



International Society of Hypertension HYPERTENSION NEWS

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FROM THE EDITOR

DOI: 10.30824/1811-1

Record 1,385 People Accessed June's Newsletter



Lars H. Lindholm
Hypertension News, Editor

Dear ISH member,

It is my pleasure to present Opus 54 of Hypertension News to you, which I hope you will enjoy reading. We are absolutely delighted that almost 1,400 people accessed the previous issue, published in June 2018 (see page 2) - highest figure ever! I would like to extend my sincere thanks to all those ISH Council members and others who helped with the distribution.

Earlier this year, the Editorial team of the Newsletter decided to make three major changes. First, we almost halved the number of pages. Second, we improved the distribution figures by adding DOIs and we now also circulate the newsletter via social media channels (Twitter and Facebook). Third, we will add three "novelties", letting the number of pages climb back to about 75% of what it once was:

(i) In this issue, we have added a lighter section entitled: "News, Old News, and Fake News". You will find "It ain't over until the fat lady sings" written by Stephan Rössner from Sweden on pages 18 - 20.

(ii) In the next issue (Opus 55, planned for March 2019) we will introduce a new section called "Learning the Ropes", first focusing on meta-analyses.

(iii) Later next year, we will also include adverts for research positions for junior and senior researchers. Already in this issue, you will find a "Positions Available" section on page 21. The adverts will be free for paying (!) members of ISH

At the successful ISH meeting in Beijing, the ISH inducted a new President, Alta Schutte from South Africa. In this issue of the Newsletter, Alta tells us where she wants to take the Society over the course of her presidency. It is clear that she has a strong focus on low- and middle-income countries where levels of awareness,

FROM THE EDITOR

treatment, and control of high blood pressure are unacceptably low. After her well written text (on [page 3](#)), you will find a presentation with photos of her new Scientific Council.

The Deputy Editor of Hypertension News, Dylan Burger, from Canada is also now Chair of the Communication Committee, a position he is most qualified for. On [page 17](#), you will see the five goals he has set for the coming two years. To my delight, Dylan has agreed to continue as Deputy Editor of Hypertension News, with responsibility for basic science and data communication,

The ISH meeting in Beijing was a great success with about 3,000 attendees. The Chair of the Program Committee, Thomas Unger from The Netherlands, worked around the clock with Helen Horsfield, ISH Secretariat, and co-workers to give us a really interesting program and they succeeded! You will find Thomas's report on [pages 6 - 7](#) together with interesting contributions from two members of the New Investigator Committee (Brandi Wynne, USA, Katarina Mirabito Colafella, Australia) and Chair of the Women in Hypertension Committee (Ulrike Steckelings, Denmark).

Finally, towards the end of the Newsletter ([pages 22 - 25](#)), you will find an Institute Focus written by Mark Caufield, UK and a short report ([page 26](#)) from the ISH / RSH Joint Educational Meeting in Moscow from Natalia Blinova, Russia and Peter Nilsson, Sweden.

Have a good read!

Lars H. Lindholm

Lars H. Lindholm

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HYPERTENSION NEWS DISTRIBUTION DATA

2018 has been a year of significant expansion in terms of the reach of Hypertension News. With the introduction of DOIs and a greater use of social media for distribution, readership continues to grow. Indeed, we have seen more than a doubling of readership in the past year and are now providing several means of accessing content. This includes traditional methods of distribution such as e-mails circulated by the ISH Secretariat, but also distribution via DOI links, Facebook and Twitter. In fact, individuals accessing Hypertension News by non-traditional methods now outnumber those who access it through e-mail.

The table below provides a breakdown of how Hypertension News is currently accessed by readership. Note: these numbers are an estimation as there is likely a small subset of individuals who access the newsletter on multiple occasions.

By contrast, we are also not tracking those individuals who download the issue directly or those who access via a secondary link on social media. Regardless, it is clear that readership appreciates the variety of methods to access Hypertension News and this will be a staple means of circulation going forward. Hypertension News has also been a driver of ISH social media activity over the past 6 months accounting for just over 10% of ISH activity on Facebook and Twitter.

Hypertension News Distribution (Opus 53, June-October)	
Directly accessed Hypertension News (via e-mail link)	636
Accessed Hypertension News via Twitter	43
Accessed Hypertension News via Facebook	139
Accessed Hypertension News via shared DOI link	237
Accessed via ISH Web Site	330

Dylan Burger,

Hypertension News

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Alta Schutte

President 2018 - 2020

Director, MRC Unit for Hypertension and Cardiovascular Disease

Hypertension in Africa Research Team (HART), North-West University, Potchefstroom, South Africa

Since the establishment of the International Society of Hypertension (ISH) over 50 years ago, much has changed in the global scene of hypertension. Over this time, prominent ISH

members have been involved in the discovery and development of a range of anti-hypertensive therapies. Today these evidence-based anti-hypertensive medications are available worldwide and are highly cost-effective.

Much has also changed in terms of the global burden of hypertension – the burden has shifted from high-income to middle- and low-income countries. Worldwide, systolic blood pressure remains the leading risk factor responsible for over 10 million deaths each year.

Notwithstanding the highly-effective affordable treatment that is available, we have not yet found a solution to this immense problem.

As the leading global hypertension society, the core objectives of the ISH are firstly to encourage the advancement of scientific knowledge and discoveries, and secondly to contribute to the application of this knowledge. During my term as ISH President, I wish to work with the ISH leadership to prioritise improving the global risk factor of hypertension, particularly in low- and middle-income countries, where levels of awareness, treatment and control of hypertension are unacceptable.

Residing in South Africa, a developing country highly affected by hypertension, nothing would give me more pleasure than to see this situation improve.

How can the ISH contribute to reduce hypertension (with a focus on developing countries)?

My objectives for the following two years are to:

1. **Improve awareness.** Every adult should know their blood pressure.¹ Throughout 2019 we will build on the highly successful May Measurement Month awareness campaign, steered by Neil Poulter.²

2. **Provide worldwide hypertension guidelines.** With recent guidelines developed for America and Europe, the Society wishes to provide clear worldwide guidelines with specific sections for regions and special populations.

3. **Improve education and training.**

- Not only of general practitioners, but with a specific focus on nurses and community health workers. The Society is now working with several partners towards free online training and certification for the management of hypertension. The ISH Council also recently approved the establishment of a new membership category: **Health Professional Affiliate**. We now welcome applications from nurses, pharmacists and community health workers who mainly manage hypertension in the developing world.

Continued overleaf

FROM THE ISH PRESIDENT

- Through the Society's Regional Advisory Groups (RAGs) and the New Investigator and Mentorship Committee, there will again be many teaching seminars, summer schools and similar training activities held throughout all regions.
- Our newsletter (Hypertension News), the ISH website and social media accounts continuously distribute relevant information to all members. We welcome any contributions.
- We expect our future Biennial Scientific Meetings where we share scientific knowledge to continue to be highly successful. Upcoming meetings include the **ESH-ISH Joint Meeting in Glasgow**, UK in 2020 (29 May-1 June) and the ISH Meeting in Kyoto, Japan in 2022 (12-16 October).

4. Strengthen our global footprint. Unlike many other hypertension societies, the membership growth of the Society has remained on a steep upward trajectory over the past years – this reflects the increasing interest in being involved with hypertension-related activities. By including new investigators (doctoral students and post-docs) as Research Fellows, the next generation of upcoming scientists as Emerging Leaders, combined with the increased membership of Professional Members, the Society's growth and impact go from strength to strength. Our further expansion to include nurses and community health workers as Health Professional Affiliates will aid in strengthening our global footprint. Our recognition of the underrepresentation of women in our membership and Council is also a priority, and we aim to address this with the establishment of the Women in Hypertension Committee and other activities.

I have been privileged to serve on the ISH Executive Committee since 2012 and during this time enjoyed working with many Council members and Past Presidents. In particular I wish to thank Neil Poulter (Immediate Past President) and Maciej Tomaszewski (Immediate Past Secretary) for their excellent guidance over the past years, and also Rhian Touyz, Ernesto Schiffrin, Tony Heagerty, Lars Lindholm and Stephen Harrap who have been so encouraging.

Finally I wish to sincerely thank the Society membership for this wonderful opportunity and honour to serve as President. I am grateful for the overwhelming support I have received so far, and rely on our members to get in touch with ideas, comments or initiatives. Please contact our ISH Secretariat (secretariat@ish-world.com).

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ISH Mentorship and Networking Event



ISH Women in Hypertension Research

ISH COUNCIL MEMBERS AND RAG CHAIRS 2018 - 2020

It is a pleasure to introduce the new and ongoing Council members, as well as the Chairs of the Regional Advisory Groups



First Row:

Alta Schutte, President; Fadi Charchar, Vice-President; Thomas Unger, Secretary; Markus Schlaich, Treasurer; Ulrike Steckelings, Chair Women in Hypertension Committee; Hiroshi Itoh, Council Member; Peter Nilsson, Chair Europe RAG

Second Row:

Richard Wainford, Chair Membership Committee; Neil Poulter, Immediate Past-President; Myeong Chan Cho, Council Member; Maciej Tomaszewski, Council Member; Rafael Castillo, Council Member; Agustin Ramirez, Council Member & Co-Chair Americas RAG; Albertino Damasceno, Chair Africa RAG

Third Row:

Dylan Burger, Chair Communications Committee; Sadayoshi Ito, Council Member; Nadia Khan, Co-Chair Americas RAG; Yoshihiro Kokubo, Council Member; Bryan Williams, Council Member; Daniel Lackland, WHL Representative

Fourth Row:

Claudio Borghi, Chair Research Science and Education Committee; Dorairaj Prabhakaran, Chair South and West Asia and the Middle East RAG; Enrico Agabiti-Rosei, ESH Representative; George Stergiou, Council Member; Trefor Morgan, APSH Representative; Lars H. Lindholm, Editor Hypertension News; Lew Landsberg, Chair Board of Management of the Journal of Hypertension

ISH Beijing 2018 - A great success!

Thomas Unger
ISH Secretary; Chair Beijing 2018 Committee
Em. Professor of Pharmacology and Experimental Medicine
CARIM, Maastricht University, The Netherlands



With almost 3,000 registered participants, Hypertension Beijing 2018, the 27th Scientific Meeting of the International Society of Hypertension (ISH), held in cooperation with the Chinese Hypertension League (CHL) and the Asian Pacific Hypertension Society (APSH), was a great success. The scientific programme comprised 99 sessions with a total of 657 oral presentations, among these three plenary sessions with five keynote speakers, 55 parallel sessions, 13 breakfast workshops, and 28 additional free oral sessions.

From a total of 1,610 abstracts submitted, 1,591 abstracts were accepted as oral presentations or moderated poster presentations, which speaks for the high quality of submissions throughout. The faculty was truly international: 323 faculty members came from 43 countries. Counting the abstract submissions by countries and regions, China was by far the leading nation, followed by Japan, India, Australia, Ukraine and South Korea. Among the African countries, Nigeria and Cameroon took the lead, in Europe the UK and Italy, and from the Americas the US and Brazil.

In a well-orchestrated closing ceremony, a respectable number of awards were presented: beside the traditional ISH awards for New Investigators and established, meritorious Hypertension Researchers, there were 10 Young Investigator Awards of the APSH and 37 Hypertension Beijing 2018 Oral and Poster Presentations Awards. Altogether, the high scientific quality of the congress with its balance between basic and clinical science as well as public health and population science, with its incorporation of participants from all continents, was unanimously acknowledged, perfectly fitting the mission and scope of ISH as the global scientific society to reduce the world-wide burden of hypertension.



Closing ceremony awards:

Pictured left: Best Oral Presentation Award

Pictured Right: Best Poster Presentation Award

Continued overleaf



Presidential Dinner entertainment depicting Chinese history over the years



Traditional Chinese music arrangements during the Gala Dinner

Our Chinese hosts, Professors Zhaosu Wu, Jiguang Wang and Yuqing Zhang together with their colleagues from the Local Organizing Committee (LOC) spared no effort to make the congress as enjoyable as possible. Throughout the Presidential Dinner, Chinese history through all the dynasties from medieval times on was presented in a marvellous, breath-taking traditional Peking Opera-like show, and the dramaturgy of the opening and closing ceremonies was impressive.

The Chinese branch of the organizing congress agency K.I.T. (led by Chunjing Yang) also substantially contributed to the success of the event. In preparation for the congress, they spent innumerable hours, days and nights taking care of the smaller and bigger organizational and logistical problems which always accompany congresses of such magnitude. One of the major problems turned out to be the acquisition of visas to enter the Peoples' Republic of China from certain countries. At one point, there were more than one-hundred applicants who failed to secure such visas. In some cases, the joint efforts of the LOC and others could assist in securing such visas, however, unfortunately for others, the required documents could not be sent out in time. This meant that several colleagues, who desperately wanted to join the congress, regrettably had to stay at home.

Another problem related to the acquisition of sponsorship for the congress. All those who have organised Hypertension meetings during the last decade have experienced an ever-increasing difficulty with respect to fundraising, mainly due to the withdrawal of the pharmaceutical industry from hypertension research, development, and marketing. In addition, most of the negotiations had to be done with the Chinese subsidiaries of the globally acting companies or directly with local Chinese companies. Despite these difficulties, the LOC, together with the fundraiser from K.I.T, Johannes Müller-Diesing, managed to secure a reasonable budget for the organisation of the meeting.

We all had a great time, enjoying the scientific part of the congress as well as the social programme. Meeting old friends, making new acquaintances, having lively discussions and debates, and being so nicely greeted by the excellent hospitality of our Chinese colleagues and friends.

Finally, I would like to thank all the members of the ISH Beijing 2018 Committee, Neil Poulter, Maciej Tomaszewski, Cheol-Ho Kim, Lars H. Lindholm, Dylan Burger, Jiguang Wang, Alta Schutte, Masa Horiuchi, Ruan Kruger, and Trefor Morgan for their commitment and continuous support, and my special thanks go to Helen Horsfield from the ISH Secretariat in London for tirelessly managing us and the congress as a whole.

Thomas Unger

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International Society of Hypertension New Investigator Oral Awards Session

Brandi M. Wynne, PhD FAHA
Department of Medicine, Nephrology
Emory University, Atlanta, USA



The International Society of Hypertension (ISH) New Investigator Oral Awards, created in 2012, highlight some of the best hypertension research being performed by junior investigators in the world. This year, eight finalists were chosen from the highest scoring abstracts and were invited to present their work during the New Investigator Oral Awards session, chaired by ISH New Investigator Committee (NIC) chair and member, Drs. Ruan Kruger and Cesar Romero. The finalists were: Conghui Wang - Japan, Estrellita Uijl - The Netherlands, Tecla Namusonge - Kenya, Chao Chu - China, Nikki Pandey - India, Fei Wang - USA and China, Shilpa Sadanand - India and Laure Rouch - France. Their excellent presentations covered both basic, translation and clinical science projects and several countries were represented during this session.

We are excited to report that the runner up was Dr. Laure Rouché from the Department of Geriatrics, Broca Hospital, Paris, France, who presented her work entitled *Pulse Wave Velocity is Associated with Greater Risk of Dementia in Mild Cognitive Impairment Patients*. Her work focused on the association between vascular function and structure on the conversion from mild cognitive impairment (MCI) to dementia in elderly patients. Dr. Rouché observed that pulse wave velocity, a measurement of arterial stiffness, predicted the conversion from MCI to dementia. This year's winner of the New Investigator Oral Presentation Award was Dr. Fei Wang currently in the Nephrology Division at the University of Utah, USA. His exceptional presentation, "Site-1 Protease-Derived Soluble (Pro)Renin Receptor Contributes to Salt-Sensitive Hypertension in Dahl S Rats via Activation of Intrarenal RAS", discussed the role of the soluble pro-renin receptor (sPRR) during salt-sensitive hypertension. He observed that site-1 protease-derived sPRR is important in the development of salt-sensitive hypertension, via intrarenal renin angiotensin system activation. Together, the winner, runner-up and finalists of this year's New Investigator Oral Presentation Awards showcased promising young investigators in hypertension.



Pictured left:
Fei Wang

Pictured right:
Laure Rouch



Brandi M. Wynne
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ISH Beijing 2018

Katrina Mirabito Colafella

NHMRC CJ Martin Fellow and Cardiovascular Program Emerging Leader, Biomedicine Discovery Institute, Department of Physiology, Monash University, Melbourne, Australia

Visiting Fellow, Division of Vascular Medicine and Pharmacology, Department of Internal Medicine, Erasmus Medical Centre, Rotterdam, The Netherlands



ISH 2018 was a four-day event in the bustling city of Beijing (there are nearly as many people in Beijing as there are in the whole of Australia!) bringing together researchers from all over the globe. As an invited speaker for one of the joint European Council for Cardiovascular Research (ECCR)/High Blood Pressure Council of Australia (HBPRCA) breakfast workshop sessions and it was an honour to be able to present my latest work on angiogenesis inhibitor-induced hypertension. This area of research is in the rapidly growing cardio-oncology field which is aimed at minimising the effects of cardiovascular morbidity and mortality in cancer patients. Many thanks to the ISH and the HBPRCA for supporting my attendance at the conference.

I really enjoyed the breakfast sessions. In the Meet the Experts Session with Prof Dominique Müller we were given a fantastic overview of the role of salt accumulation in the skin and the development of hypertension. This was of interest to me as salt accumulation in the skin has been investigated as a possible mechanism contributing to angiogenesis inhibitor-induced hypertension. There was also a great session on hypertension and cardiovascular disease in women, where Prof Kate Denton, who was awarded the inaugural ISH Award of Excellence for Research in Cardiovascular Health and Disease in Women, gave a wonderful talk on sex-specific differences in hypertension.

One of the highlights of the meeting was the

Women in Hypertension Research- Maximising Opportunities and Researching Career Goals session chaired by Prof Rhian Touyz and Dr Sofie Brouwers. Dr Clara Chow and our new ISH President, Prof Alta Schutte, spoke about the opportunities and challenges they faced in developing their research careers as a clinician-scientist and basic researcher, respectively. It was fascinating to hear how these two women built their research careers, raised families and maintained their own work/life balance. The panel discussion at the end was a great opportunity for the audience to ask questions and voice concerns about their career in a supportive environment. I think everyone who attended really enjoyed this session.

The future of hypertension was also a hot topic. Our outgoing ISH President, Prof Neil Poulter gave a passionate address about the importance of hypertension awareness, initiatives such as May Measurement Month and how we need to change how people perceive hypertension. While in the Plenary Session, Prof Victor Dzau spoke about the future of healthcare and novel therapies for hypertension such as siRNA. This is something that is already in the pipeline, with preclinical work investigating the antihypertensive efficacy of liver-targeted angiotensinogen siRNA presented at this year's ISH meeting. I look forward to seeing where the field has progressed to when we meet again at the ESH-ISH 2020 Joint Meeting in Glasgow!

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ISH 2018 New Investigator Pre-Meeting Symposium

The ISH 2018 New Investigator Pre-Symposium on 20 September, was held at the iconic Bird's Nest venue in Beijing (attendees pictured right). The



event was attended by more than 70 people, including our ISH Distinguished Mentor awardees, ISH Council members, senior faculty and junior investigators. Participants originated from 24 countries.

The afternoon kicked off with welcome drinks and canapes followed by two fantastic presentations from the inaugural ISH Distinguished Mentor Awardees: Prof Jan Danser from The Netherlands and Prof James Sharman from Australia. The ISH Distinguished Mentor Award was established to recognise the contribution of mentors to the growth and development of junior investigators. Prof Danser shared his insights into what it takes to become a successful independent researcher in

- F** Fact checking
- I** Internationalize your group
- N** Never alone in the lab
- A** Authorship
- N** N-numbers
- C** Collaborate outside the lab
- I** International meeting attendance
- N** Network
- G** Go abroad

Figure 1

today's age and summed it all up in a clever acrostic (Figure 1). Following this, Prof Sharman shared his thoughts and experiences on successful mentoring relationships and what to look for in a mentor.

The second part of the Pre-Symposium program consisted of a panel discussion with Nadia Khan (Canada), Dylan Burger (Canada), Maciej Tomaszewski (UK), Brandi Wynne (USA) and Jolanta Malyszko (Poland). These researchers represented various career stages and points of view based on their geographic locations and specialities and as a

panel they happily fielded questions from the audience. This turned into a lively discussion with senior faculty members Prof Neil Poulter, Prof Lars Lindholm and our ISH Distinguished Mentors contributing their thoughts on a range of topics including the next hot topics in hypertension research, when are you an independent researcher and whether to invest in the latest techniques, use core facilities or outsource your work. Following the panel discussion, we enjoyed the stunning location and mingled with friends and colleagues. This latter part of the afternoon was an excellent opportunity to meet new people and establish collaborations in a relaxed environment.

The ISH2018 New Investigator Pre-Symposium was truly a wonderful event and I highly recommend that all junior investigators attend future ISH New Investigator events, either at one of our affiliated meetings or the next ISH meeting which will be held in Glasgow in 2020.

Finally, on behalf of all of the attendees, I would like to thank our Distinguished Mentor Awardees, the panel members and senior faculty members for sharing with us their career advice and insights into the future of hypertension research. To the organising committee, including ISH Council Members, the ISH New Investigator Committee and Helen Horsfield (ISH Secretariat), thank you for all of the hard work that went into putting this Pre-Symposium together and for making the afternoon an event to remember.

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ISH Beijing 2018

Ulrike Steckelings

Chair, Women in Hypertension Committee

**Associate Professor & Professor of Integrative Pharmacology,
University of Southern Denmark, Odense, Denmark**



The Women in Hypertension Committee of the International Society of Hypertension (ISH) was founded by ISH Past-President Prof Rhian Touyz in 2016 with the mission to promote women scientists and clinicians so that they can fulfil their career aspirations in the field of hypertension and related cardiovascular diseases. The Committee has since initiated activities, which aim to support young, mid-career and senior female researchers alike.

At the 27th Scientific Meeting of the International Society of Hypertension in September in Beijing, China, such activities included the introduction of Awards given to Kate Denton, Melbourne, Australia (ISH Award of Excellence for Research in Cardiovascular Health and Disease in Women), Anna Dominiczak, Glasgow, UK (ISH Honour for Senior Women Researchers) and Audrey Adji, Sydney, Australia (ISH Mid-Career Award for Women Researchers).

In addition, the Women in Hypertension Research Committee organised 3 sessions:

- A breakfast workshop entitled “Hypertension and Cardiovascular Disease in Women”
- A session on Hypertension in Pregnancy
- The main session initiated by the Committee was a mentoring session entitled “Maximising Opportunities and Researching Career Goals” chaired by Prof Rhian Touyz and Dr Sofie Brouwers. A session with a similar concept and Prof. Barbara Casadei as speaker (at the time incoming President-Elect of the European Society of Cardiology) had been a huge success at the 26th ISH Scientific Meeting in September 2016 in Seoul, South Korea. Therefore, it was decided to apply the same format again for a session at the ISH Beijing Meeting.

As in Seoul, the session started with presentations by experienced female scientists/clinicians telling the audience about opportunities and (often female specific) challenges they faced in developing their research careers.

The Committee was delighted that Dr Clara Chow, Sydney, Australia, and the new ISH President, Prof Alta Schutte, Potchefstroom, South Africa, agreed to share their personal experiences on their way to where and what they are now. Important aspects addressed by both speakers were experiences with mentors, with raising children and generally work/life/family balance, with important career decisions and with general acceptance as a woman in their working environments.

The honesty and openness of the speakers when addressing not only the successes, but also difficult periods during their careers and – importantly – strategies to overcome these problems, encouraged many young, female attendees of the session to engage into a vivid discussion about challenges that women in research are facing in general and about their own current situations. One of the attendees described the atmosphere of the discussions as “sisterly” – and by that found the perfect word for the spirit of the session.

The Women in Hypertension Research Committee has recognised the need of young women for support and mentoring and will try to address this need by further mentoring sessions at future ISH and ISH-endorsed meetings.

Ulrike Steckelings

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JOINT MEETING
ESH-ISH
2020
Glasgow

SAVE THE DATE

May 29 - June 1, 2020
Scottish Exhibition Campus
Glasgow, United Kingdom
www.hypertension2020.org



The Wisdom
for Conquering
Hypertension

ISH2022
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Oct. 12-16, 2022



International Society of Hypertension



Asian Pacific Society of Hypertension



The Japanese Society of Hypertension

The importance of optimal initial antihypertensive treatment strategy

Thomas Kahan

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Danderyd Hospital, Division of Cardiovascular Medicine,
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Department of Cardiology, Danderyd University
Hospital Corporation, Stockholm, Sweden



Many patients treated for hypertension do not reach current recommended target blood pressure values. Drug treatment may be started with single agents only, or drugs may be prescribed in inadequate dosing or inappropriate combinations. Patient adherence to prescribed therapy may be low due to lack of motivation among prescribers or patients. In some cases unrecognized secondary hypertension or true resistant hypertension might be the case. Recent European and US guidelines on arterial hypertension [1,2] indicate lower target blood pressure values, and propose that antihypertensive drug treatment may be considered already at blood pressure levels of 130-139/80-89 mm Hg in subjects at high cardiovascular risk. This will likely require an increase in antihypertensive medications.

To improve treatment control, current guidelines [1,2] indicate that most patients start treatment on two drug classes, which will reduce time to blood pressure control and improve adherence. The second step is combining all three classes, preferably in a single pill combination; with the addition of spironolactone when required. The use of single pill combinations is strongly encouraged to improve adherence.

Rea and co-workers set out to examine the importance of initial antihypertensive treatment strategy for future drug therapy, cardiovascular events and mortality. The authors collected data from health care utilization databases in Lombardy (Italy) on people 40–85 years old, having at least 1 antihypertensive drug prescription. In all, 100,962 patients started antihypertensive treatment on 1 drug and 24,653 on 2 or more drugs (fixed dose or free combinations) and were followed for 3 years from the first antihypertensive drug prescription.

In the group starting on 1 drug, the proportions on drug combinations at 1, 2, and 3 years were 27, 32, and 36%, while the group starting on combination therapy these proportions were 82, 79, and 78%, respectively. Thus, initial combination therapy translated to a more than 2-fold greater propensity (hazard ratios and 95% confidence intervals 3.18 [3.12;3.25], 2.56 [2.51;2.60], and 2.23 [2.19;2.27], adjusted for confounding factors) to receive combination therapy at 1, 2, and 3 years later. In a propensity score analysis, initial treatment with 2 or more drugs was associated with a significant 11–28% reduced risk for death and a 10–21% reduction in cardiovascular hospitalizations (heart failure, cerebrovascular disease, and ischemic heart disease).

There are limitations to this and other studies that employ health care utilisation databases. Most importantly, information on blood pressure, glucose, lipids and other cardiovascular data were not available. Thus, these findings would be strengthened if confirmed by registry data where more

Continued overleaf

clinical information is accessible (from medical records) [4] to determine the greater protective effect of initial combination treatment in relation to better blood pressure control. However, the results indicate a marked inertia from care providers to increase antihypertensive medication by moving to combination treatment. Secondly, they support current guidelines [1,2] that most patients should start treatment on two drug classes to improve treatment control. Implementation of these recommendations is likely to improve prognosis in hypertensive patients.

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MAY MEASUREMENT MONTH (MMM)

A simple measure to save lives #checkyourpressure

Thank you for making May Measurement Month (MMM) a success!

We are delighted to report that MMM18 has continued the success of MMM17, and has met its target. Thanks to the support of ISH members, the blood pressures of over **1.5 million** people were measured across **89 countries** in 2018. This would not have been possible without you!

We are pleased to be able to confirm that MMM will continue in 2019 and hope you will be able to support us again for MMM19. To confirm your involvement, or to find out how to get involved, please email manager@maymeasure.com

Please check out the **MMM website** to see what has been achieved so far.



Endothelial Microparticles and Systemic Complement Activation in Patients With Chronic Kidney Disease

Jason Bau
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Patients with chronic kidney disease are known to have a higher incidence of cardiovascular disease. While an element of this is due to the presence of traditional risk factors (such as hypertension), there remains a number of predisposing characteristics in this population that are poorly understood. One of these factors, is the idea that systemic inflammation is a marked contributor to cardiovascular outcomes and is hypothesized to be mediated by molecular pathways such as the complement system, among others.

However, the mechanism by which these pathways become activated remains unclear. One hypothesis is that microparticles, sub-micrometer cellular vesicles that are released by cells under times of duress, may be the missing link in this schema. Indeed, microparticles have been long known to be elevated in patients with chronic kidney disease (CKD)¹ and patients on dialysis, as well as correlating with various other disease states such as diabetes² and hypertension.

In this study³, Jalal and colleagues hypothesized that microparticle formation may be a mechanism by which the complement pathway is activated in patients with known CKD. In this small, single-center trial, plasma and urine from healthy controls, patients with stage III/IV CKD and those having previously received a renal transplant but still having stage III/IV CKD, were examined for complement pathway activation. While a number

of factors in this pathway were not dramatically changed between groups, the authors noted elevations in several factors specific to the alternative complement pathway, namely factor Ba and factor D.

Factor D is a serine protease which cleaves factor B into its catalytic (factor Bb) and non-catalytic (factor Ba) components. While traditionally, the alternative complement pathway is known for its role in opsonization of pathogens, there is a growing body of evidence that suggests that this pathway contributes to endothelial dysfunction and vascular injury^{4,5}. In support of this, plasma levels of factor Ba were inversely correlated with eGFR and positively correlated with urine albumin:creatinine ratios, suggesting an element of renal dysfunction. There was also a negative correlation between factor Ba levels and flow-mediated dilation of the brachial artery, an established measure for endothelial function, although this was no longer statistically significant after age adjustment (likely due to an underpowered study). When examining endothelial microparticles from the three groups, levels of factor Ba and D were elevated in microparticles from patients with CKD. Furthermore, these microparticles could be used *in vitro* to activate the alternative complement pathway – again, suggestive of a functional role for microparticle-mediated endothelial dysfunction.

Despite being a relatively small sample size, their results are notable. Patients with CKD (stage III/IV),

Continued overleaf

regardless of transplant status, appear to have increased activation of the alternative complement pathway, mediated by factor-D containing microparticles, a novel linkage not previously identified. Furthermore, post-transplant medications (most of which target inflammatory pathways) did not appear to have any effect on measures utilized in this study. Although their findings of significance correlating factor Ba levels and artery flow-mediated dilation were lost after age adjustment, there was still a trend towards significance, highlighting the need for larger cohorts in follow up studies. What remains unclear is whether complement factor levels, or degree of pathway activation are correlated with adverse cardiovascular events – which could be achieved with longer follow-up duration and intermittent measures of complement factors. Nonetheless, the important findings in this study, raise more questions and highlight a novel role for microparticles in activation of the complement pathway.

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New Investigator Member Spotlights 2018



Yang Shen, China
August Spotlight



Maniselvan Kuppusamy, USA
September & October Spotlight

Communications Committee Update

Dylan Burger
Deputy Editor, Hypertension News
Chair, ISH Communications Committee
University of Ottawa, Canada



It is my sincere honour to have the opportunity to serve as chair of the ISH Communications Committee from 2018 - 2020. Communication is something that I feel is essential to the short and long-term growth of the ISH and I look forward to working with the ISH Executive, incoming Communications, and ISH Membership Committees in the coming years.

As has traditionally been the case, the Communications Committee will be divided into two distinct entities. The Hypertension News Editorial Board (led by editor Lars H. Lindholm) and the Communications/Social Media committee (led by me).

Membership is currently as follows:

Hypertension News: Lars H. Lindholm, Dylan Burger, Thomas Kahan, Tony Heagerty, Thomas Unger

Communications and Social Media: Dylan Burger, Anastasia Mihailidou, Elena Velkoska, Matias Zanuzzi

In the coming months, we plan to expand our social media reach further and improve communication between ISH committees and its members. We will work closely the May Measurement Month (MMM) team, in particular Lisa Woodward, MMM Communications Manager, as well as the ISH New Investigator and Women in Hypertension Committee.

In particular we will focus on five specific goals:

1. Grow the ISH social media presence and increase readership for Hypertension News
2. Harmonize communication of all ISH news across every distribution platform (Hypertension News, Twitter, Facebook, website, monthly e-bulletin etc.)
3. Assist ISH committees and Regional Advisory Groups (RAGs) in communicating regularly with ISH membership
4. Foster communication with nurses, pharmacists and community health workers who mainly manage hypertension to promote and grow membership of the new ISH Membership category: Health Professional Affiliate (HPA)
5. Ensure that the ISH Communications Committee is serving the needs of membership by monitoring activity and engagement and identifying areas of strength/weakness

In the spirit of improving communication amongst ISH members I intend to compile a list of ISH member Twitter accounts to allow for greater communication. If you are not already doing so, please follow [@ISHBP](#) on Twitter and please send a private message via the Twitter page indicating that you are an ISH member.

If you are not yet a Twitter user, I would encourage you to consider joining. Twitter is an excellent resource for researching topics, networking, and increasing the reach of your work. Please click the following link to read a very helpful resource for more information about Twitter in the research environment at: http://www.emeraldgroupublishing.com/about/pdf/Twitter_academics.pdf

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"It ain't over until the fat lady sings"

Stephan Rössner

Apple Bay Obesity Research Centre, Bromma,
Sweden

Some quotes may be hard to date, but the above expression can be dated to exactly 10th March 1976, when the sports journalist Ralph Carpenter used it to describe his desperation at the loss of an important game by his favourite team. Carpenter may not have known a lot about opera, but he seemed to have a feeling that the real 'end' is when Wagner's Valkyrie, armed with a shield and sword, sings herself into eternity.

So, where does the idea that opera singers have obesity stem from? History is full of examples of singers, both male and female, who are considerably overweight. In the 19th century the opera house audience put more emphasis on singing ability than appearance, and so overweight singers were the norm. But, on the other hand, a certain degree of credibility is essential as it is difficult to imagine Violetta in *La Traviata* or Mimi in *La Bohème* appearing on stage coughing, singing and eventually dying of tuberculosis, yet obese.

Nellie Melba is an interesting example of an opera diva with a weight problem. Her real name was Helen Porter Mitchell; she was born in a suburb of Melbourne and took her stage name from her hometown. Melba was one of the great stars of her time and even had a crater on the planet Venus named after her. Later in her life, pictures show a middle-aged lady with obesity.

Melba's gastronomic interest brought her into the fine cuisine cook books because of two dishes. When she visited London, Melba's favourite place to dine was the Savoy Hotel. The restaurant's head chef, Escoffier, even dedicated a dish to her. Escoffier created Pêche Melba: peeled and purged ripe white peaches in vanilla syrup, covered with a purée of strawberries on a bed of vanilla ice cream. Melba Toast was actually first designed for Marie Ritz, the wife of the Savoy Hotel's manager. By placing thin slices of bread into an oven to dry, Escoffier made a type of toast for Madame Ritz when she was trying to lose weight as the thin bread was made into a crunchy toast with fewer calories. After the age of 30 Melba was always trying to be thinner and the toast eventually bore her name. The problem with Melba Toast, however, was that it was often used to spread pâté or cheese on top, counteracting the low caloric approach as was originally intended.

Melba's life was full of the conflicts that one would connect with truly great divas. Behind the stage there were intrigues, complications, negotiations, accusations of contract breaches, jealousy and all the ingredients that the public would associate with the world of opera.

Though the years did not diminish Melba's personality, they took their inevitable toll on her physical being. Melba became increasingly overweight and critics commented that by the age of 60 much of her physical attraction had gone. Portrait painters found that outside the stage she was "definitely



Nellie Melba at the height of her career

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dumped" and had even a "rather commonplace look". In fact, one portrait of Melba uses another woman as a model for the diva. The painter's friend had a housekeeper, who he thought was an elegant, tall and dignified lady - traits the painter thought a diva should have. The housekeeper did not, in fact, at all resemble Melba.

The great Caruso sang at the New York Metropolitan in 1910 and the critics were merciless: "One cannot avoid noticing that Mr Caruso, who obviously has not spent his last summer trying to reduce weight, seemed to be an incredible appearance". Despite this, everybody enjoyed hearing him sing.

In more recent times, a well-known opera singer, Deborah Voigt, lost the title role in Strauss's *Ariadne on Naxos* as she could not fit into the black dress that was seen as a prerequisite for the role. Voigt accepted the criticism, had bariatric surgery, lost 35 kilograms and made a great comeback, although with a different repertoire. Pictures online now show her as a very slim lady.

Monserrat Caballé is literally one of the great opera sopranos. She was mostly known for her *bel canto* singing, above all for the operas by Bellini, Rossini, Verdi and Donizetti. When her voice changed with age she focused on more dramatic characters such as Norma and Tosca. Her technique has been described as superb and among other characteristics she was infamous for her pianissimos, which were breath-taking. "Over-indulgence" appears as a description of her later years, photos showing her to be clearly overweight. However, Caballé had an unusual fate and went to prison in Spain because of tax evasion.

Maria Callas was another of the great opera singers of the 20th century and, like Caballé, her repertoire was *bel canto*. Her voice was exceptional and could easily be recognized as it was so distinct. In the early years of her career, Callas was not only a heavy woman, but she was also tall. With a height of 174 centimeters and weight of 91 kilograms, she had an imposing stage presence. Eventually Callas realised that she had to do something about her weight as she became more and more uncomfortable which affected her singing.

Over the course of 1953 and early 1954, Callas lost almost 36 kilograms, turning herself into what someone called "possibly the most beautiful lady on the stage". After such a dramatic weight loss, the public now viewed Callas as an "astonishing, striking woman" who looked as though she had been born into that 'slender and graceful figure'. Various rumours spread regarding her weight loss methods, ranging from strange diets to tapeworm ingestion, however Callas countered these accusations and stated that she lost the weight by eating a sensible low-calorie diet.

Some believe that the loss of such body mass made it difficult for her to support her voice, triggering the vocal strain that became apparent in the late 1950s, while others believe the weight loss brought out a new 'softness and femininity' in her voice, as well as greater self-confidence.

Luciano Pavarotti was undoubtedly one of the greatest tenors of our time. He had a very normal upbringing; he played soccer, worked as a teacher and later as a clerk in an insurance company. He made enough money to take singing lessons and became a superb tenor. He was called "the King of high C" since he was said to be the first who managed all high Cs in Donizetti's opera *La fille du régiment*. With time Pavarotti became incredibly obese, weighing up to 160 kilograms. However, in 2006 he was diagnosed with pancreatic cancer, a tumour well known to be associated with obesity. Despite several operations Pavarotti died, weighing 69 kilograms.

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Singers with obesity: an obsolete concept?

The list of opera singers with weight problems could be much longer and only a few examples are given here, but the debate continues. Are voices and music what mainly creates the performance or is appearance just as important? In a press statement the Covent Garden Royal Opera House concluded: Any product is a mixture of musical, dramatic and visual impressions and every casting means that both voice and appearance must be evaluated for a certain character.

Is there a reason why a greater body mass might improve a singer's voice? Some have argued that body size affects the diaphragm muscle and aids respiration. It has even been argued that singing releases cell structures emitting appetite regulating hormones, making energy restriction even more difficult for singers. However, most experts tend to agree that the life of any artist on the stage is a stressful life. Weight problems could be a reasonable reaction to these extreme demands. It is not easy to go to bed with just a cup of tea and a biscuit after a great show. Is it only natural to wind down with food and wine to relax after a stressful day?

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JOHN SWALES LECTURE

We are pleased to announce that this year's John Swales Lecture was delivered by Professor Neil Poulter, from Imperial College London (ISH Immediate Past President).

The John Swales Lecture (inaugurated in April 2012) is an initiative of The Department of Cardiovascular Sciences, University of Leicester, UK to honour the memory of Professor John Swales. He played a pivotal role in developing medical education and in improving health care in the city and county, was a leading Leicester-born medical academic and the first Professor of Medicine at the University of Leicester.

Pictured left: Professor Thompson Robinson - Head of the Department of Cardiovascular Sciences, University of Leicester

Pictured right: Professor Neil Poulter





HYPERTENSION NEWS

Positions Available Feature

We are pleased to invite all ISH members to share academic postings in our new "Positions Available" section. Non-commercial advertising will be free to members in good standing. Postings for faculty positions, postdoctoral fellowships, and studentships are welcome. A limit of 150 words will be applied. Suggested details include:

- Institution;
- Sphere of work / research;
- More detail of project specifics;
- Apply by date, start date, likely duration, stipend/funding amount is encouraged;
- Information on where to apply (website address, email address, contact details)
- What to send in with the application (CV or resume);
- Optional items: Supervisor name.

Please see an example below:

School of Hard Knox is based in Pole, Antarctica. It is seeking a highly motivated postdoc to work on developing a novel class of acoustic metamaterials for applications in neuroscience and brain imaging. Candidate should have a Ph.D. with a strong theoretical and experimental background on acoustics, preferably on metamaterials. Candidate will work with a very multidisciplinary team involving microengineering, acoustics, neuroradiology and neuroscience.

The position has funding for at least two-years, with broad opportunities to extend it.

Applications close 30 November 2018 with interviews from 15 December, to achieve a proposed commencement 1 March 2019, for a minimum of 2 years.

Please send a complete CV with description of research experience to:

Dr P Enguin, penguin@uoantarctica.cold

If you would like to place an advertisement, please email membership@ish-world.com

Upcoming Hypertension News publication dates:

17 March 2019 (Opus 55)

18 June 2019 (Opus 56)

**The William Harvey Research Institute
The Barts Heart Centre, Queen Mary
University of London, UK**



Mark Caulfield

The William Harvey Research Institute - Barts heritage

Our hospital, St Bartholomew’s Hospital (Barts), has been caring for the people of London since 1123 and whilst a Physician at Barts, in 1628 William Harvey published *de motu cordis*, providing the modern view of the circulation. In 1986 the Nobel Laureate, Sir John Vane FRS, who discovered how aspirin worked, identified prostacyclin and held a pivotal role in the development of ACE inhibitors founded the William Harvey Research Institute (WHRI) at Barts and Queen Mary (QMUL). Today, the WHRI is home to 520 clinicians and scientists and 90% of their translational research in cardiovascular (CV), inflammation and endocrine research was independently rated as internationally excellent, or world-leading in 2014. In 2006, the strength of this WHRI-QMUL and Barts partnership led to recognition as a Hypertension Centre of Excellence of the European Society of Hypertension (ESH). It benefits greatly from being part of QMUL a 400 million turnover multi-faculty university and member of the Russell Group of 24 elite UK Universities.



William Harvey's de Motu Cordis and his illustration of valves in veins published in 1628 when he was Physician to St Bartholomew's Hospital

State of the art infrastructure at WHRI-QMUL and the Barts Heart Centre

In 2011, we opened the William Harvey Heart Centre which provides a state-of-the art CV clinical research centre and translational laboratories. In parallel, a five-year programme co-led by the co-Director of WHRI, Prof Mark Caulfield united three hospitals at the £400 million Barts Hospital creating the new Barts Heart Centre in 2015. The Barts Heart Centre is one of the largest cardiovascular centres in Europe providing 80,000 patient episodes of care per year and serving a population of six million across North East London. This combination led to the award of a prestigious National Institute for Health Research Biomedical Research Centre to Barts in successive competitions since 2008.

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Translational Blood Pressure Research at the William Harvey-QMUL and Barts.

A major research focus at WHRI-QMUL is on blood pressure (BP) and Caulfield has driven a world-leading integrated programme tackling unmet need in hypertension care. This operates under a series of interconnected themes taking discoveries from genomics into target validation and therapeutic innovation which is translated into patient care at the Barts Heart Centre.

The 400 million new Barts Heart Centre and the WHRI integrated strategy for therapeutic innovation in hypertension and CV prevention.



Genomics of BP and CV disorders (Profs. Caulfield FMedSci, Patricia Munroe, Morris Brown FMedSci, Deloukas FMedSci, Drs Fu Ng, Helen Warren, Claudia Cabrera, Mike Barnes): Our genomics programme has now identified over 1000 loci for blood pressure traits, demonstrating in a polygenic risk score that these loci lead to a 13 mm Hg systolic BP in the over 50 year olds and correlate with increased CV risk¹. From the leadership of the MRC British Genetics of Hypertension Study and the hypertension theme in the 2007 Nature paper from the Wellcome Trust Case Control Consortium we formed the International Consortium of Blood Pressure Genomewide Studies leading to a succession of publications in Nature or Nature Genetics. Our most recent study of over one million people, including 500,000 from the UK Biobank cohort, has identified 535 new loci for blood pressure connected to multiple extant and putative medications for hypertension¹. Through our leadership of the MRC-funded International Mouse Phenotyping Consortium CV programme we can create the latest gene edited murine models for functional studies and combine these in our human laboratory to undertake *ex-vivo* human vascular and renal cell based studies as we have done for the Natriuretic Peptide C Receptor (*NPR3*), *SLC4A9* and *SLC39A8* genes.

Endocrine Hypertension (Profs Morris Brown, William Drake, Paul Chapple): In 2016 Brown joined us from Cambridge to pursue, with Drake, research into pathogenesis and management of primary aldosteronism. The discovery of somatic driver mutations, in aldosterone-producing adenomas of distinctive clinical, pathological and biochemical profile, led to recognition of a frequently overlooked zona glomerulosa sub-type of adenoma. Their frequency and importance were confirmed by development of a ¹¹C-Metomidate PET CT; this allows non-invasive detection of microadenomas and has enabled ongoing evaluation of endoscopic radiofrequency ablation for adenomas in the left adrenal². The somatic mutations also offered targets for new treatments, now in development, which may suppress autonomous aldosterone secretion. Similar genotype-phenotype research in pheochromocytoma, by Chapple and Drake, led to the discovery and mechanism of primary cilia loss in pheochromocytomas whose genotype causes pseudohypoxia or malignancy.

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Vascular and Clinical Pharmacology of BP toward guidelines and global CV prevention (Profs Amrita Ahluwalia, Brown, Hobbs, Caulfield, Drs Collier, Kapil (ISH Austin Doyle Prize 2012), Gupta): Our genomic discoveries highlight the Nitric Oxide-Natriuretic peptide signalling system by integrating this with physiology and leading edge pharmacology Ahluwalia and Kapil have published highly cited papers describing how inorganic nitrate, contained within beetroot juice, can be used to sustainably lower BP in both normal volunteers and hypertensive patients, which is now being investigated in left ventricular hypertension³. Hobbs has demonstrated that endothelial specific knockout of C-Natriuretic Peptide (CNP) in mice leads to higher BP and that the CNP mimetic he has synthesised lowers BP and is now being optimised with venture funding as a novel therapy for BP and CV prevention.

From our clinical research centre we were the largest single enrolling centre for the Anglo-Scandinavian Cardiac Outcomes Trial (ASCOT –Collier, Caulfield -1157 patients) which showed lipid lowering prevented CV events and that BP lowering with calcium antagonists and ACE inhibitors was superior to older therapies⁴. This paved the way for adoption of Brown's age based stratification for BP lowering therapy where younger people receive renin angiotensin system blockade and those over 55 years receive a CCB or a diuretic which changed the UK National Institute for Clinical and Healthcare Excellence and British Hypertension Society Guidelines in 2006 and 2011 (Caulfield was on the guideline group). More recently Gupta has been able to analyse data from UK participants in the ASCOT study at 10 years showing that a regimen based on CCBs plus ACE inhibitor is superior at CV reduction 15 years after the end of the lipid lowering limb and that statin therapy is associated with the "nocebo effect"⁵.

In the British and Irish Hypertension Society and BHF PATHWAY suite of studies Brown tested whether aggressive early treatment of raised blood pressure could prevent subsequent treatment resistance (PATHWAY 1), is resistant hypertension due to Na⁺ retention and is spironolactone superior to other drugs (PATHWAY 2), and are K⁺ sparing diuretics neutral or beneficial in their effect on glucose tolerance (PATHWAY 3). The PATHWAY 2 trial has led the latest ESH/European Society of Cardiology Guidelines to recommend spironolactone as first line for resistant hypertension⁶.

Device based innovation and autonomic function (Prof Melvin Lobo, Dr Manish Saxena). In response to the growing number of national and international referrals of patients with complex hypertension, resistant to conventional drug therapy we embarked upon a leading edge trials programme to investigate the use of device (interventional) therapy of hypertension. We are now a global leader in trial recruitment into studies of device-based therapy of hypertension attracting and participating in design of translational Phase I and II studies (from European and US device manufacturers) with international recognition for the trial outcomes. These include the Symplicity HTN-2 study of radiofrequency renal denervation, the ROX CONTROL HTN study which demonstrated the BP lowering effect of a central iliac arteriovenous anastomosis and the RADIANCE-HTN SOLO randomised proof of concept trial demonstrating the efficacy of a novel ultrasound platform for endovascular renal denervation. Lobo and Kapil have recently secured grant funding to initiate an investigator-led national registry for baroreflex activation therapy (for which Barts will be the sole centre) which will evaluate the safety and efficacy of this therapy in previously untested patient groups including those with afferent baroreflex failure. For complex patients and those being recruited into device therapy of hypertension studies, baseline and post-treatment autonomic function testing is undertaken in the human autonomic function lab, one of only two such units in the whole UK.

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The Barts BP Clinic (Profs Lobo, Caulfield, Drs Kapil, Rull, Ng, Robinson, Abrams). This tertiary translational clinic provides a CV prevention service to national and international referrals of patients whose BP is very challenging to manage including medication intolerance and resistant hypertension. This and our extended partnership with primary care practices across London enables us to connect our translational research from the bench to the bedside via accredited hypertension specialists of the British and Irish Hypertension Society and the ESH.

International partnerships: We have many international collaborations with researchers across the world and a suite of focused strategic partnerships with Yale and Harvard University in the US and the People's Liberation Army Hospital in Beijing.

WHRI and Barts Public and Patient Involvement: (Collier): Our patients and the public are at the heart of everything we do and they are involved directly in setting research agendas and enthusing patients to join Clinical Trials through an initiative called Trials Connect and every year they organise a Science Festival for 400 school children.

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2018 ISH / RSH Joint Educational Meeting, Moscow, 27th October 2018

Natalia Blinova, Local Organising Committee, Moscow, Russia
Peter M Nilsson, Chair ISH RAG Europe, Malmö, Sweden



The first Joint ISH-RSH (Russian Society of Hypertension) Meeting “*Hypertension as a global public health problem - Update on research and treatment 2018*” was held 27th October 2018 at the National Hotel, Moscow, Russia. It was attended by 167 young Russian clinicians, PhD students and researchers. Most participants came from Moscow and the Moscow region, but others came from remote Russian cities, such as Permian, Kursk, Tiraspol, Kazan and Chelyabinsk. The Russian Faculty members were President of the RSH, Irina Chazova, Sergey Boytsov, Olga Ostroumova, Novella Chikhaldze and Davyd Yakontov. The International ISH Faculty members were President of ISH Alta Schutte (South Africa), Peter Nilsson (Sweden), Dragan Lovic (Serbia), Maciej Tomaszewski (United Kingdom), and Angelo Scuteri (Italy).

The Joint ISH-RSH Meeting was a one-day event with presentations about arterial hypertension by the faculty members of the International and Russian Societies of Hypertension. The meeting venue was located in the historic center of Moscow with a picturesque view of the Red Square.

The opening of the course began with a welcome speeches to the participants by the president of RSH, Academician of the Russian Academy of Sciences, Irina Chazova and chair ISH-RAG Europe Professor Peter Nilsson. The scientific programme of the meeting was devoted to the actual aspects and new issues of prevention, diagnosis and treatment of arterial hypertension not only in Russia but the whole world. Interesting presentations of ISH and RSH Faculty members provoked a lively discussion among young clinicians and researchers. Certificates were handed over to participants at the end of the Course, signed by I. Chazova and A. Schutte.

Participants of the Joint ISH-RSH Meeting, both RSH and ISH Presidents and faculty members, unanimously thought that the event was a great success and should be repeated in the future.



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Society of
Hypertension



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