About the American Society of Hypertension, Inc.

ASH is the largest organization of hypertension researchers and health care providers in the United States committed to preventing and treating hypertension and its consequences. ASH has a domestic and international membership of basic science & clinical investigators, physicians, physician assistants, nurse practitioners, pharmacists, as well as individuals with a scientific interest in hypertension.

The American Society of Hypertension, Inc. (ASH) was founded in 1985 in order to provide a forum for the exchange of information among basic scientists, clinical investigators and others involved in the study or management of high blood pressure. The specific focus of the Society is to translate current research findings on hypertension into effective treatment strategies, in order to better address the needs of hypertensive patients.

- Serves as a hypertension information resource and advocate for hypertensive patients, Hypertension Specialists, the hypertension academic, scientific and clinical communities, and the public at large
- Serves as a collegial networking forum for domestic and international basic scientists and clinical investigators translating bench and clinical research findings for hypertension and its consequences into efficacious treatment strategies
- Serves as an ACCME Accredited Education Provider for physicians and other health care providers presenting high quality educational activities that translate current research into strategies for the awareness, detection, treatment and prevention of hypertension. Society educational media include:
  - Annual Scientific Meeting/Satellite Symposia
  - Clinical Hypertension Review Course
  - Regional Symposia
  - Enduring Materials (Internet CME, CD-ROM, Journal CME, monographs, etc.)
- Serves as the publisher of scientific, academic and patient information on hypertension
  - Official Journals:
    - THE JOURNAL OF CLINICAL HYPERTENSION (JCH) [Clinical Treatment Focus]
    - JOURNAL OF AMERICAN SOCIETY OF HYPERTENSION (JASH) [Translational Research]
• Serves as an active professional partner with government, industry and related professional organizations on public policy issues and hypertension community outreach programs
• Serves as a coordinating center for hypertension community outreach programs through its Regional Chapters

For more information contact the American Society of Hypertension, Inc. at:
American Society of Hypertension, Inc.
45 Main Street, Suite 712
Brooklyn, New York 11201
Telephone: 212-696-9099
Fax: 347-916-0267
E-mail: ash@ash-us.org
Website: www.ash-us.org
### Past Presidents of the American Society of Hypertension, Inc.

<table>
<thead>
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<th>Title</th>
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<tr>
<td>John H. Laragh, MD</td>
<td>First President</td>
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<tr>
<td>Edward G. Biglieri, MD</td>
<td>President 1988 – 1990</td>
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<td>Jay N. Cohn, MD</td>
<td>President 1990 – 1992</td>
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<td>Louis Tobian, MD</td>
<td>President 1992 – 1994</td>
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<td>Barry M. Brenner, MD</td>
<td>President 1994 – 1995</td>
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<td>Lawrence R. Krakoff, MD</td>
<td>President 1995 – 1996</td>
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<td>Michael H. Alderman, MD</td>
<td>President 1996 – 1998</td>
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<td>Theodore W. Kurtz, MD</td>
<td>President 2000 – 2002</td>
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<td>Haralambos Gavras, MD</td>
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<td>Thomas D. Giles, MD</td>
<td>President 2004 – 2006</td>
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<td>Jean E. Sealey, DSc</td>
<td>President May 19, 2006</td>
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<td>Suzanne Oparil, MD</td>
<td>President 2006 – 2008</td>
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<td>Henry R. Black, MD</td>
<td>President 2008 – 2010</td>
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<td>George L. Bakris, MD</td>
<td>President 2010 – 2012</td>
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The ASH Twentieth-Eighth Annual Scientific Meeting is organized around three (3) concurrent themes:

- Pathobiology of Hypertension
- Translational Issues in Hypertension
- Therapy of Hypertension

Sessions in each of the three (3) themes (or tracks) are labeled throughout the Program Book to be easily identifiable.

Future ASH Annual Scientific Meeting Dates:

Saturday, May 17, 2014 – Tuesday, May 20, 2014
Hilton NY, New York, NY

Saturday, May 16, 2015 – Tuesday, May 19, 2015
Hilton NY, New York, NY

Saturday, May 14, 2016 – Tuesday, May 17, 2016
Hilton NY, New York, NY
Letter from the President

Dear Colleague,

On behalf of the Board of Directors of the American Society of Hypertension, Inc. (ASH), I am pleased to welcome you to the ASH Twenty-Eighth Annual Scientific Meeting and Exposition. The theme of this year's Scientific Meeting is: Blood Pressure Targets and the Impact of the Clinical Trial.

The 2013 Annual Scientific meeting topics are organized around three (3) concurrent themes: *Translational Issues in Hypertension, Therapy of Hypertension and Pathobiology of Hypertension.*

The Scientific Sessions feature several innovative components designed to enhance the translation of basic and applied research into effective hypertension prevention and treatment strategies.

- **Hypertension Highlights 2013 – Wednesday, May 15, 2013**
  Hypertension Highlights is a full-day program dedicated to educating clinicians and scientists about some of the most interesting, controversial and evolving topics in the field. The program will include state-of-the-art presentations on Hypertension and the Brain, Obesity and Cardiometabolic Diseases and Modulators of Blood Pressure and Vascular Function. It is an ideal update for Hypertension Specialists and those wishing to become specialists in the field.

- **Plenary Session I – Thursday, May 16, 2013**
  The **Keynote speaker** for the opening session will be Thomas Fleming, PhD, Professor and Chair, Biostatistics, University of Washington, Seattle, WA. Dr. Fleming will speak about the "Bio-markers and Surrogate Endpoints in Clinical Trials." Following Dr. Fleming’s lecture will be Daniel B. Mark, MD, MPH, Professor of Medicine, Vice Chief for Academic Affairs, Division of Cardiology, Department of Medicine at Duke University Medical Center, Durham, NC and Editor, American Heart Journal, presenting a lecture on "The Importance of Studying Cost-effectiveness and Use of Medical Resources within the Trial." William C. Cushman, MD, Professor of Preventive Medicine and Medicine at the University of Tennessee College of Medicine in Memphis and Chief, Preventive Medicine Section, Veterans Affairs Medical Center, Memphis, TN will present a lecture entitled “What is the Rationale and Importance of SPRINT When We Have the Results of ACCORD?” Dr. David J. Magid, MD, MPH, Associate Professor of Medicine, University of Colorado Health Sciences Center and Director of Research – Colorado Permanente Medical Group, will address the topic of “The Role of the Electronic Health Record in Conducting Outcomes Research in Hypertension.”
• Plenary Session II – Friday, May 17, 2013
The ASH Distinguished Scientist Award, Young Scholar Award and Marvin Moser Clinical Hypertension Award will be presented in Plenary Session II – the ASH Awards Session.

• Special Session on How to Use the NUCC Taxonomy Code to your Advantage – Friday, May 17, 2013
This session will provide information important to your practice on how to understand and use the National Uniform Claim Committee Hypertension Specialist Taxonomy Code. Nancy Spec-tor, BSN, MSC, Director, Electronic Medical Systems, American Medical Association, Chicago, IL and Gail S. Kocher, MPA, NUCC Code Subcommittee Co-Chair, Chicago, IL will participate in a panel discussion moderated by George L. Bakris, MD on proper use and billing as a Hypertension Specialist.

• Young Investigator-in-Training Abstract Competition – Wednesday, May 15, 2013
Trainees submitting the highest ranking abstracts to the meeting will present their work orally in a special session and compete for cash prizes. This highlighted session is consistent with ASH’s goal to foster and facilitate the training of young and new investigators in hypertension.

• Hypertension for the Primary Care Clinician – Friday, May 17 and Saturday May 18, 2013
This program will address commonplace questions that face clinicians in day-to-day care of hypertension including hypertension management, special populations, home and ambulatory blood pressure monitoring and blood pressure treatment strategies.

• Debates – Thursday, May 16 and Friday, May 17, 2013
This year there are several debates on controversial topics of relevance to Hypertension Specialists.

• Joint Society Sessions
Educational sessions resulting from the partnership with other societies, both national and international, focused on the topic of hypertension and cardiovascular disease will enhance and broaden the scope of the meeting. The 2013 Joint Sessions include: the American College of Cardiology, The American Heart Association’s Council for High Blood Pressure Research, the American Society of Nephrology, the Cardiology PRN of the American College of Clinical Pharmacy, the China Social Worker’s Association Vascular Protection Committee, the European Society of Hypertension, the International Pediatric Hypertension Association, the International Society on Hypertension in Blacks and the National Lipid Association.

• New This Year – Joint Meetings with ISHIB
ASH and the International Society on Hypertension in Blacks (ISHIB) have forged an agreement to convene our annual conferences in May 2013 in San Francisco, with the ISHIB program to overlap with the 2013 ASH Annual Scientific Meeting. The collaboration will benefit both societies in supporting our similar goals of improving the treatment of hypertension and advancing
knowledge related to the disease; affording sponsors and attendees the convenience of taking in two meetings while only arranging travel to a single location. The societies believe that the extended education and exposure to members and sponsors, respectively, will establish added value for all participants that plan to attend both meetings.

• Sponsored Satellite Symposia and Exhibits
  The Society will also sponsor an industry-supported Satellite Symposia which will introduce novel approaches to antihypertensive and device therapies. The ASH Hypertension Resource Pavilion will host many informative scientific, technical, periodical and book exhibits designed to support you in your mission of providing the latest in care for your hypertensive patients. I look forward to seeing you in San Francisco.

Sincerely,

William B. White, MD, FASH
ASH President and Chair, 2013 Scientific Program Committee
General Information

Education

Program Objectives
In keeping with the purpose of the American Society of Hypertension, Inc. (ASH), the Twenty-Eighth Annual Scientific Meeting is designed to encourage and promote the development, advancement, and exchange of fair and balanced and evidence-based information regarding the research, diagnosis and treatment of hypertension and related cardiovascular diseases, with the goal of improved patient care and health. The sessions will:

- Present and examine new findings on the physiology, pathophysiology, epidemiology, diagnosis, and management of hypertension and related conditions.
- Review current state-of-the-art advances in managing particular groups of patients.
- Evaluate specific treatment modalities and pharmacological agents.

Target Audience
Physicians, scientists, pharmacists, physician assistants, nurses and other health care professionals with an interest in the mechanisms or management of hypertension and related diseases will benefit from attending Scientific Sessions, Satellite Symposia, Embedded Symposia, Meet the Professor Sessions, Case Discussions, Poster Sessions and the Scientific Exposition.

Continuing Education Credit
The American Society of Hypertension, Inc. is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The American Society of Hypertension, Inc. designates this live educational activity for a maximum of 34 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Conflict of Interest Disclosure
The American Society of Hypertension, Inc. strives to ensure balance, independence, objectivity, and scientific rigor in all of its educational activities. All planners, faculty members and staff involved in the development and implementation of CME activities are expected to disclose to the Society financial relationships in any amount with commercial interests or manufacturers with products associated with or discussed in their presentation, in existence over the past 12 months. These relationships have been reviewed and resolved prior to the planner, faculty member and staff developing or implementing the activity.

All Disclosure Statements are available to meeting attendees in the program book on pages 139–146 and at the ASH Information/Membership Booth located in the Hypertension Resource Pavilion, Booth #500.

Disclosures not available at the time the program book was printed are included as a separate listing in the registrant bags.

Dagger (†) denotes that the abstract presenting author has related disclosure information. Please reference the full Disclosure Index at...
the ASH Information/Membership Booth located in the Hypertension Resource Pavilion, Booth #500 and in the Author Index of *The Journal of Clinical Hypertension* 2013 Abstract Supplement.

**San Francisco Marriott Room Locator**

*Golden Gate Hall, Willow and Walnut Rooms – B2 Level*

*Yerba Buena Ballroom and Salons*

*Yerba Buena Ballroom and Nob Hill Rooms – Lower B2 Level*

For detailed floor plans of Exhibition and Poster Areas, see pages 147 & 148.
General Information continued

San Francisco Marriott Room Locator continued

San Francisco Marriott Room Locator continued

Atrium Lobby, Club and Foothill Rooms – Level 2

Pacific Rooms – Level 4

Press Office: Pacific G/H
San Francisco Marriott Room Locator continued

Sierra Rooms – Level 5
General Information continued

Meeting Venue/Headquarters Hotel
San Francisco Marriott Marquis
55 Fourth Street
San Francisco, California 94103
Phone: 1-415-896-1600
Fax: 1-415-486-8101

Meeting Registration
Registration for the Meeting will be held in the Yerba Buena Ballroom Foyer.

Registration Desk Hours
Groups
Tuesday, May 14  4:00 PM to  6:00 PM

Individuals
Tuesday, May 14  6:00 PM to  9:00 PM
Wednesday, May 15  6:30 AM to  5:30 PM
Thursday, May 16  7:00 AM to  6:15 PM
Friday, May 17  5:30 AM to  7:30 PM
Saturday, May 18  7:00 AM to  9:30 AM

Program Information
Hypertension Highlights 2013
Hypertension Highlights is a full-day program dedicated to educating clinicians and scientists about some of the most interesting, controversial and evolving topics in the field. The program will include state-of-the-art presentations on Hypertension and the Brain, Obesity and Cardiometabolic Diseases and Modulators of Blood Pressure and Vascular Function. It is an ideal update for Hypertension Specialists and those wishing to become specialists in the field.

Wednesday, May 15, 2013  8:00 AM to  3:00 PM

ASH Plenary Sessions
Plenary Sessions feature engaging lectures by keynote speakers. The topics are of broad general interest.

Thursday, May 16, 2013  1:10 PM to  3:40 PM
Friday, May 17, 2013  2:00 PM to  3:30 PM

ASH Scientific Sessions
The Scientific Sessions will address basic and clinical science issues over a wide range of topics

Wednesday, May 15, 2013  3:30 PM to  5:00 PM
Thursday, May 16, 2013  8:00 AM to  10:00 AM
10:15 AM to Noon
3:45 PM to  5:30 PM
Friday, May 17, 2013  8:00 AM to  10:00 AM
Saturday, May 18, 2013  7:45 AM to  9:15 AM
10:00 AM to 11:30 AM
Hypertension for the Primary Care Clinician

The Hypertension for the Primary Care Clinician program will address commonplace questions that face clinicians in day-to-day care of hypertension.

Friday, May 17, 2013  2:00 PM to  6:30 PM
Saturday, May 18, 2013  9:20 AM to  Noon

Joint Sessions

Special Sessions jointly sponsored by Society-related organizations will enrich the knowledge base and foster new interactions between attendees.

Wednesday, May 15, 2013  3:30 PM to  5:00 PM
Thursday, May 16, 2013  8:00 AM to  10:00 AM
  10:15 AM to  Noon
  3:45 PM to  5:30 PM
Saturday, May 18, 2013  10:00 AM to  11:30 AM

How-To Sessions

Distinguished faculty will provide valuable instructions on topics important to your practice.

Attendees will be admitted on a first-come, first-served basis.

Friday, May 17, 2013  10:15 AM to  11:00 AM

Clinical Debates

Clinical Debates will provide for lively discussion on controversial topics.

Thursday, May 16, 2013  10:15 AM to  11:00 AM
Friday, May 17, 2013  10:15 AM to  11:00 AM

Abstract Presentations

Authors will showcase their research in oral or poster format.

Poster Viewing:
Wednesday, May 15, 2013  5:30 PM to  6:30 PM
Thursday, May 16, 2013  6:15 PM to  7:15 PM
Friday, May 17, 2013  4:30 PM to  5:30 PM

Satellite Symposia

The latest information regarding new concepts, treatment, devices and techniques will be addressed in Satellite Symposia supported by educational grants.

Friday, May 17, 2013  Breakfast:  5:30 AM
  Symposium:  6:00 AM to  7:30 AM
Friday, May 17, 2013  Dinner:  6:30 PM
  Symposium:  7:00 PM to  8:30 PM
General Information continued

ASH Hypertension Resource Pavilion - Technical Exhibits – Golden Gate Ballroom
Technical Exhibits will be located in the Hypertension Resource Pavilion at the San Francisco Marriott. ASH will host a welcome reception, lunches, and high teas in the exhibit hall.

Wednesday, May 15, 2013
Opening Reception
3:00 PM to 6:30 PM
5:00 PM to 6:30 PM

Thursday, May 16, 2013
10:00 AM to 1:00 PM
High Tea
6:15 PM to 7:15 PM

Friday, May 17, 2013
10:00 AM to 2:00 PM
High Tea
4:30 PM to 5:30 PM

Innovations Theater – Club Room, 2nd Level

Wednesday, May 15, 2013
5:30 PM to 6:30 PM

Thursday, May 16, 2013
Noon to 1:00 PM
6:15 PM to 7:15 PM

Friday, May 17, 2013
4:30 PM to 5:30 PM

ASH Information/Membership Booth – Golden Gate Ballroom
The On-Site ASH Information/Membership Booth will be located in Booth #500 in the Hypertension Resource Pavilion.

Multimedia CD-ROM of Scientific Meeting
Audio recordings on CD-ROM including select speaker presentations in PDF format of the Scientific Sessions will be for sale through AVMG in the North Registration area located on the Yerba Buena Ballroom Level. You may also download the individual sessions in MP3 format to your computer post-conference. Visit our e-commerce store at www.ash-us.org.

ASH Policy Regarding Videotaping, Photography and Audio Taping
No individual is permitted to film, videotape, photograph and/or audiotape meeting symposia, scientific sessions, posters or exhibits without prior written approval from the American Society of Hypertension.
ASH Staff Members

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Conference and Exhibit Management
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email: gilda@hansenglobalevents.com
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The American Society of Hypertension, Inc. wishes to acknowledge the following Corporate Sponsors for their generous support of the ASH Twenty-Eighth Annual Scientific Meeting.

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Anthony J. Viera, MD

Disclosures of Program Committee Members and Staff Members are listed in the Disclosure List on pages 139–146.
Dr. Ernesto Schiffrin was born in Buenos Aires, Argentina. He obtained his MD in 1970 at the University of Buenos Aires, trained in Internal Medicine and hypertension research, and in 1976 moved to Montreal, where he obtained his PhD at McGill University in 1980 working under Roger Boucher and Jacques Genest at the Clinical Research Institute of Montreal (IRCM). He was Professor of Medicine at the University of Montreal, Director of the MRCC (later CIHR) Multidisciplinary Hypertension Group and the Hypertension Clinic at the IRCM, and Internist at Hôtel-Dieu hospital of the Centre Hospitalier de l’Université de Montréal (CHUM) until 2005. Since 2006 he is Physician-in-Chief of the Jewish General Hospital and holds a Canada Research Chair in Hypertension and Vascular Research at the Lady Davis Institute for Medical Research. He is Professor and Vice-Chair (Research), Department of Medicine at McGill University.

Dr. Schiffrin’s research deals with mechanisms and treatment of high blood pressure, from molecules and cells to humans. He is author of more than 500 peer-reviewed publications, many book chapters and is editor of two published books and two books in preparation, on molecular and clinical aspects of vascular disease and hypertension.

Dr. Schiffrin has been President of the Canadian Hypertension Society (1991-92), Chair of the High Blood Pressure Research Council of the American Heart Association (2002-2004), President of the InterAmerican Society of Hypertension (2005-2007) and President of the Quebec Hypertension Society (2009-2011). Dr. Schiffrin was Vice-President (2010-2012) and is President of the International Society of Hypertension (2012-2014). Dr. Schiffrin is Associate Editor of Hypertension (AHA journal) since 2003.

Dr. Schiffrin received the Young Investigator Award of the Canadian Hypertension Society in 1985, the Senior Investigator Award of the Canadian Society of Internal Medicine in 2003, and the Distinguished Service Award of the Canadian Hypertension Society in 2004. He was elected Fellow of the Royal Society of Canada in 2006, and received the 2007 Irvine Page-Alva Bradley Lifetime Achievement Award of the High Blood Pressure Research Council of the American Heart Association and the 2010 Bjorn Folkow Award of the European Society of Hypertension. He was appointed Member of the Order of Canada (C.M.) in July 2010. He was awarded the 2011 Excellence Award in Hypertension Research of the American Heart Association, in September 2011. He was awarded a Queen Elizabeth Diamond Jubilee Medal in February 2013.
Iris Jaffe is Associate Professor of Medicine and of Cell, Molecular, and Developmental Biology at Tufts University School of Medicine, Staff Cardiologist at Tufts Medical Center, and Co-Director of the Molecular Cardiology Research Center also at Tufts Medical Center. Dr. Jaffe received her MD and PhD degrees from the University of Pennsylvania in Philadelphia and completed her clinical training in Internal Medicine at Massachusetts General Hospital and in Cardiology at Brigham and Women's Hospital, both in Boston. She pursued further post-doctoral training in vascular biology in the Molecular Cardiology Research Institute at Tufts Medical Center where she joined the Faculty in 2005 and was promoted to Associate Professor in 2011.

Dr. Jaffe's research is focused on the role of the hormone aldosterone and its receptor, the Mineralocorticoid Receptor (MR), in vascular function and disease. Her lab uses in vitro, genomic, transgenic mouse models, and translational approaches to explore the role of vascular MR in vascular remodeling, atherosclerosis, and hypertension. The Jaffe lab is funded by the NIH, the American Heart Association and other agencies. Iris Jaffe chaired the 2011 International Aldosterone Conference, is a peer reviewer for the AHA and the National Health and Medical Research Council of Australia, and is on the editorial board of Endocrinology. Dr. Jaffe's previous awards include the Italian Ministry of Health Young Investigator award, the AHA Irvine Page Young Investigator Award Finalist, and election to the American Society of Clinical Investigation.
An experienced clinical scholar in the field of hypertension with a broad range of scientific contributions to the field is this year’s Marvin Moser Clinical Hypertension Award recipient.

Dr. C. Venkata S. Ram serves as the President and Chief Executive Officer of MediCiti Medical College, MediCiti Hospital, and MediCiti Institute of Medical Sciences, Medchal and Hyderabad, A.P, India.

A founding member of American Society of Hypertension, Dr. Ram has served the Society in many capacities including as a member of the Executive Council, Board of Governors, and as Vice-President. He has made significant contributions to the growth of ASH. He now serves as the ASH liaison for international programs and as the Vice-President of the ASH Specialists Program.

Dr. Ram serves on the editorial boards of The Journal of Clinical Hypertension, the Journal of the American Society of Hypertension, American Journal of Cardiology, American Journal of Therapeutics, American Journal of Cardiovascular Drugs, Journal of Clinical and Preventive Cardiology, and the Journal of Preventive Cardiology and has served as a reviewer consultant to various Joint National Committee (JNC) reports.

Dr. Ram graduated from Osmania Medical College, Hyderabad, India, and trained as a resident at Brown University. After a fellowship at the University of Pennsylvania, he was recruited by Drs. Norman Kaplan and Donald Seldin to join the University of Texas Southwestern Medical School in 1977. He was instrumental in developing clinical services and research activities in hypertension at the Parkland Memorial Hospital and University of Texas Southwestern Medical School in Dallas where he also started a fellowship program in hypertension along with Dr. Kaplan.

Students, residents, fellows and staff recognized Dr. Ram as an outstanding clinician and role model during his time as president of the St. Paul University Hospital, Dallas, medical staff, chairman of the Institutional Review Board at St. Paul and president of the American Association of Physicians from India (AAPI). He received the best teacher “Aesculapius” award from the St. Paul house staff.

As the director of the hypertension clinics in Dallas, Dr. Ram provided leadership in the care and follow-up of patients with complex and secondary forms of hypertension and established a popular referral clinic on the campus. Dr. Ram was selected as the American Heart Association international visiting scholar and received a “Mother India” award from the Non-Resident Indian (NRI) Institute, New Delhi, for his contributions to preventive medicine and global cardiovascular health. He was recently
conferred the prestigious “PADMA SHRI” award by the government of India in 2013 for his “impactful” and “significant” contributions in the field of medicine; PADMA SHRI is one of the highest civilian recognitions in India.


Dr. Ram’s research covered various physiological, pathophysiological, diagnostic, and therapeutic dimensions of hypertension. As a resident he pointed out the potential risk of diabetes in patients exposed to diuretics and was one of the first researchers to show an additive interaction between the loop diuretics and metolazone. His early work touched on fundamental aspects of hypertension with significant clinical implications, and he has recently shown the value of combination therapy to achieve goal blood pressure levels in patients with diabetes and clinical outcomes in patients treated with ARBs. Focusing on community health economics, he has analyzed the comparative effectiveness of fixed combinations in hypertension.

Dr. Ram and co-workers published extensively on the therapeutic efficacy of various antihypertensive drugs introduced in the last three decades. His continued contributions to the science of hypertension include subclinical cardiovascular disease in metabolic syndrome, cytokine activation in heart failure, ACE gene polymorphism in South Asians, resistant hypertension, mechanical devices to treat hypertension, clinical outcomes in patients with hypertension, central aortic blood pressure and combination therapy.
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Poster Category Presentation

Posters will be displayed in the Golden Gate Hall

Wednesday, May 15, 2013
Posters on Display: 3:30 PM – 6:30 PM • Poster Viewing: 5:30 PM – 6:30 PM

Featured Posters:

Hypertension and Aging ...................................................(FP-2 – FP-5)
Antihypertensive Drugs and Pharmacology ....................(PO-1 – PO-13A)
Blood Pressure Measurement/Monitoring ....................(PO-14 – PO-35)
Epidemiology/Special Populations ...............................(PO-36 – PO-52)
Heart Failure/Hypertrophy (Diastolic Dysfunction)..(PO-53 – PO-54)
Metabolic Syndrome (Diabetes/Glycemic Control; Dysglycemic Drugs; Insulin Resistance) .................(PO-55 – PO-59)
Patient-Provider-Healthcare System Issues .................(PO-60 – PO-61)
Preclinical Models/Experimental Hypertension ............(PO-62)
Pregnancy .........................................................................(PO-63 – PO-64)
Risk Factors (Lipids) .......................................................(PO-65 – PO-69)

Thursday, May 16, 2013
Posters on Display: 9:30 AM – 7:15 PM • Poster Viewing: 6:15 PM – 7:15 PM

Featured Posters:

Non-Invasive Measurements in Hypertension ..............(FP-6 – FP-10)
Blood Pressure Regulation .............................................(PO-70 – PO-83)
Clinical Trials in Hypertension and Related Morbidities ..................................................(PO-84 – PO-88A)
Device Management of Hypertension .........................(PO-89 – PO-91)
Endothelial Function ......................................................(PO-92 – PO-96)
Hypertension and Aging ..............................................(PO-98 – PO-108)
Kidney and Hypertension .............................................(PO-109 – PO-113)
Non-Invasive Testing ....................................................(PO-114 – PO-120)
Non-Pharmacological Therapy
(Alternative Medicine; Diet; Physical Activity) ..........(PO-121 – PO-126)
Pediatric, Adolescent, and Maternal Hypertension ..........(PO-127 – PO-138)

Dagger (†) denotes that the presenting author has related disclosure information.
Poster Category Presentation

Friday, May 17, 2013
Posters on Display: 10:00 AM – 5:30 PM • Poster Viewing: 4:30 PM – 5:30 PM

Featured Posters:

Antihypertensive Therapy................................. (FP-11 – FP-15)
Arterial Structure and Compliance.......................(PO-139 – PO-148A)
Blood Pressure Control and Adherence to Treatment.........................................................(PO-149 – PO-174)
Cardiac Structure and Function/Imaging..............(PO-175 – PO-178)
Coronary Artery Disease....................................(PO-179 – PO-184)
Genetics/Gene Therapy/Proteomics....................(PO-185 – PO-187)
Novel Antihypertensive Drug Development ...........(PO-189)
Obesity and Hypertension.................................(PO-190 – PO-195)
Secondary Hypertension.................................(PO-196 – PO-197)
Stroke ..................................................................(PO-199)
Vascular Injury/Inflammation and Remodeling.....(PO-200 – PO-207)
Late-Breaking Posters ......................................(LB-PO-01 – LB-PO-08)

Dagger (†) denotes that the presenting author has related disclosure information.
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Huntington, WV

Rajiv Agarwal, MD, FASH
Indianapolis, IN

Lawrence J. Appel, MD, MPH, FASH
Baltimore, MD

Donna K. Arnett, PhD, MSPH
Birmingham, AL

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Valhalla, NY

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Ladson, SC

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Bergamo, Italy

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John D. Bisognano, MD, PhD, FASH
Rochester, NY

Henry R. Black, MD, FASH
New York, NY

Michael J. Bloch, MD, FASH
Reno, NV

Michael W. Brands, PhD
Augusta, GA

Angela L. Brown, MD
St. Louis, MO

Trudy L. Burns, MPH, PhD
Iowa City, IA

David A. Calhoun, MD, FASH
Birmingham, AL

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Los Angeles, CA

Barry L. Carter, PharmD, FASH
Iowa City, IA

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La Jolla, CA

Anna F. Dominiczak, MD
Glasgow, United Kingdom

Brent M. Egan, MD, FASH
Charleston, SC

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Peter U. Feig, MD, FASH
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Seattle, WA

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Matthew W. Gillman, MD, SM
Boston, MA
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Philip B. Gorelick, MD, MPH
Grand Rapids, IL
Jonathan R. Lindner, MD
Portland, OR

Alan H. Gradman, MD, FASH
Pittsburgh, PA
Jianfang Luo, MD
Gazzhou, China

Adam Greenstein, PhD
Manchester, United Kingdom
Thomas D. MacKenzie, MD, MSPH
Denver, CO

Michael Griswold, PhD
Jackson, MS
David J. Magid, MD, MPH
Denver, CO

Martha Gulati, MD, MS
Columbus, OH
Mary J. Malloy, MD
San Francisco, CA

John E. Hall, PhD
Jackson, MS
Daniel B. Mark, MD, MPH
Durham, NC

Joel Handler, MD, FASH
Anaheim, CA
Joel C. Marrs, PharmD
Aurora, CO

Raymond C. Harris, MD
Nashville, TN
Barry J. Materson, MD, MPH, FASH
Miami, FL

David G. Harrison, MD
Nashville, TN
Brian W. McCrindle, MD, MPH
Ontario, Canada

Ramon C. Hermida, PhD
Vigo, Spain
Franz H. Messerli, MD, FASH
New York, NY

Norman K. Hollenberg, MD, PhD
Boston, MA
Timothy W. Meyer, MD
Palo Alto, CA

Costantino Iadecola, MD
New York, NY
Eric T. Mizuno, MD
Chicago, IL

Julie R. Ingelfinger, MD, FASH
Boston, MA
Jean Nappi, PharmD
Charleston, SC

Joseph L. Izzo, Jr., MD, FASH
Buffalo, NY
Jeffrey W. Olin, DO
New York, NY

Iris Z. Jaffe, MD, PhD
Boston, MA
Suzanne Oparil, MD, FASH
Birmingham, AL

Norman M. Kaplan, MD
Dallas, TX
David M. Pollock, PhD
Augusta, GA

Gail S. Kocher, MPA
Chicago, IL
Henry A. Punzi, MD, FASH
Carrollton, TX

Donald E. Kohan, MD, PhD
Salt Lake City, UT
C. Venkata S. Ram, MD, FASH
Dallas, TX

Henry Krum, MBBS
Melbourne, Australia
Vasan S. Ramachandran, MD
Framingham, MA

Louis Kuritzky, MD
Gainesville, FL
Josep Redon, MD, PhD
Valencia, Spain

Daniel T. Lackland, DrPH, FASH
Charleston, SC
James M. Roberts, MD
Pittsburgh, PA

Edward G. Lakatta, MD
Baltimore, MD
Clive Rosendorff, MD, PhD
Bronx, NY

Malcolm Law, MBBS
London, United Kingdom
Joshua A. Samuels, MD, FASH
Houston, TX

Marshall Lindheimer, MD
Chicago, IL
Darlene Sandoval, PhD
Cincinnati, OH
Jennifer M. Sasser, PhD
Jackson, MS

Ernesto L. Schiffrin, MD, PhD
Montreal, Canada

Steven S. Segal, PhD
Columbia, MO

Daichi Shimbo, MD
New York, NY

Domenic A. Sica, MD, FASH
Richmond, VA

Mario Sims, PhD
Jackson, MS

Kanwar Singh, MD
Farmington, CT

Nancy Spector, BSN, MSC
Washington, DC

Julia Steinberger, MD, MS
Minneapolis, MN

Sandra J. Taler, MD, FASH
Rochester, MN

Addison A. Taylor, MD, PhD, FASH
Houston, TX

Herman A. Taylor, MD, MPH
Jackson, MS

Fernando Testai, MD, PhD
Chicago, IL

Stephen C. Textor, MD, FASH
Rochester, MN

Jens Titze, MD
Nashville, TN

Rhian M. Touyz, MD, PhD
Glasgow, United Kingdom

Raymond R. Townsend, MD, FASH
Philadelphia, PA

Meryem Tuncel-Kara, MD
Farmington, CT

James A. Underberg, MS, MD, FASH
New York, NY

Elaine M. Urbina, MD, MS, FASH
Cincinnati, OH

Barbara Vickrey, MD, MPH
Los Angeles, CA

Ronald G. Victor, MD
Los Angeles, CA

Anthony J. Viera, MD, MPH
Chapel Hill, NC

Evelyn R. Walker, MD, MPH
Jackson, MS

Changqian Wang, MD
Shanghai, China

Hongyu Wang, MD, FASH
Beijing, China

R. Clinton Webb, PhD
Augusta, GA

Michael A. Weber, MD, FASH
New York, NY

Matthew R. Weir, MD, FASH
Baltimore, MD

Myron H. Weinberger, MD
Indianapolis, IN

Donald Wesson, MD
Temple, TX

Paul K. Whelton, MB, MD, MSc
New Orleans, LA

William B. White, MD, FASH
Farmington, CT

Christopher S. Wilcox, MD, PhD
Washington, DC

Jessica G. Woo, PhD
Cincinnati, OH

Jackson T. Wright, Jr., MD, PhD, FASH
Cleveland, OH

Guifu Wu, MD, PhD
Shenzhen, China

Steven A. Yarows, MD, FASH
Chelsea, MI

Alberto Zanchetti, MD
Milano, Italy

Faiez Zannad, MD
Vandoeuvre Lès Nancy, France

Hongyan Zeng, MD
Chengdu, China
Are you facing hypertension you consider tough to treat?
Important Safety Information and Indication

**IMPORTANT SAFETY INFORMATION**

**WARNING: FETAL TOXICITY**
See full Prescribing Information for complete boxed warning.
- When pregnancy is detected, discontinue EDARBYCLOR as soon as possible.
- Drugs that act directly on the renin-angiotensin system can cause injury and death to the developing fetus.

**EDARBYCLOR**
- is contraindicated in patients with anuria.
- Do not coadminister aliskiren with EDARBYCLOR in patients with diabetes.
- Fetal Toxicity: Use of drugs that act on the renin-angiotensin system during the second and third trimesters of pregnancy reduces fetal renal function and increases fetal and neonatal morbidity and death. When pregnancy is detected, discontinue EDARBYCLOR as soon as possible. Thiazides cross the placental barrier and appear in cord blood and may be associated with adverse reactions, including fetal or neonatal jaundice and thrombocytopenia.
- In patients with an activated renin-angiotensin-aldosterone system (RAAS), such as volume- and/ or salt-depleted patients, EDARBYCLOR can cause excessive hypotension. Correct volume or salt depletion prior to administration of EDARBYCLOR.
- Monitor for worsening renal function in patients with renal impairment. In patients whose renal function may depend on the activity of the renin-angiotensin system, treatment with ACE inhibitors and ARBs has been associated with oliguria or progressive azotemia and rarely with acute renal failure and death. In patients with renal artery stenosis, EDARBYCLOR may cause renal failure. In patients with renal disease, chlorthalidone may precipitate azotemia. Consider withholding or discontinuing EDARBYCLOR if progressive renal impairment becomes evident. Avoid use of aliskiren with EDARBYCLOR in patients with renal impairment (GFR <60 mL/min).
- Hypokalemia is a dose-dependent adverse reaction that may develop with chlorthalidone. Coadministration of digitalis may exacerbate the adverse effects of hypokalemia. EDARBYCLOR attenuates chlorthalidone-associated hypokalemia.
- Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving chlorthalidone or other thiazide diuretics.
- Adverse Reactions (AEs): AEs that occurred at an incidence of ≥2% of EDARBYCLOR-treated patients and greater than azilsartan medoxomil or chlorthalidone were dizziness (8.9%) and fatigue (2.0%).
- Incidence of consecutive elevations of creatinine (≥50% from baseline and >ULN) was 2% and were typically transient, or nonprogressive and reversible, and associated with large blood pressure reductions.
- Drug Interactions: Renal clearance of lithium is reduced by diuretics, such as chlorthalidone, increasing the risk of lithium toxicity. Monitor renal function periodically in patients receiving EDARBYCLOR and NSAIDs who are also elderly, volume-depleted (including those on diuretics), or who have compromised renal function, including possible acute renal failure, may result. These effects are usually reversible. NSAIDs may interfere with antihypertensive effect. Dual blockade of the RAS with angiotensin receptor blockers, ACE inhibitors, or aliskiren is associated with increased risks of hypotension, hyperkalemia, and changes in renal function (including acute renal failure) compared to monotherapy.

**INDICATION AND USAGE**

EDARBYCLOR is an angiotensin II receptor blocker (ARB) and a thiazide-like diuretic combination product indicated for the treatment of hypertension. EDARBYCLOR may be used if a patient is not adequately controlled on monotherapy or as initial therapy if multiple drugs are needed to help achieve blood pressure goals. Lowering blood pressure reduces the risk of fatal and nonfatal cardiovascular events, primarily strokes and myocardial infarctions. There are no controlled trials demonstrating risk reduction with EDARBYCLOR, but trials with chlorthalidone and at least one pharmacologically similar drug to azilsartan medoxomil have demonstrated such benefits.

Control of high blood pressure should be part of comprehensive cardiovascular risk management, including, as appropriate, lipid control, diabetes management, antithrombotic therapy, smoking cessation, exercise, and limited sodium intake. Many patients will require more than one drug to achieve blood pressure goals.

EDARBYCLOR may be used with other antihypertensive agents.
Are you facing hypertension you consider tough to treat?

Patients with moderate to severe hypertension
Patients likely to need multiple antihypertensives
Patients with comorbidities such as diabetes or obesity

CONSIDER EDARBYCLOR FOR THESE PATIENTS

Individual results may vary

EDARBYCLOR 40/25 mg WAS STATISTICALLY SUPERIOR TO BENICAR HCT® 40/25 mg IN CLINIC SBP REDUCTION AT WEEK 121,2,a

- EDARBYCLOR 40/25 mg lowered clinic SBP at week 12 by 42.5 mm Hg vs 37.1 mm Hg with BENICAR HCT 40/25 mg (P < 0.001)1,2
- EDARBYCLOR 40/25 mg lowered trough (hr 22–24) SBP at week 12 by 32.9 mm Hg vs 25.9 mm Hg with BENICAR HCT 40/25 mg as measured by ABPM (P < 0.001)2
- EDARBYCLOR showed similar results across all subpopulations3

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*Study Design:
A 12-week, randomized, double-blind, forced-titration study in patients (N=1,071) with a mean sitting clinic SBP ≥160 mm Hg and ≤190 mm Hg. There was a 3- to 4-week washout period. Mean clinic SBP baselines for each arm were 164.8 mm Hg (EDARBYCLOR 40/25 mg) and 164.6 mm Hg (BENICAR HCT 40/25 mg). The primary endpoint was the change from baseline in clinic SBP at week 12.

EDARBYCLOR OFFERS IMPRESSIVE REDUCTION IN TROUGH SBP BY ABPM AT EACH DOSE4,b

- EDARBYCLOR 40/12.5 mg and 40/25 mg lowered trough SBP at week 8 by 24.4 mm Hg and 29.8 mm Hg, respectively, as measured by ABPM, the primary endpoint

*Study Design:
An 8-week, randomized, double-blind, factorial study in patients (N=1,714) with a mean sitting clinic SBP ≥160 mm Hg and ≤190 mm Hg. There was a 3- to 4-week washout period. Mean baseline SBP as measured by ABPM was 153/91 mm Hg (EDARBYCLOR 40/12.5 mg) and 149/89 mm Hg (EDARBYCLOR 40/25 mg). The primary endpoint was change in trough (hr 22–24) SBP at week 8 as measured by ABPM.

For further information, please see brief summary of complete Prescribing Information on adjacent pages.

Brief Summary of Prescribing Information for
EDARBRYCLOR (azilsartan medoxomil and chlorthalidone) tablets, for oral use

WARNING: FETAL TOXICITY

• When pregnancy is detected, discontinue Edarbyclor as soon as possible [see Warnings and Precautions].
• Drugs that act directly on the renin-angiotensin system can cause injury and death to the developing fetus [see Warnings and Precautions].

INDICATIONS AND USAGE

Edarbyclor contains an angiotensin II receptor blocker (ARB) and a thiazide-like diuretic and is indicated for the treatment of hypertension, to lower blood pressure. Edarbyclor may be used in patients whose blood pressure is not adequately controlled on monotherapy.

Edarbyclor may be used as initial therapy if a patient is likely to need multiple drugs to achieve blood pressure goals.

Lowering blood pressure reduces the risk of fatal and nonfatal cardiovascular events, primarily strokes and myocardial infarctions. These benefits have been seen in controlled trials of antihypertensive drugs from a wide variety of pharmacologic classes including thiazide-like diuretics such as chlorthalidone and ARBs such as azilsartan medoxomil. There are no controlled trials demonstrating risk reduction with Edarbyclor.

Control of high blood pressure should be part of comprehensive cardiovascular risk management, including, as appropriate, lipid control, diabetes management, antithrombotic therapy, smoking cessation, exercise, and limited sodium intake. Many patients will require more than one drug to achieve blood pressure goals. For specific advice on goals and management of high blood pressure, see published guidelines, such as those of the National High Blood Pressure Education Program’s Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC).

Numerous antihypertensive drugs, from a variety of pharmacologic classes and with different mechanisms of action, have been shown in randomized controlled trials to reduce cardiovascular morbidity and mortality, and it can be concluded that it is blood pressure reduction, and not some other pharmacologic property of the drugs, that is largely responsible for those benefits. The largest and most consistent cardiovascular outcome benefit has been a reduction in the risk of stroke, but reductions in myocardial infarction and cardiovascular mortality also have been seen regularly.

Elevated systolic or diastolic pressure causes increased cardiovascular risk, and the absolute risk increase per mmHg is greater at higher blood pressures, so that even modest reductions of severe hypertension can provide substantial benefit. Relative risk reduction from blood pressure reduction is similar across populations with varying absolute risk, so the absolute benefit is greater in patients who are at higher risk independent of their hypertension (for example, patients with diabetes or hyperlipidemia), and such patients would be expected to benefit from more aggressive treatment to a lower blood pressure goal.

Some antihypertensive drugs have smaller blood pressure effects (as monotherapy) in black patients; however, the blood pressure effect of Edarbyclor in blacks is similar to that in non-blacks. Many antihypertensive drugs have additional approved indications and effects (e.g., on angina, heart failure, or diabetic kidney disease). These considerations may guide selection of therapy.

The choice of Edarbyclor as initial therapy for hypertension should be based on an assessment of potential benefits and risks including whether the patient is likely to tolerate the starting dose of Edarbyclor. Patients with moderate-to-severe hypertension are at a relatively high risk of cardiovascular events (e.g., stroke, heart attack, and heart failure), kidney failure, and vision problems, so prompt treatment is clinically relevant. Consider the patient’s baseline blood pressure, target goal and the incremental likelihood of achieving the goal with a combination product, such as Edarbyclor, versus a monotherapy product when deciding upon initial therapy. Individual blood pressure goals may vary based on the patient’s risk.

Data from an 8-week, active-controlled, factorial trial provide estimates of the probability of reaching a target blood pressure with Edarbyclor compared with azilsartan medoxomil or chlorthalidone monotherapy.

Figures 1.a-1.d provide estimates of the likelihood of achieving target clinic systolic and diastolic blood pressure control with Edarbyclor 40/25 mg tablets after 8 weeks, based on baseline systolic or diastolic blood pressure. The curve for each treatment group was estimated by logistic regression modeling and is more variable at the tails.
Figure 1.a Probability of Achieving Systolic Blood Pressure <140 mmHg at Week 8

- Edarbyclor 40/25 mg
- Azilsartan medoxomil 80 mg
- Chlorothalidone 25 mg

Figure 1.b Probability of Achieving Systolic Blood Pressure <130 mmHg at Week 8

- Edarbyclor 40/25 mg
- Chlorothalidone 25 mg
- Azilsartan medoxomil 80 mg

Figure 1.c Probability of Achieving Diastolic Blood Pressure <90 mmHg at Week 8

- Edarbyclor 40/25 mg
- Azilsartan medoxomil 80 mg
- Chlorothalidone 25 mg

Figure 1.d Probability of Achieving Diastolic Blood Pressure <80 mmHg at Week 8

- Edarbyclor 40/25 mg
- Azilsartan medoxomil 80 mg
- Chlorothalidone 25 mg
For example, a patient with a baseline blood pressure of 170/105 mm Hg has approximately a 48% likelihood of achieving a goal of <140 mm Hg (systolic) and 48% likelihood of achieving <90 mm Hg (diastolic) on azilsartan medoxomil 80 mg. The likelihood of achieving these same goals on chlorthalidone 25 mg is approximately 51% (systolic) and 40% (diastolic). These likelihoods rise to 85% (systolic) and 85% (diastolic) with Edarbyclor 40/25 mg.

CONTRAINDICATIONS
• Edarbyclor is contraindicated in patients with anuria [see Warnings and Precautions].
• Do not coadminister aliskiren with Edarbyclor in patients with diabetes [see Drug Interactions].

WARNINGS AND PRECAUTIONS
Fetal Toxicity
Azilsartan medoxomil
Use of drugs that act on the renin-angiotensin system during the second and third trimesters of pregnancy reduces fetal renal function and increases fetal and neonatal morbidity and death. Resulting oligohydramnios can be associated with fetal lung hypoplasia and skeletal deformations. Potential neonatal adverse effects include skull hypoplasia, anuria, hypotension, renal failure, and death. When pregnancy is detected, discontinue Edarbyclor as soon as possible [see Use in Specific Populations].

Chlorthalidone
Thiazides cross the placentental barrier and appear in cord blood. Adverse reactions include fetal or neonatal jaundice and thrombocytopenia.

Hypotension in Volume- or Salt-Depleted Patients
In patients with an activated renin-angiotensin system, such as volume- or salt-depleted patients (e.g., those being treated with high doses of diuretics), symptomatic hypotension may occur after initiation of treatment with Edarbyclor. Such patients are probably not good candidates to start therapy with more than one drug; therefore, correct volume prior to administration of Edarbyclor. If hypotension does occur, the patient should be placed in the supine position and, if necessary, given an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further treatment, which usually can be continued without difficulty once the blood pressure has stabilized.

Impaired Renal Function
Edarbyclor
Monitor for worsening renal function in patients with renal impairment. Consider withholding or discontinuing Edarbyclor if progressive renal impairment becomes evident.

Azilsartan medoxomil
As a consequence of inhibiting the renin-angiotensin system, changes in renal function may be anticipated in susceptible individuals treated with Edarbyclor. In patients whose renal function may depend on the activity of the renin-angiotensin system (e.g., patients with severe congestive heart failure, renal artery stenosis, or volume depletion), treatment with angiotensin-converting enzyme inhibitors and angiotensin receptor blockers has been associated with oliguria or progressive azotemia and rarely with acute renal failure and death. Similar results may be anticipated in patients treated with Edarbyclor [see Drug Interactions and Use in Specific Populations].

In studies of ACE inhibitors in patients with unilateral or bilateral renal artery stenosis, increases in serum creatinine or blood urea nitrogen have been reported. There has been no long-term use of azilsartan medoxomil in patients with unilateral or bilateral renal artery stenosis, but similar results are expected.

Chlorthalidone
In patients with renal disease, chlorthalidone may precipitate azotemia. If progressive renal impairment becomes evident, as indicated by increased blood urea nitrogen, consider withholding or discontinuing diuretic therapy.

Hypokalemia
Chlorthalidone
Hypokalemia is a dose-dependent adverse reaction that may develop with chlorthalidone. Co-administration of digitalis may exacerbate the adverse effects of hypokalemia.

Edarbyclor attenuates chlorthalidone-associated hypokalemia. In patients with normal potassium levels at baseline, 1.7% of Edarbyclor-treated patients, 0.9% of azilsartan medoxomil-treated patients, and 13.4% of chlorthalidone-treated patients shifted to low potassium values (less than 3.4 mmol/L).

Hyperuricemia
Chlorthalidone
Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving chlorthalidone or other thiazide diuretics.
ADVERSE REACTIONS

The following potential adverse reactions with Edarbyclor, azilsartan medoxomil, or chlorthalidone and similar agents are included in more detail in the Warnings and Precautions section of the label:

- Fetal toxicity [see Warnings and Precautions]
- Hypotension in Volume- or Salt-Depleted Patients [see Warnings and Precautions]
- Impaired Renal Function [see Warnings and Precautions]
- Hypokalemia [see Warnings and Precautions]
- Hyperuricemia [see Warnings and Precautions]

Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

Edarbyclor has been evaluated for safety in more than 3900 patients with hypertension; more than 700 patients were treated for at least 6 months and more than 280 for at least 1 year. Adverse reactions have generally been mild and transient in nature.

Common adverse reactions that occurred in the 8-week factorial design trial in at least 2% of Edarbyclor-treated patients and greater than azilsartan medoxomil or chlorthalidone are presented in Table 1.

Table 1. Adverse Reactions Occurring at an Incidence of ≥2% of Edarbyclor-treated Patients and > Azilsartan medoxomil or Chlorthalidone

<table>
<thead>
<tr>
<th>Preferred Term</th>
<th>Azilsartan medoxomil 20, 40, 80 mg (N=470)</th>
<th>Chlorthalidone 12.5, 25 mg (N=316)</th>
<th>Edarbyclor 40 / 12.5, 40 / 25 mg (N=302)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dizziness</td>
<td>1.7%</td>
<td>1.9%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Fatigue</td>
<td>0.6%</td>
<td>1.3%</td>
<td>2.0%</td>
</tr>
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Dizziness and syncope were reported in 1.7% and 0.3%, respectively, of patients treated with Edarbyclor.

Study discontinuation because of adverse reactions occurred in 8.3% of patients treated with the recommended doses of Edarbyclor compared with 3.2% of patients treated with azilsartan medoxomil and 3.2% of patients treated with chlorthalidone.

The most common reasons for discontinuation of therapy with Edarbyclor were serum creatinine increased (3.6%) and dizziness (2.3%).

The adverse reaction profile obtained from 52 weeks of open-label combination therapy with azilsartan medoxomil plus chlorthalidone or Edarbyclor was similar to that observed during the double-blind, active controlled trials.

In 3 double-blind, active controlled, titration studies, in which Edarbyclor was titrated to higher doses in a step-wise manner, adverse reactions and discontinuations for adverse events were less frequent than in the fixed-dose factorial trial.

Azilsartan medoxomil

A total of 4814 patients were evaluated for safety when treated with azilsartan medoxomil at doses of 20, 40 or 80 mg in clinical trials. This includes 1704 patients treated for at least 6 months, of these, 588 were treated for at least 1 year. Generally, adverse reactions were mild, not dose related and similar regardless of age, gender and race.

Adverse reactions with a plausible relationship to treatment that have been reported with an incidence of ≥0.3% and greater than placebo in more than 3300 patients treated with azilsartan medoxomil in controlled trials are listed below:

Gastrointestinal Disorders: diarrhea, nausea
General Disorders and Administration Site Conditions: asthenia, fatigue
Musculoskeletal and Connective Tissue Disorders: muscle spasm
Nervous System Disorders: dizziness, dizziness postural
Respiratory, Thoracic and Mediastinal Disorders: cough

Chlorthalidone

The following adverse reactions have been observed in clinical trials of chlorthalidone: rash, headache, dizziness, GI upset, and elevations of uric acid and cholesterol.

Clinical Laboratory Findings with Edarbyclor

In the factorial design trial, clinically relevant changes in standard laboratory parameters were uncommon with administration of the recommended doses of Edarbyclor.

Renal parameters:
Increased blood creatinine is a known pharmacologic effect of renin-angiotensin aldosterone system (RAAS) blockers, such as ARBs and ACE inhibitors, and is related to the magnitude of blood pressure reduction. The incidence of consecutive increases of creatinine ≥50% from baseline and >ULN was 2.0% in patients treated with the recommended doses of Edarbyclor compared with 0.4% and 0.3% with
azilsartan medoxomil and chlorthalidone, respectively. Elevations of creatinine were typically transient, or non-progressive and reversible, and associated with large blood pressure reductions.

Mean increases in blood urea nitrogen (BUN) were observed with Edarbyclor (5.3 mg/dL) compared with azilsartan medoxomil (1.5 mg/dL) and with chlorthalidone (2.5 mg/dL).

**DRUG INTERACTIONS**

**Edarbyclor**

The pharmacokinetics of azilsartan medoxomil and chlorthalidone are not altered when the drugs are co-administered.

No drug interaction studies have been conducted with other drugs and Edarbyclor, although studies have been conducted with azilsartan medoxomil and chlorthalidone. **Azilsartan medoxomil**

No clinically significant drug interactions have been observed in studies of azilsartan medoxomil or azilsartan given with amlopidine, antacids, chlorthalidone, digoxin, fluconazole, glyburide, ketoconazole, metformin, pioglitazone, and warfarin. Therefore, azilsartan medoxomil may be used concomitantly with these medications.

**Non-Steroidal Anti-Inflammatory Agents including Selective Cyclooxygenase-2 Inhibitors (COX-2 Inhibitors)**

In patients who are elderly, volume-depleted (including those on diuretic therapy), or who have compromised renal function, co-administration of NSAIDs, including selective COX-2 inhibitors, with angiotensin II receptor antagonists, including azilsartan, may result in deterioration of renal function, including possible acute renal failure. These effects are usually reversible. Monitor renal function periodically in patients receiving Edarbyclor and NSAID therapy.

The antihypertensive effect of Edarbyclor may be attenuated by NSAIDs, including selective COX-2 inhibitors.

**Dual Blockade of the Renin-Angiotensin System (RAS)**

Dual blockade of the RAS with angiotensin receptor blockers, ACE inhibitors, or aliskiren is associated with increased risks of hypotension, hyperkalemia, and changes in renal function (including acute renal failure) compared to monotherapy. Closely monitor blood pressure, renal function and electrolytes in patients on Edarbyclor and other agents that affect the RAS.

Do not coadminister aliskiren with Edarbyclor in patients with diabetes. Avoid use of aliskiren with Edarbyclor in patients with renal impairment (GFR <60 mL/min).

**Chlorthalidone**

Lithium renal clearance is reduced by diuretics, such as chlorthalidone, increasing the risk of lithium toxicity. Consider monitoring lithium levels when using Edarbyclor.

**USE IN SPECIFIC POPULATIONS**

**Pregnancy**

Pregnancy Category D

Use of drugs that affect the renin-angiotensin system during the second and third trimesters of pregnancy reduces fetal renal function and increases fetal and neonatal morbidity and death. Resulting oligohydramnios can be associated with fetal lung hypoplasia and skeletal deformations. Potential neonatal adverse effects include skull hypoplasia, anuria, hypotension, renal failure, and death. When pregnancy is detected, discontinue Edarbyclor as soon as possible. These adverse outcomes are usually associated with use of these drugs in the second and third trimester of pregnancy. Most epidemiologic studies examining fetal abnormalities after exposure to antihypertensive use in the first trimester have not distinguished drugs affecting the renin-angiotensin system from other antihypertensive agents. Appropriate management of maternal hypertension during pregnancy is important to optimize outcomes for both mother and fetus.

In the unusual case that there is no appropriate alternative to therapy with drugs affecting the renin-angiotensin system for a particular patient, apprise the mother of the potential risk to the fetus. Perform serial ultrasound examinations to assess the intra-amniotic environment. If oligohydramnios is observed, discontinue Edarbyclor, unless it is considered lifesaving for the mother. Fetal testing may be appropriate, based on the week of pregnancy. Patients and physicians should be aware, however, that oligohydramnios may not appear until after the fetus has sustained irreversible injury. Closely observe infants with histories of in utero exposure to Edarbyclor for hypotension, oliguria, and hyperkalemia [see Use in Specific Populations].

**Nursing Mothers**

It is not known if azilsartan is excreted in human milk, but azilsartan is excreted at low concentrations in the milk of lactating rats and thiazide-like diuretics like chlorthalidone are excreted in human milk. Because of the potential for adverse effects on the nursing infant, a decision should be made whether to discontinue nursing or discontinue the drug, taking into account the importance of the drug to the mother.
Pediatric Use
Safety and effectiveness of Edarbyclor in pediatric patients under 18 years of age have not been established.

Neonates with a history of in utero exposure to Edarbyclor:
If oliguria or hypotension occurs, support blood pressure and renal function. Exchange transfusions or dialysis may be required.

Geriatric Use
Edarbyclor
No dose adjustment with Edarbyclor is necessary in elderly patients. Of the total patients in clinical studies with Edarbyclor, 24% were elderly (65 years of age or older); 5.7% were 75 years and older. No overall differences in safety or effectiveness were observed between elderly patients and younger patients, but greater sensitivity of some older individuals cannot be ruled out.

Renal Impairment
Edarbyclor
Safety and effectiveness of Edarbyclor in patients with severe renal impairment (eGFR <30 mL/min/1.73 m²) have not been established. No dose adjustment is required in patients with mild (eGFR 60-90 mL/min/1.73 m²) or moderate (eGFR 30-60 mL/min/1.73 m²) renal impairment.

Chlorthalidone
Chlorthalidone may precipitate azotemia.

Hepatic Impairment
Azilsartan medoxomil
No dose adjustment is necessary for subjects with mild or moderate hepatic impairment. Azilsartan medoxomil has not been studied in patients with severe hepatic impairment.

Chlorthalidone
Minor alterations of fluid and electrolyte balance may precipitate hepatic coma in patients with impaired hepatic function or progressive liver disease.

OVERDOSAGE
Limited data are available related to overdosage in humans.
Azilsartan medoxomil
Limited data are available related to overdosage in humans. During controlled clinical trials in healthy subjects, once daily doses up to 320 mg of azilsartan medoxomil were administered for 7 days and were well tolerated. In the event of an overdose, supportive therapy should be instituted as dictated by the patient’s clinical status. Azilsartan is not dialyzable.

Chlorthalidone
Symptoms of acute overdosage include nausea, weakness, dizziness, and disturbances of electrolyte balance. The oral LD50 of the drug in the mouse and the rat is more than 25,000 mg/kg body weight. The minimum lethal dose (MLD) in humans has not been established. There is no specific antidote, but gastric lavage is recommended, followed by supportive treatment. Where necessary, this may include intravenous dextrose-saline with potassium, administered with caution.

NONCLINICAL TOXICOLOGY
Carcinogenesis, Mutagenesis, Impairment of Fertility
No carcinogenicity, mutagenicity, or fertility studies have been conducted with the combination of azilsartan medoxomil and chlorthalidone. However, these studies have been conducted for azilsartan medoxomil alone.

Azilsartan medoxomil
Carcinogenesis: Azilsartan medoxomil was not carcinogenic when assessed in 26-week transgenic (Tg.rasH2) mouse and 2-year rat studies. The highest doses tested (450 mg azilsartan medoxomil/kg/day in the mouse and 600 mg azilsartan medoxomil/kg/day in the rat) produced exposures to azilsartan that are 12 (mice) and 27 (rats) times the average exposure to azilsartan in humans given the maximum recommended human dose (MRHD, 80 mg azilsartan medoxomil/day). M-II was not carcinogenic when assessed in 26-week Tg.rasH2 mouse and 2-year rat studies. The highest doses tested (approximately 8000 mg M-II/kg/day (males) and 11,000 mg M-II/kg/day (females) in the mouse and 1000 mg M-II/kg/day (males) and up to 3000 mg M-II/kg/day (females) in the rat) produced exposures that are, on average, about 30 (mice) and 7 (rats) times the average exposure to M-II in humans at the MRHD. Mutagenesis: Azilsartan medoxomil, azilsartan, and M-II were positive for structural aberrations in the Chinese Hamster Lung Cytogenic Assay. In this assay, structural chromosomal aberrations were observed with the prodrug, azilsartan medoxomil, without metabolic activation. The active moiety, azilsartan, was also positive in this assay both with and without metabolic activation. The major human metabolite, M-II was also positive in this assay during a 24-hr assay without metabolic activation. Azilsartan medoxomil, azilsartan, and M-II were devoid of genotoxic potential in the Ames reverse mutation assay with Salmonella typhimurium and Escherichia coli,
the *in vitro* Chinese Hamster Ovary Cell forward mutation assay, the *in vitro* mouse lymphoma (tk) gene mutation test, the *ex vivo* unscheduled DNA synthesis test, and the *in vivo* mouse and/or rat bone marrow micronucleus assay.

**Impairment of Fertility:** There was no effect of azilsartan medoxomil on the fertility of male or female rats at oral doses of up to 1000 mg azilsartan medoxomil/kg/day [6000 mg/m² (approximately 122 times the MRHD of 80 mg azilsartan medoxomil/60 kg on a mg/m² basis)]. Fertility of rats also was unaffected at doses of up to 3000 mg M-II/kg/day.

**PATIENT COUNSELING INFORMATION**

See FDA-approved patient labeling (Patient Information).

Tell patients that if they miss a dose, they should take it later in the same day, but not to double the dose on the following day.

**Pregnancy**

Tell female patients of childbearing potential about the consequences of exposure to Edarbyclor during pregnancy. Discuss treatment options with women planning to become pregnant. Tell patients to report pregnancies to their physicians as soon as possible.

**Symptomatic Hypotension**

Advise patients to report light-headedness. Advise patients, if syncope occurs, to have someone call the doctor or seek medical attention, and to discontinue Edarbyclor. Inform patients that dehydration from excessive perspiration, vomiting, or diarrhea may lead to an excessive fall in blood pressure. Inform patients to consult with their healthcare provider if these symptoms occur.

**Renal Impairment**

Inform patients with renal impairment that they should receive periodic blood tests to monitor their renal function while taking Edarbyclor.

**Gout**

Have patients report gout symptoms.

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Deerfield, IL 60015

For more detailed information, see the full prescribing information for Edarbyclor (azilsartan medoxomil and chlorthalidone) at www.edarbyclor.com or contact Takeda Pharmaceuticals America, Inc. at 1-877-825-3327.

Edarbyclor is a trademark of Takeda Pharmaceutical Company Limited registered with the U.S. Patent and Trademark Office and used under license by Takeda Pharmaceuticals America, Inc.

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AZC066 R2 Rev. October 2012

L-LXAC-1012-7
The Society gratefully acknowledges Takeda Pharmaceuticals U.S.A., Inc. for its support of the ASH Annual Scientific Meeting Program Book.
The ASH Twelfth-Eighth Annual Scientific Meeting is organized around three (3) concurrent themes:

- Pathobiology of Hypertension
- Translational Issues in Hypertension
- Therapy of Hypertension

Sessions in each of the three (3) themes (or tracks) are labeled throughout the Program Book to be easily identifiable.
Hypertension Highlights 2013
8:00 AM – 3:00 PM • Yerba Buena Ballroom Salon 9

8:00 AM  Welcome
William B. White, MD, FASH, Farmington, CT

8:05 AM – 9:55 AM
Part I: Hypertension and the Brain

Co-Chairs: Jose Biller, MD, Maywood, IL and Philip B. Gorelick, MD, MPH, Grand Rapids, MI

8:05 AM  Hypertension, Diabetes and Cognitive Function
Fernando Testai, MD, PhD, Chicago, IL

8:25 AM  Role of Sleep Disorders in Stroke
Charlene Gamaldo, MD, Baltimore, MD

8:45 AM  Use of Anticoagulation in Stroke Prevention
Jose Biller, MD

9:05 AM  Secondary Stroke Prevention
Barbara Vickrey, MD, MPH, Los Angeles, CA

9:25 AM  Moderated Panel Discussion

9:55 AM  Break

10:15 AM – 12:00 PM
Part II: Obesity and Cardiometabolic Diseases

Co-Chairs: Barry J. Materson, MD, MPH, FASH, Miami, FL and Suzanne Oparil, MD, FASH, Birmingham, AL

10:15 AM  Adipocytes as Regulators of Metabolic Balance
Richard N. Bergman, PhD, Los Angeles, CA

10:35 AM  Behavioral Intervention for the Management of Obesity
Gary D. Foster, PhD, Philadelphia, PA

10:55 AM  Pharmacologic Treatments for Obesity
Suzanne Oparil, MD, FASH, Birmingham, AL

11:15 AM  Bariatric Surgery: Metabolic and Blood Pressure Effects
Darleen Sandoval, PhD, Cincinnati, OH

11:35 AM  Moderated Panel Discussion

12:00 PM  Lunch
Hypertension Highlights 2013

1:00 PM – 3:00 PM

Part III: Modulators of Blood Pressure and Vascular Function: What’s New?

Co-Chairs: Ernesto L. Schiffrin, MD, PhD, Montreal, Canada and Ronald G. Victor, MD, Los Angeles, CA

1:00 PM  Role of Relaxin in Hypertension and Kidney Disease
Jennifer M. Sasser, PhD, Jackson, MS

1:20 PM  Insulin is a Sodium Retaining Hormone Only in Diabetes
Michael W. Brands, PhD, Augusta, GA

1:40 PM  Endothelin: Agonists and Antagonists
Donald E. Kohan, MD, PhD, Salt Lake City, UT

2:00 PM  Mineralocorticoids: Agonist and Antagonists
Faiez Zannad, MD, Vandoeuvre Lès Nancy, France

2:30 PM  Moderated Panel Discussion
Sessions

3:30 PM – 5:00 PM • Nob Hill CD

The Moving Target for Blood Pressure Goals

Chair: Sandra J. Taler, MD, FASH, Rochester, MN

3:30 PM Treatment Cut-Points for Chronic Kidney Disease
Rajiv Agarwal, MD, FASH, Indianapolis, IN

3:52 PM Treatment Cut-Points for Isolated Systolic Hypertension in the Elderly
Wilbert S. Aronow, MD, Valhalla, NY

4:14 PM Treatment Cut-Points for Type 2 Diabetes
William C. Cushman, MD, FASH, Memphis, TN

4:36 PM Moderated Panel Discussion
Posters will be displayed in the Golden Gate Hall

Wednesday, May 15, 2013
Posters on Display: 3:30 PM – 6:30 PM • Poster Viewing: 5:30 PM – 6:30 PM

Featured Posters:

- Hypertension and Aging ................................................................. (FP-2 – FP-5)
- Antihypertensive Drugs and Pharmacology ................................. (PO-1 – PO-13)
- Blood Pressure Measurement/Monitoring .................................. (PO-14 – PO-35)
- Epidemiology/Special Populations ............................................... (PO-36 – PO-52)
- Heart Failure/Hypertrophy (Diastolic Dysfunction) ..................... (PO-53 – PO-54)
- Metabolic Syndrome (Diabetes/Glycemic Control; Dysglycemic Drugs; Insulin Resistance) .................. (PO-55 – PO-59)
- Patient-Provider-Healthcare System Issues ............................... (PO-60 – PO-61)
- Preclinical Models/Experimental Hypertension ........................... (PO-62)
- Pregnancy ..................................................................................... (PO-63 – PO-64)
- Risk Factors (Lipids) .................................................................... (PO-65 – PO-69)

Dagger (†) denotes that the presenting author has related disclosure information.
Special Sessions

3:30 PM – 5:00 PM • Nob Hill AB

Young Investigator-in-Training Abstract Competition

Moderator: Raymond R. Townsend, MD, FASH, Philadelphia, PA
Judges: Haralambos Gavras, MD, Boston, MA
Alan H. Gradman, MD, FASH, Pittsburgh, PA
Marshall Lindheimer, MD, Chicago, IL
Ernesto L. Schiffrin, MD, PhD, Montreal, Canada
Myron H. Weinberger, MD, Indianapolis, IN

3:30 PM
OR-1: Do Level and Variability of Systolic Blood Pressure Predict Arterial Properties or Vice Versa?
Yan-Ping Liu,1 Yu-Mei Gu,1 Lutgarde Thijs,1 Kei Asayama,1,2 Tatiana Kuznetsova,1 Peter Verhamme,3 Harry A. J. Struijker-Boudier,4 Jan A. Staessen.1
1University of Leuven, Leuven, Belgium; 2Tohoku University Graduate School of Pharmaceutical Sciences, Sendai, Japan; 3University of Leuven, Leuven, Belgium; 4Maastricht University, Maastricht, Netherlands.

3:45 PM
OR-2: Women with a History of Hypertensive Pregnancy Disorders Are at Risk for Future Heart Failure, Arrhythmias and Conduction Disorders: A Population-Based Cohort Study

4:00 PM
OR-3: Traditional and Network Meta-Analyses of Mortality and Heart Failure Hospitalization in Clinical Trials Comparing Beta-Blockers vs. Placebo in Heart Failure Patients with Diminished Left Ventricular Function
Quynh P. Le,1 Peter M. Meyer,2 William J. Elliott.1
1Pacific Northwest University of Health Sciences, Yakima, WA, United States; 2RUSH Medical College, Chicago, IL, United States.

4:15 PM
OR-4: TT Genotype of -344C/T CYP11B2 Is Associated with Higher Aldosterone Levels in Resistant Hypertension
Vanessa Fontana,1 Ana Paula C. Faria,2 Natália R. Barbaro,2 Andrea R. Sabbatini,2 Rodrigo G. P. Modolo,1 Gabriel A. Lima,1 Heitor Moreno, Jr.1
1Faculty of Medical Sciences - State University of Campinas, Campinas, Sao Paulo, Brazil; 2Faculty of Medical Sciences - State University of Campinas, Campinas, Sao Paulo, Brazil.

4:30 PM
OR-5: Women Have Significantly Greater Increase between Central and Peripheral Arterial Pressure Compared to Men: Bogalusa Heart Study
Rebecca Clark, Gary Sander, Camilo Fernandez, Gerald Berenson, Wei Chen, Thomas Giles. Tulane Heart and Vascular Institute, New Orleans, LA, United States.
Wednesday afternoon May 15

Sessions

3:30 PM – 5:00 PM • Yerba Buena Ballroom Salon 1

Hypertension: A Multisystem Disease

Held in Partnership with the American Heart Association’s Council for High Blood Pressure Research (HBPR)

Co-Chairs: Rhian M. Touyz, MD, PhD, Glasgow, United Kingdom and Christopher S. Wilcox, MD, PhD, Washington, DC

3:30 PM  Introduction  
Rhian M. Touyz, MD, PhD

3:40 PM  Brain and Hypertension  
Costantino Iadecola, MD, New York, NY

4:05 PM  Vessels and Hypertension  
Adam Greenstein, PhD, Manchester, United Kingdom

4:30 PM  Kidneys and Hypertension  
Vito M. Campese, MD, Los Angeles CA

4:55 PM  Conclusions  
Christopher S. Wilcox, MD, PhD
New Concepts in the Management of Refractory Hypertension and Renal Artery Stenosis

Held in Partnership with the American College of Cardiology (ACC)

Co-Chairs: Jeffrey W. Olin, DO, New York, NY and Clive Rosendorff, MD, PhD, Bronx, NY

3:30 PM
Diagnostic Approach and Treatment of Resistant Hypertension
David A. Calhoun, MD, FASH, Birmingham, AL

4:00 PM
Atherosclerotic Renal Artery Stenosis: Where Do We Go if CORAL is a Negative Trial?
Christopher J. Cooper, MD, Toledo, OH

4:30 PM
Renal Fibromuscular Dysplasia
Jeffrey W. Olin, DO
Embedded Symposium

3:30 PM – 5:00 PM • Yerba Buena Ballroom Salon 7

Hyperkalemia and Hypertension: New Considerations

Chair: Domenic A. Sica, MD, FASH, Richmond, VA

3:30 PM Welcome and Overview of Learning Objectives
Domenic A. Sica, MD, FASH

3:40 PM The Art and Science of Serum Potassium Interpretation
Domenic A. Sica, MD, FASH

4:00 PM Cardio-Renal Risk Reduction and Potassium Management in the Hypertensive Patient
Matthew R. Weir, MD, Baltimore, MD

4:20 PM Management Strategies for Elevated Potassium Levels and Cardiovascular Outcomes
George L. Bakris, MD, Chicago, IL

4:40 PM Questions and Answers
All Faculty

Supported by an educational grant from Relypsa, Inc.
Sessions

8:00 AM – 10:00 AM • Yerba Buena Ballroom Salon 7

Fetal Programming and Early Life Stress: Impact on Cardiovascular Disease in Adulthood

Chair: Elaine M. Urbina, MD, MS, FASH, Cincinnati, OH

8:00 AM  Fetal Programming and Cardiovascular Disease
Julie R. Ingelfinger, MD, FASH, Boston, MA

8:30 AM  Fetal Overnutrition: Impact On Pediatric Cardio-Metabolic Outcomes
Dana Dabelea, MD, PhD, Aurora, CO

9:00 AM  Prenatal and Postnatal Programming of Hypertension
Michel Baum, MD, Dallas, TX

9:30 AM  Introduction
Marshall Lindheimer, MD, Chicago, IL

9:35 AM  Recommendations of the ACOG Hypertension Task Force
James M. Roberts, MD, Pittsburgh, PA
Sessions

8:00 AM – 10:00 AM • Yerba Buena Ballroom Salon 9

Interpreting the J-Curve of Blood Pressure

Chair: Paul K. Whelton, MB, MD, MSc, New Orleans, LA

8:00 AM Evidence for the Cardiac J-Curve? Lessons from Framingham
Vasan S. Ramachandran, MD, Framingham, MA

8:30 AM Lessons from Myocardial Contrast Echocardiography
Jonathan R. Lindner, MD, Portland, OR

9:00 AM Is There a J-Curve for the Brain?
Jose Biller, MD, Maywood, IL

9:30 AM Moderated Panel Discussion
Sessions
8:00 AM – 10:00 AM • Yerba Buena Ballroom Salon 8

**Within Class Differences in Antihypertensive Therapies**

Chair: Franz H. Messerli, MD, FASH, NY, New York

8:00 AM  
**The Diuretics**  
John M. Flack, MD, MPH, FASH, Detroit, MI

8:20 AM  
**The Beta Blockers**  
Addison A. Taylor, MD, PhD, FASH, Houston, TX

8:40 AM  
**The Calcium Channel Blockers**  
Angela L. Brown, MD, St. Louis, MO

9:00 AM  
**The ACE Inhibitors and ARBs**  
Matthew R. Weir, MD, FASH, Baltimore, MD

**Original Communications**

9:20 AM  
**OR-6: Azilsartan, an Angiotensin II Receptor Antagonist, Is Associated with Increased Circulating Angiotensin-(1-7) Levels**  

9:35 AM  
**OR-7: Effect of Bedtime Dosing of Barnidipine Hydrochloride in Nondipper Hypertensive Patients with Obstructive Sleep Apnoea Not Treated with Continuous Positive Airway Pressure**  
Giuseppe Crippa, Maria Luisa Fares, Antonino Cassi, Dorjan Zabzuni, Elena Bravi. Guglielmo da Saliceto Hospital, Piacenza, Italy.

9:50 AM  
**OR-8: Effects of Spironolactone on Blood Pressure in Patients with Stage 6 Chronic Kidney Disease**  
Sarah Cheema, Philip Klemmer, Abhijit Kshirsagar, Romulo Colindres, Melissa Caughey, Anthony Viera, Alan Hinderliter. Texas Tech University, El Paso, TX, United States; University of North Carolina, Chapel Hill, NC, United States.
What Should Target Blood Pressure Be?

Held in Partnership with the American Society of Nephrology (ASN)

Moderators:  George L. Bakris, MD, FASH, Chicago, IL and Raymond C. Harris, MD, Nashville, TN

8:00 AM  What Should the Target Blood Pressure Be in the General Population?
Dominic A. Sica, MD, FASH, Richmond, VA

8:20 AM  What Should the Target Blood Pressure Be in Diabetic Patients? 130/80 is the Goal
Pro: Michael A. Weber, MD, FASH, New York, NY
Con: William C. Cushman, MD, FASH, Memphis, TN

9:10 AM  What Should the Target Blood Pressure Be in CKD Patients? 130/80 is the Goal
Pro: Sandra J. Taler, MD, FASH, Rochester, MN
Con: Rajiv Agarwal, MD, FASH, Indianapolis, IN
Posters

Posters will be displayed in the Golden Gate Hall

Thursday, May 16, 2013
Posters on Display: 9:30 AM – 7:15 PM • Poster Viewing: 6:15 PM – 7:15 PM

Featured Posters:
- Non-Invasive Measurements in Hypertension ........ (FP-6 – FP-10)
- Blood Pressure Regulation ........................................ (PO-70 – PO-83)
- Clinical Trials in Hypertension and Related Morbidities ......................................................... (PO-84 – PO-88)
- Device Management of Hypertension .................. (PO-89 – PO-91)
- Endothelial Function .............................................. (PO-92 – PO-96)
- Hypertension and Aging .............................................. (PO-98 – PO-108)
- Kidney and Hypertension ........................................ (PO-109 – PO-113)
- Non-Invasive Testing ................................................ (PO-114 – PO-120)
- Non-Pharmacological Therapy
  (Alternative Medicine; Diet; Physical Activity) .... (PO-121 – PO-126)
- Pediatric, Adolescent, and Maternal
  Hypertension ............................................................. (PO-127 – PO-138)

Dagger (†) denotes that the presenting author has related disclosure information.
Debate: The Target for Blood Pressure Therapy (SBP, 130 or 150?)

Moderator: Raymond R. Townsend, MD, FASH, Philadelphia, PA

10:15 AM  The Target Should Be Lower: Malcolm Law, MBBS, London, United Kingdom

10:30 AM  The Target Should Be Higher: Suzanne Oparil, MD, FASH, Birmingham, AL

10:45 AM  Rebuttal

10:55 AM  Questions and Answers

Original Communications

11:00 AM  OR-9: Unveiling the Myth of the J-Shaped Relationship between Blood Pressure and Cardiovascular Risk

11:15 AM  OR-10: Physician Inertia as the Main Barrier to Improving Hypertension Control in Black Male Barbershop Patrons
Florian Rader,1 Francine Anene,2 Robert M. Elashoff,2 Ronald G. Victor.1 1Cedars-Sinai, Los Angeles, CA, United States; 2University of California Los Angeles, Los Angeles, CA, United States.

11:30 AM  OR-11: Results of a Study To Assess Patient Perceptions about the Impact of Uncontrolled and Resistant Hypertension on Their Lives
Suzanne Oparil†,1 Roland E. Schmieder.2 1University of Alabama, Birmingham, AL, United States; 2Universität Erlangen-Nürnberg, Erlangen, Germany.

11:45 AM  OR-12: Team-Based Care To Improve Blood Pressure Control: A Community Guide Systematic Review
Anilkrishna B. Thota, Krista K. Proia, Gibril Njie, Ramona Finnie, David P. Hopkins, Qaiser Mukhtar. Centers for Disease Control and Prevention, Atlanta, GA, United States.
Non-Pharmacologic Therapy for Hypertension

Moderator: Norman M. Kaplan, MD, Dallas, TX

10:15 AM It is Useful to Achieve BP Goals:
Lawrence J. Appel, MD, MPH, FASH, Baltimore, MD

10:30 AM It is Not Useful to Achieve BP Goals:
Brent M. Egan, MD, FASH, Charleston, SC

10:45 AM Rebuttal

10:55 AM Questions and Answers

Original Communications

11:00 AM OR-13: The Hemodynamic and Cardio-Metabolic Effects of Coarse Particulate Matter Air Pollution Exposure in Humans
Robert D. Brook,1 Robert L. Bard,1 Masako Morishita,1 Joseph T. Dvonch,1 Lu Wang,1 Hui-yu Yang,1 Catherine Spino,1 Bhramar Mukherjee,1 Mariana J. Kaplan,1 Srilakshmi Yalavarthi,1 Nevin Ajluni,1 Quingu Sun,2 Jack Harkema,3 Sanjay Rajagopalan,2 1University of Michigan, United States; 2Ohio State University, United States; 3Michigan State University, United States.

11:15 AM OR-14: Abnormal Blood Pressure Rise Post Mild Exercise in a Smoker Is a Clue for Early Major Cardiovascular Structural and Functional Abnormalities
Mahfouz El Shahawy, Miglena Entcheva. Cardiovascular Center of Sarasota, United States.

11:30 AM OR-15: Primary Care Providers’ Lifestyle Behaviors and Associated Patient Recommendations for Hypertension Prevention Jing Fang, Carma Ayala, Fleetwood Loustalot. CDC, Atlanta, United States.

11:45 AM OR-16: Exercise Capacity and Mortality in Hypertensive, Obese Individuals with Type 2 Diabetes Mellitus
Charles Faselis,1,2 Raya Kheirbek,1,2 Helen Sheriff,1 Eric Nylen,1,2 John Peter Kokkinos,1 Bradley W. Gelfand,1 Andreas Pittaras,1,2 Michael Doumas,1,2 Jonathan Myers,4 Peter Kokkinos,1,2,3 Veterans Affairs Medical Center, Washington, DC, United States; 2Medicine, Washington, DC, United States; 3Georgetown University School of Medicine, Washington, DC, United States; 4Veterans Affairs Health Care System, Palo Alto, CA, United States.
The Kidney Controls the Long-Term Level of Blood Pressure

Moderator: George L. Bakris, MD, FASH, Chicago, IL

Protagonist: John E. Hall, PhD, Jackson, MS

Antagonist: Jens Titze, MD, Nashville, TN

Original Communications

11:00 AM OR-17: Clustering of Cardiovascular and Renal Risk Parameters in Non-Hypertensive Living Kidney Donors
George Thomas, Martin Schreiber, Emilio Poggio, Marc Pohl. Cleveland Clinic, United States.

11:15 AM OR-18: Dialysate Sodium Concentration Contributes to Intradialytic Hypertension in Hemodialysis Patients
Peter N. Van Buren,1 Christopher Molina,1 Kristin D'Silva,1 Bohyun Kim,1 Jula K. Inrig. University of Texas Southwestern Medical Center, Dallas, TX, United States; 2Duke University, United States; 3Quintiles Clinical Research Organization, United States.

11:30 AM OR-19: Prediction of Effectiveness of Angiotensin Receptor Blockers from 24-h Salt Intake Estimated with Spot Urine
Daisuke Matsumoto,1 Daisuke Yamazaki,1 Tadashi Shimizu,2 Masatoshi Nakao,3 Michio Tamatani,4 Naoto Yoneda,1 Hiroshi Takaishi,1 Toshiya Kataoka,1 Yasushi Tanaka,1 Yasuo Kitagawa,1 Yodogawa Christian Hospital, Osaka, Japan; 2Yodogawa Health Care Center, Osaka, Japan; 3Nakao Clinic, Osaka, Japan; 4Tamatani Clinic, Osaka, Japan.

11:45 AM OR-20: Genomic Association Analysis of Common Variants Influencing Antihypertensive Response to Hydrochlorothiazide
Stephen Turner,1 Eric Boerwinkle,2 Arlene Chapman,3 Amber Beitleshees,4 Sandosh Padmanabhan,5 Paolo Manunta,6 Kimmo Kontula,7 Julie Johnson.1 Mayo Clinic, MN, United States; 2University of Texas, Houston, United States; 3Emory University, GA, United States; 4University of Maryland, Baltimore, United States; 5University of Glasgow, United Kingdom; 6Università Vita Salute San Raffaele, Milan, Italy; 7University of Helsinki, Finland; 8University of Florida, Gainesville, United States.
The Fifth ASH/China Social Worker's Association Vascular Protection Committee Session on Early Vascular Disease Detection and Management: Experience from China

Co-Chairs: Thomas D. Giles, MD, FASH, New Orleans, LA and Hongyu Wang, MD, FASH, Beijing, China

10:15 AM National Vascular Health Project in China 2013
Hongyu Wang, MD, PhD, FASH

10:35 AM Global Vascular Disease Intervention
Jianfang Luo, MD, Guangzhou, China

10:55 AM Vascular Health Evaluation and Its Related Factors in Chengdu
Hongyan Zeng, MD, Chengdu, China

11:15 AM External Counterpulsation and Vascular Protection
Guifu Wu, MD, PhD, Shenzhen, China

11:35 AM Evaluation of Coronary Artery Disease by IVUS, FFR
Changqian Wang, MD, Shanghai, China
Thursday Morning May 16

Sessions

10:15 AM – Noon • Nob Hill CD

Contemporary Issues in Hypertension: Clinical Trials, Electronic Health Records, and Drug Therapy

Held in Partnership with the European Society of Hypertension (ESH)

Co-Chairs: Anna F. Dominiczak, MD, Glasgow, United Kingdom and Domenic A. Sica, MD, FASH, Richmond, VA

10:15 AM Toward New ESH-ESC Guidelines 2013
Alberto Zanchetti, MD, Milano, Italy

10:38 AM Electronic Health Recordings and Hypertension Research
Josep Redon, MD, PhD, Valenica, Spain

11:01 AM Update on New and Recent Clinical Trials in the United States and How They Will and Have Influenced Clinical Practice
William C. Cushman, MD, FASH, Memphis, TN

11:24 AM Update on Current Considerations with Angiotensin-Receptor Blocker Therapy Including Cancer Risk, Increased Chance of Myocardial Infarction and Positive Effects in Heart Failure and Diabetic Nephropathy
William J. Elliott, MD, PhD, FASH, Yakima, WA

11:47 AM Questions and Answers
Plenary Session I

1:10 PM – 3:40 PM • Yerba Buena Ballroom Salon 9

What Have We Gained From the Results of Clinical Outcome Trials in Hypertension and Related Disorders?

Co-Chairs: Domenic A. Sica, MD, FASH, Richmond, VA and William B. White, MD, FASH, Farmington, CT

1:10 PM  President’s Address
William B. White, MD, FASH

1:25 PM  Keynote Lecture: Biomarkers and Surrogate Endpoints in Clinical Trials
Thomas R. Fleming, PhD, Seattle, WA

2:10 PM  The Importance of Studying Cost-Effectiveness and Use of Medical Resources Within the Trial
Daniel B. Mark, MD, MPH, Durham, NC

2:40 PM  What is the Rationale and Importance of SPRINT When We Have the Results of ACCORD?
William C. Cushman, MD, FASH, Memphis, TN

3:10 PM  The Role of the Electronic Health Record in Conducting Outcomes Research in Hypertension
David J. Magid, MD, MPH, Denver, CO
Sessions

3:45 PM – 5:30 PM • Yerba Buena Ballroom Salon 7

Can We Slow Down Aging?

Chair: Vito M. Campese, MD, Los Angeles, CA

3:45 PM

Longevity Genes and Protection from Hypertension
Nir Barzilai, MD, Bronx, NY

4:05 PM

Renin Angiotensin System and Longevity
Ariela Benigni, PhD, Bergamo, Italy

4:25 PM

Intrarenal Dopamine Deficiency, Hypertension and Aging
Raymond C. Harris, MD, Nashville, TN

Original Communications

4:45 PM

OR-21: Coronary Artery Disease and Aortic Stiffness: Correlation to Ethnic Variability
Tarek M. Mousa,1 Jason Cataldo,2 Islamiyat Babsanimashaun,1 Amanda Leung,2 Steven Leung,2 Ola Akinboboye.1 1Queens Heart Institute, United States; 2New York Hospital Medical Center of Queens, United States.

5:00 PM

OR-22: Endothelial Cell Transfusion in Nephrectomized Rats Ameliorates Endothelial Dysfunction by Increasing eNOS Activity
Fadi G. Hage,1,2 Maricica Pacurarci,1 Dongqi Xing,1 Rob Hilgers,1 YuanYuan Guo,1,2 Yiu-Fai Chen.1 1University of Alabama at Birmingham, Birmingham, AL, United States; 2Birmingham Veterans Affairs Medical Center, Birmingham, AL, United States.

5:15 PM

OR-23: Cognitive Dysfunction Relative to 24-Hour Ambulatory Blood Pressure, Is an Independent Predictor of Cardiovascular Events in Treated Older Hypertensive Patients
Yuichiro Yano,1 George L. Bakris,1 Kazuomi Kario.2 1University of Chicago Medicine, Chicago, United States; 2Jichi Medical University School of Medicine, Tochigi, Japan.
Non-Invasive Testing in Hypertension: What Does It Add?

Chair: Joseph L. Izzo, Jr., MD, FASH, Buffalo, NY

3:45 PM  
Is Central Blood Pressure Ready for Prime Time?  
Raymond R. Townsend, MD, FASH, Philadelphia, PA

4:05 PM  
What Do We Learn From Exercise Blood Pressure Responses?  
Martha Gulati, MD, MS, Columbus, OH

4:25 PM  
What Do We Learn From Endothelial Functional Assessment?  
Joseph L. Izzo, Jr., MD, FASH

Original Communications

4:45 PM  
OR-24: Comparison between Oscillometric and Intra-Arterial Blood Pressure Measurements in Critically Ill Preterm and Full-Term Neonates  

5:00 PM  
OR-25: Association of ECG R Wave to Radial Pulse Delay with Subclinical Cardiovascular Disease and Risk Factors  
Daniel Duprez,1 Lynn Steffen,2 Lynn C. Brumback,3 Otto Sanchez,4 Carmen Peralta,4 Julio Chirinos,5 Andres Belalcazar,6 Peter Hannan,2 Joel Kaufman,3 Matthew Budoff,7 James H. Stein,8 David R. Jacobs.2  
1University of Minnesota, Minneapolis, MN, United States; 2University of Minnesota, Minneapolis, MN, United States; 3University of Washington, Seattle, WA, United States; 4University of California, San Francisco, San Francisco, CA, United States; 5University of Pennsylvania, Philadelphia, PA, United States; 6Independent, Santa Monica, CA, United States; 7UCLA Medical Center, Torrance, CA, United States; 8University of Wisconsin, Madison, WI, United States.

5:15 PM  
OR-26: Masked Hypertension Is Associated with Increased Arterial Stiffness  
Joseph E. Schwartz,1,2 Jimmy Peacock,1 Keith Diaz,1 Daichi Shimbo.1 1Columbia University Medical Center, New York, NY, United States; 2Stony Brook University, Stony Brook, NY, United States.
Sessions

3:45 PM – 5:30 PM • Yerba Buena Ballroom Salon 8

Device Therapies for Hypertension

Chair: Michael A. Weber, MD, FASH, New York, NY

3:45 PM Catheter Based Renal Denervation
Henry Krum, MBBS, Melbourne, Australia

4:05 PM Baroreceptor Stimulation
John D. Bisognano, MD, PhD, FASH, Rochester, NY

4:25 PM Breathing Techniques to Lower Blood Pressure
William J. Elliott, MD, PhD, FASH, Yakima, WA

Original Communications

4:45 PM OR-27: Reduction of Blood Pressure in Patients with Treatment Resistant Hypertension: Pooled Two Year Follow-Up of Symplicity HTN-1 and Symplicity HTN-2
John M. Flack†,1 Murray Esler,2 Krum Henry,3 Wayne State University Health Center, Detroit, United States; 2Baker IDI Heart and Diabetes Institute, Melbourne, Australia; 3Monash University, Melbourne, Australia.

5:00 PM OR-28: Long-Term Follow-Up of Catheter-Based Renal Denervation in Patients with Treatment Resistant Hypertension: The Symplicity HTN-2 Trial
Murray Esler†,1 Henry Krum,2 Marcus Schlaich,1 Roland Schmieder,3 Michael Böhm,4 Baker IDI Heart and Diabetes Institute, Melbourne, Victoria, Australia; 2Monash University, Melbourne, Australia; 3University Hospital Erlangen, Erlangen, Germany; 4Universitätsklinikum des Saarlandes, Homburg, Germany.

5:15 PM OR-29: The Italian Registry of Renal Denervation (IRRD): Objectives, Clinical Characteristics, and Preliminary Results
Gino Seravalle,1 Antonio Bartorelli,2 Marina Alimento,2 Franco Veglio,3 Massimo Leoncini,4 Alberto Morganti,5 Antonio Virdis,6 Gavino Casu,7 Andrea Stella,8 Giuseppe Mancia,9 Guido Grassi.9
1S.Luca Hospital Istituto Auxologico Italiano, Milano, Italy; 2Centro Cardiologico Monzino, Milano, Italy; 3Molinette Hospital, Torino, Italy; 4Civil Hospital, San Remo, Italy; 5S.Giuseppe Hospital, Milan, Italy; 6S.Camillo Hospital, Sassari, Italy; 7S.Francesco Hospital, Nuoro, Italy; 8S.Gerardo Hospital University Milano-Bicocca, Monza, Italy; 9S.Gerardo Hospital University Milano-Bicocca, Monza, Italy.

Pathobiology Track • Translational Track • Therapy Track
Sessions

3:45 PM – 5:30 PM • Nob Hill AB

Childhood Cohorts: What Can They Teach Us About Adult Hypertension and Cardiometabolic Disease?

Held in Partnership with the International Pediatric Hypertension Association (IPHA)

Chair: Elaine M. Urbina, MD, MS, FASH, Cincinnati, OH

3:45 PM Bogalusa Heart Study: Racial Differences in Blood Pressure Control
Elaine M. Urbina, MD, MS, FASH

4:10 PM Muscatine Study: Childhood Predictors of Adult Blood Pressure and Target Organ Damage
Trudy L. Burns, MPH, PhD, Iowa City, IA

4:35 PM Princeton School Study and NHLBI Growth and Health Study: Obesity and Secular Trends in Blood Pressure
Jessica G. Woo, PhD, Cincinnati, OH

5:00 PM Minneapolis Blood Pressure Studies: Insulin Resistance and Blood Pressure
Julia Steinberger, MD, MS, Minneapolis, MN
Sessions

3:45 PM – 5:30 PM • Nob Hill CD

Elements of Resistant Hypertension: A Focus on Pharmacokinetics and Pharmacodynamics

Held in Partnership with the Cardiology PRN of the American College of Clinical Pharmacy (ACCP)

Co-Chairs: Jan N. Basile, MD, FASH, Charleston, SC and Barry L. Carter, PharmD, FASH, Iowa City, IA

3:45 PM  Assessment of Adherence
Jean Nappi, PharmD, Charleston, SC

4:05 PM  Methods for Improving Adherence
Joel C. Marrs, PharmD, Aurora, CO

4:25 PM  Use of Generic Medications in Resistant Hypertension
Rhonda Cooper-DeHoff, PharmD, MS, Gainesville, FL

4:45 PM  Pharmacogenetic Factors in Blood Pressure Control
Donna K. Arnett, PhD, MSPH, Birmingham, AL

5:05 PM  Panel Discussion with Questions and Answers
Thomas G. Pickering, MD, DPhil Memorial Lecture

Thomas G. Pickering MD, DPhil was a major contributor to the field of clinical hypertension and a luminary in the field of behavioral cardiology. The memorial lecture that bears his name focuses on advances in blood pressure research particularly as it relates to behavior, cardiovascular consequences, and circadian biology.

Chair:  
William B. White, MD, FASH, Farmington, CT
Behavioral Evaluation and Treatment of Hypertension
Joel E. Dimsdale, MD, La Jolla, CA
Satellite Symposium

6:00 AM to 7:30 AM • Yerba Buena Ballroom Salons 1-6

The Role of Beta-Blockade in Hypertension and Cardiovascular Disease

Chair: Jan N. Basile, MD, FASH, Charleston, SC

Learning Objectives:
At the conclusion of this activity, participants should be able to:

- Appraise the evidence used by recently published clinical guidelines to change the role of beta-blockers in the management of hypertension
- Compare the pros and cons of beta-blocker use in the management of hypertension, distinguishing between newer vasodilatory beta-blockers and older drugs in this class
- Contrast the mechanisms of action and pharmacologic effects of different classes of beta-blockers in treating hypertension, including receptor targets and vasodilatory properties
- Understand the changing role of beta-blockers in patients with “compelling indications” for their use as defined by the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7)

Program Agenda:

6:00 AM Welcome and Introductions  
Jan N. Basile, MD, FASH

6:10 AM Beta-Blockers in Hypertension Management: Why the New Guidelines on Hypertension Took the Position They Did  
Barry L. Carter, PharmD, Iowa City, IA

6:30 AM Beta-Blockers in Cardiovascular Management: Have We OverREACHED the Evidence Base?  
Sripal Bangalore, MD, New York, NY

6:50 AM All Beta-Blockers Are Not the Same: The Evidence For Vasodilatory Beta-Blockers  
John R. Cockcroft, MD, Cardiff, United Kingdom

7:10 AM Question and Answer Session  
All Faculty

A Breakfast will be held at 5:30 AM in the Yerba Buena Ballroom Salons 1-6.

Supported by an educational grant from Forest Research Institute, a subsidiary of Forest Laboratories, Inc.
Sessions

8:00 AM – 10:00 AM • Yerba Buena Ballroom Salon 7

Vascular Mechanisms

Chair: David M. Pollock, PhD, Augusta, GA

8:00 AM Perivascular Adipose Tissue and Effect on Vascular Function
Adam Greenstein, PhD, Manchester, United Kingdom

8:30 AM Endothelial Cells and Microparticles
Rhian M. Touyz, MD, PhD, Glasgow, United Kingdom

9:00 AM Matrix Metalloproteinase and Age-Associated Vascular Remodeling
Edward G. Lakatta, MD, Baltimore, MD

9:30 AM Heme Oxygenase and Vascular Function
Nader G. Abraham, PhD, DrHC, Huntington, WV
Sessions

8:00 AM – 10:00 AM • Yerba Buena Ballroom Salon 9

Beyond Blood Pressure: Protecting the Kidney

Chair: Raymond C. Harris, MD, Nashville, TN

8:00 AM

Uremic Toxicity
Timothy W. Meyer, MD, Palo Alto, CA

8:30 AM

Alkali Therapy
Donald Wesson, MD, Temple, TX

9:00 AM

Hypoxia as the Common Pathway to Nephron Loss
Steven C. Textor, MD, FASH, Rochester, MN

9:30 AM

Anti-Oxidant Inflammatory Modulators
Christopher S. Wilcox, MD, PhD, Washington DC
May 17 Friday morning

Sessions
8:00 AM – 10:00 AM • Yerba Buena Ballroom Salon 8

Perspectives on Novel Drug Development for Hypertension

Chair: Peter U. Feig, MD, FASH, Guilford, CT

8:00 AM

What is Required to Develop a Novel Antihypertensive Compound
Peter U. Feig, MD, FASH

8:30 AM

The Role of Stereoisomers in Antihypertensive Therapy
C. Venkata S. Ram, MD, FASH, Dallas, TX

9:00 AM

Generic Antihypertensive Drugs
Rhonda Cooper-DeHoff, PharmD, MS, Gainesville, FL

Original Communications

9:20 AM

OR-30: Simvastatin but Not Ezetimibe Reduces Sympathetic Activity in Patients with Hypertension and Hypercholesterolemia
Jacek Lewandowski, Maciej Sinski, Piotr Abramczyk, Zbigniew Gaciong. Medical University of Warsaw, Warsaw, Poland.

9:35 AM

OR-31: A Novel Small Non-Erythropoietic Helix B Peptide Effectively Controls Elevated Blood Pressure in Three Different Experimental Models of Hypertension

9:50 AM

OR-32: The New Renin Inhibitor VTP-27999 Affects Human Renin and Prorenin Differently Than Aliskiren
Alexander H. Danser, Manne Krop, Richard Gregg. Erasmus MC, Rotterdam, Netherlands; Vitae Pharmaceuticals, Fort Washington, United States.
Embedded Symposium

8:00 AM – 10:00 AM • Yerba Buena Ballroom Salon 10

Update on Resistant Hypertension: A Patient Case Analysis of the Current and Future Treatment Approaches

Chair: Suzanne Oparil, MD, FASH, Birmingham, AL

8:00 AM Welcome and Review of Learning Objectives
Suzanne Oparil, MD, FASH

8:05 AM Resistant Hypertension: Incidence, Prevalence, and Pathophysiology
Suzanne Oparil, MD, FASH

8:20 AM The Latest Approaches to the Treatment of Resistant Hypertension
Michael A. Weber, MD, FASH, Brooklyn, NY

8:35 AM Patient Case 1: The Newly Identified Resistant Hypertensive Patient
William J. Elliott, MD, PhD, FASH, Yakima, WA

8:55 AM Patient Case 2: The Resistant Hypertensive Patient Who Remains Uncontrolled
Jan N. Basile, MD, FASH, Charleston, SC

9:10 AM SYMPPLICITY HTN-3 Update
George L. Bakris, MD, FASH, Chicago, IL

9:35 AM Question and Answer/Panel Discussion
All Faculty

Supported by an educational grant from Medtronic, Inc.
May 17 Friday morning

Sessions

10:15 AM – 11:00 AM

How-To Sessions

Nob Hill A

How to Manage Hypertension in the Hospitalized Patient
Meryem Tuncel-Kara, MD, Farmington, CT

Nob Hill B

How to Start a Type 1 Hypertension Center in Practice
Henry A. Punzi, MD, FASH, Carrollton, TX,
Jerry G. Back, MD, FASH, Ladson, SC and
Brent M. Egan, MD, FASH, Charleston, SC

Nob Hill C

How to Evaluate and Treat Symptomatic Peripheral Vascular Disease
Kanwar Singh, MD, Farmington, CT

Nob Hill D

How to Assess and Manage the Difficult Hypertensive Patient with Kidney Disease
C. Venkata S. Ram, MD, FASH, Dallas, TX
Debate

10:15 AM – 11:00 AM • Yerba Buena Ballroom Salon 1

The Treatment of Hypertension Should be Targeted Towards the Nocturnal Blood Pressure

Moderator: Jackson T. Wright, Jr., MD, PhD, FASH, Cleveland, OH

10:15 AM  Protagonist: Ramon C. Hermida, PhD, Vigo, Spain

10:30 AM  Antagonist: David A. Calhoun, MD, FASH, Birmingham, AL

10:45 AM  Rebuttal

10:55 AM  Questions and Answers
Debate

10:15 AM – 11:00 AM • Yerba Buena Ballroom Salon 4

Universal Screening for Cholesterol in Children and Adolescents is Necessary

Moderator:  Julie R. Ingelfinger, MD, FASH, Boston, MA

10:15 AM  Protagonist:  
Brian W. McCrindle, MD, MPH, Ontario, Canada

10:30 AM  Antagonist:  
Matthew W. Gillman, MD, SM, Boston, MA

10:45 AM  Rebuttal

10:55 AM  Questions and Answers
Posters will be displayed in the Golden Gate Hall

Friday Morning May 17, 2013
Posters on Display: 10:00 AM – 5:30 PM • Poster Viewing: 4:30 PM – 5:30 PM

Featured Posters:

Antihypertensive Therapy ............................................ (FP-11 – FP-15)
Arterial Structure and Compliance ...........................(PO-139 – PO-148)
Blood Pressure Control and Adherence to Treatment ..........................(PO-149 – PO-174)
Cardiac Structure and Function/Imaging .................(PO-175 – PO-178)
Coronary Artery Disease ...................................................(PO-179 – PO-184)
Genetics/Gene Therapy/Proteomics ............................... (PO-185 – PO-187)
Novel Antihypertensive Drug Development ..................(PO-189)
Obesity and Hypertension .................................(PO-190 – PO-195)
Secondary Hypertension ...........................................(PO-196 – PO-197)
Stroke .......................................................................................(PO-199)
Vascular Injury/Inflammation and Remodeling ....(PO-200 – PO-207)
Late-Breaking Posters ........................................ (LB-PO-01 – LB-PO-08)

Dagger (†) denotes that the presenting author has related disclosure information.
Sessions

11:00 AM – 12:00 PM • Yerba Buena Ballroom Salon 8

American Society of Hypertension Annual Membership Meeting
Special Session

12:45 PM – 1:45 PM • Yerba Buena Ballroom Salon 7

Special How-To Session for ASH Hypertension Specialists

12:45 PM  How to Use the National Uniform Claim Committee (NUCC) Taxonomy Code to your Advantage
Panel: George L. Bakris, MD, FASH, Chicago, IL, Gail S. Kocher, MPA, Chicago, IL and Nancy Spector, BSN, MSC, Washington, DC
Plenary Session II

2:00 PM – 3:30 PM · Yerba Buena Ballroom Salon 9

Awards Session

Co-Chairs: Norman K. Hollenberg, MD, PhD, Boston, MA and William B. White, MD, FASH, Farmington, CT

2:00 PM
Distinguished Scientist Award Lecture
Vascular Remodeling in Hypertension, from the RAS and Endothelin to the Immune System
Ernesto L. Schiffrin, MD, PhD, Montreal, Canada

2:30 PM
Young Scholar Award Lecture
Direct Regulation of Blood Pressure by Smooth Muscle Cell Mineralocorticoid Receptors
Iris Z. Jaffe, MD, PhD, Boston, MA

2:50 PM
Marvin Moser Clinical Hypertension Award Lecture*
Treatment of Hypertension: From Drugs to Devices
C. Venkata S. Ram, MD, FASH, Dallas, TX

3:10 PM
Announcement of Young Investigator-in-Training Abstract Competition Winners

* Supported by an educational grant from the Hypertension Education Foundation.
 Sessions

2:00 PM – 6:30 PM • Yerba Buena Ballroom Salon 7

Hypertension for the Primary Care Clinician 2013: Part I

2:00 PM – 3:00 PM

Theme 1: Management Issues in Hypertension: Tricks of the Trade

Co-Chairs: Domenic A. Sica, MD, FASH, Richmond, VA and Michael A. Weber, MD, FASH, New York, NY

2:00 PM Resistant Hypertension
Michael J. Bloch, MD, FASH, Reno, NV

2:20 PM Hypertension Urgencies and Emergencies
Louis Kuritzky, MD, Gainesville, FL

2:40 PM The Orthostatic Hypotensive Patient
Domenic A. Sica, MD, FASH

3:00 PM – 4:00 PM

Theme 2: Special Populations

Co-Chairs: Thomas D. Giles, MD, FASH, New Orleans, LA and Elaine M. Urbina, MD, MS, FASH, Cincinnati, OH

3:00 PM Oral Contraception and Hypertension
Angela L. Brown, MD, St. Louis, MO

3:20 PM The Asian Hypertensive
Eric T. Mizuno, MD, Chicago, IL

3:40 PM Adolescents with Hypertension
Joseph T. Flynn, MD, FASH, Seattle, WA

4:00 PM Break

4:15 PM – 5:00 PM

Theme 3: Patient Cases

Moderator: Norman M. Kaplan, MD, Dallas, TX
Panel: George L. Bakris, MD, FASH, Chicago, IL, Jan N. Basile, MD, FASH, Charleston, SC and Keith C. Ferdinand, MD, FASH, New Orleans, LA

4:15 PM Case 1
4:35 PM Case 2

Application for CME credit has been filed with the American Academy of Family Physicians. Determination of credit is pending.
5:00 PM – 6:30 PM

**Theme 4: Home and Ambulatory Blood Pressure Monitoring**

**Co-Chairs:** Anthony J. Viera, MD, MPH, Chapel Hill, NC and William B. White, MD, FASH, Farmington, CT

**5:00 PM**

**Home and Ambulatory Blood Pressure Monitoring: Review of the ASH Position Paper**

William B. White, MD, FASH

**5:20 PM**

**Overcoming Challenges in Using ABPM**

Daichi Shimbo, MD, New York, NY

**5:35 PM**

**Implementing ABPM into Your Practice**

Steven A. Yarows, MD, FASH, Chelsea, MI

**5:50 PM**

**Interpreting the Data in Adult and Pediatric Populations: A Case-Based Approach**

Joshua A. Samuels, MD, FASH, Houston, TX and Anthony J. Viera, MD, MPH

Application for CME credit has been filed with the American Academy of Family Physicians. Determination of credit is pending.
Getting Patients to Goal: A Debate of the Evidence for Combination Therapy

Friday, May 17, 2013
6:30 PM–7:00 PM Dinner
7:00 PM–8:30 PM Symposium
Salon 1, San Francisco Marriott Marquis
55 Fourth Street
San Francisco, California

Jan N. Basile, MD, FACP, FASH—Program Chair

Agenda & Faculty
Class Vs. Drug-Specific Effect: Are All Thiazide-Like Diuretics Interchangeable?
F. Wilford Germino, MD, FACP, FASH

Combination Therapy Should be Initiated In Most Patients as Initial Therapy: PRO
Alan H. Gradman, MD

Combination Therapy Should be Initiated in Most Patients as Initial Therapy: CON
Barry J. Materson, MD, MBA, FACP, FASH

PRO: REBUTTAL
Alan H. Gradman, MD

CON: REBUTTAL
Barry J. Materson, MD, MBA, FACP, FASH

Panel Discussion: Question and Answer Session
All Faculty

This educational activity is supported by an educational grant from Takeda Pharmaceuticals International, Inc., US Region. The American Society of Hypertension, Inc. is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The American Society of Hypertension, Inc. designates this live activity for a maximum of 1.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
Satellite Symposium

7:00 PM – 8:30 PM • Yerba Buena Ballroom Salons 1-6

Getting Patients to Goal: A Debate of the Evidence for Combination Therapy

Chair: Jan N. Basile, MD, FASH, Charleston, SC

Learning Objectives:
At the conclusion of this activity, participants should be able to:

- Delineate pharmacologic and clinical differences within the diuretic class
- Assess anecdotal and direct evidence supporting the relative strengths and weaknesses of HCTZ and chlorthalidone
- Assimilate management strategies to optimize the prescribing of thiazide diuretics
- Evaluate the benefits of initial fixed-dose antihypertensive combination therapy to control elevated blood pressure
- Identify patient types that may most benefit from initial combination antihypertensive therapy

Program Agenda:

7:00 PM Welcome and Introductions
Jan N. Basile, MD, FASH

7:05 PM Class Vs. Drug-Specific Effect: Are All Thiazide-Like Diuretics Interchangeable?
F. Wilford Germino, MD, FASH, Chicago, IL

DEBATE

7:25 PM Combination Therapy Should Be Initiated In Most Patients as Initial Therapy: PRO
Alan H. Gradman, MD, FASH, Pittsburgh, PA

7:45 PM Combination Therapy Should Be Initiated in Most Patients as Initial Therapy: CON
Barry J. Materson, MD, MBA, FASH, Miami, FL

8:05 PM PRO: REBUTTAL
Alan H. Gradman, MD, FASH

8:10 PM CON: REBUTTAL
Barry J. Materson, MD, MBA, FASH

8:15 PM Panel Discussion: Question and Answer Session
All Faculty

8:25 PM Closing Remarks
Jan N. Basile, MD, FASH

8:30 PM Adjournment

A Dinner will be held at 6:30 PM in the Yerba Buena Ballroom Salons 1-6.

Supported by an educational grant from Takeda Pharmaceuticals International, Inc., US Region
**Late Breaking Clinical Trials**

**Co-Chairs:**  
*Domenic A. Sica, MD, FASH, Richmond, VA and William B. White, MD, FASH, Farmington, CT*

**7:45 AM**

**LB-OR-01: Optimal Number of Home Blood Pressure Measurements in Relation to Cardiovascular Outcome**

1National Institute for Health and Welfare, Finland; 2Turku University Hospital, Finland; 3University of Leuven, Belgium; 4Tohoku University Graduate School of Pharmaceutical Sciences and Medicine, Japan; 5Shiga University of Medical Science, Japan; 6Yamagata University, Japan; 7University of Athens, Greece; 8Tohoku University Graduate School of Medicine, Japan; 9Maastricht University, Netherlands.

**8:00 AM**

**LB-OR-02: Bone Marrow-Derived Mesenchymal Stem Cell Therapy for Systemic Arterial Hypertension in Rats**


**8:15 AM**

**LB-OR-03: Percutaneous Sympathetic Renal Denervation in Patients with Drug-Resistant Hypertension: Results from the EnligHTN™ I, First-in-Human Multi-Center Study**

*Vasilios Papademetriou*,1 *Costas Tsioufis*,2 *Matthew Worthley*,3 *Derek Chew*,1 *Ian Meredith*,3 *Yuvraj Malaiapan*,4 *Ajay Sinhal*,4 *Stephen G. Worthley*.3 1VA Medical Center, Eashington, DC, United States; 2Hippokration University Hospital, Athens, Greece; 3Monash Heart and Monash Cardiovascular Res Ctr, Melbourne, Austria; 4Flinders Univ/Flinders Medical Ctr, Adelaide, Austria.

**8:30 AM**

**LB-OR-04: Cardiovascular Effects Based on Magnitude of Weight Loss (WL) in Obese/Overweight Subjects with Hypertension Receiving Phentermine and Topiramate Extended-Release (PHEN/TPM ER)**

*George Bakris*,†1 *Michael H. Davidson*,1 *Alok K. Gupta*.2 1ASH Comprehensive Hypertension Center, The University of Chicago Pritzker School of Medicine, Chicago, IL, United States; 2Pennington Biomedical Research Center, Louisiana State University, Baton Rouge, LA, United States.
8:45 AM  LB-OR-05: White Matter Lesions, Not Hypertension Alone, Reduce Brain Vessels’ Sensitivity to Carbon Dioxide
Lidia Glodzik, Henry Rusinek, Wai Tsui, Catherine Randall, Nicole Spector, Pauline McHugh, Schantel Williams, Mony de Leon. NYU School of Medicine, United States.

9:00 AM  LB-OR-06: Reduction of Systolic Blood Pressure to <130 mmHg in Patients with Recent Lacunar Stroke: Results of the SPS3 Trial
Pablo E. Pergola,1 Richard Grimm,2 Addison Taylor,3 Leslie McClure,4 SPS3 Investigators.1 1 University of Texas Health Science Center at San Antonio, San Antonio, TX, United States; 2 Berman Center for Clinical Research, Minneapolis, MN, Minneapolis, MN, United States; 3 Baylor College of Medicine, Houston, TX, United States; 4 University of Alabama at Birmingham, Birmingham, AL, United States.
Hypertension for the Primary Care Clinician 2013: Part II

9:20 AM – 12:20 PM

Theme 5: Blood Pressure Treatment Strategies for Primary Care

Co-Chairs: Jan N. Basile, MD, FASH, Charleston, SC and Louis Kuritzky, MD, Gainesville, FL

9:20 AM Introduction & Welcome
Jan N. Basile, MD, FASH and Louis Kuritzky, MD

9:25 AM When Should You Initiate Drug Treatment in Hypertension
Suzanne Oparil, MD, FASH, Birmingham, AL

9:40 AM Goal Blood Pressure
Raymond R. Townsend, MD, FASH, Philadelphia, PA

9:55 AM What Should Be the Initial Pharmacologic Therapy
Barry L. Carter, PharmD, FASH, Iowa City, IA

10:10 AM Question and Answer Session

10:20 AM Primary Care Perspective
Thomas D. MacKenzie, MD, MSPH, Denver, CO

10:30 AM Lifestyle Modifications
Daniel T. Lackland, DrPH, FASH, Charleston, SC

10:45 AM Primary Care Perspective
Robert W. Fields, MD, Gainesville, FL

10:55 AM Question and Answer Session

11:05 AM Implementation of Guidelines: A Systems Approach
Joel Handler, MD, FASH, Anaheim, CA

11:25 AM What the Guidelines Don’t Tell Us
Henry R. Black, MD, FASH, New York, NY

12:05 PM Question and Answer Session

Application for CME credit has been filed with the American Academy of Family Physicians. Determination of credit is pending.
Sessions

10:00 AM – 11:30 AM • Nob Hill A

**Vascular Wall Signaling: How Are Cells Coupled?**

**Chair:** R. Clinton Webb, PhD, Augusta, GA

10:00 AM  **Neurovascular Unit**
Jessica Filosa, PhD, Augusta, GA

10:22 AM  **Vascular Endothelial Coupling**
Rhian M. Touyz, MD, PhD, Glasgow, United Kingdom

10:44 AM  **Endothelin Role in Neurovascular Regulation and Dysregulation**
Costantino Iadecola, MD, New York, NY

11:06 AM  **Intercellular Coupling and Neuromodulation of Signaling**
Steven S. Segal, PhD, Columbia, MO
Sessions

10:00 AM – 11:30 AM • Nob Hill B

**Understanding Renal Denervation Therapy**

Chair: John E. Hall, PhD, Jackson, MS

10:00 AM  **Results of Animal Research**  
Vito M. Campese, MD, Los Angeles, CA

10:22 AM  **Results from Human Research**  
Ronald G. Victor, MD, Los Angeles, CA

10:44 AM  **Sympathetic Control Immune Modulated Hypertension: Brain and T-Cell Activation**  
David G. Harrison, MD, Nashville TN

11:06 AM  **Pathophysiologic Consequences of Renal Denervation on the Kidney**  
Ronald G. Victor, MD
Sessions

10:00 AM – 11:30 AM • Nob Hill C

New Considerations in Dyslipidemia and Cardiometabolic Disorders

Held in Partnership with the National Lipid Association (NLA)

Co-Chairs: Prakash C. Deedwania, MD, FASH, Fresno, CA and James A. Underberg, MS, MD, FASH, New York, NY

10:00 AM Identification of High Risk Patients and the Role of Lipid Lowering Therapies for Primary Prevention
James A. Underberg, MS, MD, FASH

10:30 AM Management of Dyslipidemias in Patients with Hypertension, Diabetes and Metabolic Syndrome
Prakash C. Deedwania, MD, FASH

11:00 AM HDL Directed Therapies: A Critical Analysis
Mary J. Malloy, MD, San Francisco, CA
The Jackson Heart Study Celebrates Ten Years

Held in Partnership with the International Society on Hypertension in Blacks (ISHIB)

Co-Chairs: Domenic A. Sica, MD, FASH, Richmond, VA and Herman A. Taylor, Jr., MD, MPH, Jackson, MS

10:00 AM Opening Remarks
Domenic A. Sica, MD, FASH

10:10 AM Herman A. Taylor, Jr., MD, MPH

10:15 AM Treatment of Hypertension Among African Americans: The Jackson Heart Study
Evelyn Walker, MD, MPH, Jackson, MS

10:30 AM Social and Psychological Determinants of Cardiovascular Health
Mario Sims, PhD, Jackson, MS

10:45 AM Life's Simple 7 in the African American South
Adolfo Correa MD, PhD, MBA, Jackson, MS

11:00 AM HDL Subfractions and CVD Morbidity and Mortality
Michael Griswold, PhD, Jackson, MS

11:15 AM Questions and Answers

11:35 AM Conclusion
Herman A. Taylor, Jr., MD, MPH, Jackson, MS
ASH 2013
Program Posters
Posters

Posters will be displayed in the Golden Gate Hall

Wednesday, May 15, 2013
Posters on Display: 3:30 PM – 6:30 PM • Poster Viewing: 5:30 PM – 6:30 PM

Featured Posters:
- Hypertension and Aging ...........................................................(FP-2 – FP-5)
- Antihypertensive Drugs and Pharmacology ..........................(PO-1 – PO-13A)
- Blood Pressure Measurement/Monitoring ...............................(PO-14 – PO-35)
- Epidemiology/Special Populations .........................................(PO-36 – PO-52)
- Heart Failure/Hypertrophy (Diastolic Dysfunction) .... (PO-53 – PO-54)
- Metabolic Syndrome (Diabetes/Glycemic Control; Dysglycemic Drugs; Insulin Resistance) ......(PO-55 – PO-59)
- Patient-Provider-Healthcare System Issues .......................(PO-60 – PO-61)
- Preclinical Models/Experimental Hypertension .....................(PO-62)
- Pregnancy ...........................................................................(PO-63 – PO-64)
- Risk Factors (Lipids) ............................................................(PO-65 – PO-69)
- Late-Breaking Posters .........................................................(LB-PO-01 – LB-PO-08)

Dagger (†) denotes that the presenting author has related disclosure information.
Posters

Moderator: Franz H. Messerli, MD, FASH, New York, NY

FP-2: Mortality Risk and Fitness Status in Hypertensive Men ≥70 Years

Michael Doumas,1,2 Andreas Pittaras,1,2 Charles Faselis,1,2 John Peter Kokkinos,1 Bradley W. Gerland,1 Vasilios Papademetriou,1,3 Alex Solano,1 Jonathan Myers,4 Peter Kokkinos,1,2,3 1Veterans Affairs Medical Center, Washington, DC, United States; 2George Washington University, Washington, DC, United States; 3Georgetown University School of Medicine, Washington, DC, United States; 4Veterans Affairs Palo Alto Health Care System, Palo Alto, CA, United States.

FP-3: Can Higher Visit-to-Visit Systolic Blood Pressure Variability Predict Cardiovascular Events among the Elderly Hypertensive?

Enayet K. Chowdhury,1 Alice Owen,1 Henry Krum,1 Lindon M. H. Wing,2 Mark Nelson,3 Christopher M. Reid.1 1Monash University, Melbourne, Victoria, Australia; 2Flinders University, Adelaide, South Australia, Australia; 3University of Tasmania, Hobart, Tasmania, Australia.


Ravi S. Marfatia,1 Julia Schmidt,2 Dorothy Wakefield,2 Richard Kaplan,2 Richard Bohannon,3 Charles Hall,6 Charles Guttman,5 Nicola Moscufo,5 Douglas Fellows,2 Leslie Wolfson,2 William B. White,1 1University of Connecticut School of Medicine, Farmington, CT, United States; 2University of Connecticut School of Medicine, United States; 3University of Connecticut, United States; 4Brigham and Women’s Hospital, Harvard Medical School, United States; 5Albert Einstein College of Medicine, United States.

FP-5: Blood Pressure Variability Increases with Age over a Ten Year Follow-Up and Is Associated with Baseline Variability

Claire McDonald,1 Mark S. Pearce,2 Julia L. Newton,1 Simon R. J. Kerr,1 Newcastle University, Newcastle upon Tyne, United Kingdom; 2Newcastle University, Newcastle upon Tyne, United Kingdom.
PO-1: Efficacy of the Azilsartan Medoxomil/Chlorthalidone Fixed-Dose Combination by Baseline Hypertension Severity in Three Comparator-Controlled Trials

W. C. Cushman†, 1 D. Sica, 2 G. L. Bakris, 3 W. B. White, 4 M. A. Weber, 5 E. Lloyd, 6 A. Roberts, 6 S. Kupfer. 6 1 University of Tennessee College of Medicine, Memphis, TN, United States; 2 Virginia Commonwealth University, Richmond, VA, United States; 3 University of Chicago Medicine, Chicago, IL, United States; 4 University of Connecticut School of Medicine, Farmington, CT, United States; 5 Downstate Medical Center, Brooklyn, NY, United States; 6 Takeda Global Research and Development Center, Inc., Deerfield, IL, United States.

PO-3: Reduction of Amlodipine-Associated Edema by Inhibitors of the Renin-Angiotensin System: Meta-Analyses of Parallel-Group Randomized Clinical Trials

William J. Elliott†. Pacific Northwest University of Health Sciences, Yakima, WA, United States.

PO-4: Effect of RAS Suppression with Aliskiren and Valsartan on Indexes of Kidney Function and Histopathology in Syrian Cardiomyopathic Hamsters


PO-5: Nebivolol Monotherapy in Younger Adults (<55 Years of Age) with Hypertension: Blood Pressure and Responders Results of a Randomized, Placebo-Controlled Trial

Thomas D. Giles†, 1 Bobby V. Khan, 2 June Lato. 3 Lillian Brener, 3 Yimin Ma, 3 Tatjana Lukic. 3 1 Tulane University, New Orleans, LA, United States; 2 Atlanta Vascular Research Foundation, Atlanta, GA, United States; 3 Forest Research Institute, Jersey City, NJ, United States.

PO-6: The Efficacy and Safety of Low-Dose Valsartan and Amlodipine Single Pill Combination in Hypertensive Patients (PEAK - Low)

Pinar Kizilirmak†, 1 Idilhan Ar, 1 Kemal Kendir, 1 Baris Ilerigelen. 2 1 Novartis Pharmaceuticals, Istanbul, Turkey; 2 Istanbul University, Cerrahpasa Faculty of Medicine, Istanbul, Turkey.
PO-7: M-Atrial Natriuretic Peptide and Nitroglycerin in a Model of Acute Hypertensive Heart Failure: A Comparison of Two cGMP Therapeutics

PO-8: Long-Term Effects of Alikiren Versus Hydrochlorothiazide on Arterial Stiffness in Elderly Hypertensives
Yoshiyuki Okada,1,2 Shigeki Shibata,1,2 M. Melyn Galbreath,1,2 Stuart A. Best,1,2 Sara A. Jarvis,1,2 Tiffany B. Bivens,1 Rhonda L. Meier,1 Benjamin D. Levine,1,2 Qi Fu,1,2 1Texas Health Presbyterian Hospital Dallas, TX, United States; 2UT Southwestern Medical Center, Dallas, TX, United States.

PO-9: Effectiveness of Complex Antihypertensive Treatment on Renal Function in Patients with Metabolic Syndrome and Postinfarction Cardiosclerosis
Mariya A. Orynchak, Iryna I. Vakalyuk. Ivano-Frankivsk Medical University, Ivano-Frankivsk, Ukraine.

PO-10: Influence Beta-Blockers on Central Blood Pressure in Patients with Arterial Hypertension
Oksana Rekovets, Yuriy Sirenko, Svetlana Kushnir, Anna Dobrokhod, Ksenia Mikhheeva, Elena Torbas, Evgenia Pavlyuk, Galina Primak, Alla Vaschylko, Vladimir Granich. Institute of Cardiology, Kiev, United Kingdom.

PO-11: Attention to Novel Objects Is Enhanced in Cohen Rosenthal Diabetic Hypertensive Rats after Treatment with Telmisartan
Kenneth S. Hollander, Firas Younis, Zeev Shemer, Talma Rosenthal. Tel Aviv University, Tel Aviv, Israel.

PO-12: Effects of Losartan Therapy on Haemodynamic Parameters in Hypertensive Man
Vesna Stojanov,1 Branko Jakovljevic,2 Dragan Lovic.3 1Faculty of Medicine, University of Belgrade, Belgrade, Serbia; 2Faculty of Medicine, University of Belgrade, Belgrade, Serbia; 3Clinic for Internal Diseases ‘Intermedica - Dr Lovic’, Niš, Serbia.

PO-13: Effects of Initial Combination Therapy or Initial Monotherapy on Stroke Events in Chinese Hypertensive Patients in the Real World Setting: A Large, Retrospective, Longitudinal, Study
Jinming Yu,1 Qunyu Kong,1 Tian Shen,1 Yusong He,2 Jiwen Wang,1 Yanping Zhao,3 Danni Shi.2 1Institute of Clinical Epidemiology, Key Laboratory of Public Health Safety, Ministry of Education, School of Public Health, Fudan University, Shanghai, China; 2Medical Affairs of Great China Region of Novartis, Beijing, China; 3Shanghai Minhang Center for Disease Control and Prevention, Shanghai, China.
PO-13A: Synergic Effects of Levamlodipine and Bisoprolol on Blood Pressure Reduction, Organ Protection and Stroke Protection in Rats
Gao-Zhong Huang. Sixth People's Hospital, Shanghai Jiaotong University, Shanghai, China.

PO-14: Differences in Regular Home Blood Pressure Monitor Use among Adults with Hypertension and Taking Action To Control Their Blood Pressure — HealthStyles, 2010 and 2012
Carma Ayala, Xin Tong, Jing Fang. Center for Disease Control and Prevention, Atlanta, GA, United States.

PO-15: Silent Cardiac and Renal Damage in Patients with Treated Masked Hypertension: The ESTHEN Study
Miguel Camafort,1 Ernest Vinyoles,2 Javier Sobrino,3 Monica Domenech,4 Antonio Coca.2 Hospital Clinic (IDIBAPS), University of Barcelona, Barcelona, Spain; 2CAP La Mina, San Adran del Besos, Spain; 3Hospital del Espiritu Santo, Santa Coloma de Gramenet, Spain.

Sasha Farina,1 Kimberly Blom,7 Yessica-Haydee Gomez,1 Lyne Cloutier,2 Martin Dawes,6 Donald W. Mackay,9 Peter Bolli,5 Sheldon W. Tobe,8 Norm R. C. Campbell,3 Stella S. Daskalopoulou.1 1Mcgill University, Canada; 2Université du Québec in Trois-Rivières, Canada; 3University of Calgary, Canada; 4McGill University, Canada; 5McMaster University, Canada; 6University of British Columbia, Canada; 7University of Toronto, Canada; 8University of Toronto, Canada; 9Memorial University of Newfoundland, Canada.

PO-17: Prognostic Value of Ambulatory Blood Pressure for Assessing Cardiovascular Risk in Normotensive Individuals

PO-18: Relationship between Morning Surge and Sleep-Time Relative Decline of Ambulatory Blood Pressure: The Hygia Project
Ramon C. Hermida,1 Ana Moya,2 Antonio A. Regueiro,2 Sonia M. Gomara,2 Juan J. Crespo,4 Maria T. Rios,5 Maria C. Castañeira,4 Elvira Sineiro,2 Artemio Mojon,1 Diana E. Ayala.1 1University of Vigo, Vigo, Spain; 2Servicio Galego de Saude, Pontevedra, Spain; 3Servicio Galego de Saude, Vigo, Spain; 4Servicio Galego de Saude, Vigo, Spain.
Posters

PO-19: Ambulatory Blood Pressure Pattern According to Chronic Kidney Disease Stage Classification: The Hygia Project
Alfonso Otero,1 Luis Piñeiro,2 Manual Domínguez-Sardiña,3 Jacinto Mosquera,3 Marina Cid,3 Begoña Polo,3 Jose M. Regueira,3 Diana E. Ayala,2 Jose R. Fernández,2 Ramon C. Hermida.2 1Complejo Hospitalario Universitario, Orense, Spain; 2University of Vigo, Vigo, Spain; 3Servicio Galego de Saúde, Vigo, Spain.

PO-20: Ambulatory Blood Pressure Thresholds for Diagnosis of Hypertension in Chronic Kidney Disease Based on Cardiovascular Outcomes

PO-21: Clinic and Ambulatory Blood Pressure as Predictors of Cardiovascular Risk in Patients with Chronic Kidney Disease

PO-22: Synergistic Relationship with Cardiovascular Risk between Diabetes and Ambulatory Blood Pressure

PO-23: Reduction of Nighttime Blood Pressure and Dipping Assessed by a Home Blood Pressure Monitor under Antihypertensive Medication
Joji Ishikawa, Motohiro Shimizu, Yuichiro Yano, Satoshi Hoshide, Kazuo Eguchi, Kazuomi Kario. Jichi Medical University School of Medicine, Tochigi, Japan.

PO-24: Difficulties in the Regulation of Blood Pressure in Parkinson’s Disease
Juan Diego Mediavilla García, Fernando Jaén Águila, Pedro Alarcón Blanco, Celia Fernández Torres, Juan Jiménez Alonso. Virgen de las Nieves Universitary Hospital, Granada, Spain.

PO-25: Impact of Physical Activity on Blood Pressure Variability

PO-26: Determination of the Appropriate Threshold Value for the Approximate Entropy of Blood Pressure Variability
Sang Hyun Ihm, Bae Keun Kim, Yonggu Lee, Jeong Hun Shin, Young-Hyo Lim, Kyung Soo Kim, Soon Gil Kim, Jinho Shin. Catholic University School of Medicine, Hanyang University College of Medicine, Seoul, Republic of Korea.

PO-27: bp Quad Plot: A New View of Blood Pressure Treatment Performance for Patients & Physicians
Michael L. Kohut†. DataDancer Medical Systems, Chico, CA, United States.
Posters

Po-28: Automated Devices in Hypertensive Pregnancies
Patrick G. Lan, Adrian G. Gillin. Royal Prince Alfred Hospital, Sydney, Australia.

Po-29: Prevalence of Masked Hypertension in African Americans
Timothy R. Larsen, Noah Wiedel, Barryton D. Waanbah, Alehegn Gelaye, Hadeel Assad, Michael Williams, Susan Steigerwalt. Providence Hospital and Medical Center, Southfield, MI, United States.

Po-30: No Changes in Plasma Uric Acid and Blood Pressure Following Ten Weeks of Fructose Containing Sugar Consumption
Joshua Lowndes, Zhiping Fullerton, James M. Rippe. Rippe Lifestyle Institute, Celebration, FL, United States.

Po-31: Influence of Sleep-Time Blood Pressure in the Real Prevalence on Masked Normotension and Masked Hypertension: The Hygia Project
Ana Moya, Carmen Duran, Amelia Ferreras, Francisco J. Iglesias, Susana Hernaiz, Maria J. Baqueiro, Andrea Aguilar, Jose R. Fernandez, Diana E. Ayala, Ramon C. Hermida. Servicio Galego de Saude, Pontevedra, Spain; Servicio Galego de Saude, Vigo, Spain; University of Vigo, Vigo, Spain.

Po-32: Nocturnal Systolic Blood Pressure Dipping in Hypertensive African Americans with Dyslipidemia
Augusta N. Uwah, Sonya Hamil, Shichen Xu, Mulumebet Ketete, John Kwagyan, John Kwagyan, Otelio Randall. Howard University Hospital, Washington, DC, United States.

Po-33: Psychological Stress and Non Dipper Pattern in Adolescents

Po-34: Is Ambulatory Blood Pressure Usually Lower Than Clinic Blood Pressure: Findings from the Masked Hypertension Study
Joseph E. Schwartz, Daichi Shimbo, Matthew Burg. Columbia University Medical Center, New York, NY, United States; Stony Brook University, Stony Brook, NY, United States.

Po-35: Acute Effect of Instructions Using Multimedia on the Improvement of the Reading Skill of the Korotkoff Sounds
Jinho Shin, Bae Keun Kim, Jeong Hun Shin, Young-Hyo Lim, Soon Gil Kim. Hanyang University College of Medicine, Seoul, Republic of Korea.
PO-36: A Trends of Plasma Renin Activity among Hypertensive Patients in Basra, Iraq
Hayder Salih Al-Edan,1 Basra College of Medicine, Basra, Iraq; 2Basra General Hospital, Basra, Iraq.

PO-37: Metabolic Profile and Cardiovascular Risk Factors in Patients with Recently Diagnosed Arterial Hypertension
Adriana Angil, Emanuel Paragano, Antonio Abdala, Marta Cardus, Daniel Suarez, Ana Nigro. Hospital Militar Central, Buenos Aires, Argentina.

PO-38: Community Based Participatory Research To Improve Hypertension Awareness and Blood Pressure Control
Lauren DeAlleuame, Linda Zittleman, Jack Westfall. University of Colorado School of Medicine, United States.

PO-39: Surrogate Measures of Vascular Risk and Air-Pollution Exposure: Preliminary Results from the Prospective AIRCMD Study in Beijing China
Jianhua Yan,1 Zhongjie Fan,1 Xiaoyi Zhao,1 Yanping Ruan,1 Zhichao Sun,2 Lixian Sun,1 Bhramar Mukherjee,2 Robert D. Brook,3 Jeffrey R. Brook,4 Qinhua Sun,5 Sanjay Rajagopalan,5 1Peking Union Medical College Hospital, Beijing, China; 2The University of Michigan, Ann Arbor, MI, United States; 3The University of Michigan, Ann Arbor, MI, United States; 4Environment Canada, Downsview, Canada; 5The Ohio State University College of Medicine, Columbus, OH, United States.

Jing Fang, Carma Ayala, Guijing Wang, Fleetwood Loustalot. CDC, Atlanta, GA, United States.

PO-42: Outcomes-Driven Thresholds for Ambulatory Pulse Pressure in 11 Populations Shed New Light on an Old Risk Factor
Yu-Mei Gu,1 Tine W. Hansen; Kristina Björklund-Bodégard,3 Kei Asayama,1,4 Jan A. Staessen on behalf of IDACO Investigators.1,5 1University of Leuven, Belgium; 2Copenhagen University Hospital, Denmark; 3Uppsala University, Sweden; 4Tohoku University Graduate School of Pharmaceutical Sciences, Japan; 5Maastricht University, Netherlands.

PO-43: Assessment of Awareness about Hypertension in a Hypertension Referral Center
Roberto A. Ingaramo, Luisa B. Farb. Hypertension Center and Cardiovascular Desease, Trelew, Chubut, Argentina.

PO-44: Relationship between Smoking and Blood Pressure: What Is the Real Link?
Linda Landini,1 Emilio Centaro,2 Aurelio Leone,3 1University of Pisa, Pisa, Pi, Italy; 2University of Rome, Rome, Italy; 3Ex-City Hospital, Massa, MS, Italy.
PO-45: Long-Term Smoking Cessation Reduces the Ambulatory Rate-Pressure Product and Sympathetic Nervous System Activity (The VANQUISH Trial)  
Ravi S. Marfatia, Karen Gilliam, Sarah Coughlin, Carla Rash, Dorothy Wakefield, Nancy M. Petry, William B. White. University of Connecticut School of Medicine, United States.

PO-46: Anthropometric Indexes of Obesity as Predictors of Arterial Hypertension  
Emanuel Paragano, Adriana Angel, Daniel Suarez, Jorge Delgado, Marcelo Dak, Rogelio Machado. Hospital Militar Central, Buenos Aires, Argentina.

PO-47: Increased Prevalence of Masked Hypertension in Blacks  
Florian Rader,1 Stanley S. Franklin,2 David Leonard,3 Ronald G. Victor.1 1Cedars-Sinai Medical Center, Los Angeles, United States; 2University of California Irvine, Irvine, United States; 3University of Texas Southwestern Medical Center, Dallas, United States.

PO-49: Prevalence of Atrial Fibrillation in Asymptomatic Healthy Population in Korean Rural Area  
Hwan-Cheol Park,1 Soon-Gil Kim,1 Mi Kyoung Kim,2 Bo Youl Choi,2 Jinho Shin.3 1Hanyang University Guri Hospital, Guri city, Kyung-gi, Korea; 2Hanyang University College of Medicine, Seoul, Korea; 3Hanyang University Seoul Hospital, Seoul, Korea.

PO-50: Comparative Analysis of Left Ventricular Hypertrophy by Electrocardiographic and Echocardiographic Diagnosis in a Rural Population in Korea  
Jeong Hun Shin,1 Jinho Shin,1 Mikiyung Kim,2 Bo Youl Choi,2 Soon Gil Kim.1 1Hanyang University College of Medicine, Seoul, Republic of Korea; 2Hanyang University College of Medicine, Seoul, Republic of Korea.

Epidemiology of Hypertension in Taiwan: The Results from a Nationwide Survey  
Shu-Ti Chiou, Tzu-Ling Chen, Hsing-Yu Wei. Bureau of Health Promotion, Taiwan.

Higher Blood Pressure While Asleep Is Associated with Diastolic Dysfunction and Elevated Pulmonary Pressures in Hypertensive Patients  

Left Ventricular Mass and Longevity in 85 Year Olds  
Michael Bursztyn, David Leibowitz, Jeremy M. Jacobs, Eliana Ein-Mor, Irit Stessman-Lande, Jochanan Stessman. Hadassah-Hebrew University Medical Center, Mount-Scopus, Jerusalem, Israel.
Posters

**Metabolic Syndrome (Diabetes/Glycemic Control; Dysglycemic Drugs; Insulin Resistance)**

**PO-55:** Uric Acid Levels Are Associated with Left Ventricular Hypertrophy in Patients with the Metabolic Syndrome
Cristiana Catena, GianLuca Colussi, Francesca Pezzutto, Leonardo A. Sechi. University of Udine, Udine, Italy.

**PO-56:** Association of Elevated Levels of PAI-1 with Insulin Resistance and Inflammatory Markers in Hypertension
Luigi Marzano, Cristiana Catena, GianLuca Colussi, Leonardo A. Sechi. University of Udine, Udine, Italy.

**PO-57:** Exploring the Link between Ambulatory Blood Pressure and Subclinical Atherosclerosis with Branched Chain Amino Acids in a Population with High Glycated Hemoglobin: The SABPA Study

**PO-58:** Efficacy of Alogliptin on Glucose Parameters, the Activity of the Advanced Glycation End Product – Receptor for Advanced Glycation End Product Axis, and Albuminuria in Uncontrolled Type 2 Diabetes
Koji Sakata,1 Yuichiro Yano,2 Kazuo Kitamura,1 Kazuomi Kario,2 Masayoshi Takeuchi,3 Sho-ichi Yamagishi.4 1University of Miyazaki, Miyazaki, Japan; 2Jichi Medical University School of Medicine, Tochigi, Japan; 3Kanazawa Medical University, Kanazawa, Japan; 4Kurume University School of Medicine, Kurume, Japan.

**PO-59:** Sympathetic Abnormalities in Pre-Diabetic Obese Subjects
Gino Seravalle,1 Lucia Pasqualinotto,2 Laura M. Lonati,1 Tommaso Comotti,1 Marco Volpe,3 Cecilia Invitti,2 Giuseppe Mancia,3 Guido Grassi.3 1S.Luca Hospital Istituto Auxologico Italiano, Milano, Italy; 2S.Luca Hospital Istituto Auxologico Italiano, Milano, Italy; 3S.Gerardo Hospital, Monza, Italy.

**Patient-Provider-Healthcare System Issues**

**PO-60:** Assessment of Blood Pressure Control in Patients at Goal on Olmesartan Monotherapy after Switching to Either Irbesartan, Losartan or Valsartan
Joseph J. Saseen†,1 Feride Frech-Tamas,2 Richard R. Allen,3 Robert B. McQueen,1 Kavita V. Nair.1 1University of Colorado, United States; 2Daiichi Sankyo Inc., United States; 3Peak Statistical Services, United States.
Posters

**PO-61:** Risk of Diabetes in a Real-World Setting among Chinese Patients under Antihypertensive Therapy with Valsartan or Non RAS Inhibitors: A Large Scale, Retrospective, Longitudinal Study

Jinming Yu,1 Quanyu Kong,1 Lingli Liu,2 Yao Li,2 Jiwei Wang,1 Yanping Zhao.3 1Institute of Clinical Epidemiology, Key Laboratory of Public Health Safety, Ministry of Education, School of Public Health, Fudan University, Shanghai, China; 2Medical Affairs of Great China Region of Novartis, Beijing, China; 3Shanghai Minhang Center for Disease Control and Prevention, Shanghai, China.

**Preclinical Models/Experimental Hypertension**

**PO-62:** Divergence of Activities of ACE and ACE2 in the Urine from Diabetic Mice: Implications for Kidney Ang II Metabolism

Christoph Maier, Jan Wysocki, Minghao Ye, Laura Garcia-Halpin, Daniel Battle. Northwestern University Feinberg School of Medicine, Chicago, IL, United States.

**Pregnancy**

**PO-63:** Preliminary Study of Maternal Blood Lead Level in Pregnancy Induced Hypertension

M. Yousri K. Amin,1 Abdelmoneim A. Fawzi,1 Mohamed I. Ahmed,2 Omnia M. Mdkour.1 1Alexandria University, Alexandria, Egypt; 2Alexandria University, Egypt.

**PO-64:** Endothelial Mechanisms Controlling Uterine Blood Flow during Pregnancy May Underlie the Developmental Origins of Adult Onset

Ronald R. Magness,1,2,3 Jason L. Austin,1 Gladys E. Lopez,1 Terrance M. Phernetton,1 Jayanth Ramadoss,1 Mary Y. Sun,1,3 Pamela J. Kling.3 1Univ of Wisconsin-Madison, United States; 2University of Wisconsin-Madison, United States; 3University of Wisconsin-Madison, United States.

**Risk Factors (Lipids)**

**PO-65:** Within the Broad Range of Normal Renal Function, Serum Creatinine Is an Independent Predictor of Serum Homocysteine Levels

Waqas Ahmed, Caitlin Richardson-Royer, Sidarth Munsif, Ping Whang, Jagjit Padda, Madan Gowda, Charles Glueck. Jewish Hospital, Cincinnati, OH, United States.
**Posters**

**PO-66:** Do sTWEAK Levels Indicate Ongoing Inflammation in Patients with Dyslipidemia under Statin Treatment?
Gökhan Özgür,1 Ilker Taşçı,2 Serkan Tapan,3 Gürkan Çelebi,4 Tolga Dogan,5 Battal Altun,3 Ali Selçuk,3 Gürhan Taskın,5 Alper Sönmez,6 Gökhan Erdem,7 1Gulhane Medical Faculty, Ankara, Turkey; 2Gulhane Medical Faculty, Ankara, Turkey; 3Gulhane Medical Faculty, Ankara, Turkey; 4Gulhane Medical Faculty, Ankara, Turkey; 5Gulhane Medical Faculty, Ankara, Turkey; 6Gulhane Medical Faculty, Ankara, Turkey; 7Gulhane Medical Faculty, Ankara, Turkey.

**PO-67:** Effect of Miso Soup Consumption on Central BP and Carotid Atherosclerosis
Katsuhiko Kohara, Maya Ohara, Rie Takita, Yoko Okada, Masayuki Ochi, Tokihisa Nagai, Tetsuro Miki. Ehime University Graduate School of Medicine, Toon City, Ehime, Japan.

**PO-68:** Insulin Resistance and 10 Year Risk of Cardiovascular Disease in Elderly Hypertensives Patients

**PO-69:** LDL Particle Number (LDL-P) Distribution in Hypertensive Patients
Richard F. Wright†,1 Ray Pourfarzib,2 Deborah A. Winegar.2 1Pacific Heart Institute, Santa Monica, CA, United States; 2LipoScience Inc, Raleigh, NC, United States.
Posters

Posters will be displayed in the Golden Gate Hall

Thursday, May 16, 2013
Posters on Display: 9:30 AM – 7:15 PM • Poster Viewing: 6:15 PM – 7:15 PM

Featured Posters:
- Non-Invasive Measurements in Hypertension .......... (FP-6 – FP-10)
- Blood Pressure Regulation .............................................. (PO-70 – PO-83)
- Clinical Trials in Hypertension and Related Morbidities ................................................................. (PO-84 – PO-88A)
- Device Management of Hypertension ................. (PO-89 – PO-91)
- Endothelial Function ...................................................... (PO-92 – PO-96)
- Hypertension and Aging .............................................. (PO-98 – PO-108)
- Kidney and Hypertension ........................................ (PO-109 – PO-113)
- Non-Invasive Testing .................................................. (PO-114 – PO-120)
- Non-Pharmacological Therapy (Alternative Medicine; Diet; Physical Activity) ...... (PO-121 – PO-126)
- Pediatric, Adolescent, and Maternal Hypertension ................................................................. (PO-127 – PO-138)

Dagger (†) denotes that the presenting author has related disclosure information.
Posters

9:30 AM – 7:15 PM • Golden Gall Hall

Moderator: John D. Bisognano, MD, PhD, FASH, Rochester, NY

**FEATURED POSTERS: NON-INVASIVE MEASUREMENTS IN HYPERTENSION**

**FP-6:** Nighttime Blood Pressure, Nighttime Glucose Values, and Target Organ Damages in Treated Type 2 Diabetes Patients
Manabu Hayakawa,1 Yuichiro Yano,2 Kazuo Kuroki,3 Hiroaki Ueno,4 Sho-ichi Yamagishi,5 Masayoshi Takeuchi,6 Takuma Eto,7 Naoto Nagata,1 Masamitsu Nakazato,4 Kazuyuki Shimada,2 Kazuomi Kario,2
1University of Miyazaki, Japan; 2Jichi Medical, Japan; 3Internal Medicine, Kushima City Hospital, Japan; 4University of Miyazaki, Japan; 5Department of Pathophysiology and Therapeutics of Diabetic Vascular Complications, Japan; 6Department of Pathophysiology and Therapeutics of Diabetic Vascular Complications, Japan; 7Eto Cardiology and Internal Medicine, Japan.

**FP-7:** The BpTRU Automated Blood Pressure Device: A Surrogate for Ambulatory Blood Pressure Monitoring?
Andrea E. S. Lalonde,1 Luc Trudeau,1 Christina Holcroft,3 Vicky Tagalakis,2 Ernesto L. Schiffrin,1
1SMBD-Jewish General Hospital, Montreal, Quebec, Canada; 2SMBD-Jewish General Hospital, Montreal, Quebec, Canada; 3SMBD-Jewish General Hospital, Montreal, Quebec, Canada.

**FP-8:** Prevalence of Masked and Isolated Clinical Hypertension According to the Number of Office Blood Pressure Measurements: The Esthén Study
Javier Sobrino,1 Monica Domenech,3 Miguel Camafort,3 Ernest Vinyoles,2 Antonio Coca,3 1Hospital del Espíritu Santo, Santa Coloma de Gramenet, Spain; 2CAP La Mina, San Adrian del Besos, Spain; 3Hospital Clinic (IDIBAPS), University of Barcelona, Barcelona, Spain.

**FP-9:** Comparison between the Values of Central and Brachial Pulse Pressure in Patients with Controlled or Non Controlled Arterial Hypertension
Bruno Bordin Pelazza, Martha Bezerra Maya Carvalho, Sebastiâo Rodrigues Ferreira Filho. Federal University of Uberlândia, Uberlândia, Minas Gerais, Brazil.

**FP-10:** Peripheral and Central Blood Pressure Differences between Cuff-Based Supra-Systolic and Radial Tonometric Methods
Tanveer Hussain, M. Rizwan Asghar, Minesh Rajpal, Narendra Yallanki, Michael Hong, Peter J. Osmond, Joseph L. Izzo, Jr.. SUNY at Buffalo, Buffalo, NY, United States.
PO-70: Novel Method of Treating Resistant Hypertension with Intravenous Nicardipine Home Infusion

Hasan Arif, Hiral Desai, Shamik Bhadra, Jesse Goldman. Drexel University, Philadelphia, PA, United States.

PO-71: Demographic, Laboratory, and Other Clinical Contributing Factors of the Non-Dipper Blood Pressure Pattern in Hypertension: The Hygia Project

Diana E. Ayala, Sonia Gomara, Antonio A. Regueiro, Maria C. Castiñeira, Jesus Menduña, Juan J. Sánchez, Luis Meijide, Maria J. Fontao, Artemio Mojon, Ramon C. Hermida. University of Vigo, Vigo, Spain; Servicio Galego de Saúde, Pontevedra, Spain; Servicio Galego de Saúde, Lugo, Spain; Servicio Galego de Saúde, Santiago, Spain.

PO-72: Orthostatic Blood Pressure (BP) Variance in a Chronic Kidney Disease (CKD) Clinic

Samrat Bhat, Shrute Hegde, Susan Szpunar, Susan Steigerwalt. St John Hospital and Medical Center, Detroit, MI, United States; Providence Hospital, Southfield, MI, United States; St John Hospital and Medical Center, Detroit, MI, United States.

PO-73: The Relationship between Blood Pressure Variability and Catecholamine Metabolites

James M. Coulson, John R. Cockcroft, Heather Wheatley. Cardiff University, Cardiff, Wales, United Kingdom; University Hospital of Wales, Cardiff, Wales, United Kingdom.

PO-74: Mobile Phone Calls Acutely Increase Blood Pressure Levels in Hypertensive Subjects

Giuseppe Crippa, Dorjan Zabzuni, Antonino Cassi, Elena Bravi. Guglielmo da Saliceto Hospital, Piacenza, Italy.

PO-75: Unveiling the Myth of the Assumed High Cardiovascular Risk Associated with Extreme-Dipping of the 24h Blood Pressure Pattern


PO-76: Cardiovascular Risk in Masked and True Normotension Diagnosed by Ambulatory Blood Pressure Monitoring


PO-77: Blunted Sleep-Time Relative Blood Pressure Decline Increases Cardiovascular Risk in Normotensive Individuals

PO-78: The Rho Kinase Inhibitor Attenuates of Hypertension in Spontaneously Hypertensive Rats Thorough the Tyrosine Hydroxylase Expression

Toshio Kumai,1 Minoru Watanabe,2 Yuko Takeba,3 Naoki Matsumoto.1
1St Marianna University Graduate School, Kawasaki, Kanagawa, Japan; 2St Marianna University Graduate School, Kawasaki, Kanagawa, Japan; 3St Marianna University School of Medicine, Kawasaki, Kanagawa, Japan.

PO-79: Differential Body Weight and Hemodynamic Responses to Salt between Salt-Sensitive and Salt-Resistant Subjects

Cheryl L. Laffer,1 Robert C. Scott,2 Jens M. Titze,1 Fernando Eljovich,1 Vanderbilt University, United States; 2Texas A&M HSC, United States.

PO-80: Non-Dipping Systolic Blood Pressure Status and C-Reactive Protein Level in Normotensive Adults

Chenyi Ling,1,3 Keith Diaz,2,3 Jan Kretzschmar,1,3 Deborah Fearheller,3 Kathleen Sturgeon,3,4 Sheara Williamson,3 Praveen Veerabadrappa,3 Amanda Perkins,3,5 Hojun Lee,3 Heather Grimm,1,3 Michael Brown,1,3 1University of Illinois at Chicago, Chicago, IL, United States; 2Columbia University, New York, NY, United States; 3Temple University, Philadelphia, PA, United States; 4Institute of Translational Medicine and Therapeutics, Philadelphia, PA, United States; 5Missouri State University, Springfield, MO, United States.

PO-81: Prevalence and Characteristics of Resistant Hypertension in a Hypertension Clinic

Hideyuki Oniki,1 Takuya Tsuchihashi,1 Minako Sakaki,1 Kimika Arakawa.2 1Clinical Research Institute, National Kyushu Medical Center, Fukuoka, Japan; 2Clinical Research Institute, National Kyushu Medical Center, Fukuoka, Japan.

PO-82: Ingestion-Time-Dependent Effects of Hypertension Treatment on Ambulatory Blood Pressure in Patients with Chronic Kidney Disease: The Hygia Project

Maria T. Rios,1 Juan J. Crespo,1 Ana Moya,2 Alfonso Otero,3 Elvira Sineiro,2 Maria I. Franco,2 Aurelia Constenla,2 Maria T. Noguerol,1 Diana E. Ayala,4 Ramon C. Hermida,4 1Servicio Galego de Saude, Vigo, Spain; 2Servicio Galego de Saude, Pontevedra, Spain; 3Complejo Hospitalario Universitario, Orense, Spain; 4University of Vigo, Vigo, Spain.

PO-83: Carotid Body Chemoreceptors Deactivation Decreases Blood Pressure in Hypertensive Patients

Maciej Sinski,1 Jacek Lewandowski,1 Piotr Abramczyk,1 Jacek Przybylski,2 Zbigniew Gaciong.1 1Medical University of Warsaw, Warsaw, Poland; 2Medical University of Warsaw, Warsaw, Poland.
PO-84: Effects of Cilnidipine Versus Atenolol on Left Ventricular Diastolic Function and Hypertrophy in Essential Hypertension – CANDLE Trial
Wook-Jin Chung†, 1 Hye-Sun Seo, 2 Sung-Kee Ryu, 3 Wook-Bum Pyun, 4 Se-Joong Rim, 5 Eak Kyun Shin. 1
1Gachon University Gil Hospital, Incheon, Korea; 2Soonchunhyang University School of Medicine, Bucheon, Korea; 3Eulji University School of Medicine, Seoul, Korea; 4Ewha Womans University School of Medicine, Seoul, Korea; 5Gangnam Severance Hospital, Seoul, Korea.

PO-85: Telmisartan vs. Ramipril vs. Placebo: Network and Bayesian Meta-Analyses of Clinical Trial Data
William J. Elliott†, 1 Sanjib Basu, 2 Peter M. Meyer. 2
1Pacific Northwest University of Health Sciences, Yakima, WA, United States; 2RUSH Medical College, Chicago, IL, United States.

PO-86: Efficacy of Newer Versus Older Antihypertensive Drugs in Black Patients Living in Sub-Saharan Africa
Jean-René M’Buyamba-Kabangu, 1,2 Benedict C. Anisiuiba, 3 Mouhamado B. Ndiate, 4 Daniel Lemogoum, 5 Lotte Jacobs, 1 Chinwuba K. Ijoma, 3 Lutgarde Thijs, 1 Hilaire J. Boombhi, 6 Joseph Kaptue, 5 Philip Kolo, 7 Jean B. Mipinda, 8 Chukwunonso E. Osakwe, 1,9 Augustine N. Odili, 1,10 Birinus Ezeala-Adikaibe, 3 Samuel Kingue, 6 Babatunde A. Omotoso, 7 Serigne A. Ba, 4 Ifeoma I. Ulasi, 3 Jan A. Staessen. 1,11
1University of Leuven, Belgium; 2University of Kinshasa Hospital, Congo; 3University of Nigeria Teaching Hospital, Nigeria; 4Centre Hospitalier National Aristide Le Dantec, Senegal; 5Douala School of Medicine, Cameroon; 6Yaoundé General Hospital, Cameroon; 7University of Ilorin Teaching Hospital, Nigeria; 8Centre Hospitalier de Libreville, Gabon; 9National Biotechnology Development Agency, Nigeria; 10University of Abuja, Nigeria; 11Maastricht University, Netherlands.

PO-87: The Use of Fixed Dose Triple Drug Therapy, Olmesartan, Amlodipine and HCTZ as Replacement Therapy for Patients Not at Goal Blood Pressure
Henry A. Punzi†, 1,2 Connie F. Punzi. 1
1Punzi Medical Center, Carrollton, TX, United States; 2UT Southwestern Medical Center, Dallas, TX, United States.

PO-88: The Effect of GLP-1 Mimetics on Blood Pressure: Results of a Systematic Meta-Analysis
Mohamed Katout, 1 Sanjay Rajagopalan, 1 Hong Zhu, 2 Robert D. Brook. 3 1Wexner Medical Center, Columbus, OH, United States; 2College of Public Health, The Ohio State University, Columbus, OH, United States; 3University of Michigan, Ann Arbor, MI, United States.
Posters

PO-88A: Effect of Antihypertensive Therapy on Diastolic Function
MariaLeonarda De Rosa, Teresa Losco, Fabio Magliulo, Susanna Mosca, Linda Brevetti. University of Naples Federico II, Naples, Italy.

**DEVICE MANAGEMENT OF HYPERTENSION**

PO-89: The Barostim™ Pivotal Trial: A Randomized, Controlled Evaluation of the Barostim neo™ System for the Treatment of Resistant Hypertension
George L. Bakris†,1 William T. Abraham,2 Fred A. Weaver,3 Eric G. Lovett,4 John D. Bisognano,5
1University Chicago Medicine, United States; 2The Ohio State University Heart Center, United States; 3University of Southern California Keck School of Medicine, United States; 4CVRx, Inc., United States; 5University of Rochester Medical Center, United States.

PO-90: Long-Term Results of Barostim™ neo™ in Resistant Hypertension: Implications for the Barostim Pivotal Trial
Peter W. de Leeuw†,1 Abraham A. Kroon,1 Teba Alnima,1 Hermann Haller,2 Joachim Beige,3 L. Christian Rump,4 Uta C. Hoppe,5 Eric G. Lovett,6 Jochen Müller-Ehmsen.7 1Maastricht University Medical Center, Netherlands; 2Hannover Medical School, Germany; 3Hospital St. Georg, Leipzig, Germany; 4University Hospital Düsseldorf, Germany; 5Paracelsus Medical University, Austria; 6CVRx, Inc., United States; 7University Hospital Köln, Germany.

PO-91: Non Invasive Pulse Wave Analysis and Measurement of Cardiac Output during Haemodialysis and beyond

**ENDOTHELIAL FUNCTION**

PO-92: Nutritional Counseling with Fish Meals and Endothelial Function in Hypertensive Patients
GianLuca Colussi, Cristiana Catena, Valeria Dalti, Lucio Mos, Leonardo A. Sechi. University of Udine, Udine, Italy.

PO-93: High Fructose Consumption Increases Blood Pressure and Impairs Endothelial Function
Cigdem Erkuran,1 Hesham Saleh,1 Johan Latorre,1 Gokhan Yilmaz.2 1Sophie Davis School of Biomedical Educaion, CUNY, NY, NY, United States; 2University of Medicine and Dentistry of New Jersey, Newark, NJ, United States.
Posters

PO-94: Endothelial Dysfunction Is Associated with Increased 8-Isoprostane Levels in Resistant Hypertension

PO-95: Correction of Hemodynamic and Endothelial Dysfunction by Telmisartan in Hypertensives with Heart Failure and Hyperinsulinemia
Mariya A. Orynchak, Oleg M. Sheremeta. Ivanofrankivsk National Medical University, Ivanofrankivsk, Ukraine.

PO-96: The Beneficial Effects of Tai Chi on Arterial Stiffness in Middle-Aged Women with Rheumatoid Arthritis

PO-98: Blood Pressure in the One Repetition Maximum Assessment in Three Basic Resistance Exercises in Octogenarians
Rodrigo F. Bertani, José M. T. Bonardi, Giulliard O. Campos, Paulo R. Padovan, Julio C. Moriguti, Eduardo Ferrioli, Nereida K. C. Lima. Faculty of Medicine of Ribeirão Preto, Universidade de São Paulo, Ribeirão Preto, São Paulo, Brazil.

PO-99: The Use of ASH Recommended Combination Therapy for the Treatment of Hypertension in an Ambulatory Medicare Population

PO-100: Efficacy of an Amlodipine/Olmesartan Medoxomil-Based Regimen in Elderly (≥65 Years) and Non-Elderly (<65 Years) Subjects with Hypertension and Type 2 Diabetes Mellitus
S. G. Chrysant†, A. Lewin, A. Shojaae, J. F. Maa. 1Oklahoma Cardiovascular and Hypertension Center, United States; 2National Research Institute, United States; 3Daiichi Sankyo, Inc., United States.

PO-101: Changes in Heart Failure Prevalence among California Adults over 2007-2010: An Analysis by Ethnicity and Gender
Baqar Husaini, Linda Sharp, Gail Orum, Van Cain, Majaz Moonis, Robert Levine. 1Tennessee State University, United States; 2University of California Los Angeles, United States; 3Charles Drew University, United States; 4University of Massachusetts, United States; 5Meharry Medical College, United States.
PO-102: Similar Brachial Systolic Blood Pressure Is Associated with Greater Cardiac Load in Older Subjects Compared to a Younger Cohort Following Submaximal Exercise Stress Test
Masatake Kobayashi,1 Kazutaka Oshima,1 Yoichi Iwasaki,1 Yuto Kumai,1 Yasuhiro Tsunoda,1 Mineko Kino,1 Hiroshi Kobayashi,1 Akira Yamashina,2 Kenji Takazawa.1,3 Tokyo Medical University Hachioji Medical Center, Tokyo, Japan; 2Tokyo Medical University, Tokyo, Japan.

PO-103: Blood Pressure and Cardiovascular Comorbidity in Chronic Heart Failure of Ageing
Linda Landini,1 Paola Lambelet,2 Daniele Taccola,2 Paola Nigro,2 Aurelio Leone.3 University of Pisa, Pisa, PI, Italy; 2Versilia Hospital, Viareggio, Lu, Italy; 3City Hospital, Massa, MS, Italy.

PO-104: Blood Pressure and the Frailty Syndrome
Larissa B. Calado,1 Marlon P. Melo,2 Eduardo Ferriolli,1 Júlio C. Moriguti,1 Nereida K. C. Lima.1 1Ribeirão Preto School of Medicine - University of São Paulo, Ribeirão Preto, Sao Paulo, Brazil; 2University of São Paulo, Ribeirão Preto, Sao Paulo, Brazil.

PO-105: Participation of Central and Brachial Arterial Pressure in the Cardiovascular Events of Elderly Patients with and without Coronary Lesions
Martha Bezerra Maya Carvalho, Bruno Bordin Pelazza, Sebastião Rodrigues Ferreira Filho. Federal University of Uberlândia, Uberlândia, Minas Gerais, Brazil.

PO-106: Relationships of Arterial and Left Ventricular Stiffness Indicators
Minesh Rajpal,1 Kunal Gawri, Siva Yedlapati, Peter J. Osmond, Robert Glover, Joseph L. Izzo, Jr.. SUNY at Buffalo, Buffalo, NY, United States.

PO-107: Central Aortic Pulse Pressure, a Better Predictor of Vascular Aging
Oscar Rivero,1 Rene A. Oliveros,1,2 Joan H. Finch,2 Shuko Lee,1,3 Robert J. Chilton.1,3 1University of Texas Health Science Center, San Antonio, TX, United States; 2Audie Murphy Veterans Hospital, San Antonio, TX, United States.

PO-108: Higher Salt Preference in Hypertensive Older Individuals
Patricia T. M. Villela, Paula T. M. Villela, Eduardo B. Oliveira, José M. T. Bonardi, Rodrigo F. Bertani, Eduardo Ferriolli, Julio C. Moriguti, Nereida K. C. Lima. School of Medicine of Ribeirao Preto - Sao Paulo University, Ribeirão Preto, Sao Paulo, Brazil.

KIDNEY AND HYPERTENSION

PO-109: A Study of Renal Artery Stenosis among Hypertensive Patients in Basra, Iraq
Hayder Salih Al-Edan,1 Basra College of Medicine, Basra, Iraq; 2Basra General Hospital, Basra, Iraq.
PO-111: Dopamine D2 Receptors Regulate Wnt 2 Expression and Apoptosis in the Kidney
Yanrong Zhang, Santiago Cuevas, Laureano D. Asico, Crisanto E. Escano, Pedro A. Jose, Ines Armando.
School of Medicine, University of Maryland, Baltimore, MD, United States.

PO-112: Aging Increases Urinary Proteins Excretion and Elevation of Blood Pressure Alters It
Koichi Kanda, Tetsuya Fujimoto, Maiko Machida, Shigeru Takechi, Shige Kakinoki, Takeshi Kobayashi, Shojirou Hariya, Akikazu Nomura.
1Sapporo Kosei General Hospital, Sapporo, Hokkaido, Japan; 2Hokkaido University of Pharmacy, Otaru, Hokkaido, Japan; 3Date Red Cross Hospital, Date, Hokkaido, Japan; 4Otaru Kyoukai Hospital, Otaru, Hokkaido, Japan; 5Hokkaido Social Insurance Health Care and Research Center, Sapporo, Hokkaido, Japan.

PO-113: Role of Kidney in Stabilization of Arterial Hypertension in Pheochromocytoma
Galina Potapova, Nicholas Kuznetsov, Irina Chazova, Svetlana Veselova, Eugene Popov, Julia Dotsenko.
1Russian Cardiology Research and Production Complex, Moscow, Russian Federation; 2Endocrinology Research Center RAMS, Moscow, Russian Federation.

PO-114: Pulse Wave Velocity and Central Hemodynamics in Young Overweight/Obese African Americans with Early Peripheral Blood Pressure Elevation
Jigar Bhagatwala, Samip Parikh, Ishita Kotak, Haidong Zhu, Yanbin Dong.
1,2Georgia Health Sciences University, Augusta, GA, United States; 2Georgia Health Sciences University, Augusta, GA, United States.

PO-115: The Effect of Age on General Cardiovascular Risk Profiles Comparing Laboratory-Based and Non-Laboratory Based Predictors

PO-116: Carotid-Femoral Pulse Wave Velocity in Finnish Hypertensive Patients Was Explained by Age and Systolic Blood Pressure
Ilkka Kantola, Jerry Tervo, Lauri Koskio, Jussi Hajianen, Henrika Hermansson, Taru Kantola, Martti Merikari, Pekka Måkelä, Simo Rehunen, Juha Varis. Turku University Hospital, Turku, Finland.

PO-117: Arterial Stiffness Evaluation by Cardio-Ankle Vascular Index in Hypertension Subjects with Mellitus Diabetes
Hongyu Wang, Jinbo Liu, Hongwei Zhao, Xiaobao Fu, Yingyan Zhou. Peking University Shougang Hospital, Beijing, China.
PO-118: Cardio-Ankle Vascular Index in Children
Ranjit Philip†,1 Bruce Alpert,1 Douglas Blakely,2 Xin Huang,1 Andre's Velasquez.3 1University of Tennessee, Memphis, TN, United States; 2Technologies for Medicine, United States; 3University of Florida, United States.

PO-119: Increased Perioperative Troponin T Levels Have a Predictive Role of Short Term Adverse Outcome after Non-Cardiac Surgery
Wook Bum Pyun,1 In Sook Kang,1 Wook Jin Chung,2 Se Joong Rim,3 Sang Hak Lee,4 Seung Kee Rhu,5 Gil Ja Shin.1 1Ewha Womans University, Mokdong Hospital, Korea; 2Gacheon University, Gil Hospital, Korea; 3Yonsei University, Gangnam Severance Hospital, Korea; 4Yonsei University, Severance Hospital, Korea; 5Eulji University, Eulji Hospital, Korea.

PO-120: Relationship of Central Augmentation Index to Large Artery Stiffness and Distal Vascular Resistance
Minesh Rajpal, Usman Younus, Shaila Karan, Peter J. Osmond, Robert Glover, Joseph L. Izzo, Jr.. SUNY at Buffalo, Buffalo, NY, United States.

PO-121: Sleep Quality and Blood Pressure in the Elderly Undergoing Aerobic and Resistance Training
Jose M. T. Bonardi, Leandra G. Lima, Rodrigo F. Bertani, Julio C. Moriguti, Eduardo Ferrioli, Nereida K. C. Lima. São Paulo University, Ribeirão Preto, Sao Paulo, Brazil.

PO-122: Preliminary Results of the Limbs Study: Assessing Effects of Yoga on Blood Pressure Reduction

PO-123: Dietary Supplement with Fish Meals Decreases the Carotid Intima-Media Thickness in Hypertension
GianLuca Colussi, Cristiana Catena, Valeria Dialti, Lucio Mos, Leonardo A. Sechi. University of Udine, Udine, Italy.

PO-124: The Effect of Exercise Training Programs on Blood Pressure, Body Mass Index and Inflammatory Activity in Elderly Hypertensive Individuals
Leandra G. Lima, Jose M. T. Bonardi, Luria M. L. Scher, Eduardo Ferrioli, Julio C. Moriguti, Paulo Louzada-Junior, Nereida K. C. Lima. School of Medicine of Ribeirao Preto - Sao Paulo University, Ribeirao Preto, SP, Brazil.
PO-125: **Aerobic Fitness Lowers the Risk for Atrial Fibrillation in Hypertensive Men**  
*Andreas Pittaras*,1,2 *Fiorina Kyritsi*,1,2 *John Peter Kokkinos*,3 *Charles Faselis*,1,2 *Hans Moore*,1,2 *Pamela Karasik*,1,2 *Ross Fletcher*,1,2 *Michael Doumas*,1,2 *Peter Kokkinos*.1,2,3 1Veterans Affairs Medical Center, Washington, DC, United States; 2George Washington University, Washington, DC, United States; 3Georgetown University, Washington, DC, United States.

PO-126: **Effect of Lifestyle Modification on Autonomic Nervous System and Endothelial Dysfunction in Obese Hypertensive Patients**  
*Rosa M. Santos*,1 *Joao P. Freitas*,2 *Eduardo Tejero*,3 *Lucia I. Santos*,3 *Irene Rebelo*.4 1Hospital S Joao, Porto, Portugal; 2School of Medicine, Porto, Portugal; 3School of Farmacy, Porto, Portugal; 4Unity Family Healthcare 7C, Porto, Porto, Portugal.

PO-127: **Non-HDL Cholesterol Is Associated with Blood Pressure Elevation and an Array of Cardiovascular Risk in Black and White Adolescents**  
*Jigar Bhagatwala*,1,2 *N. Pollock*,1 *S. Parikh*,1,2 *I. Kotak*,1 *B. Gutin*,1 *H. Zhu*,1 *Y. Dong*.1 1Georgia Health Sciences University, United States; 2Georgia Health Sciences University, United States.

PO-128: **Analysis of Blood Pressure in Children with SLE Using Ambulatory Blood Pressure Monitoring**  
*J. Fallon Campbell*,1,2 *Sarah J. Swartz*,1,2 *Scott E. Wenderfer*.1,2 1Texas Children’s Hospital, Houston, TX, United States; 2Baylor College of Medicine, Houston, TX, United States.

PO-129: **Hypertensive Crises in Children: Is It of Acute or Chronic Origin**  
*Janis M. Dionne*,1 *Nader Khattab*,2 *Alexa Glesby*,3 *Mona Singal*,1 *Roxane Carr*.1,2 1University of British Columbia/ BC Children’s Hospital, Vancouver, BC, Canada; 2UBC, Vancouver, BC, Canada; 3Royal College of Surgeons in Ireland, Dublin, Ireland.

PO-130: **Chronotherapy with Low-Dose Aspirin for Prevention of Complications in Pregnancy**  

PO-131: **Central Arterial Stiffness in Obese Children and Adolescents**  
*Kristian N. Hvidt*,1,3 *Michael H. Olsen*,2 *Jens-Christian Holm*,3 *Hans Ibsen*.1 1Copenhagen University Hospital Holbæk, Smedelunds gade 60, Holbæk, Denmark; 2Odense University Hospital, Sdr. Boulevard 29, Odense, Denmark; 3Copenhagen University Hospital Holbæk, Smedelunds gade 60, Holbæk, Denmark.
PO-132: Decreased Heart Rate Variability is Associated with Increased Transcranial Doppler Velocities in Children with Sickle Cell Disease

Jenna B. Jones, 1 Remberto C. Paulo, 2 Brent M. Egan, 4 Ibrahim F. Shatat. 3 1 Medical University of South Carolina, Charleston, SC, United States; 2 Medical University of South Carolina Children's Hospital, Charleston, SC, United States; 3 Medical University of South Carolina Children's Hospital, Charleston, SC, United States; 4 Medical University of South Carolina Children's Hospital, Charleston, SC, United States.

PO-133: Disordered Sleep and Neurocognition in Children with Hypertension

M. B. Lande, 1 S. R. Hooper, 2 D. L. Batisky, 3 J. C. Kupferman, 4 K. J. Paterno, 4 P. G. Szilagyi, 1 H. R. Adams. 1 1 University of Rochester, United States; 2 University of North Carolina, United States; 3 Emory University, United States; 4 Maimonides Medical Center, United States.

PO-134: Association between the 24 Hour Ambulatory Blood Pressure and Body Mass Index with Left Ventricular Mass in Children

Joseph Mahgerefteh, 1,3 Arpit Agarwal, 2 Pamela Singer, 1,3 Oleh Akchurin, 1,3 Frank Osei, 1,3 Daphne Hsu, 1,3 Fredrick Kaskel, 1,3 Children's Hospital at Montefiore, Bronx, NY, United States; 2 Maimonides Infants and Children Hospital, Brooklyn, NY, United States; 3 Albert Einstein College of Medicine, Bronx, NY, United States.

PO-135: Bimodal Onset of Systemic Hypertension in Preterm Children

Ankur Shah, Hariyadarshi Pannu, John T. Bricker, Monesha Gupta-Malhotra. Children's Memorial Hermann Hospital, University of Texas - Houston, Houston, TX, United States.

PO-136: Infant with Novel Mutation in the WT1 Gene Causing Congenital Nephrotic Syndrome Presenting as Life-Threatening Hypertension and Heart Failure

Colby L. Day, 1 Melissa C. Evans, 2 Sally E. Self, 3 Julie C. Robinson, 3 Raymond K. Allen, 3 David J. Sas, 4 Ibrahim F. Shatat. 4 1 MUSC Children's Hospital, United States; 2 MUSC, United States; 3 MUSC, United States; 4 Medical University of South Carolina Children's Hospital, Charleston, SC, United States.

PO-137: Blood Pressure Response to Exercise in Normotensive Adolescents with Hyperuricemia

PO-138: Accelerated Vascular Aging in Adolescents & Young Adults Is Related to CV Risk Factors

Elaine M. Urbina,1 Zhiqian Gao,1 Philip R. Khoury,1 Amy S. Shah,2 Lawrence M. Dolan,2 Thomas R. Kimball.1 1Cincinnati Children's Hospital Medical Center, Cincinnati, OH, United States; 2Cincinnati Children's Hospital Medical Center, Cincinnati, OH, United States.
Posters

Posters will be displayed in the Golden Gate Hall

Friday, May 17, 2013
Posters on Display: 10:00 AM – 5:30 PM • Poster Viewing: 4:30 PM – 5:30 PM

Featured Posters:

Antihypertensive Therapy ............................................ (FP-11 – FP-15)
Arterial Structure and Compliance ....................... (PO-139 – PO-148A)
Blood Pressure Control and Adherence to Treatment ............................................ (PO-149 – PO-174)
Cardiac Structure and Function/Imaging ............... (PO-175 – PO-178)
Coronary Artery Disease ............................................. (PO-179 – PO-184)
Genetics/Gene Therapy/Proteomics ....................... (PO-185 – PO-187)
Novel Antihypertensive Drug Development ............... (PO-189)
Obesity and Hypertension ............................................ (PO-190 – PO-195)
Secondary Hypertension ............................................ (PO-196 – PO-197)
Stroke ................................................................................. (PO-199)
Vascular Injury/Inflammation and Remodeling ....... (PO-200 – PO-207)
Late-Breaking Posters ........................................ (LB-PO-01 – LB-PO-08)

Dagger (†) denotes that the presenting author has related disclosure information.
Moderator:  
Addison A. Taylor, MD, PhD, FASH, Houston, TX

**FP-11:**  
**Acute Intrathecal Clonidine Decreases Blood Pressure Significantly in Patients with Resistant Hypertension**  
*Richard L. Rauck†, 1 Christopher B. Komanski, 1 James C. North, 1 Keith R. Hildebrand, 2 Douglas Hettrick, 2 Jason Sims, 1 Wake Forest University Baptist Health, Winston Salem, NC, United States; 2 Medtronic Neuromodulation, Minneapolis, MN, United States.*

**FP-12:**  
**The Effect of Rotigotine Transdermal System on Nocturnal Systolic Blood Pressure Elevations Associated with Periodic Leg Movements in Patients with Restless Legs Syndrome**  
*Axel Bauer†, 1 Werner Cassel, 2 Wolfgang Oertel, 2 David Rye, 3 Arthur Walters, 4 John Winkelman, 5 Lars Bauer, 6 Lars Joeres, 6 Frank Grieger, 6 Kimberly Moran, 7 Erwin Schollmayer, 6 John Whitesides, 7 Claudia Trenkwalder. 8 Eberhard Universitat Tuebingen, Germany; 2 Philips University Marburg, Germany; 3 Emory University, United States; 4 Vanderbilt University, United States; 5 Brigham and Women's Hospital, United States; 6 UCB Biosciences, Germany; 7 UCB Pharma, United States; 8 University of Goettingen and Paracelsus-Elena-Klinik, Germany.*

**FP-14:**  
**Blood Pressure Lowering and Natriuretic Effects of LCZ696 in Patients with Hypertension: A Randomized, Double-Blind, Controlled, Crossover Study**  
*Zhanna Kobalava, 1 Yulia Kotovskaya, 1 Svetlana Villevalde, 1 Valentine Moiseev, 1 Diego Albrecht, 2 Priya Chandra, 2 Laure Casagrande, 3 Thomas Langenickel, 2 Pierre Jordaan. 1 Peoples Friendship University of Russia, Moscow, Russian Federation; 2 Novartis Institute for Biomedical Research, Basel, Switzerland; 3 Clinbay (Statistical Solutions to Drug Development), Belgium.*

**FP-15:**  
**Effects of Dulaglutide, a GLP-1 Agonist, on Ambulatory Diurnal and Nocturnal Blood Pressure in Patients with Type 2 Diabetes**  
*K. C. Ferdinand†, 1 D. A. Calhoun, 2 E. M. Lonn, 3 W. B. White, 4 P. Sager, 5 H. Jiang, 6 R. J. Threlkeld, 6 K. E. Robertson, 6 M. J. Geiger, 6 Tulane Univ School of Medicine, United States; 2 Univ of Alabama at Birmingham, United States; 3 McMaster Univ, Canada; 4 Univ of Connecticut Health Center, United States; 5 Sager Consulting, United States; 6 Eli Lilly, United States.*
**PO-139:** Effects of Nebivolol on Aortic Compliance in Black Patients with Diabetes Maximally Treated with Renin Angiotensin System (RAS) Blockade: The EFFORT Study  
*Alexandros Briasoulis*, Rigas Kalaitzidis, Raymond Oliva, Carrie Schlaffer, George L. Bakris. The University of Chicago Medicine, Chicago, IL, United States.

**PO-141:** Hemochromatosis and Arterial Stiffness  

**PO-142:** Non-Alcoholic Fatty Liver Disease and Aterial Stiffness  

**PO-143:** Reduced Small Artery Elasticity Predicts Cardiovascular Disease  

**PO-144:** Smoking Is a Major Risk Factor for Structural and Functional Cerebrovascular and Cardiovascular Abnormalities  
*Mahfouz El Shahawy*, Miglena Entcheva. Cardiovascular Center of Sarasota, Sarasota, FL, United States.

**PO-145:** Ankle-Brachial Index Is Associated with Subendocardial Viability in Biracial (Black-White) Younger Adults: The Bogalusa Heart Study  
*Camilo Fernandez A*, Shengxi Li, Roberto Blandon, Wei Chen, Sathanur R. Srivivasan, Gerald S. Berenson. Tulane University Health Sciences Center, New Orleans, LA, United States.

**PO-146:** Subendocardial Viability and Its Correlates among Biracial (Black-White) Younger Adults in a Community: The Bogalusa Heart Study  
*Camilo Fernandez A*, Shengxi Li, Felix Olivares, Wei Chen, Sathanur R. Srivivasan, Gerald S. Berenson. Tulane University Health Sciences Center, New Orleans, LA, United States.

**PO-147:** Correlation between Aldosterone/Renin Ratio and Reflected Wave Characteristics in Uncontrolled Low-Renin Arterial Hypertension  
*Olga Kravtsova*, Yulia Kotovskaya, Zhanna Kobalava. Peoples Friendship University of Russia, Russian Federation.
PO-148:
Higher Doses of RAAS Inhibitors May Determine Blood-Pressure Independent Decrease of Pulse Wave Velocity in Hypertensive Subjects
Elena Troitskaya, Yuliya Kotovskaya, Zhanna Kobalava. Russian Peoples’ Friendship University, Moscow, Russian Federation.

PO-148A:
Inter-Arm Blood Pressure Differences in Young Healthy Subjects
Alon Grossman,1,2 Alex Prokupetz,1 Barak Gordon,1 Ehud Grossman,3 The Israeli Air Force Aero Medical Center, Israel; 2Rabin Medical Center, Beilinson Campus, affiliated to Tel Aviv University Sackler Medical School, Petah Tikva, Israel; 3The Chaim Sheba Medical Center, Tel Hashomer, Israel affiliated to Sackler Faculty of Medicine, Israel.

BLOOD PRESSURE CONTROL AND ADHERENCE TO TREATMENT

PO-149:
Blood Pressure Control and Health Risk Indicators among Adults with Hypertension in 18 States and the District of Columbia – Behavioral Risk Surveillance Survey (BRFSS), 2009
Carma Ayala, Jing Fang, Keming Yuan. Centers for Disease Control and Prevention, United States.

PO-150:
Therapeutic Drug Monitoring Facilitates BP Control in Resistant Hypertension
Stephanie K. Brinker,1 Ambarish Pandey,4 Colby Ayers,2 Prafull Raheja,1 Angela Price,1 Debbie Arbique,1 Sandeep Das,2 Ethan Halm,4 Norman Kaplan,1 Wanpen Vongpatanasin.1 UT Southwestern Medical School, United States; 2UT Southwestern Medical School, United States; 3UT Southwestern Medical School, United States.

PO-151:
Comparison of Real-World Cardiovascular-Related Healthcare Costs of Newly Initiated Valsartan/Amlodipine Single-Pill Combination Versus Angiotensin Receptor Blocker/Calcium Channel Blocker Free-Combination Therapy
Onur Baser,1 Wing W. Chart,2 Li Wang,1 Katherine Wiltman Johnson,2 Lin Xie.1 STATinMED Research, United States; 2Novartis Pharmaceuticals Corporation, United States.

PO-152:
A Microsystem Team Approach to Improving Hypertension Management
Libby Collet,1 Peter Emery,2 Sarah Anania,2 Elizabeth Foley.3 NovaHealth IPA, South Portland, ME, United States; 2InterMed, Portland, ME, United States; 3MCD Public Health, United States.

PO-153:
Misdiagnosis of True Hypertension by Clinic Blood Pressure Measurement in Untreated Individuals: The Hygia Project
Juan J. Crespo,1 Lorenzo Poussa,1 Pedro A. Callejas,1 Jose L. Salgado,1 Julia Boveda,1 Jesus Perez de Lis,1 Luis Patron,1 Artemio Mojon,2 Diana E. Ayala,2 Ramon C. Hermida.2 1Servicio Galego de Saude, Vigo, Spain; 2University of Vigo, Vigo, Spain.
PO-154: Disparities in Blood Pressure Control between Black and White Patients with Hypertension: A 10 Year Analysis among US Veterans
Ross D. Fletcher, Vasilios Papademetriou, Richard L. Amdur, Raya Kheirbek, David Maron, Ronald E. Jones, Vasilios Papademetriou. VA Medical Center, Washington, DC, United States; VA Medical Center, United States; VA Medical Center, United States.

PO-155: A Quality Improvement Coaching Approach in Clinical Practices Can Improve High Blood Pressure Control
Elizabeth Foley, Stacy Meyer. MCD Public Health, Augusta, ME, United States.

PO-156: Characteristics and Drug Regimens of Primary Care Patients with Uncontrolled Resistant Hypertension
Larissa Grigoryan, Valory Pavlik, David Hyman. Baylor College of Medicine, United States.

PO-157: Reflections on the Significance of the ACCORD BP Results (3/14/2010)
Richard H Grimm, Jr. HHS, Minneapolis, MN.

PO-158: Adherence of Patients to Bedtime Hypertension Chronotherapeutic Regimens in the Hygia Trial
Ramon C. Hermida, Diana E. Ayala, Ana Moya, Juan J. Crespo, Maria T. Rios, Peregrina Eiroa, Jose L. Salgado, Lorenzo Pousa, Jose R. Fernandez, Artemio Mojón. 1University of Vigo, Vigo, Spain; 2Servicio Galego de Saude, Pontevedra, Spain; 3Servicio Galego de Saude, Vigo, Spain.

PO-159: Blood Pressure Changes with ISHIB Impact Cardiovascular Risk Reduction Toolkit Intervention and Education
W. Johnson, F. T. Shaya, C. Ezeugwu, D. Monroe, I. Breunig, D. Kountz, E. Saunders. University of Maryland School of Medicine, Baltimore, MD; University of Maryland School of Pharmacy, Baltimore, MD; International Society on Hypertension in Blacks (ISHIB); Just Heart Cardiovascular Group Inc, Baltimore, MD.

PO-160: Impact of 30 or 90 Days Supply of Olmesartan on Adherence and Persistence

PO-161: Barriers to Hypertension Screening, Treatment and Control as Reported by Patients and Healthcare Providers: A Systematic Review of Qualitative and Quantitative Observational Studies
Rasha Khatib, Robby Nieuwlaat, J.-D. Schwalm, Maheer Khan, R. Brian Haynes, Stuart Connolly, Salim Yusuf. McMaster University, Hamilton, ON, Canada; McMaster University, Hamilton, ON, Canada.

PO-162: The Control of Arterial Blood Pressure and the Economic Costs Associated
Aldo Leone, Linda Landini, Aurelio Leone. Cometa Consortium, La Spezia, SP, Italy; University of Pisa, Pisa, Pi, Italy; City Hospital, Massa, MS, Italy.
PO-163: Management of Arterial Hypertension as Adverse Event of Sorafenib in Cirrhotic Patients with Hepatocellular Carcinoma: The Experience of a Single Liver Unit
Simona Leoni, Sara Marinelli, Barbara Stagni, Anna Pecorelli, Veronica Salvatore, Alessandro Granito, Alberto Borghi, Marzia Galassi, Luigi Bolondi. Sant’Orsola-Malpighi Hospital, Bologna, Italy.

PO-164: Meta-Analysis: The Dual Therapy of Valsartan/Amlodipine Versus Valsartan/Hydrochlorothiazide

PO-165: Management of Uncontrolled Hypertension in the Outpatient Setting
Ahad A. Lodhi, Salma Baksh, Dina Capalongo, Christian Glaser, Ahmed Shawkat. Crozer Chester Medical Center, Uplan, PA, United States.

PO-166: Blood Pressure (BP) & Cardiovascular Disease (CVD) Risk Alterations in Primary Alcohol-Dependent (10 ETOH) Patients Undergoing Detoxification

PO-167: Efficacy and Safety of a Lecarnidipine-Enalapril Fixed-Dose Combination in Hypertensive Patients
João Maldonado,1 Telmo Pereira.2 1Instituto de Investigação e Formação Cardiovascular, Portugal; 2Escola Superior de Tecnologia da Saúde de Coimbra, Portugal.

PO-169: Comparison of Morisky Medication Adherence Scale with Therapeutic Drug Monitoring in Resistant Hypertension
Ambarish Pandey,1 Stephanie Brinker,1 Colby Ayers,2 Debbie Arbique,1 Angela Price,1 Sandeep Das,2 Ethan Halm,2 Norman Kaplan,1 Wanpen Vongpatanasin,1 1UT Southwestern Medical School, United States; 2UT Southwestern Medical School, United States.

PO-170: Ablation for Renal Denervation in Patients with Resistant Hypertension in Ukraine First Experience on Certified Equipment
Oksana L. Rekovets,1 Yuriy M. Sirensko,1 Yuriy M. Sokolov,2 Maksim Y. Sokolov,2 Anna S. Dobrokho,1 Alexandr Y. Sirensko,2 Galina F. Primak,1 1Institute of Cardiology, Kiev, Ukraine; 2Institute of Cardiology, Kiev, Ukraine.
PO-171: Age, Race, and PRA Predict BP Control with Drug Monotherapy in Stage II HTN
Gary L. Schwartz,1 Kent R. Bailey,1 Arlene B. Chapman,2 Julie A. Johnson,3 Stephen T. Turner.1
1Mayo Clinic, United States; 2Emory University, United States; 3University of Florida, United States.

PO-172: Longitudinal Evaluation of Medication Adherence among a Resistant Hypertension Population
John J. Sim,1 Jixiao Shi,2 Kristi Reynolds,2 Elizabeth McGlynn,2 David Calhoun,3 Kamyar Kalantar-Zadeh.4
1Kaiser Permanente Los Angeles Medical Center, Los Angeles, CA, United States; 2Kaiser Permanente Southern California, Pasadena, CA, United States; 3University of Alabama, Birmingham, United States; 4University of California, Irvine, United States.

PO-173: Patterns of Blood Pressure and Lipid Control in Cardiology Faculty Versus Cardiology Fellow Clinics
Grace Wenzel, Christopher Malozzi, Bassam Omar. University of South Alabama, Mobile, AL, United States.

PO-174: Evaluation of a Collaborative Care Model for Pharmacist Interventions To Impact Medication Adherence for Hypertension
Bradley M. Wright†,1,2 Karen F. Marlowe,1,2 Errol Crook.2 1Auburn University, Auburn, AL, United States; 2University of South Alabama, Mobile, AL, United States.

PO-175: Changes in uNGAL in Acute Injury Contrast (Phase 1 or 2- in Acute Kidney Injury Network)
Denis Fabiano de Souza,1,2 Roberto Vieira Botelho,1 Bruno Bordim Pellaza,2 Walter Cury Ana Júnior,2 Samir Seme Arab Reis,1 Sebastião Rodrigues Ferreira Filho.2 1Triangulo Heart Institute, Brazil; 2Federal University of Uberlândia, Brazil.

PO-176: Reduced Expression of the Mitochondrial Antioxidant Peroxiredoxin-3 by Angiotensin II in Cardiac Fibroblasts
Yudi Purnomo, Yvette Piccart, Tamara Coenen, John S. Prihadi, Paul J. Lijnen. Catholic University of Leuven (KULeuven), Leuven, Belgium.

PO-177: Role of Reactive Oxygen Species in the TGF-beta1-Induced Collagen Production and Differentiation of Cardiac Fibroblasts into Myofibroblasts
Yudi Purnomo, Yvette Piccart, Tamara Coenen, John S. Prihadi, Paul J. Lijnen. Catholic University of Leuven (KULeuven), Belgium.

PO-178: The Possible Relationship between the Severity of Coronary Artery Lesion and the Left Diastolic Function in Coronary Heart Diseases
Hongyu Wang, Xibao Fu, Jinbo Liu, Hongwei Zhao, Yongquan Wu. Peking University Shougang Hospital, Beijing, China.
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PO-179: Effects of Liraglutide and Exendin-4 in Limiting Reperfusion Injury in Both WKY and SHR-SP Rats with Left Ventricular Hypertrophy
Barbara Faricelli,1,2 Max Salomonsson,1 Agostino Consoli,2 Thomas Engstrom,3 Marek Treiman.1
1University of Copenhagen, Copenhagen, Denmark; 2G. d’Annunzio University, Chieti, Italy; 3Rigshospitalet-Copenhagen University Hospital, Copenhagen, Denmark.

PO-180: Target Organ Damage, Not Blood Pressure Levels, Are Predictors of Myocardial Ischemia in Resistant Hypertensive Patients
Rodrigo G. P. Modolo, Maria Ondina Paganelli, Ana Paula C. Faria, Natalia R. Barbaro, Andrea R. Sabbatini, Julia Sion, Vanessa Fontana, Heitor Moreno, Jr. Hospital de Clínicas UNICAMP, Campinas, SP, Brazil.

PO-181: Effect of Hypertension in Heart Rupture of Acute Myocardial Infarction: Clinico-Pathological Study
Linda Landini,1 Aurelio Leone.2 1University of Pisa, Pisa, Pi, Italy; 2Ex-City Hospital, Massa, MS, Italy.

PO-182: Impact of Hypertension on Extent of Coronary Artery Disease in Patients with Non-ST-Elevation Acute Coronary Syndrome
Burçak Kılıckıran Avci, Baris Ikitimur, Ozge Ozden Tok, Emre Erturk, Murat Cimci, Ilkin Babayev, Bilgehan Karadag, Zeki Ongen. Cerrahpasa Medical Faculty, Istanbul, Turkey.

PO-183: “Obesity Paradox” in the Prevalence of Artherosclerosis in Patients with Risk Factors for Coronary Artery Disease Detected by MDCT Calcium Scoring

PO-184: The Influence of Hypertension on In-Hospital Outcome in Patients with Acute Myocardial Infarction in Durres Population
Eliverta Zera,1 Elizana Zaimi Petrela,2 Sotir Xhunga.1 1Regional Hospital, Durres, Albania; 2University Hospital Center “Mother TERESA”, Tirane Albania, Tirane, Albania; 3Regional Hospital, Durres, Albania.
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**GENETICS/GENE THERAPY/PROTEOMICS**

**PO-185:** Genome-Wide Pharmacogenomic Response to Antihypertensive Medication Using Home Blood Pressure Measurements – The HOMED-BP-GENE Study  
Kei Asayama,¹,² Kei Kamide,³ Tomohiro Katsuya,³ Azusa Hara,⁴ Takayoshi Ohkubo,²,⁵ Mitsuru Ohishi,³ Yuhei Kawano,⁶ Toshio Oghara,⁷ Hiromi Rakugi,³ Jan A. Staessen,¹,⁸ Yutaka Imai.² ¹University of Leuven, Leuven, Belgium; ²Tohoku University, Sendai, Japan; ³Osaka University, Suita, Japan; ⁴National Cancer Center, Tokyo, Japan; ⁵Shiga University of Medical Science, Otsu, Japan; ⁶National Cerebro and Cardiovascular Research Center, Suita, Japan; ⁷Morinomiya University of Medical Sciences, Osaka, Japan; ⁸Maastricht University, Maastricht, Netherlands.

**PO-186:** Interaction between Alcohol Habit and Gene Polymorphism of Beta2-Adrenergic Receptor (ADRB2) on the Risk of Essential Hypertension (HT) in Japanese Population  
Masahiko Eto,¹ Takanori Aonuma,¹ Masanobu Okayama,² Taro Takeshima,² Makio Kumada,² Rotei Uehara,³ Yoshikazu Nakamura,³ Eiji Kajii,² ¹Wakuya Medical and Welfare Center, Wakuya, Miyagi, Japan; ²Jichi Medical University, Shimotsuke, Tochigi, Japan; ³Jichi Medical University, Shimotsuke, Tochigi, Japan.

**PO-187:** Left Ventricular Mass and Carotid Intima-Media Thickness in Relation to the Polymorphisms in 5 Genes of the Renin-Angiotensin-Aldosterone System in Prospective Observation  
Katarzyna Stolarz-Skrzypek, Agnieszka Olszanecka, Wiktoria Wojciechowska, Kalina Kawecka-Jaszcz, Danuta Czarnecka. Jagiellonian University Medical College, Krakow, Poland.

**NOVEL ANTIHYPERTENSIVE DRUG DEVELOPMENT**

**PO-189:** Standardized Eucommia Extract Improves Circadian Blood Pressure Measures in Prehypertension (PreHTN) and Hypertension (HTN)  
Alok K. Gupta,¹ Vikar Mohammed,¹ Ying Yu,¹ Zhijun Liu,² Frank L. Greenway.¹ ¹PBRC, Baton Rouge, LA, United States; ²LSU AgCenter, Baton Rouge, LA, United States.
PO-190: Obese Patients with Diabetes Have Increased Arterial Stiffness and Higher Early Morning Blood Pressure Level Than Non-Diabetics
Ricardo M. Cabrera Sole, Caridad Turpin, Santiago Garcia Ruiz, Santos J. Martinez Gonzalez, Oscar Castro Oliveira. 1 University General Hospital of Albacete, Albacete, Spain; 2 Universidad Del Mar, Santiago de Chile, Chile.

PO-191: Obese Hypertensive Patients Have Similar Arterial Stiffness That Elderly Hypertensive Patients
Ricardo M. Cabrera Sole, Caridad Turpin Lucas, Santos J. Martinez Gonzalez, Oscar Castro Olivares, Manuel Aguiler. 1 University General Hospital of Albacete, Albacete, Spain; 2 Universidad Del Mar, Santiago de Chile, Chile.

PO-192: MANP: In Vitro and In Vivo Properties of a Novel Designer Natriuretic Peptide for Cardiometabolic Disease

PO-193: Metabolic Not Anthropometric Measures Are Associated with Lower Circulating Natriuretic Peptide Levels in Obese Men
Camilla L. Asferg, Soren J. Nielsen, Ulrik B. Andersen, Allan Linneberg, Daniel V. Möller, Paula L. Hedley, Michael Christiansen, Jens P. Götte, Jørgen L. Jeppesen. 1 Copenhagen University Hospital Glostrup, Denmark; 2 Copenhagen University Hospital Gentofte, Denmark; 3 Statens Serum Institut, Denmark; 4 Copenhagen University Hospital Rigshospitalet, Denmark.

PO-194: Changes in Hypertension Control in African-Americans Compared to Other Ethnicities 3.5 Years after Adjustable Gastric Banding for Morbid Obesity
Ted Okerson†, Rui Shi. 1 Allergan, Irvine, CA, United States; 2 University of California Irvine, Orange, CA, United States; 3 Allergan, Bridgewater, NJ, United States.

PO-195: Bariatric Surgery Improves the Metabolic Profile of Morbidly Obese Premenopausal Women
John A. Papadakis, Georgios Marantos, Markos Daskalakis, Eirini Lioudaki, John Melissas. 1 University Hospital of Heraklion, Greece; 2 University Hospital of Heraklion, Greece.

PO-196: Delayed Diagnosis of Primary Aldosteronism – Help from the Web for Patients and Practitioners
Clarence E. Grim. High Blood Pressure Consulting, Stateline, NV, United States.
PO-197: Potential Treatment of Hyperaldosteronism with a Tyrosine Kinase Inhibitor
Bhupinder Singh, Pratik Shah, Kenneth Boren.
Southwest Kidney Institute, Tempe, AZ, United States; St. Joseph's Hospital, Phoenix, AZ, United States.

PO-199: Effects of Pretreatment with Different Antihypertensive Agents on the Outcome of Patients with Acute Ischemic Stroke
Konstantinos Tziomalos, Stella D. Bouziana, Athinodoros Pavlidis, Marianna Spanou, Vasilios Giampatzis, Chrysooula Boutari, Giannis Kagelidis, Maria Papadopoulou, Christos Savopoulos, Apostolos I. Hatzitolios. Medical School, Aristotle University of Thessaloniki, AHEPA Hospital, Thessaloniki, Greece.

PO-200: In Vitro and In Vivo Characterization of Adult Endothelial Cells Overexpressing IL8RA and IL8RB Receptors, Which Have Been Used To Repair Injured Blood Vessels
Xiangmin Zhao, Dongqi Xing, Jinyan Fu, Fadi Hage, Yuanyuan Kao, Suzanne Oparil, Yu-Fai Chen. University of Alabama at Birmingham, Birmingham, AL, United States.

PO-201: Inflammatory Biomarkers and Arterial Stiffness in Resistant Hypertensive Patients
Natalia R. Barbaro, Ana Paula C. Faria, Vanessa Fontana, Andrea R. Sabbatini, Rodrigo G. P Modolo, Beatriz V. D. Moreno, Heitor Moreno. Unicamp, Sao Paulo, Brazil.

PO-202: Estrogen Ameliorates Vascular Inflammation in Young but Not Aged Mice
Fadi G. Hage, Meaghan Bowling, Dongqi Xing, Akash Kapadia, Yiu-Fai Chen, Alexander Szalai, Suzanne Oparil. University of Alabama at Birmingham, United States; Birmingham Veterans Affairs Medical Center, United States.

PO-203: Central Arterial Haemodynamic and Components of Periodontitis in a Cross Sectional Population-Based Study

PO-204: Possible Link between Cardio-Ankle Vascular Index and Homocysteine in Vascular Related Diseases
Hongyu Wang, Jinbo Liu, Hongwei Zhao, Xiaobao Fu, Guangyun Shang. Peking University Shougang Hospital, Beijing, China.
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PO-205: **Gene Therapy Targeting Endothelial Hemoxygenase Improves Reno-Vascular-Metabolic Functions in Ang. II Hypertensive Animal Model**

Tariq Rehman, Zeid Khitan, Larry Dial, Joseph Shapiro. Marshall University, Huntington, WV, United States.

PO-206: **Atherosclerosis as Hidden Target Organ Damage in Patients Infected by HIV**

Belen Roig-Espert,1 Juan J. Tamarit-García,2 Patricia Sacie-Reyes,2 Amparo Lozano-Cebrian,2 Ana Ruiz-García,2 Belen Vizcaíno-García,2 Arturo Artero-Mora.2

1Manises Hospital, Manises, Valencia, Spain; 2Dr. Peset Universitary Hospital, Valencia, Spain.

PO-207: **Effects of Olmesartan Associated with Amlodipine on Pulse Wave Velocity in Hypertensive Patients**

Juan J. Tamarit-García,1 Belen Roig-Espert,2 Ana Ruiz-García,1 Patricia Sacie-Reyes,1 Belen Vizcaíno-García,1 Amparo Lozano-Cebrian,1 Aurelio Baixauli-Rubio,2 Arturo Artero-Mora.1 1Dr. Peset Universitary Hospital, Valencia, Spain; 2Manises Hospital, Valencia, Spain.
Late-Breaking Posters

LB-PO-01: Angiotensin II Receptor Blocker Is Preferable to Calcium Channel Blocker To Improve Nocturnal Dipping Pattern in Untreated Hypertensives

LB-PO-02: Factors Influencing Screening for Hypertension in a Low Income Country
Fred Nuwaha, Geoffrey Musinguzi. Makerere University School of Public Health, Kampala, Uganda.

LB-PO-03: Childhood Family Structure and Adult Hypertension among African Americans: The Pitt County Study
Debbie S. Barrington,1 Sherman A. James.2 1National Institute on Minority Health and Health Disparities, Bethesda, MD, United States; 2Duke University, Durham, NC, United States.

LB-PO-04: Patients with Short Dipper Duration Have More Severe Diastolic Dysfunction

LB-PO-05: Genetic Influences on the Pharmacokinetic and Pharmacodynamic Characteristics of Valsartan

LB-PO-06: Predictors and Prevalence of Renal Damage in Japanese Patients with Primary Aldosteronism
Yoshitsugu Iwakura, Ryo Morimoto, Masataka Kudo, Yoshikiyo Ono, Masahiro Nezu, Sadayoshi Ito, Fumitoshi Satoh. Tohoku University Hospital, Sendai, Japan.

LB-PO-07: Antihypertensive Effects of Granulocyte Colony-Stimulating Factor (GCSF) Not Involves Angiogenesis in Spontaneously Hypertensive Rats
Igor Oliveira Loss,1 Thalles Ramos Almeida,1 Eliângela Cobo,1 Marilia Beatriz Cubá,1 Carolina Salomão,1 Vanessa Cappuano,1 Nicola Montano,3 Valdo José Dias Silva,1,2 Federal University of Triângulo Mineiro, Uberaba, MG, Brazil; 2University of Milan, Milan, Lombardy, Italy.
Late-Breaking Posters

LB-PO-08: Aliskiren Effect on Plaque Progression IN Established Atherosclerosis Using High Resolution 3D MRI (ALPINE): A Double Blind Placebo Controlled Trial
Georgeta Mihai,1 Juliet Varghese,1 Liubov Gushchina,1 Lisa Hafer,1 Jeffrey A. Deiulisi,1 Sanjay Rajagopalan†.1
1The Ohio State University, Columbus, OH, United States; 2The Ohio State University, Columbus, OH, United States.
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Timothy W. Meyer, MD
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Joshua A. Samuels, MD, FASH  
Speakers' Bureau/Speaking/Teaching: Novartis Pharmaceuticals.

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Grant/Research Support: Stealth Peptides.

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Rhian M. Touyz, MD, PhD
I have no relationships to disclose.

Raymond R. Townsend, MD, FASH

Meryem Tuncel-Kara, MD
I have no relationships to disclose.

James A. Underberg, MS, MD, FASH

*Elaine M. Urbina, MD, MS, FASH

Barbara Vickrey, MD, MPH
I have no relationships to disclose.

*Anthony J. Viera, MD, MPH
Trustee/Board Member/Committee Member: Suntech Medical Advisory Board. Grant/Research Support: NHLBI grant support.

Evelyn R. Walker, MD, MPH
I have no relationships to disclose.

Changqian Wang, MD
I have no relationships to disclose.

Hongyu Wang, MD, FASH
I have no relationships to disclose.

*R. Clinton Webb, PhD
I have no relationships to disclose.

Michael A. Weber, MD, FASH
Advisor/Consultant: Boehringer Ingelheim, Daiichi Sankyo, Takeda, Forest, Glaxo Smith Kline. Trustee/Board Member/Committee Member: Center for Medicine in the Public Interest (CMPI) Board. Speakers’ Bureau/Speaking/Teaching: Daiichi Sankyo, Forest, Takeda. Editor-in-Chief, The Journal of Clinical Hypertension (JCH).

Myron H. Weinberger, MD

Matthew R. Weir, MD, FASH
Advisor/Consultant: Sanofi, MSD, Pfizer, Daiichi-Sankyo, Janssen, Otsuka, Amgen.

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Disclosures of Program Committee, Faculty Members and Staff  
continued

Donald Wesson, MD
I have no relationships to disclose.

*Paul K. Whelton, MB, MD, MSc
I have no relationships to disclose.

*William B. White, MD, FASH
Royalties (including trademarks or patents): Editor, Blood Pressure Monitoring (Wolters Kluwer). Advisor/Consultant: Safety, Astra Zeneca, Forest Research, Palatin, Roche, Takeda. Grant/Research Support: All research is NIH funded only. President, ASH Board of Directors. ASH Scientific Program Committee Chair.

*Christopher S. Wilcox, MD, PhD

Jessica G. Woo, PhD
I have no relationships to disclose.

Jackson T. Wright, Jr., MD, PhD, FASH
Advisor/Consultant: Medtronic. Trustee/Board Member/Committee Member: Association of Black Cardiologists, Northeastern Ohio Neighborhood Health Centers. Grant/Research Support: NIH, Medtronic.

Guifu Wu, MD, PhD
I have no relationships to disclose.

Steven A. Yarows, MD, FASH
Speakers’ Bureau/Speaking/Teaching: Takeda.

Alberto Zanchetti, MD

Faiez Zannad, MD
Advisor/Consultant: Bayer, Biotronik, BostonScientific, Gambro, Janssen, Novartis, Pfizer, Resmed, Servier, Takeda. Grant/Research Support: Biomérieux, BG Medicine, Roche.

Hongyan Zeng, MD
Employment Income/Salary: People’s Hospital of Pi County, Sichuan, China.
2013 ASH Innovations Theater
Club Room – 2nd Level

Wednesday, May 15, 2013 • 5:30 PM to 6:30 PM

The Case for EDARBYCLOR
Patient Profile in Hypertension Management
A Presentation by Takeda Pharmaceuticals USA, Inc.

The Innovation Theater is a non-CME event held during Exhibiting Hours. The Innovations Theater’s content and the views expressed therein are those of the presenting corporate entity and not of the American Society of Hypertension, Inc. The content is not part of the ASH Annual Scientific Meeting as approved by the Annual Scientific Program Committee.

Thursday, May 16, 2013 • 12:00 PM to 1:00 PM

Chronic Management of Obesity: The Role of a Unique, Once-Daily Treatment
A Presentation by Vivus, Inc.

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Thursday, May 16, 2013 • 6:15 PM to 7:15 PM

AZOR® and TRIBENZOR®: The Power of Fixed-Dose Combination Therapy
A Presentation by Daiichi Sankyo, Inc.

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Friday, May 17, 2013 • 4:30 PM to 5:30 PM

A New Treatment Approach for Type 2 Diabetes:
Discussion of a Novel SGLT2 Inhibitor for Use in the Treatment of Type 2 Diabetes
A Presentation by Janssen Pharmaceuticals, Inc.

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Address: 11 Commerce Drive, Suite 100
Cranford, NJ 07016
Phone: 908-372-0506
E-mail: info@akrimax.com
Website: www.akrimax.com
Booth Number: 306

Akrimax Pharmaceuticals is a privately-held, innovative specialty pharmaceutical company that acquires, develops and markets advanced ethical prescription medications. The current company portfolio of products includes Primlev™ (oxycodone/acetaminophen), Suprenza™ (phentermine HCl), Tirosint® (levothyroxine sodium), NitroMist® (nitroglycerin lingual aerosol), InnoPran XL® (propranolol HCl) extended release capsules, and Inderal® LA (propranolol HCl) Long acting. More information on Akrimax and its products can be obtained at www.akrimax.com.

American Society of Hypertension, Inc. (ASH)
Membership Information
ASH Education and Research Foundation
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Brooklyn, NY 11201
Phone: 212-696-9099
Toll-free: 866-696-9099 (US Residents Only)
Fax: 347-916-0267
E-mail: ash@ash-us.org
Booth Number: 500

ASH Hypertension Community Outreach
Address: 45 Main Street, Suite #712
Brooklyn, NY 11201
Contact: Barbara E. Escobar, Manager
Phone: 212-696-9099
Toll-free: 866-696-9099 (US Residents Only)
Fax: 347-916-0267
E-mail: ash@ash-us.org
Booth Number: 503

The activities of the ASH Hypertension Community Outreach program are managed by Gilda Caputo-Hansen, CEO, Hansen Global Event Management, LLC (HGEM). For information about the activities, please contact Gilda by telephone at 866-383-6027 or 516-361-2181 or via e-mail at ash@hansenglobalevents.com.
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Itasca, IL 60143
Phone: 630-228-8871
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Phone: 604-540-7887 or 1-866-921-7887
Fax: 604-540-7875
E-mail: support@bptru.com
Website: www.bptru.com
Booth Number: 304

The BpTRU™ models BPM-100 and BPM-200 are automated, oscillometric non-invasive blood pressure monitors that yield consistent, reproducible results. BpTRU™ minimizes white coat effect and eliminates variability associated with user technique. This translates into a powerful and very effective instrument which can be summed up in 3 key customer benefits – patient care, time savings and affordability.

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Cardio Renal Society of America

Address: 4203 E. Indian School Road, #140
Phoenix, AZ 85018
Contact: Leslie Azurdia Brown
Phone: 602-845-7915
Fax: 602-845-7965
E-mail: leslieb@cardiorenalsociety.org
Website: www.cardiorenalsociety.org
Booth Number: 104

Cardio Renal Society of America (CRSA) is a nonprofit community healthcare organization whose goal is to help prevent and manage heart disease, kidney disease and diabetes through public and professional education and research. The CRSA founders, including National Kidney Foundation of Arizona, area cardiologists, nephrologists and endocrinologists, are convinced that a collaborative, interdisciplinary organization is the best approach to waging an effective battle against these serious diseases. The Cardio Renal Society of America provides access to cutting edge research, continuing education from world-renowned experts and the ability to share the latest ideas in cardio-renal collaboration.

Daiichi Sankyo, Inc.

Address: 2 Hilton Court
Parsippany, NJ 07054
Phone: 973-944-2600
Fax: 973-944-2645
Website: www.dsi.com
Booth Number: 405

Daiichi Sankyo, Inc. (DSI), headquartered in Parsippany, NJ, is the U.S. subsidiary of Daiichi Sankyo Co., Ltd., a global pharmaceutical company. The company is focused on the development of cardiovascular and oncology therapies and concentrates in the therapy areas of hypertension, thrombosis, dyslipidemia, diabetes and acute coronary syndrome.

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Founded in 1986, ISHIB is a non-profit organization of healthcare professions and leaders in cardiovascular disease and related disorders. Our mission is to improve the health and life expectancy of ethnic minorities and eliminate racial and ethnic health disparities in cardiovascular disease through professional and public education, targeted clinical research, and facilitation of the delivery of higher quality cardiovascular health care. We host an annual conference, membership and other programs.
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Website: www.MedtronicRDN.com

Booth Number: 107

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Golden, CO 80401
Contact: Wei-Jung Lo
Phone: 303-274-2277, Ext: 108
Fax: 303-274-2244
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Microlife Medical Home Solutions Inc. provides evidence-based, physician-guided, cost-effective solutions that help physicians adopt patient-centered care and empower patients to manage their health. WatchBP Practice Solutions are helping primary care practices advance hypertension diagnosis and treatment management.

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Snoqualmie, WA 98065
Phone: 425-396-3300
E-mail: marketing@spacelabs.com
Website: www.spacelabshealthcare.com

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Takeda Pharmaceuticals U.S.A., Inc.
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Phone: 224-554-5600
Website: www.tpna.com
Booth Number: 300

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U.S. Food & Drug Administration
Address: 1431 Harbor Bay Parkway
Alameda, CA 94502-7070
Phone: 510-337-6700
Website: www.fda.gov
Booth Number: 502

FDA patient education materials will be showcased. Topics include high blood pressure, cholesterol, women and heart disease, smoking, using medicines wisely, sodium in the diet, how to read the Nutrition Facts label, and other health/nutrition issues. These free, plain-language materials can be ordered in bulk from FDA in Spanish as well as English.

VIVUS, Inc.
Address: 1172 Castro Street
Mountain View, CA 94040
Phone: 650-934-5200
Medical Information: 1-888-998-4887
Fax: 650-934-5353
Website: www.vivus.com
Booth Number: 100

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2013 ASH Exhibitors continued

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