

HEART NEWS and VIEWS

THE NEWS BULLETIN OF THE INTERNATIONAL SOCIETY FOR HEART RESEARCH



MADISON, WI June, 2023



WINNIFRED NAYLER ISHR PRESIDENT 1986-1989



Save the Date - Nara, Japan *May 11-14, 2025*

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REPORT ON THE XLII MEETING OF THE NORTH AMERICAN SECTION (JUNE 27-30, 2023; MADISON, WISCONSIN)



Monona Terrace Convention Center, the conference location, features spectacular views of Lake Monona

REPORT ON THE XLII NORTH AMERICAN SOCIETY ANNUAL MEETING

The 42nd International Society for Heart Research-North American Section (ISHR-NAS) Meeting "Advancing Cardiovascular Health by Enabling Technologies and Translational Research" was held on June 27-30, 2023. The conference took place at the Monona Terrace Convention Center, designed by world-renowned architect Frank Lloyd Wright, on the shore of Lake Monona in Madison, Wisconsin, hosted by the University of Wisconsin Cardiovascular Research Center and was organized by Timothy Kamp, Ying Ge, and Hector Valdivia along with a Local Organizing Committee. Over 370 delegates from 12 countries (including 14 Travel Award recipients) attended the meeting, which featured 24 scientific sessions, five award lectures, two poster sessions, and ten workshops.

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AWARDED TALKS AND SCIENTIFIC PROGRAMMING

Five award lectures presented remarkable advances in cardiovascular research by leading investigators. Donald Bers (UC Davis) delivered the Keynote Lecture on the roles of calcium and calcium/calmodulin-dependent kinase II (CaMKII) in heart failure and arrhythmias. He also received the Eric N. Olson Mentorship Award and generously shared his excellent mentoring techniques. The ISHR Peter Harris Distinguished Scientist Award was given to Daniel Kelly (University of Pennsylvania) whose



Jennifer Van Eyk (Cedars-Sinai Medical Center) gives the President's Distinguished Lecture to finish the ISHR-NAS Madison programming.



Daniel Kelly (University of Pennsylvania) receives his Peter Harris Distinguished Scientist Award with moderator Yoshihiko Saito (Nara Medical University).



The meeting was defined by excellent engagement with both the invited talks and the abstract selected talks. We are thankful for a welcoming and respectful community!

award lecture highlighted the metabolic origins of heart failure and novel therapeutic targets. Sumanth Prabhu (Washington University in St. Louis) received the NAS Innovator Award and gave a talk on macrophage-mediated rhythmic inflammatory processes that underly heart failure. The MCI Leadership recipient was Jennifer Davis (University of Washington) who discussed novel insights into cardiac fibroblast biology and cardiac tissue homeostasis. The ISHR President's Distinguished Lecture was delivered by Jennifer Van Eyk (Cedars-Sinai Medical Center), highlighting proteomics as a driver of paradigm-shifting discoveries in cardiovascular sciences. The meeting was enriched with 24 scientific sessions covering a wide range of topics including cutting edge technologies such as single-cell analyses, multi-omics, and artificial intelligence; cardiomyocyte calcium homeostasis and dysregulation; mechanisms of myofilament diseases, cardiac hypertrophy, genetic cardiomyopathies, heart failure, and arrhythmias; cardiac cell death as well as cardiac differentiation, development, and regeneration. Each session consists of three invited speakers and two selected oral abstract presenters, allowing early career scientists an opportunity for oral presentations. In addition to more than 120 scientific talks, 115 posters were presented in two main poster sessions. All of these were well complemented with three main workshops on how cutting-edge technologies (proteomics, engineered cardiac tissues, and systems biology) empower us to move forward as an integrative field.

EARLY AND MID-CAREER INVESTIGATOR (ECI/MCI) PROGRAMMING



The Young Investigator Competition Award Senior Finalists (from left to right): Benjamin Kopecky (Washington University in St. Louis), Joanne Garbincius (Temple University), and Xi Fang (UC San Diego) and YICA advisor Kika Sucharov (University of Colorado Anschutz). The Junior Finalists (not pictured) were Haofei Wang (University of North Carolina at Chapel Hill), Emma Robinson (University of Colorado Anschutz Medical Campus), and Suraj Kannan (Johns Hopkins School of Medicine).

The ECI/MCI events featured Scientific Symposium, ECI Workshop ("Bits and Bytes of Multi-Omics Analysis"), Young Investigator Competition (YICA), MCI Research Award, and ECI/MCI Social. All events highlighted diverse work and approaches across cardiovascular research, promoting rich discussion from meeting attendees. In particular, the YICA Junior and Senior Finalists displayed highly accomplished ECIs as both scientific investigators and speakers. Following a difficult deliberation by the judges, Emma Robinson (University of Colorado Anschutz Medical Campus) was selected to be the junior-group winner for her work on HDAC11 and beta-adrenergic response in adipocytes. She was also chosen as Litsa G. Kranias Junior Awardee. Benjamin Kopecky (Washington University in St. Louis) won the senior-group competition for his work on mediating rejection response of heart transplant recipients. For the MCI Research Award, Guo Hang (UCSF) was picked for his work on cardiac regeneration in the naked molerat (finalists included Susmita Sahoo (Icahn School of Medicine at Mount Sinai) and Zhong Wang (University of Michigan-Ann Arbor)). Ron Vagnozzi (University of Colorado Anschutz) was awarded the Senior Litsa G. Kranias Award (finalists included Inna Rabinovich-Nikitin (University of Manitoba) and Michael

Zhang (University of Minnesota)). Congratulations to all outstanding winners and finalists!

SPONSORED BREAKFAST AND LUNCH WORKSHOPS

To keep the attendees running at full energy, each day included sponsored breakfast and lunch sessions. The first lunch roundtable was entitled "Taking the Mystery out of the NIH", discussing practical strategies to apply for NIH grants. The Women's Initiative Breakfast on the following morning introduced a new initiative to encourage women in STEM to seek out mentorship and adopt confidence in their abilities. Each attendee was provided with a list of senior investigators who explicitly expressed a willingness to be a mentor for up-and-coming scientists. The DEI Workshop Breakfast provided an engaging discussion about being open to change and embracing uncomfortable conversations to make progress for underrepresented populations happen. JMCC Meet the Editors Breakfast presented the editors' viewpoint on the characteristics of impactful research articles and engaged good conversation regarding outreach and research integrity with AI. JMCC Plus, the recently established sister journal, was also given a formal introduction. Last but not least, the extremely popular 'Omics Technology Lunch Seminars (by Bruker, ThermoFisher Scientific, and Agilent) highlighted new technologies and instrumentation advances for single-cell systems and biotherapeutics.



The poster sessions provided great opportunities for discussion and collaboration.

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PRESIDENT'S LETTER



n this President's Letter, I would like to share with you some of the news at ISHR. The biggest development since my last letter is the birth of a new Section, the Southeast Asian Section, which is the first new Section in 40 years (the last being the China Section in 1984). So the ISHR has now eight international sections. All ISHR members welcome the new section!

The first president of the Southeast Asia Section is Roger Foo (National University of Singapore), and Council members include researchers from Indonesia, Malaysia, South Korea, Taiwan, Thailand, and Vietnam, in addition to Singapore. The first annual meeting will be held in Singapore on October 3-4 of this year. We hope it will be a great success! The recent economic and scientific development of this Southeast Asian region has been remarkable, and the birth of this section

should perhaps have happened sooner. Given that Asia now has the Southeast Asian section, the Indian section, the Chinese section, and the Japanese section, and is geographically close to Australasia, we expect exciting developments in cardiovascular research in the Asia-Oceania region.

Currently, the Japanese Section is organizing and preparing the (Local Organizing Committee (LOC) to host the ISHR World Congress in Nara next year (May, 2025). The Scientific Program Committee, with Jolanda van del Velden as the chair, is planning 25 symposia on cutting-edge topics in cardiovascular research. The LOC is also planning several symposia of its own.

As we look around the world, there have been tragedies that are by no means desirable. We must remember that the nature of science is independent of political issues. All scientists, regardless of where they live or work, should be given equal opportunities to study and exchange knowledge. We sincerely hope that our activities will lead to peace.

I hope that next year scientists from all over the world, including members of the new Southeast Asia Section, will gather in Nara to exchange the latest knowledge and deepen mutual understanding to further the development of ISHR and world peace.

Yoshihiko Saito, MD President, ISHR-International



Date _____ May 11(Sun.) -14(Wed.), 2025

Venue — Nara Prefectural Convention Center, Japan

Congress Chair — Issei Komuro, M.D., Ph.D.

Vice president and professor International University of Health and Welfare Tokyo, Japan



THE HEART OF THE MATTER

REMEMBERING THE FIRST FEMALE PRESIDENT OF THE INTERNATIONAL SOCIETY FOR HEART RESEARCH:

PROFESSOR WINIFRED G. NAYLER, DSC



Professor "Gwen" Nayler was one of Australia's most innovative cardiovascular scientists of the 20th century, internationally regarded for her pioneering work on myocardial metabolism and cardiovascular pharmacology. She was a leading pioneer in the development of beta-adrenergic receptor antagonists and calcium channel blockers for the regulation of cardiovascular function. Her leadership and research contributed greatly to the early clinical use of these drug classes to manage high blood pressure and angina.

Growing up in Melbourne, encouraged by her school-teacher father, Gwen was an enthusiastic student of science. A graduate of Strathcona Girls Grammar School (nee Millott '47), she matriculated in Chemistry, Physics and Biology (Mary Doery Science Prize), before undertaking BSc (1951), MSc (1953), and DSc (1957) degrees at the University of Melbourne. She married Lindsay R. Nayler, an electrical engineer (and subsequently a lawyer), who encouraged her studies and research career. Prof Nayler worked initially as a clinical biochemist in pathology at the Austin Hospital Melbourne, and through that experience was drawn to heart research at the Baker Medical Research Institute, Melbourne, Australia (1955-1972). She was awarded the prestigious David Symes Research Medal in 1962. In 1966, at the age of 36, she succeeded Dr Paul Fantl to become Associate Director of the Baker. Rather than celebrating a bright young multi-laureate scientist making research breakthroughs, the city newspapers at that time made much of the fact that she was married more than a decade and not in a traditional female role. Undeterred, Dr Nayler became Professor of Cardiac Metabolism in the Department of Cardiac Medicine, Cardiothoracic Institute, University of London, London, UK (1973-1980). Prof Nayler worked with, and mentored many, that became prominent in cardiology and cardiac surgery, including R Ferrari, PA Poole-Wilson, AM Katz, E Braunwald, EG Lakatta, LH Opie, A Fleckenstein, A Schwartz, PM Vanhoutte, RB Jennings, SE Harding, CE Ganote, J Dunnett, DJ Hearse, T Toyo-Oka, SM Humphrey, C Barnaard, D Cooley, and M Yacoub, amongst many, many other notable international researchers and clinicians. Her sharp determination and rigorous execution of innovative research attracted widespread respect from her peers across continents. Gwen's immense capacity to organize and manage complexity naturally resulted in her popularity and prominence as a leader within cardiovascular research societies and their scientific conferences, particularly the fledgling ISHR.

Although Gwen Nayler was a modest and meticulous researcher, she was a no-nonsense, indefatigable, curiosity-driven task master who set the research bar high in a male dominated world. Her work from this period in the UK led to her being shortlisted for the Nobel Prize in Medicine. At a time when very few women worked in medicine and science, she was presenting invited plenary lectures across North America, Europe and Japan. Highly respected and influential, she was elected the first female President of the International Society for Heart Research (ISHR, 1986-1989), and was a co-founder of the Australia and New Zealand Section (1976) and section President (1982-1990). Highly prominent with her international peers through the impact of her research, she organized the 1986 ISHR World Congress in Melbourne, amongst many Section annual meetings and workshops. Her legacy of research and teaching includes the training of numerous postgraduate students and post-docs, of which many became prominent in their specialties.

The major research interest of the scientific and clinical members of ISHR in the 1970s and 1980s was in cardiac metabolism, particularly the impact of ischemia-reperfusion injury which developed with expertise from multiple disciplines and technologies. Indeed, Prof Nayler crafted and integrated knowledge and skills from multiple disciplines and diverse individuals. Today this is reflected in ISHR's membership from the fields of biochemistry, genetics, molecular and cellular biology, bioinformatics, physiology, pharmacology, biophysics,

Nayler (continued on next page)

vascular biology, pathology, cardiology and cardiac surgery. Although contributing membership to the Cardiac Society of Australia and New Zealand since the 1970's, from 2005 the Australian and New Zealand ISHR has dedicated their annual scientific meeting effort to the Mechanisms and Preclinical Discovery stream of each Annual Scientific Meeting of the Cardiac Society of Australia and New Zealand.

Prof Nayler eventually returned to Australia to lead a research team at the Department of Medicine, University of Melbourne, Austin Hospital, Melbourne, Australia (1980-1994). She was recognised as a: Fellow of the Royal Society of Medicine UK, Fellow of the American Heart Association, Fellow of the American College of Cardiology, Fellow of the European Society of Cardiology and by Monash University with an Honorary Doctorate in 1994. After a 40+ year career, with more than 450 research journal publications and books that defined major cardiovascular discoveries and novel therapeutics, she retired in the mid 1990's with her husband to Upwey, Dorset, England, to pursue her keen interest in gardening.

At a time that is important to augmenting and balancing recognition and support of female clinical cardiologists and cardiovascular scientists, I believe it is critical that we not forget this outstanding pioneering scientist. There are many stories, too many for this page. However, for those that look closely at her life's journey of her many adventures while making an outstanding contribution to the advancement of cardiovascular science, Prof Gwen Nayler is an inspiration to current and future generations. On May 30, 2024 Gwen Nayler will be 94 years old. Although reluctantly retired to a care facility in recent weeks, she remains well, with sharp mind and wit.

Dr Salvatore Pepe, Heart Research Group, Murdoch Children's Research Institute, and Dept Paediatrics University of Melbourne, Royal Children's Hospital Melbourne, Australia. 4th May 2024.

Photo Credits: Courtesy of Mr Bruce Millott. On Left: Winifred G. Nayler. A happy final year high school girl, Melbourne, Australia, 1947. Right: A happy gardening enthusiast in Upwey, Dorset, England, 2018.

JMCC PLUS UPDATE

JMCC Plus is proud to announce several recent milestones. The journal is now indexed in both the Directory of Open Access Journals (DOAJ) and the Asian Science Citation Index. Furthermore, we have met the publication thresholds for indexing in PubMed Central, Clarivate, and Scopus, and have begun the internal processes required to apply for indexing in those databases. This would not have been possible without the support of researchers who submit their work to us, our committed reviewers, Editorial Board members and the ISHR Council.

To elevate the visibility, availability, and the readership of *JMCC PLUS*, we aim to become indexed in all four bibliographic databases by 2025. Importantly, indexing in Clarivate will allow us to be included in the Journal Citation Reports and obtain an impact factor. Impact factor is a measure of the frequency an "average article" in a given journal has been cited in a particular year, or over a defined period of time. We must note that while impact factor can be an indicator of the journal's citation performance overall, it is certainly not the only measure of manuscript quality, and at *JMCC PLUS* we will not be solely driven by a desire to indiscriminately increase it.

Why does journal indexing matter?

The impact of scientific publications hinges on their discoverability and is almost entirely dependent on the process of journal indexing. To become indexed, a journal must adhere to key requirements and formally apply to each indexing database. Evaluation metrics include peer review policies and timelines, quality of content, transparency, diversity, and expertise of the editorial board, copyright and metadata policies, and readability and archiving policies. Benefits of journal indexing include enhancing discoverability and accessibility of research, upholding ethics in publishing, maintaining high quality content, accelerating research pace, and promoting collaboration and global connections. As an author, publishing in an indexed journal increases the credibility and visibility of your work, as database searches are often the first activity that other researchers perform as part of their study.

We are proud of our accomplishments since the launch of our first issue in September 2022 and look forward to growing the *JMCC PLUS* readership and reputation in the field of cardiovascular research. If you have any suggestions for improvements, special issues, webinars, reviews or indeed any other new content that you would like to see implemented, please do get in touch with us.

CONGRATULATIONS TO TOP PAPERS OF 2023

Earlier this year, JMCC recognized the top papers published in 2023. Congratulations to the authors for their outstanding contribution to cardiovascular research.

Original Research



The selective RyR2 inhibitor ent-verticilide suppresses atrial fibrillation susceptibility caused by Pitx2 deficiency

Kyungsoo Kim, Daniel J. Blackwell, Samantha L. Yuen, Madelaine P. Thorpe, Jeffrey N. Johnston, Razvan L. Cornea, Björn C. Knollmann

Journal of Molecular and Cellular Cardiology, Volume 180, 2023, Pages 1-9, <u>https://doi.org/10.1016/j.yjmcc.2023.04.005</u>

Short Communication



Identification of a novel cardiac epitope triggering T-cell responses in patients with myocardial infarction

Nils Hapke, Margarete Heinrichs, DiyaaElDin Ashour, Elena Vogel, Ulrich Hofmann, Stefan Frantz, Gustavo Campos Ramos

PlumX MetricsJournal of Molecular and Cellular Cardiology, Volume 173, 2023, Pages 25-29, <u>https://doi.org/10.1016/j.</u> <u>yjmcc.2022.09.001</u>

RECOGNIZING OUTSTANDING REVIEWERS FOR JMCC IN 2023

The JMCC relies on peer reviewers for the quality and impact of the articles we publish. We are grateful to every one of the hundreds of reviewers who has given his/her time and expertise to ensure the success of JMCC. Here we would like to recognize a few reviewers who have excelled in total number of papers reviewed, the quality of reviews provided, and timeliness of review submissions.

| Zhaohua Cai | Nikolaos Frangogiannis | Wang Wang | Junjie Xiao |
|----------------|------------------------|----------------|----------------|
| John Calvert | Farid Moussavi-Harami | Yajing Wang | Shinsuke Yuasa |
| Dominic Del Re | Sakthivel Sadayappan | Xander Wehrens | |

BIN ZHOU, MD, PHD 2019 Outstanding Investigator Award

Professor Bin Zhou received his MD in 2002 from Zhejiang University School of Medicine, Hangzhou, China. He studied clinical medicine and received systematic training as a physician. After graduation, he did vascular research at Peking Union Medical College, Beijing, China and received his PhD in 2006. He then moved to the US and joined Dr. William Pu's laboratory at Boston Children's Hospital to receive postdoctoral training focusing on cardiovascular development and diseases. In 2010, Dr. Zhou returned to China and started his independent research work at Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences. In the past 8 years, his work has made significant contribution to the field of cardiovascular development and regeneration. His research elucidates the developmental origins of coronary blood vessels in the mammalian heart. In addition, his lineage tracing work helps clarify the role of resident stem cells in tissue repair and regeneration. Specifically, his laboratory established many precise lineage tracing models for fate mapping of cardiac stem cells (CSCs) and uncovered their fate decision in normal and pathological conditions. Based on this work, Dr. Zhou has received several distinguished awards and was elected a Fellow of the International Society for Heart Research.

BEIJING, CHINA

Dr. Zhou's expertise has been broadly demonstrated by his elegant genetic work in mouse studies that delineate cell origin and fates in cardiovascular development and regeneration. Using new technologies that he developed, his group uncovers the developmental origin of coronary blood vessels in the heart. It has been generally believed that coronary vessels mainly formed in the fetal stage then expanded and remodeled to become a mature coronary vascular system of the postnatal heart. Dr. Zhou's study showed that a substantial number of coronary vessels are, in fact, formed after birth. Fate mapping studies provided direct genetic evidence that endocardial cells contribute to coronary vessels in the inner myocardial wall of the postnatal heart. His work also elucidated the potential of endocardial cells in the adult stage after myocardial infarction and the cellular sources for new blood vessel formation in the injured heart. Identification of distinct coronary vascular populations and sources may provide new clinically relevant insights into therapeutic neovascularization for treatment of ischemic heart diseases.

Dr. Zhou's laboratory has also clarified the myogenic potential of putative cardiac stem cells in adult heart regeneration. His lineage tracing study of Kit+ cells showed that Kit is expressed by cardiomyocytes in addition to non-myocytes, providing an alternative explanation for interpreting the fate mapping result of Kit+ cells. By distinguishing Kit+ cardiomyocytes from Kit+ CSCs, his subsequent work showed that Kit+ CSCs do not contribute to new cardiomyocytes in the adult heart. Using new genetic system that labels myocytes and non-myocytes distinctively in the heart, he reported genetic evidence in vivo that non-myocyte to myocyte conversion exists in the embryonic but not the adult heart, raising cautions on interpreting the myogenic potential of putative stem cell populations for cardiac regeneration in the adult stage. His fate-mapping study on cardiomyocytes



proved that new cardiomyocytes of the injured myocardium are derived from pre-existing cardiomyocytes of the adult heart. Taking advantage of the state-ofthe-art technologies in mouse genetics, Dr. Zhou uncovered many cell origins and fate conversions that were unknown previously, providing new information to the fields of developmental biology and regenerative medicine.

Dr. Zhou continues to develop new genetic technologies to more precisely delineate cell fate and plasticity in development, diseases, and regeneration. In addition to his innovative research approaches, his laboratory provides a fertile training environment for young scholars who are interested in basic cardiovascular research. Dr. Zhou encourages his students and fellows to work independently and think critically. Their joint-contribution and devotion to science has made and will continue to contribute to research progress in the cardiovascular field. Dr. Zhou is grateful for all the efforts and contributions of every member of his laboratory. Acknowledging the support of his pervious mentors and help from great collaborators, Dr Zhou is honored to receive the Outstanding Investigator Award.

REPORT ON THE XXXVII MEETING OF THE EUROPEAN SECTION

(JULY 10-13, 2023; PORTO, PORTUGAL)

n July 2023, the Medical Research Center of the Faculty of Medicine, University of Porto (CIM-FMUP), in Porto (Portugal), hosted the 37th annual meeting of the European Section of the International Society of Heart Research (ISHR-ES).

The participants were welcomed by Paula da Costa Martins and Ines Falcão-Pires (Chair and Vicechair, Organizing Committee); Mauro Giacca (outgoing ISHR-ES president) and Francisco Cruz (subdirector FMUP). In this ceremony, the participants were surprised by a short opera concert provided by students of the University of Porto.

The Organising Committee put together a vibrant scientific programme. From epigenetic control of cardiomyocyte biology to cardiac regeneration, from cell reprogramming to vascular remodelling, throughout four full days of cutting edge science and networking, along with a stellar panel of speakers. The highlights of the programme included extensive early career investigator activities, poster sessions, social interactions, and a unique chance to connect with international colleagues. All of this in one of the most historic and fascinating cities in Europe. From all 242 abstracts submitted, the ISHR-ES council members made a selection of oral and poster sessions, that, together with the invited experts, were divided throughout 6 plenary sessions, 24 scientific sessions and 4 poster sessions.

We had the opportunity to recognize several leading investigators for their important and timely contributions to the cardiovascular field. The Janice Pfeffer Distinguished Lecture was provided by Jennifer Davis (Seattle, USA), where she presented her beautiful work on unveiling the secrets of cardiac fibroblast biology and how it contributes to cardiac tissue homeostasis.

The ISHR Council awarded 2 Medals of Honour: Renée Ventura-Clapier (Paris, France) for her extensive work on cardiac metabolism; Guy Vassort (Montpellier, France) for his extensive work unveiling mechanisms and new wires in cardiac



Outgoing ISHR-ES President, Mauro Giacca, presents Medals of Honour to Guy Vassort (Montpellier, France) for his work in cardiac electrophysiology and Renee Ventura-Clapier (Paris, France) for her work in cardiac metabolism.



ISHR-International Secretary General, Jolanda van der Velden, presents the ISHR Janice Pfeffer Distinguished Lecture Award to Jennifer Davis (University of Washington).

electrophysiology. The Ketty Schwartz Award 2023 went to Manuela Zaccolo (Oxford, UK) who gave an outstanding lecture on cAMP signaling and her efforts on constructing a comprehensive map of cAMP nanodomains in cardiac myocytes using real-time imaging and targeted FRET reporters combined with proteomics approaches.

The congress would not have been a success without the many young investigators that actively participated in the program. Besides 14 travel grants, poster awards were also given to 8 young investigators. The ISHR-ES Young Investigator awards went to Mona Malek Mohammadi (1st), who presented her work on new neonatal animal models to uncover ventricular crosstalk; and 2 runner-ups Niels Pietsch, who presented his work on how changes in microtubule detyrosination improves cardiac cell contractlity and cardiac function in mouse models; and Ileana Duran Fernandez, for her work on the contribution of microRNA-21 in preventing car-

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2019 ISHR DISTINGUISHED LECTURE Award Winners



Christoph Maack, MD Winner of the 2019 ISHR Keith Reimer Distinguished Lecture Award "Mitochondrial redox regulation in heart failure" (June 2019: Beijing, China)

Dr. Maack is the Chair of Translational Science and the Spokesperson of the Comprehensive Heart Failure Center (CHFC) at the University Clinic in Würzburg, Germany. Dr. Maack's work focuses on cellular defects in chronic heart failure, with a special emphasis on the mechanisms of contractile, mitochondrial and metabolic dysfunction in heart failure. An important goal of his research is to identify potential sites of intervention that could ameliorate the progression of heart failure and arrhythmias, such as targeting cytosolic or mitochondrial ion handling, or drugs targeted to mitochondria that reduce ROS formation and/or emission.

Lucie Carrier, PhD Winner of the 2019 ISHR Janice Pfeffer Distinguished Lecture Award "Sarcomeropathy - from bedside to bench and back" (June 2019: Beijing, China)

Dr Carrier is Professor of "Functional Genomics of Cardiomyopathies" in the Institute of Experimental Pharmacology and Toxicology, Cardiovascular Research Center at the University Medical Center Hamburg-Eppendorf, Hamburg, Germany. She is best known for her work on the genetics and pathophysiology of hypertrophic cardiomyopathy. Her recent research interests are disease modelling in patient-specific and gene-corrected induced-pluripotent stem cell-derived cardiomyocytes and MYBPC3 gene therapy (by exon skipping, trans-splicing, gene replacement) in mouse and large animal models for severe forms of pediatric cardiomyopathy.





Yoshihiko Saito, MD Winner of the 2019 ISHR President's Distinguished Lecture Award "Molecular mechanism for cardio-renal connection" (June 2019: Beijing, China)

Dr Saito is a professor in the Department of Internal Medicine at Nara Medical University. Dr Saito is interested in the molecular mechanism of the cardio-renal connection; his group proposed that PLGF and its endogenous antagonist play roles in the development of the cardio-renal connection. Another interest is to understand the clinical significance of the therapeutic and diagnostic impact of the natriuretic peptide family in heart failure. His laboratory is actively engaged in searching for new molecular mechanisms which contribute to the pathophysiology of heart failure and hypertrophy."

REPORT OF ECI EVENTS AT THE XLVII MEETING OF THE AUSTRALASIAN SECTION

(AUGUST 4-6, 2023; ADELAIDE, AUSTRALIA)

Overview: We would like to thank the incredible time and effort that the members of the ECI Committee have put into the events and schemes throughout the year that we have facilitated. As Co-Chairs, we are incredibly lucky to work with such a wonderful team of ECIs that truly value the goal of supporting and promoting ECIs within ISHR. It has been a very busy year of transitioning into the Co-Chair roles, so thank you for your patience. Despite the transitions, we felt this was a very successful year, as outlined in the summaries of activities below. We are also looking forward to 2024 and continuing our work to represent the ECIs within ISHR, and find important ways to address the challenges faced by ECIs in the cardiovascular research field across a spectrum of development areas.

ISHR ECI Committee Members

In 2023, we had several changes to the ECI Committee at the beginning and end of the year. Our outgoing members included our prior Co-Chairs Celine Santiago and Yow Keat Tham, in addition to Sonia Shah, Nicola Sergienko, Monique Bax and Hamish Aitken-Buck. All six outgoing members of the ECI Committee made incredible contributions to the Committee during their tenure and worked tirelessly to support and promote ECIs. The new

elected Co-Chairs, Priscilla Prestes and Louise See Hoe, and additional new members Nchafatso Obonyo, Jarmon Lees and Arinola Akkinibosun were welcomed to the team at the beginning of 2023. It was a busy year with the transition of Co-Chairs to a new role, changes in committee roles to accommodate incoming and outgoing members, and activities around the CSANZ meeting. Towards the end of 2023, we put out a call for two new members to join the ECI Committee in 2024. After voting on several nominations, we welcomed Clara Jiang (Postdoctoral Research Fellow, University of Queensland, QLD) and Pich Chhay (PhD candidate, University of Sydney, NSW) to the ECI Committee. They joined our meetings from February, when they were introduced to ISHR via email and on Twitter.



AUS-ECI Committee: Top: Louise See Hoe (BiVACOR Pty Ltd and the University of Queensland), Nchafatso Obonyo (University of Queensland), Holly Voges (Murdoch Children's Research Institute), Daniel Donner (Baker Heart and Diabetes Institute), Pich Chhay (University of Sydney). Bottom: Priscilla Prestes (Federation University), Jarmon Lees (St Vincent's Institute), Arinola Akinnibosun (Federation University), Clara Jiang (University of Queensland), Amelia Power (University of Auckland).



ISHR-AUS ECI Panel Luncheon "Transitioning to Team Leader"

CSANZ Annual Scientific Meeting 2023

During the CSANZ ASM, the ISHR ECI Committee organised several events to support ECIs. This included a networking event, panel lunch, ECI symposium and promotion of ISHR presentations and events on the ISHR Twitter account prior to and during the conference. Below is a summary of each event that was organised by the ECI Committee.

ISHR ECI Trivia and Networking event (Thursday August 3, 2023)

Subcommittee: Monique Bax, Daniel Donner, Jarmon Lees

To break the ice and bring together our ECIs, the ISHR ECI committee kicked off CSANZ 2023 by hosting a networking event just prior to the President's Welcome. Following drinks and canapés along the riverbank promenade of the Adelaide Convention Centre, ECIs were able to meet and greet in a relaxed environment before heading inside for trivia. Random group assignment and a fun but competitive atmosphere forced our ECIs to form fast connections. We had approximately 20 attendees, predominantly from ISHR, forming a total of four groups. Hosted by Dr Monique Bax (Victor Chang Institute) and Dr Jarmon Lees (St Vincent's Institute), our ECIs were quizzed on their knowledge of geography, botany, zoology, and British pubs, with chocolate and bragging rights going to the victors.

ISHR ECI Panel Lunch – 'Transitioning to team leader' (Friday August 4, 2023) Subcommittee: Monique Bax, Daniel Donner, Jarmon Lees

Day 1 of CSANZ 2023 scientific program featured the ISHR ECI Panel Luncheon, aimed at promoting discussion regarding how to make the transition from postdoc to team leader, and important considerations at this career transition. This panel was formed to address a noticeable gap in the career development of our ECIs, where attention often focuses on transitioning from student to postdoc, or postdoc to lab head, without addressing the intermediate position where postdocs find themselves managing small teams of researchers and staff. The panel included the team leaders Dr Jessica Orchard (The University of Sydney), Dr Yow Keat Tham (Baker Heart and Diabetes Institute), Dr Daniel Donner (Baker Heart and Diabetes Institute), and A/Prof Erin Howden (Baker Heart and Diabetes Institute). The session was moderated by Dr Jarmon Lees (St Vincent's Institute) and Dr Monique Bax (Victor Chang Institute).

Our panel represented and spoke to an array of leadership responsibilities required to manage small to medium sized teams, diverse pathways to leadership including industry and traditional research, the specific challenges facing women entering leadership roles, and the challenges faced by anyone taking on a team leader position. Our panel spoke honestly about the inevitable doubts any leader will experience, the support systems and networks needed to succeed in the role, and how to advocate for yourself when applying for a leadership position. A high level of interest in the topic was evident from the thoughtful questions posed by our audience which included early career investigators and more senior researchers, and the positive feedback received from attendees.

ISHR ECI Symposium (Friday August 4, 2023)

Subcommittee: Nchafatso Obonyo, Arinola Akinnibosun, Holly Voges

The ISHR ECI committee organised an Early Career Investigator session in the Mechanisms and Preclinical Discovery stream. We invited Professor Rong Tian from the University of Washington to provide an overview of her career progression with helpful insights for early career researchers. This was followed by four ECI presentations. The ECI subcommittee organised for 22 abstracts to be scored within our ECI Committee, to narrow down the list of potential presentations. The final presentations were as follows:

 Dr Atonia Raaijmakers (Research Fellow, University of Melbourne)

 Co-localisation of lipid droplets with sarcomeric proteins is associated with diastolic dysfunction in a rat model of HFpEF and diabetic comorbidity.

- Dr Nchafatso Obonyo (Research Fellow, Critical Care Research Group and the University of Queensland)

 A novel Speckle-Tracking Echocardiographic parameter assessing left ventricular loading during VA ECMO in a pre-clinical model of cardiogenic shock.
- Dr Jarmon Lees (Team Leader, St Vincent's Institute of Medical Research) - Patient-specific iPSCs reveal vascular dysfunction in Friedreich ataxia.
- 4. Dr Yow Keat Tham (Baker Heart and Diabetes Institute) - Temporal Profiling of Circulating Lipids as Potential Biomarkers in a Mouse Model of Heart Failure and Atrial Fibrillation.

This was a very engaging session, with a full room of attendees present to support this session. We would like to thank ISHR for their support with the prizes we were able to award for this session: the People's Choice Award and the Best Presentation (based on presentation scores). We were fortunate enough to have several judges participate in the session to assist with awarding the Best Presentation Award (Tomas Guzik, Nathan Palpant, Celine Santiago, Morag Young, and Jessica Orchard,). This year, Jarmon Lees received the People's Choice award and Yow Keat Tham received the Best Presentation award. These awards were presented at the ISHR Dinner on Friday August 4, 2023, and it was a great way to celebrate the success of these ECIs with the wider ISHR community.

ISHR Sponsorship and Communications

Subcommittee: Amelia Power and Hamish Aitken-Buck

The Sponsorship and Communications subcommittee was responsible for organising all promotional materials for the conference regarding ECI events and managing the distribution of content prior to and during the conference, mainly on X (formerly Twitter). Additionally, this subcommittee managed the ISHR ECI Carer's Award scheme.



Left: Yow Keat Tham received the Best Presentation Award from ISHR-AUS President, Fadi Charchar. Right: Jarmon Lees received the People's Choice Award from Fadi Charchar.

X (formerly Twitter) report during CSANZ (3 – 6th August):

All committee members were scheduled on a roster to tweet for each ISHR associated session. Over the course of the conference, there were a total of 45 tweets, 1175 engagements and >30,000 impressions on our X (formerly Twitter) account. @ISHR_AUS also gained 13 new followers. Compared to the same time the previous week, where we had 1 tweet, 1115 impressions, 27 engagements and zero new followers. to be able to promote the event before or at the same time as abstract submissions to try to capture more applicants as we feel this is a very valuable scheme to continue.

ECI Excellence Award Scheme

In 2022, the ISHR ECI Committee launched the ECI Excellence Award scheme. This scheme is aimed at recognising all the achievements (large and small) of ECIs in the cardiovascular research field and bringing attention to their con-

| Date | Tweets published | Impressions (seen by) | Engagements (like/retweet/ reply/click) | New followers |
|-----------|---------------------|--------------------------|---|------------------|
| 3/08/2023 | 3 | 1935 | 46 | 0 |
| 4/08/2023 | 20 | 8148 | 393 | 3 |
| 5/08/2023 | 18 | 15014 | 580 | 5 |
| 6/08/2023 | 4 | 5964 | 156 | 5 |
| Total | 45 | 31061 | 1175 | 13 |

Carers award:

This year we made a call for applications for our ISHR Carers Award for up to \$1000 to support CSANZ attendees with carer responsibilities. Despite promoting on twitter with 4 posts and 3 emails to ISHR members, and extending the deadline from 14th July to 28th July, we did not receive any applications. Next year we would like tinued dedication to overcome challenges, reach important milestones, and celebrate in their successes. In 2022, we received 20 nominations, and randomly selected 3 ISHR ECIs as winners (each awarded a \$50 e-gift card): Celine Santiago, Anida Velagic and Johannes Janssens. These ECIs received their awards in May 2022, and the scheme was continued in late 2023. For 2023, we had a total of 15 nominations. The nominations were reviewed and winners were randomly selected for 2023: Amelia Power, Nicola Sergienko, and Sarah Haye. As part of this scheme, we obtain information from each ECI nominee and promote their nomination on the ISHR X (formerly Twitter) account. The winners will be contacted as soon as their awards are ready.

Looking forward to 2024

We are looking forward to continuing this exciting work in 2024 and including some additional activities targeting skills development of our ECIs throughout the year. Current ideas that we are working on include providing a platform for ECIs to develop skills in broader conference participation (abstract scoring, judging, chairing, networking, presenting) and negotiating. We have already begun planning our activities for the CSANZ meeting, which we hope to integrate with many of the members of the ISHR World Council that may be attending.

Louise See Hoe (BiVACOR Pty Ltd and the University of Queensland) Priscilla Prestes (Federation University)

= CALENDAR ===

- August 1-4, 2024. XLVIII Annual Meeting of the Australasian Section (held jointly with the Cardiac Society of Australia and New Zealand). Perth, Western Australia. Inquiries: Fadi Charchar, f.charchar@federation.edu.au
- **August 18-23, 2024.** XLIII Annual Meeting of the ISHR-North American Section. Long Beach, CA. Inquiries: Peipei Ping, <u>ppingucla@gmail.com</u>
- October 23-25, 2024. Annual Meeting of the ISHR-Latin American Section. Vina del Mar, Chile. Inquiries: Zully Pedrozo, <u>zpedrozo@uchile.cl</u>
- **December 7-8, 2024.** XLI Annual Meeting of the Japanese Section. Tokyo, Japan. Inquiries: Japanese Secretariat, <u>e_ohno@m-qol.co.jp</u>
- May 11-14, 2025. XXV ISHR-International World Congress. Nara, Japan. Website: <u>https://www.ishr2025nara.jp/</u>

ISHR MID-CAREER INVESTIGATOR UPDATE

Update from the ISHR-International Mid-Career Investigator (ISHR-MCI) Committee.

Members from the new ISHR-Southeast Asian Section have joined the MCI committee and now we have 16 representatives from 8 sections. We had a kickoff meeting this March via Zoom. To have a global meeting from many time zones is always challenging but we were pleased to have a fruitful discussion. At the XXV ISHR World Congress in Nara, Japan (https://www.ishr2025nara.jp), we plan to have several symposia together with a social event. Please join us!!

MCI Kickoff meeting: March 19th, 2024

ISHR-Intl MCI Committee representatives (from top left): Nicole Purcell, Han Xiao, Seitaro Nomura, (Middle row) Delphine Mika, Diederik Kuster, Luis Gonano, Susmita Sahoo, Doan Ngo and Ippei Shimizu.

MCI Representatives from 8 ISHR Sections

- NAS Nicole Purcell (Chair) : Huntington Medical Research Institutes
- JPN Ippei Shimizu (Chair) : National Cerebral and Cardiovascular Center
- NAS Susmita Sahoo (Vice Chair) : Icahn Shool of Medicine at Mount Sinai
- ES Delphine Mika (Vice Chair) : Université Paris-Saclay
- AUS Doan Ngo : University of Newcastle
- AUS Jeff Erickson : University of Otago
- CHI Han Xiao : Peking Univ Third Hosp
- CHI Xue-yan Jiang : Guangzhou Med Univ
- ES Diederik Kuster : Amsterdam UMC
- IND Nahar Saikia Uma : PGIMER
- IND Ramakrishnan Sivasubramanian : AIIMS
- JPN Seitaro Nomura : University of Tokyo
- LAT Luis Alberto Gonano : Universidad Nacional de La Plata
- LAT Marcela Sorelli : Federal University ABC
- SEA Elena Azizan : The National University of Malaysia (UKM)
- SEA Haojie Yu : National University of Singapore

2025 ISHR-INTERNATIONAL ECI COMMITTEE



Jarmon Lees, PhD St Vincent's Institute of Medical Research Chair Australasian Section



Akiyasu Iwase, PhD The University of Tokyo Vice Chair Japanese Section



Naofumi Yoshida, MD PhD National Cerebral and Cardiovascular Center Hospital Secretary Japanese Section



Julie Pires Da Silva, PhD Cardiomedex European Section



Anupam Mittal, PhD Postgraduate Institute For Medical Education and Research Indian Section



Qutuba Karwi, PhD Memorial University of Newfoundland North American Section



Mick Lee, PhD National University of Singapore Southeast Asian Section



Yuan-Yuan Cheng, PhD Taipei Medical University Southeast Asian Section



hD Mayarling Troncoso, PhD sity University of Chile ion Latin American Section



Romina Di Mattia, PhD Cardiovascular Research Center Latin American Section



Mingming Zhao, PhD Peking University Third Hospital Chinese Section

Nirmal Ghati, MD DM All India Institute of Medical Sciences, New Delhi Indian Section



Priscilla Prestes, PhD Federation University Australia Australasian Section



Anja Karlstaedt, MD PhD Cedars-Sinai Medical Center North American Section



Huizhen Lv, PhD Tianjin Medical University Chinese Section

t is with great pleasure that I introduce the new ISHR-International Early Career Investigator (ECI) Committee. This committee will create involvement and opportunities for ECIs within ISHR. By connecting ECIs we hope to build valuable and lasting networks, encourage collaboration, and foster our professional development. I am therefore delighted to welcome representatives from the newly formed ISHR Southeast Asian Section to our committee, Dr. Mick Lee and Dr. Yuan Yuan Cheng, whose fresh perspectives and ideas will enrich our committee and benefit the broader ISHR community.

Our committee is planning several exciting events for the 2025 World Congress in Nara. These include ECI symposia, career development workshops, facilitated interactions with senior investigators, and of course, the ECI social event. In the coming months, we will conduct an online poll of all ISHR ECIs to help us plan our events and gauge interest in the ECI Travel Bursary Program. Keep an eye out for this opportunity to provide your input and shape our upcoming activities.

We look forward to seeing you at the 2025 ISHR World Congress in Nara!

Jarmon Lees Chair, ISHR ECI International Committee

XLII Meeting (continued from page 6)

SOCIAL EVENTS AND NETWORKING OPPORTUNITIES

The meeting provided abundant socializing and networking opportunities. The first night included both the Welcome Reception, with light refreshments and a spectacular view of Lake Monona, and the ECI/MCI Socials at the Great Dane in downtown Madison. During the conference, there were two 90-minute poster sessions inviting scientific discussion, interdisciplinary collaborations, and increased exposure for junior labs and trainees. Several scientists won poster awards for their abstracts and presentation, including Andrew Gibb (Temple University), Jingjing Zheng (University of Wisconsin-Madison), Christine Delligatti (UC Davis), Silvia Marchiano (University of Washington), Ketaki Mhatre (University of Washington), and Chastity Healy (University of Minnesota). The Gala Dinner and Reception featuring the awards program, catered dinner by Monona Terrace, and dessert and dancing. Encouraged by the exciting research presented and DJ Chamo, many people were

busting moves on the dance floor! The final event for ISHR-NAS was the Women's Initiative Cruise on Lake Mendota during the clear, temperate evening sunset. The cruise highlighted many Madison landmarks and allowed for women in the cardiovascular community to connect a final time before departing.

UPCOMING ISHR-NAS MEETING

We are looking forward to next year's ISHR-NAS Meeting in Long Beach, California (Hyatt Regency Long Beach, August 18-24, 2024), organized by Peipei Ping and Jennifer Van Eyk. The 25th ISHR World Congress will be in Japan (Nara Prefectural Convention Center, May 11-14, 2025).

Thank you to all who helped make this year's ISHR-NAS meeting a huge success!

Natthaphat (Yok) Siri-Angkul and Kalina Rossler University of Wisconsin



XXXVII Meeting (continued from page 10) diac dysfunction following myocardial infarction.

As always, the meeting provided a very strong networking environment with several social events: a "get together" on the first day, where the culture of "tunas universitarias" and their music were intro-



Mauro Giacca presents the Ketty Schwartz Award to Manuela Zaccolo (Oxford, UK).



Members of the ES Council present the ISHR-ES Young Investigator Award winners and runner-ups.

duced. On Wednesday we went on a boat tour along the Douro river with beautiful views on the city of Porto, which were followed by a Port wine tasting in an old cellar along the river. This day ended with a fantastic dinner and (dance) party led by Lucie Carrier. A party to remember!

To conclude, the meeting was true success! From the location, the program

and the participants, we could not have asked for more. The feedback was amazing and made all the work of organizing such a large meeting very worthwhile! The ISHR-ES council gratefully thanks all those that contributed to the wonderful program and the great moments shared by this great scientific community, with a special thanks to the organizers, Paula da Costa Martins and Ines Falcao-Pires.



Many young investigators participated in the meeting and received awards; including the ISHR-ES YIA awards, poster awards and travel awards.



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