
Event Agenda

American Aging Association Annual Meeting

Sun, 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

Caroline Kumsta: TBA

1:00 PM - 3:30 PM

Pilot Grantee Presentations

1:30 PM - 3:30 PM

Vivek Kumar: TBA

1:30 PM - 1:45 PM

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

1:45 PM - 2:00 PM

Nicolas Lehrbach: TBA

2:00 PM - 2:15 PM

Stefanie Krick: Mechanisms of Aging in the Cystic Fibrosis Lung

2:15 PM - 2:30 PM

Marisol Castillo-Castrejon: TBA

2:30 PM - 2:45 PM

Wei Chen: Calciprotein Particles and Vascular Aging

2:45 PM - 3:00 PM

Panel Discussion and Q&A

3:00 PM - 3:30 PM

4:30 PM - 5:30 PM

Trainee Roundtable Panel Discussion

Location: Tikahtnu Ballroom

Speaker: Arik Davidyan ; Panelist: Jessica Young, Daniel Promislow

5:30 PM - 7:30 PM

Opening Welcome Reception

Location: Foyer & Terrace

Mon, May 12, 2025

7:30 AM - 8:30 AM

Breakfast

Location: Tikahtnu Ballroom

7:30 AM - 8:30 AM

Meet the NIA Table

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

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

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

The Sex Dimorphism of Skeletal Muscle Aging in Rhesus Monkeys

9:10 AM - 9:30 AM

Speaker: Aaron Berkowitz

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

9:30 AM - 9:50 AM

Speakers: Ricki Colman, Julie Mattison

10:00 AM - 10:30 AM

Break

Location: Foyer

10:30 AM - 12:00 PM

Session 2: Hormonal Aging

Location: Tikahtnu Ballroom

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

The Role of Lipid Metabolites in Systemic Metabolism

10:30 AM - 12:00 PM

Speaker: Yu-Hua Tseng

Phosphoproteomic Changes in Aging Estrogen Deficient Female Mice

10:30 AM - 12:00 PM

Speaker: Mina Peyton

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

10:30 AM - 12:00 PM

Speaker: Erin Hascup

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

10:30 AM - 12:00 PM

Speaker: Cassandra McGill

Sex reversal mouse model to study hormonal regulation of microglia aging

10:30 AM - 12:00 PM

Speaker: Victor Ansere

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

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

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

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⁺ transporter SLC25A51 in cardiac function and aging

2:42 PM - 3:05 PM

Speaker: Ann Chiao

Overexpression of SLC25A51 restores mtNAD⁺ levels and NAD⁺-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

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

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

TBD

4:55 PM - 5:10 PM

Targeting FKBP_s 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: Nicholas 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 β -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 α and PDGFR β 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 β -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

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

Precision Medicine in Alzheimer's Disease: Integrating Genetics, Epigenetics, and Biomarkers for Personalized Care

5:59 PM - 8:00 PM

Speaker: Jitendra Kumar Sinha

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

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6:00 PM - 8:00 PM

Speaker: Ewa Poljanska

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

25. The hTSC Secretome Attenuates SASP by Reducing DNA Damage and NF- κ B Activity

6:00 PM - 8:00 PM

Speaker: Kotb Abdelmohsen

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

30. Development of an NAMPT Activator as an NAD⁺ Boosting and Healthy Aging Strategy In Vivo

6:00 PM - 8:00 PM

Speaker: Michael Alcaraz

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

35. Prevotella corporis prevents and reverses protein aggregation in C. elegans through activation of a protective "stress response"

6:00 PM - 8:00 PM
Speaker: Yoan Argote

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

39. Association between circulating biomarkers and cognitive decline in the elderly: Evidence from the Health and Retirement Study

6:00 PM - 8:00 PM
Speaker: Jacob Ayembilla

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

44. Association of the Secretome from Senescent Monocytes with Aging-Associated Clinical Outcomes

6:00 PM - 8:00 PM
Speaker: Reema Banarjee

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

6:00 PM - 8:00 PM
Speaker: Joshua Bartz

46. A Diverse Proteomic Catalog of Senescent Cells Enables the Development of Improved Type-Specific Senescence Biomarkers in Humans

6:00 PM - 8:00 PM
Speaker: Nathan Basisty

47. Single-Cell Analysis of Somatic Mutations in Human Brain and Skeletal Muscle During Aging

6:00 PM - 8:00 PM
Speaker: Cesar Bautista Sotelo

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: Berenice 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 transAge.

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: Danielle Bruns

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

6:00 PM - 8:00 PM

Speaker: Matthew Bubak

59. Decoding the chaperone code in ALS

6:00 PM - 8:00 PM

Speaker: Yevheniia Bushman

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

62. The use of 3D engineered muscle tissue models to test age effects on muscle force and mitochondrial function in vitro

6:00 PM - 8:00 PM

Speaker: Matthew Campbell

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

69. Charting New Frontiers in Longevity Research

6:00 PM - 8:00 PM

Speaker: Sungsoo Chun

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

85. 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

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

90. Transcriptomic Analysis of Changes in Blood-Brain Barrier Gene Expression in Brain Capillary Endothelial Cells in a Mouse Model of Paclitaxel-Induced Chemobrain

6:00 PM - 8:00 PM

Speaker: Shoba Ekambaram

91. Examining acute insulin signaling in hippocampal metabolism

6:00 PM - 8:00 PM

Speaker: Beatriz Ferran Perez

92. 17 β -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: Thomas 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

106. Skeletal muscle maintenance in hibernating arctic ground squirrels

6:00 PM - 8:00 PM

Speaker: Anna Goropashnaya

107. Unraveling the Complexity of Aging: A Network Medicine Approach for Aging Therapeutics

6:00 PM - 8:00 PM

Speaker: Bnaya Gross

108. Network Theory of Aging Dynamics

6:00 PM - 8:00 PM

Speaker: Bnaya Gross

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 α -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

118. Role of Timeless in ALT Telomere Maintenance

6:00 PM - 8:00 PM

Speaker: Kalisse Horne

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

6:00 PM - 8:00 PM

Speaker: Shijiao 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

122. The Impact of Incarceration on DNA Methylation Age

6:00 PM - 8:00 PM

Speaker: Medha Illindala

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

125. GDF3 promotes adipose tissue macrophage-mediated inflammation via altered chromatin accessibility during aging

6:00 PM - 8:00 PM

Speaker: In Hwa Jang

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

6:00 PM - 8:00 PM

Speaker: Martin Jenkins

127. Deciphering the Potential for Hyperbaric Oxygen Therapy as a Geroprotective Strategy

6:00 PM - 8:00 PM

Speaker: Kyle Jewell

128. Multiverse of Clock Madness: Finding the One in One Thousand

6:00 PM - 8:00 PM

Speaker: Jessica Kasamoto

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

131. Characterization of senescent cells in hepatocellular carcinoma development and progression in aged mouse models

6:00 PM - 8:00 PM

Speaker: Tra Kieu

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

6:00 PM - 8:00 PM

Speaker: Minhoo Kim

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

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

6:00 PM - 8:00 PM

Speaker: Sunghwan Ko

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

Tue, May 13, 2025

7:00 AM - 8:00 AM

Breakfast

Location: Tikahtnu Ballroom

7:00 AM - 8:00 AM

Meet the NIA Table

Location: Tikahtnu Ballroom

8:00 AM - 9:30 AM

Session 5. Environmental Perception and Aging

Location: Tikahtnu Ballroom

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

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

Aging in a Good Way Through the Eyes of Alaska Native Elders: Results from a 17-year-long CBPR Study

9:15 AM - 9:30 AM

Speaker: Jordan Lewis

9:30 AM - 10:00 AM

Break

Location: Foyer

10:00 AM - 11:30 AM

Session 6. Parental Age Effects

Location: Tikahtnu Ballroom

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

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

11:30 AM - 12:15 PM

Mark Smith Award Presentation and Lecture

Location: Tikahtnu Ballroom

12:15 PM - 1:30 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

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

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

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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⁺ 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

160. The Effects of Stereotypes of Aging on Elder Care Decisions

5:00 PM - 7:00 PM
Speaker: Jacob Markarian

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^{mt}).

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

163. MARY1 increases ATP and AMPK α 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

173. Age-induced mitochondrial fragmentation in neuronal sub-compartments

5:00 PM - 7:00 PM
Speaker: Abigail Morgan

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

193. Neuroendocrine aging as a driver of skeletal muscle aging

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: Abigail 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

203. Interleukin-8 as a Causal Link Between Aging and Impaired Influenza Antibody Responses in Older Adults

5:00 PM - 7:00 PM

Speaker: Huy Quach

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

206. A quantitative approach to measure inflammaging within stem cells

5:00 PM - 7:00 PM

Speaker: Pradeep Ramalingam

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

5:00 PM - 7:00 PM

Speaker: Carmen Ramos

208. Methuselah antagonists targeted to Insulin-producing cells extend the health span, in *Drosophila melanogaster*

5:00 PM - 7:00 PM

Speaker: Ravi Ranjan

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

212. Time-Restricted Feeding Enhances Cerebrovascular Bioenergetic Health via Increased Ketone Body Production

5:00 PM - 7:00 PM

Speaker: Zeke Reyff

- 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 Ca²⁺ 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^{-/-} 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
- 229. A Look into the Development of Senolytic Drugs as Anti-Aging Solutions**
5:00 PM - 7:00 PM
Speaker: Nia Sauda
- 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: Sydney Scofield
- 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

236. Novel, engineered fusogenic liposome-based anti-oxidant delivery system improves cerebrovascular health in aging

5:00 PM - 7:00 PM

Speaker: Santny Shanmugarama

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

239. CheekAge: a novel next-generation buccal epigenetic age clock that associates with lifestyle, health, and mortality risk.

5:00 PM - 7:00 PM

Speaker: Max Shokhirev

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

5:00 PM - 7:00 PM

Speaker: Solveig Sieberts

241. Unveiling Centromere Inactivation: A Driver of Genome Instability in Human Aging

5:00 PM - 7:00 PM

Speaker: Sweta Sikder

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

5:00 PM - 7:00 PM

Speaker: Parminder Singh

243. Lysosomal dysfunction in UVB-induced dermal senescence

5:00 PM - 7:00 PM

Speaker: Phineas Smith

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

247. Effects of Adenylyl Cyclase 8 Overexpression in Young and Old mice

5:00 PM - 7:00 PM

Speaker: Shaun Stevenson

248. Walking Speed and Brain Connectivity in Older Adults

5:00 PM - 7:00 PM

Speaker: Nathan Stiehl

249. A Data Infrastructure to Guide Studies into Uncharacterized Aging Genes

5:00 PM - 7:00 PM

Speaker: Thomas Stoeger

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

253. CSF biomarkers of inflammation and neurodegeneration in female cynomolgus monkeys fed Mediterranean or Western diets

5:00 PM - 7:00 PM

Speaker: Courtney Sutphen

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: Zsafia Szarvas

256. Determinants of heterogeneity of healthy aging

5:00 PM - 7:00 PM
Speaker: Marina Terekhova

257. Epigenetic organization of spatial aging with single-cell accuracy.

5:00 PM - 7:00 PM
Speaker: Alexey Tersikh

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

261. Induction of rapid-onset senescence is integral to healing and is independent of transcription

5:00 PM - 7:00 PM
Speaker: Karla Valdivieso

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: Sam 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: John 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

277. Continuous intermittent clearance of p21-highly-expressing cells extends lifespan

and confers sustained benefits to health and physical function

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

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

282. Single-cell analysis of human hypothalamus in early-stage Alzheimer's disease

5:00 PM - 7:00 PM
Speaker: Doudou Yu

283. Wolbachia modulates age-dependent inflammatory responses to viral infection in Drosophila

5:00 PM - 7:00 PM
Speaker: Cody Zamarron

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

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

285. Can the M1/M2 Macrophages Ratio Predict the Long-term Cognitive Function in Older Sepsis Survivors?

5:00 PM - 7:00 PM
Speaker: Rola Zeidan

286. Iron levels in Postmenopausal Women – Insights from the All of Us Cohort

5:00 PM - 7:00 PM
Speaker: Rola Zeidan

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

Wed, May 14, 2025

7:00 AM - 8:00 AM

Breakfast

Location: Tikahtnu Ballroom

7:00 AM - 8:00 AM

Meet the NIA Table

Location: Tikahtnu Ballroom

8:00 AM - 9:30 AM

Session 8. Reevaluation of Aging Treatments

Location: Tikahtnu Ballroom

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

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

Speakers: Sailendra Nath Nichenametla, Daniela Costa, Purbasha Dasgupta, Mariah Calubag ; Chair: Dudley Lamming

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

10:00 AM - 10:20 AM

Speaker: Sailendra Nath Nichenametla

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

10:20 AM - 10:40 AM

Speaker: Daniela 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

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

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