Dear Colleagues,

With a little over 6 months to go until we break the ceremonial bottle of champagne and officially inaugurate the XXII ISHR World Congress in Buenos Aires on April 18-21, 2016, I would like to give you an update on the many exciting scientific and social activities we are planning. As Chair of this congress, I am convinced that this will be an outstanding and memorable meeting. I hope that after reading this article you will agree that this is a meeting you simply cannot miss. First of all, we have reserved a truly singular venue to host the
congress. The UCA Convention Centre is located in the district of Puerto Madero, a modern area of the city which features the latest architectural trends and the best restaurants, shops and bars in Buenos Aires and is only a few blocks away from the ecological reserve, an 846-acre green area that is ideal for an afternoon stroll to enjoy indigenous vegetation, wild life and the spectacular view of the widest river in the world, the La Plata river. The venue itself is a University campus convention centre and thus busy with students and academic activities, setting the perfect scenario for one of the ISHR World Congress’s trademarks, the collegial atmosphere and social interaction.

No less important is the scientific program that we have put together. Working in close collaboration with the ISHR International Scientific Program Committee, we have organized 33 symposia which will cover the full range of cutting edge cardiovascular research. Inspired by the slogan we have chosen to identify this meeting “Unraveling the mysteries of the heart at the rhythm of tango”, we have planned a program that we hope will help to decipher the secrets of the heart and the vasculature. To reach this goal we will have over 140 invited speakers who will address different aspects of cardiac function, heart rhythm, metabolism and energetics, signal transduction, regenerative medicine, cardiac protection and remodeling, mechanical forces and calcium microdomains, arrhythmias, oxidative and nitrosative stress, diastolic and systolic dysfunction, cell death regulation, hypertension, heart failure and chagas disease, inflammation, micro RNAs and ion channel regulation. Complementing these symposia we have a series of outstanding Keynote lectures given by ISHR Award recipients, including:

1. The Research Achievement Award: Dr. Heping (Peace) Cheng; 2. The Outstanding Investigator Award: Dr. Johannes Backs; 3. The Peter Harris Distinguished Scientist Award: Dr. Donald Bers; 4. Three Distinguished Lecture Awards: Keith Reimer Distinguished Lecture: Dr. Rodolphe Fischmeister; Janice Pfeffer Distinguished Lecture: Dr. Edward Lakatta; President’s Distinguished Lecture: Dr. Thomas Eschenhagen. In addition, as the main attraction of the congress we have another activity that people will agree is another hallmark of ISHR World Congresses, the Nobel Laureate Lecture, in this case, given by Dr Robert Lefkowitz, Professor of Medicine at Duke University, Durham, North Carolina.

The poster sessions are another key component of this meeting. These are truly the “enriched medium” of the meeting where science grows through the interaction and discussion of new unpublished material. To encourage and emphasize these sessions, we will offer best poster prizes and travel grants and we will provide lunch to all attendees at these sessions so we hope you will come and join the discussion.
Abstract submission is already open, thus, we invite researchers to visit the World Congress home page, www.ishrbuenosaires2016.org.ar, and participate by submitting an abstract. Importantly, attendees from developing countries presenting abstracts will be able to apply for a significant registration discount.

Following up on the initiative launched at the San Diego World Congress, we will reprise the Early Career Investigator Pre-Congress Event, organized by the Early Career Investigator Network. This event will include 2 scientific symposia and 2 early career keynote speakers followed by a networking lunch with the ISHR International Council. Furthermore, outstanding ECIs will be selected to give oral presentations in the regular symposia based on evaluation of their submitted abstracts. Our congress will also include the Richard J. Bing Award for Young Investigators that recognizes outstanding research by new investigators. These activities are designed to encourage younger ISHR members to take advantage of the Congress’s unique opportunities. For more information on these opportunities please visit the congress webpage.

The social program of our meeting is also outstanding. On the opening night (April 18th), we have organized a welcome cocktail on the foyer of the Juan Pablo II conference room overlooking the exceptional view of the Puerto Madero waterfront. An exclusive dinner for Fellows of the International Society for Heart Research will be held April 19th at a typical Buenos Aires Steak House (Asador Criollo). In addition, the ECI network is organizing an evening of informal drinks and finger-food. Finally, on April 21st we will conclude with an evening Gala Dinner and tango show at historic Güemes Gallery. Word has it that you haven’t been to Buenos Aires if you haven’t seen a Tango Show so we encourage you to reserve your tickets for this unique opportunity which will include transfer from the Convention Centre to Güemes Gallery, tango lessons, a 3 course meal with wine and an exclusive tango show featuring the music of Astor Piazzola, the pioneer of modern Tango. Tickets at the incredible price of US$ 40 will be limited and available on a first-come, first-served basis.

Registration is now open and you can take advantage of earlybird prices until the 1st of February, but don’t wait, register today. I assure you that you will not regret visiting beautiful Buenos Aires and attending the scientific and social activities we have lined-up for you.

It will be a pleasure for me, my Co-Chair, Alejandro Aiello, and the local organizing committee to be your hosts and give you the Buenos Aires Experience!!

See you soon,

Professor Martin Vila Petroff, PhD
Chair XXII World Congress of the ISHR
Director of the Centro de Investigaciones Cardiovasculares
La Plata School of Medicine,
UNLP-CONICET
La Plata, Argentina
Dear colleagues,

As I have highlighted previously, a “unique selling point” of the International Society for Heart Research is the nature and scope of our meetings, especially the triennial World Congress. I strongly believe that no other comparable society can match the extraordinary combination of scientific and cultural enrichment that is provided by the ISHR World Congress, the most recent five of which have been hosted on five different continents (Australia in 2004 [Brisbane], Europe in 2007 [Bologna], Asia in 2010 [Kyoto], North America in 2013 [San Diego] and South America in 2016 [Buenos Aires]).

As we draw ever closer to the XXII ISHR World Congress in Buenos Aires, Argentina (18-21 April 2016), I would like to look further ahead to 2019 (when the World Congress will return to Asia, this time in Beijing, China) and beyond. Our Chinese Section hosts will present their detailed plans for the 2019 World Congress to the International Council for discussion at its meetings in Buenos Aires in April 2016, which is also the time when the Council is expected to select the host organizer(s) and city for the 2022 World Congress. Based on the above rotation, and assuming that we will not break new ground (or, in fact, ice) by holding a World Congress in Antarctica, the likelihood is that the World Congress will return to Europe in 2022. I am of course not overlooking Africa, but basic cardiovascular research on that continent is restricted largely to South Africa, where ISHR members commonly choose to join the European Section.

Europe is home to many cardiovascular research powerhouses and I would like to take this opportunity to encourage senior members of the ISHR European Section to consider bidding to host the 2022 World Congress. The World Congress is the showcase event of our Society and hosting it is an excellent way to draw colleagues from across the globe to the host city and institution(s) and to introduce them to the local scientific and cultural riches. The ISHR International has provided significant financial and logistic support for the World Congresses held over the past decade (and the intention is to carry on doing so), which relieves the burden on the local organizers significantly while allowing continuity in Congress structure and content. Such support has included the funding of:

- 20-25 symposia with 4 speakers in each symposium, organized by an International Scientific Program Committee (chaired by the ISHR Secretary General) in liaison with the local organizers.
- 6 plenary lectures by award recipients elected by the ISHR Council: (1) Research Achievement Award, (2) Outstanding Investigator Award, (3) Distinguished Lecture Awards (Pfeffer, Reimer and President’s), (4) Peter Harris Distinguished Scientist Award
- The Richard J Bing Award for Young Investigators finalists’ competition
- Poster Awards
- Early Career Investigator events
- Young Investigator Travel Awards

The International Council has prepared detailed guidelines for local organizers of the ISHR World Congress and I encourage potential hosts for the 2022 World Congress to contact me or our Executive Secretary, Leslie Anderson Lobaugh, to obtain a copy of this document and get working on their proposals!

I look forward to meeting many of you in Buenos Aires next April. Don’t forget, abstracts for the 2016 World Congress must be submitted by 15 December 2015 to be considered for oral presentation and the early registration discount expires on 1 February 2016 (for full details, see the Congress website at http://www.ishrbuenosaires2016.org.ar).

Metin Avkiran, PhD DSc
President, ISHR
Vasoconstriction is a major component of the neurohumoral response that maintains blood pressure in normal individuals when intra-arterial filling is decreased, for example during exercise or after hemorrhage. If arterial filling is reduced by left ventricular (LV) dysfunction, however, vasoconstriction can lower blood pressure when chronic overload reduces the ability of the damaged heart to eject. This deleterious response, called afterload mismatch (1), is treated by vasodilators which, although they normally lower blood pressure, can alleviate hypotension in patients with failing hearts.

These considerations led to the use of vasodilators to reduce afterload in chronic heart failure, where these drugs generally lead to short-term hemodynamic improvement (2). During the 1970s, however, heart failure came to be recognized not only as a hemodynamic syndrome, but also as a lethal condition with a 50% survival of 3 – 5 years. This stimulated long-term clinical trials which showed that survival is prolonged by angiotensin converting enzyme inhibitors (ACEIs) and angiotensin receptor blockers (ARBs), both of which blunt the actions of angiotensin II (AngII), a potent vasoconstrictor, and by nitrates, which promote the effects of bradykinin, a vasodilator. However most vasodilators, including short-acting L-type calcium channel blockers, minoxidil, prostacyclin, ibopamine, moxonidine, flosequinan, and phosphodiesterase inhibitors fail to improve long-term prognosis, and often shorten survival (see 3). The mechanisms responsible for the latter are not clear, but because a long-acting calcium channel blocker did not affect prognosis whereas short-acting drugs of this class had an adverse effect on survival, transient lowering of blood pressure by the latter has been suggested to exacerbate maladaptive neurohumoral responses (4).

**Prolongation of Survival by Nitrates, ACEIs and ARBs**

Efforts to improve the dismal long-term prognosis in heart failure initiated an interplay between clinical medicine and basic science that has revolutionized our understanding of this syndrome. In 1986 VHeFT I (5), a long-term randomized trial, demonstrated that isosorbide dinitrate, a venodilator that in combination with hydralazine, a direct-acting arteriolar dilator which potentiates the actions of nitrates, significantly prolonged survival (for a discussion of mechanism see 6); however prazocin, an α-adrenergic blocker, had no effect.

A major chapter in this story began in 1965 when the venom of several species of the Brazilian viper *Bothrops* was found to contain a peptide mixture that lowers blood pressure by potentiating the actions of bradykinin and, by inhibiting ACE, reduces AngII formation (see 7). Twenty years later the Consensus I trial (8) demonstrated that an ACEI prolonged survival in heart failure so markedly that the Ethical Review Committee discontinued the trial ahead of schedule. A direct comparison subsequently showed that mortality was significantly less in patients taking an ACEI than those who received isosorbide dinitrate and hydralazine (9). Prolongation of survival by ACEI in Consensus I trial was so dramatic that when these data were first presented the decision to stop the trial was challenged in part because the response was much greater than for other vasodilators. This also suggested that the survival benefit of ACEI might be due to a mechanism other than vasodilatation.

In fact, clues regarding this “other” mechanism had begun to appear. A key observation was a report by Pfeffer, Pfeffer and Braunwald which showed that an ACEI inhibited the progressive LV dilatation (“remodeling”) that followed experimental myocardial infarction in rats (10). Dzau (11) and Re (12) subsequently found that AngII regulates cardiac growth, and Linz et al. (13) reported that low ACEI doses which did not affect blood pressure could inhibit myocardial hypertrophy. These and other observations raised the possibility that blocking an effect of AngII to promote maladaptive cardiac hypertrophy could explain the beneficial effect of ACEIs in heart failure (14).

**Maladaptive Hypertrophy and the “Cardiomyopathy of Overload”**

Identification of a link between valvular heart disease and cardiac enlargement became possible in 1628, when Harvey’s description of the circulation allowed changes in cardiac size and shape to be related to abnormal hemodynamics. Forty six years later, John Mayow postulated that right ventricular enlargement increased cardiac output in patients with a narrowed mitral valve (15). Corvisart, at the beginning of the 19th century, distin-
guished dilatation (eccentric hypertrophy) from concentric hypertrophy (16), and in 1832 James Hope wrote: “When dilatation has progressed so far as to occasion morbid dyspnea, it has a constant tendency to increase…” (17). Concentric hypertrophy was initially thought to be beneficial because it aided ejection, but its adverse effects were recognized in the late 19th century. This led Osler to conclude that hypertrophy is initially compensatory, but after time becomes deleterious (18).

The importance of stimulation of cardiac myocyte growth by AngII is seen in newborn pigs where ACEIs inhibit the LV hypertrophy that normally occurs when closure of the ductus arteriosus increases LV afterload (19). The role of AngII to promote cardiac growth also explains why ACEIs have less beneficial effect when administered to rats (20) and patients (21) immediately after acute myocardial infarction, before compensatory hypertrophy has had time to develop. The finding that ACEIs and ARBs are much more effective in prolonging survival in patients with systolic heart failure than diastolic failure (22) may reflect evidence that sarcomere addition in series in dilated hearts (23) initiates a vicious cycle that leads to progressive LV dilatation (24), whereas sarcomere addition in parallel in concentric hypertrophy (23) inhibits progressive dilatation by increasing wall thickness (24).

**Conclusion**

Evidence that the beneficial effects of ACEIs and ARBs on prognosis in systolic heart failure are due to inhibition of progressive LV dilation rather than vasodilatation can be explained by the ability of AngII to stimulate cardiac myocyte elongation. The improved prognosis seen when this overload-induced maladaptive response is inhibited suggests that the latter represents a “cardiomyopathy of overload” (25).

**References**

The 35th annual ISHR North American Section meeting (Heart Failure: 21st Century Research and Therapeutics) was held on June 7-10 2015 at the Grand Hyatt Hotel in Seattle, WA, just a few minutes from the iconic Pike Place Market. The Co-chairs, Drs. Charles Murry, Rong Tian and Michael Regnier, arranged an outstanding lineup of speakers as well as fantastic warm Pacific Northwest summer-like weather.

The meeting was well attended and attracted 308 delegates, which was 20% more than the previous year’s conference in Miami, FL. We also had over one hundred and sixty abstracts presented in this meeting and this was more than any of the last three meetings. The morning sessions consisted of simultaneous oral presentations in various areas related to cardiovascular research: from epigenetics and stem cells to multiscale modelling and cardiovascular bioengineering. The evening sessions included poster sessions and special activities such as the Early Career Investigator social event.

The first day of the meeting began with a morning of early career investigator events including a scientific symposium highlighting the excellent work of the next generation of cardiovascular scientists, a career-development panel discussion and a lunch with senior investigators (see pg 14 for a report on these ECI events). The emphasis on early career researchers continued...
Sunday afternoon with the annual ISHR-NAS Young Investigator Competition. Fifteen minute presentations were given by finalists in two categories: graduate student/early post doc and late post doc/early assistant professor. This year, the Junior Young Investigator selection committee chose Finalists Geoffrey de Couto (Cedar Sinai), Danny El-Nachef (University of Washington and University of California, Los Angeles), Emma Monte (University of California, Los Angeles) and Pearl Quijada (San Diego State University) based on the scientific merit of their unpublished manuscripts. This year’s winner of the Junior YIA was Geoffrey de Couto (“Distinctive macrophage polarization mediates the beneficial effects of cell therapy in acute myocardial infarction”).

The Senior Young Investigator (late career postdoc/fellow and junior faculty) selection committee, chaired by ISHR-NAS President Dr Gary Lopaschuk (Univ of Alberta), also chose four Finalists to compete at the meeting. They were Samarjit Das (Johns Hopkins University), Mohsin Khan (Temple University), Nathan Palpant (University of Washington) and Zhihua Wang (University of California, Los Angeles). Nathan Palpant was chosen as this year’s Senior YIA winner (“Human cardiac, endothelial and blood lineages are controlled by gradients of activin A, BMP4, and Wnt/β-catenin signaling”).

On Sunday evening, the opening keynote speech of the regular meeting was given by Dr. Christopher Murray (Professor of Global Health, University of Washington), where he discussed the global burden of cardiovascular disease and, in particular, ischemic heart disease. The ISHR Research Achievement Award was presented on the first full day of the meeting. This prestigious award recognizes a prominent investigator with a distinguished record of scientific achievements in cardiovascular research. Chaired by Drs. Rick Moss (University of Wisconsin) and Litsa Kranias (University of Cincinnati), this year’s award was presented to Dr. Mark Anderson (Johns Hopkins University). Dr. Anderson’s talk was titled “Is CaMKII essential for coupling oxidative stress to cardiopulmonary disease?” As an internationally recognized scientist, Dr. Anderson has identified the enzyme Ca²⁺/calmodulin dependent kinase II as a central signaling molecule in myocardial dysfunction and arrhythmia.

The plenary lecture was given by Dr. Lee Hood, president and co-founder of the Institute for Systems Biology. In his talk titled “Proactive P4 Medicine: Catalyzing
a revolution in healthcare through wellness,” he introduced the audience to the exciting and innovative ways this nonprofit organization tackles complex biological problems. The Keith Reimer Lecture was chaired by Drs. Elizabeth Murphy (NHLBI) and Charles Murry (University of Washington) and honors the memory of Dr. Keith Reimer and his contributions to the ISHR by having an annual presentation by a leader in the field. This year’s lecture was given by Dr. Gerald Dorn II (Washington University in St. Louis) and his talk was titled “Ancestry vs. Ambiance: The evolutionary underpinnings of cardiac hypertrophy signaling.” Dr. Dorn’s laboratory has made significant contributions to our understanding of cell signaling in cardiac hypertrophy and heart failure.

Poster sessions were held both during the day and in the evening throughout the conference. The outstanding posters from each session were selected by a panel of distinguished judges. Congratulations to this year’s outstanding poster winners: Farid El-Sayed (San Diego State University), Juliane Campos (University of Sao Paulo), Aravindakshan Jagadeesan (Loyola University) and Megan Montgomery (University of California San Francisco).

One of the major highlights of the meeting was the banquet dinner on historical Blake Island in the Tillicum village that occurred on the last evening of the conference. The cruise was on a beautiful clear evening and participants could see Mount Rainier in the distance on the way to Blake Island. The guests were greeted with steamed clams upon arrival to the island. The guests were then treated to Salmon bake while enjoying live, traditional Native American dances.

The meeting successfully incorporated all of the hallmarks we have come to expect from ISHR meetings – excellent science, a friendly and collegial atmosphere, an emphasis on encouraging and supporting young investigators, and a lovely venue. Congratulations to the organizers for a wonderful meeting!
REPORT ON THE MEETING ACTIVITIES OF THE AUSTRAliaN SECTION
(AUGUST 13-16, 2015; MELBOURNE, AUSTRALIA)

The annual meeting of the Australasian Section of the ISHR for 2015 was held in association with the Cardiac Society of Australia and New Zealand (CSANZ) in Melbourne, Australia this year. The meeting was a great success with a large attendance. Scientists, both senior and junior, showcased their research during oral and poster presentations, covering different aspects of cardiovascular biology, making for a very informative and enjoyable meeting.

A particular favourite of the Scientific Program is the three prestigious lectures (RT Hall Lecture, Kempson Maddox Lecture and Basic Science Lecture) given by esteemed experts in the field. This year, the RT Hall Lecture was delivered by Professor Silvia Priori (University of Pavia and IRCCS Fondazione Maugeri, Italy) who spoke about the progress of gene therapy using adeno-associated viral vectors for the treatment of inherited arrhythmias. The Kempson Maddox Lecture was given by Professor John Ormiston (Mercy Angiography and Auckland Heart Group, New Zealand) who is internationally known for his bench testing of cardiological devices. He spoke about how bench testing has aided the optimisation of percutaneous coronary intervention.

The Basic Science Lecture was delivered by Professor Mark Cooper (Baker IDI Heart and Diabetes Institute, Australia) who gave a talk about the pathobiology of diabetic complications.

This year we were delighted to welcome ISHR Invited International Speakers Professor Paul Simpson (University of California and San Francisco Veterans Affairs Medical Center, USA) and Professor Jennifer Van Eyk (Cedars Sinai Medical Center, USA) to the ISHR Australasian Section meeting. Professor Van Eyk opened the ISHR Student Finalist presentations with a detailed talk on understanding -omics and how to find disease specific changes of protein. Professor Simpson delivered an interesting talk about a new model of adrenergic receptors in myocytes, where not all cells in the heart carry all α and β isoforms as we believed.

For the first time this year, we were thrilled to welcome back home two International Early Career Scientists (who completed their PhDs in Australia) to hear about their Postdoctoral work. Dr Kate Weeks (King’s College London, UK) and Dr Norman Liaw (Universitätsmedizin Göttingen Lower Saxony, Germany) spoke about their postdoctoral research. Dr Weeks discussed the adrenergic regulation of class IIa HDACs, and Dr Liaw presented his work on optimisation of a technique to upscale production of human engineered heart muscles. We wish them both well in their future endeavours overseas.

Along with the participation of our International Speakers, the Basic Mechanism symposia were enriched with talks from Australasian ISHR Scientists covering various aspects of cardiovascular biology including novel approaches to therapies in heart failure, mechanism of atrial fibrillation, insights into stress responses in the heart, complex pathways of the pathological heart and myocardial energy stress and resilience.

The ISHR Australasian section has consistently supported both research students and early career scientists by providing them with numerous opportunities to present their research findings and compete for prizes. Sing-Young Chen, from the Heart Research Institute, Antonia Raaijmakers from The University of Melbourne, My-Nhan Nguyen and Yow Keat Tham, both from Baker IDI Heart and Diabetes Institute made up the ISHR Student Investigator Oral Presentation finalists of 2015. Well done to all students for their excellent presentations and
responses to questions from a supportive and inquisitive audience. Congratulations to the winner, Antonia Raaijmakers, for her presentation titled “Arrhythmic vulnerability in primary cardiac hypertrophy is associated with augmented CaMKII/PKA signalling.”

The poster and mini orals are always a popular session that provides a great snapshot of a wide selection of cardiovascular research topics, including basic science, clinical and epidemiological studies conducted in both animals and humans. Congratulations to Sarah Heywood (“High-density lipoprotein is a novel activator of cardiac glucose metabolism in both healthy and insulin resistant mice”), Baker IDI Heart and Diabetes Institute) and Brendan Ma (“Key functional domains of human cardiac troponin-C are susceptible to advanced glycation end-product formation in vitro”, University of Melbourne) for their award winning short presentations.

The Student Publication prize was awarded to Yow Keat Tham, for his paper titled “The small-molecule BGP-15 protects against heart failure and atrial fibrillation in mice” published in Nature Communications (2014, Volume 5, page 5705). This paper describes the potential therapeutic use and mechanism of action of the small molecule BGP-15 for the treatment of heart failure and atrial fibrillation. The Postdoctoral Publication prize was awarded to Dr. Helena Viola for her publication in Proc Natl Acad Sci USA (2014, Volume 111, page 2905-14) titled “Impaired functional communication between the L-type calcium channel and mitochondria contributes to metabolic inhibition in the mdx heart”. In this study, she found that myocytes from the murine model of Duchene muscular dystrophy exhibit impaired communication between the L-type Ca\(^{2+}\) channel and the mitochondria that results in poor energy production contributing to the cardiomyopathy.

**Congratulations to all of our prize winners and to all presenting students for their hard work towards scientific excellence.**

The ECS Workshop held on Saturday allowed a chance for early career scientists and PhD students to pick the minds of the invited speakers, Dr Paul Simpson, Dr Jennifer Van Eyk, Dr Norman Liaw, Dr Kimberley Mellor (organiser), Dr Kate Weeks and Dr Jim Bell. Attendees were put into small groups with panel members rotating amongst them. Topics that were discussed included what makes a good fellowship application, how to approach potential employers and alternative pathways to academia. The overall message from this workshop was to ensure that we always do what we enjoy.

A new initiative introduced this year was the inaugural Emerging Leaders Mentor/Mentee dinner. This was held jointly by CSANZ/ISHR to facilitate and foster interactions between emerging researchers and established Scientists and Cardiologists. The intimate dinner session was held in a random seating format on tables headed by Senior Leaders. Throughout dinner, invitees randomly switched tables to maximize discussion amongst everyone. Each dinner course was preceded with talks from Professor Chris Semsarian (Centenary Institute, Sydney), Associate Professor Julie McMullen (Baker IDI Heart and Diabetes Institute, Melbourne) and invited international speaker Professor Burns Blaxall (Cincinnati Children’s Hospital Medical Center, USA). Together, they spoke of the importance of having good mentors, taking risks and keeping the message simple.

Our Annual General Meeting (AGM) was held on Friday 14th of August at Cargo Hall, South Warf. Here Prof Livia Hool (President), A/Prof Salvatore Pepe (Finance Secretary), Dr Colleen Thomas (Member Secretary), Dr Jim Bell and A/Prof Julie McMullen (ECR Report) gave a summary of the Australasian section’s activities over the past year. The AGM was followed with the annual ISHR dinner. The ISHR dinner made for a wonderful opportunity to network with fellow ISHR members all while celebrating a highly successful meeting, the achievements of the section thus far, and stimulating lively discussion about the ever growing future of the Australasian section of the ISHR.

**Ms My-Nhan Nguyen, Mr Yow Keat Tham and Dr Bianca Bernardo**

**Upcoming meetings**

- ISHR 2016 Australasian section meeting will be held in Adelaide, Australia, August 3-7, 2016.
Dr. Masatsugu Hori is the Invited Professor of Osaka University of Pharmaceutical Sciences and Professor-emeritus of Osaka University. He is now the Past-president of ISHR-Intl. He graduated from Osaka University School of Medicine magna cum laude and obtained his MD in 1970. He trained as a resident at Osaka University Hospital for three years, and received his PhD degree for a simulation study of the ECG T-wave based on the ventricular gradient of action potentials. Dr. Hori was appointed Assistant Professor, Division of Cardiology in 1979. He moved to Albert Einstein College of Medicine, Yeshiva University in New York as a Visiting Assistant Professor for two years (1979-1981) and engaged in research work on cardiac hemodynamics under the mentorship of Professors E.H.Sonnenblick, E.L.Yellin and E.Kirk. After returning to Osaka University, he was appointed as a chief of cardiology in 1989, and was promoted to Professor of Medicine, Osaka University in 1997.

Dr. Hori began his research work with the hemodynamic assessment of diastolic function of the heart, particularly in LV relaxation and LV suction using open chest dogs with prosthetic mitral valves. He further investigated the interaction of systolic contraction with diastolic relaxation using a servo-controlled isolated canine heart and elucidated a load dependency of LV relaxation, prominently observed in the aged heart.

To investigate the pathophysiology of the coronary no-reflow phenomenon, Dr. Hori studied coronary hemodynamics and myocardial ischemia in the microembolization of coronary arteries. He found the coronary hyperemic flow response after coronary microembolizations, which mimics the “slow flow (TIMI-2 flow)” after recanalization in patients with acute myocardial infarction (AMI). This flow response is attributed to endogenous adenosine release, and he also elucidated the role of platelet aggregation in thromboembolism. His group was the first to investigate the no-reflow in patients with AMI by using myocardial contrast echocardiography (MCE).

Dr. Hori observed the enhanced adenosine production in ischemic preconditioning via increased activity of 5’-nucleotidase induced by PKC activation, which attenuates ischemic injury by cellular protection and improvement of coronary microcirculation. He also found that late ischemic preconditioning (second window) is attributable to enhanced Mn-SOD production which also contributes to exercise/hyperthermia-induced cardioprotection.

Dr. Hori also investigated signal transduction in cardiac hypertrophy and elucidated the molecular mechanism of activation of HB-EGF – GPCR induced shedding of HB-EGF by metalloproteinase in hypertrophic signaling. In addition, he clarified the signaling pathway in Ang II – ASK-1 – MAPK regulating hypertrophy and cardiac apoptosis induced by oxidative stress.

The main focus of his current research is on the molecular mechanisms of cardiomyocyte death, i.e. necrosis, apoptosis and autophagic death. Particularly, he and his colleagues elucidated the protective role of autophagy in cardiac hypertrophy and failure. More recently, he has studied the molecular mechanisms of inflammation in the pathogenesis of heart failure.

In clinical research, Dr. Hori conducted a large registry (OACIS) for acute coronary syndrome (ACS) in which classic and genetic risk factors for ischemic heart disease were elucidated. Based on a genome wide survey, he found that SNPs of lymphotoxin alpha and galectin-3 are the key genetic risk factors for the prognosis of ACS patients. He also conducted several clinical trials for chronic heart failure (MUCHA, J-CHF and J-DHF) and for atrial fibrillation (JAST, J-ROCKET AF). He also organized the initial set-up of cardiac transplantation and LV assist devices (LVAD) in Japan. Currently Dr Hori is engaged in the international large clinical trials of non-Vitamin K oral anticoagulants (NOACS) for patients with atrial fibrillation/ venous thromboembolism and coronary/peripheral artery diseases.

Dr. Hori has served in leadership roles in many major scientific societies, and contributed to the writing of JCS clinical guidelines for cardiovascular diseases. He has hosted several major scientific meetings. Recently, he organized the ISHR World Congress in 2010 as a chair and president of the society. He has served as an Associate Editor of Circulation Research and is on the editorial board of several major international journals. He has published a total 520 original articles in international journals.
Karin Sipido, M.D., Ph.D.

Winner of the 2013 ISHR Keith Reimer Distinguished Lecture Award
“Synchrony of sarcoplasmic reticulum calcium release, T-tubule organization and calcium microdomains”

Dr. Sipido is Professor of Medicine and Head of Experimental Cardiology at the KU Leuven, the University of Leuven, Belgium since 2002. In addition she has worked as a clinical consultant in Cardiology in Leuven (1994-1998), as Consultant in Maastricht, NL (1996-1998) and as Visiting Professor in Utrecht (2004-2006). Dr. Sipido’s main field of interest is cardiac cellular electrophysiology and calcium homeostasis, and the changes with cardiac hypertrophy and heart failure. Her overall aim is to link clinical findings to cellular mechanisms. She is particularly interested in the role of altered [Ca2+]i regulation in arrhythmogenesis and the potential for targeting the Na/Ca exchanger as therapy.

Richard N. Kitsis, M.D.

Winner of the 2013 ISHR President’s Distinguished Lecture Award
“Understanding cell death in the heart”

Dr. Rick Kitsis is Professor of Medicine and Cell Biology, The Dr. Gerald and Myra Dorros Chair in Cardiovascular Disease, and Director of the Wilf Family Cardiovascular Research Institute at the Albert Einstein College of Medicine in New York City. Dr. Kitsis is one of the pioneers of the cardiac cell death field and has been at its cutting edge for the past 25 years. His laboratory has made seminal contributions to our understanding of both the fundamental biology of how and why cells die, and the roles of cell death in heart disease and other human conditions. His work is known for its novelty, rigor, and depth.

Michael Marber, MB.BS, Ph.D., FRCP

Winner of the 2013 ISHR Janice Pfeffer Distinguished Lecture Award
“Keep Tabs on p38 mitogen-activated protein kinase”

Prof Marber is Professor of Cardiology at King’s College London and Guy’s and St Thomas’ Hospitals since 1999. His research focuses on the myocardial response to ischaemic stress. Over the last few years his group’s research has focused on the p38-MAPK pathway and its role in sensing myocardial ischaemia. Prof Marber contributes to the under- and post-graduate medical curriculum and received the student vote as “Best Clinical Teacher” in 2007 and was renominated for this award by students in 2009 and clinical trainees in 2011. His clinical interests are in patient care during and after acute myocardial infarction.
THE NEWS BULLETIN OF THE INTERNATIONAL SOCIETY FOR HEART RESEARCH

EARLY CAREER INVESTIGATOR EVENTS AT 2015 ISHR-NAS MEETING

The ISHR-NAS is dedicated to providing opportunities for early career investigators (ECIs) to communicate with fellow researchers and to develop their careers. This year, the ISHR-NAS presented another extremely successful ECI event. Chaired by Dr. Chen Gao (University of California, Los Angeles, winner of the 2013 ISHR Richard J. Bing Award for Young Investigators), the ECI event attracted a total of 163 attendees for the scientific symposium and 130 attendees for the career development workshop.

The ECI committee designed an official ECI logo and distributed t-shirts with the ECI logo at the ISHR-NAS meeting. During the meeting, a total of 288 t-shirts with the ECI logo print were distributed to all meeting attendees.

The ECI committee organized four different events at the 2015 ISHR-NAS meeting: a scientific symposium, a career development workshop, a luncheon with senior investigators and an ECI evening social.

The ECI scientific symposium was chaired by Drs. Chen Gao (University of California, Los Angeles) and Samarjit Das (Johns Hopkins University): the scientific symposium was composed of 10 oral presentations by young investigators selected by the ECI planning committee from a total of 51 submitted abstracts.

This year, the Career Development Workshop focused on grant preparation and submission. Chaired by Drs. Mark Kohr (Johns Hopkins University) and Sakthivel Sadayappan (Loyola University, Chicago), this scientific career panel discussion was joined by Drs. Steve Houser (Temple University), Walter Koch (Temple University), Jeffery Molkentin (Cincinnati Children’s Research Institute), Jenny Van Eyk (Cedar-Sinai Hospital), Drew Carlson from NHLBI and Olga Tjurmina from NIH. The one-hour discussion began with a brief introduction of the panelists followed by questions and answers.

The ECI luncheon provided an excellent opportunity for early career investigators to communicate and receive advice from senior investigators. A total of 12 senior investigators attended our first off-site luncheon, held at Il Fornaio, providing an outstanding opportunity for ECI members to obtain one-on-one advice.

ECIs distributed more than 280 t-shirts with the ECI-NAS logo to meeting delegates.

ECIs joined senior investigators for an informal lunch at nearby Il Fornaio.
One important mission of the ISHR-NAS ECI is to provide opportunities for the young investigators to meet and communicate with fellow early career scientists. This year the ECI evening social event was held at the Tap House Grill in downtown Seattle and served as a great environment for the young investigators to meet and greet their peers.

Next year, the ECI event will be chaired by Dr Sarah Franklin, assisted by ECI-NAS members Drs Stephan Lange (UCSD; winner of the 2014 ISHR-NAS Senior YIA) and Catherine Makerewich. Please plan ahead to join us and meet your peers!! See you soon in Buenos Aires!!!

Chen Gao, Ph.D.
Farid Moussavi-Harami, M.D.

2015 ECI Committee:
Chen Gao (Chair)
Stephan Lange (Co-chair)
Sarah Franklin
Samarjit Das
Mark Kohr
Christopher Murry
Randi Parks
Sakthivel Sadayappan
Catherine Passariello
Cat Mak
Farid Moussavi-Harami
Kaytlyn Gerbin

2015 Senior Advisors:
Tish Murphy
Litsa Kranias
Christopher Baines
Jeff Robbins

Special thanks to:
Leslie Anderson Lobaugh

Calendar

- **December 11-12, 2015.** XXXII Annual Meeting of the Japanese Section. Kobe, Japan.
  Inquiries: Yoshihiko Saito, saitonaramed@gmail.com

- **April 18-21, 2016.** XXII World Congress of the ISHR. Buenos Aires, Argentina.
  Website: www.ishrbuenosaires2016.org.ar

- **August 3-7, 2016.** XXXIX Annual Meeting of the Australasian Section. Adelaide, Australia.

- **May 30 – June 2, 2017.** XXXVI Annual Meeting of the North American Section. New Orleans, LA.
  Inquiries: David Lefer, dlefe1@lsuhsc.edu

- **2017.** XXXIV Annual Meeting of the European Section. Hamburg, Germany.
  Inquiries: Lucie Carrier, l.carrier@uke.de
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The forthcoming issue, devoted to UNDERSTANDING AND TREATING CENTRAL BLOOD PRESSURE will feature articles by:

E. Agabiti-Rosei and M. Lorenza Muiesan;
S. Laurent and P. Boutouyrie; C. Vlachopoulos and P. Xaplanteris; P. Sever

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