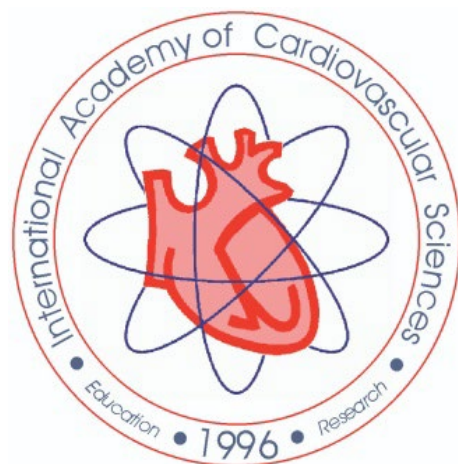


Promoting Cardiovascular Education, Research and Prevention

# CV Network

THE OFFICIAL BULLETIN OF THE INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES

PUBLISHED WITH THE ASSISTANCE OF THE ST. BONIFACE  
HOSPITAL ALBRECHTSEN RESEARCH CENTRE



## In this Issue

Page #

<i>Academy Fellow Receives Doctor of Science Degree from the University of Kragujevac, Serbia</i>	2
<i>Academy Establishes Young Investigator Award in the Name of Dr. Suresh Tyagi</i>	4
<i>A Tribute to Prof. Naranjan S. Dhalla, Former Editor-in-Chief of Molecular and Cellular Biochemistry</i>	5
<i>Report on the International Forum on Cardiovascular Disease, Stem Cells and Tissue Engineering, Taiyuan, China</i>	7
<i>IACS Honors and Awards at the 11<sup>th</sup> IACS-North America Section Meeting in Houston, USA, September 19-21, 2024</i>	8
<i>CV Network Editorial Board</i>	10
<i>Updates on the 11<sup>th</sup> IACS- North America Section Meeting Houston, Texas, September 19-21, 2024</i>	11
<i>Officers, Advisory Board and Executive Council of the IACS</i>	17
<i>Update on the 30<sup>th</sup> Scientific Forum on Cardiovascular Sciences and the 22<sup>nd</sup> Meeting of the IACS-South American Section, Vitoria, Brazil October 17-19, 2024</i>	23
<i>IACS Honors and Awards at the 10<sup>th</sup> IACS-European Section Meeting in Bratislava, Slovakia, October 28-30, 2024</i>	25
<i>Updates on the 10<sup>th</sup> IACS- European Section Meeting, Bratislava, Slovakia October 28-30, 2024</i>	30
<i>Springer Nature Publishes Books on Vitamins in Health and Disease</i>	37
<i>Official Partnering Journals of the IACS</i>	38

## Academy Fellow Receives Doctor of Science from the University of Kragujevac, Serbia

The University of Kragujevac is the most progressive and highly respected university in Serbia with a very high-profile program in Medicine, and excellence in Scientific research and Innovation. Over the past several years, Dr. Kirshenbaum has established a strong collaborative relationship between the University of Kragujevac and the Institute of Cardiovascular Sciences. In a ceremony on March 29 this year, led by the Rector of the University of Kragujevac, Dr. Nenad Filipović Dr. Kirshenbaum received his Doctor of Science degree in Serbia, for his exceptional contribution and achievements in cardiovascular sciences, as well as for the significant improvement of medical science and scientific research work. In addition to the members of the rector's collegium, deans, vice-deans, professors of member faculties, representatives of the media, as well as admirers of the scientific work of Dr. Lorrie Kirshenbaum, were in attendance.



*Dr. Lorrie Kirshenbaum (L) Receiving Honorary Doctor of Science Degree from Dr. Nenad Filipović, Rector, University of Kragujevac, Serbia*

To recognize this achievement the Institute of Cardiovascular Sciences, St. Boniface Hospital Albrechtsen Research Centre hosted a celebration on May 10, 2024 with about 100 people in attendance including from the Government of Manitoba, University of Manitoba, and St. Boniface Hospital Foundation. Dr. Paramjit Tappia served as the emcee for this event. In attendance of this event were some very special guests including Kirshenbaum family members; Mildred Kirshenbaum (mother), Barry (brother), Kim (Sister -in-law), Ricki (Sister) and Eryn (niece) as well as and Dr. Kirshenbaum's wife, Dr. Dianne Popeski. Several distinguished leaders were also present at the event, namely, Dr. Allan Ronald, Distinguished Professor at the University of Manitoba, Dr. Harvey Chochinov, Distinguished Professor at the University of Manitoba, Dr. Lalitha Raman-Wilms, Dean, Faculty of Pharmacy, University of Manitoba, Karen Fowler, President and CEO of the St. Boniface Hospital Foundation, and Jeff Lieberman, President of the Jewish Foundation of Manitoba. Dr. Henry Friesen, one of the greatest individuals in Manitoba Medicine was unable to attend, but did send a message, in which he congratulated Dr. Kirshenbaum for his singular achievement and said that Dr. Kirshenbaum has brought uncommon distinction to St. Boniface Research Centre and the University of Manitoba.

Several individuals spoke about the achievements of Dr. Kirshenbaum including Hon. Rene Cable, Minister of Advanced Education, Government of Manitoba, Dr. Arnold Naimark, former Dean of Medicine and President of the University of Manitoba, Dr. Jude Uzonna, Vice Dean Research, Rady Faculty of Health Sciences, University of Manitoba, and Dr. Ian Dixon, Head of the Dept. of Physiology & Pathophysiology, University of Manitoba. Dr. Mike Czubyrt, Executive Director of Research, St. Boniface Hospital Albrechtsen Research Centre was unable to attend and asked Dr. Bram Ramjiawan to convey his message.





*L to R: Dr. Jude Uzonma, Vice Dean Research, Rady Faculty of Health Sciences, University of Manitoba, Hon. Rene Cable, Minister of Advanced Education, Government of Manitoba and Dr. Arnold Naimark, Distinguished Professor, University of Manitoba*



*L to R: Dr. Lorrie Kirshenbaum, Minister Rene Cable and Dr. Naranjan Dhalla, Distinguished Professor, University of Manitoba*



*L to R: Dr. Lalitha Raman-Wilms, Dean, Faculty of Pharmacy, University of Manitoba, Dr. Allan Ronald, Distinguished Professor, University of Manitoba and Dr. Harvey Chochinov, Distinguished Professor, University of Manitoba*



*L to R: Dr. Paramjit Tappia, Dr. Lorrie Kirshenbaum, and Kairee Ryplanski*

Dr. Lorrie A. Kirshenbaum is Director of the Institute of Cardiovascular Sciences (ICS) at the St. Boniface Hospital Albrechtsen Research Centre, Canada Research Chair in Molecular Cardiology, Professor and Division Head of Cardiovascular Science and Disease, Department of Physiology and Pathophysiology at the Rady Faculty of Health Sciences at the University of Manitoba. A major focus of Dr. Kirshenbaum's laboratory is directed toward understanding the molecular pathways that underlie sex specific difference in heart failure. Dr. Kirshenbaum is investigating mechanisms that regulate cellular quality control mechanisms in heart, a process known as "autophagy" with a focus on mitochondrial metabolism.

Dr. Kirshenbaum's major contributions include discovery of the Bcl-2 family protein Bnip3 and its role in the development of heart failure after heart attack. Dr. Kirshenbaum is internationally recognized for his pioneering work and has published over 300+ research articles in prestigious high-profile journals, such as Nature Medicine, Nature Cancer, Journal of Clinical Investigation, as well as several text book chapters, books and has received several prestigious honors and awards for his research and leadership achievements. Dr. Kirshenbaum serves on many journal editorial boards and international committees, as well as national and international peer review grant panels including Canadian Institutes of Health Research, Heart and Stroke Foundation of Canada, American Heart Association and has served as the chair of the National Institute of Health and Centre for Scientific Advancement Study Section in the United States.

## Academy Establishes Young Investigator Award in the Name of Dr. Suresh Tyagi

The IACS Council has approved to establish the “Suresh C. Tyagi Award for Excellence in Cardiovascular Sciences” to be given at the annual meetings of the IACS- North American Section effective 2025. This award will become a permanent feature of the Academy and will be administered in a manner similar to other awards by the Academy.



*Dr. Suresh Tyagi*

The strength of our laboratory programs relating to environmental factors, diabetes, cancer, ageing effects on cardiovascular system is unique in the sense all the above factors are triggered by epigenetic regulation. The epigenetics by its very nature

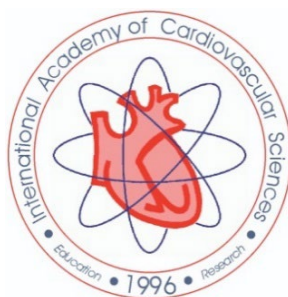
implies modifications of the genes prior to imprinting and off printing during the development, health, and disease. The investigators and the principal investigator (Suresh C Tyagi) are the few of the leaders in the field of epigenetic control of cardiovascular development and disease, especially by folate-dependent mechanism. The epigenetic regulation of folate 1-carbon metabolism (FOCM) in DNA/RNA and histone methylation and acetylation by gene writer and eraser are studied in Dr. Tyagi's laboratory. Based on our findings, the role of nutrition (folate) in “genetics and epigenetics of preventive medicine” are addressed.

Another strength includes the cardiovascular remodeling. Remodeling by its very nature implies synthesis and degradation of extracellular matrix (ECM). For example, we demonstrated the cardiac fibrosis and MMPs activation coexist because during reconstitute remodeling ECM, collagen and elastin all are degraded by MMPs but because turnover of elastin is 1000x slower than collagen therefore degraded elastin is also replaced by rapidly synthesized collagen by myofibroblasts, and over time ROS oxidized the cross-linking of collagen, creating fibrosis.

Our lab is one of the original in Cardiac Remodeling (i.e., we discovered MMPs in the heart early in 1992). It is our belief that endocardial endothelial-myocyte coupling contributes to cardiac synchronous relaxation and contraction cycle. This is primarily based on our research. Though the role of vascular (including coronary) endothelial in underlying smooth muscle contraction relaxation is studied very well, there is not many studies revealing the contribution of endocardial endothelium in myocyte regulation during systole and diastole.

Technological innovation: Our laboratory is one of the few laboratories in creating the chronic congestive cardiopulmonary heart failure (CHF) by creating aorta-vena cava fistula (AVF) in C57 wild type mice. There are basically four ways to create experimental CHF. 1) acute myocardial infarction (MI) model which is ligating the coronary by instrumenting and injuring the heart; 2) Although trans-aortic constriction (TAC) mimics the systematic hypertension, TAC is constricting the aorta on the top of the heart and pressing the heart. 3) there are some acquired models of CHF such as by dietary factors, diabetes/salt diets etc., but these are “single-hit to multiple-hits” models. 4) AVF is the one where AVF is created below the kidney ~1cm, where aorta and vena cava share common middle wall.

By creating fistula red blood enters vena cava without an injury to the heart. This model mimics the CHF such as during aging where with age preload keeps increasing than the heart can pump out due to the weaken cardiac myocytes. This also involves right ventricle, lung then to left ventricle, creating congestion. The heart by AVF goes transition from compensatory (HFpEF) to de-compensatory (HFrEF) without multiple hits. There are more models of volume overload, such pacing-induced and mitral valve regurgitation. But these are also injurious models. Our lab is one of the original labs in creating AVF.



# A Tribute to Prof. Naranjan S. Dhalla, Former Editor-in-Chief of Molecular and Cellular Biochemistry

**Roberto Bolli<sup>1</sup>, Luigi Ippolito<sup>2</sup>, and Vladislav Volarevic<sup>3</sup>**

<sup>1</sup>University of Louisville, Louisville, USA; <sup>2</sup>University of Florence, Florence, Italy;

<sup>3</sup>University of Kragujevac, Kragujevac, Serbia

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*Dr. Naranjan S. Dhalla*

As we take the helm of *Molecular and Cellular Biochemistry*, it is fitting to pay a tribute to our predecessor, Prof. Naranjan S. Dhalla, who has served the journal as Editor-in-Chief for an exceptionally long tenure of 36 years. His editorial leadership at *MCB*, however, is but one facet of his extraordinarily

steadfast—and productive—commitment to scholarship.

Prof. Dhalla is an icon in global cardiovascular research, having dedicated his life—perhaps to a greater extent than anyone else—to promoting cardiovascular research in the international arena. For the past half century, he has worked tirelessly and selflessly to disseminate scientific knowledge, encourage research, facilitate communication and exchange, break down barriers, and help many countries develop active programs in cardiovascular research—particularly countries that have been traditionally excluded or marginalized by self-proclaimed “inclusive” cardiovascular societies in the West that routinely fail to invite speakers from large swaths of the global cardiovascular community. Prof. Dhalla has devoted himself to this mission with prodigious energy, as eloquently attested to by his grueling work schedule, which knows no pause, and his incessant, peripatetic international travels, which take him across the globe many times a year; neither of these efforts has abated despite his advanced age. Throughout this flurry of activities, he has remained laser focused on young investigators. He has done more than anyone we know to promote the work and career of young investigators in non-Western countries. For this selfless,

lifelong endeavor, he deserves our utmost gratitude, appreciation, and respect.

Prof. Dhalla’s research work has focused on the pathophysiology and pharmacotherapy of heart disease, with special emphasis on its subcellular, molecular, and metabolic basis. He has investigated, amongst other things, the metabolism of calcium in heart muscle, myocardial changes during experimental diabetes mellitus, and the mechanisms of reception and systems of transport. He received an M.S. degree from the University of Pennsylvania in 1963 and a Ph.D. degree from the University of Pittsburgh in 1965. In 1968, he joined the University of Manitoba, where he served as the first and founding Director of the Institute of Cardiovascular Sciences for 19 years. He is presently Distinguished Professor at the University of Manitoba, Max Rady College of Medicine, Department of Physiology and Pathophysiology and Director of Cardiovascular Developments, St. Boniface Hospital Albrechtsen Research Center in Winnipeg, Canada.

Prof. Dhalla’s leadership on the world stage has been legendary. He served the International Society for Heart Research as Secretary General and President for 26 years. Since 1996, he has served as Executive Director and, more recently, Honorary Life President of the International Academy of Cardiovascular Sciences. These global organizations have been heavily engaged in promoting educational activities internationally, with the ultimate goal of advancing cardiovascular research and disseminating knowledge for the treatment and prevention of cardiovascular disease world- wide. In these leadership roles, Prof. Dhalla has touched the lives of innumerable people around the world who have benefited from his indefatigable efforts. It is noteworthy, for example, that he has helped to organize more than 95 international symposia in almost 30 different countries.

Prof. Dhalla has published 874 full-length papers and reviews. His research work has been cited more than 34,700



times with an h-index of 85. He has edited or authored 65 books. He has trained 166 fellows and students who are carrying out independent research around the globe. He has been invited to speak at 550 national and international conferences as well as academic institutions. His extraordinary contributions to research and education have been widely recognized by both the Canadian and the international scientific communities. He serves on the Editorial Boards of numerous international journals and has received a total of 216 honors and awards from many countries. Most notable among them are the Order of Canada, which is one of that country's highest honors for sustained, exceptional, or extraordinary service to Canada; the Order of Manitoba, which is the Province's highest honor in recognition of individuals who have demonstrated excellence and achievement in their field; and the induction in the Canadian Medical Hall of Fame as a 2019 Laureate.

Prof. Dhalla has also received Fellowship in the Royal Society of Canada, the Medal of Honor of the Canadian Medical Association, and the Research Achievement Award of the Canadian Cardiovascular Society. At the international level, of particular note is that he was awarded an M.D. (Hon) degree from Charles University in Prague (1995) and D.Sc. (Hon) degrees from numerous institutions, including the Slovak Academy of Sciences in Bratislava (1997), Panjab University in Chandigarh (2009), Guru Nanak Dev University in Amritsar (2010), the University of Kragujevac in Serbia (2014), the University of Buenos Aires (2015), and the University of Banja Luka in Bosnia (2022). He was also awarded the title of Professor Honoris Causa by Carol Davila University in Bucharest (1996) and the National Academy of Medical Sciences in Bucharest (2006), as well as Honorary Professorships from four Universities in China, Romania, and Bosnia.

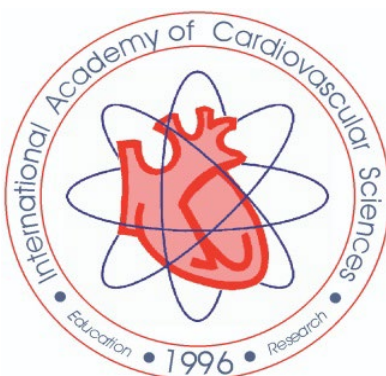
Each of us has different natural talents. Prof. Dhalla has many, but perhaps the greatest is his ability to build. He specializes in building, particularly building from scratch. In Winnipeg, he built a major, internationally-recognized research program—the Institute of Cardiovascular Sciences. He was one of the founders of the International Society for Heart Research in 1968. Then, in 1996, he single-handedly founded the International Academy of Cardiovascular

Sciences. These are remarkable achievements. How many scientists can we think of who have created a new international society or have developed a major research program that did not exist before? But this is not all, for he has also built a major international journal. In 1987, he accepted the role of Editor-in-Chief of *Molecular and Cellular Biochemistry* and continued in this capacity for 36 years. Prof. Dhalla led the journal ably during its early stages and worked assiduously and passionately for almost four decades to make it an international forum for the dissemination and exchange of new scientific information. As his successors, we are direct beneficiaries of his efforts. We are deeply indebted to him for his lifelong work on behalf of the journal that has laid the foundations upon which we are now operating, seeking to take *MCB* to the next level. In recognition of his service and contributions, Prof. Dhalla was appointed to the new Editorial Board as Editor-in-Chief Emeritus.

Prof. Dhalla is a man who has devoted his entire life, his talents, his unbridled passion, and his inexhaustible energy to serving the cardiovascular scientific community. We know of no one in the world who has done more to promote cardiovascular research and education at the international level than Prof. Dhalla. His visionary and influential leadership has impacted ongoing worldwide advancements in experimental cardiology. He has generously helped and supported countless individuals, particularly young investigators from non-Western societies who often do not have a voice in scientific meetings. He has grown and led *MCB* for a third of a century, making it an important forum for scientific discourse. Kudos to a true scholar. We salute Prof. Dhalla with deep, heartfelt gratitude. His life reminds us that our stature is measured not by what we take, but what we give.

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# Report on the International Forum on Cardiovascular Disease, Stem Cells and Tissue Engineering, Taiyuan, China

**Grant N. Pierce**

President IACS & Distinguished Professor, Department of Physiology and Pathophysiology  
University of Manitoba, Winnipeg, Canada

Email: [gpierce@sbr.ca](mailto:gpierce@sbr.ca)

The International Forum on Cardiovascular Diseases, Stem Cells and Tissue Engineering was held in Taiyuan China from June 15-17<sup>th</sup>, 2024. The conference was held as an introductory meeting of scientists and leaders from the International Academy of Cardiovascular Sciences (IACS) with researchers and leaders in the field from China. The goal of the conference was not only to learn from each other from an exchange of ideas and data but it also served as a stepping stone to establish a Chinese Section of IACS. Taiyuan is an impressive mid-sized Chinese city of 5 million inhabitants. It is a historical site that served as one of the origins of Chinese civilization thousands of years ago. The host institution for the conference was Shanxi Medical University. The conference was a resounding success! Over 500 participants attended the meeting listening to over 60 presentations from local, national and international researchers. The talks covered both basic scientific and clinical discoveries. Professors Xie and Li were awarded prestigious awards from IACS Secretary and Treasurer Dr. Devendra Agrawal recognizing the significant leadership roles both men have played in China (see photos). The lectures during the conference were delivered in both English and Chinese with simultaneous translation provided for the audience. The meeting was remarkable not only for its excellent attendance and the quality of the data presented, but also for the impressive hospitality shown continually by our hosts. Great thanks is due to Dr Ren-Ke Li, Professor at the University of Toronto who acted as an intermediate between the IACS and Shanxi Medical University and played a critical role in organizing this conference. Special thanks to Dr. Yu Liu and her organization team for their constant attention to the needs of the international scientists who came to Taiyuan. Overall, this conference was a tremendous success and we look forward to the future participation of Taiyuan and China in the IACS.



*Professor Xie Receiving IACS Distinguished Leadership Award from Dr. Devendra Agrawal (L) and Dr. Grant Pierce (R)*



*Professor Li Receiving IACS Distinguished Leadership Award from Dr. Devendra Agrawal (L) and Dr. Grant Pierce (R)*



*Venue of Conference*



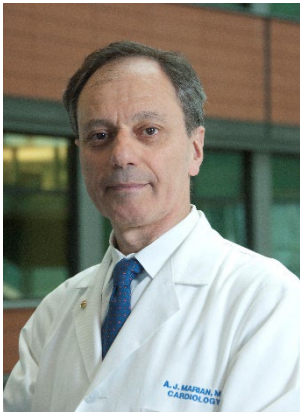
*Delegates in attendance of the meeting*

## IACS Honors and Awards at the 11<sup>th</sup> IACS-North America Section Meeting in Houston, USA, September 19-21, 2024

Dr. Grant Pierce, IACS President is pleased to announce that the following IACS awards will be bestowed upon individuals during the meeting of the IACS- North American Section, September 19 – 21, 2024 in Houston, USA.

1. **Life-Time Achievement Award-** Dr. Ali J. Marian
2. **Distinguished Leadership Award-** Dr. Joseph Rogers
3. **Distinguished Leadership Award-** Dr. Doug Mann
4. **Distinguished Service Award-** Dr. Leila Rouhi

### Dr. Ali J. Marian, The University of Texas Health Science Center-Houston, USA



*Dr. Ali J. Marian*

Dr. Ali J. Marian is the James T. Willerson, M.D. Distinguished Chair in Cardiovascular Research, Professor of Molecular Medicine (Genetics), Professor of Internal Medicine (Cardiology) and Director, Center for Cardiovascular Genetics, The Brown Foundation Institute of Molecular Medicine, The University of Texas Health Science Center-Houston, Texas.

Dr. Marian received an M.D. from Tehran University Medical School in Iran (1980) and completed his training in Internal Medicine at the John H. Stroger, Jr. Hospital of Cook County in Chicago, IL, and in Clinical Cardiology at Baylor College of Medicine, Houston, TX (1990). He joined the American Heart Association Bugher Foundation Research Fellowship in human molecular genetic studies at Baylor College of Medicine. Upon completion of his training, he was appointed as a faculty at the Section of Cardiology at Baylor College of Medicine in 1992. He was recruited by the late James T. Willerson and C. Thomas Caskey to lead the Center for Cardiovascular Genetics at the Institute of Molecular Medicine in 2006.

Dr. Marian is recognized for his research achievements in human molecular genetics and clinical aspects of hereditary cardiomyopathies. His research programs typically originate from clinical studies in patients with hereditary cardiomyopathies. The genetic findings are pursued to delineate the responsible mechanisms and identify and target the pathogenic pathways through genetic and pharmacological interventions to prevent, attenuate, and reverse the phenotype initially in the model organisms and subsequently through randomized clinical trials in human patients with hereditary cardiomyopathies. He has disseminated his findings through the publication of about 300 articles in peer-reviewed journals. Dr. Marian's research is supported by R01 awards from the NHLBI-NIH and NIA-NIH.

Dr. Marian received the Young Investigator Award from the American College of Cardiology, the Established Investigator Award from the American Heart Association, the Clinician-Scientist Award in Translational Research from Burroughs Wellcome Fund, the Distinguished Scientist Award from Baylor St Luke's Medical Center, and the Best Editor Award from the American Heart Association Circulation Research. Dr. Marian is currently a Deputy Editor for Cardiovascular Research, the Section Editor on Genetics for Current Opinion in Cardiology, and the Editor-in-Chief and Founding Editor of The Journal of Cardiovascular Aging. He is a former Deputy Editor for Circulation Research, Associate Editor for Circulation, and European Journal of Clinical Investigation.



## Dr. Joseph G. Rogers, Texas Heart Institute, Houston, USA



*Dr. Joseph G. Rogers*

Dr. Joseph G. Rogers, is President and Chief Executive Officer, Texas Heart Institute and Professor of Medicine (Adjunct), Duke University and O'Quinn/Willerson Endowed Chair. His research interests are advanced heart failure including cardiac replacement therapies, pharmacological and electrical therapies, and palliative care. Have served as the national PI on several LVAD trials including HeartMate II and HeartWare devices. Dr. Rogers has published almost 290 manuscripts (h-index=70) in prominent journals such as New England Journal of Medicine, JAMA, Journal of the American College for Cardiology, and Circulation as well as 28 book chapters. He is the editor of Editor: Braunwald Supplement, Mechanically Assisted Circulation, 2<sup>nd</sup> Edition. Dr. Rogers

has received AHA and NIH funding since 2006 for clinical trials as Co-Investigator (Co-PI of NINR-sponsored clinical trial of palliative care in heart failure). He has held or is holding several leadership roles including President and CEO, The Texas Heart Institute 2021-Present, Chief Medical Officer, Duke University Health System, 2018-2021, Interim Chairman, Department of Internal Medicine, Duke University, 2017-2018, Interim Chief of Cardiology, Duke University, 2014-2016, President, International Society for Heart and Lung Transplantation, 2020-2021, Chair, UNOS Thoracic Committee, 2014-2016, Chair, Gordon Research Conference on Assisted Circulation, 2015 and Deputy Editor, JACC Heart Failure, 2012-2022, Dr. Rogers has been the recipient of several awards including the Benico Barzilai Teaching Award from Washington University School of Medicine in 2004; Thomas Bashore Teaching Award from Duke University School of Medicine in 2007; Eugene Stead Teaching Award from Duke University School of Medicine in 2010; Master Clinician/Teacher Award from Duke University School of Medicine in 2010 and the Professionalism Award from Duke University School of Medicine in 2017.

## Dr. Douglas Mann, Washington University School of Medicine-St. Louis, USA



*Dr. Doug Mann*

Dr. Mann is the Aida L. Steiner Professor of Cardiology and Professor of Medicine, Cell Biology and Physiology at the Washington University School of Medicine. He received his medical degree from Temple University School of Medicine in Philadelphia and completed fellowships in clinical cardiology at the University of California San Diego, and Massachusetts General Hospital in Boston. Dr. Mann's primary research interest has been the molecular and cellular basis of heart failure,

with particular emphasis on the role of innate immunity in disease progression and recovery of the failing heart.

The author of numerous peer reviewed articles on the role on inflammatory mediators in cardiac remodeling and myocardial recovery, Dr. Mann is also the editor of Heart Failure, A Companion to Braunwald's Heart Disease, and a co-editor of Braunwald's Heart Disease, the leading textbook in cardiovascular medicine. Dr. Mann is the founding editor for JACC: Basic to Translational Science. He is a member of the American Society for Clinical Investigation, the Association of American Physicians the Association of University Cardiologists, the Heart Failure Society of America and the American Clinical and Climatological Association. He is the past president of the Heart Failure Society.

## Dr. Leila Rouhi, The University of Texas Health Science Center-Houston, USA



*Dr. Leila Rouhi*

Molecular Medicine at UTHealth. Dr. Rouhi was appointed at the rank of research instructor in Jan 2022 and was promoted to assistant professor in 2024.

Dr. Rouhi is a clinician-scientist whose independent research programs are focused on delineating the role of nuclear envelope proteins in the pathogenesis of hereditary

Dr. Rouhi received her M.D. from the Tehran University of Medical Sciences in Iran and Ph.D. from the Department of Human Genetics at the Catholic University of Leuven (KUL) in Belgium. She completed a post-doctoral fellowship at the Center for Stem Cells and Regenerative Medicine, followed by a second post-doctoral fellowship at the Center for Cardiovascular Genetics at the Institute of

cardiomyopathies. Specifically, she has focused on a subset of nuclear envelope proteins that are also expressed in cardiac fibroblasts, in addition to cardiac myocytes. Her work implicated the involvement of the ATM/TP53 and the CGSAS-STING1 pathways of the DNA damage response (DDR) pathways as their underpinning mechanisms in the pathogenesis of cardiomyopathies resulting from haploinsufficiency of LMNA (lamin A) and TMEM43 (transmembrane protein 43). Her preclinical work on targeting the DDR pathways for therapeutic gain has identified the components of the DDR pathways as desirable targets of interventions in human patients with nuclear envelopopathies.

Dr. Rouhi has garnered a Career Development Award from the American Heart Association and is a co-investigator in 3 R01 awards. She is the first author of 7 original research articles and co-author of several others. She is an Assistant Editor of The Journal of Cardiovascular Aging and is responsible for identifying and profiling young investigators. Through this platform, she has established an exemplary program promoting the career of young investigators.

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# 11<sup>th</sup> Annual IACS-NAS

Meeting of the North American Section of the  
International Academy of Cardiovascular Sciences

September 19 - 21, 2024  
HOUSTON, TEXAS

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UTHealth Houston

THE TEXAS HEART INSTITUTE



11<sup>TH</sup> ANNUAL  
**IACS-NAS CONFERENCE**  
 SEPTEMBER 19 - 21, 2024



**AGENDA - Day 1: Thursday, September 19, 2024**

**James T. Willerson, MD Symposium**

2:00 pm	<b>Registration - Day 1</b>
4:00 – 4:15 pm	<b>Welcome Comments</b> <i>Ali J. Marian, MD, UTHealth; Joseph G. Rogers, MD, The Texas Heart Institute; and Jagat Narula, MD, PhD, UTHealth</i>
4:15 – 4:25 pm	<b>President's Address</b> <i>Michael Czubryt, PhD, University of Manitoba</i>
4:25 – 4:30 pm	<b>Introduction of the Medal of Merit Award</b> <i>Naranjan S. Dhalla, PhD, MD, DSc, University of Manitoba</i>
4:30 – 5:00 pm	<b>Medal of Merit Lecture</b> <b>Eats to Beat: The Essence of Cardiac Metabolism</b> <i>Heinrich Taegtmeyer, MD, DPhil, FACC, FAHA, UTHealth</i>
5:00 – 5:15 pm	<b>A Tribute to James T. Willerson, MD</b> <i>Slide Show</i>
	<b>JAMES T. WILLERSON, MD SYMPOSIUM</b> <i>Co-chairs: Drs. Naranjan S. Dhalla, Joseph G. Rogers, and Ali J. Marian</i>
5:15 – 5:45 pm	<b>Mesenchymal Precursor Cells: A New Approach to the Treatment of Heart Failure</b> <i>Emerson Perin, MD, PhD, The Texas Heart Institute</i>
5:45 – 6:15 pm	<b>Hippo Signaling in Heart Regeneration</b> <i>James F. Martin, MD, PhD, Baylor College of Medicine/The Texas Heart Institute</i>
6:15 – 6:45 pm	<b>Delivery of Therapeutic RNA to the Infarcted Heart</b> <i>Robert J. Schwartz, PhD, University of Houston</i>
6:45 – 9:00 pm	<b>Reception and Dinner Buffet (Cooley Atrium)</b>

11<sup>TH</sup> ANNUAL  
**IACS-NAS CONFERENCE**  
 SEPTEMBER 19 - 21, 2024



**AGENDA - Day 2: Friday, September 20, 2024**

**Session 1: Cooley Auditorium**

**ADVANCES IN CARDIOVASCULAR SCIENCE**

7:00 am	Registration - Day 2 & Breakfast
8:00 – 8:25 am	High Cardiac Fatty Acid Oxidation Rates Decrease Cardiac Efficiency in Heart Failure <i>Gary Lopaschuk, PhD, University of Alberta</i>
8:25 – 8:50 am	Senescence Cardiomyopathy <i>Junichi Sadoshima, MD, PhD, Rutgers New Jersey Medical School</i>
8:50 – 9:15 am	Cardiac cell Therapy: Cumulative Evidence and Emerging Approaches <i>Buddhadeb Dawn, MD, University of Nevada</i>
9:15 – 9:40 am	Homocysteine and Related Compounds in Translational and Clinical Cardiovascular Research <i>Dragan M. Djuric, MD, MS, PhD, University of Belgrade</i>
9:40 – 10:00 am	Coffee Break / Exhibitor Hall

**Session 2: THI Library**

**THE JCA SYMPOSIUM**

8:00 – 8:25 am	Endothelial Senescence: Mechanisms, Consequences and Potential Therapeutics <i>Lisa Lesniewski, PhD, University of Utah</i>
8:25 – 8:50 am	Epigenetic and Chromatin Regulation of Aging in Mammalian Stem Cells <i>Weiwei Dang, PhD, Baylor College of Medicine</i>
8:50 – 9:15 am	Targeting the Circadian Clock in Disease and Aging <i>Zheng Chen, PhD, UTHealth</i>
9:15 – 9:40 am	Treatment of Aging <i>Ronald DePinho, MD, The University of Texas MD Anderson Cancer Center</i>
9:40– 10:00 am	Coffee Break / Exhibitor Hall

11<sup>TH</sup> ANNUAL  
**IACS-NAS CONFERENCE**  
SEPTEMBER 19 - 21, 2024



**AGENDA - Day 2: Friday, September 20, 2024**

**Session 3: Cooley Auditorium**

**NOVEL THERAPIES FOR CARDIOVASCULAR DISEASES**

- |                         |  |
|-------------------------|--|
| <b>10:00 - 10:25 am</b> | <b>The Promise of RNA Therapeutics for Cardiovascular Diseases</b><br><i>John P. Cooke, MD, PhD, Houston Methodist Hospital</i>  |
| <b>10:25- 10:50 am</b>  | <b>Update on Development of Genetically Identified Targets for the Treatment of Lipids and Atherosclerosis</b><br><i>Christie Ballantyne, MD, Baylor College of Medicine</i> |
| <b>10:50 - 11:15 am</b> | <b>Gene Editing for Lipid and Vascular Diseases</b><br><i>William Lagor, PhD, Baylor College of Medicine</i>   |
| <b>11:15- 11:40 am</b>  | <b>Integrins as Therapeutic Targets in Cardiovascular Disease</b><br><i>Darren Woodside, PhD, The Texas Heart Institute</i>  |
| <b>11:40 – 1:00 pm</b>  | <b>Lunch &amp; Exhibitor Hall</b>  |

**Session 4: THI Library**

**CELL AND GENE THERAPY FOR HEART FAILURE**

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|-------------------------|--|
| <b>10:00 - 10:25 am</b> | <b>Cell Therapy for Heart Failure</b><br><i>Roberto Bolli, MD, DSc (Hon), University of Louisville</i>   |
| <b>10:25- 10:50 am</b>  | <b>Drawing the Roadmap for Forced Cell Cycle Induction in Cardiomyocytes</b><br><i>Tamer Mahmoud Abdelfattah Mohamed, PhD, MSc, Baylor College of Medicine</i> |
| <b>10:50 - 11:15 am</b> | <b>Mechanisms of Action Underlying Therapeutic Effects of Cell-based Therapy</b><br><i>Joshua M. Hare, MD, FACC, FAHA</i>                                      |
| <b>11:15- 11:40 am</b>  | <b>The Role of Endoglin in Cardiac Regeneration</b><br><i>Jop van Berlo, MD, PhD, University of Minnesota</i>  |
| <b>11:40 – 1:00 pm</b>  | <b>Lunch &amp; Exhibitor Hall</b>  |





## AGENDA - Day 2: Friday, September 20, 2024

### Session 5: Cooley Auditorium

#### GENETICS AND GENOMICS

1:00 – 1:25 pm	<b>Mechanistic Insights of RNA Toxicity and Disrupted RNA Processing from Modeling Myotonic Dystrophy in Mice</b> <i>Thomas Cooper, MD, Baylor College of Medicine</i>
1:25 – 1:50 pm	<b>The Role of the KDM5 Family of Histone Demethylases in the Heart</b> <i>Priyatanish Gurha, PhD, UTHealth</i>
1:50 – 2:15 pm	<b>Short-chain Fatty Acids in the Gut-heart Axis: Writing the Histone Code</b> <i>Maha Abdeltalif, MD, PhD, Rutgers Health, New Jersey Medical School</i>
2:15 – 2:40 pm	<b>RYR2 Mutations and CPVT</b> <i>Martin Morad, PhD, Medical University of South Carolina</i>
2:40 – 3:00 pm	Coffee Break / Exhibitor Hall

### Session 6: THI Library

#### WOMEN'S HEART HEALTH

1:00 – 1:25 pm	<b>The Rise in Non-Atherosclerotic Vascular Conditions: Time to Consider FMD &amp; SCAD</b> <i>Stephanie Coulter, MD, The Texas Heart Institute</i>
1:25 – 1:50 pm	<b>Adverse Effects of Shift Work on Cardiovascular Health During Pregnancy and Fetal Development</b> <i>Inna Rabinovich-Nikitin, PhD, University of Manitoba</i>
1:50 – 2:15 pm	<b>Women's Heart Health: The Canary in the Coalmine of Women's Health</b> <i>Colleen Norris, PhD, MSc, BScN, RN, GNP, University of Alberta</i>
2:15 – 2:40 pm	<b>The Role of Pericardial Adipose Tissue in Age-Associated Cardiac Diastolic Dysfunction</b> <i>Wanling Xuan, PhD, USFHealth</i>
2:40 – 3:00 pm	Coffee Break / Exhibitor Hall



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**AGENDA - Day 2: Friday, September 20, 2024**

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**Session 7: Cooley Auditorium**

**METABOLIC REGULATION OF HEART FAILURE**

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|-----------------------|---|
| <b>3:00 – 3:25 pm</b> | <b>Mitochondrial Quality Control in the Heart</b><br><i>Åsa Gustafsson, PhD, University of California - San Diego</i>             |
| <b>3:25 – 3:50 pm</b> | <b>The ANT Family Contributes to mPTP-Dependent Necrosis I/R Injury</b><br><i>Jason M. Karch, PhD, Baylor College of Medicine</i> |
| <b>3:50 – 4:15 pm</b> | <b>Innate Signaling Pathways in Doxorubicin Cardiomyopathy</b><br><i>Lorrie Kirshenbaum, PhD, OM, University of Manitoba</i>      |
| <b>4:15 – 5:40 pm</b> | <b>Circadian Control of Cardiac Physiology &amp; Pathophysiology</b><br><i>Martin E. Young, PhD, DPhil, UAB</i>                   |

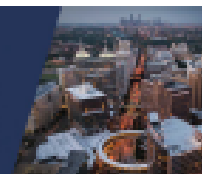
**Session 8: THI Library**

**WOMEN'S HEART HEALTH**

**CARDIAC ARRHYTHMIAS (ATRIAL FIBRILLATION)**

- |                       |   |
|-----------------------|---|
| <b>3:00 – 3:25 pm</b> | <b>Development and Regulation of Cardiac Dysds</b><br><i>William Pu, MD, Boston Children's Hospital</i>                       |
| <b>3:25 – 3:50 pm</b> | <b>Inflammatory Signaling and Atrial Arrhythmogenesis</b><br><i>Na Li, PhD, Baylor College of Medicine</i>                    |
| <b>3:50 – 4:15 pm</b> | <b>Role of Macrophages in Postoperative Atrial Fibrillation</b><br><i>Xander Wehrens, MD, PhD, Baylor College of Medicine</i> |
| <b>4:15 – 5:40 pm</b> | <b>To Beat or Not to Beat: A Hippo in the Sinoatrial Node</b><br><i>Jun Wang, PhD, UTHealth</i>                               |

11<sup>TH</sup> ANNUAL  
**IACS-NAS CONFERENCE**  
SEPTEMBER 19 - 21, 2024



**AGENDA - Day 2: Friday, September 20, 2024**

**Poster Session: Location To Be Determined**

<b>5:45 – 7:00 pm</b>	<b>Poster Viewing/Competition for Awards</b> <i>Coolay Building Foyer - Level 1</i>
	<b>Morris Karmazyn Best Poster Award &amp; Margaret Moffat Awards for Best Poster</b> <i>(Winners will be announced on Saturday's Gala Night)</i>
<b>7:00 - 9:00 pm</b>	<b>Reception and Dinner Buffet</b> <i>Ansary Atrium - Coolay Building</i>

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11<sup>TH</sup> ANNUAL  
**IACS-NAS CONFERENCE**  
 SEPTEMBER 19 - 21, 2024



**AGENDA - Day 3: Saturday, September 21, 2024**

**Session 9: Cooley Auditorium**

**ADVANCES IN CARDIOVASCULAR SCIENCE**

7:30 am	Registration - Day 3 & Breakfast
8:00 – 8:25 am	Vascular Aging and Redox Biology in Health and Disease <i>Rhian M. Touyz, MBBCh, MSc, PhD, McGill University</i>
8:25 – 8:50 am	Cellular and Molecular Mechanisms of Cardiac Fibrosis <i>Nikolaos G. Frangogiannis, MD, Albert Einstein College of Medicine</i>
8:50 – 9:15 am	Residual Cardiovascular Risk Post Weight Loss – Is There Room for Improvement? <i>Philipp E. Scherer, PhD, The University of Texas Southwestern Medical Center</i>
9:15 – 9:40 am	Cardiac Stem Cell Therapy: Do The Benefits Outnumber Risks <i>Sanjiv Dhingra, PhD, University of Manitoba</i>
9:40– 10:00 am	Coffee Break / Exhibitor Hall

**Session 10: THI Library**

**VASCULAR BIOLOGY**

8:00 – 8:25 am	Genetic and Molecular Triggers of Acute Aortic Dissections <i>Dianna M. Milewicz, MD, PhD, UTHealth</i>
8:25 – 8:50 am	Aortic Disease Progression: Shifting from Compensatory Aneurysm to Decompensated Dissection <i>Ying H. Shen, MD, PhD, Baylor College of Medicine</i>
8:50 – 9:15 am	Exercise Mimicking Therapeutic Targets for Peripheral Arterial Disease <i>Vihang A. Narkar, PhD, UTHealth</i>
9:15 – 9:40 am	Novel Strategies to Reduce Plaque Burden & Enhance Plaque Stability in Carotid Artery <i>Devendra K. Agrawal, PhD, Western University of Health Sciences</i>
9:40 – 10:00 am	Coffee Break / Exhibitor Hall

11<sup>TH</sup> ANNUAL  
**IACS-NAS CONFERENCE**  
SEPTEMBER 19 - 21, 2024



**AGENDA - Day 3: Saturday, September 21, 2024**

**Session 11: Cooley Auditorium**

**MYOCARDIAL FIBROSIS**

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|------------------|--|
| 10:00 – 10:25 am | Insights into the Role of Fibroblasts in Cardiac Remodeling After Myocardial Infarction<br><i>Bradford Hill, PhD, University of Louisville</i> |
| 10:25 – 10:50 am | Targeting Scleraxis to Attenuate Cardiac Fibrosis and Heart Failure<br><i>Michael Czubyrt, PhD, University of Manitoba</i>                     |
| 10:50 – 11:15 am | Development of Perivascular Fibrosis After Myocardial Injury<br><i>Reza Ardehali, MD, PhD, Baylor College of Medicine</i>                      |
| 11:15 – 11:40 am | Cell-specific roles for RAGE in myocardial ischemia-reperfusion injury<br><i>Ravichandran Ramasamy, Ph.D. NYU Langone</i>                      |
| 11:40– 1:00 pm   | Lunch / Exhibitor Hall   |

**Session 12: THI Library**

**NEW APPROACHES AND THERAPEUTIC TARGETS IN HEART FAILURE**

- |                  |   |
|------------------|---|
| 10:00 – 10:25 am | Circadian Regulation of Cardiac Remodeling<br><i>Lilei Zhang, MD, PhD, Baylor College of Medicine</i>   |
| 10:25 – 10:50 am | Interoceptive Inhibition of ADAMTS1 by Exercise-exosome for Attenuation HFrEF<br><i>Suresh C. Tyagi, PhD, University of Louisville</i>                    |
| 10:50 – 11:15 am | Reframing Cardiovascular Bioengineering: Innovative Solutions for End-Stage Heart Failure<br><i>Camila Hochman-Mendez, PhD, The Texas Heart Institute</i> |
| 11:15 – 11:40 am | Cardioprotective Signaling in Cancer Chemotherapy<br><i>Rakesh C. Kukreja, Ph.D, Virginia Commonwealth University</i>                                     |
| 11:40 – 1:00 pm  | Lunch / Exhibitor Hall  |

11<sup>TH</sup> ANNUAL  
**IACS-NAS CONFERENCE**  
SEPTEMBER 19 - 21, 2024



**AGENDA - Day 3: Saturday, September 21, 2024**

**Session 13: Cooley Auditorium**

**ADVANCES IN THE DIAGNOSIS AND TREATMENT OF HEART FAILURE**

1:00 – 1:25 pm	<b>Cardiac Imaging in the Evaluation of HFpEF Patients</b> <i>Sherif Nagueh, MD, Houston Methodist Hospital</i>
1:25 – 1:50 pm	<b>GLP-1 agonists and Heart Failure: is it all about the weight loss?</b> <i>Anita Deswal, MD, MPH, MBBS, The University of Texas MD Anderson Cancer Center</i>
1:50 – 2:15 pm	<b>The Remarkable Story of SGLT2 Inhibitors for Heart Failure</b> <i>Mark Drazner, MD, The University of Texas Southwestern Medical Center</i>
2:15 – 2:40 pm	<b>Myocardial Remission: The Audacity of Hope</b> <i>Douglas L. Mann, MD, Washington University School of Medicine in St. Louis</i>
2:40 – 3:00 pm	<b>Lunch / Exhibitor Hall</b>

**Session 14: THI Library**

**INTERVENTIONS IN CARDIOVASCULAR MEDICINE**

1:00 – 1:25 pm	<b>Lecture 1: To Be Determined</b> <i>Neal S. Kleiman, MD, Houston Methodist Hospital</i>
1:25 – 1:50 pm	<b>Lecture 2: To Be Determined</b> <i>Mehdi Razavi, MD, Baylor College of Medicine and The Texas Heart Institute</i>
1:50 – 2:15 pm	<b>Development updates for a pediatric left ventricular assist device with miniature maglev system</b> <i>Yixin Wang, PhD, The Texas Heart Institute</i>
2:15 – 2:40 pm	<b>Impact of Cardiogenic Shock on Plasma Lipidome</b> <i>Amir Ravandi MD, PhD, University of Manitoba</i>
2:40 – 3:00 pm	<b>Coffee Break / Exhibitor Hall</b>



11<sup>TH</sup> ANNUAL  
**IACS-NAS CONFERENCE**  
 SEPTEMBER 19 - 21, 2024



**AGENDA - Day 3: Saturday, September 21, 2024**

**Session 15: Cooley Auditorium**

**ROBERTO BOLLI, MD YOUNG INVESTIGATOR AWARD**

*Judges: Gary Lopaschuk, PhD, University of Alberta and  
 Sai Sudha Koka, PhD, RPh, Texas A&M University School of Pharmacy  
 Srinivas Tipparaju, PhD, University of Southern Florida  
 Leila Rouhi, MD, PhD, UTHealth*

- |                |   |
|----------------|---|
| 3:00 – 3:15 pm | <b>Role of Histone Lysine Demethylase KDM5A in LMNA-Associated Dilated Cardiomyopathy</b><br><i>Manisha Deogharia, PhD, UTHealth</i>  |
| 3:15 – 3:30 pm | <b>Generation of Chamber-Specific Cardiomyocytes: A Safe and Effective Strategy to Address Arrhythmia in Cell-Based Therapy</b><br><i>Arash Pezhouman, MD, Baylor College of Medicine</i> |
| 3:30 – 3:45 pm | <b>Targeting RAGE to Modulate ECM Remodeling in Atherosclerosis</b><br><i>Vinitha Deepu, PhD, Western University</i>  |
| 3:45 – 4:00 pm | <b>Targeting Glutamine Metabolism in the Pathogenesis of HF</b><br><i>Andrew A. Gibb, PhD, University of Louisville</i>   |
| 4:00 – 4:15 pm | <b>Coffee Break / Exhibitor Hall</b>  |

**Session 16: THI Library**

**GARY LOPASCHUK GRADUATE STUDENT AWARD**

*Judges: Ravichandran Ramasamy, PhD, New York University;  
 Gary Lopaschuk, PhD, University of Alberta;  
 Benjamin Cathcart, PhD, UTHealth; and  
 Grant Pierce, PhD, University of Manitoba*

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|----------------|--|
| 3:00 – 3:15 pm | <b>Lecture 1: To Be Determined</b><br><i>Speaker: Graduate student to be chosen from the abstracts submitted</i> |
| 3:15 – 3:30 pm | <b>Lecture 2: To Be Determined</b><br><i>Speaker: Graduate student to be chosen from the abstracts submitted</i> |
| 3:30 – 3:45 pm | <b>Lecture 3: To Be Determined</b><br><i>Speaker: Graduate student to be chosen from the abstracts submitted</i> |
| 3:45 – 4:00 pm | <b>Lecture 4: To Be Determined</b><br><i>Speaker: Graduate student to be chosen from the abstracts submitted</i> |
| 4:00 – 4:15 pm | <b>Coffee Break / Exhibitor Hall</b>   |

11<sup>TH</sup> ANNUAL  
**IACS-NAS CONFERENCE**  
SEPTEMBER 19 - 21, 2024



**AGENDA - Day 3: Saturday, September 21, 2024**

**Session 17: Cooley Auditorium**

**BUDDHADEB DAWN, MD EARLY CAREER AWARDS**

*Judges: Michael Czubyrt, PhD, BSc (Hons), University of Manitoba;  
Suresh C. Tyagi, PhD, University of Louisville; and  
Buddhadeb Dawn, MD, University of Nevada  
Weiyue Wang, PhD, UTHealth*

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|----------------|---|
| 4:15 – 4:35 pm | <b>DAMPs as Novel Molecular Targets to Attenuate Plaque Vulnerability</b><br><i>Vikrant Raj, MBBS, MS, PhD, Western University of Health Sciences</i>       |
| 4:35 – 4:55 pm | <b>The Secret Messages Between the Heart and Skeletal Muscle During Heart Failure</b><br><i>Samarjit Das, PhD, Johns Hopkins Medicine</i>                   |
| 4:55 – 5:15 pm | <b>The Mitochondrial LonP1 is Indispensable for Cardiac Maturation and Function</b><br><i>Venkatesh Sundararajan, MPharm, PhD, West Virginia University</i> |
| 5:15 – 5:35 pm | <b>The Role of Cardiac Fibroblasts in the Pathogenesis of LMNA Dilated Cardiomyopathies</b><br><i>Leila Rouhi, MD, PhD, UTHealth</i>                        |
| 6:00 pm        | <b>Adjourn/Closing Ceremony</b>   |
| 6:30pm         | <b>Gala Awards/Dinner</b><br><i>Westin Hotel Medical Center</i>   |

**Session 18: THI Library**  
**REGULATION OF CARDIAC METABOLISM**

- |                |  |
|----------------|--|
| 4:15 – 4:35 pm | <b>Urolithin A, a Gut Microbiota Metabolite, Attenuates Isoprenaline-induced Acute Myocardial Injury in Rats</b><br><i>Ranko Skrbic, MD, PhD, MSc, University of Banja Luka, Bosnia &amp; Herzegovina</i>  |
| 4:35 – 4:55 pm | <b>Nampt activation for protecting the Diabetic Heart</b><br><i>Srinivas Tipparaju, PhD, USFHealth</i>   |
| 4:55 – 5:15 pm | <b>The Role of Combined Administration of AT1 Receptor Antagonist &amp; Nephylisin Inhibitor in the Promotion of Browning in an Experimental Model of Metabolic Syndrome</b><br><i>Vladimir Jakovljevic, MD, PhD, University of Kragujevac, Serbia</i> |
| 5:15 – 5:35 pm | <b>The crossroads of transcriptional regulation and metabolism</b><br><i>Kedryn Baskin, Ph.D. The Ohio State University</i>  |
| 6:00 pm        | <b>Adjourn/Closing Ceremony</b>  |
| 6:30pm         | <b>Gala Awards/Dinner</b><br><i>Westin Hotel Medical Center</i>  |

# 30<sup>TH</sup> SCIENTIFIC FORUM

## INTERNATIONAL CONGRESS OF CARDIOVASCULAR SCIENCES

*Prof. Dr. Otoni Moreira Gomes*

**ORGANIZATION: SÃO FRANCISCO DE ASSIS CARDIOVASCULAR INSTITUTE**

**TRUTH IS JESUS – JOHN 14:6**

Vitoria, ES, Brazil  **October 17-19, 2024**

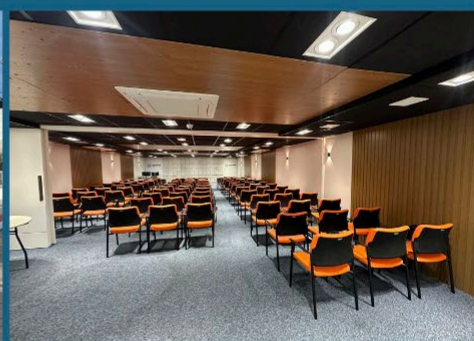
Meridional Vitória Hospital Auditorium



**30<sup>TH</sup> INTERNATIONAL SCIENTIFIC FORUM ON  
CARDIOVASCULAR SCIENCES**



**22<sup>ND</sup> MEETING OF THE INTERNATIONAL ACADEMY OF  
CARDIOVASCULAR SCIENCES - SOUTH AMERICAN SECTION**



♦ Prof. Dr. Naranjan Dhalla Symposium – International Academy of Cardiovascular Sciences (IACS) South American Section

♦ Centrocó Clinic Symposium

♦ Rede Meridional Symposium

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## ***Confirmed Distinguished International Speakers***

### **Naranjan S. Dhalla**

Honorary Life President, IACS

Distinguished Professor & Director of Cardiovascular Developments, SBRC

Institute of Cardiovascular Sciences, Winnipeg, Canada

**Mechanisms for the Loss of Adrenergic Support in Heart Failure due to Myocardial Infarction**

### **Grant N. Pierce**

President, IACS

Distinguished Professor, Department of Physiology and Pathophysiology

University of Manitoba, Winnipeg, Canada

**Serious consideration of the role of dietary supplements in preventing and treating cardiovascular disease**

### **Vladimir Jakovljevic**

President, IACS- European Section

Dean, Faculty of Medicine

Department of Medical Physiology

University of Kragujevac, Serbia

**The role of combined administration of AT1 receptor antagonist and neprilysin inhibitor in the promotion of browning in an experimental model of metabolic syndrome**

### **Ricardo Jorge Gelpi**

Doctor en Medicina

Rector de la Universidad de Buenos Aires

Profesor Titular del Departamento de Patología, Facultad de Medicina, Universidad de Buenos Aires, Argentina

### **Ramesh Goyal**

President, IACS- India Section

ITM SLS Baroda University & Hospital Paldi

Vadodara, India

**Reverse Engineering Approach for New Drug Discovery from Natural Resources for Diabetes induced Cardiovascular Complications**

### **Lorrie Kirshenbaum**

Director, Institute of Cardiovascular Sciences

Rady Faculty of Health Sciences, University of Manitoba

St. Boniface Hospital Albrechtsen Research Centre, Winnipeg, Canada

**Innate Immunity Signaling in Doxorubicin Cardiomyopathy**

### **Ranko Skrbic**

Dean, Faculty of Medicine

University of Banja Luka

Republic of Srpska, Bosnia and Herzegovina,

**Liraglutide, a GLP-1 receptor agonist, attenuates isoprenaline-induced acute myocardial injury *via* inhibition of the Wnt/ $\beta$ -catenin signaling pathway**

### **Michael Kutryk**

Professor of Medicine

University of Toronto

Keenan Research Centre for Biomedical Science, Toronto, Canada

**New treatment approaches for valvular heart disease**



## IACS Honors and Awards at the 10<sup>th</sup> IACS-European Section Meeting in Bratislava, Slovakia, October 28-30, 2024

Dr. Grant Pierce, IACS President is pleased to announce that the following IACS awards will be bestowed upon individuals during the meeting of the IACS- European Section, October 28 – 30, 2024 in Bratislava, Slovakia.

1. **Life-Time Achievement Award-** Dr. Adriana Duriš Adameová
2. **Distinguished Leadership Award-** Dr. Jan Klimas
3. **Distinguished Leadership Award-** Dr. Eva Gonçalvesová
4. **Distinguished Leadership Award-** Dr. Mojmir Mach
5. **Distinguished Service Award-** Dr. Miroslav Barančík
6. **Distinguished Service Award-** Dr. Robert Hatala
7. **Distinguished Service Award-** Dr. Peter Krenek

### Dr. Adriana Duriš Adameová, Comenius University, Slovak Republic



*Dr. Adriana Duriš Adameová*

Dr. Adriana Duriš Adameová, a Full Professor at the Faculty of Pharmacy, Comenius University in Bratislava, and an independent researcher in the Centre of Experimental Medicine, Slovak Academy of Sciences, in Bratislava, Slovak Republic, is interested in translational and basic research of cardiovascular diseases and pharmacology of

heart failure and myocardial infarction. She received her Doctor of Pharmacy degree (2002) and Ph.D. degree (2006) in pharmacology from the Faculty of Pharmacy, Comenius University, Slovak Republic.

As a part of a post-doctoral training, she spent several months in the Hatter Cardiovascular Institute, University College London, UK and St. Boniface Hospital Albrechtsen Research Centre, Institute of Cardiovascular Sciences (ICS) in Winnipeg, Canada. Dr. Duriš Adameová progressed her academic and scientific ladder to become Associate Professor (2014), and Full Professor (2018) at the Faculty of Pharmacy, Comenius University in Bratislava. She was a member of the Efficacy Working Party, European Medicines Agency (2007-2010), a member of the Subcommittee for generic medicine, State Institute for Drug Control (2007-2021) and currently she is

a board member of the Slovak Pharmacological Society and a member of the Scientific Board of the Faculty of Pharmacy. Dr. Duriš Adameová serves as a Chair of the Faculty Union of Basic Pharmacology and a Guarantor of Doctoral study in pharmacology. She established the Laboratory of Experimental Cardiology and Pharmacology and by getting personal and professional trust and financial support provided by the government, industry and university she has been able to execute research projects and give the opportunity to several master, doctoral students and postdocs to get trained and launch their career. Many of her trainees have gone on to successful independent careers as clinical pharmacists, researchers and faculty members. She has published over 220 scientific and professional peer-reviewed papers and her research has been funded by Slovak and European funding agencies and pharmaceutical companies (e.g. APVV, VEGA, ERANET, Slovak Society of Cardiology, COST, Pfizer, Zentiva).

She is a recipient of several awards, including the Weiser Professional Development Award (University of Michigan, 2023), Award of the Universidad Complutense in Madrid (Catedra A. Dubcek, 2005), Award of the American Journal of Physiology–Heart and Circulatory Physiology for the best review scientific publication (AJP-Heart and Circ Best Review Article Award, 2020), Award ESF JPD 3 2005/1-049 - Promotion of research activities of young investigators (2007, 2008), Rector's Award of the Comenius University in Bratislava for excellent contribution in pedagogical and scientific activities (2012). Dr. Duriš Adameová's research is mainly focused on necrosis-like cell death (necroptosis, pyroptosis) in the

heart. Her team together with clinical collaborators indicated for the first time that human failing hearts of various etiology are positive for necroptotic markers and provided a hypothesis that this pro-inflammatory, strictly regulated cell death form may be responsible for heart dysfunction and remodeling. Later, they developed a concept of RIP3-mediated injury in the infarcted, and non-infarcted, surrounding area and explored the

cardioprotective mechanisms of ischemic preconditioning with respect to necroptosis. Her personal and professional ambitions include the promotion of young, highly-motivated colleagues in their career, inspire them to investigate the heart (dys)function and to identify some key players underlying the heart diseases and thereby design the pharmacological interventions to target them appropriately.

## Dr. Jan Klimas, Comenius University, Slovak Republic



*Dr. Jan Klimas*

Dr. Jan Klimas, is a Full Professor in Department of Pharmacology and Toxicology, Faculty of Pharmacy, Comenius University, Bratislava. He completed his Masters degree in 1999 in Faculty of Pharmacy, Comenius University and went on to complete his PharmD in 2001 and his PhD in 2006 from the same institute. Dr. Klimas was appointed as Associate Professor of Pharmacology in 2009. In 2013, he obtained Master

of Public Health and appointed as a Full Professor of Pharmacology in 2017. His professional career began in 1999 as an assistant in the Department of Pharmacology and Toxicology, Faculty of Pharmacy, Comenius University, followed by a scientific internship in 2000 in Biology Department laboratories, Glaxo Wellcome S.p.A., Verona, Italy. From 2002-2004 he was a researcher at the Institut für Pharmakologie und Toxikologie, Universitätsklinikum, Westfälische Wilhelms-Universität, Münster, Germany. Since 2005 he is a full-time university teacher in Department of Pharmacology and Toxicology, Faculty of Pharmacy, Comenius University.

From 2008-2021, Dr. Klimas was a member of Subcommittee for Generic Medicines, external scientific assessor of non-clinical and clinical aspects in registration procedures (decentralized, national) for the State Institute for Drug Control (Slovak Republic). During 2009-2016, he

served as Vice Dean of Faculty of Pharmacy, Comenius University, and since 2009, Dr. Klimas has been a member of Scientific Board of Faculty of Pharmacy. From 2011-2016 he was First Vice Dean of Faculty of Pharmacy, and during 2015-2017 he was a member of Quality Board of

Comenius University. Dr. Klimas was the Head of Department of Pharmacology and Toxicology, Faculty of Pharmacy, from 2015 to 2021. Since 2015 he is the Chairman of Ethics committee of Slovak Generic Industry Association as well as a member of Board and Scientific Secretary of Slovak Pharmacological Society since 2017. Presently, Dr. Klimas is the Dean of Faculty of Pharmacy, Comenius University, Guarantor of graduate study program in Pharmacy at Faculty of Pharmacy, as well as the Guarantor of postgraduate study program in Clinical Pharmacy. He is also currently, member of Board of Slovak Chamber of Pharmacists and member of Scientific Board of Faculty of Medicine, Slovak Medical University in Bratislava.

Dr. Klimas is a member of several societies and organizations including the Slovak Society of Cardiology, Slovak Pharmacological Society, Slovak Pharmaceutical Society and the European Association for the Study of Diabetes. He has received many awards and recognitions, most notably Honoured presentation on 5<sup>th</sup> Congress of the Slovak Society of Cardiology in 2000, First prize of Young Cardiologist's Award on 10<sup>th</sup> Congress of the Slovak Society of Cardiology in 2005, Rector's Prize (Comenius University in Bratislava) in 2006, supervisor of first prize awarded student poster at *EuroMeeting Drug Information Association* in Barcelona, 2008 and senior author of publication of young scientist awarded by Slovak Pharmacological Society in 2013. Dr. Klimas has published extensively with 89 articles (H-index 17) and has several National and International grants.

## Dr. Eva Gonçalvesová, National Cardiovascular Institute, Slovak Republic



*Dr. Eva Gonçalvesová*

Dr. Eva Gonçalvesová graduated from the Faculty of Medicine at Comenius University, Bratislava in 1986. After graduation she started working at the University's Department of Geriatric Medicine and later became an Assistant Professor in the Department of Internal Medicine. Since 1997 she works at the

National Cardiovascular Institute, Bratislava, Slovakia at the Department for Heart Failure and Transplantation, where she has been working as the chief physician since 2007.

From 2017 to 2021 she served as medical director of the National Cardiovascular Institute. From 2018 up to now she taken up the position of the Head of Department of Cardiology, Faculty of Medicine Comenius University, Bratislava.

Her scientific activities focus on advanced heart failure, heart transplantation, durable mechanical circulatory support, cardiomyopathies and pulmonary arterial hypertension. Since 2007 she chairs the Advanced heart failure and heart transplant programme in Slovakia.

She is active in numerous professional committees and associations. In 2003, she became Board member of the Slovak Society of Cardiology (SSC) She was elected President of the SSC during 2010 – 2013, and again in 2022 – 2024. She has been a fellow member of the European Society of Cardiology (FESC) since 2008 and Heart Failure Association of ESC since (FHFA) since 2018. From November 2010 to November 2020 she was the chairwoman of the Scientific Council at the National Cardiovascular Institute. She is a member of editorial boards of several professional journals; both in Slovakia and abroad, and has authored or co-authored 8 books including 2 student books and more than 150 papers in both national and international journals. Additionally, she has contributed more than 130 abstracts to scientific and professional journals, and delivered more than 400 lectures.

## Dr. Mojmir Mach, Slovak Academy of Sciences



*Dr. Mojmir Mach*

Dr. Mojmir Mach obtained his PhD in 2006 in the study field Pharmacology with the theme: Ethological approaches in pharmacology and toxicology - prenatal antioxidant supplementation during intrauterine hypoxia in rats and behavioral effects of acetylcholinesterase inhibitors in mice.

He was a member of the research team at Wright State University (OH, USA) studying the causes of Gulf War Syndrome on animal models. Currently, he works is Head of the Department of

Developmental and Behavioral Toxicology, interested in investigation of the neurobehavioral development of the rat's offspring after intrauterine exposure to xenobiotics. He is Member of the Executive Committee of the Slovak Toxicology Society SETOX and from 2010 to 2016 Executive Committee Member of EUROTOX. Since 2012 he is Deputy Director of the Institute of Experimental Pharmacology and Toxicology, Slovak Academy of Sciences, and Executive Editor-In-Chief of the Journal Interdisciplinary Toxicology.

He is Member of the Editorial Board of several journals, including Interdisciplinary Toxicology, Neuroendocrinology Letters and Activitas Nervosa Superior Rediviva. Dr. Mach's research program at the Institute is focused on behavioral changes after exposure to drugs and xenobiotics either during development or acutely during sensitive stages of postnatal life. The other area of his research centers on the screening of the potentially harmless compounds with use in psychopharmacology (i.e.

pyridoindole derivatives). Dr. Mach has several notable National research projects and has almost 50 published

articles indexed on PubMed with H-index of 17 (ResearchGate).

## Dr. Miroslav Barančík, Slovak Academy of Sciences



*Dr. Miroslav Barančík*

Dr. Miroslav Barančík completed his studies in 1987 at the Faculty of Natural Sciences, Comenius University, Bratislava, Slovak Republic. Ph.D. thesis he defended in the field of animal physiology in 1995 and in 2010 he became Doctor of Sciences in Biochemistry. In years 2010-2018 was a director of the Institute for Heart Research, Slovak

Academy of Sciences and from 2018 up to now is a scientific director of the Institute for Heart Research, organizational unit of Centre of Experimental Medicine, Slovak Academy of Sciences.

In years 1995-2003 he spent several months (2-3 months per year) as a Visiting Scientist at the Department of Experimental Cardiology, Max-Planck Institute, Bad Nauheim, Germany (group of Prof. Wolfgang Schaper). His research activities are focused on regulatory mechanisms

involved in animal cell responses to different forms of stress and in stress adaptation processes. This involves the study of role of intracellular and redox signaling in the regulation and modulation of heart responses to pathological conditions such as ischemia, diabetes, and cardiomyopathies. He is also engaged in identification and study of biomarkers associated with the development of pathological conditions in the body.

He has published more than 100 research papers in peer-reviewed national and international journals. He also serves as a reviewer for national grant panels and was member of the organizing committee of several national and international conferences. From 2019 is elected Scientific secretary of The Slovak Society for Biochemistry and Molecular Biology.

Dr. Barančík is the recipient of several prestigious awards including Award of the Slovak Academy of Sciences (SAS) for research – member of excellent research team, SAS Medal for Support of Science Development, and Distinguished Leadership Award in Cardiovascular Sciences from the International Academy of Cardiovascular Sciences.

## Dr. Robert Hatala, Slovak Medical University, Slovakia



*Dr. Robert Hatala*

Dr. Robert Hatala, is Director of the Division of Arrhythmias and Pacing and Head of Dept. of Cardiology and Angiology at the National Institute of Cardiovascular Diseases and Slovak Medical University in Bratislava, Slovakia. He graduated (summa cum laude) from the Comenius (Komensky) University School of Medicine in Bratislava,

Slovakia. Here he was also appointed Full Professor of internal medicine - cardiology in 2001. During his postgraduate training and career, he has gained extensive experience at university hospitals in Canada (Université de Montréal, Hôpital du Sacré-Coeur), Germany (UKE Hamburg), France (C.H.U. Pitié Salpêtrière, Paris) and Austria (L. Boltzmann Institute for Arrhythmia Research, Vienna). He is board certified in internal medicine and cardiology.

In 1995 he founded the first specialized center for complex arrhythmia management in adults and children in Slovakia with present volume exceeding 2000 interventions annually. The center has participated since its founding in several landmark international clinical trials in which he served as principal investigator, steering committee



member or country leader. His major clinical and research interests are all aspects of cardiac arrhythmias with special focus on interventional therapy, atrial fibrillation, sudden cardiac death, heart failure and stroke. He authored over 70 papers and 300 oral presentations, mainly on major international meetings in cardiovascular medicine across the world, over 100 invited lectures held in English, German, French and Russian, chaired several sessions on major international congresses (European Society of Cardiology, American Heart Association, American College of Cardiology, European Heart Rhythm Association, World Congress of Cardiology, International Academy of Cardiovascular Sciences and congresses of national societies). He authored chapters on cardiology / cardiac electrophysiology in 7 Slovak and Czech medical textbooks and monographs.

In 2023 he was awarded the Doctor honoris causa title at the Semmelweis Medical University in Budapest, Hungary. He is honorary member of several national societies of cardiology. Currently he serves as executive editor for the European Heart Journal. He has also served as chief editor / board member of several national and international scientific journals (Cardiology Letters, Bratislava Medical Journal, Frontiers in Cardiovascular Medicine). He is active as peer-reviewer for several leading cardiovascular journals. Since 1997 he continuously serves in various positions in board, committees, and councils of the European Society of Cardiology. In the years 2011-2018 he served as board member and secretary of the European Heart Rhythm Association (EHRA). He was repeatedly elected as President of the Slovak Society of Cardiology and Slovak Heart Rhythm Association.

### Dr. Peter Krenek, Slovak Medical University, Slovakia



*Dr. Peter Krenek*

Dr. Peter Krenek is a Full Professor at the Faculty of Pharmacy, Comenius University in Bratislava, Slovak Republic. His scientific interests include the pharmacology of calcium channel blockers, nitric oxide, renin-angiotensin-aldosterone system, endothelins, cardiac hypertrophy, heart failure, pulmonary hypertension.

He received his Ph.D. degree in 2003 and Doctor of Pharmacy degree in 2006 from the Faculty of Pharmacy, Comenius University in Bratislava, Slovak Republic. As a part of doctoral and postdoctoral training he made three scientific stays for a total of three years in the labs of professor Théophile Godfraind, professor Maurice Wibo and professor Nicole Morel at the Laboratoire de Pharmacologie Experimentale, Université catholique de Louvain, Brussels, Belgium. He has been working at the Faculty of Pharmacy, Comenius University in Bratislava since 1997, became an associate professor in 2017 and currently is at the functional position of a full professor since 2024. Since 2021 he serves as the head of Department of pharmacology and toxicology.

Dr. Krenek published over 90 scientific and peer reviewed papers and his research has been funded by Slovak funding agencies (APVV, VEGA). He is a secretary of Ethical Committee for Animal Experiments at the Faculty of Pharmacy since 2006. He peer reviewed a number of scientific papers for journals including Circulation, Journal of Pharmacy and Pharmacology, Phytotherapy Research, American Journal of Medical Sciences, General Biology and Biophysics, European Pharmaceutical Journal and others. He was a tutor of over 60 master theses and a total of 7 doctoral students have successfully obtained their Ph.D. degrees under his supervision and they have all been following successful careers as researchers, clinical pharmacists, faculty members or work at regulatory authorities or pharmaceutical companies.

Two of his master students have received the Rector's prize for their theses. Dr. Krenek received a Letter of gratitude from the rector on the occasion of International Students' Day from the Comenius University in Bratislava in 2011. The research of Dr. Krenek in Brussels was related to the relationships between calcium channel blockers, renin-angiotensin-aldosterone system, endothelial dysfunction and endothelin-1 in normotensive and salt-loaded spontaneously hypertensive rats, in Bratislava, he examined the role of nitric oxide in isoproterenol-induced heart failure, chemokines in doxorubicin-induced heart failure, endothelins and hepatocyte growth factor system in pulmonary hypertension, HGF-independent activation of its receptor by high glucose and peripheral serotonin system components in the monocrotaline model of pulmonary hypertension.



# 10th Annual Meeting of the European Section of the International Academy of Cardiovascular Sciences

**OCTOBER 28 - 30, 2024**

**Bratislava, Slovakia**



**Meeting Venue**



**Congress Centre**



**Accommodation**



**Bratislava**

The IACS-ES meeting will take place in the hotel TATRA in Bratislava, Slovakia. It is situated in the city centre and offers the congress premises with different space capacity which are equipped with the state-of-the-art technology. Hotel Tatra is one of the top accommodation facilities in Bratislava.

Bratislava is the capital city of Slovakia. Many attractions are within walking distance from the hotel.

**[www.iacs2024.eu](http://www.iacs2024.eu)**

# PROGRAM OF IACS - ES

## *10th Annual Meeting*

**28. 10. 2024**

<b>Registration</b>	3:00 PM to 6:00 PM
<b>Opening Ceremony</b>	4:00 PM to 4:45 PM
<b>Inaugural Session</b>	4:45 PM to 6:45 PM
<b>Welcome Reception</b>	7:00 PM to 9:00 PM

**29. 10. 2024**

<b>Registration</b>	8:30 AM to 5:30 PM
<b>Parallel sessions - symposia # 1 and #2</b>	9:00 AM to 10:30 AM
<b>Coffee Break and poster viewing</b>	10:30 AM to 11:00 AM
<b>Parallel sessions - symposia # 3 and #4</b>	11:00 AM to 12:30 PM
<b>Lunch break and poster presentation</b>	12:30 PM to 1:30 PM
<b>Parallel sessions - symposia # 5 and #6</b>	1:30 PM to 3:00 PM
<b>Coffee Break and poster viewing</b>	3:00 PM to 3:30 PM
<b>Parallel sessions - symposia # 7 and #8</b>	3:30 PM to 5:00 PM
<b>Social Programme</b>	5:00 PM to 6:45 PM

**30. 10. 2024**

<b>Registration</b>	8:30 AM to 5:30 PM
<b>Parallel sessions - symposia # 9 and #10</b>	9:00 AM to 10:30 AM
<b>Coffee Break and poster viewing</b>	10:30 AM to 11:00 AM
<b>Parallel sessions - symposia #11 and #12</b>	11:00 AM to 12:30 PM
<b>Lunch break and poster presentation</b>	12:30 PM to 1:30 PM
<b>Parallel sessions - symposia #13 and #14</b>	1:30 PM to 3:00 PM
<b>Coffee Break and poster viewing</b>	3:00 PM to 3:30 PM
<b>Parallel sessions - symposia #15 and #16</b>	3:30 PM to 5:00 PM
<b>Networking</b>	5:00 PM to 6:45 PM
<b>Gala Dinner and Awards Ceremony</b>	7:00 PM to 10:00 PM

## Confirmed Invited Speakers...to date

Name	Country	Title of the presentation
R. Fischmeister	Paris, France	Phosphodiesterase type 2: a new target in heart failure?
G. Heusch	Essen, Germany	Coronary microvascular injury by ischemia/reperfusion and protection from it.
M.S. Suleiman	Bristol, UK	Tribulations of moving from bench to bedside to mend broken heart.
L. Kirshenbaum	Winnipeg, Canada	Innate immunity signaling in doxorubicin cardiomyopathy.
F. Gallyas	Pecs, Hungary	Repurposing of PARP inhibitors for cardiovascular diseases.
M. Czubryt	Winnipeg, Canada	Fibroblast activation as a therapeutic target for cardiac fibrosis.
M. Hlavackova	Prague, Czech Republic	Exploring Hif-1 $\alpha$ and epitranscriptomic regulation in diabetic cardiomyopathy.
M. Michalak	Edmonton, Canada	Interplay between stress sensors and cardiac excitation-contraction coupling.
H. S. Buttar	Ontario, Canada	The crucial roles of healthful foods, healthy gut microbiomes, and lifestyle modifications in preventing cardiovascular diseases.
M. Delmar	New York, USA	Sudden cardiac arrest in young athletes: the case of ARVC.
D. M. Djuric	Belgrade, Republic of Serbia	Comparison of the cardioprotective effects of folic acid in homocysteine-dependent and homocysteine-independent cardiometabolic disease models.
N. Nagy	Szeged, Hungary	Investigation of action potential alternans in normal and failed human heart.
P. Bencsik	Szeged, Hungary	Therapeutic use of ProtectomiRs (cardioprotective microRNAs) against myocardial ischemia/reperfusion injury.
N. Jost	Szeged, Hungary	The investigation of the antiarrhythmic effects of novel amiodarone-like mexiletine analogue compounds.
A. J. Marian	Texas, USA	DNA double-stranded breaks in the pathogenesis of heart failure.
R. Bolli	Kentucky, USA	Current status of cardioprotection, gene therapy, and cell therapy for heart disease.
P. Ferdinandy	Budapest, Hungary	Development of miRNA therapeutics for cardioprotection.
V. Jakovljevic	Kragujevac, Republic of Serbia	Usnic acid as a new protector against doxorubicin-induced cardiotoxicity in rats.
N. S. Dhalla	Winnipeg, Canada	Role of Renin-angiotensin system in the loss of adrenergic support in heart failure.

Name	Country	Title of the presentation
B. Ostadal	Prague, Czech Republic	Sex differences in cardiac tolerance to oxygen deprivation - 40 years of cardiovascular research.
I. Baczko	Szeged, Hungary	Atrial and ventricular arrhythmogenic remodeling in a large animal model of athlete's heart.
A. Varro	Szeged, Hungary	Important species differences in cardiac electrophysiology.
M. Morad	South Carolina, USA	Regulation of sarco-tubular, mitochondrial, and nuclear-envelop calcium signaling in human stem-cell derived cardiomyocytes.
G. Lopaschuk	Edmonton, Canada	Targeting cardiac fatty acid oxidation to treat heart failure with preserved ejection fraction (HFpEF).
I. Rabinovich-Nikitin	Winnipeg, Canada	The effects of shift work on cardiovascular health during pregnancy.
S. Dhingra	Winnipeg, Canada	Immunomodulation of allogeneic stem cells for cardiac repair.
D. Agrawal	California, USA	Immune mediators and modulators in reducing size and inducing stability of atherosclerotic plaques in carotid artery: novel treatment Strategies.
S. Tyagi	Kentucky, USA	The role of the circadian clock system in the transition of HFpEF to the HFrEF.
S. Tipparaju	Florida, USA	Nampt activation for protecting the diabetic heart.
M. Bartekova	Bratislava, Slovakia	Natural polyphenol quercetin as a potential cardioprotective tool for preventing ischemia-reperfusion injury.
P. Kleinbongard	Essen, Germany	Cardioprotection by remote conditioning - an update on the signal transduction pathways.
S. Ohta	Tokyo, Japan	Hydrogen medicine from the basic science to clinical trials.
J. Neckar	Czech Republic	Experimental rat models of HFpEF.
P. Krenek	Slovakia	Endothelin system in experimental pulmonary hypertension.

## From the Meeting Chairperson

The IACS is a unique, scientific organization promoting cardiovascular science, networking and mobility of students, and fellows. The 10th annual meeting of the IACS-ES will provide a platform for basic and clinical scientists to present their new findings. It will feature keynote lectures given by distinguished speakers and will also promote the young scientists in their careers through scientific discussion, interaction and networking. The motto of the 10<sup>th</sup> Jubilee Meeting of the IACS-ES conference is “Know the heart: novel insights into prevention and treatment of heart disease to live and promote a healthy lifestyle”.



## Young Investigator Award Session

Young investigators (PhD students and scientists within eight years of the award of the PhD) are highly encouraged to submit their CV, and a 1-page summary of their research project constituting the basis of their presentation to the e-mail of the congress [iacs.es2024@gmail.com](mailto:iacs.es2024@gmail.com) and [adriana.duris.adameova@uniba.sk](mailto:adriana.duris.adameova@uniba.sk) by September 15, 2024.

Based on the quality of their projects, a scientific committee will choose **14 recipients** of **Travel Awards** in the amount of **335 Euros** each from Europe for participating in the meeting. The award will cover 3-night accommodation in a hotel room with two single beds, registration fee and full hospitality. The recipients of the travel grants will be notified. The award and a certificate will be collected at the Registration Desk.

In addition, the committee will choose **6 finalists** for the best oral presentations who will present their work at the *IACS European Section Young Investigator Competition Award Session*. The **2 best finalists** will be awarded during the Gala Dinner and will receive a **diploma** and **500 Euros**, each.

The submission **deadline** for Young Investigator Award Session is September 15, 2024.

## Roberto Bolli Young Investigator Award competition

**Four individuals** will be selected by the Awards Committee for the Roberto Bolli Young Investigator Award competition. Each of them will receive free registration, full hospitality and three days hotel accommodation. They will be expected to talk for 15 min plus 5 min discussion and the finalist will be chosen by a panel of 4 judges including two chairs. The finalist will receive a **cash prize** and a **certificate** at the Awards Ceremony.

## Poster Awards for Young Investigators

Several **poster awards** will be available for young investigators (PhD students and scientists within eight years of the award of the PhD). The awardees will be selected by a two-member committee. Each awardee will receive a **certificate** and **250 Euros**.

During online registration, please indicate that you are interested in participating in the Poster Awards competition.

The poster board format will be a portrait A0 size (841×1189 mm)

Poster Awards for Young Investigators:

- Karl Werdan Poster Awards – 2 awards
- Attila Ziegelhoffer Poster Awards – 2 awards
- Miloslav M. Kostic Poster Awards – 2 awards

## Registration Fees

The registration fee includes attendance at the meeting sessions, a congress bag with congress materials, coffee breaks, lunches, a welcome reception, and a gala dinner and awards ceremony. \*

	before September 15, 2024	after September 15, 2024	On-site (Only cash in EUR)
PhD student, Early career investigator *	170 €	190 €	200 €
Mid-career and senior researcher	250 €	270 €	300 €
Accompanying person	170 €	190 €	200 €

Early Career Investigator – a researcher within eight years of the award of the PhD; Fees include 20% VAT

## Important dates

March 1, 2024: Registration Opening

September 15, 2024: Registration Deadline

September 15, 2024: Abstract Submission Deadline

September 15, 2024: Submission deadline for the Young Investigator Award Session

The meeting will take place in the Hotel TATRA in Bratislava, Slovak Republic which is situated just in the center of Bratislava. The congress premises with different space capacities are equipped with state-of-the-art technology. Further information on the congress center can be found on the hotel website: [hoteltatra.sk/en/congresses](http://hoteltatra.sk/en/congresses)

## Venue

The meeting will take place in the Hotel TATRA in Bratislava, Slovak Republic which is situated just in the center of Bratislava. The congress premises with different space capacities are equipped with state-of-the-art technology. Further information on the congress center can be found on the hotel website: [hoteltatra.sk/en/congresses](http://hoteltatra.sk/en/congresses)

## Transportation

Bratislava is about 70 km distant from an International Airport in Vienna, Austria. The transport from Vienna airport to Bratislava is very convenient. A train, bus or taxi can be used.

The best option is taking a bus. Slovak Lines or Flixbus operate shuttle buses every hour between the Vienna airport and the Central Bus Station Nivy in Bratislava (Autobusová stanica Nivy). When you arrive at the Central Bus Station Nivy, please take the public transport bus 42 and drop off at “Hodžovo námestie”. From there, you can see the conference hotel which is just a 1-minute walk away.

## ***Accommodation***

For congress participants, a certain number of hotel rooms in the congress **hotel TATRA** is pre-reserved. There are several types of hotel rooms which are spacious, tastefully furnished and equipped with the latest information technology.

Please make your reservation via either email at [rezervacie@hoteltatra.sk](mailto:rezervacie@hoteltatra.sk) or by phone at +421 2 592 71 111 and refer to a **congress promo code “IACS2024”** to get a special reduced price for the accommodation.

The special prices for the hotel rooms during the conference are as follows:

- Double room 110€ + city fee 3,50 €/night
- Single room 90€ + city fee 3,50 €/night
- Triple room 200€ + city fee 3,50 €/night

Please note that breakfast is included in the price for all room types.

Check-in is allowed from 14:00 and the check-out is until 11:00. More information about the accommodation in the hotel TATRA can be found on the hotel website:

<https://hoteltatra.sk/en/accommodation/>

## ***Meeting contact***

[iacs.es2024@gmail.com](mailto:iacs.es2024@gmail.com)

## ***Conference Link***

[www.iacs2024.eu](http://www.iacs2024.eu)

### ***Chair of the meeting:***

**Adriana Duriš Adameová, Prof. PharmD. PhD., FIACS**

[adriana.duris.adameova@uniba.sk](mailto:adriana.duris.adameova@uniba.sk)

[adriana.duris.adameova@savba.sk](mailto:adriana.duris.adameova@savba.sk)

### ***Vice-chairs of the meeting:***

**Tanya Ravingerova, MD, PhD, DSc, FIACS**

[tatiana.ravingerova@savba.sk](mailto:tatiana.ravingerova@savba.sk)

**Jan Slezak, Prof. MD, PhD, DSc, FIACS**

[jan.slezak@savba.sk](mailto:jan.slezak@savba.sk)

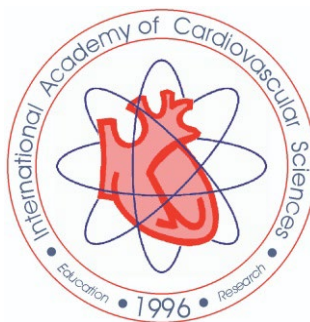
### ***Scientific Secretary:***

**Tomas Rajtik, Doc. PharmDr. PhD.**

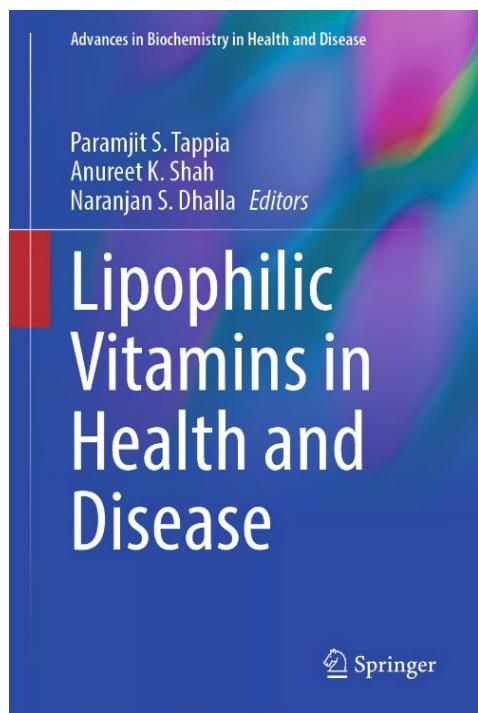
[tomas.rajtik@uniba.sk](mailto:tomas.rajtik@uniba.sk)

**Csaba Horvath, PharmDr. PhD.**

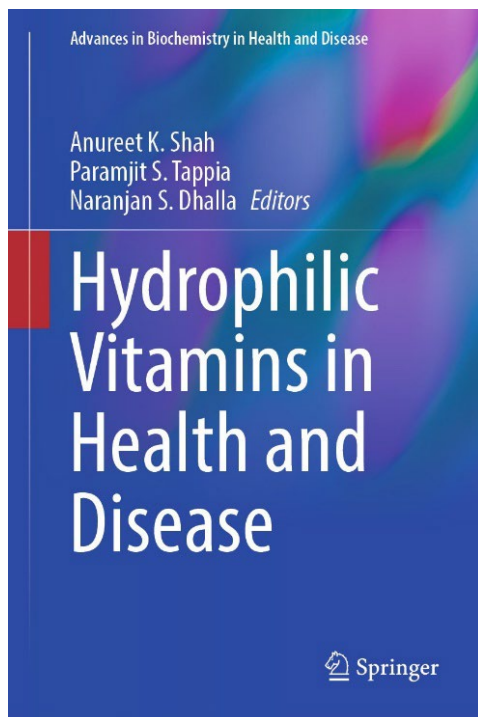
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## Springer Nature Publishes Books on Vitamins in Health and Disease



This book brings together international experts in the field of vitamins for human health and disease, to update and integrate current understanding on the effects of different lipophilic vitamins on cellular, metabolic and molecular biochemical reactions with respect to different pathophysiological conditions including cardiovascular disease, cancer, metabolic defects, inflammatory and immune diseases. This book is uniquely positioned as it focuses on the biochemistry and molecular biology of lipophilic vitamins in diverse cell systems in relation to human health and disease. The book will certainly stimulate and motivate biomedical researchers and scientists to further explore the relationship between lipophilic vitamins and biological processes, as well as serve as a highly useful resource for nutritional investigators, health professionals, medical students, fellows, residents and graduate students. We hope that the reader will gain knowledge and further understanding of the importance of lipophilic vitamins. The novel insights provided by the contributing authors will assist in advancing preventive medicine worldwide as well as bring forward knowledge that may help in the use of lipophilic vitamins as adjuvant to therapeutic strategies for human disease. For more information: <https://link.springer.com/book/10.1007/978-3-031-55489-6>



More than 100 years ago, Dr Casimir Funk suggested the existence of a family of organic substances that are essential for life and thus introduced the concept of “vital amines” as essential nutrients with a specific action, requiring only minute amount with the power to cure a specific disease. Vitamins essential for human health are grouped according to whether they are soluble in water (hydrophilic) or in non-polar solvents (lipophilic). The hydrophilic vitamins are vitamin C and a series known as the vitamin B complex. Vitamin C is a reducing agent, whereas the vitamin B series are components of coenzymes. For example, riboflavin (vitamin B2) is a precursor of flavin adenine dinucleotide (FAD) and pantothenate (vitamin B5) is a component of coenzyme A. Indeed, several coenzymes contain a vitamin as part of their structure; this relation is undoubtedly responsible for creating an “essential” role for the vitamin. Since vitamins are involved in a wide range of biological processes and cell function, these are considered as essential nutrients. The essential nature of vitamins as well as their unique biochemistry, molecular mechanisms and cellular function in health and disease are emphasized in this book which will serve as a highly useful resource for health professionals, nutritional scientists, medical students, fellows, residents, and graduate students. For more information: <https://link.springer.com/book/10.1007/978-3-031-55474-2>



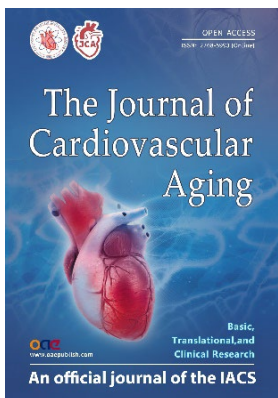
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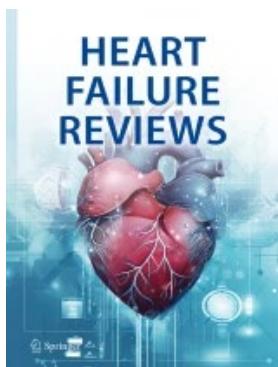
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