



# 2024 Oklahoma Geroscience Symposium

## Mitochondria in aging and age-associated disease

**April 11, 2024**  
**8:25 AM - 5:30 PM**

8:00 AM Light breakfast and Registration

8:25 AM **Veronica Galvan, Ph.D.**, Director, Oklahoma Nathan Shock Center on Aging  
*Introduction / Welcome*

### SESSION 1

#### Mitochondria in skeletal muscle aging and in age-associated disease

*Chairs: Dr. Sabira Mohammed Jazir and Dr. Jordan Fuqua*

8:30AM **Darrell Neufer, Ph.D.**, East Carolina University  
*Health Span from a Mitochondrial Bioenergetics Perspective*

9:00AM **Anna E. Thalaker-Mercer, Ph.D.**, University of Alabama at Birmingham  
*Nutrient and metabolic determinants of skeletal muscle composition in advanced age*

9:30AM **Russ Hepple, Ph.D.**, University of Florida  
*Mitochondrial Biology in Aging Skeletal Muscle*

10:00AM **Colleen O'Reilly, Ph.D.**, Oklahoma Medical Research Foundation  
*Skeletal muscle mitochondrial dynamics of old mice are slower than young mice in vivo*

10:20AM - 10:40AM **COFFEE BREAK**

### SESSION 2

#### Mitochondria in the aging nervous and immune systems

*Chairs: Dr. Colleen O'Reilly and Dr. Sreemathi Logan*

10:40AM **Tommy Lewis, Ph.D.**, Oklahoma Medical Research Foundation  
*AMPK dependent mitochondrial fission in neuronal health and disease*

11:00AM **K Awardee: Charles Najt, Ph.D.**, Virginia Tech University  
*Lipid Droplet Signaling in Metabolic Health and Aging*

11:20AM **Carlos Diaz Garcia, Ph.D.**, University of Oklahoma Health Sciences Center  
*Ca<sup>2+</sup> fluxes regulate the cytosolic and mitochondrial NADH dynamics in active neurons*

11:40AM **Julia Busik, Ph.D.**, University of Oklahoma Health Sciences Center  
*Dyslipidemia and diabetic retinopathy - a lipocentric approach to a glucocentric problem*

12:10PM - 2:00PM **LUNCH AND POSTER SESSION (Conference Rooms A & B)**

## KEYNOTE PRESENTATION

2:00PM

**Keynote Speaker: Gerald Shadel Ph.D.**, Salk Institute for Biological Studies  
*Nucleic Acid-Mediated Mitochondrial-Nuclear Signaling*

### SESSION 3

**Mitochondria in cardiac aging**

*Chairs: Dr. Archana Unnikrishnan and Dr. Sarah Ocanas*

3:00PM

**Rong Tian, MD, Ph.D.**, University of Washington  
*Mitochondrial mechanisms of human disease: bioenergetics and beyond*

3:30PM

**Ann Chiao, Ph.D.**, Oklahoma Medical Research Foundation  
*Mitochondrial metabolism in cardiac aging*

3:50PM

**K Awardee: Danielle Bruns, Ph.D.**, University of Wyoming  
*Distinct mechanisms of aging in the cardiac right and left ventricles*

4:10PM

**OKC NSC Pilot Award Lecture: Sandra Lee, Ph.D.**, University of Utah  
*Inducible cardiac-specific NNUFA13 knockout mice results in dilated cardiomyopathy without inflammation*

4:30PM

**Funder's Roundtable:** Dr. Christy Carter (NIA), Dr. Viviana Perez (Hevolution Foundation), Dr. Yih-Woei Fridell (NIA).  
*Chaired by Dr. Deepa Sathyaseelan and Dr. Benjamin Miller*

5:15 PM

**Poster Awards Presentation and Closing Remarks**

5:30PM – 7:30PM

**Trainee/Faculty Reception Mixer on the Terrace**