



## Tenth McKnight Inter-Institutional Meeting Birmingham, Alabama April 4 – 6, 2018

### Wednesday, April 4, 2018

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- 1:00 – 6:00 p.m.      Registration: DoubleTree by Hilton – Lower Level - Foyer
- 6:00 - 6:30 p.m.      Reception: Doubletree Hilton Hotel - Lower Level - Heritage 1
- 6:30 - 8:00 p.m.      Dinner: Doubletree Hilton Hotel – Lower Level – Heritage 1

Welcome

**Ronald M. Lazar, PhD, FAAN, FAHA**

Evelyn F. McKnight Endowed Chair

Professor of Neurology

Director, Evelyn F. McKnight Brain Institute at UAB

Director, Division of Neuropsychology

University of Alabama at Birmingham

**J. Lee Dockery, MD**

Chair, Board of Trustees

McKnight Brain Research Foundation

### Thursday, April 5, 2018

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- 7:30 – 8:40 a.m.      Breakfast: Doubletree Hilton Hotel – Heritage 2
- 8:45 - 9:00 a.m.      Opening Remarks – Heritage 1

**Ronald M. Lazar, PhD, FAAN, FAHA**

Evelyn F. McKnight Endowed Chair

Director, Evelyn F. McKnight Brain Institute at UAB

University of Alabama at Birmingham

**Christopher S. Brown, PhD**

Vice President for Research

University of Alabama at Birmingham

**J. Lee Dockery, MD**

Chair, Board of Trustees

McKnight Brain Research Foundation

## **SESSION I      Intervention**

Location: Heritage 1      Moderator: **Carol Barnes, PhD**

- 9:00 – 9:15 a.m.      *“Intervention Opportunities for Cognitive Decline: Report from the National Academy of Medicine”*  
**Ralph Sacco, MD, MS, FAHA, FAAN**  
Professor and Olemberg Chair of Neurology  
Executive Director McKnight Brain Institute  
Chief of Neurology Jackson Memorial Hospital  
Director, UM Clinical & Translational Science Institute  
Senior Associate Dean for Clinical & Translational Science  
Miller School of Medicine, University of Miami  
President, American Academy of Neurology
- 9:20 – 9:45 a.m.      *“Exercise is Regenerative Medicine: Impact on Aging”*  
**Marcas M. Bamman, PhD, FACMS**  
Professor and Center Director  
Center for Exercise Medicine  
University of Alabama at Birmingham
- 9:50 – 10:15 a.m.      *“The ACT Intervention Trial”*  
**Ronald Cohen, PhD, ABPP, ABCN**  
Evelyn McKnight Chair of Clinical Translation in Cognitive Aging  
Professor, Clinical and Health Psychology, Neurology and Psychiatry  
Director, Center for Cognitive Aging and Memory  
University of Florida
- Adam Woods, PhD**  
Assistant Professor, Clinical and Health Psychology, Neuroscience  
Assistant Director, Ctr for Cognitive Aging and Memory Clinical Trans Res  
University of Florida
- 10:20 – 10:25 a.m.      Additional Q & A
- 10:30 – 10:40 a.m.      Break
- 10:40 – 11:00 a.m.      *“Modifiable Risk Factors in Cognitive Aging: Influence of Vascular Health and Physical Activity”*  
**Gene Alexander, PhD**  
Professor  
Departments of Psychology and Psychiatry  
University of Arizona
- 11:05 - 11:25 a.m.      *“Cognitive Resilience: Mechanisms and Therapeutic Windows for Memory Loss”*  
**Jeremy Herskowitz, PhD**  
Assistant Professor  
Department of Neurology  
University of Alabama at Birmingham
- 11:25 – 11:30 a.m.      Additional Q & A
- 11:30 – 12:30 p.m.      Lunch - Heritage 2

## **KEYNOTE ADDRESS**

12:30 -1:45 p.m.      *"Epigenetic Clock Analysis of Cognitive Aging"*  
**Steve Horvath, PhD**  
Professor, Human Genetics and Biostatistics  
David Geffen School of Medicine  
University of California

## **SESSION II      McKnight Brain Aging Registry (MBAR)**

Location: Heritage 1      Moderator: **Tatjana Rundek, MD, PhD, FANA**

2:00 - 2:20 p.m.      *"MBAR I: Clinical Update"*  
**Bonnie Levin, PhD**  
Bernard and Alexandria Schoninger Professor of Neurology  
Director, Division of Neuropsychology  
University of Miami, Miller School of medicine

2:20 - 2:40 p.m.      *"MBAR II: Imaging Update"*  
**Kristina Visscher, PhD**  
Associate Professor  
Department of Neurobiology  
University of Alabama at Birmingham

2:40 – 2:45 p.m.      Additional Q & A

2:45 – 3:00 p.m.      Break

## **SESSION III      New MBI Faculty**

Location: Heritage 1      Moderator: **Ron Cohen, PhD**

3:00 – 3:12 p.m.      *"Cardiac Reperfusion, Neuro-inflammation and Human Cognition"*  
**Ronald M. Lazar, PhD, FAAN, FAHA**  
Evelyn F. McKnight Endowed Chair  
Director, Evelyn F. McKnight Brain Institute at UAB  
University of Alabama at Birmingham

3:15 – 3:27 p.m.      *"Novel Peptide Therapy to Treat Cognitive Impairment in Heart Disease Patients at Risk for Alzheimer's Disease"*  
**Meredith Hay, PhD**  
Professor, Physiology, Psychology  
Evelyn F. McKnight Brain Institute  
Arizona Health Sciences Center

- 3:30 – 3:42 p.m.      *“Cognitive, Cultural and Affective Dimensions of Frailty”*  
**Katalina McInerney, PhD**  
Assistant Professor – Clinical  
Department of Neurology  
University of Miami
- Sarah Getz, PhD**  
Neuropsychology Postdoctoral Fellow  
Department of Neurology  
University of Miami
- 3:45 – 3:57 p.m.      *“Exosomes: Biomarkers of Aging and Potential Mediators of Therapeutic Interventions”*  
**Brittney Yegla, PhD**  
Post-doctoral Researcher  
University of Florida
- 4:00 – 4:12 p.m.      *“The Gut Microbiome: A Target for Improving Late Life Cognition?”*  
**Tom Buford, PhD**  
Associate Professor  
Med – Gerontology, Geriatrics, and Palliative Care  
University of Alabama at Birmingham
- 4:15 – 4:27 p.m.      *“Encoding and Retrieval of Complex Events: A Shift towards Knowledge-Based Processing with Normal Aging”*  
**Matthew Grilli, PhD**  
Assistant Professor  
Department of Psychology  
Evelyn F. McKnight Brain Institute  
University of Arizona
- 4:30 – 4:42 p.m.      *“Sleep and Neurocognitive Aging in Population Based Studies”*  
**Alberto Ramos, MD, MSPH, FAASM**  
Associate Professor  
Research Director, Sleep Disorders Program  
University of Miami, Miller School of Medicine
- 4:45 – 4:57 p.m.      *“Frontal Gamma-Aminobutyric Acid Concentrations are Associated with Cognitive Performance in Older Adults”*  
**Eric Porges, PhD**  
Assistant Professor  
University of Florida
- 5:00 – 5:05 p.m.      Additional Q & A

## **Friday, April 6, 2018**

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7:30 - 9:00 a.m. Breakfast Buffet and Hotel Check-out  
Location: Heritage 2

7:30 – 9:00 a.m. Board of Directors Breakfast with MBI Directors  
Breakfast Buffet: Location: Heritage 2  
Meeting: Hotel Boardroom – Lower Level

### **SESSION IV Data Blitz: Trends in Neuroscience**

Location: Heritage 1 MODERATOR – **Erik Roberson, MD, PhD**

9:00 – 9:08 a.m. *“Neurobiological Mechanisms of Age-Associated Changes in Decision-Making”*

**Jennifer Bizon, PhD**

Professor

College of Medicine

Department of Neuroscience and Psychiatry

Evelyn F. and William L. McKnight Brain Institute

University of Florida

9:10 – 9:18 a.m. *“Contributions of Perirhinal and Postrhinal Cortex to Memory: Implications for Aging”*

**Lee Ryan, PhD**

Professor and Department Head

Associate Director, Evelyn F. McKnight Brain Institute

Director, Cognition and Neuroimaging Laboratory

University of Arizona

9:20 – 9:28 a.m. *“Processing Speed Training to Preserve Driving and Functional Competencies in Persons with Mild Cognitive Impairment”*

**Virginia Bradley, PhD**

Professor

Med-Gerontology/Geriatrics/Palliative Care

University of Alabama at Birmingham

9:30 – 9:38 a.m. *“Retinal Microvascular and Microstructural Changes in Normal Aging and Alzheimer's Disease”*

**Hong Jiang, MD, PhD**

Assistant Professor of Clinical

Neuro-ophthalmology & Neurology

Bascom Palmer Eye Institute

Department of Neurology

University of Miami

9:40 – 9:48 a.m. *“Perforant Path Fiber Loss Impairs Mnemonic Similarity Task Performance in Rats”*

**Sara Burke, PhD**

Assistant Professor

Department of Neuroscience

University of Florida

- 9:50 – 9:58 a.m.      *"Neat1 Mediated Histone Methylation and c-Fos Gene Expression in Memory and Age-Related Memory Deficits"*  
**Farah Lubin, PhD**  
Associate Professor  
Department of Neurobiology  
University of Alabama at Birmingham
- 10:00 – 10:08 a.m.      *"Post-Stroke Physical Exercise Improves Cognitive Outcomes in Young and Elderly Animals"*  
**Kunjan Dave, PhD**  
Research Associate Professor  
Department of Neurology  
University of Miami
- 10:10 – 10:18 a.m.      *"Use of Internet-Based Testing to Identify Factors Associated with Successful Cognitive Aging"*  
**Matthew Huentelman, PhD**  
Professor, Neurogenomics Division  
Scientific Director, Center for Rare Childhood Disorders  
The Translational Genomics Research Institute  
University of Arizona
- 10:20 - 11:20 a.m.      Pre-Meeting Reports
- 11:20 a.m.                Closing Remarks  
  
**Ronald M. Lazar, PhD**  
  
**J. Lee Dockery, MD**
- 11:30 a.m.                Travelers pick up box lunches  
Foyer – Lower Level
- 11:30 a.m.                Shuttle service to airport begins