



# Hypertension 2022

## Final Program

### Wednesday, September 7, 2022

**7:30 – 9:00 AM**

**Session 1**

**Sapphire BCFGJKNO**

**Opening Remarks and Keynote Lecture**

**Presidential Remarks and Welcome**

**7:30** Michelle A. Albert, MD, MPH, FAHA, American Heart Association President

**7:45** Curt D. Sigmund, PhD, FAHA, Chair, Council on Hypertension

**7:55** R. Ariel Gomez, MD, FAHA, Chair, Hypertension 2022 Program Committee

**8:10** **Opening Keynote Lecture:**

**Challenges and New Approaches to Drug Discovery for G Protein Coupled Receptors**

Brian Kobilka, MD, Department of Molecular and Cellular Physiology, Stanford University School of Medicine

**9:00 – 10:00 AM**

**Session 2**

**Sapphire BCFGJKNO**

**Recent Advances in Hypertension**

**Adipose Biology in the Cardiovascular System: Advances, Tools and Context in Hypertension**

**Moderators:** Stephanie Watts, PhD, FAHA and Clintoria R. Williams, PhD, FAHA

**9:00** **The Multifaceted Roles of Adipose Tissue**

Christy Gliniak

**9:20** **A Unique Adipocyte Progenitor Population Promotes Age-Related Adiposity**

Qiong (Annabel) Wang, PhD

**9:40** **Adipose Tissue in the CV system**

Andres Contreras, DVM, MS, PhD

**10:00 AM**

**Break**

**10:30 AM – 12:00 PM**

**Session 3**

**Sapphire BCFGJKNO**

**Recent Advances in Hypertension**

**Sodium-Potassium Ratio: Effects and the Implications for the Public**

**Moderators:** Stephen Juraschek, MD, PhD, FAHA and Alexander Staruschenko, PhD, FAHA

**10:30** **Non-Traditional Mechanisms of Salt-Sensitivity**

Srividya Kidambi, MD, MS

**10:55** **Beneficial Effects of a High Potassium Diet**

Paul A. Welling, MD, FAHA

**11:20 Population Effects of Dietary Changes**

Kirsten Bibbins-Domingo, MD, PhD

**11:45 Discussion/Q&A**

**12:00 PM**

**Session 4**

**Sapphire DH**

**Meet the Nobel Networking Event**

Brian Kobilka, MD, Department of Molecular and Cellular Physiology, Stanford University School of Medicine  
(Open to all, Limited Attendance)

**1:30 – 3:00 PM**

**Concurrent Session 5A**

**Sapphire 400**

**Trainee Advocacy Committee (TAC) Jr Faculty Showcase Session**

**Moderators:** Jessica L Faulkner, PhD and Francisco Rios, PhD

**1**

1:30 **Germline Mutagenesis Induces Blood Pressure And Heart Rate Variation In Mice Uncovering Novel Insights On The Genesis Of Cardiovascular Disease Risks** Samantha Kuwada Teixeira, Roberto Pontes, Luiz Fernando Zuleta, Rogerio Rosa, Heart Inst - FMUSP, Sao Paulo, Brazil; Letícia Bertoline, FMUSP, Sao Paulo, Brazil; Jianhui Wang, darui xu, Ctr for the Genetics of Host Defense, Univ of Texas Southwestern Medical Ctr, Dallas, TX; Jamie L Russell, UT SOUTHWESTERN MEDICAL CENTER, Dallas, TX; Xiaoming Zhan, Mihwa Choi, Miao Tang, Ctr for the Genetics of Host Defense, Univ of Texas Southwestern Medical Ctr, Dallas, TX; Xiaohong Li, Sara Ludwig, Bruce Beutler, Jose E Krieger, Univ Sao Paulo Med Sch, Sao Paulo Sp, Brazil

**2**

1:45 **Reducing Blood Pressure By Decreasing Na/k Pump Activities Using Synchronization Modulation Electric Field** Lei Wang, UNIVERSITY OF SOUTH FLORIDA, Tampa, FL

**3**

2:00 **Treatment With *Ligilactobacillus* Improves Gut Permeability And Hypertension In Spontaneously Hypertensive Rats** Masashi Mukohda, Okayama Univ of Science, Imabari Ehime, Japan; Takanori Yano, Okayama Univ of Science, Okayama Okayama, Japan; Toshiyasu Matsui, Okayama Univ of Science, Imabari Ehime, Japan; Sho Nakamura, Nagoya Univ, Aichi Nagoya, Japan; Jiro Miyamae, Okayama Univ of Science, Imabari Ehime, Japan; Risuke Mizuno, Okayama Univ of Science, Imabari; Hiroshi Ozaki, Okayama Univ of Science, Imabari Ehime, Japan

**4**

2:15 **Pro-angiogenic Effects Of The Thrombospondin-1 Inhibitor Lskl In Preeclampsia Models** Casandra Marc, Allahnah Achille, Univ de Montréal, Montreal, QC, Canada; Geneviève Frégeau, Lydia Hannou, Isabelle Vachon, CIUSSS Nord-de-l'Île-de-Montréal, Montreal, QC, Canada; Cathy Vaillancourt, INRS - Armand-Frappier Santé Biotechnologie Res Ctr, Montreal, QC, Canada; Julie L Lavoie, CHUM, Montreal, QC, Canada; **Mariane Bertagnolli**, McGill Univ, Montreal, QC, Canada

**5**

2:30 **Loss Of Resident Renal Dendritic Cells Prevents Salt-sensitive Hypertension And Pro-inflammatory Cytokine Production** Masaaki Yoshigi, UNIVERSITY UTAH, Salt Lake City, UT; Deborah Stuart, Univ of Utah, Cottonwood Heights, UT; Kennedy Koehler, Harini Srinivasan, Univ of Utah, Salt Lake Cty, UT; Douglas C Eaton, EMORY UNIV SCHOOL MEDICINE, Atlanta, GA; Nirupama Ramkumar, UNIVERSITY OF UTAH, Salt Lake Cty, UT; **Brandi M Wynne**, Univ of Utah, Salt Lake Cty, UT

**6**

2:45 **Liver-specific Bmal1 Deletion In Mice Increases Aortic Stiffness With Age-dependent Alterations In The Vasculature**

**Paramita Pati**, Carmen De Miguel, Jackson Colson, Telisha Millender-Swain, Shannon Bailey, Jennifer S Pollock, Univ of Alabama at Birmingham, Birmingham, AL

## Concurrent Session 5B

### Cobalt 500

#### TAC Oral Abstract Session: Epigenetics: The Genome and Beyond

**Moderators:** Megan M. Shuey, MS, PhD and Benard Ogola Ph.D.

7

1:30

#### **Hypertension-induced Neurovascular Dysfunction At Single-cell Resolution**

**Samantha M Schaeffer**, Weill Cornell Med, New York, NY; Monica M Santisteban, Giuseppe Faraco, WEILL CORNELL MEDICAL COLLEGE, New York, NY; Lidia Garcia-bonilla, Josef Anrather, WCMC, New York, NY; Costantino Iadecola, WEILL CORNELL MEDICAL COLLEGE, New York, NY

8

1:45

#### **Genetic Studies Identify A Novel Role Of *CCDC93* In Arterial Relaxation And Central Systolic Blood Pressure**

**Nitin Kumar**, Univ of Michigan, Ann Arbor, MI; Min-Lee Yang, Issaquah, WA; Pengfei Sun, , Peking Univ First hospital, Beijing, China; Kristina Hunker, Univ of Michigan, Ann Arbor, MI; Yan Zhang, Peking Univ First hospital, Beijing, China; Santhi K Ganesh, INTERNAL MEDICINE/DIV CARDIO MED, Ann Arbor, MI

9

2:00

#### **A Genetic Variant Of Regulatory Associated Protein Of Mtor Complex 1 (raptor) Is Associated With Blood Pressure**

**Hayat Aljaibaji**, Mahyar heydarpour, Brigham and Women's Hosp, BOSTON, MA; Ana Maria Stanton, Brigham and Women's Hosp, Harvard Medical Sch, Boston, MA; Luminita Pojoga, bwh, Boston, MA; Gordon Harold Williams, Brigham and Women's Hosp, Boston, MA

10

2:15

#### **Phosphodiesterase 3a Catalytic-domain Mutants Cause Hypertension With Brachydactyly**

**Charlotte Kayser**, Andreas Bock, Max Delbrück Ctr, Berlin, Germany; Lisette Leeuwen, Dept of Genetics, Univ Medical Ctr Groningen, Groningen, Netherlands; Johanna Herkert, Yvonne Vos, Dept of Genetics, Univ Medical Ctr Groningen, Groningen, Netherlands; Alexa Kidd, Canterbury District Health Board, Christchurch, New Zealand; Atakan Aydin, Oliver Daumke, Martin Lohse, Max-Delbrück-Ctr for Molecular Med in the Helmholtz Association (MDC), Berlin, Germany; Friedrich C Luft, EXPERIMENTAL AND CLINICAL RESEARCH, Berlin, Germany

11

2:30

#### **Epigenetic Determinants Of Renin Cell Identity**

**Jason P. Smith**, Alexandre Goes Martini, Nathan Sheffield, Univ of Virginia, Charlottesville, VA; Maria Sequeira Lopez, Roberto Ariel Gomez, UNIVERSITY OF VIRGINIA, Charlottesville, VA

12

2:45

#### **L-type Calcium Channel Subunit Alpha1d (*CACNA1D*) Gene Polymorphisms Associate With Higher Blood Pressure And Salt Sensitivity Of Blood Pressure**

**Ana Maria Stanton**, Mahyar Heydarpour, Jonathan S Williams, Gordon Harold Williams, Gail K Adler, Div of Endocrinology, Diabetes, and Hypertension, Brigham and Women's Hosp, Harvard Medical Sch, Boston, MA

## Concurrent Session 5C

### Sapphire DH

#### TAC Oral Abstract Session: New Paradigms in Immune Response

**Moderators:** Jing Wu, PhD and Daria Golosova, MD, PhD

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1:30

#### **Microbial Metabolites Induce Pro-inflammatory Mechanisms In Children With Chronic Kidney Disease**

**Hendrik Bartolomaeus**, Johannes Holle, Experimental and Clinical Res Ctr, Berlin, Germany; Ulrike Loeber, Max Delbrück Ctr, Berlin; Felix Behrens, Theda Bartolomaeus, Charite - Univsmedizin Berlin, Berlin, Germany; Harithaa Anandakumar, Moritz I Wimmer, Experimental and Clinical Res Ctr, Berlin, Germany; Dai Long Vu, Berlin Inst of Health (BIH), Berlin, Germany; Sabrina Y Geisberger, Kai-Uwe Eckardt, ECRC, Berlin; Sofia Kirke Forslund, Berlin; Andrea Thürmer, Robert Koch Inst, Berlin, Germany; Victoria McParland, Experimental and Clinical Res Ctr, Berlin, Germany; Jennifer A Kirwan, Berlin Inst of Health (BIH), Berlin, Germany; Dominik Müller, Charite - Univsmedizin Berlin, Berlin, Germany; Nicola Wilck, ECRC, Berlin

14  
1:45

**Gestational Diabetic Cd4+ T Cells Cause Increased Glucose, Blood Pressure And Placental Mitochondrial Dysfunction In A Novel Rat Model Of Diabetes During Pregnancy**

**Evangeline M Deer**, Jan M Williams, Lorena Amaral, Sarah Fitzgerald, Owen Herrock, Nathan Campbell, Babbette B Lamarca, UNIVERSITY OF MISSISSIPPI MEDICAL CENTER, Jackson, MS

15  
2:00

**Hypertensive Stretch On The Regulation Of The Immunological Synapse And Secretomes Of Male And Female Renal Endothelial Cells**

Alex Colvert, Marharyta Semenikhina, Medical Univ of South Carolina, Charleston, SC; Kristine Y Deleon-Pennell, Medical Univ South Carolina, Charleston, SC; Jim Oates, Medical Univ of South Carolina, Charleston, SC; Oleg Palygin, Medical Univ of SC, Charleston, SC; **Justin P Van Beusecum**, MUSC and Ralph H. Johnson VA Medical Ctr, Charleston, SC

16  
2:15

**Magnesium Deficient Diet-induced Hypertension And Renal DC-specific NLRP3 Inflammasome Activation**

**Ashley L Pitzer**, Annet Kirabo, Vanderbilt Univ Medical Cente, Nashville, TN; Evan C Ray, UPMC DIVISION OF NEPHROLOGY, Pittsburgh, PA

17  
2:30

**Dual Immune Checkpoint Inhibitor Therapy Is Associated With Increased Blood Pressure In Melanoma Patients**

**Isik Turker**, Ananya Sharma, Vanderbilt Univ Medical Ctr, Nashville, TN; Shi Huang, Nashville, TN; Douglas Johnson, Nashville, TN, Nashville, TN; Matthew R Alexander, Vanderbilt Univ Medical Ctr, Nashville, TN

18  
2:45

**B Cells Induce Hypertension, AT1AA, And Complement Activation In Preeclampsia Or In Response To A Prior Covid-19 Infection During Pregnancy**

**Owen T Herrock**, Univ of Mississippi Medical Ctr, Jackson, MS; Lorena M Amaral, MEDICAL CENTER- UMMC, Jackson, MS; Evangeline M Deer, Univ of MS Medical Ctr, Brandon, MS; Nathan Campbell, Univ of Mississippi Medical C, Jackson, MS; Rachael Morris, Univ of Mississippi Medical Ctr, Jackson, MS; Sarah Fitzgerald, Univ of Mississippi Medical C, Jackson, MS; Baoying Zheng, Univ of MS medical center, Jackson, MS; Ja'Nasa Hardy-Hardin, Univ of Mississippi Medical Ctr, Jackson, MS; Kathy Cockrell, Univ of Mississippi Medical Ctr, Jackson, MS, Jackson, MS; Babbette B Lamarca, UNIVERSITY MISSISSIPPI MEDICAL CTR, Jackson, MS

**Session 5D  
Sapphire LP**

**CPCS Concurrent**

**State of the Art Debates on Blood Pressure Control**

**Moderator:** Wanpen Vongpatanasin, MD, FAHA

**1:30 Case Presentation 1**

Wanpen Vongpatanasin, MD, FAHA

**1:35 Blood Pressure Control Should Focus on Less Sodium**

Stephen P Juraschek, MD, PhD, FAHA

- 1:50 Blood Pressure Control Should Focus on More Potassium**  
Swapnil Hiremath, MD, MPH, FAHA, FASN, ISHF
- 2:05 Rebuttal** Stephen P Juraschek, MD, PhD, FAHA  
**2:07 Rebuttal** Swapnil Hiremath, MD, MPH, FAHA, FASN, ISHF
- 2:09 Discussion**
- 2:15 Case Presentation 2**  
Lama Ghazi, MD, PhD
- 2:20 Systolic Blood Pressure Target Should Be Less Than 130 mm Hg Among Older Adults with Hypertension**  
Mark A. Supiano, MD, AGSF
- 2:35 For Older Adults We Are Not There Yet: Systolic Blood Pressure Target Should Be 130 mm Hg or Higher**  
Sanjay Kaul, MD
- 2:50 Rebuttal** Mark A. Supiano, MD, AGSF  
**2:52 Rebuttal** Sanjay Kaul, MD
- 2:54 Discussion**

**3:00 PM**  
**Break**

**3:30 – 5:30 PM**

**Concurrent Session 6A**

**Sapphire 400**

**Trainee Advocacy Committee (TAC) Early Career Oral Award Session**

**Moderators:** Brandi M. Wynne, MS, PhD, FAHA and Cameron G. McCarthy, PhD, FAHA

- 19**  
3:30 **T Cell Recognition Of Isoleuglandin-adducted Proteins In Hypertension Is Mhc Class 1-restricted**  
**Nathaniel C Bloodworth**, Wei Chen, Vanderbilt Univ Medical Ctr, Nashville, TN; Natalia R Ruggeri Barbaro, Cellularity, Florham Park, NJ; Mingfang Ao, Amy M Palubinsky, Vanderbilt Univ Medical Ctr, Nashville, TN; Richard T O'Neil, Medical Univ of South Carolina, Charleston, SC; Elizabeth J Phillips, Vanderbilt Univ Medical Ctr, Nashville, TN; Rocco Moretti, Vanderbilt Univ, Nashville, TN; Sean S Davies, VANDERBILT UNIVERSITY, Nashville, TN; Simon A Mallal, Vanderbilt Univ Medical Ctr, Nashville, TN; Jens Meiler, Vanderbilt Univeristy, Nashville, TN; David G. Harrison, Vanderbilt Univ Medical Ctr, Nashville, TN

- 20**  
3:50 **Nox5 Regulates Vascular Smooth Muscle Cell De-differentiation In Human Hypertension**  
**Livia Camargo**, McGill Univ, Montreal, QC, Canada; Sheon Mary, Univ of Glasgow, Glasgow, United Kingdom; Sergio Lilla, Cancer Res UK Beatson Inst, Glasgow, United Kingdom; Sara Zanivan, Univ of Glasgow, Glasgow, United Kingdom; Richard Hartley, Univ of Glasgow, Glasgow, United Kingdom, Glasgow; Christian Delles, William Fuller, Francisco J Rios, Univ of Glasgow, Glasgow, United Kingdom; Augusto C Montezano, Rhian M Touyz, McGill Univ, Montreal, QC, Canada

- 21**  
4:10 **Activated Cd8<sup>+</sup> T Cells Interact With Distal Convoluted Tubules To Promote Salt-sensitive Hypertension Through The Ifn $\gamma$ -pdll Pathway**  
**Lance N Benson**, Yunmeng Liu, Univ of Arkansas for Medical Scien, Little Rock, AR; Yunping Guo, Little Rock, AR; Yunzhao Xiong, Univ of Arkansas for Medical Scien, Little Rock, AR; Katherine Deck, Univ of Arkansas for Medical Scien, Little Rock, AR, Little Rock, AR; Christoph Mora, Univ of Arkansas

for Medical Science, Little Rock, AR, Little Rock, AR, Little Rock, AR; Shengyu Mu, UAMS, Little Rock, AR

**22**  
4:30 **Impaired Parasympathetic Cardiac Modulation In Long-COVID Postural Tachycardia Syndrome**  
**Stefano Rigo**, Vanderbilt Univ Medical Ctr, Nashville, TN; Vasile Urechie, Vanderbilt Univ Medical Centr, Nashville, TN; Andre Diedrich, VANDERBILT MEDICAL CENTER, Nashville, TN; Luis E Okamoto, Vanderbilt Univ Medical Ctr, Nashville, TN; Italo Biaggioni, VANDERBILT UNIVERSITY MEDICAL CENTER, Nashville, TN; Cyndya A Shibao, VANDERBILT UNIV. MEDICAL CENTER, Nashville, TN

**23**  
4:50 **Quantification Of White Matter Lesion Volume From Clinical T1 Weighted Magnetic Resonance Images To Predict Functional Outcomes Post-thrombectomy** **Mohammad Iyas Kawas**, Ahmad Shamulzai, Wake Forest Sch of Med, Winston Salem, NC; Carol Kittel, Brian Curry, Wake Forest Neurosurgery, Winston Salem, NC; Jeongchul Kim, Wake Forest Radiology, Winston Salem, NC; Kyle Fargen, Wake Forest Neurosurgery, Winston-Salem, NC; Christopher Whitlow, Wake Forest Radiology, Winston-Salem, NC; Stacey Quintero Wolfe, Wake Forest Neurosurgery, Winston Salem, NC

**24**  
5:10 **Arterial Stiffness Before Hypertension: A New Paradigm In Youth**  
**Sarah Henson**, Cincinnati Children's Hosp Medical Ctr, Cincinnati, OH; Zhiqian Gao, Elaine M Urbina, CINCINNATI CHILDRENS HOSPITAL, Cincinnati, OH

## Concurrent Session 6B

### Cobalt 500

#### TAC Oral Abstract Session: What's Salt Got to do With It?

**Moderators:** Tiago J Costa, PhD and Monica M. Santisteban, PhD

**25**  
3:30 **RNAseq And Bioinformatics Identify New Pathways In The Thick Ascending Limb (TAL) Involved In Fructose Induced Salt Sensitive Hypertension**  
**Andrew Wu**, Andrew J Eaton, Paulo Caceres, Puja Shrestha-Maskey, Henry Ford Health Hypertension and Vascular Res Dept, Detroit, MI; Indra Adrianto, Henry Ford Health, Detroit, MI; Jessica Granados-Pineda, Mohammed Z Haque, Henry Ford Health Hypertension and Vascular Res Dept, Detroit, MI; Jose A Garcia Pedraza, Univ of Salamanca, Salamanca, Spain; Pablo A Ortiz, Henry Ford Health Hypertension and Vascular Res Dept, Detroit, MI

**26**  
3:45 **Sex Specific Regulation Of The Sodium-chloride Cotransporter And The Salt Sensitivity Of Blood Pressure In Age-dependent Hypertension**  
**Kiyoung Kim**, BOSTON UNIV SCHOOL MEDICINE, Boston, MA; Richard D Wainford, BOSTON UNIV SCHOOL MEDICINE, Charlestown, MA

**27**  
4:00 **Early Life Sodium Restriction Programs Long-term Changes In Energy Flux And Autonomic Activity**  
**Alisha A Ziegler**, Connie C Grobe, John J Reho, Justin L Grobe, Jeffrey L Segar, Medical Coll of Wisconsin, Milwaukee, WI

**28**  
4:15 **Toll-Like Receptor 4 Promotes Renal Immune Cell Infiltration And The Development Of Renal Damage During Dahl Salt-Sensitive Hypertension**  
**Emily C. Burns**, Medical Coll of Georgia at Augusta Univ, Augusta, GA; Samuel Walton, Augusta Univ, Grovetown, GA; John H Dasinger, Mary Shaw, Augusta Univ, Augusta, GA; Daniel J Fehrenbach, VUMC, Nashville, TN; Aron M Geurts, Medical Coll of Wisconsin, Milwaukee, WI; Justine M Abais-Battad, Augusta Univ, Augusta, GA; David L Mattson, Medical Coll Of Georgia, Augusta, GA

**29**  
4:30 **Loss Of The Circadian Protein Per1 In The Dahl Salt-sensitive Rat Causes Exacerbation Of Diurnal Blood Pressure And Disruption Of Electrolyte Homeostasis**

**Adrian Zietara**, Lashodya Dissanayake, Vladislav Levchenko, Univ of South Florida, Tampa, FL; Michelle L Gumz, UNIVERSITY of FLORIDA, Gainesville, FL; Alexander Staruschenko, Univ of South Florida, Tampa, FL

**30**  
4:45 **Aldosterone Promotes Nanoscale Colocalization Of Epithelial Sodium Channel Subunit Alpha And Sodium Calcium Exchanger In Neuro2a Cells**

**Simindokht Aliabadi**, Elizabeth Akin, Vivek Krishnan, Univ of Nevada, Reno, Reno, NV; Scott Earley, UNIVERSITY OF NEVADA SCHOOL OF MEDI, Reno, NV; Yumei Feng Earley, UNIVERSITY OF NEVADA, RENO, Reno, NV

**31**  
5:00 **Mutagenesis Of The Cleavage Site Of (pro)renin Receptor Abrogates Aldosterone-salt-induced Hypertension And Renal Injury In Mice**

**Ziwei Fu**, Univ of Utah and VAMC, Salt Lake City, UT; Huaqing Zheng, Salt Lake City, UT; Tianxin Yang, UNIVERSITY UTAH, Salt Lake City, UT

**32**  
5:15 **Afferent Renal Denervation And IL-1 Receptor Blockade Attenuate The Pathogenesis Of Hypertension In DOCA-salt Mice Similarly: Evidence For A Common Mechanism?**

**Daniel C Baumann**, Univ of Minnesota, Minneapolis, MN; Dusty A Van Helden, UNIVERSITY OF MINNESOTA - IBP, Minneapolis, MN; Louise C Evans, John W Osborn, Univ of Minnesota, Minneapolis, MN

## Concurrent Session 6C

### Sapphire DH

#### TAC Oral Abstract Session: Bridging the Gap Between Discovery and Clinical Science

**Moderators:** Robert S Hoover MD, FAHA and Matthew Alexander, MD, PhD

**33**  
3:30 **Anti-hypertensive Treatment With Acei Vs Arbs: The Differential Effect On Brain Microstructural Integrity Parameters Of Raas-targeting Treatments**

**Lorenzo Carnevale**, Valeria Berardi, I.R.C.C.S. Neuromed, Pozzilli, Italy; Daniela Carnevale, Sapienza Univ Rome - Neuromed, Pozzilli, Italy; Giuseppe Lembo, Sapienza Univ of Rome, Pozzilli, Italy

**34**  
3:45 **Absence Of Tachyphylaxis And Vasorelaxant Effect Induced By Nono2p, A New Nitric Oxide Donor**

**Raiana dos Anjos Moraes**, Univ of South Carolina, Columbia, SC; Fênix Alexandra de Araujo, Goncalo Moniz Inst, Oswaldo Cruz Fndn (FIOCRUZ), Salvador, Brazil; Liliane Barreto da Silva, Rafael Leonne Cruz de Jesus, Daniele Santana de Brito, Federal Univ of Bahia (UFBA), Salvador, Brazil; Denise Santos de Sá, Carlos Daniel Silva da Silva, Federal Inst of Bahia (IFBA), Salvador, Brazil; Zenis Novais da Rocha, Federal Univ of Bahia (UFBA), Salvador, Brazil; Fernanda Priviero, R C Webb, Univ of South Carolina, Columbia, SC; Darizy Flavia Silva, Federal Univ of Bahia (UFBA), Salvador, Brazil

**35**  
4:00 **Novel Metabolites Associated With Blood Pressure During Dietary Protein And Carbohydrate Interventions**

**Li Changwei**, Joshua D Bundy, Ling Tian, Ruiyuan Zhang, Tulane Univ, New Orleans, LA; Jing Chen, Tuland Sch of Med, New Orleans, LA; Tanika N Kelly, Jiang He, TULANE UNIVERSITY, New Orleans, LA

**36**  
4:15 **Failure To Achieve Optimal Blood Pressure Control Among Stroke Patients In The Outpatient Setting**

**Anirudh Sreekrishnan**, Stanford Hosp, Menlo Park, CA; Maarten G Lansberg, STANFORD UNIVERSITY, Palo Alto, CA; Yen Low, Raj Manickam, Atropos Health, Palo Alto, CA; Lironn Kraler, Stanford Hosp, Palo Alto, CA

**37**  
4:30 **Serum Chemerin As A Novel Biomarker For Preeclampsia Complications: Effects Of Statins On Its Release From The Placenta**

**Lunbo Tan**, Michelle Broekhuizen, Rugina I. Neuman, Sam Schoenmakers, Erasmus MC, Rotterdam, Netherlands; Xifeng Lu, Shenzhen Technology Univ, Shenzhen, China; A.H. Jan Danser, Koen Verdonk, Erasmus MC, Rotterdam, Netherlands

38

4:45

**The Association Of Supine Hypertension Versus Standing Hypotension With Adverse Cardiovascular Events Among Middle-aged Adults**

**William Earle**, Beth Israel Deaconess Medical Ctr, Boston, MA; Jordan Kondo, Harvard Medical Sch, Brookline, MA; Julia Wood, Ruth-Alma N Turkson-Ocran, Karla Kendrick, Long Huu Ngo, Beth Israel Deaconess Medical Ctr, Boston, MA; Jennifer Cluett, BIDMC-Harvard Medical Sch, Boston, MA; Ken J Mukamal, Beth Israel Deaconess Medical Ctr, Boston, MA; Elizabeth Selvin, JOHNS HOPKINS UNIVERSITY, Baltimore, MD; Natalie R Malek, JOHN HOPKINS UNIVERSITY, Baltimore, MD; Pamela L Lutsey, UNIVERSITY OF MINNESOTA, Minneapolis, MN; Josef Coresh, JOHNS HOPKINS UNIVERSITY, Baltimore, MD; Stephen P Juraschek, BIDMC-Harvard Medical Sch, Boston, MA

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5:00

**Hybrid Intrinsic Frequency Machine Learning Approach For Calculation Of Total Arterial Compliance And Aortic Characteristic Impedance From A Single Carotid Waveform In Heart Failure With Preserved Ejection Fraction**

**Soha Niroumandijahromi**, Ajay Vaidya, Niema M Pahlevan, Univ of Southern California, Los Angeles, CA

40

5:15

**Prevalence Of Dual Indications For Antihypertensive Medications And Statins In The National Health And Nutrition Survey**

**KASHVI GUPTA**, Univ of Missouri Kansas City, Kansas City, MO; J B Byrd, UNIVERSITY OF MICHIGAN, Ann Arbor, MI; Robert D Brook, Wayne State Univ, Detroit, MI; Melvyn Rubenfire, Univ of Michigan, Ann Arbor, MI; Michael P Dorsch, Univ of Michigan, Dexter, MI; Brahmajee K Nallamothu, UNIVERSITY MICHIGAN HEALTH SYSTEM, Ann Arbor, MI; Venkatesh L Murthy, Univ of Michigan, Ann Arbor, MI

**Session 6D**

**Sapphire LP**

**Primary Care Concurrent**

**Self-Measured Blood Pressure Monitoring with Clinical Support to Improve Hypertension Outcome**

**Moderators:** Jennifer Cluett, MD and Tony Amofah, MD, MBA, FACP, FABQURP

**3:30 Selection of Self-Measured Blood Pressure Monitoring Devices: Accuracy and Functionality**

Tammy M. Brady, MD, PhD

**3:48 Strategies to Increase the Use of Self-Measured Blood Pressure Monitoring**

CAPT Fleetwood Loustalot, FNP, PhD, FAHA

**4:03 Self-Measured Blood Pressure Telemonitoring: Lessons Learned During the COVID-19 Pandemic**

Kelsey Bryant, MD

**4:18 Discussion**

**4:33 Building Software for Clinicians by Clinicians: How We Created a System for Asynchronous BP Self-Monitoring and Semi-Automated Med Titration**

Mintu Turakhia MD MAS, FAHA, FACC, FHRS

**5:03 Co-Intervention Support for Self-Measured Blood Pressure Monitoring**

Ruth-Alma Turkson-Ocran, PhD, MPH, RN, FNP-BC

**5:18 Discussion**

**5:30 – 7:30 PM**



Sapphire AEIM  
Poster Session 1 (TAC Competition) and Reception

## Thursday, September 8, 2022

7:00 – 8:00 AM

Sapphire DH

Learning Studio

**Hypertension Management: Advanced Options Beyond Medication**

**Speakers:** Naomi Fisher, MD, Prof. Murray Esler and Michael Bloch, MD (Moderator)

*Breakfast included*

**Sponsor:** ReCor Medical

**SP.01**

Sapphire 400

**NHLBI Program Project Grants: What Applicants Need to Know!**

Melissa Nagelin, PhD

**SP.02**

Cobalt 500

**American Heart Association Research: Grant Funding and Other Opportunities**

Glenn H. Dillon, PhD

8:00- 9:00 AM

Session 7

Sapphire BCFGJKNO

**Recent Advances in Hypertension**

**The RESTORE Health Equity Research Network**

**Moderator:** Daichi Shimbo, MD

**8:00**            **AHA Health Equity Impact Goal**  
Daichi Shimbo, MD

**8:02**            **Overview of the AHA RESTORE Health Equity Research Network**  
Gbenga Ogedegbe, MD

**8:10**            **Social Determinants of Health and Hypertension**  
Yvonne Commodore-Mensah, PhD, MHS, RN, FAHA

**8:20**            **Neighborhood Environment and Hypertension**  
Phillip Levy, MD, MPH, FAHA, FACC

**8:30**            **Geographic Disparities in Hypertension**  
Shakia Hardy, PhD

**8:40**            **Community Health Worker Interventions for Hypertension**  
Chidinma A. Ibe, PhD

**8:50**            **Panel Discussion and Q&A**

9:00- 10:00AM

Session 8

Sapphire BCFGJKNO

**Recent Advances in Hypertension**

**Worsening Trends in Blood Pressure Control in the US - Getting on Track at the Organizational, Community, and**

## **Policy Levels**

**Moderators:** Cassandra Ford, PhD, RN, FAHA, FGSA and Jan Basile, MD, FAHA, FACP

- 9:00**            **Worrisome Trends in Blood Pressure Control in the US**  
Jan Basile, MD, FAHA, FACP
- 9:02**            **Successful Health System Level Strategies**  
Jeffrey Brettler, MD
- 9:14**            **Leveraging Team-Based Care to Improve Blood Pressure Control**  
Hilary K. Wall, MPH
- 9:26**            **Use of Multi-faceted Evidence-based Treatment Protocols can Improve BP Control**  
Brent M. Egan, MD, FAHA
- 9:38**            **Lessons from Low-and Middle-Income Countries: Global Perspectives**  
Andrew Moran, MD, MPH, FAHA
- 9:50**            **Panel Discussion**

**10:00 AM**  
**Break**

**10:30 AM– 12:00 PM**

**Session 9**

**Sapphire BCFGJKNO**

**Recent Advances in Hypertension**

**Editing the Genome and Epigenome: Implications for Translational Medicine**

**Moderators:** Silvia Medrano, PhD and Aron Geurts, PhD

**10:30**            **Deciphering the Human Genes Through Re-Engineering Human Genome**  
Mazhar Adli, PhD

**10:55**            **Ultracompact CRISPR Proteins for *in vivo* Genome Editing**  
Dimitrios G. Zisoulis, PhD

**11:20**            **Gene Delivery to the Kidney**  
Matthew Wilson, MD

**11:45**            **Discussion/Q&A**

**12:00- 1:30 PM**

**Lunch on your own/ Exhibits**

**12:00- 1:30 PM**

**Session 10**

**Sapphire 400**

**Trainee Advocacy Committee CHAMP lunch**

*(Pre-Registered Only)*

**1:30 – 3:00 PM**

**Sapphire AEIM**

**POSTER SESSION 2**

**1:30 – 3:00 PM**

**Session 11D**  
**Sapphire LP**  
**Primary Care Concurrent**  
**Secondary Drivers of Hypertension**

**Moderators:** Eugene Yang, MD and Sandra J. Taler MD, FAHA

- 1:30**            **Chronic Kidney Disease and Hypertension: New Clinical Updates**  
Deidra C. Crews, MD, ScM, FASN, MACP
- 1:50**            **Prescription and Over the Counter Medications that Impact Blood Pressure**  
John M. Flack MD, MPH, FASH, MACP, FAHA
- 2:10**            **Connecting Sleep Health to Hypertension Control**  
S. Justin Thomas, PhD, FSBSM
- 2:30**            **Who and How to Evaluate for Primary Aldosteronism**  
John W. Funder, MD, PhD
- 2:50**            **Panel with Q&A**

**3:00 PM**  
**Break**

**3:30- 4:00 PM**  
**Sapphire BCFGJKNO**  
**Session 12**

**Arthur C. Corcoran Memorial Lecture**  
**Moderator:** Sarah Lindsey, PhD

**Evolving Concepts of the Renin-Angiotensin System: From Hypertension to COVID-19**  
Mark C. Chappell, PhD, FAHA

**4:00 - 5:30 PM**  
**Concurrent 12A**  
**Sapphire 400**

**Prorenin Receptor Mechanisms**  
**Moderators:** Yumei Feng Earley, MD, PhD, FAHA and A.H. Jan Danser, PhD

**4:00**            **Rising Star Lecture: Renin/Pro-Renin Receptor**  
Nirupama Ramkumar MD, MPH, FAHA

**41**

**4:30**            **Renal-derived Human Sprr Increases Blood Pressure In Female Mice But Not In Male Mice**  
**Gertrude Arthur**, Audrey Poupeau, Alexis Taylor, Kellea Nichols, Jacqueline Leachman, Terry Hinds, Univ of Kentucky, Lexington, KY; Analia S Loria, UNIVERSITY OF KENTUCKY, Lexington, KY; Jeffrey Osborn, Univ of Kentucky, Lexington, KY; Frederique B Yiannikouris, UNIVERSITY OF KENTUCKY, Lexington, KY

**42**

**4:45**            **A Novel (pro)renin Receptor Variant Prr24 As A Specific Renin Receptor And Key Regulator Of Nkcc2 And Urine Concentrating Capability**  
**Tianxin Yang**, Yanting Chen, Ye Feng, UNIVERSITY UTAH and VAMC, Salt Lake City, UT; Fei Wang, Univ of utah and VAMC, salt lake city, UT; Huaqing Zheng, Ziwei Fu, Chang-Jiang Zou, UNIVERSITY UTAH and VAMC, Salt Lake City, UT

**43**

5:00 **Prorenin Reduces Spontaneous Firing Rate In Cells Expressing Tyrosine Hydroxylase In The Hypothalamic Paraventricular Nucleus**  
Miriam Reyes, Univ of Nevada, Reno, Reno, NV; Lucas A Souza, Univ of Nevada, Reno, Reno, NV; Yumei Feng Earley, UNIVERSITY OF NEVADA, RENO, Reno, NV

44  
5:15 **Stimulation Of Intrarenal Angiotensinogen Expression And The Development Of Hypertension And Kidney Injury In Angiotensin II-infused Hepatic Angiotensinogen Knockout Mice**  
Ryousuke Satou, Tulane Univ, New Orleans, LA; Dien Ye, Hong S Lu, Univ of Kentucky, Lexington, KY; Akemi Katsurada, Courtney M Dugas, Tulane Univ, New Orleans, LA; Alan Daugherty, Univ of Kentucky, Lexington, KY; Shahriar Motazedian, L Gabriel Navar, Tulane Univ, New Orleans, LA

## Concurrent 12B

### The Vasculature and Hypertension

#### Cobalt 500

Moderators: Anna Dikalova, PhD and Camilla Ferreira Wenceslau, PhD, MS, FAHA

45  
4:00 **Soluble Protein Oligomers Induce Endoplasmic Reticulum Stress In Endothelial Cells And Lead To Decreased Calcium Levels In The Endoplasmic Reticulum**  
Emily W. Waigi, Laena Pernomian, R. Clinton Webb, Cameron G. McCarthy, Camilla F. Wenceslau, Univ of South Carolina, Columbia, SC

46  
4:15 **Induction Of Endothelial Sirt3 After Onset Of Hypertension Rescues Endothelial Function**  
Anna Dikalova, Liliya Tkachuk, Mingfang Ao, Daniel Fehrenbach, Vanderbilt Univ Medical Ctr, Nashville, TN; Jack Arbiser, Emory Univ Sch of Med, Atlanta Veterans Administration Medical Center, GA; Sergey Dikalov, Vanderbilt Univ Medical Ctr, Nashville, TN

47  
4:30 **PPAR $\gamma$  Deacetylation Mitigates Aortic Stiffness And Aortic Perivascular Adipose Tissue (aPVAT) Remodeling In Obese Male Mice**  
Nicole Maddie, Maria Alicia Carrillo-Sepulveda, NYITCOM, Glen Head, NY; Li Qiang, Columbia Univ, New York, NY

48  
4:45 **Extracellular Endothelial Microvesicles Causative Agents In Hypertension-related Endothelial Dysfunction**  
Vinicius P. Garcia, Hannah K. Fandl, Noah M. DeSouza, Auburn R. Berry, Jared J. Greiner, Univ of Colorado, Boulder, CO; Brian L. Stauffer, Univ of Colorado Anschutz Medical Campus, Denver, CO; Christopher A. DeSouza, Univ of Colorado, Boulder, CO

49  
5:00 **Abrogation Of Transglutaminase 2 In Vascular Smooth Muscle Cells Attenuates Doca/salt Induced Hypertension In Male Mice**  
Annayya Aroor, UNIVERSITY OF MISSOURI, Columbia, MO; Camila Manrique, Univ of Missouri, Columbia, MO; Huma Naz, Univ of Missouri, Columbia, MO; Jack Hulse, UNIVERSITY OF MISSOURI HEALTH, Columbia, MO; Guanghong Jia, UNIVERSITY OF MISSOURI, Columbia, MO; Adam Whaley-Connell, UNIVERSITY MISSOURI, Columbia, MO; Guido Lastra Gonzalez, UNIVERSITY OF MISSOURI HEALTH, Columbia, MO

50  
5:15 **Endothelial Cell Mineralocorticoid Receptor Deletion Improves Endothelial Function, Blood Pressure And Fetal Growth In The RUPP Mouse Model Of Preeclampsia**  
Desmond Moronge, Victor Ayulo, Gabrielle Connor, Elisabeth Mellott, Augusta Univ, Augusta, GA; Iris Z Jaffe, TUFTS MEDICAL CENTER, Boston, MA; Safia Oghi, Augusta Univ, Augusta, GA; Jessica L Faulkner, AUGUSTA UNIVERSITY, Augusta, GA

## Concurrent 12C

### Sapphire DH

## Neural Control Mechanisms of Blood Pressure Regulation

**Moderators:** Annette D. de Kloet, PhD and Christopher Banek, PhD

**51**

4:00 **Exploiting Angiotensin Sensitive Vagal Afferents To Understand And Alleviate Hypertension: A Closed Loop System For Blood Pressure Control**

**Caitlin Baumer Harrison**, Jesus Penaloza Aponte, Khalid Elsaafien, Dominique N Johnson, Alan de Araujo, Justin A Smith, Univ of Florida, Gainesville, FL; Karen Scott, Gainesville, FL; Guillaume de Lartigue, Univ of Florida, Gainesville, FL; Eric G Krause, Annette D De Kloet, UNIVERSITY OF FLORIDA, Gainesville, FL

**52**

4:15 **Central Gain For Sympathetic Outflow Is Increased In Postural Tachycardia Syndrome**

**Vasile Urechie**, Vanderbilt Univ Medical Ctr, Nashville, TN; Stefano Rigo, Vanderbilt Univ Medical Cente, Nashville, TN; Cyndya A Shibao, VANDERBILT UNIV. MEDICAL CENTER, Nashville, TN; Luis Enrique Okamoto, Vanderbilt Univ Medical Ctr, Nashville, TN; Italo Biaggioni, VANDERBILT UNIVERSITY MEDICAL CENTER, Nashville, TN; Alfredo Gamboa, Amr Wahba, VANDERBILT UNIVERSITY MEDICAL CENTR, Nashville, TN; Khaled Elkholey, Morgane Giesecke, TN; James Muldowney, Nashville, TN; Abigail Mohr, Tulane Univ, New Orleans, LA; Andre Diedrich, VANDERBILT MEDICAL CENTER, Nashville, TN

**53**

4:30 **Increased Arterial Pressure Precedes Renal Dysfunction And Elevated Renal Sympathetic And Afferent Nerve Activity In Deoxycorticosterone-Salt Rat**

**Madeline M Gauthier**, Irin Parvin, Melissa R Dennis, Christian H Leung, Christopher T Banek, The Univ of Arizona, Tucson, AZ

**54**

4:45 **Altered Valsalva Maneuver Hemodynamics In Postural Tachycardia Syndrome**

**Stefano Rigo**, Vanderbilt Univ Medical Cente, Nashville, TN; Vasile Urechie, Vanderbilt Univ Medical Centr, Nashville, TN; Luis Enrique Okamoto, Vanderbilt Univ Medical Ctr, Nashville, TN; Italo Biaggioni, VANDERBILT UNIVERSITY MEDICAL CENTER, Nashville, TN; Cyndya A Shibao, VANDERBILT UNIV. MEDICAL CENTER, Nashville, TN; Amr Wahba, Vanderbilt Univ Medical Ctr, Nashville, TN; Khaled Elkholey, Vanderbilt Univ Medical Ctr, Nashville, TN, TN; Morgane Giesecke, James Muldowney, Vanderbilt Univ Medical Ctr, Nashville, TN; Andre Diedrich, VANDERBILT MEDICAL CENTER, Nashville, TN

**55**

5:00 **Lipid Droplet Accumulating Microglia Involvement In Non-Alcoholic Fatty Liver Disease During Obesity**

**Han Rae Kim**, Colin N Young, The George Washington Univ, Washington, DC

**56**

5:15 **Transcriptomic Changes In Individual Cell Types Of The Arcuate Nucleus In The Mouse Deoxycorticosterone-acetate (doca)-salt Model Of Hypertension**

**Valerie Wagner**, Medical Coll of Wisconsin, Wauwatosa, WI; Guorui Deng, Univesity of Iowa, Iowa City, IA; Kristin Claflin, Huxing Cui, UNIVERSITY OF IOWA, Iowa City, IA; Pablo Nakagawa, Medical college of Wisconsin, Wauwatosa, WI; Curt D Sigmund, Medical Coll of Wisconsin, Milwaukee, WI; LISA MORSELLI, Medical Coll of Wisconsin, Milwaukee, WI, Milwaukee, WI; Justin L Grobe, Anne E Kwitek, Medical Coll of Wisconsin, Milwaukee, WI

**3:30 – 5:30 PM**

**Sapphire LP**

**Session 12D**

**CPCS Concurrent**

**Update on the Non-Pharmacologic Treatment of Hypertension**

**Moderators:** Naomi DL Fisher, MD, and D. Edmund Anstey, MD, MPH

- 3:30 Treatment of Primary Aldosteronism**  
Anand Vaidya, MD, MMSc
- 3:48 Treatment of Sleep Apnea for Blood Pressure Control**  
Ali Azarbarzin, PhD
- 4:06 Exercise Training in a Sedentary World**  
Alan L Hinderliter, MD, FAHA
- 4:24 Update in Renal Sympathetic Denervation BP Lowering Effects Hypertension**  
Sverre E. Kjeldsen, MD, Dr. med.
- 4:42 Weight Loss: Bariatric and Metabolic Surgery**  
Carlos Aurelio Schiavon
- 5:00 Implementing Sodium Reduction in the Real World**  
Sarah C. Couch, PhD, RDN
- 5:18 Moderated Discussion/Q&A**

**5:30- 6:45 PM**

**Sapphire BCFGJKNO**

**Session 13**

**Annual Hypertension Awards Session**

**Moderators:** Curt D. Sigmund, PhD, FAHA and Karen Griffin, MD, FASN, FACP, FAHA

**The Stephanie Watts Career Development Award**

**Moderators:** Brandi M. Wynne, PhD, MS, FAHA and Cameron McCarthy, PhD, FAHA

**5:30 Allison E. Norlander, PhD**

**5:35 John Henry Dasinger, PhD**

**5:40 Noha M. Shawky, PhD, MSc**

**5:45 The Harry Goldblatt Award for New Investigators**  
**Vascular Injury and Remodeling Prior to the Onset of Hypertension**  
Camilla F. Wenceslau, PhD, MS, FAHA

**6:00 The Award for Patient-Oriented or Clinical Research in Hypertension**  
**Sgt2 Inhibition Via Empagliflozin Improves Endothelial Function And Reduces Mitochondrial Oxidative Stress:**  
**Insights From Hypertensive And Diabetic Frail Elders**  
Pasquale Mone

**6:10 The Award for Support of Underrepresented Minorities**  
**Non-canonical AT1R/b-arrestin2 Activation In Brain As A Regulator Of Blood Pressure**  
Natalia M. Mathieu

**6:20 The New Investigator Award for Japanese Fellows**  
**Possible Differential Effects Of Angiotensin Receptor-neprilysin Inhibitor And Angiotensin Receptor Blocker Against Hypertension**  
**And Cardiorenal Injury In A Mouse Model Of Cardiorenal Syndrome**  
Shunichiro Tsukamoto

**6:30 The High Blood Pressure Research Council of Australia Award**  
**Single-Cell Transcriptomic Profiling of the Hypertensive Mouse Aorta**  
Tayla Hughes, PhD Candidate

**8:00 – 11:00 PM**  
**Sapphire**  
**Trainee Advocacy Mixer**

## **Friday, September 9**

**7:30-8:00 AM**  
**Sapphire BCFGJKNO**  
**Session 14**  
**Donald Seldin Award Lecture**  
**Moderator:** Alan Pao, MD

**Metabolic Cardiomyopathy in Chronic Kidney Disease**  
Orson Moe, MD

**8:00 - 9:30 AM**  
**Concurrent 14A**  
**Sapphire 400**  
**Neural Control Mechanisms**  
**Moderators:** Giuseppe Lembo, MD, PhD and Debra I. Diz, PhD, FAHA

**8:00**            **Rising Star Lecture**  
**Angiotensin and the Brain**  
Pablo Nakagawa, PhD

**57**  
**8:30**            **Macula Densa Stimulation Acutely Increases Afferent Renal Nerve Activity And Blood Pressure**  
Georgina Gyarmati, Univ of Southern California, Los Angeles, CA; Sean D Stocker, UNIVERSITY OF PITTSBURGH, Pittsburgh, PA; Sachin Deepak, Audrey Izuhara, **Janos Peti-Peterdi**, Univ of Southern California, Los Angeles, CA

**58**  
**8:45**            **ACE2 Ubiquitination Regulates Neuronal Activity In Hypertension**  
**Mazher Mohammed**, LSU HEALTH SCIENCES CENTER, New Orleans, LA; Mona Elgazzaz, LSUHSC-NO, New Orleans, LA; Xinpeng Yue, Louisiana State Univ-NO, New Orleans, LA; Catalin Filipeanu, Howard Univ, Washington, DC; Eric D Lazartigues, LSU HEALTH SCIENCES CENTER, New Orleans, LA

**59**  
**9:00**            **Continuous Positive Airway Pressure In The Treatment Of Nocturnal Supine Hypertension And Orthostatic Hypotension In Autonomic Failure**  
**Luis E Okamoto**, VANDERBILT UNIVERSITY MEDICAL CENTER, Nashville, TN; Jorge E Celedonio, VANDERBILT UNIVERSITY MEDICAL CENTER, Nashville, TN; Emily C Smith, Sachin Paranjape, Bonnie Black, Amr Tarek Wahba, Jin-Woo Park, Cyndya A Shibao, Andre Diedrich, Italo Biaggioni, VANDERBILT UNIVERSITY MEDICAL CENTER, Nashville, TN

**60**  
**9:15**            **Angiotensin Type-2 Receptors In The Median Preoptic Nucleus Demarcate A Novel Depressor Neural Circuit In Mice**  
**Khalid Elsaafien**, Sophia A Eikenberry, Scott W Harden, Wanhui Sheng, Karen A Scott, Charles J Frazier, Univ of Florida, Gainesville, FL; Colin Sumners, UNIVERSITY OF FLORIDA, Gainesville, FL; Eric G Krause, Univ of Florida, Gainesville, FL; Annette D De Kloet, UNIVERSITY OF FLORIDA, Gainesville, FL

**Concurrent 14B**  
**Cobalt 500**  
**Renal Mechanisms of Blood Pressure Control**  
**Moderators:** Joey P. Granger, PhD and Pablo A. Ortiz, PhD

- 61**  
8:00 **Renal A20 Protects Against The Cisplatin-induced Kidney Injury**  
**Xiaohan Lu**, Yanting Chen, Ting Yang, Fitra Rianto, Gianna Hammer, Steven D Crowley, Duke Univ Medical Ctr, Durham, NC
- 62**  
8:15 **Bone Marrow-derived Mesenchymal Stromal Cells Engineered To Release Anti-fibrotic Cargo, Evoke Renoprotective Effects Against Hypertensive Chronic Kidney Disease**  
**Yifang Li**, Monash university, melbourne, Australia; Brad R Broughton, Dorota Maria Ferens, Monash Univ, Clayton, Australia; Robert E Widdop, MONASH UNIVERSITY, Melbourne, Australia; Sharon Ricardo, Monash university, melbourne, Australia; Chrishan Samuel, Monash Univ, Clayton, Australia
- 63**  
8:30 **Soluble (Pro)renin Receptor Acts Via Direct Activation Of Angiotensin Type 1 Receptor To Enhance Renal Aquaporin-2 Expression And Urine Concentrating Capability**  
**Fei Wang**, Jacob Lambert, UNIVERSITY OF UTAH AND VAMC, Salt Lake Cty, UT; Huaqing Zheng, Ziwei Fu, Chang-Jiang Zou, Tianxin Yang, UNIVERSITY OF UTAH AND VAMC, Salt Lake City, UT
- 64**  
8:45 **Hypokalemia Induced By Loss Of Kir5.1 Initiates WNK-SPAK/OSR1 Signaling In Dahl Salt-sensitive Rats**  
**Biyang Xu**, Univ of South Florida, Tampa, FL; Kerim Mutig, Charité-Univmedizin Berlin, Berlin, Germany; Oleg Palygin, Medical Univ of SC, Charleston, SC; Alexander Staruschenko, Univ of South Florida, Tampa, FL
- 65**  
9:00 **Decreasing Blood Pressure In Mice With Salt-Sensitive Hypertension Changes Renal Immune Cell Populations**  
**Hannah Smith**, Texas A&M Univ, Bryan, TX; Shobana Navaneethabalakrishnan, Texas A and M Univ, Bryan, TX; Bethany Goodlett, Texas A and M Univ, Bryan, TX; Brett M Mitchell, TEXAS A M HEALTH SCIENCE CENTER, Bryan, TX
- 66**  
9:15 **Renal-derived Human Sprr Induces Hypernatremia And Water Retention In Male Mice But Not Female Mice**  
**Gertrude Arthur**, Audrey Poupeau, Alexis Taylor, Kellea Nichols, Jacqueline Leachman, Univ of Kentucky, Lexington, KY; Analia S Loria, UNIVERSITY OF KENTUCKY, Lexington, KY; Jeffrey Osborn, Univ of Kentucky, Lexington, KY; Frederique B Yiannikouris, UNIVERSITY OF KENTUCKY, Lexington, KY
- Concurrent 14C**  
**Sapphire DH**  
**Chromatin, Transcriptomics and Gene-Gene Interactions**  
**Moderators:** Maria Luisa Sequeira Lopez, MD, FAHA and Mazhar Adli, PhD
- 67**  
8:00 **Genome-wide Chromatin Conformation Map Of Human Induced Pluripotent Stem Cell-derived Vascular Endothelial Cells Reveals New Regulatory Insights**  
**Yong Liu**, MEDICAL COLLEGE OF WISCONSIN, Milwaukee, WI; Rajan Pandey, Bhavika Therani, Manoj Mishra, Medical Coll of Wisconsin, Milwaukee, WI; Sridhar Rao, Versiti, Milwaukee, WI; Pengyuan Liu, Aron M Geurts, Medical Coll of Wisconsin, Milwaukee, WI; Allen W Cowley Jr., MEDICAL COLLEGE WISCONSIN, Milwaukee, WI; Andrew Greene, The Jackson Lab, Bar Harbor, ME; Mingyu Liang, MEDICAL COLLEGE OF WISCONSIN, Milwaukee, WI
- 68**  
8:15 **Genetic Mechanisms Of Cardiac Hypertrophy And Fibrosis In Global *Npr1* Gene-ablated Male And Female Mice**  
**Chandramohan Ramasamy**, Tulane Univ, New Orleans,, LA; Umadevi Subramanian, Kailash N Pandey, TULANE SOM PHYSIOLOGY, New Orleans, LA
- 69**



8:30 **Methylation Of The Androgen Receptor In White Adipose Tissue Contributes To Female Obesity And Hypertension In BPH/5, A Model Of Superimposed Preeclampsia**  
**Jennifer L Sones**, Louisiana State Univ, Baton Rouge, LA; Juliet Flanagan, Kalie Beckers, Folsom, LA; ChinCHI Liu, Baton Rouge, LA

70  
8:45 **ONE UP-REGULATED NOVEL MICRORNA AND 4 DOWN-REGULATED MRNA TARGETS WERE IDENTIFIED IN PERIPHERAL BLOOD MONONUCLEAR CELLS OF HYPERTENSIVE PATIENTS WITH METABOLIC SYNDROME**  
**Olga Berillo**, Kugeng Huo, Julio C Fraulob-Aquino, Lady Davis Inst for Medical Res, Montreal, QC, Canada; Chantal Richer, CHU Sainte-Justine, Montreal, QC, Canada; Na Li, Lady Davis Inst for Medical Res, Montreal, QC, Canada; Marie B Briet, Angers university, Angers, France; Mark Lipman, Lady Davis Inst for Medical Res, Dept of Med, Sir Mortimer B. Davis-Jewish General Hosp, McGill Univ, Montreal, QC, Canada; daniel sinnett, Div of Hematology-Oncology, Res Ctr, CHU Ste-Justine, Dept of Pediatrics, Faculty of Med, Univ de Montréal, Montréal, Canada, Montreal, QC, Canada; Pierre Paradis, Lady Davis Inst for Medical Res, Montreal, QC, Canada; Ernesto L Schiffrin, SMBD JEWISH GENERAL HOSP, Montreal, QC, Canada

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9:00 **Hypertension Rewrites The Kidney Transcriptome And Drives Nephropathy**  
**Rick Grimm**, Anamaria Tatomir, Johns Hopkins Univ, Baltimore, MD; Hyun Jun Jung, Eric Delpire, Johns Hopkins Sch of Med, Baltimore, MD; Paul Welling, Johns Hopkins Univ, Baltimore, MD

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9:15 **Distinct And Evolving Chromatin States And Transcription Factors Determine The Development Of The Kidney Vasculature**  
**Alexandre Goes Martini**, Univ of Virginia, Charlottesville, VA; Jason Smith, Charlottesville, VA; Silvia Medrano, UNIVERSITY OF VIRGINIA, Charlottesville, VA; Nathan Sheffied, Maria Sequeira Lopez, Univ of Virginia, Charlottesville, VA; Roberto Ariel Gomez, UNIVERSITY OF VIRGINIA, Charlottesville, VA

7:30 -9:30 AM

Sapphire LP

Session 14D

CPCS Concurrent

Update on Pharmacologic Interventions in Hypertension

Moderators: Wanpen Vongpatanasin, MD and Angela L. Price, MD

7:30 **Chlorthalidone in Chronic Kidney Disease**  
Rajiv Agarwal, MD, MS

7:50 **Non-Steroidal Mineralocorticoid Receptor Antagonists**  
Sadayoshi Ito, MD, PhD

8:10 **SGLT2 Inhibitors and GLP-1 Receptor Agonists: Role in Hypertension Control**  
Wanpen Vongpatanasin, MD, FAHA

8:30 **Chronic Hypertension and Pregnancy (CHAP): Updates on Antihypertensive Medication and Outcomes**  
Alan Thevenet N. Tita, MD, PhD

8:50 **Emerging Pharmacotherapy in Hypertension: Lessons Learned from Pharmacogenomics**  
Arlene Chapman, MD

9:10 **Moderated Discussion/Q&A**

9:30- 10:00

Break

**10:00 10:45 AM**

**Sapphire BCFGJKNO**

**Session 15**

**Harriet Dustan Award Lectures:**

**Moderator:** Prof Rhian M. Touyz, MBBCh, PhD, FRCP, FRSE, FMedSci

**10:00 Renin Cells, From Vascular Development to Blood Pressure Sensing**

Maria Luisa Soledad Sequeira Lopez, MD, FAHA

**10:22 Blood Pressure Management, For Richer, and For Poorer**

Aletta E. Schutte, PhD

**10:45 AM - 12:00 PM**

**Concurrent 15A**

**Sapphire 400**

**Hypertension & Cognition**

**Moderators:** Costantino Iadecola, MD, FAHA and Richard Wainford, PhD, FAHA

**10:45 Rising Star Lecture:Hypertension and Cognitive Impairment: A Closer Look at Neuroimmune Mechanisms**

Monica M. Santisteban, PhD

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**11:15 Age-Dependent Hypertension-Related Cognitive Impairment And Neuroinflammation In Sprague Dawley Rats Can Be Reversed By An AT<sub>1</sub>R Antagonism**

**Kayla M. Nist**, Boston Univ Sch of Med, Boston, MA; **Richard D Wainford**, BOSTON UNIV SCHOOL MEDICINE, Charlestown, MA

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**11:30 Empagliflozin Improves Impaired Sensitivity Of Afferent Neurons With Renal Axons**

**Kristina Rodionova**, Univ of Erlangen, Erlangen, Germany; **Tilmann Ditting**, Univ Erlangen, Paracelsus Private Medical Sch Nuremberg, Erlangen, Germany; **Karl F Hilgers**, Univ of Erlangen, Erlangen, Germany; **Linz Peter**, Univ Erlangen, Erlangen, Germany; **Roland E Schmieder**, Univ of Erlangen, Erlangen, Germany; **Christian Ott**, Univ Erlangen, Paracelsus Private Medical Sch Nuremberg, Erlangen, Germany; **Mario Schiffer**, Univ of Erlangen, Erlangen, Germany; **Kerstin Amann**, Univ Erlangen, Erlangen, Germany; **Roland Veelken**, Univ Erlangen, Paracelsus Private Medical Sch Nuremberg, Erlangen, Germany

**75**

**11:45 The Kidney-OVLT Neuroaxis Mediates Neurogenic Hypertension And Polydipsia In 2-Kidney, 1-Clip Rats**

**Mariana Ruiz Lauar**, Nayara Pestana-Oliveira, Lucy Vulchanova, Dusty Van Helden, Univ of Minnesota, Minneapolis, MN; **John P Collister**, Univ of Minnesota, Saint Paul, MN; **Christopher T Banek**, Univ of Arizona, Tucson, AZ; **Louise C Evans**, Univ of Minnesota, Minneapolis, MN; **José V Menani**, São Paulo State Univ, Araraquara, SP, Brazil; **John W Osborn**, Univ of Minnesota, Minneapolis, MN

**Concurrent 15B**

**Cobalt 500**

**Sex Differences**

**Moderators:** Annet Kirabo, DVM, MSc, PhD, FAHA and Pedro Jose, MD, PhD, FAHA

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**10:45 Sex And Stress In Fructose-induced Salt-sensitive Hypertension**

**Autumn Brostek**, Nancy J Hong, Ronghao Zhang, Lindsey Kaydo, Nicholas Kluge, Corey Smith, Jeffrey Garvin, Agustin Gonzalez-Vicente, Case Western Reserve Univ, Cleveland, OH

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11:00

**17 $\beta$ -estradiol Implants With An Antiandrogen Or Castration Attenuate Body Weight And Total Lean Mass But Differentially Modulate Total Cholesterol And The Pressor Response To Chronic Angiotensin II In The Male Rat**

**Barbara T Alexander**, Adam Z Rawls, Univ of Mississippi Medical Ctr, Jackson, MS; Kathy Cockrell, Jackson, MS; Kacey Davenport, Jackson, MS, Vicksburg, MS; Breland F Crudup, Miranda J McNeal, Jasmine F Rafique, Univ of Mississippi Medical Ctr, Jackson, MS; Norma B Ojeda, UNIVERSITY MISSISSIPPI MED CTR, Jackson, MS; Noha M Shawky, Univ of Mississippi Medical Ctr, Jackson, MS

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11:15

**Human Gain-of-function Mutation W521r In The Enac  $\alpha$ -subunit Contributes To Salt-sensitive Hypertension In A Sex-specific Manner**

**Jeanne Ishimwe**, Vanderbilt Univ, VUMC, Nashville, TN; Mohammad Saleem, Vanderbilt university medical center, Nashville, TN; Thomas R Kleyman, UNIVERSITY PITTSBURGH, Pittsburgh, PA; Evan C Ray, UPMC DIVISION OF NEPHROLOGY, Pittsburgh, PA; Annet Kirabo, Vanderbilt Univ Medical Center, Nashville, TN

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11:30

**Long-term Circadian Disruption Via Food Availability Leads To Kidney Damage**

**Jazmine I. Benjamin**, David M Pollock, Univ of Alabama at Birmingham, Birmingham, AL

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11:45

**SEX AND GENDER ASPECTS IN HYPERTENSION PREVALENCE OF CANADIAN AND EUROPEAN POPULATIONS**

**Zahra Azizi**, Stanford Univ, Sunnyvale, CA; Simon Lindner, Medical Univ of Vienna, Vienna, Austria; María del Carmen Macías Ruiz, Univ of Murcia, Murcia, Spain; Pouria Alipour, Southlake Regional Health Ctr, Newmarket, ON, Canada; Valeria Raparelli, Dept Experimental Med-Sapienza, Rome, Italy; Colleen M Norris, UNIVERSITY of ALBERTA, Edmonton, AB, Canada; Karolina Kublickiene, Karolinska Instt, Stockholm, Sweden; Alexandra Kautzky Willer, Medical Univ of Vienna, Vienna; Peter Klimek, Medical Univ of Vienna, Vienna, Austria; Khaled El Emam, Medical Univ of Vienna, Vienna, Austria, Ottawa, ON, Canada; Emiliano Fernández Villalba, Univ of Murcia, Murcia, Spain; Maria-Trinidad Herrero, Univ of Murcia, Murcia; Louise Pilote, McGill Univ Health Ctr, Montreal, QC, Canada; The GOING-FWD Investigators, McGill Univ, Montreal, QC, Canada

**Concurrent 15C**

**Sapphire DH**

**Hypertension Through the Lifespan**

**Moderators:** D. Edmund Anstey, MD, MPH and Gbenga Ogedegbe, MD, FAHA

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10:45

**Pulse Wave Velocity And Blood Pressure Variability As Prognostic Indicators In Very Elderly Patients With Advanced Chronic Conditions**

**Alejandro De La Sierra**, HOSPITAL MUTUA TERRASSA, Terrassa, Spain; Cristina Sierra, HOSPITAL CLINIC, Barcelona, Spain; Marcos Murillo, HOSPITAL MUTUA TERRASSA, Terrassa, Spain; Tommaso-Francesco Aiello, HOSPITAL CLINIC, Barcelona, Spain; Aina Mateu, Pedro Almagro, HOSPITAL MUTUA TERRASSA, Terrassa, Spain

82

11:00

**Association Of Age And Blood Pressure Severity With ICD-10 Diagnosis Codes For Hypertension Disorders Among Youth Referred For Hypertension: Interim Analysis Of Data From Three Sites Of The Study Of The Epidemiology Of Pediatric Hypertension (SUPERHERO) Registry**

**Donald J Weaver Jr.**, Atrium Health Levine Children's, Charlotte, NC; Victoria Giammattei, Kernersville, NC; Caroline Lucas, Wake Forest Sch of Med, Winston-Salem, NC; Christine Sethna, Zucker Sch of Med at Hofstra/Northwell, New Hyde Park, NY; Andrew M South, WAKE FOREST SCHOOL OF MEDICINE, Winston Salem, NC

83

11:15

**State Of Ambulatory Hypertension Education In U.S. Internal Medicine Residency Programs: A Needs Assessment Survey**

**Benjamin D. Gallagher**, Donna Windish, Yale Sch of Med, New Haven, CT

**84**

11:30

**Growth Stress And Cardiorenal Syndrome: Effect Of Renal Insufficiency On Blood Pressure And Cardiac Remodeling In Juvenile Rats**

**Alison J Kriegel**, MEDICAL COLLEGE OF WISCONSIN, Milwaukee, WI; Chetan N Patil, Medical Coll of Wisconsin, Milwaukee, WI; Emma Schwasinger, MEDICAL COLLEGE OF WISCONSIN, Milwaukee, WI

**85**

11:45

**Pediatric Dyslipidemia Is Associated With Higher Urinary Angiotensin Converting Enzyme Activity And Blood Pressure Values In A Brazilian Cohort**

**Nayara Azinheira Nobrega Cruz**, Lilian Caroline Goncalves Oliveira, Univ Federal de Sao Paulo, Sao Paulo, Brazil; JOSE GERALDO MILL, Federal Univ Espirito Santo, Vitoria, Brazil; Dulce E Casarini, UNIVERSIDADE FEDERAL DE SAO PAULO, Sao Paulo, Brazil

**10:00 AM – 12:00 PM**

**Sapphire LP**

**Session 15D**

**CPCS Concurrent**

**Population Health: Understanding Disparities and Achieving Health Equity in Hypertension**

**Moderators:** Chinelo Onyilofor, MD, MPH and Hilary K. Wall, MPH

**10:00**

**Hypertension in Young Adults: Lessons from Coronary Artery Risk Development in Young Adults (CARDIA) and the Multi-Ethnic Study of Atherosclerosis (MESA)**

Yuichiro Yano, MD, PhD, FAHA

**10:15**

**Hypertension in Women: Lessons from the Women Health Initiative (WHI)**

Sylvia Wassertheil-Smoller, PhD, FAHA

**10:30**

**Hypertension in African Americans: Lessons from the Jackson Heart Study (JHS)**

Shakia Hardy, PhD, MPH

**10:45**

**High Blood Pressure in Children and Adolescents: Focus on the 2020 US Preventive Services Task Force Report**

Elaine M. Urbina, MD, MS, FAHA, FACC, FAAP

**11:00**

**Hypertension and Systems of Care: Rethinking Healthcare Delivery for Blood Pressure Control**

Brent M. Egan, MD, FAHA

**11:15**

**Polypill in Underserved Populations**

Thomas Wang, MD

**11:30**

**Advancing Equity in Hypertension Outcomes in the US: What Have We Achieved?**

Yvonne Commodore-Mensah, PhD, MHS, RN, FAHA

**11:45**

**Moderated Discussion/ Q&A**

**12- 12:30 PM**

**Sapphire DH**

**Learning Studio: Pardon the Interruption: Women of Hypertension**

**Speakers:** Naomi Fisher, MD (Moderator), Cara East, MD, Raven Vooora, M.D and Martha Gulati, MD

*Lunch included*

**Sponsor: Medtronic**

**12:45-1:30 PM**

**Session 16**

**Sapphire 400**  
**Meet the Journal Editors Networking Event**

**1:30 – 3:00 PM**  
**Sapphire AEIM**  
**POSTER SESSION 3**

**1:30 – 3:00 PM**  
**Session 17**  
**Sapphire LP**

**CPC Case study session sponsored by *Hypertension* journal**

**Moderators:** Prof Rhian M. Touyz, MBBCh, PhD, FRCP, FRSE, FMedSci and Prof Aletta E. Schutte, PhD

**1:30 Case 1: Hypertension and an Incidental Neck Mass in a 20-year old Woman**

**Presenters:**

Lisa Dubrofsky, MDCM, FRCPC, MAS, FASH,  
Paula Harvey, BMBS, PhD, FRACP

**2:00 Discussion**

**2:15 Case 2: Post-COVID Baroreflex Failure**

**Presenters:**

Khaled Elkholey MD  
Italo Biaggioni MD

**2:45 Discussion**

**3:00**  
**Break**

**3:30 – 5:30 PM**  
**Session 18**  
**Sapphire BCFGJKNO**

**The COH Mid-Career Award for Research Excellence and The KCVD Mid-Career Achievement Award**

**Moderators:** Alan Cowley, Jr. PhD, FAHA, and Alicia A McDonough, PhD, FAHA

**3:30 The COH Mid-Career Award for Research Excellence**  
**Angiotensin in the Arcuate: Unlocking Neural Mechanisms Integrating Cardiometabolic Control in Health & Disease**

Justin L. Grobe, PhD, FAHA

**4:00 The KCVD Mid-Career Achievement Award**  
**New Insights into Monogenic Hypertension from Mouse Models**  
James McCormick, PhD, FAHA

**4:30- 5:30 PM**  
**Concurrent 18A**  
**Sapphire 400**

**Blood Pressure Monitoring**

**Moderators:** Paul Muntner, PhD, FAHA

**86**  
**4:30 Impact Of Ambulatory Blood Pressure Monitoring On Hypertension Diagnosis In Primary Care**  
**James Flatow**, Jose Sanchez, Jessica Singer, Nathalie Moise, Daichi Shimbo, Ian M Kronish, Columbia Univ, New York, NY

- 87**  
4:45 **Analysis Of Blood Pressure Readings Among The Unsheltered Population Of Miami-Dade County**  
**Sahas R Seshadri**, Orly Morgan, Taha F Rasul, Dan Bergholz, Univ of Miami Miller Sch of Med, Miami, FL; Armen Henderson, Univ of Miami | Jackson Health System, Miami, FL
- 88**  
5:00 **Comparison Of 24-hour Blood Pressure Tracking Between A Commercially Available Cuffless Wearable Device And Standard Ambulatory Monitoring**  
Isabella Tan, Sonali R Gnanenthiran, The George Inst for Global Health, Sydney, Australia; Justine Chan, Univ of Western Australia, Perth, Australia; Konstantinos G Kyriakoulis, Hypertension Ctr STRIDE-7, Third Univ Dept of Med, Sotiria Hosp, Athens, Greece; Markus P Schlaich, Univ of Western Australia, Perth, Australia; George S Stergiou, Hypertension Ctr STRIDE-7, Third Univ Dept of Med, Sotiria Hosp, Athens, Greece; **Aletta E Schutte**, Univ of New South Wales, Sydney, Australia
- 89**  
5:15 **Primary Care Physician Attitudes Toward Referring Patients To A Remote Patient Monitoring Program For Hypertension**  
**Nadia Liyanage-Don**, Chinelo Onyilofor, Maria-Jose Lopez, Columbia Univ Irving Medical Ctr, New York, NY; Kelsey Bryant, Mount Sinai Medical Ctr, New York, NY; Jessica Singer, Columbia Univ Irving Medical Ctr, New York, NY; Harry West, Columbia Univ Fu Fndn Sch of Engineering and Applied Science, New York, NY; Adina Fraser, New York Presbyterian Hosp, New York, NY; Ian Kronish, Columbia Univ Irving Medical Ctr, New York, NY

## Concurrent 18B

### Cobalt 500

#### Renin-Angiotensin System

**Moderators:** R. Ariel Gomez, MD, FAHA and Pablo Nakagawa, PhD

- 90**  
4:30 **Cells Of The Renin Lineage Promote Kidney Regeneration Post - Release Of Ureteral Obstruction In Neonatal Mice.** **Vidya K Nagalakshmi**, UNIVERSITY OF VIRGINIA, Charlottesville, VA; Minghong Li, UVA, Charlottesville, VA; Silvia Medrano, UNIVERSITY OF VIRGINIA, Charlottesville, VA; Roberto Ariel Gomez, UNIVERSITY OF VIRGINIA, Charlottesville, VA; Maria Luisa S Sequeira-Lopez, UNIVERSITY VIRGINIA, Charlottesville, VA
- 91**  
4:45 **Does Smooth Muscle Cullin-3 Regulate The Renin-angiotensin System?**  
**Daria Golosova**, Daniel T Brozoski, Patricia Muskus Veitia, Ko-ting Lu, Curt D Sigmund, Medical Coll of Wisconsin, Milwaukee, WI
- 92**  
5:00 **Activation Of Neuronal At<sub>1</sub>R Exacerbates Hypertension-associated Mci Through Vascular And Neural Mechanisms**  
Hanxue Wu, Xi'an Jiaotong Univ, Xi'an, China; Jinzhu Zhuang, Binzhou Medical Univ, Yantai, China; Jiawei Wang, Shenglan Yuan, Xi'an Jiaotong Univ, Xi'an, China; Hui Sun, Binzhou Medical Univ, Yantai, China; **Jiayi Xu**, Xi'an Jiaotong Univ, Xi'an, China
- 93**  
5:15 **Association Of Preterm Birth And Low Birth Weight With The Circulatory And Urinary Renin-angiotensin System In Youth With Newly Diagnosed Primary Hypertension**  
**Carol Vincent**, Ashton Chen, Wake Forest Sch of Med, Winston Salem, NC; Andrew M South, WAKE FOREST SCHOOL OF MEDICINE, Winston Salem, NC

## Concurrent 18C

### Sapphire DH

#### Timing is Everything: Rhythms and Blood Pressure Regulation

**Moderators:** Michelle L. Gumz, PhD, FAHA and David M Pollock, PhD, FAHA

- 4:30 ***Bmal1* Is Necessary For Food-Based Entrainment Of Blood Pressure And Temperature Rhythms In The Rat**  
Megan K Rhoads, David M Pollock, Univ of Alabama at Birmingham, Birmingham, AL
- 95
- 4:45 **Obstructive Sleep Apnea Induced Gut Dysbiosis Stimulates A Proinflammatory Response In Gut And Brain That Contribute To Hypertension**  
David J Durgan, Sriram Ayyaswamy, Huanan Shi, Robert Bryan, Baylor Coll of Med, Houston, TX
- 96
- 5:00 **Adrenal-specific KO Of The Circadian Clock Protein Bmal1 Alters Blood Pressure Rhythm**  
Hannah M Costello, Gene R Crislip, Univ of Florida, Gainesville, FL; KitYan Cheng, Univ of Florida, GAINESVILLE, FL; Irma J Matheny, Annalisse Mckee, Alexandria Juffre, Phillip Bratanatawira, Victor M Mendez, Univ of Florida, Gainesville, FL; Charles Wingo, Univ of Florida, Gainesville, United States Minor Outlying Islands; Lauren Douma, Univ of Florida, Gainesville, FL; Michelle L Gumz, UNIVERSITY of FLORIDA, Gainesville, FL
- 97
- 5:15 **Seasonal Travel Stressors Modulates Hypertension In Adult Female Lupus Mice**  
Viet Dinh, UNT Health Science Ctr, Fort Worth, TX; Sarika Chaudhari, Univ of North Texas Health Sc Centr, Fort Worth, TX; Caroline Gusson Shimoura Alme, Cassandra Stubbs, Univ of North Texas Health Sc Centr, Fort Worth, TX, Fort Worth, TX; Keisa W Mathis, UNIVERSITY OF NORTH TEXAS HEALTH SC, Fort Worth, TX

3:30- 5:30

Sapphire LP

Session 18D

Primary Care Concurrent

Strategies for Successful Hypertension Care in the Community

Moderators: Yvonne Commodore-Mensah, PhD, MHS, RN, FAHA and Andrew Moran, MD, MPH, FAHA

- 3:30 **Best Practices in Implementing Team-Based Care for Blood Pressure Control**  
Alison P. Smith, MPH, BA, BSN, RN
- 3:50 **Assessing and Addressing Disparities to Improve Blood Pressure Control Using Culturally Competent Approaches**  
Meg Meador, MPH, C-PHI, CPHQ
- 4:10 **Insights from the National Hypertension Control Initiative**  
Willie E. Lawrence Jr., MD, FAHA, FACC
- 4:30 **Use of Antihypertensive Medication Treatment Algorithms to Improve Blood Pressure Control**  
Eric MacLaughlin, Pharm.D.
- 4:50 **Engaging Community Health Workers to Improve Hypertension Outcomes**  
Chidinma A. Ibe, PhD
- 5:10 **Moderated Discussion/ Q&A**

5:45 – 6:45 PM

Sapphire BCFGJKNO

Session 19

Excellence Award for Hypertension Research Lectures

Moderators: Curt D. Sigmund, PhD, FAHA and R. Ariel Gomez, MD, FAHA

- 5:45 **Preeclampsia: A Lesson in Integrative Physiology**  
Joey P. Granger, PhD, FAHA

**6:15 Purines in the Cardiovascular System and Beyond**  
Edwin K. Jackson, PhD, FAHA

**7:30 –8:00 PM**  
**Sapphire West Foyer**  
**Excellence Award in Hypertension Research and Annual Awards Dinner Reception**

**8:00 – 10:30 PM**  
**Hypertension Awards Banquet**  
**Sapphire BCFGJKNO**  
*ticketed event*  
**Includes presentation of the Excellence Award Citations and the following awards:**

**Irvine Page -Alva Bradley Lifetime Achievement Award**  
Alicia McDonough, PhD, FAHA

**The Marvin Moser Clinical Hypertension Award**  
Vesna Garovic, MD, PhD, FAHA

## **Saturday, September 10**

**7:30-8:00 AM**  
**Session 20**  
**Sapphire BCFGJKNO**  
**The Lewis K Dahl Memorial Lecture**  
**Moderator:** L. Gabriel Navar, PhD, FAHA

**Genetic and Epigenetic Mechanisms Regulating Blood Pressure and Kidney Dysfunction**  
Kailash N. Pandey, PhD, FAHA

**8:00 - 9:30**  
**Concurrent 20A**  
**Sapphire 400**  
**Renal Metabolism**  
**Moderators:** David L Mattson, PhD and Allen W. Cowley Jr, PhD, FAHA

**8:00 Rising Star Lecture:Lysine Metabolism Conveys Kidney Protection in Hypertension**  
Oleg Palygin, MSc, PhD, FAHA

**98**  
**8:30 Double Deletion Of At<sub>1a</sub> Receptors And Na<sup>+</sup>/h<sup>+</sup> Exchanger 3 In The Proximal Tubules Attenuates Angiotensin Ii-induced And 2k1c Goldblatt Hypertension In Proximal Tubule-specific Pt-Agtr1a<sup>-/-</sup>/Nhe3<sup>-/-</sup> Mice**  
Xiao C Li, Tulane Univ Sch of Medicin, New Orleans, LA; Rumana Hassan, Tulane Sch of Med, New Orleans, LA; Ana Leite, Tulane Univ, New Orleans, LA; **Jia L Zhuo**, Tulane Univ Sch of Medicin, New Orleans, LA

**99**  
**8:45 Role Of Nox-induced Oxidative Stress In Mitochondrial Bioenergetic Dysfunction In The Kidney Cortex And Outer Medulla Of Dahl Salt-sensitive Rats During The Development Of Hypertension**  
**Ranjan K. Dash**, Namrata Tomar, Medical Coll of Wisconsin, Milwaukee, WI; Shima Sadri, Medical Coll of Wisconsin, Wauwatosa, WI; Chun Yang, MEDICAL COLLEGE WISCONSIN, Milwaukee, WI; Mingyu Liang, MEDICAL COLLEGE OF WISCONSIN, Milwaukee, WI; Allen W Cowley Jr., MEDICAL COLLEGE WISCONSIN, Milwaukee, WI

**100**  
**9:00 Effects Of Upregulation Of Cyp4a In Dahl Salt-sensitive Rats And Ko Of Cyp4a2 And 4a3 In Ss.5<sup>Bn</sup>Rats On The Development Of Hypertension And Renal Injury**



**Luke B. Strong**, Sydney Murphy, Jane Border, Univ of Mississippi Medical Ctr, Jackson, MS; Shaoxun Wang, Yale Univ, New Haven, CT; Letao Fan, Harvard Medical Sch and Massachusetts General Hosp, Boston, MA; Xing Fang, Fan Fan, Richard J Roman, Univ of Mississippi Medical Ctr, Jackson, MS

**101**  
9:15

**Association Of Snx19 With Flotillin-1 And Caveolin-1 In Its Lipid Raft Localization And Regulation Of D<sub>1</sub>R Endocytosis And Blood Pressure**

**Hewang Lee**, Van A Villar, Bibhas Amatya, George Washington Univ, Washington, DC; Jacob Polzin, Manassas, VA; Ines Armando, GEORGE WASHINGTON UNIVERISITY, Washington, DC; Laureano D Asico, GEORGE WASHINGTON UNIVERSITY, Washington, DC; Robin A Felder IV, The Univ of Virginia, Charlottesville, VA; Pedro A Jose, GEORGE WA UNIV SCH MED HEALTH SCI, Washington, DC

**Concurrent 20B**

**Cobalt 500**

**Mechanisms of Preeclampsia**

**Moderators:** Jenny Sones, DVM, PhD, DACT and Denise C Cornelius, PhD

**102**  
8:00

**Mitoquinone Reduces Preeclamptic Phenotypes Associated With Syncytiotrophoblast-Specific Gq Signaling**

**Megan A Opichka**, M Christine Livergood, Medical Coll of Wisconsin, Milwaukee, WI; Katherine N Gibson-Corley, Vanderbilt Univ, Nashville, TN; Agnes B Fogo, Vanderbilt Univ Medical Ctr, Nashville, TN; Anne E Kwitek, Curt D Sigmund, Jennifer J McIntosh, Justin L Grobe, Medical Coll of Wisconsin, Milwaukee, WI

**103**  
8:15

**II-33 Supplementation Improves Vascular Function And Maternal Hypertension In Response To Placental Ischemia**

**Xi Wang**, Univ of Mississippi Medical Ctr, Jackson, MS; Corbin Shields, Univ of Mississippi Medical C, Jackson, MS; Geilda Tardo, Univ of Mississippi Medical C, Jackson, MS, Canton, MS; Greg Peacock, Univ of Mississippi Medical Ctr, Jackson, MS; Jan M Williams, UNIVERSITY OF MISSISSIPPI MEDI, Jackson, MS; Denise C Cornelius, UNIVERSITY OF MISS MED CENTER, Jackson, MS

**104**  
8:30

**Kisspeptin Signaling And Pregnancy Outcomes Are Ameliorated In The Preeclamptic-like BPH/5 Mouse After Synchronization Of Sex Steroid Hormones**

**Viviane C Gomes**, Louisiana State Univ Sch of Veterinary Med, Baton Rouge, LA; Ashley K Woods, Cornell Univ Coll of Veterinary Med, Ithaca, NY; Camille A Landry, Cassandra R Crissman, Louisiana State Univ Sch of Veterinary Med, Baton Rouge, LA; Jennifer L Sones, Louisiana State Univ, Baton Rouge, LA

**105**  
8:45

**Mitotempol Restores Endothelial Dysfunction In Placental Arterioles In Preeclampsia**

**Kaleigh Kozak**, Medical Coll of Wisconsin, Milwaukee, WI; Alexa Derayunan, Rosinda De La Pena, Andreas M. Beyer, Medical Coll of Wisconsin, Milwaukee, WI; David D Gutterman, MEDICAL COLLEGE WISCONSIN, Milwaukee, WI; Jennifer McIntosh, Medical Coll of Wisconsin, Milwaukee, WI

**106**  
9:00

**In Utero Morphine Exposure Dysregulates The Endogenous Opioid System (EOS) And Increases Risk Factors For Cardiovascular Disease In The Adulthood Offspring**

**Nermin Ahmed**, ALANA KASSIS, JENA MALONE, ESRAA ZAMZAMI, UNIVERSITY OF KENTUCKY, Lexington, KY; Scott M Gordon, Univ of Kentucky, Lexiton; Carolina Dalmasso, Analia S Loria, UNIVERSITY OF KENTUCKY, Lexington, KY

**107**  
9:15

**Adoptive Transfer Reveals That T Cell-Derived Reactive Oxygen Species Contributes To Pregnancy-Induced Renal Damage In The Dahl SS Rat**

**John Henry Dasinger**, Justine M Abais-Battad, Augusta Univ, Augusta, GA; Samuel Walton, Augusta Univ, Grovetown, GA; Emily Burns, Mary Shaw, Augusta Univ, Augusta, GA; David L Mattson, Medical Coll Of Georgia, Augusta, GA

## Concurrent 20C

### Sapphire DH

#### Diabetes and Metabolic Syndrome

**Moderators:** Srividya (Vidya) Kidambi, MD, MS and Alison Kriegel, PhD, FAHA

**108**

8:00

#### **Altered Erk / Klf4-mediated Control Of Agrp And Metabolic Rate During Obesity**

**McKenzie L Ritter**, Kirthikaa Balapattabi, John J Reho, Medical Coll of Wisconsin, Milwaukee, WI; Kristin E Claflin, Univ of Iowa, Iowa City, IA; Lisa L Morselli, Curt D Sigmund, Justin L Grobe, Medical Coll of Wisconsin, Milwaukee, WI

**109**

8:15

#### **Mitochondrial Akap1 Protein Is Required For Diet-induced Obesity, Glucose Dysregulation And Hypertension**

**Deng-Fu Guo**, Donald A Morgan, Yuying Zhao, Ronald A Merrill, Stefan Strack, Kamal Rahmouni, The Univ of Iowa, Iowa City, IA

**110**

8:30

**Cullin3 Deficiency In T Lymphocytes Causes A Lean Phenotype With Increased Carbohydrate Catabolism But Promotes Hypertension And Renal Inflammation** **Jing Wu**, Univ of Rochester Medical Ctr, Rochester, NY; Ko-Ting Lu, Wauwatosa, WI; John J Reho, Medical Coll of Wisconsin, Milwaukee, WI; Kelsey Wackman, Medical Coll of Wisconsin, Milwaukee, WI, Wauwatosa, WI; Jing Liu, Univ of Rochester, Rochester, NY; Justin L Grobe, Medical Coll of Wisconsin, Milwaukee, WI; Jeffrey Singer, Portland State Univ, Portland, OR; Curt D Sigmund, Medical Coll of Wisconsin, Milwaukee, WI

**111**

8:45

#### **Proposing A New ‘Gateway Food Model’ For Adolescent Eating Behavior And Its Implications For Modifiable Hypertension Risk Factors**

**Maria Balhara**, Broward Coll, Davie, FL

**112**

9:00

#### **Role Of Endogenous Brain Melanocortin-4 Receptor Activation In Regulating Blood Pressure And Metabolic Function In Offspring Of Parents With Obesity**

**Alexandre A. da Silva**, Sydney Moak, Univ of Mississippi Medical Ctr, Jackson, MS; Xuemei Dai, Univ of Mississippi Medical Ctr, Jackson, MS; Gisele Borges, Univ of Mississippi Medical Ctr, Jackson, MS; Ana C Omoto, Univ. Mississippi Medical Ctr, Flowood, MS; Rodrigo Gulke, Univ of Mississippi Medical Ctr, Jackson, MS; Zhen Wang, U OF MISSISSIPPI MEDICAL CENTER, Jackson, MS; Xuan Li, Univ of MS Medical Ctr, Jackson, MS; Alan J Mouton, Univ of Mississippi Med Cntr, Jackson, MS; John E Hall, UNIVERSITY MISSISSIPPI MED CTR, Jackson, MS; Jussara M do Carmo, UMC, Jackson, MS

**113**

9:15

#### **Statins, But Not Pcsk9 Inhibitors, Reduce The Adipokine Chemerin In Familial Hypercholesterolemia: Focus On Lipoprotein Subfractions.**

**Lunbo Tan**, Na Wang, Leonie van Zee, Jeanine Roeters van Lennep, Monique T. Mulder, Erasmus MC, Rotterdam, Netherlands; Xifeng Lu, Shenzhen Technology Univ, Shenzhen, China; A.H. Jan Danser, Koen Verdonk, Erasmus MC, Rotterdam, Netherlands

**7:30 – 9:30**

**Sapphire LP**

**Session 20D**

**Primary Care Concurrent**

**Non-Pharmacological and Pharmacological Treatments to Control Hypertension**

**Moderators:** Yvonne Commodore-Mensah, PhD, MHS, RN, FAHA and Stephen Juraschek, MD, PhD, FAHA

**7:30**

#### **Physical Activity and the Prevention and Control of Hypertension**

Kelley Pettee Gabriel, MS, Ph.D., FACSM, FAHA

- 7:45 Dietary Interventions That Lower Blood Pressure**  
Cheryl Anderson, PhD, MPH, FAHA
- 8:00 Complementary and Alternative Approaches for Hypertension**  
Anika Hines, PhD, MPH
- 8:15 Discussion**
- 8:30 Medication Adherence and Hypertension Control: Highlights from the American Heart Association Scientific Statement**  
Antoinette Schoenthaler, EdD FACH
- 8:45 Deprescribing Antihypertensive Therapy**  
James Sheppard, PhD, BSc, PGCert
- 9:00 Strategies for Treatment Intensification to Achieve Hypertension Control**  
Marc G. Jaffe, MD

**9:15 Discussion**

**9:30- 10:00**  
**Break**

**10:00 – 11:30**  
**Concurrent 21A**  
**Sapphire 400**  
**Receptors and Signal Transduction**

**Moderators:** Curt D. Sigmund, PhD, FAHA and Ulrike Muscha Steckelings, MD, PhD, FAHA

**114**  
10:00 AM **Metabolic Adaptation During Obesity Is Associated With G Protein Switching By The Angiotensin At1a Receptor In Agrp Neurons**  
Kirthikaa Balapattabi, McKenzie L Ritter, Gary C Mouradian Jr., Matthew R Hodges, Curt D Sigmund, **Justin L Grobe**, Medical Coll of Wisconsin, Milwaukee, WI

**115**  
10:15 AM **Soluble (pro)renin Receptor Contributes To Endotoxin-induced Septic Shock And Aki In Mice**  
**Huaqing Zheng**, Univ of Utah VAMC, salt lake city, UT; Ziwei Fu, Univ of Utah VAMC, Salt Lake City, UT; Fei Wang, kannaree kaewsaro, Univ of Utah VAMC, salt lake city, UT; Tianxin Yang, UNIVERSITY UTAH VAMC, Salt Lake City, UT

**116**  
10:30 AM **Proof Of Biological Activity And Exploration Of Early Signaling Events Of Angiotensin-(1-5)**  
**Igor Maciel Souza Silva**, Univ of Southern Denmark, Odense, Denmark; Augusto Peluso, Univ of Copenhagen, Copenhagen, Denmark; Arkadiusz Nawrocki, Lene Andrup Jakobsen, Pia Jensen, Univ of Southern Denmark, Odense, Denmark; Lucas Rodrigues Aguiar Ribeiro, Univ Federal de Minas Gerais, Belo Horizonte, Brazil; Christina Mortensen, Univ of Southern Denmark, Odense, Denmark; Colin Summers, Univ of Florida, Gainesville, FL; Thiago Verano-Braga, Univ Federal de Minas Gerais, Belo Horizonte, Brazil; Martin Larsen, Ulrike M Steckelings, Univ of Southern Denmark, Odense, Denmark

**117**  
10:45 AM **Interleukin-18 Is A Critical Mediator Of Cardiac Remodelling During Angiotensin II-induced Hypertension**  
**Grant Drummond**, Narbada Saini, Ashleigh Georgia-Sherriff, Henry Diep, La Trobe Univ, Melbourne, Australia; Alexander Pinto, Malathi Dona, Baker Heart and Diabetes Inst, Melbourne, Australia; Christopher G Sobey, Maria Jelinic, Antony Vinh, La Trobe Univ, Melbourne, Australia

**118**  
11:00 AM **P2Y12 Inhibitor With Or Without Aspirin In Patients With Hypertension Undergoing Percutaneous Coronary Intervention**

Pil-Sang Song, Chungnam Natl Univ Hosp, Daejeon, Korea, Republic of; **SI WAN CHOI**, Chungnam Natl Univ. Hosp, Daejeon, Korea, Republic of; Jin-Ok Jeong, Chungnam Natl Univ Hosp, Daejeon, Korea, Republic of

## **Concurrent 21B**

### **Cobalt 500**

#### **Aldosterone and Angiotensin**

**Moderators:** Zhongjie Sun, MMD, PhD, FAHA and Analia Loria, PhD, FAHA

- 120**  
10:00 **Midgestation Eplerenone Treatment Ablates Leptin-induced Hypertension And Endothelial Dysfunction But Not Fetal Growth Restriction In Preeclamptic Mice**  
**Elisabeth Mellott**, Desmond Moronge, Victor Ayulo, Gabrielle Connor, Safia Ogbi, Jessica L Faulkner, Augusta Univ, Augusta, GA
- 121**  
10:15 **The Selective Aldosterone Synthase Inhibitor PB6440 Normalizes Blood Pressure In A Human Aldosterone Synthase-Transgenic Mouse Model Of Hypertension**  
**John Lee**, PhaseBio Pharmaceuticals Inc., Malvern, PA; Robert Schotzinger, Raleigh, NC; David Becherer, Raleigh, NC, Raleigh, NC; Steven Sparks, Huiying Gu, Raleigh, NC, Raleigh, NC, Southington, CT; Yongqi Yu, Yansheng Du, INDIANA UNIVERSITY, Indianapolis, IN
- 122**  
10:30 **Effect Of Tie2-cre Endothelial Caveolin-1 Deficiency Mice On Murine Cardiovascular And Metabolic Phenotypes**  
**Shadi K Gholami**, Brigham and Wome's Hosp/Harvard Medical school, Boston, MA; Sanjay Ranjit, Brighman and Women's Hosp/Harvard Medical school, Boston, MA; Fatty Fazzila Abidin, Elijah Trefts, Siti khairani Mohd Hafiz Ngoo, Amanda Garza, Brigham and Wome's Hosp/Harvard Medical school, Boston, MA; Luminita H Pojoga, BRIGHAM AND WOMENS HOSPITAL, Boston, MA
- 123**  
10:45 **Female Rats With History Of Acute Kidney Injury Develop Endothelial Dysfunction, Increased Renal Inflammation And Decreased Aldosterone During Pregnancy**  
**Desmond Moronge**, Elisabeth Mellott, Gabrielle Connor, Victor Ayulo, Ellen E Gillis, Jennifer C Sullivan, Jessica L Faulkner, Augusta Univ, Augusta, GA
- 124**  
11:00 **Angiotensin-(1-12) Immunoneutralization: A New Approach To Hypertension Treatment**  
**Carlos M Ferrario**, WAKE FOREST UNIVERSITY HLTH SCI CTR, Winston Salem, NC; Jessica Leigh VonCannon, Wake Forest Baptist Health, Winston-Salem, NC; Miles Fearn, Amit Saha, WAKE FOREST UNIVERSITY HLTH SCI CTR, Winston Salem, NC; Heng-Jie J Cheng, WAKE FOREST UNIVERSITY SCHL ME, Lewisville, NC; Sarfaraz Ahmad, WAKE FOREST UNIV SCHOOL MEDICINE, Winston Salem, NC
- 125**  
11:15 **Modified Angiotensin II Has Lower Vasoconstrictive Effect Than Angiotensin II**  
**Michaela Lellig**, Univ Hosp RWTH Aachen, Aachen, Germany; Juan R Muñoz-Castañeda, IMIBIC, Cordoba, Spain; Juliane Hermann, Vera Jankowski, Univ Hosp RWTH Aachen, Aachen, Germany

## **Concurrent 21C**

### **Sapphire DH**

#### **Oxidative Stress and Immunity**

**Moderators:** Christopher Wilcox MD, PhD FAHA and Meena Madhur, MD, PhD, FAHA

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10:00 **Antigen Presenting Cell Isolevuglandins: A Potential Diagnostic Tool For Salt Sensitivity Of Blood Pressure In Humans**  
**Lale A Ertuglu**, Vanderbilt Univ Medical Ctr, Nashville, TN; Cheryl L Laffer, VANDERBILT U SCHOOL of MEDICINE, Nashville, TN; Fernando Eljovich, VANDERBILT UNIVERSITY, Nashville,

TN; Melis Sahinoz, Ashley Pitzer, Vanderbilt Univ Medical Cente, Nashville, TN; Alp Ikizler, Nashville, TN; Annet Kirabo, Vanderbilt Univ Medical Cente, Nashville, TN

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10:15 **Nox5 Expression In A Vascular Smooth Muscle Cell-specific Manner Induces Fibroblast To Myofibroblast Differentiation**  
**Augusto C Montezano**, Res Inst of the McGill Univ Health Ctr, Montreal, QC, Canada; Francisco J Rios, UNIVERSITY OF GLASGOW, Glasgow; Zachariel Blaikie, Tomador E Saad, ICAMS - Univ of Glasgow, Glasgow, United Kingdom; Livia Camargo, Res Inst of the McGill Univ Health Ctr, Montreal, QC, Canada; Wendy Beattie, Univ of Glasgow, Glasgow; Frederic Jaisser, INSERM DR6, Paris, France; Tomasz Guzik, ICAMS - Univ of Glasgow, Glasgow, United Kingdom; Delyth Graham, ICAMS - Univ of Glasgow, Glasgow, United Kingdom, Glasgow; Rhian M Touyz, McGill Univ, Montreal, QC, Canada
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10:30 **Loss Of *Gstm1* Augments Kidney Neutrophil Population In Angii-induced Hypertension**  
**Luoqing Chen**, Timothy Jason Beane, Yves Wang, Univ of Rochester, Rochester, NY; Jason Javier Cunningham, Rochester, NY; Jing Liu, Univ of Rochester, Rochester, NY; Jing Wu, Univ of Rochester Medical Ctr, Rochester, NY; Thu H Le, Univ of Rochester, Rochester, NY
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10:45 **Role Of Human T Cells In Experimental Hypertension And Hypertensive Kidney Damage**  
Masudur Rahman, Denada Arifaj, Lydia Hering, Heinrich Heine Univ, Duesseldorf, Germany; Mina Yakoub, Heinrich Heine Univ, Dusseldorf, Germany; Lars Christian Rump, Heinrich-Heine-Univ, Dusseldorf, Germany; **Johannes Stegbauer**, Heinrich Heine Univ, Duesseldorf, Germany
- 130**  
11:00 **Isolevuglandins Drive Neutrophil Migration In Hypertension And Are Essential For The Formation Of Neutrophil Extracellular Traps**  
**Jaya Krishnan**, Vanderbilt Univ Medical Ctr, Nashville, TN; Nestor De La Visitacion, Vanderbilt Univ Medical Cente, Nashville, TN; Elizabeth Hennen, Vanderbilt Univ, Nashville, TN; David G Harrison, VANDERBILT, Nashville, TN; Venkataraman Amarnath, Vanderbilt Univ Medical Ctr, Nashville, TN; David Patrick, Vanderbilt Univ Medical Ctr, Nashville, TN, Nashville, TN

## Session 21D

### Sapphire LP

#### Novel Population, Clinical, and Translational Findings in Hypertension Research

**Moderators:** Paul Muntner, PhD, FAHA and D. Edmund Anstey, MD, MPH

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10:00 **Reduction Of Bone Quality In A Murine Model Of Essential Hypertension Relative To Age**  
**Elizabeth M Hennen**, Vanderbilt Univ, Nashville, TN; Mingfang Ao, Vanderbilt Univ medical Cente, Nashville, TN; Nestor de la Visitacion, Vanderbilt Univ Medical Cente, Nashville, TN; Wei Chen, Vanderbilt Medical Ctr, Franklin, TN; Sasidhar Uppuganti, Elizabeth Rendina-Ruedy, Vanderbilt Univ Medical Ctr, Nashville, TN; Jeffry Nyman, Nashville, TN; David G Harrison, VANDERBILT, Nashville, TN
- 133**  
10:15 **Influence Of Sex, BMI, And Skin Color On The Accuracy Of Non-Invasive Cuffless Photoplethysmography-Based Blood Pressure Measurements**  
**Arik Eisenkraft**, The Hebrew Univ Jerusalem, Jerusalem, Israel
- 134**  
10:30 **Blood Pressure Control And Hypertension Diagnosis Six Months After Completing Ambulatory Blood Pressure Diagnostic Testing**  
**Beverly Green**, Kaiser Permanente Washington, Seattle, WA; Yoshio Hall, Veteran Admin, Seattle, WA; Melissa L Anderson, Kaiser Permanente Washington Health Res Inst, Seattle, WA; Karen L Margolis, HEALTHPARTNERS INSTITUTE, Minneapolis, MN
- 135**  
10:45 **Contribution Of Maternal Age To Trends In Pre-pregnancy Hypertension Prevalence In The United States From 1995-2019: A Kitagawa Decomposition Analysis**  
**Natalie A Cameron**, Northwestern Univ, Feinberg Sch of Med, Chicago, IL; Zachary H Hughes, Northwestern Univ Feinberg Sch of Med, Chicago, IL; Lucia C Petito, Northwestern Univ, Chicago, IL;

Donald M Lloyd-Jones, Northwestern Univ, Feinberg Sch of Med, Chicago, IL; Natalie A Bello, Cedars-Sinai Medical Ctr, Los Angeles, CA; William A Grobman, The Ohio State Univ Wexner Medical Ctr Dept of Obstetrics and Gynecology, Columbus, OH; Sadiya S Khan, Northwestern Univ, Feinberg Sch of Med, Chicago, IL

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11:00

**Measured Blood Pressure, Genetically Predicted Blood Pressure, And Cardiovascular Disease Risk So Mi Jemma Cho**, Satoshi Koyama, Yunfeng Ruan, Broad Inst of MIT and Harvard, Cambridge, MA; Kim Lannery, Megan Wong, Massachusetts General Hosp, Boston, MA; Ezimamaka Ajufo, Brigham and Women's Hosp, Boston, MA; Hokyoo Lee, Yonsei Univ Coll of Med, Seoul, Korea, Republic of; Amit V Khera, Michael Honigberg, Pradeep Natarajan, Massachusetts General Hosp, Boston, MA

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11:15

**Projected Impact Of Non-pharmacologic Management Of Stage 1 Hypertension Among Lower-risk U.s Adults**

**Kendra D Sims**, UC San Francisco, San Francisco, CA; Pengxiao Wei, UCSF, San Francisco, CA; Brandon K Bellows, Columbia Univ, New York, NY; Joanne Penko, Susan Hennessy, UCSF, San Francisco, CA; Dhruv S Kazi, BIDMC, Boston, MA; Ross Boylan, UCSF, San Francisco, CA; Andrew E Moran, COLUMBIA UNIVERSITY, New York, NY; Kirsten Bibbins-Domingo, UNIVERSITY CALIFORNIA SAN FRANCISCO, San Francisco, CA

**11:30**

**MEETING ADJOURNS**