MONDAY, MAY 15, 2017

8:30-9:00  Breakfast

CELL THERAPY FOR VASCULAR DISEASE
Chair: Fadi G. Hage, MD

9:00-9:30  Modified CRISPR/Cas complexes for enhanced gene correction of sickle cell disease
Tim M. Townes, PhD
9:30-9:45  Q&A

9:45-10:15  Targeted endothelial cell therapy for the repair of cardiovascular injury
Yiu-Fai Chen, PhD
10:15-10:30  Q&A

10:30-10:45  Break

10:45-11:15  IPS-derived endothelial cells overexpressing CXCR1/2 and/or CCR2/S inhibit acute lung injury
Dongqi Xing, MD, PhD
11:15-11:30  Q&A

11:30-12:00  Cell therapy for the injured heart
Jianyi (Jay) Zhang, MD, PhD
12:00-12:15  Q&A

12:15-1:00  Lunch

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ROLE OF INFLAMMATION AND MITOCHONDRIAL DYSFUNCTION IN THE PATHOGENESIS OF HYPERTENSION AND VASCULAR DISEASE
Chair: Rakesh P. Patel, PhD

1:00-1:30  The bioenergetic health concept and its measurement in human populations
Victor M. Darley-Usmar, PhD
1:30-1:45  Q&A

1:45-2:15  Role of HDL-associated proteins and lipids in the regulation of inflammation
Roger White, PhD
2:15-2:30  Q&A

2:30-2:45  Break

2:45-3:15  Impact of mitochondria on endothelial function in type 2 diabetes
Michael E. Widdiansky, MD, MPH
3:15-3:30  Q&A

3:30-4:00  Mitochondrial damage-associated molecular patterns and vascular function in hypertension
Cameron G. McCarthy, PhD
4:00-4:15  Q&A

4:15-6:00  18th Annual Trainee Poster Session
Location: UAB Hill Student Center, Third Floor

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TUESDAY, MAY 16, 2017

8:30-9:00  Breakfast

SPECIAL SESSION – KEYNOTE LECTURES
Chair: Suzanne Oparil, MD

9:00-9:40  Blood pressure early in life and outcomes later in life
Samuel S. Gidding, MD
9:40-9:55  Q&A

9:55-10:35  Primordial prevention of hypertension and CVD: The next frontier
Donald M. Lloyd-Jones, MD, ScM
10:35-10:50  Q&A

10:50-11:05  Break

11:05-11:45  Hypertension management in 2017: What we know. What we don’t know. What we think we know
Jackson T. Wright Jr., MD, PhD
11:45-12:00  Q&A

12:00-12:45  Lunch and Poster Session Awards

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SLEEP AND HYPERTENSION
Chair: Jennifer S. Pollock, PhD, FAHA

12:45-1:15  Can we sleep our way to better health?
Daniel J. Buysse, MD
1:15-1:30  Q&A

1:30-2:00  Sleep more and stress less
S. Justin Thomas, PhD
2:00-2:15  Q&A

2:15-2:45  Circadian misalignment and cardiovascular risk
Kun Hu, PhD
2:45-3:00  Q&A

3:00  Adjournment

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2017 Symposium Planning Committee:
David A. Calhoun, MD, Yiu-Fai Chen, PhD
Program Directors: Paul M. Muntner, PhD, Suzanne Oparil, MD

FACULTY LIST

Daniel J. Buysse, MD
UPMC Professor of Sleep Medicine
Professor of Psychiatry and Clinical and Translational Science
University of Pittsburgh School of Medicine
Department of Psychiatry
Pittsburgh, Pennsylvania

Yiu-Fai Chen, PhD, FAHA, FASH
Professor
UAB, Division of Cardiovascular Disease

Victor M. Darley-Usmar, PhD
Endowed Professor of Mitochondrial Medicine and Pathology
Associate Dean for Research, School of Medicine
UAB, Department of Pathology

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UAB, Division of Cardiovascular Disease
Chief, Cardiology Service, Birmingham VAMC

Kun Hu, PhD
Assistant Professor of Medicine
Harvard Medical School
Director, Medical Biodynamics Program
Brigham & Women’s Hospital
Division of Sleep and Circadian Disorders
Departments of Medicine and Neurology
Boston, Massachusetts

Donald M. Lloyd-Jones, MD, ScM
Senior Associate Dean for Clinical & Translational Research & Chair, Department of Preventive Medicine
Director, Northwestern University Clinical and Translational Sciences (NUCATS) Institute
Eileen M. Foell Professor of Heart Research
Northwestern University Feinberg School of Medicine
Chicago, Illinois

Cameron G. McCarthy, PhD
Postdoctoral Scholar
Department of Physiology
Medical College of Georgia
Augusta, Georgia
EDUCATIONAL OBJECTIVES

After participating in this CME activity, participants should be able to:

- Understand how CRISPR technology could be used for gene correction of sickle cell disease.
- Be aware of the potential of novel cell therapies for the repair of inflammatory vascular injury in multiple organs.
- Understand new approaches to measuring mitochondrial function in human patients and the potential for translational medicine.
- To appreciate the how mitochondrial proteins and mitochondrial-derived reactive oxygen species impact endothelial function in patients with diabetes.
- Understand the role of assessing trajectories of blood pressure and cardiovascular disease in order to appreciate the effect of elevated blood pressure early in life on cardiovascular disease outcomes in adulthood.
- Gain a better understanding of the role of primordial prevention of hypertension in preventing cardiovascular disease.
- Understand the effect of aging on trajectories of blood pressure/hypertension and the development of vascular disease throughout the life cycle.
- Be aware of current thinking about and controversies in the management of hypertension.
- Understand the contributions of poor sleep quality to hypertension and cardiovascular disease.
- Be aware of the role of stress and anxiety in the development of hypertension.

ACCREDITATION

To receive CME credit, you must sign in each day of attendance and provide all required information.

The University of Alabama School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The University of Alabama School of Medicine designates this live activity for a maximum of 11 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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