ISHR TURNS 50
LET THE CELEBRATION BEGIN!

The precise date of the founding of the ISHR is somewhat debated. Is it the year that a group met to plan the first meeting (1967) or the year of the first meeting (1968)? In any case ISHR is about to enter a celebration of its 50th Anniversary! We will start the celebration this year and culminate in a big celebration at the World Congress in 2019. During the next year and a half celebration, Heart News & Views (HN&V) will publish a series on the History of the ISHR. In looking over some of the documentation, the ISHR has been shaped and molded by the historic changes that occurred during the past 50 years.

The ISHR was started in 1967/68 through the effort of Dr. Bajusz (see JMCC (1973) 5:311-12), who organized the first ISHR meeting in 1968 in Dubrovnik, Yugoslavia. For the millennials who are reading this, note that this meeting occurred well before the fall of the Iron Curtain and Yugoslavia was part of the Soviet bloc.
Accounts of the meeting indicate that “the meeting was overshadowed by the events in Czechoslovakia”, the Prague Spring uprising that was ended by Soviet tanks.

According to the memorial to Dr. Bajusz in JMCC in 1973, Dr. Bajusz played a leading role in establishing the International Study Group for Research in Cardiac Metabolism in 1967. The name of the Society was changed in 1976 to International Society for Heart Research. His basic aim was to “further the development of cooperative interdisciplinary investigative programs” in the light of the fact that “close coordination of world-wide research in myocardiology and enforcement of its rightful place in today’s basic and clinical sciences would be greatly facilitated by both intra- and intercontinental exchange of pertinent information, keeping in mind their practical utilization”. This goal was very visionary at the time. This was before the internet, before FAX, at a time when scientists communicated largely by “snail” mail and at Scientific conferences. It was also a time when there were few if any societies and certainly no international society focused on BASIC RESEARCH in cardiology. At the time, the American Heart Association was primarily focused on clinical research and the European Society of Cardiology, founded in 1950, was in its infancy and also focused on clinical research. This initial meeting in Dubrovnik was followed in 1969 by a meeting in Gavignano, Italy. The ISHR had a rocky start as detailed by Dr. Opie in an article in HN&V (2005 13:3). The North Americans were suspicious of the Europeans because the European Secretary-Treasurer disappeared with the funds and the Europeans were suspicious of the North Americans because Dr. Bajusz, who was working in Canada, also seemed to have vanished but in reality was suffering from poor health. As a result, as detailed by Dr. Richard Bing in HN&V (1998 6:2), in 1969, Dr. Bajusz and others contacted Dr. Bing and asked him to take on the position of the President of the Society and the Editor-in-Chief of the Journal of Molecular and Cellular Cardiology. Under Dr. Bing’s leadership the Society flourished and developed into the ISHR.


Future issues of HN&V will follow-up on ISHR history with articles from the surviving founding fathers (yes, not surprisingly they were all men). HN&V will also have articles expanding on how the Society grew and the history of the ISHR Sections. A trivia question for ISHR history buffs: what ISHR Section used the initials CIS? (Answer at the bottom of this page). Stay tuned for more trivia, history and plans for the celebration.

Elizabeth Murphy, PhD
President, ISHR-International

Trivia Answer: CIS (Commonwealth of Independent States) was the name of the Russian Section.
President’s Letter

I’d like to start out by reporting that the new impact factor for the Journal of Molecular and Cellular Cardiology (JMCC), the Journal of the ISHR, increased almost a full point from 4.874 to 5.680! The impact factor for 2016, which was just released, is calculated by citations in 2016 for papers that were published in 2014 and 2015, during David Eisner’s tenure as Editor. So, I want to personally thank David for his leadership of the Journal during his tenure. It should also be noted that the vast-majority (over 90%) of the ISHR income comes from the JMCC. Thus, the health of the ISHR depends strongly on the health of the JMCC. I therefore encourage everyone to support the JMCC and send your best papers to the journal.

The ISHR International Council met at the North American Section meeting in New Orleans in May and had a productive meeting! Plans are underway for developing the ISHR Symposia for the 2019 World Congress to be held in Beijing, China June 3-6. By the time you read this you should have received an email request soliciting suggestions for symposia and speakers. Please take the time to suggest speakers and symposia! The International Council also started plans to establish the Early Career Investigator (ECI) planning committee for the World Congress. ISHR is requesting that each section provide two early career members for the committee. It is strongly suggested that the Sections use an open selection process to select these two members. Litsa Kranias and Johannes Backs from International Council have agreed to serve as faculty advisors. After the names are submitted by the Sections there will be a meeting of all the ECI representatives and they will elect a chair and start planning for the ECI events at the World Congress.

I’d also like to take this opportunity to remind everyone of new ISHR International initiatives to support Section meetings. As mentioned previously, ISHR International will provide sponsorship for two to three JMCC symposium at Section meetings. International will also rotate its 6 lectures (the Outstanding Investigator Award, Research Achievement Award, Peter Harris Award, Reimer Pfeffer and President’s lectures) among the six active Sections. Additionally, a new initiative was approved at the Council meeting in New Orleans: International will also provide some sponsorship for Early career investigator activities at Section meetings.

Lastly, I like to announce the start of the celebration for the 50th Anniversary of the founding of the ISHR. As noted elsewhere in this issue, this year marks the beginning of the celebration of the 50th Anniversary of the ISHR. Heart News and Views will have several articles on the history of ISHR and some ISHR trivia quizzes as well. If you have any photos of early ISHR meetings, please share them Heart News and Views (send them to Llobaugh@ishrworld.org). We will also plan for a 50th Anniversary symposium at the 2019 World Congress and a big birthday cake! We have come a long way in the last 50 years and we have a bright future for the next 50 years!

Elizabeth Murphy, Ph.D.
President, ISHR
Report on the XXXIII Japanese Section Meeting

The 33rd annual meeting of International Society for Heart Research (ISHR) – Japanese Section was held in Tokyo from December 16-17, 2016. The special feature of the 33rd annual meeting was the collaboration with two other scientific meetings; the 20th annual scientific meeting of the Society of Cardiovascular Endocrinology and Metabolism, organized by Prof Issei Komuro, a former president of the ISHR-Japanese Section, and the 20th Annual Meeting of the Japan Society for Adaptation Medicine, organized by Prof Keiichi Fukuda, also a former president of the ISHR-Japanese Section. A joint meeting with other societies specializing in basic cardiovascular research was started in 2015 and christened “Cardiovascular and Metabolic Week (CVMW),” and this year was named CVMW2016. As in CVMW2015, the participants explored scientific fields outside of their own specialties and the interaction between participants resulted in new insights. CVMW2016 was quite successful with a total of 422 meeting delegates participating in many enthusiastic discussions.

CVMW2016 consisted of two joint symposia and four special lectures. Four distinguished scientists, two from Japan and two from the USA, were invited for the special lectures. In special lecture 1, Dr Shizuo Akira from the World Premier International Immunology Frontier Research Center (WPI-IFReC), Osaka University, gave an outstanding talk that was published in Nature after the meeting. His lecture described a novel role of a subset of macrophages and monocytes and proposed new mechanical aspects of fibrosis. In special lecture 2, Dr Mark Mercola (Stanford University) gave an elegant, comprehensive talk about how the recent development of high throughput physical screening technology makes it possible to evaluate the pathophysiological role of a subset of macrophages and monocytes and proposed new mechanical aspects of fibrosis. In special lecture 2, Dr Mark Mercola (Stanford University) gave an elegant, comprehensive talk about how the recent development of high throughput physical screening technology makes it possible to evaluate the pathophysiological role of a subset of macrophages and monocytes and proposed new mechanical aspects of fibrosis. In special lecture 2, Dr Mark Mercola (Stanford University) gave an elegant, comprehensive talk about how the recent development of high throughput physical screening technology makes it possible to evaluate the pathophysiological role of a subset of macrophages and monocytes and proposed new mechanical aspects of fibrosis. In special lecture 2, Dr Mark Mercola (Stanford University) gave an elegant, comprehensive talk about how the recent development of high throughput physical screening technology makes it possible to evaluate the pathophysiological role of a subset of macrophages and monocytes and proposed new mechanical aspects of fibrosis. In special lecture 2, Dr Mark Mercola (Stanford University) gave an elegant, comprehensive talk about how the recent development of high throughput physical screening technology makes it possible to evaluate the pathophysiological role of a subset of macrophages and monocytes and proposed new mechanical aspects of fibrosis.
The features of heart failure. In special seminar 3, Dr Makoto Suematsu (Keiko University School of Medicine) gave an excellent presentation explaining the development of a method for quantification by imaging mass spectrometry and its medical application. In special seminar 4, Dr Pilar Ruiz-Lozano (Stanford University) gave a wonderful talk entitled “Epicardial FSTL1 reconstitution regenerates the adult mammalian heart”. She presented pro-proliferative properties of FSTL1 correlating with tissue-specific post-transcriptional modification of the protein and suggested engineered epicardial delivery of FSTL1 is an attractive option to achieve therapeutic regeneration.

As always, ISHR2016 had its own scientific sessions; one symposium, five oral sessions, four poster sessions and a Young Investigator Award (YIA) competition. The ISHR symposium entitled “Reverse cardiac remodeling – molecular mechanisms and therapeutic strategies” was chaired by Drs Tetsuji Miura and Tomomi Ide, and the four presenters, Drs Tetsuo Shishido (Yamagata University School of Medicine), Eiki Takimoto (The University of Tokyo), Genzo Takemura (Asahi University) and Tatsuya Sato (Sapporo Medical University), gave exciting and informed talks. Active and fruitful discussions were stimulated by the six presentations in the Featured Research session chaired by Profs Yasuchika Takeishi and Tetsuo Minamino. There were 26 excellent presentations in 5 oral sessions and 24 presentations in 4 poster sessions, and all stimulated fruitful discussions.

The YIA competition was one of the highlights of the ISHR2016 meeting. In this session, six finalists out of 24 applicants presented excellent talks in fluent English. All presentations were well organized and very interesting. Dr Kohei Yamamizu (Kyoto University) won the first prize of the competition for his work entitled “Fabrication of human iPS cell-derived cardiovascular tissue with gelatin hydrogel microspheres for cardiac regenerative medicine”. At the end of the first day of the meeting, a wonderful joint reception was held at the meeting venue. All the attendees enjoyed the delicious food and deepened relationships with each other. The highlight of the reception was the superb music by a mini-orchestra whose members were medical students from The University of Tokyo.

We believe this collaborative style of scientific meeting specializing in basic cardiovascular research will both generate novel ideas drawn from the diverse participants and stimulate each scientific society. I would like to thank all of the participants who supported this meeting and look forward to the 34th annual meeting of the ISHR-Japanese section in Osaka in December 2017, organized by Prof Tetsuji Miura from Sapporo Medical University.

Keiko Yamauchi-Takihara
Health Care Center, Osaka University
Department of Cardiovascular Medicine, Osaka University
Graduate School of Medicine
Report on the XXXVI North American Section Meeting: Translation of Cardiovascular Therapeutics to the Clinic
(May 30 – June 2, 2017; New Orleans, LA)

The 36th annual meeting of the International Society for Heart Research, North American Section, was held on May 30 – June 2, 2017 at the Hilton Riverside Hotel in New Orleans, LA. The meeting, hosted by Dr. David Lefer and his colleagues, focused on “Translation of Cardiovascular Therapeutics to the Clinic.” In keeping with the meeting’s theme of “translation” Dr. Lefer, the Program Chair, assembled a diverse lineup of exceptional speakers that included basic scientists, clinicians and Big Pharma. While New Orleans’ culture celebrates world-class cuisine and overindulgence in alcohol, its impact on cardiovascular disease is all too common in this state. Though Louisiana ranks 25th in the nation in terms of population the state ranks 5th in number of heart related deaths in the country. The prevalence of heart disease in the Big Easy along with the meeting venue only a few steps from the French Quarter made New Orleans the ideal location for this year’s meeting.

Two hundred and seventy delegates attended the meeting, and over one hundred abstracts were presented. The conference began on Tuesday with the entire day devoted to Early Career Investigator (ECI) activities. The day began with the ECI Symposium, chaired by Samarjit Das (Johns Hopkins University) with co-chair Randi Parks (NHLBI/NIH), which highlighted 11 talented young cardiovascular researchers and their latest research. The symposium was followed by 2 career-development panel discussions held concurrently with one focusing on specific topics of interest for graduate students and one tailored to post-doctoral fellows and junior faculty. Early career investigators then had lunch with senior investigators who rotated to different tables giving early career investigators time with a variety of senior investigators with differing scientific interests.

The emphasis on early career researchers continued into the afternoon with the annual ISHR-NAS Young Investigator Competition. Fifteen minute presentations were given by finalists in two categories: graduate student/early post-doctoral fellows and late post-doctoral fellows/early assistant professors. Based on the scientific merit of their unpublished manuscripts, the Junior Young Investigator Award (YIA) selection committee, chaired by Peipei Ping (UCLA), chose finalists Heaseung Chung (Johns Hopkins University), David Ryba (University of Illinois), Kathleen Woulfe (University of Colorado), and Hirad Feridooni (Dalhousie University). This year’s winner of the Junior YIA was David Ryba for his presentation titled “The sphingosine-1-phosphate receptor modulator, Fty720, reverses diastolic dysfunction and hypertrophy in hypertrophic cardiomyopathy”. The Senior YIA selection committee, chaired by Susan Howlett (Dalhousie University), chose three finalists to compete at the meeting which included Na Li (Baylor College of Medicine), Phillip Bidwell (University of Cincinnati), and Dan Shao (University of Washington). This year’s Senior YIA winner was Dan Shao for her presentation titled “Glucose promotes cell growth by suppressing branched-chain amino acid degradation”.

Following the Young Investigator Competition, the regular meeting opened with introductory remarks from Jeffery Molkentin (Cincinnati Children’s Hospital Medical Center), chair of the Opening Keynote Lecture. This year’s Keynote Lecture given by Eric Olson (University of Texas, Southwestern Medical Center) was titled “The Molecules and Mechanisms of Heart Development, Disease and Regeneration.” As one of the most highly cited researchers, Dr. Olson’s contribution to cardiovascular research includes the discovery of many of the key transcription factors and mechanisms responsible for cardiac gene regulation and formation of the heart. The first day of the meeting concluded with investigators from around the world gathering for the Welcome Reception held in the Starboard Room overlooking the

2017 ISHR Outstanding Investigator Award winner, Xander Wehrens, with his two young sons.
Mississippi River, which was bustling with cargo ships, passenger ferries and commercial fishing boats.

Wednesday, the second day of the meeting, began early with the Women in Science Breakfast, which was sponsored by the UCLA Cardiovascular Theme. The breakfast allowed female cardiovascular researchers at all career levels to discuss pertinent issues unique to female scientists. I applaud the programming committee’s effort in providing a forum dedicated to females engaged in cardiovascular research/medicine, a field that is traditionally populated by male investigators.

The ISHR Research Achievement Award was presented on this 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 the current ISHR-NAS President, Gary Lopaschuk (University of Alberta), and ISHR-Intl Past-President, Metin Avkiran (King’s College of London), this year’s award was presented to Rong Tian (University of Washington). Dr. Tian’s talk was titled “Navigating the Metabolic Maze: Do We See the Light?” As an internationally recognized scientist, Dr. Tian has discovered that simple sugar, fat, and amino acids are more than just energy sources, but that these molecules act as signals, changing the way cells behave in critically important ways.

Wednesday morning included two rounds of parallel sessions with the first round focusing on “Post-Translational Modification of the Cardiac Proteome” and “New Targets for Heart Failure”, and the second round focusing on “Stem Cells and Stem Cell Derived Factors” and “Mitochondrial Quality Control in Health and Disease”. The afternoon also featured two rounds of parallel sessions with the first afternoon round focused on “Novel Targets in Cell Death and Survival” and “Signaling Mechanisms in Heart Failure” while the second afternoon round of parallel sessions featured “Stem Cell Mediated Myocardial Regeneration” and “Cardiac Myofilament Proteins”. While many of the established and senior investigators concluded the day with dinner at any number of New Orleans restaurants, the early career investigators gathered at the Napoleon House in the French Quarter for the ECI Social Event.

Two poster sessions were held during lunch and in the evening on the second day of the conference. The outstanding posters from each session were selected by a panel of distinguished judges. This year’s outstanding poster winners included: Erik Blackwood (SDSU), Catherine Makarewich (UTSW), Sumitra Miriyala (LSUHSC-New Orleans), David Polhemus (LSUHSC-New Orleans), Rajasekaran Namakkal Soorappan (UAB), Rishi Trivedi (LSUHSC-New Orleans), and Amritha Yellamilli (Univ of Minnesota).

Thursday, the third day of the meeting, began with the Peter Harris Award Lecture...
Dr. Bers was born in New York City, obtained his BA at the University of Colorado, Boulder and his Ph.D. in Physiology at UCLA in 1978. He did a postdoc at the University of Edinburgh, Scotland and then returned to UCLA and UC Riverside where he rose to Professor and Associate Dean of Biomedical Sciences. He was recruited to Loyola University Chicago (1992-2008) as Chair of Physiology, and DePauw Endowed Chair in Cardiovascular Research, where he rebuilt a strong collaborative research program. In 2008 he went to the University of California, Davis where he is the Joseph Silva Chair for Cardiovascular Research, Distinguished Professor and Chair of the Department of Pharmacology. Again at Davis he has rebuilt that department as a highly collaborative and diverse research faculty, with particular strength in cardiovascular sciences.

Dr. Bers’ research focus is on many aspects of Ca\(^{2+}\), Na\(^+\) and ion channels in cardiac myocytes as nodal control points in cardiac electrical activity, excitation-contraction coupling, myofilament activation, mitochondrial Ca/eenergetics, calmodulin, CaMKII and GPCR signaling, and excitation-transcription coupling. This has always been with an eye toward both integrative aspects of cardiac function/clinical relevance, drilling down to more fundamental quantitative mechanistic understanding. Dr. Bers has combined quantitative biophysical, molecular and cellular approaches to develop a comprehensive and rigorous framework that constitutes our modern understanding of the detailed Ca signaling, e.g. the contribution and regulation of Ca current, Na/Ca exchange, SR Ca uptake and release, mitochondrial Ca uptake and Na/K-ATPase in intact cardiac myocytes. His group has developed detailed computational models of cellular ion transport and electrophysiology. These models serve as educational tools, help predict the behavior of this complex system and aid in sharpening new experimental hypotheses to enrich our understanding of cardiac function.

His group has also studied what goes wrong with these systems in the setting of heart failure and arrhythmias, and how these processes and their interactions contribute to contractile dysfunction and arrhythmogenesis in heart failure. This work has helped to identify potential targets for therapeutic intervention. Dr. Bers has also actively collaborated with many other research groups locally, nationally and internationally, and has contributed to the synergistic progress of cardiac research. He has also mentored over 100 Ph.D. students, postdoctoral fellows and junior faculty members. He has also led academic departments and large multi-institutional research teams.

Dr. Bers has authored more than 440 research articles, mostly in top notch journals many that have been impactful (h-index 110; >44,000 citations) and he wrote a definitive and renowned single-author book *Excitation-Contraction Coupling and Cardiac Contractile Force*. He has served as the Principal Investigator of an NIH Program Project Grant and NIH MERIT award, an NIH T32 Training Grant and has maintained continuous and solid NIH grant-funding for more than 35 years. Dr. Bers was elected a Founding Fellow of the ISHR, AHA and a Fellow of the Biophysical Society and AAAS. His other awards and recognitions, include the Thomas W. Smith Memorial Lecture (AHA), the Janice Pfeffer Distinguished Lecture Award (ISHR), Distinguished Achievement Award (AHA-BCVS), NIH Study Section Chair, Distinguished Scientist Award (AHA), Debrecen international Award for Molecular Medicine, and the Burdon Sanderson Lectureship (Oxford University). He has given ~300 invited research seminars and presentations at universities and national/ international scientific meetings.

Dr. Bers has been active in professional service. He currently serves in Associate Editorial roles for *Circulation Research*, *Journal of Molecular and Cellular Cardiology* and *Journal of Physiology*. He has served in numerous leadership roles

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A theme touched upon throughout the meeting was ‘reproducibility in science’ and this year several leading investigators were recognised for their consistent and long-term contributions to the field. For the first time since 2006, the ISHR council awarded two Medals of Merit; Gerd Heusch (Essen, Germany) was recognised for his work in the field of coronary blood flow and cardioprotection and Jean-Jacques Mercadier (Châtenay-Malabry, France) for advancing our understanding of myosin, SERCA and RyR regulation in the failing heart.

This year it also fell to the European Section of the ISHR to host several ISHR International awardees. David Eisner (Manchester, United Kingdom) was presented with the 2017 Peter Harris Distinguished Scientist Award. David’s career has focused on the regulation of myocyte calcium fluxes in health and disease, a complex subject which he explained elegantly in his keynote lecture. Brian O’Rouke (Baltimore, United States) was also recognised with the 2017 Keith Reimer Distinguished Lecture Award. He delivered a fascinating keynote lecture centred on his work unveiling mitochondrial function, mechanisms of ROS production and new ways to target this in disease. Additionally, the ISHR 2017 Outstanding Investigator Award went to Jolanda van der Velden (Amsterdam, The Netherlands) for her impressive body of work investigating the role of sarcomeric proteins in the development of cardiomyopathies.

In addition to recognising life-time scientific achievements, the ES-ISHR also recognised many of its younger investigators at this year’s meeting. Vasco Sequeira Oliveira (Amsterdam, Netherlands) was awarded the €30,000 ISHR-ES Servier Fellowship for 2017, to further his research over the coming year whilst the 2016 fellowship awardee, Hector Cabrera-Fuentes (Giessen, Germany) updated us on his work since his award. The ISHR-ES Young Investigator Award went to Soni Deshwal (Padova, Italy) for her work on redox state and organelle dysfunction in the diabetic heart. The two runners up Young Investigators Awards went to Kaja Brechwoldt (Hamburg, Germany) and Valentina Prando (Padova, Italy).

The main programme of the meeting encompassed, as always, a broad range of cardiac research presented in three parallel sessions. Poster presentations took place in a marque just outside the main auditorium over currywurst and coffee.
This year’s meeting saw a great turnout of 126 poster presenters, 12 of whom were awarded ISHR-ES poster prizes.

In addition to the scientific content the organisers also put on a great social program. The welcome drinks reception following the first day of the meeting was a huge success; in keeping with the family-like atmosphere promoted by the ISHR-ES at its meetings several of the attendees brought their families along. Undeterred by the rain, delegates spent the evening enjoying traditional German food and drinks. On Wednesday, making the most of the now glorious weather, the conference social took the form of a boat tour around the Port of Hamburg. From the top deck there were fantastic views of the Hamburg Philharmonic Hall and the giant shipping docks of the city. The tour concluded at a riverside restaurant for a buffet dinner and dancing.

To summarise, the 34th meeting of the ISHR-ES played an important role in tackling some of the key issues both within our field and in broader society; at a time of political uncertainty this meeting has reminded us of the great ties science can bring between different countries and communities. ISHR-ES gratefully thanks all those who contributed to the organisation of this meeting, in particular Lucie Carrier (ISHR-ES President-Elect) and Thomas Eschenhagen (ISHR-International President-Elect).

Dr Emma Radcliffe
Institute of Cardiovascular Science, University of Manchester, UK
Dr. Thum studied medicine at the Hannover Medical School in Germany and finished his MD in 2001. He then worked at the Department of Clinical Pharmacology as well as at the Fraunhofer Institute ITEM (Hannover) from 2001-2004. From 2004 he worked as a Physician/Scientist at the Julius-Maximilians University in Würzburg, Germany and became a specialist in Internal Medicine and Cardiology and group leader in the Interdisciplinary Center of Clinical Research on the topic of “Cardiac Wounding and Healing”. In parallel, he finished a PhD degree at the National Heart and Lung Institute of the Imperial College in London under the guidance of Prof Philipp Poole-Wilson. In 2009 he was recruited through the German Excellence Initiative as a Full Professor and Director of the Institute of Molecular and Translational Therapeutic Strategies (IMTTS; Hannover Medical School). From June 2013 he additionally works as a visiting Professor of Cardiology at the Imperial College in London. Dr Thum has received many national and international awards such as the Outstanding Achievement Award of the European Society of Cardiology in 2011. Dr Thum is a Fellow of both the European (FESC) and American Society of Cardiology (FAHA).

Dr. Thum serves on a number of grant review panels in Europe and is a member of several editorial boards including Circulation Research (Consulting Editor); Arteriosclerosis, Thrombosis, and Vascular Biology; J Mol Cell Cardiology (Associate Editor); Basic Research in Cardiology; and the American Journal of Physiology – Heart and Circulatory Physiology.

Dr. Thum has made many ground-breaking discoveries in the field of non-coding RNAs. He pioneered the use of an oligonucleotide-based therapy of heart diseases (Nature, 2008); especially he developed a strategy to block miRNA-21 to treat cardiac fibrosis. This research stimulated many other researchers and resulted in an overall strategy to modulate fibrosis in many other diseases. MicroRNAs are short non coding RNA molecules that target networks of genes and thus have been shown to be interesting drug targets. Together with colleagues in his lab, Dr Thum developed a method for the high throughput identification of functional miRNAs. A robot-based system was set up to transfected hundreds of miRNAs in parallel to cardiovascular cells. By this strategy Thum and his colleagues identified the miR212/132 cluster that has a dramatic role in the cardiac remodeling process and cardiac autophagy (Nature Commun, 2012). Importantly, inhibition if miR-132 blocked development of pathological hypertrophy and heart failure.

Additionally, Dr Thum is interested in the development of new diagnostic strategies for cardiac patients. He published the first paper showing that circulating miRNAs may also have prognostic information for patients with myocardial infarction. He also identified specific miRNA blood and urinary signatures in various other diseases such as kidney disease, neurological and liver diseases. His laboratory also functions as a core lab for miRNA collaborative research (http://www.mh-hannover.de/imtts.html).

Recently, Dr Thum and colleagues have shown that cardiac cells can communicate which each other by shuttling vesicle-embedded miRNAs back and forth. This new communication system can be manipulated for therapeutic reasons (J Clin Invest, 2014). Interestingly, Thum found that selected miRNA passenger strands (“star strands” that previously were believed to be mainly degraded within the cell) are specifically packed into exosomes and then secreted by the cell. Uptake of fibroblast secreted exosomes was able to induce cardiomyocyte hypertrophy showing the first miRNA based communication system (continued on page 14)
THE NEWS BULLETIN OF THE INTERNATIONAL SOCIETY FOR HEART RESEARCH

EARLY CAREER INVESTIGATOR EVENTS IN NEW ORLEANS 2017

The 2017 NAS-ISHR Meeting in New Orleans, LA included numerous events to enrich and enhance the support and training of Early Career Investigators (ECIs). Organized by the ECI committee, these events provided opportunities for the 67 registered ECI attendees to discuss their scientific research, glean advice from senior scientists, and network with peers. Further, ECI delegates received exclusive and fashionable ISHR ECI baseball hats with the ECI logo.

The first ECI event of the meeting was the ECI Scientific Symposium on May 30th, which featured short talks from young investigators. There were 54 abstracts submitted for consideration, from which judges selected the top 11 abstracts for oral presentation. The speakers highlighted impressive and innovative work being performed by ECIs across the continent. Thank you to all the speakers and attendees for an inspiring scientific session!

Two concurrent Career Development Panels were held: one for graduate students looking for advice on searching and interviewing for postdoctoral positions (chaired by Dr. Cat Makarewich (UT Southwestern)), and the second panel for postdocs and junior faculty to gain insight from senior faculty members (chaired by Stephan Lange (UCSD)). Both sessions were very informative with lots of provocative questions from audience members.

The morning session was followed by an ECI Networking Lunch with senior investigators at Drago’s Seafood Restaurant. The ECI committee organized this luncheon as a “Speed dating for Career Advice” event; it provided ECI delegates with the opportunity to network with all 11 senior investigators in attendance and obtain scientific and career advice in small groups. The event was a great success thanks to the delicious food, fun and spontaneity of the speed dating concept, and was an invaluable opportunity to talk freely with well-established cardiovascular researchers.

The final ECI event of the meeting was an ECI Social Event at Napolean House. This beautiful historic venue provided a unique atmosphere for ECIs to make new connections with their peers. Despite the rainy weather, there was good attendance with great enthusiasm. ECI attendees got three hours to network with other ECIs members from different laboratories, including some that travelled internationally. The ECI committee would like to

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Thanks to the fantastic support of the local organizers, Profs. Lucie Carrier and Thomas Eschenhagen, the ISHR European Section Council, and ISHR International, this year an Early Career Investigator (ECI) half-day event was organized, for the first time, as a prelude to the Annual Meeting of the European Section of the ISHR. The purpose was to bring together an outstanding group of students and postdocs, and to provide them with the opportunity to foster partnerships and exchange ideas in an informal atmosphere. The event was a tremendous success, with approximately 150 young scientists and students attending the two scientific sessions of the ECI Symposium and the ECI Evening Social Event. The scientific Symposium was held on Monday, July 24th, and it was a wonderful occasion for ECIs to meet and network on the day before the scientific Symposium. The event was held at the Kaffemuseum-Burg, in the famous Hamburg Speicherstadt (warehouse district), not far from the new Elbphilharmonie Plaza. Here, ECIs were offered a guided tour of the coffee museum followed by an amazing experience of coffee tasting.

Overall, the first ECI meeting of the ISHR-ES was a highly memorable event for all. We look forward to seeing you all again at the 35th annual meeting of ISHR-ES in Amsterdam in 2018!

The members of the ECI Committee, Drs Alessandra Ghigo (Italy), Marc Hirt (Germany), Vasco Sequeira (Netherlands) and Konstantina Stathopoulou (Germany), served as chairs of the scientific sessions, running extremely smooth symposia and facilitating discussions between speakers and audience members following each presentation. The workshop was a unique opportunity for ECIs to ask questions in a very relaxed and informal atmosphere. An ECI Evening Social Event was organized by the local ECI committee member, Dr Marc Hirt, on Sunday, July 23rd, and it was a wonderful occasion for ECIs to meet and network on the day before the scientific Symposium. The event was held at the Kaffemuseum-Burg, in the famous Hamburg Speicherstadt (warehouse district), not far from the new Elbphilharmonie Plaza. Here, ECIs were offered a guided tour of the coffee museum followed by an amazing experience of coffee tasting.

The ECI Committee of ISHR-ES

Dr Alessandra Ghigo, Italy
Dr Marc Hirt, Germany
Dr. Vasco Sequeira, Netherlands
Dr. Konstantina Stathopoulou, Germany
given by John Solaro (University of Illinois) titled “Sarcomeres as Hubs of Signaling in the Heart” and chaired by David Eischen (University of Monte Willis (University of North Carolina). Similar to Wednesday, Thursday’s schedule included morning and afternoon parallel sessions, each with two rounds of presentations. Following the Peter Harris Award Lecture, attendees chose between talks examining “Proteotoxicity and Cardiovascular Disease” and “Calcium Regulation in Heart Failure” then between “Epigenetic Regulation in Cardiovascular Disease” and “Myocardial Protection”. The first round of the afternoon parallel sessions covered topics that included “Heart Failure with Preserved Ejection Fraction” and “Hypertrophy and Cardiomyopathy” with the second round focused on “Non-Myocytes in Heart Failure” and “Cardiac Gene Therapy”.

On Friday, the fourth and final day of the conference, the Plenary Janice Pfeiffer Distinguished Lecture delivered by Tetsuji Miura (Sapporo Medical University) was titled “Diabetic Cardiomyopathy – Adaptation and Maladaptation of Pro-Survival and Metabolism”, and chaired by Richard Vander Heide (LSUHSC – New Orleans) with co-chair Martin Vita-Petroff (Universidad Nacional de La Plata). The last day of the conference included morning parallel sessions featuring ‘Cardiac Metabolism” and “Non-coding and Extracellular RNAs” followed by parallel sessions “Cardiac Signaling Pathways” and “Aging and Heart Failure.”

The meeting ended with the presentation of the Outstanding Investigator Award, chaired by ISHR-NAS Treasurer, Litsa Kranias (University of Cincinnati) with ISHR-Intl President Elizabeth Murphy (NHLBI/NIH), to Xander Wehrens (Baylor College of Medicine) whose talk was titled “Calcium Release Unit Defects – Source of Many Cardiac Evils”.

Following Thursday’s scientific sessions, meeting attendees were transported to the New Orleans Mercedes-Benz Superdome for the annual ISHR Conference Dinner Reception and Awards Banquet. In typical New Orleans fashion, investigators, meeting participants, volunteers and guests gathered in Club XLIV for a lively reception followed by dinner in the Encore Room. Guests were treated to stuffed chicken breast roasted with spinach, ricotta cheese and herbs served with roasted garlic mashed potatoes and fresh seasonal vegetables and tomato coulis; cedar plank salmon glazed with teriyaki and topped with chive butter served with wild rice pilaf and fresh seasonal vegetables; or portobello wellington in which slices of roasted mushrooms and vegetables were baked with goat cheese and herbs in a puff pastry and served over red pepper coulis. At the dinner, the Junior and Senior YIAs and International Poster winners, as noted above, were announced. A special gift was presented to Elizabeth “Tish” Murphy (NHLBI/NIH) honoring her enduring commitment and enthusiasm for the ISHR. The evening “officially” ended with drinks and dancing to the band, “Big Sam’s Funky Nation” in Club XLIV; though there are rumors that a senior investigator from the Cincinnati Children’s Hospital Medical Center commandeered a transport bus to drive the investigator and multiple willing accomplices to the French Quarter to continue the ISHR festivities.

Overall, the meeting successfully incorporated this year’s theme of translating cardiovascular therapeutics to the clinic in each of the talks and presentations. With new collaborations between investigators at all stages in their career resulting from conference activities and the novel ideas generated from the excellent science presented, chances increased for successful translation of therapies for New Orleanians and others suffering from cardiovascular disease.

Traci T Goodchild, PhD
LSU Health Sciences Ctr - New Orleans

Dr Thum’s recent research interests are in the field of cardiovascular long non-coding RNAs, which are defined as non-coding RNAs larger than 200 nucleotides in length. He has shown that these “IncRNAs” can be also observed in the plasma of cardiac patients and may be of use in diagnostics and prognostic evaluation of patients (Circ Res, 2014).

As a cardiologist Dr Thum is also involved in clinical activities and is responsible for the Outpatient Clinic on Hypertrophy Cardiomyopathies at the Department of Cardiology and Angiology of the Hannover Medical School. Together with Dr Sessa from Yale University Dr Thum was recently awarded with a prestigious transatlantic Leducq network grant, that he is coordinating in the field of cardiovascular microRNAs with the vision to bring miRNA therapeutics into clinical application in cardiac disease.

Dr Thum’s research on non-coding RNAs in cardiovascular research and associated fields of research provided new insight into the mode of action of various pathologies of the heart. He has developed major breakthroughs in both diagnostic and therapeutic approaches for cardiac diseases. Overall, his successful track record as a scientific investigator, translational scientist and Institute Director has established him as a leader in cardiovascular sciences.
(ECI continued from page 12)

sincerely thank all the participants who made the event so successful, including the senior investigators who attended and spent their time networking with and advising young investigators.

Overall, the ECI events organized at the 2017 ISHR NAS Meeting succeeded in meeting the missions of the ECI Committee. We strive to provide a platform for young investigators to gain support and opportunities to enhance their scientific career training. The 2018 ECI Committee will be the first year where a vote (NAS ECI membership-wide) will be held to determine the committee members – please vote and consider nominating yourself in the future.

We look forward to seeing you at next year’s ECI events at the 2018 ISHR NAS Meeting in Halifax, NS, Canada, which are sure to inspire! Until then, please join/follow our Facebook (https://www.facebook.com/groups/ECI.ISHR/members/) and Linked-In (https://www.linkedin.com/groups;god=5185730) Pages, which are excellent resources to keep in touch with peers and hear about upcoming events.

Samarjit Das (Johns Hopkins University)
Randi Parks (NHLBI/NIH)

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**Calendar**

- **December 8-10, 2017.** XXXIV Annual Meeting of the Japanese Section. Osaka, Japan. Inquiries: Tetsuji Miura, miura@sapmed.ac.jp

- **May 29-June 1, 2018.** XXXVII Annual Meeting of the North American Section. Halifax, NS. Inquiries: Susan Howlett, susan.howlett@dal.ca

- **July 16-19, 2018.** XXXV Annual Meeting of the European Section. Amsterdam, the Netherlands.

- **August 1-5, 2018.** XL Annual Meeting of the Australasian Section. Perth, Australia.

- **September 5-8, 2018.** Annual Meeting of the Latin American Section. Santiago, Chile. Inquiries: Sergio Lavandero, slavander@uchile.cl

- **September 21-23, 2018.** Annual Meeting of the Chinese Section. Nanjing, China

- **June 2-6, 2019.** XXIII ISHR World Congress. Beijing, China.

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*ECI delegates enjoying the “Speed Dating for Career Advice” luncheon event with senior investigators.*
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