Ninth Annual Meeting
May 17-18, 2019 • University of Iowa, Iowa City, IA
Iowa Memorial Union Main Lounge

Meeting theme: “Chronological vs. Vascular Aging: Biological, Clinical and Population Implications”

Final Program

Friday, May 17, 2019

7:30-8:45 am Registration and Breakfast (IMU Main Lounge Foyer)

8:00-8:45 am  
*Sponsored Breakfast Lecture: Sponsored by Cardiovascular Engineering, Inc., Norwood, MA

8:45-9:00 am Welcome and Opening Remarks
Gary Pierce, PhD and Bo Fernhall, PhD: Co-Chairs, NAA Meeting Program Committee
Julio Chirinos, MD, PhD: NAA Vice-President

9:00-9:45 am: Opening Plenary Lecture
Moderator: Ray Townsend, MD, University of Pennsylvania

Vascular vs. Chronological Aging: Effect of Rise in Systolic Blood Pressure Across the Lifespan
Speaker: Stanley Franklin, MD, University of California- Irvine

9:45-11:10 am: Symposium: Biology of Vascular Aging
Moderator: Gary Pierce, PhD, University of Iowa

9:45-10:10 am Time and Metrics of Biological Aging
Speaker: Luigi Ferrucci, PhD, National Institute on Aging

10:10-10:35 am Arterial Senescence, DNA Damage and Telomere Dysfunction: Implications for Arterial Aging
Speaker: Anthony Donato, PhD, University of Utah

10:35-11:00 am Molecular Causes of Increased Vascular Smooth Muscle Stiffness with Aging
Speaker: Kathleen Morgan, PhD, Boston University

11:00-11:10 am Panel Discussion

11:10-11:45 am: Coffee Break, Poster Session, Vendor Exhibit
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11:45 am-12:45pm:  
Tutorial Lectures: Contemporary Methods for Measuring Aortic Pulse Wave Velocity (PWV)  
Moderator: Stella Daskalopoulou, MD, PhD, McGill University

11:45am-12:05 pm  
Tonometry vs. Cuff-Based Methods for Aortic PWV  
Speaker: Daniel Duprez, MD, PhD, University of Minnesota

12:05am-12:25pm  
MRI Methods for Measuring Aortic PWV  
Speaker: Gary Mitchell, MD, Cardiovascular Engineering, Inc.

12:25am-12:45pm  
Doppler Ultrasound Methods for Measuring Aortic PWV  
Speaker: Julio Chirinos, MD, PhD, University of Pennsylvania

12:45-1:35 pm:  
Lunch, Poster Session, Vendor Exhibits (Exhibit Hall)  
1:35-3:00 pm:  
Symposium: Early Vascular Aging in Persons with Disability  
Moderator: Bo Fernhall, PhD, University of Illinois Chicago

1:35-2:00pm  
Spinal Cord Injury and Early Vascular Aging  
Speaker: Aaron Phillips, PhD, University of Calgary

2:00-2:25pm  
Multiple Sclerosis and Early Vascular Aging  
Speaker: Rob Motl, PhD, University of Alabama Birmingham

2:25-2:50pm  
Down Syndrome and Arterial Aging  
Speaker: Andrea Kelly, MD, University of Pennsylvania

2:50-3:00pm:  
Panel Discussion

3:00-3:55 pm:  
Coffee/Refreshment Break, Vendor Exhibit, and Poster Viewing  
(3) 10-Minute Vendor Demonstrations  
3:20-3:30pm: Cardiovascular Engineering, Inc.  
3:30-3:40pm: Fukuda Denshi USA  
3:40-3:50pm: ALF Distribution GmbH
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3:55 -5:25 pm: (6) Oral Abstract (15 min each) presentations for trainees sponsored in part by the American Physiological Society

Moderators: Bo Fernhall, PhD; Stanley Franklin, MD

3:55-4:10pm: Joshua Bock, The University of Iowa. Microvascular Endothelial Function is Inversely Related to HBA1C and Plasma Glucose Responsiveness in Patients with Type 2 Diabetes. (Abstract #OR-01)

4:10-4:25pm: Michelle Harbin, University of Minnesota. Relation of Secondhand Smoke Exposure to Vascular Phenotypes in Children and Adolescents. (Abstract #OR-02)

4:25-4:40pm: Seth Holwerda, The University of Iowa. Sex Differences in the Association Between Greater Common Carotid Artery Wall Thickness and Muscle Sympathetic Nerve Activity with Age. (Abstract #OR-03)

4:40-4:55pm: Michael Nelson, University of Texas at Arlington. Reactive Hyperemia is Coupled to the Magnitude of Tissue Desaturation: Implications for Past, Present and Future Microvascular Assessment. (Abstract #OR-04)

4:55-5:10pm: Chueh-Lung Hwang, University of Illinois at Chicago. Type 2 Diabetes Exacerbates Age-Related Arterial Stiffening and Diminished Exercise-Induced Destiffening in Older Adults. (Abstract #OR-05)

5:10-5:25pm: Elise Kronquist, University of Oregon. High Pulse Pressure Impairs Endothelium-Dependent Dilation in Cerebral Arteries from Young, but Not Old, Mice. (Abstract #OR-06)

5:25-5:45 pm: Coffee/Refreshment Break, Vendor Exhibit, and Poster Viewing

(1) 10-Minute Vendor Demonstration

5:30-5:40pm: Uscom Limited

5:45- 6:30pm: Debate: Central blood pressure hemodynamics are better predictors of stroke incidence and stroke prognosis than brachial blood pressure?

Moderator: John Cockcroft, MD, Cardiff University, UK

‘Pro’ position: Alberto Avolio, PhD, Macquarie University, Sydney, Australia

‘Con’ position: Ernesto Schiffrin, MD, PhD, Sir Mortimer B. Davis-Jewish General Hospital, McGill University, Montreal, Canada
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6:30-7:15pm  Pre-Dinner Reception: IMU Terrace overlooking Iowa River

7:15 pm  Take Ulowa CamBus Shuttle to Kinnick Stadium for Dinner

7:30-9:00 pm:  
Dinner- Kinnick Stadium McCord Club Lounge (Level 1)
NAA Lifetime Achievement Awards in Hemodynamics and Hypertension
Wilmer W. Nichols, PhD, University of Florida
Stanley S. Franklin, MD, University of California-Irvine

➤  Saturday May 18, 2019

7:30-8:30 am  Breakfast (IMU Main Lounge Foyer)

8:00-8:30 am:  Meet the experts at breakfast: Trainee opportunity to meet and talk with select experts

8:30-9:00am:  NAA Co-Sponsored Symposium with Artery Society
Moderator: Julio Chirinos, MD, PhD, University of Pennsylvania

Regulatory Role of Coagulation Factors in Vascular Function
Speaker: Jeremy LaGrange, PhD, Center for Thrombosis and Hemostasis, Johannes Gutenberg-University, Mainz, Germany
Young Investigator Award Winner- ARTERY 18 Meeting

9:00-10:05 am:  Symposium: “Intensive BP Lowering and Vascular Aging in SPRINT”
Moderator: Mahboob Rahman, MD, Case Western Reserve University

9:00-9:25am  Cognitive Function, Arterial Stiffness and Intensive BP Lowering
Speaker: Mark Supiano, MD, University of Utah
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9:25-9:50am  
Carotid Atherosclerotic Plaque Morphology, Chronic Kidney Disease and CV Outcomes: A SPRINT Ancillary Study  
Speaker: Srini Beddhu, MD, University of Utah

9:50-10:05am  
Panel Discussion

10:05-10:30am  
NAA Past-President’s Lecture  
Moderator: Gary Pierce, PhD, University of Iowa  
Renal Denervation: Arterial Stiffness DOES NOT Predict the Expected Outcome  
Speaker: Ray Townsend, MD, University of Pennsylvania  
(Sponsored in part from an unrestricted grant from Medtronic, Inc.)

10:30-11:30am:  
Coffee Break, Poster Session, Vendor Exhibits  
(3) 10-Minute Vendor Demonstrations  
10:55-11:05am: Softcare/Laser Speckle Flowgraphy  
11:05-11:15am: UNEX Corp  
11:15-11:25am: Hitachi Aloka

11:30am-12:55pm:  
Symposium: Inorganic Nitrate and Treatment of Vascular Aging  
Moderator: Demetra Christou, PhD, University of Florida  
11:30-11:55am  
Nitrate and Vascular Function in Heart Failure  
Speaker: Julio Chirinos, MD, PhD, University of Pennsylvania

11:55am-12:20pm  
Inorganic Nitrate and Regulation of Blood Flow/Vascular Function in Aging and Disease  
Speaker: Darren Casey, PhD, University of Iowa

12:20-12:45pm  
Nitrate and Cerebrovascular Function/Blood Flow in Aging or Disease  
Speaker: Kevin Heffernan, PhD, Syracuse University

12:45-12:55pm  
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12:55-2:00pm: Lunch, Poster Session
Poster presenters 1:10-2:00pm
(1) 10-Minute Vendor Demonstration
1:45-1:55pm: MitoQ

2:00-3:30pm: (6) Oral Abstract (15 min each) presentations for trainees and faculty
Moderators: Kevin Heffernan, PhD; Kerrie Moreau, PhD
Trainees:
2:00-2:15pm: Martin Schultz, University of Tasmania. The Accuracy of Form-Factor Derived Mean Arterial Pressure is Dependent on Systolic Blood Pressure Amplification. (Abstract #OR-07)
2:15-2:30pm: Lyndsey DuBose, The University of Iowa. Education Selectively Moderates the Effects of Age-Related Increases in Blood Pressure on Cognition in Men. (Abstract #OR-08)
2:30-2:45pm: Vienna Brunt, University of Colorado Boulder. Passive Heath Therapy Lowers Systolic Blood Pressure and Improves Vascular Endothelial Function and Oxidative Stress in Older Adults: Role of Circulating Factors. (Abstract #OR-09)
2:45-3:00pm: Brooks Hibner, University of Illinois at Chicago. Effects of Cardiorespiratory Fitness on Ventricular-Vascular Coupling During Acute Inflammation in Young Healthy Adults. (Abstract #OR-11)
Faculty:
3:00-3:15pm: Randy Kardon, The University of Iowa. Laser Speckle Ocular Blood Flow and Pulsatility in Heart Failure Patients Implanted with a Left Ventricular Assistive Device. (Abstract #OR-10)
3:15-3:30pm: Ryuya Hashimoto, The University of Iowa. Light Evoked Retinal Activation is Metabolically Coupled to Increases in Human Retinal, Choroidal and Optic nerve Head Blood Flow. (Abstract #OR-12)

3:40-4:10 pm: Closing Plenary Lecture
Moderator: Gary Pierce, PhD, University of Iowa
Should We Measure Pulse Wave Velocity in All Hypertensive Patients?
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Charalambos Vlachopoulos, MD, University of Athens Medical School, Hippokration Hospital, Athens, Greece
Past President, Artery Society

4:10-4:15pm: Trainee Award Presentations
Oral abstract presentation awards (1st and 2nd place)

4:15-4:20 pm: Concluding Remarks and Adjourn Meeting

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