



Time	Monday, September 27
10 – 11 a.m. CDT	<p>Session 1: Opening Remarks and Keynote Lecture</p> <p>Opening Remarks: Donald M. Lloyd-Jones, MD, ScM, FAHA, President, American Heart Association</p> <p>Curt D. Sigmund, PhD, FAHA, Chair, Council on Hypertension</p> <p>Keynote: Hypoxia-Inducible Factors in Physiology and Medicine Gregg L. Semenza, MD, PhD, FAHA</p>
11-11:15 a.m.	Break
11:15 a.m.- 12:15 p.m. CDT	<p>Session 2A Council on Kidney in Cardiovascular Disease Symposium: Abundant Protein with Ample Evidence- Role of Uromodulin in Hypertension, Kidney Disease, and Inflammation Moderator: Matthias T. Wolf, MD</p> <p>Role of Uromodulin in Salt-Sensitive Hypertension Professor Dame Anna F Dominiczak, DBE, MD, FRCP, FAHA, FRSE, FMedSci</p> <p>Uromodulin Variants in Liaison With CKD Olivier Devuyst, MD, PhD</p> <p>Role of Uromodulin in Inflammation and Acute Kidney Injury Tarek M. Ashkar (El-Achkar), MD, FASN, FACP</p> <p>Session 2B Trainee Advocacy Committee (TAC) Oral Abstracts: Jr Faculty Showcase</p>

Moderator: Monica M. Santisteban, PhD

1: Thirty-day Readmission Rate For Hypertensive Crisis: A Nationwide Analysis

Muddasir Ashraf, MD

Muddasir Ashraf UnityPoint Health System, Rock Island, IL; Viviana Zlochiver, Advocate Aurora Res Inst, Milwaukee, WI; Alexander Bolton, Advocate Aurora Res Inst, Milwaukee, WI, North Liberty, IA; M Fuad Jan, Advocate Aurora Health, Milwaukee, WI

2: Distribution Of Predicted Cardiovascular And All-cause Mortality Benefit Of Intensive Vs Standard Blood Pressure Control Among Us Adults Eligible For The Systolic Blood Pressure Intervention Trial

Catherine Derington, PharmD, MS

Catherine Derington Univ of Utah, Salt Lake City, UT; Brandon Bellows, Columbia Univ, New York, NY; Gabriel S Tajeu, Temple Univ, Philadelphia, PA; Jennifer S Herrick, Ransmond O Berchie, Jian Ying, Univ of Utah, Salt Lake City, UT; Swati Sakhuja, Univ of Alabama at Birmingham, Birmingham, AL; Tom Greene, Univ of Utah, Salt Lake City, United States Minor Outlying Islands; Natalia Ruiz-negron, Univ of Utah, Salt Lake City, UT; George Howard, SCHOOL PUBLIC HEALTH, Birmingham, AL; Emily B Levitan, UNIVERSITY ALABAMA AT BIRMINGHAM, Birmingham, AL; Paul Muntner, UNIVERSITY ALABAMA BIRMINGHAM, Birmingham, AL; Monika M Safford, WEILL CORNELL MEDICINE, New York, NY; William S Weintraub, Medstar Washington Hosp Ctr, Washington, DC; Andrew Edward Moran, Columbia Univ Medical Ctr, New York, NY; Adam P Bress, UNIVERSITY OF UTAH, Salt Lake City, UT

3: Ablation Of Endothelial Dysfunction Improves Blood Pressure And Fetal Growth Restriction In A Mouse Model Of Preeclampsia-like Hyperleptinemia

Jessica L Faulkner, PhD

Jessica L Faulkner, Derrian Wright, Simone Kennard, Galina Antonova, AUGUSTA UNIVERSITY, Augusta, GA; Iris Z Jaffe, TUFTS MEDICAL CENTER, Boston, MA; Eric J Belin De Chantemele, MEDICAL COLLEGE OF GEORGIA AT AU, Augusta, GA

4: Growth Arrest Specific 6 And Axl Signaling Coordinate Endothelial Cell And Immune Cell Activation To Promote Inflammation And Hypertension.

Justin P. Van Besecum, PhD

Justin P. Van Besecum, Natalia Barbaro, Vanderbilt Univ Medical Ctr, Nashville, TN; Charles D Smart, Vanderbilt Univ, Nashville, TN; Mingfang Ao, David M Patrick, Vanderbilt Univ Medical Ctr, Nashville, TN;

Nestor De La Visitacion, Vanderbilt Univ Medical Cente, Nashville, TN; Roxana LOPERENA, VANDERBILT UNIVERSITY, Nashville, TN; Liang Xiao, Vanderbilt Univ Medical Ctr, Nashville, TN; Cyndya A Shibao, VANDERBILT UNIV. MEDICAL CENTER, Nashville, TN; David G Harrison, Vanderbilt Univ, Nashville, TN

#### Session 2C

Hypertension Management Through the Lifespan: Children/Adolescence, Middle Age, Older Adults

Moderator: Joshua Samuels, MD, MPH, FAAP, FASN, FAHA

Hypertension in Children and Adolescents

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

Hypertension Management During Pregnancy

Natalie A. Bello, MD, MPH

Hypertension Management in Older Adults

Kenneth A. Jamerson, MD

Live Discussion and Q&A

12:15 –  
12:30 p.m.

Break

12:30 – 1:30  
p.m. CDT

#### Session 3A

Council on Hypertension Symposium: Single Cell Epigenomics and Transcriptomics

Moderators: Maria Luisa S. Sequeira-Lopez, MD, FAHA and Associate Professor Francine Marques, PhD

Single Cell Analysis of the Kidney in Health and Disease

Benjamin D. Humphreys MD, PhD

Epigenomics

Katalin Susztak, MD, PhD

#### Session 3B

TAC Oral Abstract Session: Renal Mechanisms

Moderator: Jermaine G. Johnston, PhD

5: Cyclooxygenase-2 Inhibition As A New Tool To Combat Angiogenesis Inhibitor-induced Hypertension And Renal Toxicity

Daan van Dorst, MD, MSc

Daan van Dorst Erasmus MC, Rotterdam, Netherlands; Katrina M. Mirabito Colafella, Monash Univ, Melbourne, Australia; Leni van Doorn, Richard van Veghel, Ingrid M. Garrelds, Ron H. Mathijssen, A. H. Danser, Jorie Versmissen, Erasmus MC, Rotterdam, Netherlands

6: Mechanisms And Consequences Of Casein Kinase II And Ankyrin 3 Regulation Of The Epithelial Sodium Channel

Tarek Mohamed Abd El-Aziz

Tarek Mohamed Abd El-Aziz UT Health Science Ctr San Antonio, San Antonio, TX; James D Stockand, UNIV TEXAS HSC SAN ANTONIO, San Antonio, TX; Antonio Soares, Univ of Texas Health Science, San Antonio, TX

7: Collecting Duct (Pro) Renin Receptor(PRR) Promotes Kidney Fibrosis Via Macrophage Alternative Activation Mediated By Soluble PRR (sPRR)-Dependent Activation Of Yap/Taz Axis

Ye Feng, MD, PhD, Postdoc,

Ye Feng, Shiyang Xie, Univ of Utah, Salt Lake City, UT; Renfei Luo, Univ of Utah, SALT LAKE CTY, UT; Fei Wang, Univ of utah, salt lake city, UT; Tianxin Yang, UNIVERSITY UTAH, Salt Lake City, UT

8: Functional Characterisation Of Uromodulin Promoter Risk Variants Associated With Blood Pressure

Simon Fisher, BSc (Hons), MRes,

Simon Fisher, Lesley Graham, Delyth Graham, Martin McBride, Univ of Glasgow, Glasgow, United Kingdom

9: Mtor Inhibition Decreases Ligand-induced Mineralocorticoid Receptor Activation

Yusuf Ali, PhD

Yusuf Ali, Univ of Mississippi Medical Ctr, Jackson, MS; Elise P Gomez-sanchez, U. Mississippi Medical Center, Jackson, MS; Celso E Gomez-sanchez, UNIV Mississippi Medical Center, Jackson, MS

10: MANP Activation of the Cyclic GMP/PDE2/CYP11B2 Pathway Inhibits Aldosterone In Vitro

and In Vivo

Yang Chen, PhD

Yang Chen, MAYO CLINIC, Rochester, MN; Seethalakshmi R Iyer, Mayo Clinic, Rochester, MN; Viacheslav Nikolaev, Univ Medical Ctr Hamburg-Eppendorf, Hamburg; Fabio Naro, Sapienza Univ of Rome, Rome, Italy; Manuela Pellegrini, IBBC-CNR, Rome, Italy; Hon-chi Lee, MAYO CLINIC, Rochester, MN; John C Burnett, MAYO CLINIC FOUNDATION, Rochester, MN

### Session 3C

Equity in Hypertension Control: Role of Clinicians, Communities, and Health Policy

Moderator: Valy Fontil, MD, MAS

Live Panel Discussion:

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

Chidinma A. Ibe, PhD

Tazeen H Jafar, MD, MPH

Keith C. Ferdinand, MD, FACC, FAHA, FASPC, FNLA

1:30 – 2:00  
p.m.

Break

2:00 – 4:00  
p.m.

2:00 – 3:00 p.m.

Moderated Poster Sessions

MPS01

Oxidative Stress, Inflammation Immunity and Cytokines 1

Moderators: Hana A. Itani, FAHA FASN and Brett Mitchell, PhD, FAHA

MP01: Deacetylation Of Mitochondrial Cyclophilin D K166 Inhibits Cytokine-induced Oxidative Stress And Attenuates Hypertension

Sergey I Dikalov, PhD, FAHA

Sergey I Dikalov, Vanderbilt Univ Medical Ctr, Nashville, TN; Vladimir Mayorov, Mercer Univ Sch of Med, Macon, GA; Daniel Fehrenbach, Mingfang Ao, Vanderbilt Univ Medical Ctr, Nashville, TN; Alexander Panov, Scientific Ctr for Family Health and Human Reproduction Problems, Irkutsk, Russian Federation; David G Harrison, Anna Dikalova, Vanderbilt Univ Medical Ctr, Nashville, TN

MP02: Acute Increases Of Renal Perfusion Pressure Activate Mechanistic Target Of Rapamycin Complex 1 And Increase Macrophage Infiltration In The Kidney Of Sprague Dawley Rats.

Satoshi Shimada, MD, PhD

Satoshi Shimada, Chun Yang, Vikash Kumar, Medical Coll of Wisconsin, Milwaukee, WI; David L Mattson, Medical Coll Of Georgia, Augusta, GA; Allen W Cowley Jr., Medical Coll of Wisconsin, Milwaukee, WI

MP03: ROCK2 Specific Inhibition Attenuates Angiotensin II-induced Hypertension In Mice

Daniel Fehrenbach, PhD

Daniel J Fehrenbach, Vanderbilt Univ Medical Ctr, Nashville, TN; Meena S Madhur, VANDERBILT UNIVERSITY, Nashville, TN

MP04: Interleukin-33 Drives Cardiac Remodeling And Alters Macrophage Polarization In Doca-salt Hypertension

Charles Duncan Smart

Charles D Smart, Vanderbilt Univ Sch of Med, Nashville, TN; Daniel Fehrenbach, VUMC, Nashville, TN; Matthew Dungan, Vanderbilt Univ Sch of Med, Nashville, TN; Amanda C Doran, VANDERBILT UNIVERSITY MEDICAL CENTE, Nashville, TN; R. Stokes Peebles, Vanderbilt Univ Medical Ctr, Nashville, TN; Meena S Madhur, VANDERBILT UNIVERSITY, Nashville, TN

MP05: The Mechanism Of The Pvat Pro-inflammatory Micro-environment Formation During The Development Of High Fat Diet-induced Hypertension

Yining Jin

Yining Jin, Omar Kana, Ramya Kumar, Rance Nault, Hannah Garver, Sudin Bhattacharya, Stephanie W Watts, Gregory D Fink, Jamie Bernard, Cheryl Rockwell, Michigan State Univ, East Lansing, MI

MP06: Insights Into The Role Of Anp In Hfpef During Ss Hypertension

Morgan Spicer, BS

Morgan Spicer, Medical Univ of South Carolina, Charleston, SC; Ryan Schibalski, charleston, SC; Mark Domondon, charleston, SC, Charleston, SC; Alexis Williams, Medical Univ of South

Carolina, Charleston, SC; Miguel Troncoso, Veteran Affairs, Summerville, SC; Krisztian Stadler, Pennington Biomedical Res Ctr, Baton Rouge, LA; Kristine Y Deleon-pennell, Medical Univ of South Carolina, Charleston, SC; Daria Ilatovskaya, Augusta Univ, Augusta, GA

## MPS02

### Renin-Angiotensin System 1

Moderators: Justin L. Grobe, PhD, FAHA, FAPS

#### MP07: Long-term Suppression Of The Renin-angiotensin System Leads To Concentric Arteriolar Hypertrophy By Activation Of Renin Cells.

Hirofumi Watanabe

Hirofumi Watanabe, Alexandre Martini, Evan Brown, Dept of Pediatrics, Child Health Res Ctr, Univ of Virginia Sch of Med, Charlottesville, VA; Lois J Arend, Dept of Pathology, Johns Hopkins Univ and Johns Hopkins Hosp, Baltimore, MD; Silvia Medrano, Dept of Pediatrics, Child Health Res Ctr, Univ of Virginia Sch of Med, Charlottesville, VA; Ichiei Narita, Div of Clinical Nephrology and Rheumatology, Kidney Res Ctr, Niigata Univ Graduate Sch of Medical and Dental Sciences, Niigata, Japan; Maria L Sequeira, Roberto A Gomez, Dept of Pediatrics, Child Health Res Ctr, Univ of Virginia Sch of Med, Charlottesville, VA

#### MP08: New Function Of Sox6 In Renovascular Hypertension Induced Oxidative Stress And Kidney Damage Through Renin, Prorenin And The (pro)renin Receptor Expression Control.

Jose A. Gomez, PhD

Mohammad Saleem, Vanderbilt Univ Medical Cente, Nashville, TN; Pierina Barturen-Larrea, VANDERBILT UNIVERSITY MEDICAL CENTE, Nashville, TN; Sergey I Dikalov, VANDERBILT UNIVERSITY MEDICAL CTR, Nashville, TN; Jose A Gomez, VANDERBILT UNIVERSITY MEDICAL CENTE, Nashville, TN

#### MP09: Effect Of Western Diet On Renal Transcriptome Of Hypertensive Mice Overexpressing Human Angiotensin Receptor Type 1

Sudhir Jain, PhD

Harshada Ketkar, Samantha Tang, New York Medical Coll, Valhalla, NY; Sudhir Jain, NEW YORK MEDICAL COLLEGE, elmsford, NY

MP10: Furin-Mediated Modification Is Required For Epithelial Sodium Channel-Activating Activity Of Soluble (Pro)Renin Receptor In Cultured Collecting Duct Cells  
Huaqing Zheng

Huaqing Zheng, Univ of Utah, Salt Lake City, UT; Changjiang zou, SLC, UT; Tianxin Yang, UNIVERSITY UTAH, Salt Lake City, UT

MP11: Decreased Expression Of Ace2 Is Associated Urine Derived Human Renal Proximal Tubule Cells From Inverse Salt Sensitivity Participants Cultured In Low Salt Conditions  
John Gildea, PhD

John J Gildea, UNIVERSITY OF VIRGINIA, Charlottesville, VA; Peng Xu, UNIVERSITY OF VIRGINIA, Charlottesville, VA; Katie Schiermeyer, Wei Yue, Univ of Virginia, Charlottesville, VA; Robin A Felder IV, The Univ of Virginia, Charlottesville, VA

MP12: The Mef2c Transcription Factor Regulates The Renin Cell Identity

Omar Guessoum, BSc

Omar E Guessoum, Kristyna Kupkova, Univ of Virginia, Charlottesville, VA; Nathan Sheffield, Maria Luisa Sequeira Lopez, Roberto A Gomez, UNIVERSITY OF VIRGINIA, Charlottesville, VA

2:00 – 3:00 p.m.

N01 Meet the Nobel Laureate

Dr. Gregg L. Semenza, MD, PhD, FAHA

3:00 – 4:00 p.m.

Moderated Poster Sessions

MPS03

Cerebral Vascular and Vascular Biology

Moderators: Camilla Ferreira Wenceslau, PhD, MS, FAHA and Eric J. Belin de Chantemele, DSc. FAHA

MP13: Evaluation Of The Effect Of Low Grade Inflammation And Hypertension On The Development Of White Matter Lesions

Christopher Woldstad, PhD



Chris Woldstad, Weill Cornell Med, New York, NY; Henry Rusinek, NYU, New York, NY; Elizabeth Sweeney, Tracy Butler, Yi Li, Emily Tanzi, Chris Mardy, Patrick Harvey, Mony de Leon, Lidia Glodzik, Weill Cornell Med, New York, NY

**MP14: Endothelial Cullin3 Mutation Causes Decreased Nitric Oxide (NO) Bioavailability And Vascular Dysfunction Through Protein Phosphatase 2A**

Jing Wu, PhD

Jing Wu, MEDICAL COLLEGE OF WISCONSIN, Milwaukee, WI; Shi Fang, Medical Coll of Wisconsin, Wauwatosa, WI; Chunyan Hu, Medical Coll of Wisconsin, Wauwatosa, WI, Salt Lake City, UT; Adokole Otanwa, Univ of Iowa, Iowa City, IA; Daniel Brozowski, Medical Coll of Wisconsin, Milwaukee, WI; Ko-Ting Lu, MEDICAL COLLEGE OF WISCONSIN, Milwaukee, WI; Gaurav Kumar, Medical Coll of Wisconsin, Milwaukee, WI; Sebastiao Donato Silva Jr., Kelsey Wackman, MEDICAL COLLEGE OF WISCONSIN, Milwaukee, WI; Larry Agbor, Univ of Iowa, Iowa City, IA; Anand R Nair, Cedars-Sinai Medical Ctr, Los Angeles, CA; Curt D Sigmund, Medical Coll of Wisconsin, Milwaukee, WI

**MP15: Arterial Hypertension And Cognitive Disorders: Cerebral Vascular Reserve**

Viktoriia Krotova, MD, PhD

Viktoriia Krotova, Tetyana Khomazyuk, Dnipro State Medical Univ, Dnipro, Ukraine

**MP16: Perivascular Adipose Tissue Inflammation Impairs Microvascular Endothelial Function In People Living With HIV**

Dan Wang, MD, PhD

Dan Wang, GEORGETOWN UNIVERSITY MEDICAL CENTE, Washington, DC; Cheng Wang, The Fifth Hosp of Sun Yat-sen University, Zhuhai, China; Seble Kassaye, GEORGETOWN UNIVERSITY MEDICAL CENTE, Washington DC, DC; Princy Kurmar, Jennifer Verbesey, GEORGETOWN UNIVERSITY MEDICAL CENTE, Washington, DC; Christopher S Wilcox, GEORGETOWN UNIV DIV OF NEPHROLOGY, Washington, DC

**MP17: Neuropilin-1 Is A Novel Regulator Of Vascular Tone And Blood Pressure**

Dakshnapriya Balasubramanian, PhD

Dakshnapriya Balasubramanian, George Lambrinos, Boston Children's Hosp, Boston, MA; Vivian Cristofaro, Veteran Affairs Boston Healthcare System, Boston, MA; Alexander Bigger-Allen, Beibei Wang, Yao Gao, Boston Children's Hosp, Boston, MA; Hong Chen, HARVARD MEDICAL

SCHOOL, Boston, MA; Rosalyn M. Adam, Boston Children's Hosp, Boston, MA; Maryrose P. Sullivan, Veterans Affairs Boston Healthcare System, Boston, MA; Diane R. Bielenberg, Boston Children's Hosp, Boston, MA

**MP18: The Impact Of Perivascular Adipose Tissue On Arterial Stiffness**

Sara Roccabianca, PhD

Sara Roccabianca, Michigan State Univ, East Lansing, MI; Tyler Tuttle, Emma Flood, Stephanie W Watts, MICHIGAN STATE UNIVERSITY, East Lansing, MI

**MPS04**

Neuroscience and Neurogenic Mechanisms

Moderators: Kirthikaa Balapattabi, PhD and Yumei Feng Earley, MD, PhD, FAHA

**MP19: Endogenous 5-hydroxytryptamine May Regulate Skeletal Muscle Vascular Resistance In Normal Healthy Rats**

Gregory Fink PhD, FAHA

Gregory D Fink, MICHIGAN STATE UNIVERSITY, East Lansing, MI

**MP20: Optogenetic Control Of Pip2 To Assess Mechanisms Regulating The Epithelial Sodium Channel**

Crystal R. Archer, MS, PhD

Crystal R Archer, UT Health San Antonio, San Antonio, TX; Amanpreet Kaur, Univ of Washington, Seattle, WA; Tarek Mohamed, UT Health San Antonio, San Antonio, TX; James D Stockand, UNIV TEXAS HSC SAN ANTON, San Antonio, TX

**MP21: Circadian Cycle Exaggerates Sympathoexcitatory Responses To Activation Of Chemosensitive Renal Sensory Nerves**

Leon DeLalio, PhD

Leon J DeLalio, Univ of Pittsburgh, Pittsburgh, PA; Sean D Stocker, UNIVERSITY OF PITTSBURGH, Pittsburgh, PA

**MP22: Dietary Salt Restriction And High Salt Intake Exaggerate Sympathetic Reflexes And Sensitize Central Autonomic Networks: Potential Mechanisms Of The J-shaped Curve**

Sean D. Stocker, PhD

Sean D Stocker, UNIVERSITY OF PITTSBURGH, Pittsburgh, PA; Megan M Wenner, William B Farquhar, UNIVERSITY OF DELAWARE, Newark, DE

MP23: Arterial Depressor Responses Induced By Neuromodulation Of Deep Peroneal Nerve In Spontaneously Hypertensive Rats

Maria A. Gonzalez-Gonzalez, PhD

Maria Alejandra Gonzalez-Gonzalez, Univ of Houston, Houston, TX; John Beitter, Univ of Texas at Dallas, Dallas, TX; Kevin Romero, Univ of Houston, Houston, TX; Danny Lam, Ana G Hernandez-Reynoso, Aswini Kanneganti, Univ of Texas at Dallas, Dallas, TX; Han K Kim, Univ of Texas Southwestern Medical Ctr, Dallas, TX; Caroline K KJune, Draper Labs, Boston, MA; Scott Smith, UT Southwestern Medical Ctr, Dallas, TX; Wanpen Vongpatanasin, UNIVERSITY TX SOUTHWESTERN MED, Dallas, TX; Mario Romero-ortega, Univ of Houston, Houston, TX

MP24: Selective Activation Of DMV Neurons Improves Renal Injury In Systemic Lupus Erythematosus

Caroline Shimoura, PhD

Caroline Gusson Shimoura, Cassandra Young Stubbs, Calvin Brooks, Keisa Williams Mathis, Univ of North Texas Health Science Ctr, Fort Worth, TX

3:00 – 4:00 p.m.

N02 Single Cell Sequencing Q&A session

Benjamin D. Humphreys MD, PhD

Katalin Susztak, MD, PhD

N03 Hypertension Journal Early Career Roundtable

Time

Tuesday, September 28

10:00 -11:00  
a.m. CDT

Session 4A  
The Excellence Award for Hypertension Research Lectures

Moderator: Karen A. Griffin, MD, FASN, FACP, FAHA

Alan Kim Johnson, BS, MA, PhD, FAHA

Jane F. Reckelhoff, PhD, FAHA

Daniel Levy, MD, FAHA

#### Session 4B

TAC Oral Abstract Session: Inflammation and Immunity

Moderator: Francisco Rios, PhD

11: Single Cell Eccite-seq Analysis Reveal An Important Role Of Monocyte-specific Nlrp3 Inflammasome For Salt-sensitivity Of Hypertension In Humans

Ashley L Pitzer, PhD

Ashley L Pitzer, Melis Sahinoz, Michael Raddatz, Celestine Wanjalla, Suman Pakala, Fernando Elijevich, Cheryl L Laffer, Vanderbilt Univ Medical Ctr, Nashville, TN; Alp Ikizler, Nashville, TN; Annet Kirabo, Vanderbilt Univ Medical Ctr, Nashville, TN

12: The Role Of Memory Gamma Delta T Cells In Hypertension And Vascular Damage

Kevin Comeau

Kevin Comeau McGill Univ, Montreal, QC, Canada; Pierre Paradis, Lady Davis Inst for Medical Res, Montreal, QC, Canada; Ernesto L. Schiffrin, SMBD JEWISH GENERAL HOSP, Montreal, QC, Canada

13: P2X7 Receptor Knockout Attenuates Angiotensin II-Induced Hypertension, Vascular Injury And CD8<sup>+</sup> T Cell Infiltration

Brandon Shokoples, BS

Brandon Shokoples, Kevin Comeau, Lady Davis Inst, Montreal, QC, Canada; Akinori Higaki, Ehime Univ, Graduate Sch of Med, Toon City, Ehime Prefecture, Japan; Antoine Caillon, MCGILL UNIVERSITY, Montreal, QC, Canada; Pierre Paradis, Home, Chateauguay, QC, Canada; Ernesto L Schiffrin, SMBD JEWISH GENERAL HOSP, Montreal, QC, Canada

14: An Anti-inflammatory Proton Sensing-receptor Contributes To Cardiovascular Protection

#### Of Gut Microbiota-derived Metabolites

Liang Xie, BSc(Hons)

Liang Xie, Monash Univ, Clayton, Australia; Rikeish R Muralitharan, MONASH UNIVERSITY, Clayton, Australia; Evany Dinakis, Monash Univ, Melbourne, Australia; Michael Eugene Nakai, Monash Univ, Mount Waverley, Australia; Hamdi Jama, Monash Univ, Melbourne, Australia; Alex Cheng Guan Peh, MONASH UNIVERSITY, Clayton, Australia; Caroline Ang, Madeleine Paterson, Monash Univ, Clayton, Australia; Ekaterina Salimova, Remy Robert, Monash Univ, Clayton, Australia; Charles Mackay, Vaucluse, Australia; Francine Z Marques, Monash Univ, Clayton, Australia

#### 15: The Cardio-renal Effects Of Il-33 Treatment In Myocardial Infarction-induced Kidney Damage

Ghadir Amin, MSc

Ghadir Amin, Nada Habeichi, Rana Ghali, American Univ of Beirut Medical Ctr, Beirut, Lebanon; George W Booz, UNIVERSITY MISSISSIPPI MEDICAL CTR, Jackson, MS; Ziad Mallat, UNIVERSITY MISSISSIPPI MEDICAL CTR, Jackson, MS, Cambridge; Fouad A Zouein, AUBMC, Beirut, Lebanon

#### 16: Altered Testicular Macrophage Polarization Is Associated With Reproductive Dysfunction In Hypertensive Mice

Shobana Navaneethabalakrishnan, PhD

Shobana Navaneethabalakrishnan, Brooke K Wilcox, Bethany L Goodlett, Brett M Mitchell, Texas A and M Univ, Coll of Med, Bryan, TX

#### Session 4C

Managing BP Beyond the Physician Room: Lifestyle Interventions, Social Support, and Home Blood Pressure Monitoring

Moderator: Robert D Brook MD, FAHA

#### Role of Lifestyle Interventions

Lawrence J Appel, MD, MPH, FAHA

#### Role of Social Support

Phillip Levy, MD, MPH, FAHA, FACC

#### Role of Home Blood Pressure Monitoring

Katherine Tucker, PhD

Live Discussion and Q&A

11-11:15  
a.m. Break

11:15 a.m. - Session 5A  
12:15 p.m. The Donald Seldin Lecture, followed by selected oral abstract presentations  
CDT Moderator: Susan M. Wall, MD

The Donald Seldin Lecture  
David L. Mattson, PhD, FAHA

17: Genetic Deletion Of Angiotensin II AT<sub>1a</sub> Receptors Selectively In The Proximal Tubules Of The Kidney Attenuates Two-kidney, One-clip Goldblatt Hypertension In Pt-Agtr1a<sup>-/-</sup> Mice

Xiao Chun Li, MS, MD, Associate Professor

Xiao C Li, Tulane Univ Sch of Medicine, New Orleans, LA; Ana Leite, Tulane Univ, New Orleans, LA; Rumana Hassan, Akemi Sato, Courtney Dugas, Chih-Hong Wang, Tulane Univ Sch of Medicine, New Orleans, LA; Ryosuke Sato, TULANE UNIVERSITY, New Orleans, LA; Jia L Zhuo, Tulane Univ Sch of Medicine, New Orleans, LA

18: Excess Dietary Salt-induced Blood Pressure Elevation Is Associated With Impaired Bile Acid Signaling And Human Monocyte Activation

Jeanne A. Ishimwe, PhD

Jeanne A Ishimwe, Vanderbilt Univ Medical Ctr, Nashville, TN; Jane F Ferguson, Vanderbilt Univ. Medical Ctr, Nashville, TN; Annet Kirabo, Vanderbilt Univ Medical Center, Nashville, TN

19: Maternal B Cell Depletion Lowers Blood Pressure And Improves Fetal Weights In Offspring In A Rat Model Of Preeclampsia

Nathan Campbell, BS

Nathan Campbell, Owen Herrock, Univ of Mississippi Medical C, Jackson, MS; Dylan Solise, Sarah Fitzgerald, Univ of Mississippi Medical C, Jackson, MS; Evangeline Deer, Univ of MS Medical Ctr, Brandon, MS; Ty Turner, Univ of Mississippi Medical C, Jackson, MS; Kathy Cockrell, Univ of Mississippi Medical C,

Jackson, MS, Jackson, MS; Tarek Ibrahim, Morgan McCray, Kymberlee Evans, Nicole Ingram, Univ of Mississippi Medical C, Jackson, MS; Lorena M Amaral, MEDICAL CENTER- UMMC, Jackson, MS; Babbette Aha Lamarca, UNIVERSITY MISSISSIPPI MEDICAL CTR, Jackson, MS

#### Session 5B

#### Early Career Stage Award Session

Moderator: Brandi M. Wynne, MS, PhD, FAHA

#### AFHRE Award for Patient-Oriented or Clinical Research in Hypertension

20: Association Of Systolic Blood Pressure Time-in-target Range With Adverse Kidney And Cardiovascular Outcomes In Adults With And Without Diabetes

Leo F. Buckley, PharmD

Leo F Buckley, Brigham and Women's Hosp, Boston, MA; William L Baker, UNIVERSITY OF CONNECTICUT, Ashford, CT; Benjamin W Van Tassell, VIRGINIA COMMONWEALTH UNIVERSITY, Midlothian, VA; Jordana Cohen, Univ of Pennsylvania, Philadelphia, PA; Omar Alkhezi, Brigham and Women's Hosp, Boston, MA; Adam P Bress, UNIVERSITY OF UTAH, Salt Lake City, UT; Dave L Dixon, VIRGINIA COMMONWEALTH UNIVERSITY, North Chesterfield, VA

#### AFHRE Support of Underrepresented Minorities

21: Sex Differences In Circadian Blood Pressure

Bruna Visniauskas, PhD

Bruna Visniauskas, Benard O Ogola, Isabella Kilanowski-doroh, Nicholas R. Harris, Zaidmara T. Diaz, Sarah H Lindsey, Tulane Univ, New Orleans, LA

High Blood Pressure Research Council of Australia (HBPRCA) Council on Hypertension Research Award.

22: Post-Ischaemic Stroke Administration of Amnion Epithelial Cell-Derived Exosomes Reduces Functional Deficits and Brain Injury

Samoda Rupasinghe

#### New Investigator Award for Japanese Fellows

23: Body Fluid And Sodium Loss Leads To Aldosterone Hypersecretion And Muscle Catabolism In Hepatocellular Carcinoma Rats.

Satoshi Kidoguchi

Satoshi Kidoguchi, Kento Kitada, Kagawa university, Miki, Japan; Daisuke Nakano, KAGAWA UNIVERSITY, Kagawa, Japan; Takashi Yokoo, The Jikei Univ Sch of Med, Minato-ku, Japan; Akira Nishiyama, KAGAWA UNIV MED SCHOOL, Kagawa

Session 5C

Beyond ABCD: Outpatient Management of Resistant Hypertension

Moderator: J. Brian Byrd, MD, MS, FACC, FAHA

Case Presentation

J. Brian Byrd, MD, MS, FACC, FAHA

Live Panel Discussion:

Stephen P Juraschek, MD, PhD

Wanpen Vongpatanasin, MD, FAHA

Robert M. Carey, MD, MACP, FAHA

Bryan Williams MD, FMedSci

12:15 –  
12:30 p.m.

Break

12:30 1:30  
p.m. CDT

Session 6A

The Arthur C. Corcoran Memorial Lecture and The Lewis K. Dahl Memorial Lecture

Moderator: Curt D. Sigmund, PhD, FAHA

The Arthur C. Corcoran Memorial Lecture

Markus P. Schlaich, MD, FAHA, FESC, ISHF

The Lewis K. Dahl Memorial Lecture

Steven D. Crowley, MD, FAHA

Session 6B

TAC Oral Abstract Session: Pregnancy and Preeclampsia



Moderator: Katherine Shreyder, MD, PhD

25: Inhibition Of The Agonistic Ang II Type 1 Receptor Autoantibody In A Rat Model Of Preeclampsia Improves Uteroplacental Perfusion And Fetal Growth In Late Gestation  
Usman Ashraf, PhD

Usman Ashraf, Nathan Campbell, Jamarius P Waller, Adam Rawls, Dylan Solise, Univ of Mississippi, Jackson, MS; Kathy Cockrell, Jackson, MS; Gene L Bidwell, UNIVERSITY OF MS MEDICAL CENTER, Jackson, MS; Babbette Aha Lamarca, UNIVERSITY MISSISSIPPI MEDICAL CTR, Jackson, MS; Barbara Alexander, UNIVERSITY MISSISSIPPI, Jackson, MS

26: IL-17 Causes Hypertension, Reduced Fetal Weight And Natural Killer Cell Activation In The Absence Of T Cells

Sarah J. Fitzgerald

Sarah J Fitzgerald, James Hogg, Univ of Mississippi Medical C, Jackson, MS; Evangeline Deer, Univ of MS Medical Ctr, Brandon, MS; Nathan Campbell, Owen Herrock, Univ of Mississippi Medical C, Jackson, MS; James Lemon, Brandon, MS; Lorena Amaral, Univ of Mississippi Medical C, Jackson, MS; Denise C Cornelius, UNIVERSITY OF MISS MED CENTER, Jackson, MS; Kathy Cockrell, UNIVERSITY OF MISS MED CENTER, Jackson, MS, Jackson, MS; Tarek Ibrahim, The Univ of MS Medical Cntr, jackson, MS; Ty Turner, Univ of Mississippi Medical C, Jackson, MS; Babbette Aha Lamarca, UNIVERSITY MISSISSIPPI MEDICAL CTR, Jackson, MS

27: Unravelling Cell-specific Interactions At The Preeclamptic Maternal-foetal Interface From Early To Late Pregnancy

Olivia Nonn, MD, PhD

Olivia Nonn, Medical Univ of Graz, Graz, Austria; Olivia Debnath, Berlin Inst of Health, Berlin, Germany; Daniela S Valdes, Medical Univ of Graz, Max-Delbrück-Center for Molecular Medicine, Germany; Cornelius Fischer, Kerim Secener, Max-Delbrück-Ctr for Molecular Med, Berlin, Germany; Sebastian Tiesmeyer, Naveed Ishaque, Berlin Inst of Health, Berlin, Germany; Katja Sallinger, Amin El-Heliebi, Medical Univ of Graz, Graz, Austria; Anne Staff, Univ of Oslo, Oslo, Norway; Dominik N Mueller, MAX DELBRUCK CTR, Berlin; Ralf Dechend, Charite and Helios Clinic Berlin, Berlin; Martin Gauster, Medical Univ of Graz, Graz, Austria; Florian Herse, CHARITE, Berlin

28: Omeprazole Administration To Women With Preterm Preeclampsia: Effects On Circulating Soluble Fms-like Tyrosine Kinase-1, Placental Growth Factor And Endothelin-1 Secretion.

Rugina Neuman, MD

Rugina I. Neuman, Erasmus Medical Ctr, Rotterdam, Netherlands; Willy Visser, Erasmus MC, Rotterdam;  
Jan H Danser, ERASMUS MC, Rotterdam

29: Acute Systemic Treatment With Sphingosine -1- Phosphate Receptor 1 Agonist Diminishes  
Sex-difference In Renal Function Seen In Intrauterine Growth Restricted Mice.

Benjamin Bhunu, B.s.c

Benjamin Bhunu, Tulane Univ, New Orleans, LA; Suttira Intapad, Tulane university Medical Ctr, New  
Orleans, LA

30: Role For Adverse Childhood Experiences And Depression In Preeclampsia

Monica C. Myers, BS

Monica C Myers, Mark K Santillan, Debra S Brandt, Amy K Stroud, Julie A Vignato, Sabrina M Scroggins,  
Virginia Nuckols, Gary L Pierce, Donna A Santillan, UNIVERSITY OF IOWA, Iowa City, IA

#### Session 6C

Managing Hypertension Through Telemedicine: Billing for Home Blood Pressure Monitoring and  
Virtual Communication

Moderator: D. Edmund Anstey, MD, MPH

Up-to-date information on billing for home blood pressure monitoring

Jennifer Cluett, MD

Live Panel Discussion: Reflections on how to successfully perform home telemonitoring

Daichi Shimbo, MD

Naomi D Fisher, MD

Jordana Cohen, MD, MSCE

1:30 – 2:00  
p.m.

Break

2:00 -4:00  
p.m. CDT

2:00 – 3:00 p.m.  
Moderated Poster Sessions

MPS05

Renin-Angiotensin System 2

Moderators: Frederique Yiannikouris, PhD, FAHA and Pablo Nakagawa, PhD

MP25: Defining The Role Of Renin Lineage Cells During Regeneration After Release Of Partial Ureteral Obstruction In Neonatal Mice.

Vidya K. Nagalakshmi, PhD

Vidya Nagalakshmi Kusma Harinathan, Minghong Li, UNIVERSITY OF VIRGINIA, Charlottesville, VA; Ariel R Gomez, Univ of Virginia, Charlottesville, VA; Maria Luisa S Sequeira-Lopez, UNIVERSITY OF VIRGINIA, Charlottesville, VA

MP26: Angiotensin-(1-7) Increases Vascular Beta-2 Adrenergic Receptor Expression In Aging Mice

Amanda Miller, PhD

Amanda J Miller, Sarah Bingaman, PENNSYLVANIA STATE UNIVERSITY COLLEGE, Hershey, PA; Amy Arnold, Penn State Coll of Med, Hershey, PA

MP27: Adipose-derived Human Soluble (Pro)renin Receptor Causes Resistance To Losartan Treatment In High-Fat Diet Male And Female Mice

Kellea Nichols, BA

Kellea Nichols, Audrey Poupeau, Eva Gatineau, Univ of Kentucky, Lexington, KY; Gertrude Arthur, Univ Of Kentucky, Lexington, KY; Frederique B Yiannikouris, Univ of Kentucky, Lexington, KY

MP28: UBR1 And BRCC36 Regulate ACE2 Ubiquitination And Deubiquitination In Ang-II Induced Hypertension.

Navya Lakkappa, MPharm, PhD

Navya Lakkappa, LSU health sciences, New Orleans, LA; Clara Berdasco, LSU health sciences, New Orleans, LA, United States, New Orleans, LA; Catalin Filipeanu, Pharmacology, Howard Univ., Washington, DC., WA; Eric D Lazartigues, LSU HEALTH SCIENCES CENTER, New Orleans, LA

MP29: A Cloned Anti-aminopeptidase N Scfv Antibody Blocks Enzymatic Activity And Rescues A Low Sodium Phenotype In Proximal Tubule Cells Isolated From Inverse Salt Sensitive Participants

John Gildea PhD

John J Gildea, UNIVERSITY OF VIRGINIA, Charlottesville, VA; Peng Xu, UNIVERSITY OF VIRGINIA, Charlottesville, VA; Wei Yue, Univ of Virginia, Charlottesville, VA; Robin A Felder IV, The Univ of Virginia, Charlottesville, VA

MP30: Circulating Sars-cov-2 Spike Protein 1 Causes Microarteriolar Oxidative Stress, Endothelial Dysfunction And Enhanced Thromboxane And Endothelin Contractility That Are Prevented By Spironolactone.

Dan Wang, MD, PhD

Dan Wang, GEORGETOWN UNIVERSITY MEDICAL CENTER, Washington, DC; Christopher S Wilcox, GEORGETOWN UNIV DIV OF NEPHROLOGY, Washington, DC

#### MPS06

Renal Mechanisms and Salt-Sensitive Hypertension

Moderators: Nicola Wilck, MD and Jia Long Zhuo, MD, PhD, FAHA

MP31: A20 In Renal Tubular Cells Protects Against Hypertension

Xiaohan Lu

Xiaohan Lu, Jiafa Ren, Robert Griffiths, Gianna Hammer, Ting Yang, DUKE UNIVERSITY, Durham, NC; Steven D Crowley, DUKE UNIVERSITY MEDICAL CENTER, Durham, NC

MP32: Renal Tubular Epithelial Cell-derived IL-1 $\beta$  Triggers The Inflammatory Response That Induces Salt Sensitivity In Diabetes

Luciana C. Veiras, PhD

Luciana C Veiras, Cedars-Sinai Medical Ctr, West Hollywood, CA; Ellen Bernstein, CSMC, Los Angeles, CA; Zakir Khan, Derick Okwan, Cedars-Sinai Medical Ctr, West Hollywood, CA; Duoyao Cao, cedars sinai medical center, Los Angeles, CA; Faizan Ahmed, Cedars-Sinai Medical Ctr, Los Angeles, CA; David Gibb, Cedars-Sinai Medical Ctr, West Hollywood, CA; Kenneth E Bernstein, Jorge F Giani, CEDARS-SINAI MEDICAL CENTER, West Hollywood, CA

MP33: Heterozygous Knockout Of Nfatc1 In Mice Is Protective Against Salt-sensitive

## Hypertension

Yves T. Wang, PhD

Yves T. Wang, Nhu Nguyen, Luan H Le, Jason J Cunningham, Univ of Rochester, Rochester, NY; Nora Franceschini, UNIVERSITY NORTH CAROLINA, Chapel Hill, NC; Thu H Le, Univ of Rochester, Rochester, NY

## MP34: Collecting Duct Cells-derived Human Sprr Impairs The Antihypertensive Effects Of Losartan And Upregulates Erk1/2 And Aqp2 Expression

Gertrude Arthur

Gertrude Arthur, Audrey Poupeau, Univ Of Kentucky, Lexington, KY; Kellea Nichols, Univ of Kentucky, Lexington, KY; 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

## MP35: Pharmacological Inhibition And Knockout Of $K_{ir}7.1$ Does Not Affect The Development Of Salt-Sensitive Hypertension In The Dahl SS Rat

Adrian Zietara

Adrian P Zietara, Vladislav Levchenko, Olena Isaeva, Medical Coll of Wisconsin, Milwaukee, WI; Oleg Palygin, Alexander Staruschenko, MEDICAL COLLEGE OF WISCONSIN, Milwaukee, WI

## MP36: Human Urinary Exosomes Contain Functional ACE2

Charles C. Okechukwu

Charles C. Okechukwu, Nancy T Pirro, Wake Forest Univ Sch of Med, Winston-Salem, NC; Mark C Chappell, Liliya M Yamaleyeva, Wake Forest Univ Sch of Med, Winston Salem, NC

2:00 – 4:00 p.m.

The Trainee Advocacy Committee Early Career Awards Session (Live)

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

The Stephanie Watts Career Development Award

Justin P. Van Beusecum, PhD

Tao Yang, PhD

Jing Wu, PhD

## The Hypertension Early Career Oral Award

T1: Prognostic Value Of 24-hour Ambulatory Blood Pressure And Heart Rate Patterns In Diabetes: A 20-year Longitudinal Analysis Of The Chronic Diabetes Complications And All-cause Mortality In Pisa From 1999 Onwards (CHAMPION) Study Cohort

Martina Chiriaco, MD

Martina Chiriaco, Luca Sacchetta, Metabolism, Nutrition, and Atherosclerosis Lab, Dept of Clinical and Experimental Med, Univ of Pisa, Pisa, Italy; Giovanna Forotti, Section of General Med V AUOP, Univ of Pisa, Pisa, Italy; Simone Leonetti, Lorenzo Nesti, Metabolism, Nutrition, and Atherosclerosis Lab, Dept of Clinical and Experimental Med, Univ of Pisa, Pisa, Italy; Stefano Taddei, Univ Pisa, Pisa, Italy; Andrea Natali, Metabolism, Nutrition, and Atherosclerosis Lab, Dept of Clinical and Experimental Med, Univ of Pisa, Pisa, Italy; Anna Solini, Domenico Tricò, Dept of Surgical, Medical and Molecular Pathology and Critical Care Med, Pisa, Italy

T2: Agreement Between Attended Home Blood Pressure Measurements And Ambulatory Blood Pressure Monitoring

Trevor Glenn, BA

Trevor Glenn, Cyd K Eaton, Kevin J Psoter, Michelle N Eakin, Johns Hopkins Sch of Med, Baltimore, MD; Cozumel Southern Pruette, Baltimore, MD; KRISTIN RIEKERT, Johns Hopkins Univ, Baltimore, MD; Tammy M Brady, JOHN HOPKINS UNIVERSITY, Baltimore, MD

T3: Type 2 Myocardial Infarction Predicts Outcome In Hypertensive Crisis Patients: Nationwide Analysis

Ahmed Maraey, MD

Ahmed M Maraey, Univ of North Dakota, Bismarck, ND; Ahmed Elzanaty, Univ of Toledo, Toledo, OH; Hadeer R Elsharnoby, Tanta Univ, Faculty of Med, Tanta, Egypt; Mahmoud Salem, Lahey Hosp and Medical Ctr, Burlington, MA; Mahmoud Khalil, Lincoln Medical Ctr, Weil Cornell Univ, Bronx, NY; Ahmed Younes, East Carolina Univ, Greenville, NC; Mohamed Elsharnouby, Marmara Univ, Istanbul, Turkey

T4: Nox2-derived Reactive Oxygen Species Contribute To The Impaired Renal Function And Increased Maternal Mortality Observed In Dahl SS Rats Following Multiple Pregnancies

John Henry Dasinger, PhD

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

T5: Molecular Mechanisms Involved In The Vascular Protective Effects Of Mas1 And Et<sub>B</sub>R Interaction

Jithin Kuriakose, M.Biomed.Sci, MRes

Jithin Kuriakose, Univ of Glasgow, Glasgow, United Kingdom; Augusto C Montezano, ICAMS - UNIV OF GLASGOW, Glasgow; Rheure Lopes, Angie YY Sin, Univ of Glasgow, Glasgow, United Kingdom; Delyth Graham, George Baillie, Glasgow; Rhian M Touyz, UNIVERSITY OF GLASGOW, Glasgow

T6: Adipocyte Bardet-Biedl Syndrome 1 Gene Is Critical For Blood Pressure Regulation  
Yuying Zhao

Yuying Zhao, university of Iowa, Iowa City, IA; Deng-Fu Guo, THE UNIVERSITY OF IOWA, Iowa City, IA; Kamal Rahmouni, UNIVERSITY IOWA, Iowa City, IA

2:00 – 3:30 p.m.

Hypertension (Journal) CPC Case Study session

Moderators:

Professor Dame Anna F. Dominiczak, DBE, MD, FRCP, FAHA, FRSE, FMedSci and Professor Rhian M. Touyz, MBBCh, PhD, FRCP, FRSE, FMedSci

Case 1: A Rare Presentation of Paroxysmal High B"P"

Christi Bradshaw, MD

Aya Abou-Nasr, MD

Vivek Bhalla, MD, FAHA

Case 2 A Rare Disease Leading to Hypertension

Jing Chen, MD, MSc

Xin Chen, MD, PhD

Ji-Guang Wang, MD, PhD

2:00 – 3:00 p.m.

N04 Funding and Grant Opportunities through the NIH, NHLBI and American Heart Association

Dr. Jasmina Varagic, MD (NHLBI)

Dr. Christine Maric-Bilkan, PhD (NIH, NIDDK)

Glenn Dillon, PhD (American Heart Association)

3:00 – 4:00 p.m.

Moderated Poster Sessions

MPS07

Microbiome and Metabolites

Moderators: Jeanne A Ishimwe, PhD and Bina Joe, PhD, FAHA, FAPS, ISHF

MP37: Epigenetic Changes Following Maternal Gut Microbiota Improvement With Dietary Fibre Lead To Cardio-protection In The Offspring

Hamdi Jama, BSc (Hons)

Hamdi Jama, Monash Univ, Melbourne, Australia; Malathi I Dona, Baker Heart and Diabetes Inst, Melbourne, Australia; Evany Dinakis, Monash Univ, Melbourne, Australia; Michael Eugene Nakai, Madeleine Paterson, Monash Univ, Mount Waverley, Australia; Waled Shihata, Baker Heart and Diabetes Inst, Melbourne, Australia; Kate L Weeks, Baker Heart and Diabetes Inst, Melbourne, TX; Gabriella Emmie Farrugia, Ekaterina Salimova, Baker Heart and Diabetes Inst, Melbourne, Australia; Harikrishnan Kaipananickal, Central Clinical Sch, Monash Univ, Melbourne, Australia; Jun Okabe, Central Clinical Sch, Monash Univ, Melbourne, Australia, Melbourne, Australia; Charles Mackay, Central Clinical Sch, Monash Univ, Melbourne, Australia, Melbourne, Australia, Vaucluse, Australia; Assam El-Osta, Monash Univ, Melbourne, Australia; Alex Pinto, Baker Heart and Diabetes Inst, Melbourne, Australia; David M Kaye, Baker Institute, Melbourne, Australia; Francine Z Marques, Monash Univ, Clayton, Australia

MP38: Identification Of A Gut Microbe That Attenuates The Blood Pressure Lowering Effect Of ACEi Quinapril

Tao Yang, PhD

Tao Yang, Univ of Toledo, Toledo, OH; Xue Mei, Toledo, OH; Ethel Tackie-Yarboi, Jun Kyoung,



Blair Mell, Ji-Youn Yeo, Xi Cheng, Jasenka Zubcevic, Univ of Toledo, Toledo, OH; Elaine M Richards, Carl J Pepine, Univ of Florida, Gainesville, FL; Mohan K Raizada, UNIV FLORIDA COLLEGE OF MEDICINE, Gainesville, FL; Isaac T Schiefer, UNIVERSITY OF TOLEDO, Toledo, OH; Bina Joe, Univ of Toledo HSC, Toledo, OH

**MP39: Metabolic And Gene Expression Profiling Reveal Disparities In Absorption And Metabolism Of Butyrate And Lysine In The Colon Of Spontaneously Hypertensive Rodents**

Jasenka Zubcevic

Christopher J Martyniuk, UNIVERSITY OF FLORIDA, Gainesville, FL; Tao Yang, UNIVERSITY OF TOLEDO, Toledo, OH; Leah Reznikov, Timothy Garrett, UNIVERSITY OF FLORIDA, Gainesville, FL; Bina Joe, Jasenka Zubcevic, UNIVERSITY OF TOLEDO, Toledo, OH

**MP40: Microbiome-associated Metabolites Are Altered In Mouse Models Of Hypertension**

Cristina Arenaz, MS

Cristina M Arenaz, Gaurav Baranwal, Bethany L Goodlett, Joseph M Rutkowski, Robert C Alaniz, Brett M Mitchell, Texas A&M Univ, Bryan, TX

**MP41: Isolation Of Gastrointestinal Interstitial Fluid As A Novel Method To Capture Host-microbiome Crosstalk**

Ellen Avery, MSc

Ellen G. Avery, Experimental and Clinical Res Ctr, Berlin, Germany; Marieluise Kirchner, Max Delbruck Ctr for Molecular Med, Berlin, Germany; Sabrina Y Geisberger, ECRC, Berlin; Tine V. Karlsen, Univ of Bergen, Bergen, Norway; Alejandro Yarritu, Experimental and Clinical Res Ctr, Berlin, Germany; Sarah Kedziora, MDC Berlin, Berlin; Andras Maifeld, Experimental and Clinical Res Ctr, Berlin, Germany; Bruning Ulrike, Max Delbruck Ctr for Molecular Med, Berlin, Germany; Hendrik Bartolomaeus, ECRC, Berlin; Theda U Bartolomaeus, Moritz I. Wimmer, Experimental and Clinical Res Ctr, Berlin, Germany; Robert Klopffleisch, Freie Univ Berlin, Dept of Veterinary Med, Berlin, Germany; Jennifer A. Kirwan, Max Delbruck Ctr for Molecular Med, Berlin, Germany; Stefan Kempa, Berlin Inst for Medical Systems Biology, Berlin, Germany; Philipp Mertins, Max Delbruck Ctr for Molecular Med, Berlin, Germany; Helge Wiig, Univ of Bergen, Bergen, Norway; Dominik N Mueller, Experimental and Clinical Res Ctr, Berlin, Germany

MP42: Metabolomic Study To Identify Common Metabolites In Two Different Mouse Models Of Hypertension

Gaurav Baranwal, PhD

Gaurav Baranwal, Texas AnM Univ, Bryan, TX; RACHEL PILLA, College Station, TX; Bethany Goodlett, Arul Jayaraman, Texas A and M Univ, College Station, TX; Joseph M Rutkowski, Texas AandM Coll of Med, Bryan, TX; Robert Alaniz, Texas AandM Coll of Med, Bryan, TX, College Sta, TX; Brett M Mitchell, TEXAS A M HEALTH SCIENCE CENTER, Bryan, TX

MPS08

Genetics and Genetic Models 1

Moderators: Jing Wu, PhD and Daniel Levy, MD

MP43: Knockout Of ACE-N Facilitates Improved Cardiac Function After Myocardial Infarction

Hamid Suhail, PhD

HAMID SUHAIL, Henry Ford Health System, Detroit, MI; Hongmei Peng, HENRY FORD HOSPITAL, Detroit, MI; Sarah Sarkar, Henry Ford Health Systems, Detroit, MI; Jiang Xu, Henry Ford Hosp, Detroit, MI; Kenneth E Bernstein, CEDARS-SINAI MEDICAL CENTER, West Hollywood, CA; Tang-Dong Liao, HENRY FORD HOSPITAL, Detroit, MI; Pablo A Ortiz, Nour-Eddine Rhaleb, HENRY FORD HEALTH SYSTEM, Detroit, TX

MP44: A Novel And 2 Known Differentially Expressed MicroRNAs Were Identified In Peripheral Blood Mononuclear Cells Of Patients With Hypertension Associated With Metabolic Syndrome

Olga Berillo, PhD, FAHA

Olga Berillo, Kugeng Huo, Julio C Fraulob-Aquino, Lady Davis Inst for Medical Res, Montreal, QC, Canada; Chantal Richer, Div of Hematology-Oncology, Res Ctr, CHU Ste-Justine, Montreal, QC, Canada; Na Li, Lady Davis Inst for Medical Res, Montreal, QC, Canada; Marie B Briet, Lady Davis Inst for Med Resear, Montreal, QC, Canada; Mark L 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, Montreal, QC, Canada; Pierre Paradis, Lady Davis Inst for Medical Res, Montreal, QC, Canada; Ernesto L Schiffrin, SMBD JEWISH GENERAL HOSP, Montreal, QC, Canada

MP45: Deletion Of The Transient Receptor Vanilloid-1 (TRPV1) Channel In Rats Attenuates 2 Kidney 1 Clip Hypertension

Sean D. Stocker, PhD

Sean D Stocker, UNIVERSITY OF PITTSBURGH, Pittsburgh, PA; Leon J DeLalio, Univ of Pittsburgh, Pittsburgh, PA

MP46: Mutagenesis Of PRR Cleavage Site In Mice Attenuates Angiotensin II-induced Hypertension And Suppresses Renin Expression

Fei Wang

Fei Wang, UNIVERSITY OF UTAH, Salt Lake Cty, UT; Yanting Chen, Univ of utah, Salt lake city, UT; Chang-jiang Zou, Renfei Luo, UNIVERSITY OF UTAH, Salt Lake Cty, UT; Tianxin Yang, UNIVERSITY UTAH, Salt Lake City, UT

MP47: Rho-related BTB Domain-containing Protein 1 (RhoBTB1) Attenuates Established Arterial Stiffness In Ang-II-treated Mice

Shi Fang

Shi Fang, The Medical Coll of Wisconsin, Wauwatosa, WI; Jing Wu, MEDICAL COLLEGE OF WISCONSIN, Milwaukee, WI; John J Reho, Daniel Brozoski, Medical Coll of Wisconsin, Milwaukee, WI; Sebastiao Donato Silva Jr., Ko-Ting Lu, The Medical Coll of Wisconsin, Wauwatosa, WI; Curt D Sigmund, Medical Coll of Wisconsin, Milwaukee, WI

MP48: Crispr/cas9 Trpv1 Deletion In Rats Does Not Impair Mechano- And Chemo-sensory Renal Afferent Nerve Responses

Leon DeLalio, PhD

Leon J DeLalio, Univ of Pittsburgh, Pittsburgh, PA; Sean D Stocker, UNIVERSITY OF PITTSBURGH, Pittsburgh, PA

3:00 – 4:00 p.m.

N05: Industry Solutions for Self-Monitored Blood Pressure in Your Clinical Practice

Stephen P Juraschek, MD, PhD

## Time

Wednesday, September 29

10:00 -11:00  
a.m. CDT

### Session 7A

The Harriet Dustan Award Lecture, and selected oral abstract presentations

The Harriet Dustan Award Lecture

Ulrike Muscha Steckelings, MD, PhD, FAHA

31: Esomeprazole Improves Blood Pressure, Intrauterine Growth, Inflammation, And Vascular Function During Placental Ischemia Through Inhibition Of NLRP3

Denise C Cornelius, PhD, FAHA

Denise C Cornelius, Xi Wang, Olivia K Travis, Corbin A Shields, G Ann Tardo, Chelsea Giachelli, Christopher W Nutter, Olive G Cooper, Jan M Williams, Univ of Mississippi Medical Ctr, Jackson, MS

32: Exercise Training Corrects Blood-brain Barrier Dysfunction Within Preautonomic Areas Of Spontaneously Hypertensive Rats By Normalizing The Augmented Transcytosis

Lisete C. Michelini, PhD, FAHA

Vanessa B Candido, Alexandre Ceroni, Alison Colquhoun, Lisete C Michelini, UNIVERSITY OF SAO PAULO, Sao Paulo SP, Brazil

33: Impaired Mitochondrial Metabolism Contributes To Endothelial Dysfunction And Hypertension Independently From Oxidative Stress

Anna Dikalova, PhD

Anna Dikalova, Liliya Tkachuk, Svetlana Vafina, Sergey Dikalov, Vanderbilt Univ Medical Ctr, Nashville, TN

### Session 7B

TAC Oral Abstract Session: Pathophysiology of Vascular Damage

Moderator: Matt Alexander, MD, PhD

34: Diminished Contractile Capability In Cerebral Vascular Smooth Muscle Cells In The TgF344-AD Rat Model Of Alzheimer's Disease

Xing Fang, MD, MS

Xing Fang, Huawei Zhang, Yedan Liu, Shaoxun Wang, Baoying Zheng, Parker S Elliott, Jane J Ryu, Luke B Strong,

Reece F Crumpler, Kirby N Thomas, Richard J Roman, Fan Fan, Univ of Mississippi Medical Ctr, Jackson, MS

35: Gamma Adducin Dysfunction Leads To Cerebrovascular Distention, Blood Brain Barrier Leakage, And Cognitive Deficits In The Fawn-hooded Hypertensive Rats

Kirby Thomas, MS

Kirby N Thomas, Shaoxun Wang, Huawei Zhang, Reese F Crumpler, Parker S Elliott, Jane J Ryu, Xing Fang, Luke B Strong, Yedan Liu, Baoying Zheng, Fan Fan, Richard J Roman, Univ of Mississippi Medical Ctr, Jackson, MS

36: High Salt Induces Vascular Damage Through Redox-sensitive Parp/trpm2-induced Calcium Influx And Inflammasome Modulation Without Influencing Blood Pressure

Rheure Alves-Lopes, MSc, PhD

Rheure Alves-lopes, Univ of Glasgow, Glasgow, United Kingdom; Karla B Neves, Univ of Glasgow, Glasgow; Augusto C Montezano, ICAMS - UNIV OF GLASGOW, Glasgow, Canada; Sheon Mary, Univ of Glasgow, Glasgow; Christian Delles, Rhian M Touyz, UNIVERSITY OF GLASGOW, Glasgow

37: Loss Of BK<sub>Ca</sub>- IP3R Functional Coupling Underlies Vascular Hypercontractility In Spontaneously Hypertensive Rats

Sayeman Islam Niloy, BPharm

Sayeman Islam Niloy, Yagna Jarajapu, Stephen O'Rourke, Chengwen Sun, North dakota state university, Fargo, ND

38: Radiation Exposure And Coronary Atherosclerosis: Differential Effect Of The Radiation Site

Prerna R. Nepali, PhD

Prerna R Nepali, Memorial Sloan Kettering Cancer Ct, New York, NY; Mickael Mathieu, MEMORIAL SLOAN KETTERING CANCER CTR, New York, NY; Sarah Kitz, Memorial Sloan Kettering Cancer Cen, New York, NY; Chiharuko Nakauchi, Memorial Sloan Kettering Cancer Ct, New York, NY; James Russell, Memorial Sloan Kettering, New York, NY; Sebastien Monette, Andreas Rimner, Memorial Sloan Kettering Cancer Ct, New York, NY; Fiona Stewart, The Netherlands Cancer Inst, Amsterdam, Netherlands; Adriana Haimovitz-friedman, Memorial Sloan Kettering Cancer Cne, New York, NY; Edgar A Jaimes, Memorial Sloan Kettering Cancer Cen, New York, NY

39: Fate Of Renin Cell Progenitors In The Developing Kidney Vasculature

Alexandre Martini, MD, PhD

Alexandre Martini, Univ of Virginia, CHARLOTTESVILLE, VA; Ariel R Gomez, Maria Luisa Sequeira Lopez

Session 7C

Team-Based Care: What is the Dream Team to Improve BP Control?

Moderator: Monika Safford, MD, FAHA

What is My Dream Team: Perspective 1

Natalie Levy, MD

What is My Dream Team: Perspective 2

Shanna Jackson, DNP, FNP-C, PHN

What is My Dream Team: Perspective 3

Laura E. Coats, PhD, RD

What is My Dream Team: Perspective 4

Adam Bress, PharmD, MS

Live Discussion and Q&A

11-11:15  
a.m.

Break

11:15 a.m. -  
12:15 p.m.  
CDT

Session 8A

The Mid-Career Award for Research Excellence, and selected oral abstract presentations

The Mid-Career Award for Research Excellence Lecture

Jennifer Pluznick, PhD

40: SARS-CoV-2/ACE2 Induces Vascular Inflammatory Responses In Human Microvascular Endothelial Cells Independently Of Viral Replication

Augusto Montezano, PhD, FAHA

Augusto C Montezano, ICAMS - UNIV OF GLASGOW, Glasgow, United Kingdom; Livia Camargo, Univ of Glasgow, Glasgow; Sheon Mary, Univ of Glasgow, Glasgow, United Kingdom; Karla B Neves, Univ of Glasgow, Glasgow; Francisco J Rios, UNIVERSITY OF GLASGOW, Glasgow; Rheure Alves-lobes, Univ of Glasgow, Glasgow; Wendy Beattie, ICAMS - UNIV OF GLASGOW, Glasgow, United Kingdom; Imogen Herbert, Vanessa Herder, Agnieszka M

Szemiel, Steven McFarlane, Massimo Palmarini, David Bhella, MRC - Univ of Glasgow Ctr for Virus Res, Glasgow, United Kingdom; Rhian M Touyz, UNIVERSITY OF GLASGOW, Glasgow

41: Changes In Renal Oxygen Consumption With High-salt Diet Differ Between Sprague Dawley And Dahl Salt Sensitive Rats.

Satoshi Shimada, MD, PhD

Satoshi Shimada, Ranjan K Dash, Allen W Cowley Jr., Medical Coll of Wisconsin, Milwaukee, WI

42: Inhibiting Stimulatory Dendritic Cells Reduces Early Progressive Proteinuria In Obese Dahl Salt-sensitive Rats.

Ubong Ekperikpe

Ubong S Ekperikpe, U. of Mississippi Med. Ctr, Jackson, MS; Corbin Shields, Univ of Mississippi Medical C, Jackson, MS; Andrea K Brown, Univ of Mississippi Medical, Jackson, MS; Bibek Poudel, The Univ of Mississippi Medic, Jackson, MS; Denise C Cornelius, UNIVERSITY OF MISS MED CENTER, Jackson, MS; Jan M Williams, UNIVERSITY OF MISSISSIPPI MED, Jackson, MS

#### Session 8B

TAC Oral Abstract Session: Hormones and Growth Factors

Moderator: Carmen De Miguel, PhD, MS, FAHA

43: Non-Canonical AT1R/b-Arrestin2 Activation In Brain As A Regulator Of Fluid Homeostasis And Blood Pressure

Natalia M. Mathieu

Natalia M. Mathieu, Medical Coll of Wisconsin, Milwaukee, WI; Pablo Nakagawa, Medical college of Wisconsin, Milwaukee, WI; Daniel Brozoski, Justin L Grobe, Curt D Sigmund, Medical Coll of Wisconsin, Milwaukee, WI

44: VEGF Inhibitor-induced Vascular Dysfunction Is Ameliorated By PARP/TRPM2 Inhibition

Karla B. Neves, PhD

Karla B Neves, Univ of Glasgow, Glasgow, United Kingdom; Rheure Alves-lobes, Ninian Lang, Univ of Glasgow, Glasgow; Augusto C Montezano, ICAMS - UNIV OF GLASGOW, Glasgow; Rhian M Touyz, UNIVERSITY OF GLASGOW, Glasgow

45: Sex Differences Of Renal  $11\beta$ -hsd1 And  $11\beta$ -hsd2 Expression In A Doca-salt Model Of Hypertension.

Kasey Belanger-Mayer, BS

Kasey Belanger, Augusta Univ, Augusta, GA; Jennifer C Sullivan, AUGUSTA UNIVERSITY, Augusta, GA

46: Vascular Endothelium-derived Endothelin 1 Promotes Salt-induced Kidney Inflammation In Male But Not Female Mice

Patrick A. Molina

Patrick Molina, Sara Biswal, Univ of Alabama at Birmingham, Birmingham, AL; Jennifer S Pollock, Carmen De Miguel, UNIVERSITY OF ALABAMA AT BIRMINGHAM, Birmingham, AL; Claudia Edell, Univ of Alabama at Birmingham, Birmingham, AL

47: Circulating Human Sprr Increased Blood Pressure In Female Mice Fed A Low-fat Diet

Audrey Poupeau, PhD

Audrey Poupeau, Univ of Kentucky, Lexington, KY; Gertrude Arthur, Univ Of Kentucky, Lexington, KY; Kellea Nichols, Univ of Kentucky, Lexington, KY; Frederique B Yiannikouris, UNIVERSITY OF KENTUCKY, Lexington, KY

48: Military Sexual Trauma Is Associated With Incident Hypertension In A 16-year Cohort Study Of 1.2 Million Young And Middle-aged Men And Women

Allison E. Gaffey, PhD

Allison E Gaffey, Yale Sch of Med, New Haven, CT; Lindsey Rosman, UNC Div of Cardiology, Chapel Hill, NC; Sally G. Haskell, Cynthia A. Brandt, Jason J Sico, Lori A. Bastian, Jim Dziura, Matthew M. Burg, Yale Sch of Med, New Haven, CT

Session 8C

Clinical Oral Abstract Presentations: New and Exciting Developments in Blood Pressure Measurement and Control

Moderator: Daichi Shimbo, MD

49: Supine Versus Seated Positions On The Detection Of Orthostatic Hypotension And Its Association With Fall Risk And Orthostatic Symptoms

Stephen P Juraschek, MD, PhD

Stephen P Juraschek, BIDMC-Harvard Medical Sch, Auburndale, MA; Lawrence J Appel, Edgar R Miller II, JOHNS HOPKINS MEDICAL INSTITUTIONS, Baltimore, MD

50: Acceptability And Adherence To Home, Kiosk, Office Blood Pressure Measurement Compared To 24-Hour Ambulatory Monitoring In Primary Care



Beverly Green MD, MPH, FAHA

Matthew Thompson, Univ of Washington, Seattle, WA; Beverly Green, Kelly Ehrlich, Kaiser Permanente Washington, Seattle, WA; Yoshio Hall, Univ of Washington, Seattle, WA; Melissa Anderson, Kaiser Permanente Washington Health Res Inst, Seattle, WA; Jennifer McClure, KP WA Health Res Inst, Seattle, WA; Karen L Margolis, HEALTHPARTNERS INSTITUTE, Minneapolis, MN; Dwayne Joseph, Kaiser Permanente, DuPont, WA

#### 51: Ambulatory Blood Pressure Phenotype And Cardiovascular Risk In Youth: The Ship-ahoy Study

Joseph T. Flynn, MD, MS and Elaine M. Urbina, MD, MS, FACC, FAAP, FAHA

Joseph T Flynn, SEATTLE CHILDRENS HOSPITAL, Seattle, WA; Philip Khoury, CINCINNATI CHILDRENS HOSPITAL, Cincinnati, OH; Joshua A Samuels, McGovern Medical Sch at UTHealth, Houston, TX; Marc B Lande, UNIVERSITY ROCHESTER MEDICAL CTR, Rochester, NY; Kevin Meyers, Children's Hosp of Philadelphia, Drexel Hill, PA; Michael A Ferguson, CHILDRENS HOSPITAL BOSTON, Boston, MA; Elaine Urbina, CINCINNATI CHILDRENS HOSPITAL, Cincinnati, OH

#### 52: KDIGO (Kidney Disease: Improving Global Outcomes) Guideline Update On The Management Of Blood Pressure In Chronic Kidney Disease: What's New And What's Different From Other Guidelines

Mark Sarnak, Professor of Medicine

Alfred Cheung, Univ of Utah, Salt Lake City, UT; Tara I Chang, STANFORD UNIVERSITY, Palo Alto, CA; William Cushman, Susan Furth, Univ of Tennessee Health Scie, Memphis, TN; Fan Fan Hou, Joachim H Ix, UNIVERSITY OF CALIFORNIA SAN DIEGO, San Diego, CA; Gregory Knoll, The Ottawa Hosp, Ottawa Hosp Res Inst, Ottawa, ON, Canada; Paul Muntner, UNIVERSITY ALABAMA BIRMINGHAM, Birmingham, AL; Roberto Pecoits-Filho, Arbor Res Collaborative for Health, Ann Arbor, MI; Mark J Sarnak, Tufts University School of Medicine, Boston, MA; Sheldon W Tobe, SUNNYBROOK HEALTH SCIENCES CENTRE, Toronto, ON, Canada; Charles Tomson, Freeman Hosp, Newcastle upon Tyne Hosp NHS Trust, Newcastle upon Tyne, United Kingdom; Johannes Mann, German Heart Ctr, Munich

#### 53: Results Of The Nashville Barber-pharmacist Hypertension Management Pilot Study

Kerri L. Cavanaugh, MD MHS

Jarod Parrish, Vanderbilt Univ Medical Ctr, Nashville, TN; Ciantel A Blyler, Cedars-Sinai Medical Ctr, Los Angeles, CA; Henry E Okafor, VANDERBILT UNIVERSITY Medical Cente, Brentwood, TN; L. Cindy Chang, UCLA, Los Angeles, CA; Devika Nair, Grayson Peek, Vanderbilt Univ Medical Ctr, Nashville, TN; Talat A Ikizler, VANDERBILT UNIVERSITY MEDICAL CTR, Nashville, TN; Keith C Norris, CHARLES DREW UNIVERSITY, Lynwood, CA; David G Harrison, VANDERBILT, Nashville, TN; Kerri Cavanaugh, Vanderbilt Univ Medical Ctr, Nashville, TN

54: Gender Differences In Blood Pressure Control Is Mediated By Age In United States Adults

Aayush Visaria, MD, MPH

Aayush Visaria, Rutgers Univ, New Brunswick, NJ; Fariha Hameed, Brinda Raval, McGovern Medical Sch, Houston, TX; Sumaiya Islam, City Univ of New York Medical Sch, New York, NY

12:15 –  
12:30 p.m.

Break

12:30 1:30  
p.m. CDT

Session 9A

The Harry Goldblatt Award for Early Career Investigators, and selected oral abstract presentations

The Harry Goldblatt Award for Early Career Investigators Lecture

Stephen P Juraschek, MD, PhD

55: Hiv Viral Proteins Elevate Blood Pressure And Impairs Endothelial Function In Resistance Arteries Via Sex Specific, Immune And Nox1-dependent Mechanisms In Mice.

Taylor Kress

Taylor Kress, Medical Coll of Georgia, Augusta, GA

56: Proteome Profile Of Vascular Smooth Muscle Cells During Phenotypic Switching In Human Hypertension

Livia Camargo, PhD

Livia L Camargo, Sheon Mary, Univ of Glasgow, Glasgow, United Kingdom; Sergio Lilla, Sara Zanivan, Cancer Res UK Beatson Inst, Glasgow, United Kingdom; Neil Bulleid, Richard Hartley, Christian Delles, James Leiper, Will Fuller, Augusto C Montezano, Rhian M Touyz, Univ of Glasgow, Glasgow, United Kingdom

57: Risk Factors For Severe Reductions In Blood Pressure After Treatment Of Severe Inpatient Hypertension

Lama Ghazi, MD, PhD

Lama Ghazi, Fan Li, Eric Chen, Michael Simonov, Yu Yamamoto, Aditya Biswas, Jonathan Hanna, Yale Univ, New Haven, CT; Tayyab Shah, Aldo J Peixoto, F. Perry Wilson, Yale Univ, New Haven, CT

Session 9B

TAC Oral Abstract Session: Diabetes, Obesity, Nutrition, and Metabolic Syndrome

Moderator: Thiago Bruder, PhD

58: Angiotensin-(1-7) Mas Receptors In The Arcuate Nucleus Of The Hypothalamus Protect Against High Fat Diet-induced Insulin Resistance In Female Mice

Darren Mehay

Darren Mehay, Sarah Bingaman, Yuval Silberman, Amy Arnold, Penn State Coll of Med, Hershey, PA

59: Vascular Glucagon-like Peptide 1 (GLP-1) Signaling Is Reduced In Obesity-related Hypertension In Female Rats

Risa Kiernan

Risa Kiernan, Dhandevi Persand, Nicole Maddie, Maria Alicia Carrillo-Sepulveda, NYIT Coll of Osteopathic Med, Old Westbury, NY

60: Perirenal Adipose Hypertrophy In A Congenic LH Rat: A Role For *C17h6orf52*

Karen C Clark, BS

Karen C Clark, Katie L Holl, John J Reho, Justin L Grobe, Anne E Kwitek, Medical Coll of Wisconsin, Milwaukee, WI

61: Cd4<sup>+</sup>t Cells Cause Hypertension, Increased Glucose, And Mitochondrial Dysfunction In A Novel Rodent Model Of Gestational Diabetes Mellitus

Evangeline Deer, PhD

Evangeline Deer, Jan Michael Williams, Lorena M Amaral, Sarah Fitzgerald, Owen Herrock, Ty Turner, Nathan Campbell, Babbette Lamarca, Univ of Mississippi Medical Ctr, Jackson, MS

62: Dietary Fibre Attenuates Hypertension By Reducing Macrophage Infiltration Via Gut Microbiota-Derived Metabolite-Sensing Receptors

Rikeish R. Muralitharan, MD, B. Med Sci (Hons)

Rikeish R Muralitharan, Evany Dinakis, Chudan Xu, Liang Xie, Hamdi Jama, Michael Eugene Nakai, Madeleine Paterson, Hypertension Res Lab, Sch of Biological Sciences, Faculty of Science, Monash Univ, Clayton, Australia; Ekaterina Salimova, Monash Biomedical Imaging Facility, Monash Univ, Clayton, Australia; Natalie Bitto, Maria Kaparakis-Liaskos, Host-pathogen Interactions and Bacterial Membrane Vesicles Lab, La Trobe Univ, Bundoora, Australia; Chris Barlow, Darren Creek, Biomedical Proteomics and Metabolomics Facility and the Dept of Biochemistry and Molecular Biology, Biomedicine Discovery Inst, Monash Univ, Clayton, Australia; Joanne O'Donnell, Hypertension Res Lab, Sch of Biological Sciences, Faculty of Science, Monash Univ, Clayton, Australia; Charles Mackay, Infection and Immunity Program, Monash Biomedicine Discovery Inst, Monash Univ, Clayton, Australia; Francine Marques, Hypertension Res Lab, Sch of Biological Sciences, Faculty of Science, Monash Univ,

Clayton, Australia

63: The Existence Of An Obesity Paradox In Uncontrolled Hypertension: A 1999-2018 National Health And Nutrition Examination Survey Analysis

Aayush Visaria, MD, MPH

Aayush Visaria, Rutgers Univ, New Brunswick, NJ; Soko Setoguchi, Rutgers Univ, Princeton, NJ

#### Session 9C

Landscape of Hypertension Clinical Trials and Future Directions for Hypertension Research

Moderator: Aisha Langford, PhD, MPH

Live Panel Discussion:

Kirsten Bibbins-Domingo, PhD, MD, MAS

Friedrich C. Luft, MD

David Goff, MD, PhD, FAHA

Areef Ishani, MD MS

Sandra J. Taler MD, FAHA, FACP

1:30 – 2:00  
p.m.

Break

2:00–  
4:00 p.m.

2:00 – 3:00 p.m.

Moderated Poster Sessions

#### MPS09

Oxidative Stress, Inflammation Immunity and Cytokines 2

Moderators: Sergey Dikalov, PhD, FAHA and David M Patrick, MD

MP49: Single Cell Multiplex Immunophenotyping Using Mass Cytometry And CITE-Seq Reveals Decreases In Circulating PD-1<sup>+</sup>CD8<sup>+</sup> Memory T Cells With Features Of Exhaustion In Human Hypertension

Matt Alexander, MD, PhD

Matthew R Alexander, Vanderbilt Univ Medical Ctr, Nashville, TN; Charles D Smart, Vanderbilt Univ, Nashville, TN; Bethany L Dale, VANDERBILT UNIVERSITY, Nashville, TN; Fernando Eljovich, Cara Wogsland, Sierra

Barone, Jonathan Irish, Vanderbilt Univ, Nashville, TN; Meena S Madhur, Vanderbilt Univ Medical Ctr, Nashville, TN

MP50: Time Restricted Feeding Reduces Interleukin 17a Production Associated With Western Diets  
Meena Madhur, MD, PhD, FACC, FAHA

Gwendolyn K. Davis, Vanderbilt Univ Medical Ctr, Nashville, TN; Daniel Fehrenbach, VUMC, Nashville, TN; Charles D Smart, VUMC, Nashville, TN, Nashville, TN; Claudia Edell, Jennifer Pollock, Univ of Alabama at Birmingham, Birmingham, AL; Meena S Madhur, VANDERBILT UNIVERSITY, Nashville, TN

MP51: Isolevuglandins In Antigen-presenting Cells, A Biomarker For Salt Sensitivity Of Blood Pressure In Humans?

Lale A. Ertuglu, MD

Lale Ertuglu, Fernando Elijovich, Melis Sahinoz, Cheryl L Laffer, Ashley Pitzer, Alp Ikizler, Annet Kirabo, Vanderbilt Univ Medical Ctr, Nashville, TN

MP52: Hypertensive Stimuli Indirectly Stimulate Mouse Mesometrial Lymphangiogenesis Through Immune Cells

Brooke Wilcox

Brooke K. Wilcox, Texas A&M Univ Coll of Med, Bryan, TX; Shobana Navaneethabalakrishnan, Texas A and M Univ, Bryan, TX; Karina A. Martinez, Anil Pournouri, Marissa R. Henley, Texas A&M Univ Coll of Med, Bryan, TX; Bethany L. Goodlett, Texas A and M Univ, College Station, TX; Alexandra H. Lopez, Sanjukta Chakraborty, Texas A&M Univ Coll of Med, Bryan, TX; Brett M Mitchell, TEXAS A M HEALTH SCIENCE CENTER, Bryan, TX

MP53: A Role Of Anti-isolevuglandin-adduct Antibody Production In Hypertension

Néstor de la Visitación, PhD

Nestor de la Visitacion, Wei Chen, Jaya Krishnan, David G Harrison, David M Patrick, Vanderbilt Univ Medical Ctr, Nashville, TN

MP54: Pro-resolving Lipid Mediators Ameliorate Endothelium Dysfunction In Arteries From Hypertensive Rats

Jonnelle M. Edwards, PhD, BS

Jonnelle M Edwards, Univ of Toledo, Holland, OH; Emily W Waigi, Nicole Bearss, Univ of Toledo, Toledo, OH; Bina Joe, Univ of Toledo HSC, Toledo, OH; Cameron G McCarthy, Univ of Toledo, Toledo, OH; Camilla F Wenceslau, The Univ of Toledo, Toledo, OH

## MPS10

### Genetics and Genetic Models 2

Moderators: Annarita Di Lorenzo, PhD and Michelle L. Gumz, PhD, FAHA

#### MP55: Bardet-biedl Syndrome 3 Gene In Pomc Neurons Regulates Glucose Homeostasis And Baroreflex Sensitivity

Deng-Fu Guo

Deng-Fu Guo, Donald A Morgan, THE UNIVERSITY OF IOWA, Iowa City, IA; Paul Williams, Univ of Iowa, Iowa City, IA; Yuying Zhao, university of Iowa, Iowa City, IA; Mohamed Shaban, THE UNIVERSITY OF IOWA, Iowa City, IA; Qihong Zhang, Val Sheffield, The Univ of Iowa, Iowa City, IA; Kamal Rahmouni, UNIVERSITY IOWA, Iowa City, IA

#### MP56: Transcriptomic Analysis Of Francisella Tularensis Infected Lungs From Human Angiotensin-II Receptor Type-1 Over-expressing Hypertensive Mice

Sudhir Jain, PhD

Harshada Ketkar, New York Medical Coll, Valhalla, NY; Samantha Tang, Valhalla, NY; Maha Alqahtani, New York Medical Coll, Valhalla, NY; Chandra S Bakshi, Sudhir Jain, NEW YORK MEDICAL COLLEGE, Valhalla, NY

#### MP57: Chronic Inhibition Of Brain Rhomboid-like Protein 2 (irhom2) Activity Decreases Arterial Blood Pressure In Salt-sensitive Hypertension In Mice

Mazher Mohammed

Mazher Mohammed, LSU Health Science Ctr, New orleans, LA; Mona Elgazzaz, Clara Berdasco, LSUHSC-NO, New Orleans, LA; Eric D Lazartigues, LSU HEALTH SCIENCES CENTER, New Orleans, LA

#### MP58: Tissue And Sex Specific Effects Of *Gstm1* Deletion In Mouse Models

Yves T. Wang, PhD

Yves Wang, Nhu Nguyen, Keith Nehrke, Paul S Brookes, Thu H Le, Univ of Rochester, Rochester, NY

#### MP59: Soluble Protein Oligomers Induce Endoplasmic Reticulum Stress In Mesenteric Resistance Arteries From Male And Female Mice

Emily W. Waigi, MS

Emily W. Waigi, Thaddaeus R. Castaneda, Nicole R. Bearss, Jonnelle M. Edwards, David R. Giovannucci, Cameron G. McCarthy, Camilla F Wenceslau, Univ of Toledo, Toledo, OH

MP60: Down-regulated Mir-338-3p In Subcutaneous Small Arteries Of Hypertensive Patients With Chronic Kidney Disease Targets Protein Tyrosine Phosphatase Receptor Type S And Glutathione Peroxidase 3

Olga Berillo, PhD, FAHA

Olga Berillo, Kugeng Huo, Lady Davis Inst for Medical Res, Montreal, QC, Canada; Chantal Richer, Div of Hematology-Oncology, Res Ctr, CHU Sainte-Justine, Montreal, QC, Canada; Julio C Fraulob-Aquino, Lady Davis Inst for Medical Res, Montreal, QC, Canada; Marie B Briet, Lady Davis Inst for Med Resear, Montreal, QC, Canada; Pierre Boutouyrie, Univ de Paris, Paris, France; Mark L 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 Sainte-Justine, Dept of Pediatrics, Faculty of Med, Univ de Montréal, Montreal, QC, Canada; Pierre Paradis, Lady Davis Inst for Medical Res, Montreal, QC, Canada; Ernesto L Schiffrin, SMBD JEWISH GENERAL HOSP, Montreal, QC, Canada

2:00 – 4:00 p.m.

TAC CHAMP Sessions (Council on Hypertension Advisory and Mentoring Program)

Two sessions will be offered, one industry focused and one academic focused

Industry Transition: A Roadmap to an Array of Non-Academic Positions

Heinrich E Lob, PhD. Sr. Staff Scientist, Regeneron

Jason Foss, PhD, Senior Medical Writer, Loxo Oncology at Lilly

Carol Moreno Quinn, MD, PhD, Global Medical Lead, VP Medical Affairs, Vifor Pharma

Unique Challenges and Novel Strategies for Launching and Maintaining a Lab During a Global Pandemic  
Annet Kirabo, PhD, DVM, MSc, FAHA, Assistant Professor, Department of Molecular Physiology and Biophysics

Brandi Wynne, MS PhD FAHA, Assistant Professor, Department of Internal Medicine

Nancy L. Kanagy, PhD, Professor & Chair, Department of Cell Biology & Physiology

Eric J. Belin de Chantemele, DSc. FAHA, Professor, Department of Medicine (Cardiology) and Vascular Biology Center (VBC)

3:00 – 4:00 p.m.

Moderated Poster Sessions

MPS11

Sex, Gender and Pregnancy

Moderators: Jessica L Faulkner, PhD and Jennifer C. Sullivan, PhD, FAHA

MP61: Sex Difference In The Response Of Human Renal Proximal Tubule Cells To A Nephrotoxic Agent.

Ines Armando, PhD, FAHA

Shaun Moore, Megha Kumar, Daniel Yaqub, GEORGE WASHINGTON UNIVERSITY, Washington, DC; John J Gildea, UNIVERSITY OF VIRGINIA, Charlottesville, VA; Robin Felder, Univ of Virginia, Charlottesville, VA; Pedro A Jose, GEORGE WA UNIV SCH MED HEALTH SCI, Washington, DC; Ines Armando, GEORGE WASHINGTON UNIVERSITY, Washington, DC

MP62: Sars-cov-2 Spike Protein Regulation Of Angiotensin Converting Enzyme 2 And Tissue Renin-angiotensin Systems: Influence Of Biologic Sex

Lisa A Cassis

Lisa A Cassis, Christopher M Waters, UNIVERSITY KENTUCKY, Lexington, KY; Robin C Shoemaker, UNIVERSITY OF KENTUCKY, Lexington, KY; Jamie Sturgill, Yasir ALSiraj, UNIVERSITY KENTUCKY, Lexington, KY; Mark Ensor, Univ of Kentucky, Lexington, KY

MP63: Cytochrome P450 1B1 Mediated Inhibition Of Group IV Cytosolic Phospholipase A<sub>2</sub> $\alpha$  In Paraventricular Nucleus Protects Female Mice From Angiotensin II-Induced Hypertension, Increased Renal Sympathetic Activity And Proteinuria

Purnima Singh, PhD

Purnima Singh, Shubha Ranjan Dutta, ChiYoung Song, Univ of Tennessee, Memphis, TN; Kafait U Malik, UNIVERSITY TENNESSEE, Memphis, TN

MP64: Estimated Impact Of Public Health System Reforms To Increase Hypertension Treatment Coverage In India

Matti Marklund, PhD, MSE

Matti Marklund, Rajeev Cherukupalli, Priya Pathak, Dinesh Neupane, Johns Hopkins Univ, Baltimore, MD; Ashish Krishna, Resolve to Save Lives, New Delhi, India; Jason H Wu, The George Inst for Global Health, Univ of New South Wales, Newtown, Australia; Kunihiro Matsushita, Lawrence J Appel, Johns Hopkins Univ, Baltimore, MD



MP65: Increased Sedentary Time Is Associated With Greater Postpartum Blood Pressure In Women With A History Of Preeclampsia

Virginia Nuckols, MS

Virginia R Nuckols, Amy Stroud, Kelsey Gruber, Rumbidzai Ngonyama, Debra Brandt, Donna A Santillan, Univ of Iowa, Iowa City, IA; Mark K Santillan, UNIVERSITY IOWA CARVER COLL MED, Iowa City, IA; Gary L Pierce, Univ of Iowa, Iowa City, IA

MP66: Social Determinants And Co-morbid Conditions In Women Of Child-bearing Age With Hypertension From 2001-2018

Lara Kovell, MD, FACC

Lara C Kovell, Univ of Massachusetts, Worcester, MA; Claire Meyerovitz, Worcester, MA; Didem Ayturk, UMASS Med Sch Dep. of PQHS, Worcester, MA; Stephen P Juraschek, BIDMC-Harvard Medical Sch, Auburndale, MA; Tiffany A Moore Simas, UMass Medical Sch, Worcester, MA; Sharina D PERSON, UNIV OF MASSACHUSETTS MEDICAL SCH, Worcester, MA; Stephenie C Lemon, UMASS MEDICAL SCHOOL, Worcester, MA; David D McManus, UMMS, Worcester, MA

MPS12

Clinical Research/Clinical Practice

Moderators: Daria Golosova, MD, PhD and Fernando Eljovich, MD, FAHA

MP67: Differential Effects Of Selective Renal Denervation On Intrarenal Neurohormone System Involved In Blood Pressure Regulation

Hao Zhou

Hao Zhou, Yinchuan Lai, Weijie Chen, Yanping Xu, Hang Liu, Yidan Li, Yuehui Yin Sr., The Second Affiliated Hosp of Chongqing Medical Univ, Chongqing, China

MP68: The Correlation Between Left Atrial-left Ventricular-arterial Coupling And Circadian Rhythm Of Blood Pressure In Hypertension

Yan Liu, MD

Yan Liu, The First Affiliated Hosp of Dalian Medical Univ, 大连市, China; Qiaobing Sun, Yixiao Zhao, Yinong Jiang, The First Affiliated Hosp of Dalian Medical Univ, Dalian, China

MP69: Telmisartan For Treatment of COVID 19 Patients: An Open Randomized Clinical Trial

Mariano Duarte

Mariano Duarte, Hosp de Clínicas Facultad de Medicina UBA, 3058, Argentina; Facundo Pelorosso, Servicio de Anatomía Patológica Hosp de Alta Complejidad El Calafate SAMIC, 3058, Argentina; Liliana N. Nicolosi, División Cardiología Hosp Español de Buenos Aires, 3058, Argentina; M. Victoria Salgado, Servicio de Medicina Familiar Hosp de Alta Complejidad El Calafate SAMIC, 3058, Argentina; Analía Aquieri, Javier Coyle, Hosp de Clínicas Facultad de Medicina UBA, 3058, Argentina; Maria C. Rubio, División Cardiología Hosp Español de Buenos Aires, 3058, Argentina; Rothlin Rodolfo P., Sociedad Argentina de Farmacología Clínica, 3058, Argentina

MP70: Aldosterone And Inverse Salt Sensitivity Of Blood Pressure

Peng Xu, PhD

Peng Xu, UNIVERSITY OF VIRGINIA, Charlottesville, VA; John J Gildea, UNIVERSITY OF VIRGINIA, Charlottesville, VA; Mahabuba Akhter, Univ of Virginia, Charlottesville, VA; Robert M Carey, UNIV OF VIRGINIA HEALTH SYSTEM, Charlottesville, VA; Wei Yue, Univ of Virginia, Charlottesville, VA; Robin A Felder IV, The Univ of Virginia, Charlottesville, VA

MP71: Impact Of 30 Versus 60 Second Time Interval Between Automated Office Blood Pressure Measurements On Measured Blood Pressure

Jennifer L. Cluett, MD

Jennifer L Cluett, Stephen P Juraschek, Kenneth J Mukamal, BIDMC/Harvard Medical Sch, Boston, MA; Anthony Ishak, Julia Wood, Beth Israel Deaconess Medical Ctr, Boston, MA

MP72: Remote Monitoring Reduces Blood Pressure And Crisis Hypertension In Post-acute Transitions Of Care For Medicare Patients

Jorge Sanchez, MD

Jorge Sanchez, Alertive, Mercer Island, WA; Don Adams, Renuven Health Partners, Johnson City, TN; Bert Smith, Renuven Health Partners, Johnson, City, TN; Nirav H Shah, Alertive Healthcare, Seattle, WA