers are better for predicting age group, and sex using Random Forest compared to metabolomics and lipidomics in heterogenous OKC-HET rats.

6:00 PM - 8:00 PM  
Speaker: Hoang Van Nguyen

### PP9. Neuronal mTORC1 is a key driver of A $\beta$ -induced cognitive dysfunction

6:00 PM - 8:00 PM  
Speaker: Stacy Hussong

**PP10. Tissue resident macrophages contribute to ovarian aging**

6:00 PM - 8:00 PM

Speaker: Ewa Poljanska

**PP00. Genetically bypassing mitochondrial dysfunction cell non-autonomously in *C. elegans***

6:00 PM - 8:00 PM

Speaker: Carmen Ramos

**PP85. PTGER2-related network of mitochondrial dysfunction and inflammatory response in human monocytes and development of aging-related diseases**

6:00 PM - 8:00 PM

Speaker: Jingzhong Ding

**24. Investigating the role of age-associated immune suppression on CD44-mediated liver cancer initiation.**

6:00 PM - 8:00 PM

Speaker: Armin Aabish Gandhi

**26. Sex-specific decline in prefrontal cortex mitochondrial bioenergetics in aging baboons correlates with walking speed**

6:00 PM - 8:00 PM

Speaker: Daniel Adekunbi

**27. Machine learning for quantification of behavior in rodent models of aging and Alzheimer's disease.**

6:00 PM - 8:00 PM

Speaker: Joy Afolabi

**28. Subcutaneous Adipose Tissue-Secreted Proteins as Endocrine Regulators of Physical and Cognitive Function in Older Adults**

6:00 PM - 8:00 PM

Speaker: Cheehoon Ahn

**29. Astrocytic regulation of neuronal lipid metabolism**

6:00 PM - 8:00 PM

Speaker: Mariyam Akter

**31. Hedgehog signaling converges with HAP40 to control intestinal aging and disease**

6:00 PM - 8:00 PM

Speaker: Jennifer Alexander

**32. Investigating the molecular mechanisms through which age-associated neuronal lysosomal dysfunction promotes synaptic dysfunction**

6:00 PM - 8:00 PM

Speaker: Manuel Alvarez

**33. Age- and Sex-related Differences in Adaptation Response to Work-Normalized Exercise Training**

6:00 PM - 8:00 PM

Speaker: Niloufar Amiri

**34. A Human Neuron Alzheimer's Disease Model Reveals Non-Selective Cytotoxicity as a Potential Barrier for Senolytic Translatability**

6:00 PM - 8:00 PM

Speaker: Julie Andersen

**36. Unraveling protective mechanisms of aging: A new role for histone chaperone HIRA**

6:00 PM - 8:00 PM

Speaker: Rouven Arnold

**37. Candida auris: A growing threat to the elderly**

6:00 PM - 8:00 PM

Speaker: Hossam Ashour

**38. Identifying and Characterizing Small Molecules that Selectively Target Senescent Macrophages**

6:00 PM - 8:00 PM

Speaker: Itzetl Avila

**40. Assessment of Anti-Cataract and Pro-Longevity Properties of Flavonoids**

6:00 PM - 8:00 PM

Speaker: Rilee Bahner

**41. Cellular senescence is a central driver of cognitive disparities in aging.**

6:00 PM - 8:00 PM

Speaker: Matthew Baier

**42. Linking single-cell profiling to functional validation: Age and sex impact neutrophil metabolism, migration, and response to acute infection**

6:00 PM - 8:00 PM

Speaker: Clayton Baker

**43. Linking lipid turnover, senescence and endothelial dysfunction in age-related vascular cognitive impairment**

6:00 PM - 8:00 PM

Speaker: Priya Balasubramanian

**45. SCALIWAG: The Single Cell Aging Library With A Genome Browser**

6:00 PM - 8:00 PM

Speaker: Joshua Bartz

**48. An atlas of brain aging in the naturally short-lived African turquoise killifish reveals a conserved role for glucocorticoid signaling**

6:00 PM - 8:00 PM

Speaker: Bérénice Benayoun

**49. Using AI To Evaluate Resilience to Aging in Non-Human Primates**

6:00 PM - 8:00 PM  
Speaker: Robert Bennett

**50. Rapamycin 2.0: Case examples of rationale polypharmacy with rapid optimization using human biomarkers**

6:00 PM - 8:00 PM  
Speaker: Jon Berner

**51. Does a Gero-protective drug in *C. elegans* alter aging rate indicators in mice?**

6:00 PM - 8:00 PM  
Speaker: Safa Beydoun

**52. The Role of IGF-1 Signaling in Smooth Muscle Cells in Age-Related Brain Microvascular Fragility**

6:00 PM - 8:00 PM  
Speaker: Marisa Bickel

**53. Age-related changes in the rat ovarian transcriptome at single-cell resolution**

6:00 PM - 8:00 PM  
Speaker: Subhasri Biswas

**54. Evaluating 1,600+ epigenetic proxies for predicting age-related disease and responsiveness to anti-aging interventions across 100+ datasets using translAge.**

6:00 PM - 8:00 PM  
Speaker: Daniel Borrus

**55. Mapping the interactions of dietary macronutrients and sex on aging in mice**

6:00 PM - 8:00 PM  
Speaker: Amanda Brandon

**56. Cardioprotective Effects of the Novel Mitochondria-Targeted Compound SBT-255**

6:00 PM - 8:00 PM  
Speaker: Kristy Vardy

**57. Atrial Natriuretic Peptide as a Circadian Modulator of Age-Related Nocturia**

6:00 PM - 8:00 PM  
Speaker: Nellie Bruns

**58. Administration of endogenous and synthetic exerkines increases mitochondrial oxygen consumption in C2C12 myoblasts**

6:00 PM - 8:00 PM  
Speaker: Matthew Bubak

**60. Aging alters the CSF-brain barrier**

6:00 PM - 8:00 PM  
Speaker: Claire Caballero

**61. Prior history of dietary amino acid composition epigenetically marks a persistent metabolic signature**

6:00 PM - 8:00 PM  
Speaker: Mariah Calubag

**63. Epigenetic Reprogramming as a Preventive Strategy Against Age-Related Cancer**

6:00 PM - 8:00 PM  
Speaker: Carolina Cano Macip

**64. Aging cohort of people living with HIV**

6:00 PM - 8:00 PM  
Speaker: Gustavo Casas

**65. Alternative Splicing Alterations Affect (Reproductive) Aging in the nematode *Caenorhabditis elegans***

6:00 PM - 8:00 PM  
Speaker: Margaret Champion

**66. Functional Ultrasound Imaging Reveals Impaired Neurovascular Coupling, Cerebral Blood Flow, and Microvascular Rarefaction in a Mouse Model of Paclitaxel-Induced Chemobrain**

6:00 PM - 8:00 PM  
Speaker: Siva Sai Chandragiri

**67. Regulatory role of RORs at the interface of circadian rhythms and aging**

6:00 PM - 8:00 PM  
Speaker: Zheng Chen

**68. Multi-omic analysis of Chromatin Architectural Defect (CAD) response in human using IMR-90 cell**

6:00 PM - 8:00 PM  
Speaker: Seung-Sub Choi

**70. Distinct mechanisms of non-autonomous UPRER mediated by GABAergic, glutamatergic, and octopaminergic neurons.**

6:00 PM - 8:00 PM  
Speaker: Aeowynn Coakley

**71. BIOLOGICAL RESOURCES AT THE NATIONAL INSTITUTE ON AGING: A ONE STOP SHOP FOR AGING RESEARCH**

6:00 PM - 8:00 PM  
Speaker: Tiziana Cogliati

**72. Sex-specific microglial responses to amyloid pathology**

6:00 PM - 8:00 PM  
Speaker: Jillian Cox

**73. An Update of MIDAS: a Multispecies Nonhuman Primate Aging Resource**

6:00 PM - 8:00 PM

Speaker: Laura Cox

**74. HSPA8 as a Putative Mediator of Aging-Related Molecular Changes across Metabolic Tissues in Normal Primate Aging**

6:00 PM - 8:00 PM

Speaker: Laura Cox

**75. Time-restricted eating improves cerebrovascular function during cognitive stimulation in older adults**

6:00 PM - 8:00 PM

Speaker: Ana Clara da C. P. Langley

**76. Creating Opportunities for Community Dialogue Using a Community Advisory Council**

6:00 PM - 8:00 PM

Speaker: Denise Daniello

**77. The impact of serine and glycine availability on skeletal muscle cell composition following injury in aged mice**

6:00 PM - 8:00 PM

Speaker: Ryan Dannemiller

**78. Characterization of Aromatase Expression in the Ventromedial Prefrontal Cortex, Claustrum, and Nucleus Accumbens of Aged Male Mice**

6:00 PM - 8:00 PM

Speaker: Darrell Davis

**79. Selective stimulation of melanocortin-4 receptors on astrocytes in the hippocampus are unable to reverse neuroinflammation and improve cognition in an accelerated aging, obese mouse model**

6:00 PM - 8:00 PM

Speaker: Adrianna De Santis

**80. Novel Pathway causing Cognitive Impairment by Synaptic Dysfunction in the Aging Brain**

6:00 PM - 8:00 PM

Speaker: Ferenc Deak

**81. The Role of Lipid Metabolism in Genomic Stability**

6:00 PM - 8:00 PM

Speaker: Mahima Devarajan

**82. Investigating the Contribution of Senescence to Age-Related Mitochondrial Dysfunction in a Primary Aortic Smooth Muscle Cell Model**

6:00 PM - 8:00 PM

Speaker: Arjune Dhanekula

**83. Investigation of multiple biomarkers of aging and disease in urine specimens from the CALERIE study**

6:00 PM - 8:00 PM

Speaker: Johanna Diernegger

**84. Circadian reprogramming in cellular senescence**

6:00 PM - 8:00 PM

Speaker: Kristi Dietert-Rathmell

**86. HIBERNATION-INDUCED NEUROPROTECTION AGAINST FERROPTOSIS IN ARCTIC GROUND SQUIRREL HIPPOCAMPUS: DIFFERENTIAL EXPRESSION AND PATHWAY ANALYSIS**

6:00 PM - 8:00 PM

Speaker: Kelly Drew

**87. Restoring actin integrity: a novel function of uprmt**

6:00 PM - 8:00 PM

Speaker: Naibedya Dutta

**88. Multiple forms of food perception modulate dietary-restriction mediated longevity through biogenic amine and neuroendocrine signaling**

6:00 PM - 8:00 PM

Speaker: Sarah Easow

**89. Unveiling the network relationship of somatic mutations**

6:00 PM - 8:00 PM

Speaker: Joseph Ehlert

**91. Examining acute insulin signaling in hippocampal metabolism**

6:00 PM - 8:00 PM

Speaker: Beatriz Ferran Perez

**92. 17 $\beta$ -Estradiol Reduces Age-Related Liver Cancer Risk in Male Mice Through Hepatic Metabolic Benefits but Reveals Immune Trade-Offs**

6:00 PM - 8:00 PM

Speaker: Michal Fornalik

**93. Hormone replacement therapy and liver cancer in women: systematic review and meta-analysis**

6:00 PM - 8:00 PM

Speaker: Michal Fornalik

**94. Aging disrupts the Metabolic Regulation of Wound Healing in Mammalian Skin**

6:00 PM - 8:00 PM

Speaker: Maria Forni

**95. Human Primary Myotubes Display Diminished Muscle Protein Synthesis After Doxorubicin Treatment**

6:00 PM - 8:00 PM

Speaker: Tom Francis

**96. Deep phenotyping of microglial phenotypic states with aging and neurodegeneration**

6:00 PM - 8:00 PM

Speaker: Willard Freeman

**97. Differences in DNA methylation between the right and left heart ventricles during aging**

6:00 PM - 8:00 PM

Speaker: Shyleen Frost

**98. Social frailty and brain health in nonhuman primates**

6:00 PM - 8:00 PM

Speaker: Brett Frye

**99. Age, glucose tolerance, and cognitive performance in vervet monkeys**

6:00 PM - 8:00 PM

Speaker: Brett Frye

**100. mTORC1 inhibition to counteract proteostatic and mitochondrial dysfunction in aged skeletal muscle following disuse**

6:00 PM - 8:00 PM

Speaker: Jordan Fuqua

**101. Genes Versus Lifestyle**

6:00 PM - 8:00 PM

Speaker: Noor Gajraj

**102. The interaction of heavy metal and osmotic stress in *Caenorhabditis elegans***

6:00 PM - 8:00 PM

Speaker: Emily Gardea

**103. Posttraumatic stress disorder, depressive symptoms, and cognitive function among middle-aged urban adults: Healthy Aging in Neighborhoods of Diversity across the Life Span study**

6:00 PM - 8:00 PM

Speaker: Michael Georgescu

**104. Investigating the role of hallmarks of aging in immunity and aging**

6:00 PM - 8:00 PM

Speaker: Rituparna Ghosh

**105. A mutation in *slx4ip* results in shortened lifespan and perturbs bone modeling in zebrafish**

6:00 PM - 8:00 PM

Speaker: Arianna Gomez

**109. IGF-1/IGF-1R Signaling as a Mediator of Cerebrovascular Rejuvenation: Evidence from Heterochronic Parabiosis**

6:00 PM - 8:00 PM

Speaker: Rafal Gulej

**110. Expression of Mas related G-Protein Coupled Receptor D (MrgD) in the aging mouse tissues**

6:00 PM - 8:00 PM

Speaker: David Gyamfi

**111. Modeling Alzheimer's Disease in context of aging: characterizing cortical brain organoids exposed to a freefall culture**

6:00 PM - 8:00 PM

Speaker: Floris-Jan Haan

**112. Is 17 $\alpha$ -estradiol an effective obesity treatment that preserves aged muscle mass and metabolic function during fat loss?**

6:00 PM - 8:00 PM

Speaker: Jessica Halle

**113. Age-related changes in BDNF: surprising correlations with Maturation, Alzheimer's, & Atherosclerosis in Down syndrome.**

6:00 PM - 8:00 PM

Speaker: Eric Hamlett

**114. Quiescence Profiling: High throughput yeast CLS analysis offered through the UAB NSC**

6:00 PM - 8:00 PM

Speaker: John Hartman

**115. Repurposing Canagliflozin for treatment of neurodegenerative disease**

6:00 PM - 8:00 PM

Speaker: Dulmalika Herath Manchanayake

**116. Senescent increases in aged and PTSD-exposed brains are driven by kynurenine pathway metabolites: A potential novel AD mechanism.**

6:00 PM - 8:00 PM

Speaker: William Hill

**117. Cell type-specific hippocampal DNA modification landscapes with brain aging**

6:00 PM - 8:00 PM

Speaker: Walker Hoolehan

**119. Molecular mechanisms of neural targeting of aging and age-related diseases**

6:00 PM - 8:00 PM

Speaker: Shaijiao Huang

**120. Sex differences in lifespan/healthspan of 12 nonhuman primate species in translational aging research**

6:00 PM - 8:00 PM

Speaker: Hillary Huber

**121. DNA damage drives Alzheimer's disease phenotypes**

6:00 PM - 8:00 PM

Speaker: Jun-Wei Hughes

**123. Analysis of large-scale datasets for age-associated mitochondrial DNA variance and its role in pathogenicity**

6:00 PM - 8:00 PM

Speaker: Nitya Jain

**124. Specific Microbiome signatures could predict aging continuum and cognitive impairment in older adults**

6:00 PM - 8:00 PM

Speaker: Adewale James

**126. Gene Length-dependent Transcription Decline (GLTD) in pneumonia and aging**

6:00 PM - 8:00 PM

Speaker: Martin Jenkins

**129. Sex Differences in Rhesus Macaque Immune System Aging**

6:00 PM - 8:00 PM

Speaker: Cameron Kelsey

**130. Dissecting amyloid beta- and tau-mediated dopamine neuron alterations in Alzheimer's disease.**

6:00 PM - 8:00 PM

Speaker: William Kennedy

**132. Estropausal gut microbiota transplant improves measures of ovarian function in adult mice**

6:00 PM - 8:00 PM

Speaker: Minhoo Kim

**136. The Role of Estrogen in Alzheimer's Disease and Microglial Regulation**

6:00 PM - 8:00 PM

Speaker: Sunghwan Ko

**133. When Actin Is Not Actin-Like Actin: The Role of Nuclear Actin in C. elegans and Its Implications for Aging**

6:00 PM - 8:00 PM

Speaker: Juri Kim

**134. Mitochondrial-Encoded Immunometabolism in Aging and Oral Health**

6:00 PM - 8:00 PM

Speaker: Jessica Kim

**135. Protein restriction ameliorates ovariectomy-induced metabolic dysfunction by inhibition of mTORC1**

6:00 PM - 8:00 PM

Speaker: Bailey Knopf

**137. Aging abrogates female-specific protection against cardiometabolic stress induced heart failure with preserved ejection fraction in mice**

6:00 PM - 8:00 PM

Speaker: Kamil Kobak

**138. Investigating ovarian aging in Pallas's long-tongued bat, Glossophaga soricina**

6:00 PM - 8:00 PM

Speaker: Alison Kochersberger

**139. Effect of dietary protein intake on the health of young and middle-aged mice**

6:00 PM - 8:00 PM

Speaker: Yoshitaka Kondo

**140. Systemic signatures of age and metabolic health in rhesus monkeys.**

6:00 PM - 8:00 PM

Speaker: Di "Silas" Kuang

**141. Estrogen: The Hero for Menopause-Induced Brain Mitochondrial Complex IV Deficits**

6:00 PM - 8:00 PM

Speaker: Benjamin Kugler

**142. Increased autophagy flux in aging may be reversed by exercise**

6:00 PM - 8:00 PM

Speaker: Caroline Kumsta

**143. Proteostatic dysregulation and fibrosis in aged skeletal muscle and tendon**

6:00 PM - 8:00 PM

Speaker: Seongeun Kwak

**144. The role of necroptosis in the induction of cellular senescence**

6:00 PM - 8:00 PM

Speaker: Sunho Lee

**145. Investigating the Role of SUV39H1 in H3K9me3-Mediated Transposable Element Repression and Aging in the African Turquoise Killifish**

6:00 PM - 8:00 PM

Speaker: Aaron Lemus

**146. Isoleucine as a regulator of plasma cholesterol in mice**

6:00 PM - 8:00 PM

Speaker: Yang Liu

**147. Identification of interneurons in stress resistance and longevity**

6:00 PM - 8:00 PM

Speaker: Mingyi Liu

**148. Mitochondria-lysosome coupling contributes to lysosome acidification and aging**

6:00 PM - 8:00 PM

Speaker: Qingqing Liu

**149. Female-specific age-related dysfunction of murine macrophages**

6:00 PM - 8:00 PM

Speaker: Ryan Lu

**150. Investigating CCN1 as a potential regulator of aging in the bone marrow hematopoietic niche**

6:00 PM - 8:00 PM

Speaker: Milos Marinkovic

**151. Functional ultrasound (fUS) imaging of Vascular Density and Neurovascular Coupling in Aged Mice**

6:00 PM - 8:00 PM

Speaker: Sharon Negri

**152. Synergistic effects of aging and high-fat diet induced obesity on brain senescence and neurovascular function**

6:00 PM - 8:00 PM

Speaker: Sharon Negri

**153. Selective Removal of Deleterious mtDNA Mutations from Mammalian Cells**

6:00 PM - 8:00 PM

Speaker: Sarah Shemtov

**290. Transcript errors generate amyloid-like proteins in human cells**

6:00 PM - 8:00 PM

Speaker: Claire Chung

---

## Tuesday, May 13, 2025

**7:00 AM - 8:00 AM**

**Breakfast**

Location: Tikahtnu Ballroom

**8:00 AM - 9:30 AM**

**Session 5. Environmental Perception and Aging**

Location: Tikahtnu Ballroom

Chair: Scott Leiser ; Co-Chair: Shaijiao Huang ; Speakers: Scott Pletcher, Rebecca Taylor, Mike Garratt, Elizabeth Kitto, Kelly Drew

**Neural states as conserved modulators of aging**

8:00 AM - 8:20 AM

Speaker: Scott Pletcher

**Activation of the UPR by environmental perception can modulate organismal aging**

8:20 AM - 8:40 AM

Speaker: Rebecca Taylor

**Olfactory perception of social cues and regulation of aging in mice**

8:40 AM - 9:00 AM

Speaker: Mike Garratt

**Regulation of behavior by the longevity gene fmo-2**

9:00 AM - 9:15 AM

Speaker: Elizabeth Kitto

**Hibernation-Induced Neuroprotection Against Ferroptosis in Arctic Ground Squirrel Hippocampus: Differential Expression and Pathway Analysis**

9:15 AM - 9:30 AM

Speaker: Kelly Drew

**9:30 AM - 10:00 AM**

**Break**

Location: Foyer

10:00 AM - 11:30 AM

### Session 6. Parental Age Effects

Location: Tikahtnu Ballroom

Chair & Speaker: Kristin Gribble ; Speakers: Silvia Cattelan, Edward Ivimey-Cook, Laura Cox, Ninadini Sharma

#### Maternal age effects across the tree of life

10:00 AM - 10:17 AM

Speaker: Edward Ivimey-Cook

#### Maternal obesogenic during pregnancy programs liver signaling and metabolism in young adult baboon offspring

10:18 AM - 10:35 AM

Speaker: Laura Cox

#### Transcriptional and mitochondrial signatures of intergenerational and transgenerational inheritance of maternal age

10:36 AM - 10:53 AM

Speaker: Kristin Gribble

#### Impact of maternal aging on the DNA repair landscape in mammalian oocytes

10:54 AM - 11:11 AM

Speaker: Ninadini Sharma

#### Paternal age impairs offspring reproductive success and lifespan via ejaculate-mediated effects in a short-lived vertebrate

11:12 AM - 11:30 AM

Speaker: Silvia Cattelan

11:45 AM - 1:00 PM

### Building Community Lunch Hosted by Women in AGE

Location: Tikahtnu Ballroom

Chair: Arik Davidyan

1:30 PM - 3:00 PM

### Session 7. Extracellular Matrix

Location: Tikahtnu Ballroom

Chair: Nellie Bruns ; Co-Chair: Jessica Halle ; Speakers: Katarzyna Cieslik, Andrew Dillin, Elizabeth Harper, Jessica Proulx, Subhasri Biswas

#### The extracellular matrix integrates mitochondrial homeostasis

1:30 PM - 1:50 PM

Speaker: Andrew Dillin

#### Mitochondrial Diversity as a Driver of Ovarian Aging

1:50 PM - 2:05 PM

Speaker: Subhasri Biswas

#### Sex Differences in the ECM and Fibroblast Activity in the Aging Mouse Heart

2:05 PM - 2:25 PM

Speaker: Katarzyna Cieslik

#### Investigating the role and therapeutic potential of HNF4a in loss of hepatocyte cell identity with age

2:25 PM - 2:40 PM

Speaker: Jessica Proulx

#### The role of the aged tumor microenvironment in therapy response

2:40 PM - 3:00 PM

Speaker: Elizabeth Harper

3:00 PM - 3:30 PM

### Break

Location: Foyer

3:30 PM - 4:30 PM

### Keynote Address: Aging as the Great Connector

Keynote Speaker: Daniel Promislow

4:30 PM - 5:00 PM

## Poster Pitch Session II

Location: Tikahtnu Ballroom

**PP 11. DNA methylation of transposons pattern aging differences across a diverse cohort of dogs from the Dog Aging Project**

4:30 PM - 5:00 PM

Speaker: Blaise Mariner

**PP12. Growth hormone-deficient Ames dwarf mice resist sarcopenia and exhibit enhanced endurance running capacity at 24 months**

4:30 PM - 5:00 PM

Speaker: Matthew Johnston

**PP13. Timing of castration modulates its life-extending effect in genetically heterogeneous mice: castration at midlife is more effective than at earlier ages**

4:30 PM - 5:00 PM

Speaker: Laurence Maeyens

**PP14. In vivo longitudinal assessment of cerebrovascular mitochondrial dynamic**

4:30 PM - 5:00 PM

Speaker: Sharon Negri

**PP15. Leveraging large human genetic datasets to uncover regulators of transposable elements in health and disease**

4:30 PM - 5:00 PM

Speaker: Eyael Habtemariam

**PP16. Sex, sterilization and metabolic profiles shape aging trajectories and age-related disease risk in dogs**

4:30 PM - 5:00 PM

Speaker: Filippo Artoni

**PP17. Endogenous RNA interference pathways regulate longevity synergistically with insulin/IGF-1 signaling through germline cell non-autonomous communication**

4:30 PM - 5:00 PM

Speaker: Thomas Lontis

**PP20. The Hepatic Glucagon Receptor as a Novel Regulator of Lifespan**

4:30 PM - 5:00 PM

Speaker: Alexander Lasher

**PP21. Ketogenesis is dispensable in the metabolic adaptation to caloric restriction with fasting**

4:30 PM - 5:00 PM

Speaker: Yang Yeh

**PP22. Single-cell RNA sequencing identifies distinct visceral adipose tissue-resident  $\gamma\delta$  T cell subsets with age-dependent shifts**

4:30 PM - 5:00 PM

Speaker: Caitlyn Smith

**PP23. FOXO3 modulates chromatin accessibility and protects against DNA damage in a model of cellular senescence**

4:30 PM - 5:00 PM

Speaker: Jose Arevalo

5:00 PM - 7:00 PM

## Poster Session II

Location: Tikahtnu Ballroom

**PP11. DNA methylation of transposons pattern aging differences across a diverse cohort of dogs from the Dog Aging Project**

5:00 PM - 7:00 PM

Speaker: Blaise Mariner

**PP12. Growth hormone-deficient Ames dwarf mice resist sarcopenia and exhibit enhanced endurance running capacity at 24 months**

5:00 PM - 7:00 PM

Speaker: Matthew Johnston

**PP13. Timing of castration modulates its life-extending effect in genetically heterogeneous mice: castration at midlife is more effective than at earlier ages**

5:00 PM - 7:00 PM

Speaker: Laurence Maeyens

**PP14. In vivo longitudinal assessment of cerebrovascular mitochondrial dynamic**

5:00 PM - 7:00 PM

Speaker: Sharon Negri

**PP15. Leveraging large human genetic datasets to uncover regulators of transposable elements in health and disease**

5:00 PM - 7:00 PM

Speaker: Eyael Habtemariam

**PP16. Sex, sterilization and metabolic profiles shape aging trajectories and age-related disease risk in dogs**

5:00 PM - 7:00 PM

Speaker: Filippo Artoni

**PP17. Endogenous RNA interference pathways regulate longevity synergistically with insulin/IGF-1 signaling through germline cell non-autonomous communication**

5:00 PM - 7:00 PM

Speaker: Thomas Lontis

**PP20. The Hepatic Glucagon Receptor as a Novel Regulator of Lifespan**

5:00 PM - 7:00 PM  
Speaker: Alexander Lasher

**PP21. Ketogenesis is dispensable in the metabolic adaptation to caloric restriction with fasting**

5:00 PM - 7:00 PM  
Speaker: Yang Yeh

**PP22. Single-cell RNA sequencing identifies distinct visceral adipose tissue-resident T cell subsets with age-dependent shifts**

5:00 PM - 7:00 PM  
Speaker: Caitlyn Smith

**PP23. FOXO3 modulates chromatin accessibility and protects against DNA damage in a model of cellular senescence**

5:00 PM - 7:00 PM  
Speaker: Jose Arevalo

**154. Maternal and grandmaternal age influences offspring lifespan, reproduction and gene expression on the marine rotifer *Brachionus manjavacas***

5:00 PM - 7:00 PM  
Speaker: Nelia Luviano Aparicio

**155. NPA7: a novel designed peptide that protects against oxidative stress induced senescence through improving NAD<sup>+</sup> homeostasis**

5:00 PM - 7:00 PM  
Speaker: Xiaoyu Ma

**156. Powerful Genetic Dissection of Lifespan Variation in *Drosophila melanogaster***

5:00 PM - 7:00 PM  
Speaker: Stuart Macdonald

**157. Tau-induced astrocyte senescence and dysfunction in AD tauopathy**

5:00 PM - 7:00 PM  
Speaker: Haneen Makhoulouf

**158. Mechanism of age-dependent decline in angiogenesis**

5:00 PM - 7:00 PM  
Speaker: Akiko Mammoto

**159. The proximal pulmonary artery plays a critical role in regulating age-related decline of cardiopulmonary function in humans**

5:00 PM - 7:00 PM  
Speaker: Edward Manning

**161. A Plasma Metabolomic and Lipidomic Signature of mTORC1-specific Inhibition**

5:00 PM - 7:00 PM  
Speaker: Ryan Marshall

**162. Identifying Key Genes for the Prolongation of the Mitochondrial Unfolded Protein Response (UPR<sup>mt</sup>).**

5:00 PM - 7:00 PM  
Speaker: Melisa Matonsi

**163. MARY1 increases ATP and AMPK $\alpha$  in the Kidney Cortex of Aged Mice**

5:00 PM - 7:00 PM  
Speaker: Kai McAlister

**164. Adiponectin pathway activation reduces tau burden and rescues electrophysiological defects**

5:00 PM - 7:00 PM  
Speaker: Eric McGregor

**165. Coupling Time-Restricted Feeding and Circadian Rhythms for Enhancing Lipid Modulation, Aging, and Metabolic Wellness**

5:00 PM - 7:00 PM  
Speaker: Girish Melkani

**166. Changes in diaphragm collagen proteostasis with aging, exercise, and rapamycin treatment**

5:00 PM - 7:00 PM  
Speaker: Paulo Mesquita

**167. FOXO transcription factors in starvation-induced differential stress resistance**

5:00 PM - 7:00 PM  
Speaker: Kayla Miller

**168. Negative regulation of brain cellular senescence by the lncRNA H19**

5:00 PM - 7:00 PM  
Speaker: Lauren Miller

**169. Amelioration of accelerate brain aging by free fatty acid receptor (FFAR2) stimulants**

5:00 PM - 7:00 PM  
Speaker: Sidharth Mishra

**170. Exploring sex dimorphism in the metabolome across species: insights into age-related changes.**

5:00 PM - 7:00 PM  
Speaker: Avani Mital

**171. Alterations in Perineuronal Nets within the Hippocampal CA2 Region are Associated with Age-Related Social Memory Dysfunction**

5:00 PM - 7:00 PM  
Speaker: Jacqueline Moats

**172. Molecular mechanisms underlying cognitive aging in maternal obesity offspring**

5:00 PM - 7:00 PM

Speaker: Eric Moore

**174. Heat stress impairs resiliency in satellite cells: implications for heat shock response in skeletal muscle regeneration**

5:00 PM - 7:00 PM

Speaker: Nyssa Morgan

**175. Lessons learned from oral health and sphingolipids metabolism in the context of aging**

5:00 PM - 7:00 PM

Speaker: Alexandru Movila

**176. The impact of age on the relationship between gait pattern and domain-specific cognitive function: a human study**

5:00 PM - 7:00 PM

Speaker: Peter Mukli

**177. A role of LRP1 in tau transmission to brain microvascular endothelial cells**

5:00 PM - 7:00 PM

Speaker: Aishwarya Muppala

**178. DNA methylation clock age and the integrated methylome-transcriptome in young and aged skeletal muscle after regeneration**

5:00 PM - 7:00 PM

Speaker: Kevin Murach

**179. Machine learning analysis of gait-pattern based cognitive aging predictors in humans**

5:00 PM - 7:00 PM

Speaker: Mihaly Muranyi

**180. A metabolite-wide association study of age and frailty in over 200,000 adults**

5:00 PM - 7:00 PM

Speaker: Julian Mutz

**181. Impaired endothelial IGF1R signaling regulates skeletal muscle vascular function: implications for age-related sarcopenia**

5:00 PM - 7:00 PM

Speaker: Dorina Nagy

**182. Aging Affects Lymphatic Vessel Pumping, Mitochondrial Bioenergetics, and Lymphedema Progression**

5:00 PM - 7:00 PM

Speaker: Zhanna Nepiyushchikh

**183. Neurogenesis in arctic ground squirrel hippocampus-optimized immunohistochemical protocol**

5:00 PM - 7:00 PM

Speaker: Vy Nguyen

**184. A unique inflammaging profile generated by T cells from people with obesity is metformin-resistant**

5:00 PM - 7:00 PM

Speaker: Barbara Nikolajczyk

**185. Mitochondrial SDHs regulate age-related inflammatory responses in vascular endothelial cells.**

5:00 PM - 7:00 PM

Speaker: Masayuki Nomura

**186. Impact of Frequent and Intermittent Rapamycin Treatment on Muscle Hypertrophy in Aged Female Mice Following Progressive Weighted Wheel Running**

5:00 PM - 7:00 PM

Speaker: Szczepan Olszewski

**187. The Role of Adipose Tissue Inflammation and Senescence in Age-Related Skeletal Muscle Phenotypes**

5:00 PM - 7:00 PM

Speaker: Zinnarky Ortiz Correa

**188. Long-living Ames Dwarf Mouse Liver is protected from High-Fat Diet-Induced Metabolic Insult**

5:00 PM - 7:00 PM

Speaker: Jaspreet Kaur Osan

**189. Mitochondrial oxidative stress alters adaptive stress response signaling to muscle contraction**

5:00 PM - 7:00 PM

Speaker: Ethan Ostrom

**190. Plasma Cell Survival, Dynamics, and Competition in Old Mice**

5:00 PM - 7:00 PM

Speaker: Luis Ovando

**191. Delayed age-related sarcopenia onset in female long-living Ames dwarf mice**

5:00 PM - 7:00 PM

Speaker: Taylor Painter

**192. Post-transcriptional control of fibro/adipogenic progenitor cell plasticity and fibrofatty expansion in aged skeletal muscle**

5:00 PM - 7:00 PM

Speaker: Joanna Papinska

**194. Methionine restriction started late in life promotes healthy aging**

5:00 PM - 7:00 PM

Speaker: Andrey Parkhitko

**195. Aging, Mitochondria, and Cerebral Microhemorrhages: SS-31 Evaluation and a Machine Learning Imaging Pipeline for Therapeutic Screening**

5:00 PM - 7:00 PM

Speaker: Roland Patai

**196. Novel biosensors enable super-resolution imaging of innate immunity in brain aging**

5:00 PM - 7:00 PM

Speaker: Ethan Perets

**197. In vivo mosaic screening identifies therapeutic targets in age-related diseases including heart failure with preserved ejection fraction**

5:00 PM - 7:00 PM

Speaker: Gavin Pharaoh

**198. Life extension via genetic/drug interventions occurs by delaying the onset of aging, not by slowing the rate of aging**

5:00 PM - 7:00 PM

Speaker: Patrick Phillips

**199. Cmpk2 modulates sterile inflammatory responses in senescent macrophages**

5:00 PM - 7:00 PM

Speaker: Cristian Ponce

**200. Age-associated increase of estradiol biosynthesis enzyme, aromatase, in the aged mouse brain**

5:00 PM - 7:00 PM

Speaker: Abby Postle

**201. Skeletal muscle passive mechanics in aging and acute fatigue**

5:00 PM - 7:00 PM

Speaker: Grace Privett

**202. Aging does not attenuate human mesenchymal stromal cell secretome response to inflammatory microenvironment**

5:00 PM - 7:00 PM

Speaker: Grace Privett

**204. THE CARNOSINE CLOCK TICKS FOR HEALTHY AGING**

5:00 PM - 7:00 PM

Speaker: Mattia Quattrocchi

**205. Exploring the roles of iron and host-microbe interactions in the lifespan extension mediated by 3-hydroxyanthranilic acid**

5:00 PM - 7:00 PM

Speaker: Robert Railey

**209. Microplastics induce Ovarian Aging and Transgenerational Metabolic Disruptions.**

5:00 PM - 7:00 PM

Speaker: Khushbu Raval

**210. Extracellular matrix characterization in aged tendon following disuse**

5:00 PM - 7:00 PM

Speaker: Christiana Raymond-Pope

**211. MCU haploinsufficiency induces sex-specific bioenergetic remodeling in the mouse brain**

5:00 PM - 7:00 PM

Speaker: Traci Redwine

**213. The mitochondrial-encoded microprotein MOTS-c regulates interferon signaling under age-related metabolic stress in macrophages.**

5:00 PM - 7:00 PM

Speaker: Michelle Rice

**214. Identification of prostatic senescent cells using single cell RNA-sequencing (scRNAseq) and spatial transcriptomics**

5:00 PM - 7:00 PM

Speaker: Emily Ricke

**215. Assessment of Posttranslational Modification Across the Spatiotemporal Gradient of the Mammalian Eye Lens**

5:00 PM - 7:00 PM

Speaker: Julian Rodriguez

**216. Age-dependent effects of the endosymbiont Wolbachia during RNA viral infection in Drosophila melanogaster**

5:00 PM - 7:00 PM

Speaker: Michael Rodwell

**217. Mitochondrial Ca<sup>2+</sup> uniporter downregulation leads to sexually dimorphic changes in the metabolome and redox state of neural tissue**

5:00 PM - 7:00 PM

Speaker: Hadyn Rose

**218. Mechanisms of cholesterol-dependent lifespan extension in C. elegans**

5:00 PM - 7:00 PM

Speaker: Skye Rounseville

**219. Proteomic Analysis of Aged and NDUSF4<sup>-/-</sup> Mouse Lenses Reveals Commonalities and Divergences**

5:00 PM - 7:00 PM

Speaker: Elizabeth Rubeira

**220. Neurovascular Coupling Modulation Through tDCS: Preliminary Findings**

5:00 PM - 7:00 PM

Speaker: Demian Rudyk

**221. Low Protein Diet Potentiates the Effects of Vertical Sleeve Gastrectomy**

5:00 PM - 7:00 PM

Speaker: Samuel Saghafi

**222. Cellular senescence and differentiation bias in aged progenitor cells impair liver regeneration**

5:00 PM - 7:00 PM

Speaker: Rahagir Salekeen

**223. Health Octo Tool: Matching Personalized Health with Rate of Aging**

5:00 PM - 7:00 PM

Speaker: Shabnam Salimi

**224. Macrophages represent a significant source of p21+ senescent cells in aged and steatotic liver.**

5:00 PM - 7:00 PM

Speaker: Ivan Salladay-Perez

**225. Development of a Comprehensive Pheno-Frailty Index for Aging Mice**

5:00 PM - 7:00 PM

Speaker: Brady Samuelson

**226. Age-associated effects of CD74 on osteoclastogenesis and experimental periodontitis**

5:00 PM - 7:00 PM

Speaker: Natasha Sanz

**227. A frailty-based plasma proteomic signature capturing overall health and well-being in older adults**

5:00 PM - 7:00 PM

Speaker: Sanish Sathyan

**228. Changes in Age-Related Factors in a Long-Term Vitamin C Deficiency Model**

5:00 PM - 7:00 PM

Speaker: Ayami Sato

**230. The role of protein succinylation in skeletal muscle regeneration in aging**

5:00 PM - 7:00 PM

Speaker: Susan Schmitt

**231. Tracing the Impact of Urban Environmental Stressors on Hallmarks of Aging**

5:00 PM - 7:00 PM

Speaker: Marianna Sadagurski

**232. Gold sodium thiomalate and 3-bromopyruvate increase lifespan across diverse Caenorhabditis genetic backgrounds and reset the transcriptional aging clock toward a youthful state**

5:00 PM - 7:00 PM

Speaker: Christine Sedore

**233. The impact of mitochondrial-haplotype on the age-related changes in inflammation, fibrosis, and senescence in the livers of the novel OKC-HETB/W rats**

5:00 PM - 7:00 PM

Speaker: Ramasamy Selvarani

**234. Differential Effects of Aging on Proactive and Reactive Attentional Control**

5:00 PM - 7:00 PM

Speaker: Joshua Senior

**235. Multiplexed single-cell imaging and time-lapse microscopy reveal multiple senescent subpopulations during long-term senescence induction.**

5:00 PM - 7:00 PM

Speaker: Garrett Sessions

**237. Targeting Lysosomal Exocytosis as a Senolytic Strategy in Aging and age-related Fibrotic lung disease**

5:00 PM - 7:00 PM

Speaker: Amit Sharma

**238. SomaMutDB 2.0: A Comprehensive Resource for Exploring Somatic Mutation Accumulation and Functional Impacts in Human Aging**

5:00 PM - 7:00 PM

Speaker: Anthony Shea

**240. The ELITE and AD Knowledge Portals: FAIR Data Resources for Aging Research**

5:00 PM - 7:00 PM

Speaker: Solveig Sieberts

**242. Disruption of Ovarian-Brain Axis: Culprit and Therapeutic Target in Menopause-induced Brain Aging**

5:00 PM - 7:00 PM

Speaker: Parminder Singh

**244. Optimal late life protein intake may be dependent on early to mid-life protein intake**

5:00 PM - 7:00 PM

Speaker: Michelle Sonsalla

**245. Systems-mechanobiology of cardiovascular ageing**

5:00 PM - 7:00 PM

Speaker: Fabian Spill

**246. Nonhuman Primate Age-Related Spatial Differences in CD3+ T Cells Within the Colonic Mucosa**

5:00 PM - 7:00 PM

Speaker: Christina Stevens

**250. Lifespan extension by spermidine and low methionine: a mechanism in common?**

5:00 PM - 7:00 PM

Speaker: Wei-Hsuan Su

**251. Hyperbaric Oxygen Therapy and Brain Health**

5:00 PM - 7:00 PM

Speaker: Nathalie Sumien

**252. Role of GPR84 in aging-related cardiometabolic dysfunction**

5:00 PM - 7:00 PM

Speaker: Xuenan Sun

**254. Relating mesoscale neuromuscular morphology and physical function using ultra-high field MRI**

5:00 PM - 7:00 PM

Speaker: Bragi Sveinsson

**255. Novel therapeutic approaches for prevention of endothelial dysfunction and cognitive decline in patients with peripheral artery disease**

5:00 PM - 7:00 PM

Speaker: Zsofia Szarvas

**256. Determinants of heterogeneity of healthy aging**

5:00 PM - 7:00 PM

Speaker: Marina Terekhova

**258. Neuronal Necroptosis: Linking Neuroinflammation to Accelerated Cognitive Decline**

5:00 PM - 7:00 PM

Speaker: Nidheesh Thadathil

**259. The Role of Senescent Macrophages as a Driver of Inflammaging and Aging-related Diseases**

5:00 PM - 7:00 PM

Speaker: Grasiela Torres

**260. Discovery of genes underlying cognitive resilience in individuals predisposed to Alzheimer's disease risk**

5:00 PM - 7:00 PM

Speaker: Wei Tsai

**262. Chemotherapy-Induced Neurovascular Dysfunction: Persistent Blood-Brain Barrier Disruption and Cellular Senescence in Chemotherapy-Associated Cognitive Impairment**

5:00 PM - 7:00 PM

Speaker: Kiana Vali Kordestan

**263. Accelerated Musculoskeletal Aging in Survivors of Childhood Cancer Resulting from Increased Senescent Burden of Muscle Progenitors**

5:00 PM - 7:00 PM

Speaker: Elizabeth van der Bijl

**264. Senescence and endothelial to mesenchymal transition in the aging cerebral vasculature.**

5:00 PM - 7:00 PM

Speaker: Michaela Vance

**265. Hexavalent Chromium Accelerates Biological Aging to Induce Neurotoxicity in a Worm Model**

5:00 PM - 7:00 PM

Speaker: Samuel Vielee

**266. High-fat diet accelerates brain aging and triggers cognitive deficits in adult mice**

5:00 PM - 7:00 PM

Speaker: Gavin Wang

**267. Impact of Actin Altering Molecules on Aging**

5:00 PM - 7:00 PM

Speaker: Tiffany Wang

**268. Modeling Human Rapamycin Resistance Mutations in Yeast**

5:00 PM - 7:00 PM

Speaker: Brian Wasko

**269. Dopamine-Dependent Aging: Investigating the Role of DAT-1 in Neuromuscular Function and Longevity in *Caenorhabditis elegans*.**

5:00 PM - 7:00 PM

Speaker: Brandy Weathers

**270. Investigating Age-Related Pericyte Changes in Pancreatic Islets**

5:00 PM - 7:00 PM

Speaker: Brooke Wheeler

**271. The Aging Pancreas: Capillary Changes in Pancreatic Islets**

5:00 PM - 7:00 PM

Speaker: Daniel Whisman

**272. Analysis of Protein Aging in the Rhesus Macaque Lens Reveals Key Changes**

5:00 PM - 7:00 PM

Speaker: Jeremy Whitson

**273. B12 SUPPLEMENTATION IMPACTS MITOCHONDRIAL BIOLOGY AND SKELETAL MUSCLE PHYSIOLOGY IN AGED FEMALE MICE**

5:00 PM - 7:00 PM

Speaker: Abigail Williamson

**274. Using a Toxic Aging Coin Approach to Understand the Neurotoxicity of Hexavalent Chromium: Heads for Age Differences, Tails for Aging Effects**

5:00 PM - 7:00 PM  
Speaker: Johnny Wise

**275. DNA methylation aging of the lower female genital tract**

5:00 PM - 7:00 PM  
Speaker: Judy Wu

**276. Sex- and Strain-Specific Roles of FGF21 in Modulating Metabolic Responses to Isoleucine Restriction in Mice**

5:00 PM - 7:00 PM  
Speaker: Fan Xiao

**278. Understanding the role of ceramide sphingolipids and neutral ceramidase in periodontal disease using clinical samples and experimental mouse models of Alzheimer's disease**

5:00 PM - 7:00 PM  
Speaker: Chiaki Yamada

**279. Suppression of FOXO1 attenuates liver macrophage reprogramming and improves liver function during aging**

5:00 PM - 7:00 PM  
Speaker: Wanbao Yang

**280. Endothelial IGF1R Deficiency Disrupts the Blood-Brain Barrier and Accelerates Endothelial Senescence in Mice, Recapitulating Key Features of Brain Aging**

5:00 PM - 7:00 PM  
Speaker: Raghavendra Yelahanka Nagaraja

**281. Cannabinoid 1 receptor agonism in optic nerve head astrocytes may increase oxygen consumption rate**

5:00 PM - 7:00 PM  
Speaker: Olivia Young

**284. Filling a "cavity" on aging research: identifying epigenetic biomarkers of tooth aging.**

5:00 PM - 7:00 PM  
Speaker: Sara Zapico

**287. Molecular Regulators of Cellular Senescence and Cell Fate in Response to Stress**

5:00 PM - 7:00 PM  
Speaker: Xu Zhang

**288. Novel lipid senolytics targeting senescent cell vulnerability through ferroptosis induction**

5:00 PM - 7:00 PM  
Speaker: Lei Zhang

**289. Epigenome-wide association study of methylation in frailty: a longitudinal study of female and male mice**

5:00 PM - 7:00 PM  
Speaker: Dantong Zhu

**7:00 PM - 9:00 PM**

**Trainee Data Blitz**

Location: Tikahtnu Ballroom

**7:00 PM - 9:00 PM**

**AGE Board of Directors Meeting**

Location: K'enakatnu 6

---

**Wednesday, May 14, 2025**

**7:00 AM - 8:00 AM**

**Breakfast**

Location: Tikahtnu Ballroom

8:00 AM - 9:30 AM

### Session 8. Reevaluation of Aging Treatments

Location: Tikahtnu Ballroom

Chair: Sarah Ocañas ; Co-Chair: Jillian Cox, Sunghwan Ko ; Speakers: Richard Miller, Archana Unnikrishnan, Marta Kovatcheva, Colleen O'Reilly, Thi Thanh My Nguyen

#### **Aging Rate Indicators: Shared molecular traits in slow-aging mice**

8:00 AM - 8:20 AM

Speaker: Richard Miller

#### **Are the beneficial effects of Metformin on lifespan context specific?**

8:20 AM - 8:35 AM

Speaker: Colleen O'Reilly

#### **Effect of Late-life Dietary Restriction on Intestinal Stem Cell Aging**

8:35 AM - 8:55 AM

Speaker: Archana Unnikrishnan

#### **Targeting NLRP3 signaling with a novel sulfonylurea compound to inhibit microglial inflammation and treat aging-associated vascular cognitive impairment and dementia**

8:55 AM - 9:10 AM

Speaker: Thi Thanh My Nguyen

#### **Targeting the hallmarks: Epigenetic & senolytic approaches to understand and control aging**

9:10 AM - 9:30 AM

Speaker: Marta Kovatcheva

9:30 AM - 10:00 AM

### Break

Location: Foyer

10:00 AM - 11:30 AM

### Session 9. Diet and Aging

Location: Tikahtnu Ballroom

Chair: Dudley Lamming ; Speakers: Sailendra Nichenametla, Daniela G. Costa, Purbasha Dasgupta, Mariah Calubag, Emeline Joulia

#### **Discovering pharmacologically targetable mechanisms of the lifespan-extending sulfur amino acid-restricted diet**

10:00 AM - 10:20 AM

Speaker: Sailendra Nichenametla

#### **Tomatidine: A Promising Senotherapeutic Strategy to Alleviate Age-Related Cognitive Decline**

10:20 AM - 10:40 AM

Speaker: Daniela G. Costa

#### **Intermittent fasting enhances transgenerational longevity and health while delaying reproductive aging via small RNAs in *C. elegans***

10:40 AM - 10:55 AM

Speaker: Purbasha Dasgupta

#### **Prior history of dietary amino acid composition epigenetically marks a persistent metabolic signature**

10:55 AM - 11:10 AM

Speaker: Mariah Calubag

#### **Serine metabolism modulation to mitigate age-related metabolic disorders**

11:10 AM - 11:30 AM

Speaker: Emeline Joulia

11:30 AM - 1:00 PM

### Denham Harman Award Lunch

Location: Tikahtnu Ballroom

Speaker: Rozalyn Anderson

1:00 PM - 2:30 PM

**Session 10: Aging on a Chip**

Location: Tikahtnu Ballroom

Chair & Speaker: James McGrath ; Speakers: Young Jang, Erika Moore, Dominick Rodriguez, Sophia Mahoney

**Microphysiological Model of Macrophage Function in Vasculogenesis Across the Lifespan**

1:00 PM - 1:20 PM

Speaker: Erika Moore

**Ex Vivo Sulforaphane Stimulation Improves Exercise-Induced Nrf2 Signaling in Older Adults**

1:20 PM - 1:35 PM

Speaker: Dominick Rodriguez

**Jang TBD**

1:35 PM - 1:55 PM

Speaker: Young Jang

**The Role of the Senescence-Associated Secretory Phenotype in Vascular Aging: Amelioration by the Natural Senolytic Fisetin**

1:55 PM - 2:10 PM

Speaker: Sophia Mahoney

**Modeling and Measuring the Impact of Aging on Vascular Barriers and Extravascular Tissues On-Chip**

2:10 PM - 2:30 PM

Speaker: James McGrath

2:30 PM - 3:30 PM

**Membership Meeting & Awards**

Location: Tikahtnu Ballroom