

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>University of Manitoba Bestows Highest Award on Lorrie Kirshenbaum</i>	2
<i>Academy Bestows Medal of Merit Upon Dr. Heinrich Taegtmeier</i>	3
<i>IACS Fellows Elected into the Royal Society of Canada</i>	4
<i>Dr. Ramesh Goyal Receives ICS Gold Medal</i>	5
<i>IACS Honors and Awards at the IACS-South American Meeting, Brazil</i>	6
<i>CV Network Editorial Board</i>	17
<i>Officers, Advisory Board and Executive Council of the IACS</i>	17
<i>Update on 22<sup>nd</sup> Meeting of the IACS-South American Section, Vitória, Brazil</i>	18
<i>Updates on the 10<sup>th</sup> IACS- European Section Meeting, Bratislava, Slovakia</i>	21
<i>Academy Pays High Tribute to Prof. Valiathan</i>	25
<i>My Scientific Journey by Dr. Paul Ganguly</i>	27
<i>Call for Applications/Nominations for IACS Fellowship</i>	28
<i>Women's Heart Health Initiative in Winnipeg</i>	29
<i>Invitation from the Canadian Journal of Physiology and Pharmacology</i>	30
<i>Springer Nature Publishes Book on Pathogenesis of Cardiovascular Diseases</i>	31
<i>Official Partnering Journals of the IACS</i>	32

## Kirshenbaum Receives the Dr. John M. Bowman Memorial Winnipeg Rh Institute Foundation Award

In a ceremony hosted by the University of Manitoba on May 27, 2024, Dr. Kirshenbaum was bestowed with the 2023 Dr. John M. Bowman Memorial Winnipeg Rh Institute Foundation Award in recognition of the important impacts of his work to improve treatments for those living in with heart disease and heart failure. Upon receiving this prestigious honour and award, Dr. Kirshenbaum said *“I’m tremendously honored to be recognized alongside so many giants in research excellence with this Bowman Award. It’s incredibly special because it’s the highest award UM bestows on its own faculty. When I’ve been previously recognized with external societal awards or by university centers and institutes, it’s heartfelt, but the recognition of my own colleagues has a different impact. I recognize the legacy of Dr. John M. Bowman and the significance of the Rh award. My sister was Rh negative with an RH positive baby and Bowman’s WinRho serum resolved some issues during pregnancy. It’s just a phenomenal honour to be recognized”*.



*Dr. Lorrie Kirshenbaum (C) Receiving Rh Institute Foundation Award from Dr. Michael Benarroch, President and Vice-Chancellor of the University of Manitoba (L) and Juliette “Archie” Cooper, Chair Board of Directors, Winnipeg Rh Institute Foundation (R)  
Photo credit: University of Manitoba*

Dr. Lorrie Kirshenbaum is the Director of the Institute of Cardiovascular Sciences, Albrechtsen Research Centre, St. Boniface Hospital. He is principal investigator of Cardiac Gene Biology, Institute of Cardiovascular Sciences, Albrechtsen Research Centre, St. Boniface Hospital, and Professor, Department of Physiology and Pathophysiology, University of Manitoba. He holds a Canada Research Chair in Molecular Cardiology. Dr. Kirshenbaum is also currently the Director of Research Development Max Rady College of Medicine, University of Manitoba.

His research is setting the stage for the use of gene therapy in the treatment of cardiovascular diseases and is supported by a Foundation grant from the Canadian Institutes of Health Research and the St. Boniface Hospital Foundation. Dr. Kirshenbaum is a Fellow of the IACS, ISHR, AHA and Canadian Academy of Health Sciences. For the past 30 years, Dr. Kirshenbaum’s research interest has been directed toward determining the signaling mechanisms and molecular factors that underlie programmed cell death in the heart following myocardial infarction and chemotherapy-induced heart failure. His work also focuses on the interplay between mitochondrial regulated cell death pathways involving apoptosis and necrosis and cellular quality control mechanisms such as autophagy mediated by the BCL2 proteins. His work has identified a novel relationship between innate signaling protein TRAF2 and Doxorubicin-cardiomyopathy. Dr. Kirshenbaum showed that TRAF2 which is a critical component of cell survival and TNF $\alpha$ -NF- $\kappa$ B signaling pathway is down-regulated in cancer patients undergoing Doxorubicin treatment. The loss of TRAF2 predisposes cardiac muscle to mitochondrial injury and impaired autophagy resulting in cardiac dysfunction and heart failure. Conversely, proteasomal stabilization of TRAF2 abrogated the cardiotoxic effects of Doxorubicin. The work highlights a novel connection between TRAF2 - mediate signaling and Doxorubicin cardiomyopathy. Dr. Kirshenbaum’s recent work addresses the impact of circadian disruption and sex specific differences in the development of heart failure. indeed, his leadership at both the University of Manitoba and St. Boniface Hospital focuses on providing specialized treatments for women living with heart disease using cutting-edge technology here in Manitoba. Dr. Kirshenbaum was invested into the Order of Manitoba and awarded D.Sc. from the University of Kragujevac, Serbia in 2023.

## Academy Bestows 2024 Medal of Merit Upon Dr. Heinrich Taegtmeier



*Dr. Heinrich Taegtmeier*

Dr. Heinrich Taegtmeier, M.D., D.Phil. is the recipient of the 2024 Medal of Merit, which is the highest honour bestowed by the Academy for outstanding achievements in cardiovascular education and research at the IACS- North America Section meeting in Houston, USA, September, 17-19. At this meeting, he will give a talk entitled “Eats to Beat: The Essence of Cardiac Metabolism”. Dr. Taegtmeier received his Dr. med. from the University of Freiburg, Germany in 1968. His dissertation was entitled “Electrophysiological Studies on the Effects of Strong DC Impulses in the Isolated Mammalian Myocardium” and performed in the laboratory of Professor Albrecht Fleckenstein, who had discovered a new group of agents termed calcium antagonists. Dr. Taegtmeier continued his medical training at Boston City Hospital, followed by a cardiovascular fellowship at the Peter Bent Brigham Hospital. Next, he completed his D.Phil. in metabolic research at the University of Oxford, United Kingdom, with a dissertation titled “Metabolic Activities in Rat Heart” focused on cardiac metabolism. Dr. Taegtmeier was one of the last students to work with Professor Sir Hans A. Krebs.

Dr. Taegtmeier has been at the University of Texas Health Science Center at Houston since 1982. His research on cardiac metabolism has received National Institutes of Health funding for >45 years and covers a wide spectrum of basic and translational research. He is the chair of the writing committee of “Assessing Cardiac Metabolism” a Scientific Statement of the American Heart Association. Many of Dr. Taegtmeier’s former trainees are now leaders in the field of metabolism. Together with his trainees, Dr.

Taegtmeier’s pioneering work has shaped the field of cardiac metabolism and created a new understanding of the concepts of metabolic approaches to reverse myocardial dysfunction. Dr. Taegtmeier wrote the following: “The pump action of the heart is inextricably linked to the transfer of energy from energy-providing substrates through a complex network of enzyme-catalyst reactions. For over 40 years my research addresses multiple aspects of cardiac metabolism. After my training, as a clinical cardiologist, I acquired the skills to investigate the link between metabolism and cardiac work in the Metabolic Research Laboratory at the University of Oxford, where I obtained a PhD in Metabolism. As a committed physician-scientist, the focus of my research remains the dynamics of cardiac metabolism: Regulation of metabolic pathways in the normal and diseased heart, and emerging metabolic signals which regulate intracellular protein turnover by renewing the cardiomyocyte. The laboratory uses gain-of-function and loss-of-function models to acquire insight into metabolic determinants by which heart muscle cells renew themselves under stress.

We have extensive experience with the isolated working heart *ex vivo*, with surgically induced hypertrophy and atrophy *in vivo* with isolated cardiomyocytes in culture. 3) Our experimental work is complemented by genetically engineered animal models, heart muscle samples from patients with advanced heart failure before and after LVAD implantation, and the modeling of cardiac metabolism using a systems biology approach (CardioNet). My laboratory has received NIH funding for more than 40 years. As a discipline in biochemical research, metabolism is a “mature” science. The merger of established and very modern analytical methods, present in my lab, brings to the fore unprecedented opportunities. Our most recent work describing an oncometabolite axis of the heart encapsulates the lab’s versatility and resourcefulness. However, our approaches do not fully capture the dynamics of nutrient sensing and cardiac metabolism.

The laboratory has provided evidence in support of our hypothesis that metabolic remodeling precedes, triggers and sustains remodeling of the heart. I will refer to newer developments including actionable metabolic pathways, like anaplerosis, the cycling and recycling of NADH/H<sup>+</sup>, bidirectional flux of substrates, and metabolite signals which modulate gene expression and protein turnover. Quoting the physicist-turned-biologist Max Delbruck: “The horizon of biology is endless.” (Max Delbruck, *Annals Conn Acad Sci* 1949).”

## Academy Fellows Elected into the Royal Society of Canada

We are honoured and very proud to announce the election of two more of our active IACS scientists in Canada, Drs Rhian Touyz and Ren-Ke Li, as Fellows of the Royal Society of Canada. Fellows of the RSC are distinguished Canadians from all branches of learning who have made remarkable contributions in the arts, the humanities and the sciences, as well as in Canadian public life. From its first society meeting in 1882 to the granting of a Royal Charter in 1883 to today, the RSC has increasingly fulfilled the potential of imagining a collective effort to help society benefit from enhanced knowledge and understanding of the past and present. The founding cohort of Fellows included Sir Sandford Fleming, the originator of the world system of Standard Time, and Sir William Osler, one of the greatest physicians of his day. Since 1882, new Fellows have been nominated and elected by their peers who are themselves Fellows of the Society. Dr Frederick Banting and Charles Best, who co-discovered insulin, are past inductees. Drs Touyz and Li join many other IACS scientist who are Fellows of the Royal Society of Canada. These include Drs. Naranjan Dhalla, Ross Feldman, Gary Lopaschuk, Marek Michalak and Grant Pierce (many of whom will be attending IACS conferences this year).



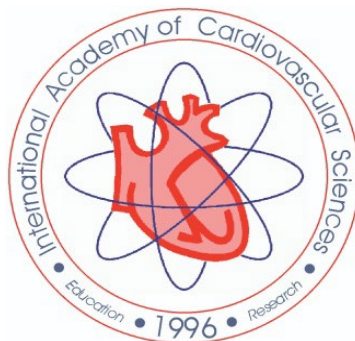
*Dr. Rhian Touyz*

Dr. Rhian Touyz, in the Department of Medicine, McGill University Rhian Touyz, a clinician scientist, has spent her career unraveling molecular and vascular mechanisms of hypertension and cardiovascular disease. She is the Executive Director and Chief Scientific Officer of the Research Institute of McGill University Health Centre, the Canada Research Chair of Cardiovascular Medicine, and the McGill University and British Heart Foundation Emeritus Chair. She also directed the Cardiovascular Research Institute, Glasgow University, UK. She trained at Wits University, South Africa.



*Dr. Ren-Ke Li*

Dr. Ren-Ke Li, in the Department of Surgery, University of Toronto Ren-Ke Li is a Senior Scientist at University Health Network and a Professor in the Department of Surgery at University of Toronto. He is the Canadian Research Chair in Cardiac Regeneration (Tier-1) and Fellow of Canadian Academy of Health Sciences. His pivotal contributions include discovering stem cell therapy for cardiac regeneration and developing conductive biomaterials to treat arrhythmia. He has published over 270 papers and has four granted patents.



## Dr. Ramesh Goyal Receives the Institute of Cardiovascular Sciences Gold Medal



*Dr. Ramesh Goyal (L) Receives the ICS Gold Medal from Dr. Kirshenbaum, Director, ICS*

On July 31, 2024, Dr. Ramesh Goyal received the Institute of Cardiovascular Sciences (ICS) Gold Medals, which recognizes outstanding leadership in cardiovascular sciences. Dr. Goyal has regularly visited the ICS at St. Boniface Hospital Albrechtsen Research Centre, Winnipeg, since 1995. His research there has focused on sub-cellular mechanisms in diabetic cardiomyopathy and heart failure. On this day he presented a talk entitled “Targeting Angiotensin Converting Enzyme-2 for New Drug Discovery to Combat Post-COVID-induced Cardiovascular Complications through Reverse Engineering Approach.”

Dr. Goyal is currently the Adviser to the Management, ITM SLS Baroda University & ITMBU Medial Hospital Paldi, Gujarat, India. Dr. Goyal, is the former Vice Chancellor, Delhi Pharmaceutical Sciences and Research University (DPSRU) and Vice-Chancellor of the Maharaja Sayajirao University of Baroda. In 2019, he was conferred with the Honorary Professorship at Stavropol State Medical University, Russia. Dr. Goyal is second only non-Russian Professor being bestowed upon this title in over 80 years of the University. Recently, he was also appointed as Visiting

Distinguished Professor at the UCSI University, Kuala Lumpur, Malaysia. Dr. Goyal has more than 44 years of experience in teaching and research particularly in the field of Cardiovascular Pharmacology & Diabetes. He was a post-doctoral scholar, visiting scientist as well as visiting professor at the University of British Columbia, Vancouver and ICS, St. Boniface Hospital Research Centre, University of Manitoba, Winnipeg, Canada. Dr Goyal got three patents awarded, 6 under consideration, 50 books and book chapters, over 400 full papers articles (‘h’ index 47), over 600 abstracts published in National and International journals. He has guided 45 Ph.D. and 200 MPharm/MBA/MPH students. He has been invited as the Speaker, and Chairman in several International Conferences. Dr. Goyal has delivered over 291 invited lectures in India and 42 lectures abroad including many prestigious orations. He has been the Member of Board of Governor, Board of studies and Academic Councils of several universities in India.

He is the recipient of 74 National & International Awards. Some of the notable awards include Best Pharmacy Teacher and Best Pharmaceutical Research Scientist Awards from APTI, Life Time Achievement & Distinguished Leadership Award from International Academy of Cardiovascular Sciences, Canada (IACS), R. J. Wegmann Award from Indian Society of Hypertension, and Award of Millennium from International College of Nutrition. He is the Fellow of eight professional bodies (FIPS, FIACS, FAMS, FIC, FICN, FNASc, FSCH, FIVSPT). He has been the President of Indian Pharmacological Society, Society of Pharmacovigilance, India and Indian Society of Hypertension. He is currently Council member of the IACS, Canada and the President of IACS, (India Section). He has attended number of seminars, workshops and conferences as resource Person and also chaired various sessions.

He has worked on anti-diabetic herbal plants from preclinical to clinical studies and identified biomarkers not only for quality assessment but also as leads for specific targets involved in the prevention of cardiovascular complications associated with diabetes. Recently, he has developed an Ayurveda formulation for the treatment of COVID-19 for its treatment and post COVID-19 complications.

## IACS Honors and Awards at the 22nd IACS-South America Section Meeting in Vitoria, Brazil, October 17-19, 2024

The Academy is pleased to announce that the following IACS awards will be bestowed upon individuals during the 22<sup>nd</sup> IACS-South American Section Meeting, October 17-19, 2024 in Vitória, Brazil.

1. **Otoni Gomes Award for Excellence in Cardiovascular Sciences-** *Dr. Vladimir Jakovljevic*
2. **Otoni Gomes Award for Excellence in Cardiovascular Sciences-** *Dr. Ramesh K. Goyal*
3. **Ricardo Gelpi Award for Excellence in Cardiovascular Sciences-** *Dr. Ranko Škrbić*
4. **Ricardo Gelpi Award for Excellence in Cardiovascular Sciences-** *Dr. Lorrie Kirshenbaum*
5. **Norman Alpert Award for Established Investigators in Cardiovascular Sciences-** *Dr. Dalton V. Vassallo*
6. **Norman Alpert Award for Established Investigators in Cardiovascular Sciences-** *Dr. Ricardo J. Gelpi*
7. **Dennis B. McNamara Award in Excellence in Cardiovascular Sciences-** *Dr. Ivanita Stefanon*
8. **Dennis B. McNamara Award in Excellence in Cardiovascular Sciences-** *Dr. Michael Kutryk*
9. **Lifetime Achievement Award in Cardiovascular Science, Medicine and Surgery-** *Dr. Melchior Lima*

### Dr. Vladimir Jakovljevic, University of Kragujevac, Serbia



*Dr. Vladimir Jakovljevic*

Dr. Vladimir Jakovljevic, Professor and Head of Cardiovascular Research Laboratory, Faculty of Medical Sciences University of Kragujevac, Serbia. After more than 25 years of research experience, Dr. Jakovljevic is a leading scientist in the field of cardiovascular science in Serbia and this part of the World, with more than 80 papers in journals indexed in Science Citation Index list. Dr. Jakovljevic finished PhD thesis in 2004 and specialization in Clinical Physiology in 2005 in University of Belgrade. His main research interests represent examination of the changes in the cardiovascular system in various pathophysiological conditions and role of oxidative stress and reactive species in occurrence of cardiovascular diseases. Dr. Vladimir Jakovljevic is highly dedicated to education of students of medicine, pharmacy, dentistry and

postdoctoral students, to whom unselfishly transfer knowledge from the areas of his expertise, using interdisciplinary approach, thus providing strong intellectual basis for future medical doctors, pharmacists, dentists and young investigators. Since 2014 Dr. Vladimir Jakovljevic is a full professor in the field of physiology at the University of Kragujevac.

He is president of the Serbian Physiological Society from 2014. Dr. Jakovljevic was directly involved in organization of several eminent scientific meetings, such as 2nd European Section Meeting of the International Academy of Cardiovascular Sciences held in Belgrade in 2015, under the auspices of the International Academy of Cardiovascular Sciences. All the efforts that Dr. Jakovljevic invests in the organization of scientific meetings and spreading of scientific thought, are strongly supported by the Dr. Naranjan Dhalla, men with outstanding energy and passion dedicated to scientific research in the field of Cardiovascular System. Dr. Jakovljevic was awarded by Distinguished Leadership Award in Cardiovascular Sciences in 2015 by International Academy of Cardiovascular Sciences. From 2022 he is President, European Section IACS and from 2023 President, International Society for Pathophysiology. He was Editor in Chief of the Serbian Journal of Experimental and Clinical Research published by the Faculty of Medical Sciences University of Kragujevac for 10 years. Also, he is Senior Editor, Canadian Journal of Physiology and Pharmacology, Associate Editor, Oxidative Medicine and Cellular Longevity and Frontiers in Physiology, member of many editorial boards in representative journals.

In the 2018. Dr. Vladimir Jakovljevic was elected as the new Dean of the Faculty of Medical Science for a mandate of 3 years and re-elected in 2021 for 3 more years. The Council of the Faculty of Medical Sciences unanimously elected Professor Jakovljevic, bearing in mind his exceptional successes as previous Vice-dean for Pharmacy Department. As a new Dean Professor Jakovljevic established cooperation with several universities from all over the world, such as Karolinska Institute (Stockholm, Sweden), University of Manitoba Winnipeg, Canada), The First Moscow State Medical University I.M. Sechenov (Moscow, Russian Federation), (Medical Faculty University of Montenegro (Podgorica, Montenegro), and Medical Faculty University of Banja Luka (Banja Luka, Bosnia and Herzegovina). Faculty of Medical Sciences under the leadership of professor Jakovljevic and his team will continue to conquer new scientific and educational heights, always striving towards the higher.

Ongoing and recently completed projects that prof. dr Vladimir Jakovljevic would like to highlight include:

- Interaction between blood cells and vascular endothelium (Serbian Ministry of Sciences)
- The experimental models in pathogenesis of cardiovascular and renal diseases-use and development (Serbian Ministry of Sciences)
- Vascular wall, risk factors and oxidative stress: from molecule to the physiological basis of prevention and therapy (Serbian Ministry of Sciences – No 145014)
- The effects of homocysteine and homocysteine-like substances on cardiovascular system: role of gas transmitters (NO, H<sub>2</sub>S, CO) (Serbian Ministry of Sciences - No 175043)

Dr. Jakovljevic has/holds several positions, scientific appointments, and honors including Special Advisor for higher education to the Minister of Education, Republic of Serbia (2024-present), Dean of the Faculty of Medical Sciences, University of Kragujevac, Serbia (2018-2024), Vice-Dean of the Pharmacy Studies, Faculty of Medical Sciences, University of Kragujevac, Serbia (2013-2018), Head, Postgraduate Course for Experimental Physiology (2005 – 2019), Vice-Dean for International Cooperation, Faculty of Medical Sciences (2005-2006) , Editor-in-Chief/General Manager of Ser J Exp Clin Res (2013-present) and President of Serbian Physiological Society (2011-2023). Professor Jakovljevic has 229 publications, 2136 citations, and his Hirsch index, according to Scopus citation databases is 22. Dr. Jakovljevic's publications have directly addressed the fact that oxidative stress strongly contributed in various conditions and related to the mechanism of various treatments. Underlying the importance of oxidative stress, he has examined the antioxidants and potential contributors in protective manner. Antioxidant is a general term for any compound that can counteract unstable molecules called free radicals

that damage DNA, cell membranes, and other parts of cells. Because free radicals lack a full complement of electrons, they steal electrons from other molecules and damage those molecules in the process. All publications confirm the theory of role oxidative stress in many pathophysiological processes and preventive and therapeutic strategies.

#### List of 10 representative articles:

1. Andjic M, Draginic N, Radoman K, Jeremic J, Turnic TN, Srejavic I, Zivkovic V, Kovacevic M, Bolevich S, Jakovljevic V. Flaxseed and evening primrose oil slightly affect systolic and diastolic function of isolated heart in male but not in female rats. *Int J Vitam Nutr Res.* 2021 Jan;91(1-2):99-107.
2. Nikolic M, Zivkovic V, Jovic JJ, Sretenovic J, Davidovic G, Simovic S, Djokovic D, Muric N, Bolevich S, Jakovljevic V. SGLT2 inhibitors: a focus on cardiac benefits and potential mechanisms. *Heart Fail Rev.* 2022 May;27(3):935-949.]
3. Jakovljevic VL, Djuric DM, Dhalla NS. Editorial: Nutritional Intervention in Cardiovascular Diseases: From Basic Science to Applied Investigations. *Front Physiol.* 2022 Mar 4;13:858346. doi: 10.3389/fphys.2022.858346. eCollection 2022.
4. Medovic MV, Jakovljevic VL, Zivkovic VI, Jeremic NS, Jeremic JN, Bolevich SB, Ravic Nikolic AB, Milicic VM, Srejavic IM. Psoriasis between Autoimmunity and Oxidative Stress: Changes Induced by Different Therapeutic Approaches. *Oxid Med Cell Longev.* 2022 Mar 12;2022:2249834. doi: 10.1155/2022/2249834. eCollection 2022
5. Draginic ND, Jakovljevic VL, Jeremic JN, Srejavic IM, Andjic MM, Rankovic MR, Sretenovic JZ, Zivkovic VI, Ljubic BT, Mitrovic SL, Bolevich SS, Bolevich SB, Milosavljevic IM. Melissa officinalis L. Supplementation Provides Cardioprotection in a Rat Model of Experimental Autoimmune Myocarditis. *Oxid Med Cell Longev.* 2022 Feb 28;2022:1344946. doi: 10.1155/2022/1344946. eCollection 2022
6. Mićović T, Katanić Stanković JS, Bauer R, Nöst X, Marković Z, Milenković D, Jakovljević V, Tomović M, Bradić J, Stešević D, Stojanović D, Maksimović Z. In vitro, in vivo and in silico evaluation of the anti-inflammatory potential of *Hyssopus officinalis* L. subsp. *aristatus* (Godr.) Nyman (Lamiaceae). *J Ethnopharmacol.* 2022 Mar 28;293:115201. doi: 10.1016/j.jep.2022.115201. Online ahead of print.
7. Andjic M, Draginic N, Kočović A, Jeremic J, Vučićević K, Jeremic N, Krstonošić V, Božin B, Kladar N, Čapo I, Andrijević L, Pecarski D, Bolevich S, Jakovljević V, Bradić J. Immortelle essential oil-based ointment improves wound healing in a diabetic rat model. *Biomed Pharmacother.* 2022 Apr 13;150:112941. doi: 10.1016/j.biopha.2022.112941

8. Banjac NM, Vasović VM, Stilinović NP, Prodanović DV, Tomas Petrović AD, Vasović LV, Jakovljević VL. Tadalafil in Increasing Doses: The Influence on Coronary Blood Flow and Oxidative Stress in Isolated Rat Hearts. *Pharmacology*. 2022;107(3-4):150-159.
9. Rankovic M, Draginic N, Jeremic J, Samanovic AM, Stojkov S, Mitrovic S, Jeremic N, Radonjic T, Srejovic I, Bolevich S, Svistunov A, Jakovljevic V, Turnic TN. Protective Role of Vitamin B1 in Doxorubicin-Induced Cardiotoxicity in Rats: Focus on Hemodynamic, Redox, and Apoptotic Markers in Heart. *Front Physiol*. 2021 Sep 22;12:690619.
10. Joksimovic Jovic J, Sretenovic J, Jovic N, Rudic J, Zivkovic V, Srejovic I, Mihajlovic K, Draginic N, Andjic M, Milinkovic M, Milosavljevic Z, Jakovljevic V. Cardiovascular Properties of the Androgen-Induced PCOS Model in Rats: The Role of Oxidative Stress. *Oxid Med Cell Longev*. 2021 Aug 31;2021:8862878. doi: 10.1155/2021/8862878. eCollection 2021.

Complete List of Published Work:  
<https://pubmed.ncbi.nlm.nih.gov/?term=vladimir+jakovljevic>

## Dr. Ramesh K. Goyal, Baroda University and Medical Hospital, India



*Dr. Ramesh Goyal*

Professor Ramesh K. Goyal is currently the Adviser to the Management at ITM SLS Baroda University and Medical Hospital in Vadodara, India. With an illustrious career spanning 46 years. Dr. Goyal has held significant positions such as Vice Chancellor of Delhi Pharmaceutical Sciences and Research University (2016-24) and M.S. University of Baroda (2008-11). He has also served as Executive Director at V ClinBio Labs, Sri Ramachandra Medical Center and University, Chennai; Director at ISF College of Pharmacy, Moga; Director of Clinical Research at NMIMS University, Mumbai; Distinguished Professor at Institute of Life Sciences, Ahmedabad University; and Professor at L. M. College of Pharmacy, Ahmedabad (1995-2011).

Dr. Goyal's international recognitions include being conferred with Honorary Professorship at Stavropol State Medical University, Russia in 2019, and a Visiting Distinguished Professorship at UCSI University, Kuala Lumpur, Malaysia in 2021. He has also been a Post-doctoral Scholar, Visiting Scientist, and Visiting Professor at the University of British Columbia, Vancouver, and the University of Manitoba, Winnipeg, Canada.

Dr. Goyal has a robust research portfolio, having filed 12 patents with 6 awarded, authored 18 books, over 30 book chapters, and published more than 418 peer-reviewed research papers with an 'h' index of 49. He has guided 52 Ph.D. scholars and over 220 Master's students. He has received 79 global awards and is a Fellow of eight professional bodies. He currently serves as the President of the International Academy of Cardiovascular Sciences (India Section) and has been an Executive Council Member for over 15 years. He has also presided over the Indian Pharmacological Society, Delhi Pharmacological Society, Indian Society of Hypertension, and the Society of Pharmacovigilance (India). Dr. Goyal has delivered over 330 invited lectures in India and 42 internationally.

Dr. Goyal has served on numerous advisory committees, including the Indian Medicinal Plants Review Group and the Scientific Advisory Group of the Indian Council of Medical Research, New Delhi. He is a member of the Scientific Advisory Committee of the Indian Pharmacopoeia Commission, the Phyto-pharmaceutical Group of CDSCO, New Delhi, the National Board of Accreditation, and has chaired over 40 NAAC committees. He is the Chairman of the Scientific Advisory Group of the National Dope Testing Laboratory, New Delhi, and has served as the Chairman of the Central Region of AICTE and an Executive Member of AICTE, New Delhi.

### **Foundation for Cardiovascular Research with Post-Doctoral Fellowship in Canada**

As a young Post-Doctoral Fellow under Prof. John H. McNeill at the University of British Columbia (UBC), Vancouver, Dr. Goyal initiated his research in cardiovascular sciences and diabetes. His research at UBC and the Institute of Cardiovascular Sciences, University of Manitoba, Winnipeg, under Prof. Naranjan S. Dhalla, focused on the impact of hypertension and diabetes on



cardiovascular complications. He was among the pioneers to identify effective antihypertensive treatments in diabetic conditions using animal models, findings which were later translated into clinical practice. His research demonstrated a high correlation between experimental and clinical data on drugs like atenolol, enalapril, clonidine, and nifedipine. Dr. Goyal's work extended to evaluating intracoronary drugs during percutaneous coronary interventions (PCI) and studying clinical outcomes in Coronary Artery Bypass Graft (CABG) surgeries. He was involved in the First in-human trial of the PAPIRUS device, which concluded successfully. His research into the correlation between hypothyroidism and diabetes mellitus, and the impact on digoxin levels, contributed significantly to therapeutic drug monitoring in cardiac patients.

While correlating altered digoxin levels with diabetes and hypothyroidism, it was established that diabetic patients have higher digoxin levels, which could even cross the toxic limits. This finding has helped many doctors to save patients from digoxin toxicity, which otherwise was taken as the ineffectiveness of the digoxin effects. This was a foundation of study applying the principles of therapeutic drug monitoring in cardiac patients. Later, Dr. Goyal also worked on precision medicine and established the "Centre of Precision Medicine and Pharmacy" during his tenure as the Vice Chancellor at the first pharmacy university of India 'Delhi Pharmaceutical Sciences and Research University, New Delhi'.

### **Role at the Institute of Cardiovascular Sciences, Winnipeg**

Dr. Goyal has regularly visited the Institute of Cardiovascular Sciences at St. Boniface Hospital Albrechtsen Research Centre, Winnipeg, since 1995. His research there has focused on sub-cellular mechanisms in diabetic cardiomyopathy and heart failure. His work on 5-hydroxytryptamine (5-HT) and its cardiovascular implications, particularly using the 5-HT<sub>2A</sub> receptor antagonist sarpogrelate, established significant cardioprotective effects in diabetic conditions.

### **New Drug Discovery from Natural Resources for Cardiovascular Complications**

Dr. Goyal's passion for drug discovery from natural resources has led to significant breakthroughs. He developed formulations for trace elements and herbal-based drugs, including a patented chromium-insulin formulation. His work integrating biomarkers with disease targets resulted in effective treatments from *Enicostemma littorale* for diabetes and lipid metabolism and from *Solanum nigrum* for COVID-19, targeting ACE-2 receptors. These formulations have found successful clinical applications, underscoring his contributions to pharmacology and cardiovascular medicine. Dr. Ramesh K. Goyal's career exemplifies a profound dedication to advancing cardiovascular science and pharmacology, with a lasting impact on both academic and clinical practices worldwide. His pioneering research and leadership continue to inspire and drive innovations in healthcare.

## **Dr. Ranko Škrbić, Banja Luka University, Bosnia and Herzegovina**



*Dr. Ranko Škrbić*

Dr. Ranko Škrbić received MD degree in 1986 at the Faculty of Medicine, Banja Luka University, Bosnia and Herzegovina (ex-Yugoslavia), and MSc degree in 1991 at the Faculty of Natural Sciences, Zagreb University, Croatia. As Japanese Government Research fellow he spent one year at Shinshu University School of Medicine studying cardiovascular pharmacology. In 1994 he received PhD degree at the Faculty of Medicine, Belgrade University in Serbia, and in the year 2000 the Clinical Pharmacology Specialist degree from the Faculty of Medicine, Novi Sad University, Serbia. He attended several short-term courses and trainings like: Drug information training at Bristol Royal Infirmary, Bristol, UK in 1999; Short-term course in Pharmacoeconomics at London School of Economics (LSE), London, UK; and Training in Health management, the World bank Basic Health Project for Bosnia and Herzegovina, organized in collaboration with Imperial College London, UK and Heidelberg University, Germany.

Dr. Škrbić is full Professor of Pharmacology, Toxicology and Clinical Pharmacology since 2009. In his professional carrier it is worth to mention that he was Head of Department of Pharmacology, Faculty of Medicine, University of Banja Luka (2002-2009); Head of the National Drug Information Centre, established in collaboration with WHO and EU-ECHO (1998-2006); Chairman of Drug Registration Committee of the Republic of Srpska, Bosnia and Herzegovina (1999-2002); EU PHARE Regional Coordinator for Pharmaceutical Sector Development in Bosnia and Herzegovina (1998-1999); UNICEF Regional Coordinator for Essential Drugs and Rational drug use in the Republic of Srpska, Bosnia and Herzegovina (1999-2000); EU-CARDS Regional Coordinator for Health Care Reform in Bosnia and Herzegovina (2000-2002); Short term consultant for Development of Accreditation Standards and Clinical Guidelines, EPSILON Research, Development and Consulting, doo, Banja Luka (Basic health Project of the World Bank; Accreditation and Quality Assurance) (2001-2003); Minister of Health and Social Welfare, Government of the Republic of Srpska, Bosnia and Herzegovina (2005-2013); Ambassador of Bosnia & Herzegovina in Serbia (2013-2015); Dean of Faculty of Medicine, University of Banja Luka (2016-now).

Dr. Škrbić was the Founder and Chair of the PhD Program in Biomedical sciences (2015); Visiting Professor, Faculty of Medicine, Belgrade University, Serbia (since 2019); Visiting Professor at the First Moscow State Medical University, Moscow, Russia (2024). Dr. Škrbić organized and chaired several international conferences, including: *The 6<sup>th</sup> Xenobiotic Metabolism and Toxicity Workshop of Balkan Countries*, Banja Luka, Bosnia & Herzegovina, June 16-20, 2004; *The Third Health Ministers' Forum - Health in All Policies in South-eastern Europe: a Shared Goal and Responsibility*; 13-14 October 2011, Banja Luka, the Republic of Srpska, Bosnia & Herzegovina.

He has also helped to organize several other international meetings including: *The International Conference on Medical and Biological Engineering 2019 – CMBEBIH 2019*, Banja Luka, the Republic of Srpska, Bosnia & Herzegovina May 16-19, 2019; *The 7<sup>th</sup> Meeting of European Section and 8<sup>th</sup> Meeting of North American Section of the International Academy of Cardiovascular Sciences (IACS)* Banja Luka, the Republic of Srpska, Bosnia and Herzegovina, 20-23 September 2021.

Dr. Škrbić is a member of several professional and prestigious societies including: Member of the Council of European Association for Clinical Pharmacology and Therapeutics (EACPT); Member of the Serbian Pharmacological Society; a Member of the Section of the Toxicology of the Serbian Medical Association; Member of the Association of Clinical Pharmacological Societies with Sections of Clinical Pharmacists and Pharmacoinformatic of Bosnia and Herzegovina; Honorary Member of the Cardiology Society of Serbia; President of the Association for Atherosclerosis and Cardiovascular Research, Banja Luka, The Republic of Srpska, Bosnia and Herzegovina.

Dr. Škrbić is also Fellow of the International Academy of Cardiovascular Sciences (FIACS); Member of the Executive Council of the International Academy of Cardiovascular Sciences, European Section (IACS-ES). Member of the Academy of Science and Arts of the Republic of Srpska. He is currently the Senior Associate Editor of the *Scripta Medica* and the Associate Editor for the *Canadian Journal of Physiology and Pharmacology*. Dr. Škrbić is founder and head of the Centre for Biomedical Research established in 2018 within the Faculty of Medicine, Banja Luka University. His research was recognized mostly in the areas of cardiovascular pharmacology, pharmacoepidemiology, inflammation, ischemia-reperfusion injury, cardio protection, pharmacogenetics.

Over the past ten years, Dr. Škrbić's Centre has made significant contributions to the field by studying various well-established experimental methods and translating them into clinical practice. His recent research encompasses the use of bile acids and plant-derived flavonoids to counteract catecholamine-induced myocardial injury and multi-organ failure induced by endotoxemia in rodents. Until August 2024, he published more than 120 publications in peer-reviewed international journal, 4 chapters in international textbooks/monographs, and edited/co-edited 15 monographs/books. Dr. Škrbić is a recipient of several awards and honors, including Fellowship of the International Academy of Cardiovascular Sciences (IACS); IACS Lifetime Achievement Award in Cardiovascular Science, Medicine and Surgery (2021); Institute of Cardiovascular Sciences Gold Medals for outstanding leadership in cardiovascular sciences (2022); and Special award from the Ministry of Foreign Affairs of Japan (2021).

## Dr. Lorrie Kirshenbaum, University of Manitoba, Canada



*Dr. Lorrie Kirshenbaum*

Dr. Lorrie A. Kirshenbaum is Director of the Institute of Cardiovascular Sciences at the St. Boniface Hospital Albrechtsen Research Centre, Canada Research Chair in Molecular Cardiology, as well as Professor and the Division Head of Cardiovascular Science and Disease, of

Department of Physiology and Pathophysiology at the Rady Faculty of Health Sciences at the University of Manitoba. A major focus of Dr. Kirshenbaum's research is directed toward understanding the molecular pathways that underlie sex specific differences in heart failure. Dr. Kirshenbaum is investigating mechanisms that regulate cellular quality control mechanisms in the heart, a process known as "autophagy" with a focus on mitochondrial metabolism.

Dr. Kirshenbaum's major contributions include defining the role of the Bcl-2 family in the pathogenesis of heart failure after myocardial infarction and chemotherapy treatment. 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.

## Dr. Dalton V. Vassallo, Santa Casa de Misericórdia de Vitória, Brazil



*Dr. Dalton V. Vassallo*

Professor Dalton Valentim Vassallo is a prominent figure in academia, with an exemplary career spanning decades of notable contributions to Medicine and Physiological Sciences. Graduated in Medicine from the Federal University of Espírito Santo (UFES) in 1966, he quickly specialized in Cardiology in 1968. His interest in deepening his scientific knowledge led him to obtain a Master's degree in Biological Sciences (Biophysics) in 1971 and, later, a Doctorate (PhD) in 1976, both from the

Federal University of Rio de Janeiro (UFRJ) under the guidance of the renowned Prof. Dr. Antônio Pars de Carvalho.

Throughout his career, Prof. Dalton focused his studies on Cardiovascular Physiology, addressing essential topics such as vascular reactivity, myocardial contractility, myocardial tissue, systemic arterial hypertension and the toxic effects of mercury. To complement his training and expand his knowledge, he completed two post-doctorates: the first at the University of Washington between 1977 and 1979, and the second at the Louisiana State University Medical Center (LSUMC), USA.

His dedication to teaching began early, in 1967, when he began teaching Human Physiology at UFES. Since 1973, Professor Vassallo has been a professor of Undergraduate Medicine at the School of Medicine of Santa Casa de Misericórdia de Vitória, Espírito Santo, Brazil. There, he works in the Department of Physiological Sciences of the Basic Sciences Center, where he has also been responsible for Research and Development since 2001. In addition to his activities as a professor, he holds the position of Manager and Administrative (Head of Department) in the Basic Sciences Center of the department, playing a key leadership role in academic and research management.

His contribution was not limited to teaching. Between 1980 and 1984, Prof. Vassallo was Vice-Rector of Research and Graduate Studies at UFES, playing a key role in promoting education and research at the institution. Later, between 1998 and 2004, he worked at the Coordination for the Improvement of Higher Education Personnel (CAPES), where he helped shape essential policies for the development of higher education in Brazil.

In addition, Professor Vassallo has also been involved in administrative roles outside the university. From 2005 to 2007, he held a contract with the Espírito Santo State Government and served as Manager at the State Secretariat for Science and Technology, at the Espírito Santo Science and Technology Support Foundation, where he contributed significantly to the development of scientific and technological initiatives in the region.

Research is a fundamental part of Prof. Vassallo's career, especially his studies on the toxic effects of heavy metals on the cardiovascular system. Between 2011 and 2016, he conducted several research projects investigating the effects of mercury, lead and cadmium on vascular reactivity and cardiac mechanics in animal models. One of his most relevant projects was initiated in 2014, in which he examined the impacts of exposure to toxic metals, such as lead and cadmium, on the cardiovascular system. His collaboration with the University of Tampa, USA, began in 2014 and continues to this day, with a project in the Postgraduate Program in Biochemistry, focused on the use of egg white hydrolysates as functional food ingredients to control cardiometabolic complications associated with oxidative stress induced by exposure to heavy metals.

Professor Vassallo also has an impressive scientific output. He has published 219 indexed articles, which together accumulate 3,609 citations. In addition, he has 242 other publications, which total 4,579 citations. His academic output includes seven book chapters, four full papers published in conference proceedings, and 373 abstracts presented at conferences. He also has an article accepted for publication in 2024.

Throughout his career, he has participated in several examination boards, including 41 dissertations and 49 doctoral theses. He has supervised the completion of 37 master's dissertations, 28 doctoral theses and two postdoctoral studies, in addition to supervising more than 50 scientific initiation works. His contribution to the development of new scientists and physicians is invaluable. For his work and contributions over the years, Prof. Vassallo has been honored with several awards, including the Scientific Technical Merit award from the State Secretariat for Science and Technology of the Government of Espírito Santo in 2004, and the title of Professor Emeritus from the Federal University of Espírito Santo in 2014. Between 2016 and 2018, he was also President of the Federation of Experimental Biology Societies, consolidating his leadership and influence in Brazilian science.

Professor Dalton Valentim Vassallo's legacy is vast and ongoing. He continues to be a reference in his field, both in Brazil and internationally, contributing to the advancement of cardiovascular science and to the training of new generations of researchers and physicians. His academic life is an example of dedication to science, teaching, and public service.

## Dr. Ricardo J. Gelpi, University of Buenos Aires, Argentina



*Dr. Ricardo J. Gelpi*

Dr. Ricardo J Gelpi, Fellow of the IACS and former president of the Latin American section, was appointed Rector of the University of Buenos Aires. On June 24th, 2022 he was voted by a large majority, with no votes against, to hold the position as the highest authority of the number 1 University in Latin America and one of the most prestigious in the world, since the University of Buenos Aires ranks 67th in the QS World University Rankings, which evaluated a total of 1673 universities this year. Professor Gelpi previously served as the Dean of Faculty of Medicine of said University for two consecutive periods. Previously, he also served as Vice Dean and Academic Advisor of the same Faculty. Two of the objectives to be developed during this 4-year period as Rector will be to stimulate scientific training in undergraduate students. Another important objective to be achieved during his term

as Rector will be to stimulate academic and scientific collaborations with other universities around the world.

The University of Buenos Aires is a free public university comprised of 13 Faculties where more than 100 undergraduate and approximately 500 postgraduate careers are studied. It also has 5 hospitals where medical students perform clinical practices. It has a veterinary and a dental hospital as well, in which students of veterinary and odontology careers, respectively, carry out internships with patients strictly supervised by professors of the different subjects. It is important to mention that these hospitals, in addition to their teaching duties, also provide medical, dental, and veterinary care to the population of the City of Buenos Aires.

More than 300.000 students study the different careers in their respective faculties, being the number of students unique in the world. Professor Gelpi also works as a Professor of Pathology and Physiopathology at the Faculty of Medicine of the same University and is Director of the Institute of Cardiovascular Physiopathology, where he directs different cardiovascular research projects. He has been a member of IACS for many years, having been the first president of its South American section, having an active scientific participation, and in the organization of congresses for this section.

It is the first time in the two hundred years of history of the University of Buenos Aires that a basic researcher occupies

the highest executive position of this University, which is the position of Rector. This is due to the fact that the entire university community, including professors and students, is determined and convinced of the importance of stimulating research in the university, not only postgraduate research and doctoral and master's theses but also encouraging undergraduate students to join research laboratories. Professor Gelpi has experience in stimulating and directing research tasks in undergraduate students since several of the researchers from his institute began their academic work as undergraduate students. Therefore, he has the idea of extrapolating, as far as possible, to all the faculties that are part of the University.

After several meetings with the deans of these faculties, he knows that he has sufficient financial and political support to carry out this difficult but very important task. Increasing research tasks also include increasing national and international scientific collaborations, for which Professor Gelpi and his entire team are already working to increase agreements with other universities. Especially the specific agreements that allow performing concrete research projects. There is no doubt that if Professor Gelpi can meet his proposed academic and scientific objectives in regard to scientific research, this will bring as a direct consequence, a greater presence of the University of Buenos Aires in educational, scientific, and academic areas around the world.

## **Dr. Ivanita Stefanon, Federal University of Espírito Santo, Vitória, Brazil**



*Dr. Ivanita Stefanon*

Dr. Ivanita Stefanon, is a dedicated researcher and academic in the field of cardiovascular sciences. Over her 35-year career, Dr. Stefanon has contributed extensively to the exploration and understanding of cardiovascular physiology, with a specific focus on the mechanisms underlying cardiac metabolism, oxidative stress, and the effects of hormonal deficiencies on heart function. Dr. Stefanon completed her PhD in Physiology at the Federal University of Espírito Santo (UFES) and Louisiana State University Medical Center. In 1989, she assumed the role of Assistant Professor of Physiology for second-year medical students at the Santa Casa de Misericórdia School of Medicine. In 1994, she joined the Department of Physiological Sciences at UFES, teaching undergraduate courses in Physiology and Pharmacology for programs including Medicine, Nutrition, Pharmacy, Nursing, Biology, Physiotherapy, Physical Education, and Dentistry. Dr. Stefanon coordinated the Physiology course for the UFES Medical Program for more than 10 years, actively contributing to curriculum development, program

planning, and all associated responsibilities. Since 1989, she has maintained an active and productive research laboratory focused on Cardiovascular Pathophysiology. Dr. Stefanon became Full Professor of Physiology in 2015 and served as Coordinator of the Graduate Program in Physiological Sciences from 2012 to 2015. She continues to serve on the program's board and am a level 1C researcher at CNPq.

Dr. Stefanon has 35 years of experience in systems physiology and extensive experience in teaching, mentoring, and facilitating learning within an integrated curriculum in an interdisciplinary environment for medical students. Her teaching of physiology includes lectures, theoretical classes, tutorials, and practical laboratory sessions. She has published 90 scientific articles in internationally prestigious and recognized journals with high impact in the scientific/medical community. As part of her doctoral program, Dr. Stefanon conducted research at the Department of Pharmacology and Experimental Therapeutics at Louisiana State University Health Sciences Center in New Orleans, LA, USA. From 2015 to 2019, she was a visiting professor and conducted a research project examining calcium handling in cardiac myocytes in Dr. Donald Bers' laboratory at the Department of Pharmacology at the University of California, Davis, CA, USA, where she maintains an active scientific collaboration. In this collaboration, I have sent several graduate and postdoctoral students to intern in Dr. Bers' laboratory at UC Davis.

The research project she is developing at UC Davis focuses on understanding the cellular and molecular factors involved in controlling cardiac muscle contraction, particularly as modulated by intracellular calcium. One project investigated the molecular bases of a genetically determined dysfunction, Catecholaminergic Polymorphic Ventricular Tachycardia (CPVT), and its relation to heart failure in humans. CPVT primarily results from congenital mutations in the cardiac myocyte sarcoplasmic reticulum ryanodine receptor (RyR2) and the calcium storage protein calsequestrin (CASQ2). Another parallel project examined how magnesium (Mg<sup>++</sup>) affects calmodulin affinity and regulates RyR2 in cardiomyocytes. These experiments measured calcium sparks and sarcoplasmic reticulum calcium content in permeabilized cardiomyocytes. A third research project studied the cardiotoxicity of the organometal, tributyltin (TBT), in isolated rat cardiomyocytes, using confocal microscopy to measure calcium sparks and transients. CPVT can lead to sudden death in young individuals with normal cardiac function, particularly during situations of sympathetic nervous system activation, such as physical activity or emotional stress. The estimated prevalence of CPVT is approximately 1:10,000, with a high mortality rate of around 31% by the age of 30 if untreated.

Currently, Dr. Stefanon has a scientific collaboration with researchers from the University of Illinois Chicago, Dr. John Sollaro, and at Florida State University, Dr. Jose R. Pinto and Dr. Maicon Landin. Dr. Pinto's research interests encompass a wide range of topics related to muscle function and heart diseases. This includes studying allosteric mechanisms in troponin to understand how they modulate the muscle response to calcium-dependent activation, developing new genetic and molecular strategies to reverse cardiomyopathies, defining the role of nuclear troponin in heart development and diseases, and investigating how post-translational modifications affect muscle contraction and their involvement in heart diseases. His research projects focus on investigating how hereditary pathogenic sarcomeric variants affect the function and structure of cardiac myofilaments.

### **Academic and Professional Roles**

Dr. Stefanon's academic journey has been marked by several key roles that highlight my commitment to advancing the field of cardiovascular research:

- Coordinator of Undergraduate Thesis Projects in Pharmacy in 2006, she supervised 25 undergraduate theses for the Pharmacy Course at the School of Medicine at Santa Casa de Misericórdia de Vitória (EMESCAM).
- Adjunct Coordinator of the Graduate Program in Physiological Sciences: From 2003 to 2006, coordinated research activities for over 50 graduate students at the Federal University of Espírito Santo (UFES).
- Editorial Contributions: As a referee for prestigious journals like Archives of Medical Research and Basic and Clinical Pharmacology & Toxicology, reviewed manuscripts, ensuring high standards in scientific publishing.

### **Event Organization and Participation**

Dr. Stefanon's commitment to the cardiovascular sciences extends beyond research and into the organization and participation in numerous scientific events, totaling over 100 conferences and symposia:

- Coordinator of Scientific Events: Coordinated the V Course on Physiological Sciences in 2012, providing an immersive educational experience for more than 200 students and researchers. Led thematic modules and courses at annual meetings of the Federation of Experimental Biology Societies (FeSBE), focusing on myocardial contractility and the influence of sex hormones on cardiovascular function.
- Participation in Symposia and Conferences: Presented findings on mitochondrial dysfunction and cardiac issues during female hormone deficiency at the 2021 FESBE conference. Discussed endothelial dysfunction in cardiovascular diseases at the 2008 Annual Meeting of the Federation of Experimental Biology Societies.

## Ongoing Research Projects

Dr. Stefanon's current research projects continue to explore critical areas in cardiovascular health, supported by multiple national and international collaborations:

- Development of Innovative Bioengineering Tools: From 2018 to present, led a project funded by CNPq/FAPES that focused on developing bioengineering tools for studying cardiac and vascular diseases.
- Mitochondrial and Cardiac Dysfunction During Hormonal Deficiency: This ongoing project aims to understand the mechanisms of mitochondrial dysfunction and cardiac issues in the absence of female sex hormones.

## Dr. Michael Kutryk, University of Toronto, Canada



*Dr. Michael Kutryk*

Dr. Kutryk received his MSc, PhD and MD degrees from the Faculty of Medicine at the University of Manitoba. He completed Specialty Certification in Internal Medicine and Subspecialty Training in Cardiology at the Royal Victoria Hospital and McGill University in Montreal, Canada. Dr. Kutryk's training in cardiology was followed by a 4-year

post-doctoral research and clinical training program in Interventional Cardiology at Erasmus University and University Hospital Rotterdam – Dijkzigt. Dr. Kutryk is currently an Associate Professor and Clinician Scientist at the University of Toronto, Adjunct Professor in the Faculty of Engineering and Architectural Science at Ryerson University and Director of Interventional Cardiology Research at St. Michael's Hospital in Toronto, Canada. He leads a basic research lab at the Li Ka Shing Knowledge Institute dedicated to translating basic science findings to clinical application. He is also a Scientist, Keenan Research Centre for Biomedical Science. Dr. Kutryk's areas of expertise include endothelial progenitor cell biology, gene therapy for vascular diseases, cell-based gene therapy strategies, angiogenesis, and miRNA signaling in health and disease. His lab has been very successful in taking promising new treatment strategies from concept through preclinical assessment, through to major, multicenter clinical trials. Recently, his research has focused on tissue engineered vascular grafts and cardiac valves and epigenetic regulation of genes related to Hereditary Hemorrhagic Telangiectasia, a disease of dysregulated angiogenesis.

## Dr. Melchior Lima, Heart Transplant and Cardiovascular Surgery Center, Vitória, Brazil



*Dr. Melchior Lima*

Dr. Melchior Luiz Lima, is a dedicated cardiovascular surgeon and academic in the field of cardiovascular sciences. Throughout his 36-year professional career, he has contributed extensively to the exploration and understanding of cardiovascular surgery, with a specific focus on the mechanisms underlying cardiac metabolism, the mechanism of ischemia and reperfusion and their consequences on cardiac function.

In 1982, Dr. Lima entered the Medicine course at the Escola Superior de Ciências da Santa Casa de Misericórdia de Vitória, ES, Brazil, and completed his degree in 1988. Then, in 1989, he deepened his knowledge and his surgical skills by enrolling in postgraduate studies. (training) in Cardiovascular Surgery at the Real e Benemerita

Sociedade Portuguesa de Beneficência, Hospital São Joaquim, in São Paulo, with completion in 1991. From 1991 onwards, he began with great dedication his career as a cardiovascular surgeon in the city of Vitória, in the State from Espírito Santo, Brazil. In 2001, he obtained the title of Specialist in Cardiovascular Surgery granted by the Brazilian Society of Cardiovascular Surgery (SBCCV) and the Brazilian Medical Association (AMB), consolidating my expertise in the area of activity.

The depth of his knowledge was expanded by completing a Masters in Science at Fundação Cardiovascular São Francisco de Assis, in Belo Horizonte, Minas Gerais (2010) with experimental research on “myocardial protection with cardioplegic solutions for heart transplantation”. Continuing the same experimental research project focusing on “different infusion temperatures of cardioprotective solutions”, in 2011 Dr. Lima completed a Doctorate of Science in Cardiovascular Surgery from the Fundação Cardiovascular São Francisco de Assis, in Belo Horizonte, MG, demonstrating his continued commitment to research and innovation in the field of cardiology. Another research project on “arterial remodeling of the ulnar artery after surgical removal of the radial artery was completed in 2015 at the conclusion of his second Doctorate in Cardiovascular Surgery at the Escola Paulista de Medicina da Universidade Federal de São Paulo (UNIFESP), reaffirming the academic and professional. Dr. Lima expanded his professional field by obtaining the title of area of activity in implantable electronic cardiac stimulation, in 2018, by the Brazilian Society of Cardiovascular Surgery (SBCCV) and the Brazilian Medical Association (AMB).

His dedication to research is exemplified by the work developed at the Federal University of Espírito Santo, where Dr. Lima collaborated with projects in the area of Vascular Reactivity, Mitochondrial Respiration and Myocardial Protection. This research not only contributes to the global body of science, but also has direct implications for improving the procedures and therapies available for patients with cardiovascular conditions.



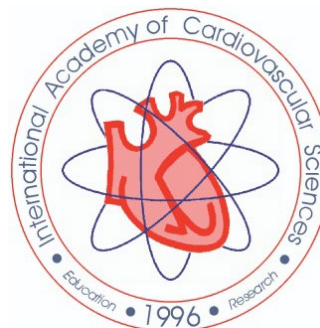
## Brazilian Society of Cardiovascular Surgery

The trajectory within the Brazilian Society of Cardiovascular Surgery (SBCCV) is a testimony to dedication, expertise and significant influence in the field of cardiovascular surgery in Brazil, namely: Website Editor on the Board of Directors for the 2016-2017 Biennium; Deliberative Council and President of the Department of Cardiology (DECARDIO) on the Board of Directors for the 2018-2019 Biennium; Director of Specialized Departments in the 2020-2021 biennium. Currently, Dr. Lima assumed the Presidency of the Experimental Research Department (DEPEX) of the Brazilian Society of Cardiovascular Surgery (SBCCV). Currently, he is the Coordinator of the Heart Transplant and Cardiovascular Surgery Center of Grupo Meridional, in Vitória, ES, where he leads a team of highly qualified professionals. Notably, Dr. Lima performed the first heart transplant in the State of Espírito Santo in 2003, a historic milestone that not only raised the standard of medical care in the region but also saved countless lives.

In addition to his direct contribution to patient care, Dr. Lima is a Full Member of the Brazilian Society of Cardiovascular Surgery (SBCCV) and Full Member of the Brazilian Academy of Cardiovascular Surgery (ABCCV). His influence extends further to being the current President of the South American Section of the IACS, a position in which Dr. Lima promotes international collaboration and advancement in scientific research and cardiovascular practice.

## Impact and Legacy

Through these diverse roles, Dr. Lima has contributed immensely to the growth, relevance and innovation within the Brazilian Society of Cardiovascular Surgery and the International Academy of Cardiovascular Sciences. His desire for a legacy is to consolidate committed leadership, advancing knowledge and tirelessly promoting improvements in cardiovascular health in Brazil. Through his work, we not only raise the standard of care for patients, but we also strengthen the cardiovascular research community, preparing it to meet future challenges with knowledge, skill and compassion.





**Officers, Advisory Board and Executive Council of International  
Academy of Cardiovascular Sciences**

**(Honorary Life President: Naranjan S. Dhalla)**

**President:** Grant N. Pierce, Winnipeg, Canada  
**President-Elect:** Andras Varro, Szeged, Hungary  
**Past President:** Roberto Bolli, Louisville, USA  
**Executive Director:** Naranjan S. Dhalla, Winnipeg, Canada

**Advisory Board**

Sanjiv Dhingra, Winnipeg, Canada  
Tejal Gandhi, Anand, India  
Morris Karmazyn, London, Canada  
Naoki Makino, Beppu, Japan  
Guilherme Oliveira, USA  
Bohuslav Ostadal, Prague, Czech Republic  
Jan Slezak, Bratislava, Slovak Republic

**Executive Council**

Devendra Agrawal, Pomona, USA	Gerd Heusch, Essen, Germany
Peter Carmeliet, Leuven, Belgium	Chandrasekharan Kartha, Trivandrum, India
Michael Czubyrt, Winnipeg, Canada	Lorrie Kirshenbaum, Winnipeg, Canada
Buddhadeb Dawn, Las Vegas, USA	Melchior L. Lima, Vitoria, Brazil
Dragan Djuric, Belgrade, Serbia	Gary Lopaschuk, Edmonton, Canada
Ricardo J. Gelpi, Buenos Aires, Argentina	Jawahar L. Mehta, Little Rock, USA
Ramesh K. Goyal, New Delhi, India	Tatiana Ravingerova, Bratislava, Slovak Republic
Rhian M. Touyz, Montreal, Canada	

**CV Network Editorial Board**

**EDITOR**

Paramjit S. Tappia

**EDITORIAL ASSISTANT**

Khushman Kaur

**EDITORIAL BOARD**

Adriana Adameova (Slovakia)	Sanjay Ganapathi (India)	Tatiana Ravingerova (Slovakia)
István Baczkó (Hungary)	Paul K. Ganguly (KSA)	Anureet K. Shah (USA)
Ajay Bahl (India)	Vladimir Jakovljevic (Serbia)	Ashish H. Shah (Canada)
Muthuswamy Balasubramanyam (India)	Chandrasekharan Kartha (India)	Raja B. Singh (Canada)
Judit Barta (Hungary)	Petra Kienesberger (Canada)	Ram B. Singh (India)
Monika Bartekova (Slovakia)	Naoki Makino (Japan)	Dinender Singla (USA)
Sukhwinder K. Bhullar (Canada)	Paras Mishra (USA)	Miloš P Stojiljković (Bosnia)
Antoinette Oliveira Blackman (Brazil)	Ursula Muller-Werdan (Germany)	Srinivas Tipparaju (USA)
Harpal Buttar (Canada)	Danina Muntean (Romania)	Jasneet Tiwana (Canada)
Seema Dangwal (USA)	Mukesh Nandave (India)	Belma Turan (Turkey)
Buddhadeb Dawn (USA)	Mohamad Nusier (Jordan)	Harlokesh Narayan Yadav (India)
Larry Fliegel (Canada)	Petr Ostadal (Czech Republic)	
Elaine Maria Freitas (Brazil)		

# 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**

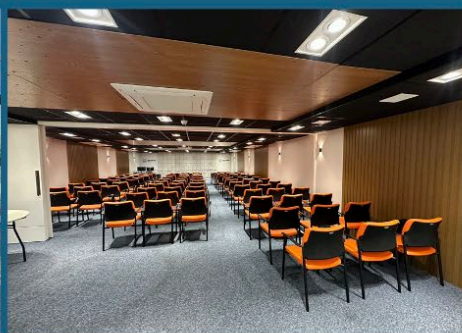
Meridional Vitória Hospital Auditorium



**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

◇ Centrocór Clinic Symposium

◇ Rede Meridional Symposium

◇ Brazilian Society of Cardiology of Espírito Santo Symposium

Promoting

Scientific Support

Sponsorship

Registration and informations



[WWW.FORUMCIENFICO.COM](http://WWW.FORUMCIENFICO.COM)

+55 27 3439-3000

[secretariaservcor@servcor.com](mailto:secretariaservcor@servcor.com)

President of Congress: Prof. Dr. Melchior Luiz Lima

## *Distinguished International Speakers & Program*

**CONGRESS OPENING: Meridional Vitoria Hospital Auditorium**

**Thursday, October 17, 2024**

**Symposium: 2<sup>nd</sup> Prof. Dr. Elias Kallás Symposium- Cardiovascular Disease, Medicine Through Diversity and Technology Innovation**

**3.40 P.M. – 4.00 P.M.- Effects of Polluted Air on the Pathophysiology of myocardial ischemia**

*Speaker: Ricardo J. Gelpi, Universidad de Buenos Aires, Argentina*

**6.00 P.M. – 6.20 P.M.: World Landmarks of the International Academy of Cardiovascular Sciences**

*Speaker: Naranjan S. Dhalla- University of Manitoba, Winnipeg, Canada*

**Friday, October 18, 2024**

**Symposium: 22<sup>nd</sup> Prof. Dr. Naranjan S. Dhalla Symposium (Module I)**

**8.20 A.M. – 8.40 A.M.: Mechanisms for the Loss of Adrenergic Support in Heart Failure due to Myocardial Infarction**

*Speaker: Naranjan S. Dhalla- Winnipeg, Canada*

**9.40 A.M.- 10.00 A.M.: Liraglutide, a GLP-1 receptor agonist, attenuates isoprenaline induced acute myocardial injury via inhibition of the Wnt/ $\beta$  catenin signaling pathway**

*Speaker: Ranko Skrbic, University of Banja Luka, Republic of Srpska, Bosnia and Herzegovina*

**10.00 A.M.- 10.20 A.M.: The role of combined administration of AT1 receptor antagonist and neprilysin inhibitor in the promotion of browning in an experimental model of metabolic syndrome**

*Speaker: Vladimir Jakovljevic, University of Kragujevac, Serbia*

**1.30 P.M.- 2.30 P.M.: Business Meeting of the International Academy of Cardiovascular Sciences South America Section**

*Location: Meridional Vitoria Hospital Board Room*

*Chairman: Executive Director (IACS): Prof. Dr. Naranjan S. Dhalla, Winnipeg, Canada*

*President-IACS: Prof. Dr. Grant N. Pierce, Winnipeg, Canada*

*Members of the South America Section- IACS: Melchior Lima (Brazil), Alexandre Ciappina Hueb (Brazil), Ricardo J. Gelpi (Argentina), Elaine Gomes Freitas (Brazil), Elias Kallás (Brazil) and Enrique Saldana (Peru)*

**2.30 P.M.- 2.50 P.M.: Reverse Engineering Approach for New Drug Discovery from Natural Resources for Diabetes induced Cardiovascular Complications**

*Speaker: Ramesh Goyal, ITM SLS Baroda University & Hospital, Vadodara, India*

**2.50 P.M.- 3.10 P.M.: Serious consideration of the role of dietary supplements in preventing and treating cardiovascular disease**

*Speaker: Grant N. Pierce, University of Manitoba, Winnipeg, Canada*

**3.30 P.M.- 3.50 P.M.: Embryonic Stem Cells Derived Exosomes Modulates Anti-Cancer Drug-Induced Toxicity**

*Speaker: Dinender K. Singla, University of Central Florida, USA*

**3.50 P.M.- 4.10 P.M.: Innate Immunity Signaling in Doxorubicin Cardiomyopathy**

*Speaker: Lorrie Kirshenbaum, University of Manitoba, Winnipeg, Canada*

### **Symposium: Cardiovascular Medicine: Blood coagulation, Endothelial tissue and Congenital heart disease Through Diversity and Technology Innovation**

**4.20 P.M. – 4.40 P.M.: Enhanced Valve Endothelialisation Following Transcatheter Aortic Valve Replacement (TAVR)**

*Speaker: Michael Kutryk, University of Toronto and Keenan Research Centre for Biomedical Science, Toronto Canada*

### **6.00 P.M. - 6.40 P.M.: AWARDS CEREMONY**

**Meeting to Announce Recognition and Present Awards by South American Section of the IACS**

*Location: Meridional Vitoria Hospital Auditorium*

*Chair: Dr. Naranjan S. Dhalla*

*Coordination: Dr. Grant Norval Pierce and Dr. Samir Saadeddine Júnior.*

*Congratulatory Remark: Dr. Naranjan S. Dhalla and Dr. Grant N. Pierce.*

*Presentation of IACS Awards: Dr. Naranjan S. Dhalla, Dr. Grant N. Pierce, Dr. Melchior Luiz Lima, Dr. Elias Kallás, Dr. Samir Saadeddine Júnior, Dr. Antoinette Oliveira Blackman, Dr. Henrique Furtado, and Dr. Elaine Maria Gomes Freitas.*

*Poster Awards - Presentation of Poster Awards: Dr. Naranjan Dhalla, Dr. Grant N. Pierce, Dr. Melchior Luiz Lima, Dr. Elias Kallás, Dr. Samir Saadeddine Júnior, Dr. Antoinette Oliveira Blackman, Dr. Henrique Furtado, and Dr. Elaine Maria Gomes Freitas.*



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

*Know the heart: novel insights into the prevention and treatment of heart disease to live and promote a healthy lifestyle.*

October 28-30, 2024

Hotel TATRA – Congress Centre and Hotel  
Bratislava, Slovak Republic

**HALL LUX**

**October 28th, 2024**

<b>3:00PM - 6:00PM</b>	<b>Registration</b>
<b>4:00PM - 4:45PM</b>	<b>Welcome Comments by dr. A Duris Adameova</b> <b>Opening Ceremony</b> <b>IACS Awards and Honours</b> <b>Special Announcement by dr. NS Dhalla</b>
<b>4:45PM - 6:45PM</b>	<b>Inaugural Session, Presidential Address by dr. Jakovljevic</b> <b>Plenary Talks</b>
4:45PM - 5:15PM	<i>V. Jakovljevic: Usnic acid as a new protector against doxorubicin-induced cardiotoxicity in rats.</i>
5:15PM - 5:45PM	<i>R. Fischmeister: Phosphodiesterase type 2: a new target in heart failure?</i>
5:45PM - 6:15PM	<i>R. Bolli: Current status of cardioprotection, gene therapy, and cell therapy for heart disease.</i>
6:15PM - 6:45PM	<i>P. Ferdinandy: Development of miRNA therapeutics for cardioprotection.</i>
<b>7:00PM - 9:00PM</b>	<b>Welcome Reception</b>

## October 29th, 2024

### HALL LUX

### HALL STANDARD

<b>8:30 AM to 5:30 PM</b>	<b>Registration</b>	
<b>8:00 AM to 9:00 AM</b>	<b>Poster Display #1</b>	
<b>9:00 AM to 10:30 AM</b>	<b>Symposia #1 - Advances in Cardiovascular Science</b>	<b>Symposia #2 - Effects of Nutritions and Environment on Heart Function</b>
	<i>Chairs: G. Pierce, MS. Suleiman</i>	<i>Chairs: P. Tappia, O. Pechanova</i>
9:00-9:20	M. Suleiman: Tribulations of moving from bench to bedside to mend broken heart.	HS. Buttar: The crucial roles of healthful foods, healthy gut microbiomes, and lifestyle modifications in preventing cardiovascular diseases.
9:20-9:40	F. Gallyas Jr.: Repurposing of PARP inhibitors for cardiovascular diseases.	R. Gelpi: Effects of polluted air on the pathophysiology of myocardial ischemia.
9:40-10:00	L. Kirshenbaum: Innate immunity signaling in doxorubicin cardiomyopathy.	M.Bartekova: Natural polyphenol quercetin as a potential cardioprotective tool for preventing ischemia-reperfusion injury.□
10:00-10:20	D. Muntean: Vitamin D decrease oxidative stress & MAO expression in arterial, venous and adipose tissue samples from obese patients.	J. Beltowski: Green tea polyphenols improve the inflammatory phenotype of perivascular adipose tissue and induce macrophage M2 polarization in the experimental metabolic syndrome by increasing inorganic polysulphides.□
<b>10:30 AM to 11:00 AM</b>	<b>Coffee Break and Poster Viewing - Session #1</b>	
<b>11:00 AM to 12:30 PM</b>	<b>Symposia #3 - Advances in Cardiovascular Medicine</b>	<b>Symposia #4 - Electrical Abnormalities of the Heart and Treatment 1</b>
	<i>Chairs: M. Czubryt, D. Muntean</i>	<i>Chairs: J. Jalife, P. Bencsik</i>
11:00-11:20 AM	G. Heusch: Coronary microvascular injury by ischemia/reperfusion and protection from it.	A. Saljic: The pro-arrhythmic role of fibrofatty infiltration in human atrial appendages.
11:20-11:40 AM	M. Czubryt: Fibroblast activation as a therapeutic target for cardiac fibrosis.	N. Jost: The invetsigation of the antiarrhythmic effects of novel amiodarone-like mexiletine analogue compounds.
11:40-12:00 AM	M. Hlavackova: Exploring Hif-1α and epitranscriptomic regulation in diabetic cardiomyopathy.	J. Jalife: The tornedos of sudden cardiac death: dynamics and molecular mechanisms.
12:00-12:20 AM	R. Skrbic: Ursodeoxycholic bile acid attenuate systemic inflammation and multi-organ damage in LPS-induced experimental endotoxemia.	A. Varro: Important species differences in cardiac electrophysiology.
<b>12:30 PM to 1:30 PM</b>	<b>Lunch Break and Poster Viewing</b>	
<b>12:30 PM to 1:30 PM</b>	<b>Lunch Meeting of the Officials of IACS-European Section and some invited guests - Saloon</b>	
<b>1:30 PM to 3:10 PM</b>	<b>Symposia #5 - Novel Insights into Pathomechanisms of Heart Failure 1</b>	<b>Symposia #6 - Electrical Abnormalities of the Heart and Treatment 2</b>
	<i>Chairs: T. Ravingerova, Z. Papp</i>	<i>Chairs: K. Dibb, J. Klimas</i>
1:30 - 1:50 PM	ZV. Varga: The role of immune checkpoint signaling in heart failure.	M. Michalak: Interplay between stress sensors and cardiac excitation-contraction coupling.
1:50-2:10 AM	M. Stojiljković: Cholinergic mechanisms and isoprenaline-induced heart failure in rats.□	I. Baczko: Antiarrhythmic and cardiac electrophysiological effects of a novel multichannel inhibitor mexiletine analogue.□
2:10-2:30 AM	L. Mach: Mapping single cell gene expression in heart failure.	C. Molina: Phosphodiesterases in atrial fibrillation: from mechanisms to therapeutic approaches.
2:30-2:50 PM	AJ. Marian: DNA double-stranded breaks In the pathogenesis of heart failure.	R. Hatala: Electrically induced cardiomyopathies – from bench to cure.
2:50 - 3:10	E. Goncalvesova: Left ventricular reverse remodeling and heart failure remission - a holy grail of current cardiology.	K. Dibb: Reviving atrial function: enhancing calcium dynamics through atrial T-tubule restoration post heart failure.
<b>3:10 PM to 3:30 PM</b>	<b>Coffee Break and Poster Viewing</b>	
<b>3:30 PM to 5:10 PM</b>	<b>Symposia #7 - Novel Insights into Pathomechanisms of Heart Failure</b>	<b>Symposia #8 - Circadian Variation, and Sex Differences in Cardiovascular Studies</b>
	<i>Chairs: NS. Dhalla, AJ. Marian</i>	<i>Chairs: B. Ostadal, S. Dhingra</i>
3:30 - 3:50 PM	NS. Dhalla: Antiplatelet agents as a novel therapy of heart failure due to myocardial infarction.	B. Ostadal: Sex differences in cardiac tolerance to oxygen deprivation - 40 years of cardiovascular research.□
3:50-4:10 AM	N. Nagy: Assessment of cardiac alternans in a canine model of athlete's heart.	S. Tyagi: The role of the circadian clock system in the transition of HFpEF to the HFrEF.
4:10-4:30 AM	Z. Papp: Myosin inhibitors evoke comparable contractile effects in cardiomyocytes on different genetic backgrounds.	I. Rabinovich-Nikitin: The effects of shift work on cardiovascular health during pregnancy.
4:30-4:50 PM	A. Zaza: Development of a novel class of ino-lusitropic agents.	M. Zeman: Disruption of circadian control of the heart by exposure to light at night.
4:50-5:10 PM	P. Ostadal: ECMO in cardiogenic shock.	A. D'Souza: Understanding determinants of the circadian variation in heart rhythm and ventricular arrhythmia susceptibility.
<b>5:10 PM to 6:45 PM</b>	<b>Networking</b>	
<b>7:00 PM to 9:30 PM</b>	<b>Faculty Dinner by Invitation</b>	

## October 30th, 2024

### HALL LUX

### HALL STANDARD

8:30 PM to 5:00 PM

Registration

8:00 AM to 9:00 AM

Poster Display #2

9:00 AM to 10:30 AM

**Symposia #9 - Novel Approaches and Therapeutic Targets in Cardiovascular Disease 1**

**Chairs: D. Agrawal, A. Zaza**

**Symposia # 10 - Roberto Bolli Young Investigator Awards Competition**

**Chairs: L. Kirshenbaum, I. Baczko**

9:00-9:20

D. Agrawal: Immune Mediators and Modulators in Reducing Size and Inducing Stability of Atherosclerotic Plaques in Carotid Artery: Novel Treatment Strategies. □

N. Jeremic: Entresto unlocks the browning potential: a white fat transformation.

9:20-9:40

S. Dhingra: Immunomodulation of allogeneic stem cells for cardiac repair.

D. Đukanović: TRPA1 channels as a target site for the action of novel vasodilators designed based on the structure of carvedilol. □

9:40-10:00

P. Bencsik: Therapeutic use of ProtectomiRs (cardioprotective microRNAs) against myocardial ischemia/reperfusion injury.

L. Ionica: Cardiac monoamine oxidase is a target of SGLT2i in overweight non-diabetic patients with chronic heart failure.

10:00-10:20

P. Kleinbongard: Cardioprotection by remote conditioning - an update on the signal transduction pathways.

B. Kura: Potential involvement of miRNAs in the protective effect of molecular hydrogen on radiation-induced heart disease in older rats.

10:30 AM to 11:00 AM

**Coffee Break and Poster Viewing - Session #2**

11:00 AM to 12:30 PM

**Symposia #11 - Novel Approaches and Therapeutic Targets in Cardiovascular Disease 2**

**Chairs: R. Skrbic, G. Lopaschuk**

**Symposia #12 - Cardiometabolic conditions and Heart**

**Chairs: B. Turan, J. Beltowski**

11:00-11:20 AM

M. Morad: Regulation of sarco-tubular, mitochondrial, and nuclear-envelop calcium signaling in human stem-cell derived cardiomyocytes.

S. Tipparaju: Nampt activation for protecting the diabetic heart.

11:20-11:40 AM

P. Burgon: Muscular enriched Lamin Interacting Protein (MLIP): a crucial player in cellular homeostasis with therapeutic potential.

B. Turan: A direct off-target effect of a dual receptors agonist antidiabetics in metabolic heart.

11:40-12:00 AM

V. Lionetti: The role of vagus nerve laterality in regulating heart function.

P. Tappia: Pathophysiology of Cardiovascular Abnormalities during Obesity in Metabolic Syndrome.

12:00-12:20 AM

ML. Lima: Vascular reactivity in No-Touch technique of harvesting of the saphenous vein for CABG: a potential role of perivascular fat on graft vasoreactivity. □

DM. Djuric: Comparison of the cardioprotective effects of folic acid in homocysteine-dependent and homocysteine-independent cardiometabolic disease models. □

12:30 PM to 1:30 PM

**Lunch Break and Poster Viewing**

12:30 PM to 1:30 PM

**Lunch Meeting of the Officials of IACS-International and some invited guests - Saloon**

1:30 PM to 3:10 PM

**Symposia #13 - Hydrogen in Medicine**

**Chairs: S. Ohta, J. Slezak, W. LeBaron**

**Symposia #14 - Basic and Translational Knowledge in CVD**

**Chairs: V. Jakovljevic, G. Bkaily**

1:30 -1:50 PM

S. Ohta: Hydrogen medicine from the basic science to clinical trials

J. Neckar: Experimental rat models of HFpEF.

1:50-2:10 AM

D. Astapenko: Prevention of ischemia-reperfusion damage by molecular hydrogen

G. Lopaschuk: Targeting cardiac fatty acid oxidation to treat heart failure with preserved ejection fraction (HFpEF). □

2:10-2:30 AM

T. LeBaron: Hydrogen inhalation attenuates systemic blood pressure and lung inflammation in a rat model of pulmonary hypertension

P. Krenek: Endothelin system in experimental pulmonary hypertension.

2:30-2:50 PM

Z. Sumbalova: Molecular hydrogen improved mitochondrial bioenergetics and endogenous coenzyme Q10 level in patients with metabolic dysfunction-associated steatotic liver disease

G. Bkaily: Long term treatment with taurine prevent high sodium salt induced remodelling of human vascular smooth muscle cells in a sex-independent manner. □

2:50 - 3:10

M. Botek: Autonomic cardiac regulation in response to exercise and molecular hydrogen administration in well-trained athletes

P. Kesa - High-frequency ultrasound and photoacoustic imaging for standardized and reproducible preclinical cardiovascular imaging.

3:10 PM to 3:30 PM

**Coffee Break and Poster Viewing**

3:30 PM to 5:00 PM

**Symposia #15 - IACS European Section Young Investigator Competition**

**Chairs: A. M. Morad, F. Gallyas**

3:30 -3:45 PM

1 finalist Young Investigator to be chosen from the abstracts submitted

3:45-4:00 AM

2 finalist Young Investigator to be chosen from the abstracts submitted

4:00-4:15 AM

3 finalist Young Investigator to be chosen from the abstracts submitted

4:15-4:30 PM

4 finalist Young Investigator to be chosen from the abstracts submitted

4:30-4:45 PM

5 finalist Young Investigator to be chosen from the abstracts submitted

4:45-5:00 PM

6 finalist Young Investigator to be chosen from the abstracts submitted

5:00 PM to 6:45 PM

**Networking**

7:00 PM to 10:00 PM

**Conference Closing and Awards Ceremony - The Primate's Palace, Primaciálne námestie 1, 814 99, Bratislava**

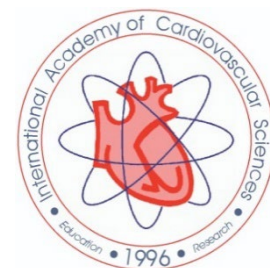
On October 30th, 2024, [conference closing and awards ceremony](https://iacs2024.eu/conference-closing-and-awards-ceremony/) will be held in the Hall of Mirrors of the Primate's Palace which is located in the heart of Bratislava, within walking distance of the Conference Venue. After dinner, the unique representative premises of the palace will be open for the conference delegates. <https://iacs2024.eu/conference-closing-and-awards-ceremony/>

## PROGRAM OVERVIEW

<b>28. 10. 2024</b>	<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
<b>29. 10. 2024</b>	<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	
<b>30. 10. 2024</b>	<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	



**FACULTY OF PHARMACY**  
Comenius University  
Bratislava





## Academy Pays High Tribute to Prof. Valiathan

*CC Kartha*

SFS Aquagreens, Desom, Aluva, India - 683102

*Email: [cckartha@gmail.com](mailto:cckartha@gmail.com)*



*Dr. Marthanda Varma Sankaran Valiathan  
(1934 – 2024)*

It is with great sadness that the Academy announces the demise of Prof. Valiathan. Marthanda Varma Sankaran Valiathan, fondly christened MSV by his students and colleagues, passed away on 17 July at the age of 90 years. He was a National Research Professor of the Government of India and lived in Manipal. He was a fellow and recipient of Life Time Achievement Award of the International Academy of Cardiovascular Sciences.

He is survived by Ashima who retired as a Professor and Director of Orthodontics at Manipal College of Dental Sciences, daughter Manna who is a Professor of Pathology in Kasturba Medical College at Manipal and son Manish who is a Professor of Orthodontics at School of Dental Medicine, Case Western Reserve University at Cleveland. MSV grew up in Mavelikara, the cultural capital of Alappuzha in Kerala, exposed to lofty literary and musical traditions.

Soon after graduation from Government Medical College at Thiruvananthapuram, MSV boarded the ship to England for pursuing a career in Surgery. In the U.K. he came under the spell of Professor Charles Wells of the University of Liverpool who to quote MSV, “induced him to think and reason, for example, – about the pathological basis of clinical symptoms and the physiological basis of operative procedures”. After obtaining fellowships (FRCS) from the

Royal Colleges of Edinburgh and London, he then moved to Jefferson Medical College at Philadelphia. He was accepted as a Fellow by John Gibbon. The sojourn at Jefferson introduced him to experimental research and early developments in open heart surgery. His studies there culminating in identification of the hepatic factor in cirrhotic ascites earned him a ChM degree from the University of Liverpool.

At the age of 28 years, on his return to India, he was selected as a member of the faculty in the department of Surgery at Postgraduate Institute of Medical Education and Research at Chandigarh. Nevertheless, he resigned from there and returned to the United States of America to pursue cardiac surgery. At this time, he was at Johns Hopkins University. Vincent Gott, Professor of Cardiac Surgery at Hopkins initiated MSV to the world of biomaterials and biomedical engineering. His studies on developing a technique using graphite, benzalkonium and heparin, to construct a non-thrombogenic surface with Gott and JD. Whiffen earned him the Hunterian Professorship of the Royal College of Surgeons of England.

From Baltimore, MSV moved to George Washington University for thoracic surgery training and later to Georgetown University for training in cardiovascular surgery under Charles Hufnagel. While at Georgetown, MSV earned the fellowship of the Canadian Royal College of Surgeons.

In 1972 after nearly two decades abroad, he returned to India to take up an ad hoc position at Safdarjung hospital at New Delhi. Two years later he moved to Trivandrum where he created a world class and unique multidisciplinary institution for medical sciences and technology. It was under his leadership that Sree Chitra Tirunal Medical Center under the Government of Kerala transformed into Sree Chitra Tirunal Institute for Medical Sciences & Technology (SCTIMST), an Institute of National Importance and a statutory body. He pioneered biomaterials research and biomedical technology development in India and spurred the growth of a biomedical devices industry in the country. He has also been responsible for triggering several institute – industry partnerships as well as fruitful linkages between private and public institutions.

At SCTIMST, he led a multidisciplinary team to develop an indigenous prosthetic heart valve (TTK-CHITRA valve) to meet the demands of a large number of children and young adults with rheumatic valvular disease, and investigated the cause of endomyocardial fibrosis, a heart muscle disorder common to tropics. He also trained young surgeons to master the skill to repair complex birth defects of the heart and vascular aneurysms. He initiated and nurtured the growth of Interventional Radiology and Molecular Cardiology as well as conceptualized and launched a Center for Health Sciences Studies.

After retirement from SCTIMST in May 1974, MSV was appointed as the first Vice Chancellor of Manipal University. The University under his leadership expanded and turned to be one of the leading academic and research institution in India. At the end of his 5 years tenure, he was awarded the Homi Bhabha Senior Fellowship, which he utilized to study Charaka Samhita in the original and write the scholarly text *Legacy of Charaka*. A larger volume *Susruta Samhita* and another text *The Legacy of Vagbhata* followed. He has also authored *Ayurvedic Inheritance* and *An Introduction to Ayurveda* meant for a mass audience.

His monograph *Towards Ayurvedic Biology*, has spurred a renaissance of Ayurveda, traditional Indian Medicine. We are indeed indebted to MSV for the timely enlightenment about our heritage in humanism, social ethics and creativeness embodied in Samhitas of Ayurveda and for demystifying the central concepts of Ayurveda, considering them in terms that minds trained in Western thoughts can comprehend and enjoy.

The monumental India Science Report and the INSA Report on Science Career for Indian Women which he commissioned as the President of Indian National Science Academy are other examples of MSV's vision and dynamism. He has served in the Science Advisory

Committee to the Cabinet of the Government of India, Councils, Academic Courts and Advisory Committees of several prestigious institutions and editorial boards of many journals.

The Government of India bestowed him Padma Vibhushan, the second highest civilian award of the Republic of India. A decade ago, Indian Academy of Sciences recognized him as one of the Living Legends in Indian Science stating that "history would remember him as the first physician scientist of modern India who married medicine to technology, thereby bringing relief to many and enhancing national pride in medical devices and biomaterials."

He has received awards, prizes or medals from several educational institutions, academies, professional societies and social organizations. Delhi, Kanpur and Benares Hindu universities conferred him honorary doctorates. France made him a Chevalier in the Ordre des Palmes Academiques. The Johns Hopkins Medical and Surgical Association honoured him with Samuel P. Asper Award for fostering excellent medical care and education in a foreign country, continuing the outreach effort of Sir William Osler.

Beyond medicine and the passion for traditional systems of knowledge, MSV's interests spanned Indian philosophy and classical music, both Indian and western. His zeal for academic pursuits had not waned until his eternal exit. Even recently, he was in search of a rasayana (Ayurvedic formulation for regeneration) based single molecule therapy for Alzheimer's disease.

His ideas on contemporising medical education to suit the needs of India, indigenous development of medical devices, effective and efficient decentralised systems for public health delivery, social audit of scientific research and Ayurveda inspired drug discoveries will surely endure.



**ACADEMY OF  
CARDIOVASCULAR SCIENCES**



**INTERNATIONAL ACADEMY OF  
CARDIOVASCULAR SCIENCES**

**India Section of**

## My Scientific Journey by Dr. Paul Ganguly



*Dr. Paul Ganguly*

It was a dream to study the structure, function and diseases of the vascular system and the heart"-Dr. Paul Ganguly remembers while he was an undergraduate medical student (MBBS) in India. He was selected at the All-India Institute of Medical Sciences, a premier Institution in New Delhi as a resident (MD) in 1979. In his postgraduate training (1979-1982), he showed, Nifedipine-a calcium channel blocker, relatively unknown at that time, had significant beneficial effects in myocardial ischemia. It was a multi-centered drug trial funded by Bayer's pharmaceutical, Germany.

Dr. Paul realized that he needed more basic training to understand the function of heart in health and disease and joined the experimental Cardiology Laboratory at the Department of Anatomy/Physiology, University of Manitoba, Canada as a postdoctoral fellow of the Heart and Stroke Foundation, Canada. "It was a remarkable experience working in Dr. Dhalla's lab surrounded by so many bright graduate students, summer students, postdoctoral fellows, technicians, faculty, consultants and visiting scientists. There was neither any lack of facilities nor knowledge in finding solutions to cardiovascular education. The interaction with the members was superb and professionally rewarding".

Dr. Paul was working on two projects: a) the status of cardiac organelles in diabetic cardiomyopathy, and b) the role of catecholamines in the development of diabetic cardiomyopathy. He showed an exceptional dedication to research and was recruited later as a faculty member at the internationally well recognized cardiovascular institute at St Boniface Hospital Research Center and the department of Anatomy, University of Manitoba, Canada. His further research work on catecholamine (turnover and sympathetic

activity), atrial natriuretic factor and its receptor changes namely G- protein interaction in kidney basolateral membrane, role of oxidized product of catecholamines including adrenochrome and adrenoleutin and brain catecholamine changes following neuropeptide Y and homocysteine infusion in health and disease had significant impact in the cardiovascular community. He established a state-of-the art neurocardiology lab by perfecting the detailed technique in brain microdialysis as well published quality papers in high-impact journals. Soon, Dr. Paul received recognition from both Canada as well the United States.

He received the most prestigious awards from the Rh Institute, University of Manitoba; Heart and Stroke Foundation of Canada scholarship; Young Investigator Award from the Canadian Cardiovascular Society; Young Investigator Award from the American College of Angiology; Merit Award from the International Society for Heart Research; Fellowship from the IACS; and Merit Award from the University of Manitoba, Canada for his scholarly work in cardiovascular sciences. Besides, his work was among the top four finalists in American Heart Association meeting in Chicago, in 1995.

It is worth mentioning that Pfizer pharmaceutical company was able to patent a potential antihypertensive drug (US6511984B2-Neuropeptide Y antagonist), based on Dr. Paul's original idea and work which was duly acknowledged. Dr. Paul was invited to spend a year in Harvard Medical School, USA as a visiting Professor to work on chronically instrumented techniques in the Department of Internal Medicine with Dr. Stephen Vatner. Many of his graduate students also received various awards and are presently well-placed in their careers. Till today, Dr. Paul has published over 150 peer-reviewed publications: mostly in reputed journal. One of his edited books dedicated to Dr. D halla is based on his earlier research entitled Catecholamines and Heart Disease (CRC Press).

Later in his life, Dr. Paul realized that he had an opportunity also to contribute medical education and thus, allowed him to visit McMaster University, Canada and later to Arabian Gulf University, Bahrain where Dr. Paul spent valuable time as a Chairman of Anatomy to establish an integrated anatomy resource center for problem-based learning. Because of his former training in Harvard, he also was instrumental in working with large animals such as baboon for a successful liver support machine in acute hepatic failure with professor George Abouna. The pioneering work was published in Transplantation.

Dr. Paul is currently working as a Professor and Chairman, Department of Anatomy, College of Medicine, Alfaisal University, Kingdom of Saudi Arabia and recently edited three books on medical education a) Education in Anatomical Sciences and b) Health and Disease: Curriculum for the 21st Century Medical Students and c) An Innovative Program at Alfaisal University: A brief History and Guide to Success. He received a very prestigious award, Best Professor in Anatomy, from the Asian Education Leadership Organization in Dubai and several recognitions on his scholarly activities at Alfaisal University. He has been getting recognition as invited speaker world- wide in various symposia, meetings and conferences related to Cardiovascular Sciences and Medical Education. It should be mentioned that the article entitled "Role of homocysteine in the development of cardiovascular disease" by P. Ganguly and S.F. Alam appearing in Nutrition journal in 2015 (PMID: 25577237) has been cited 1,250 times since its publication. Also, our affiliated research centre (King Faisal Specialty Hospital and Research Centre) has published high impact papers in one year (May 2023-April 2024) in Science (1), Nature Genetics (2), Nature Communications (4), Journal of Clinical Investigation (2) and in Cell (1).

Dr. Paul is indebted to the International Academy of Cardiovascular Sciences. As a life member, he often participates in various activities/meetings of the academy. He feels honored as the academy has allowed him to establish two endowment funds; one for the Indian section (Paul and Riya Ganguly award for workshop in diabetes) and the other for the North American Section (Paul Ganguly distinguished lecture Award). Dr. Paul is still engaged in finding solutions to fulfill his dream in cardiovascular sciences.

#### Selected articles

1. Ganguly, P.K., Pierce, G.N., Dhalla K.S. and Dhalla, N.S. Defective sarcoplasmic reticular calcium transport in diabetic cardiomyopathy. *American Journal of Physiology*, 224:E528-E535, 1983.
2. Ganguly, P.K., Rice, K.M., Panagia, V. and Dhalla, N.S. Sarcolemmal phosphatidylethanolamine N-methylation in diabetic cardiomyopathy. *Circulation Research*, 55:504-512, 1984.

3. Ganguly, P.K., Dhalla, K.S., Innes, I.R., Beamish, R. E. and Dhalla, N.S. Altered norepinephrine turnover and metabolism in diabetic cardiomyopathy. *Circulation Research*, 59:684-693, 1986.
4. Ganguly, P.K., Lee, S.L., Beamish, R.E. and Dhalla, N.S. Altered sympathetic system and adrenoceptors during the development of cardiac hypertrophy. *American Heart Journal*. 118:520-525, 1989.
5. Sahai, A and Ganguly, P.K. Congestive heart failure in diabetes with hypertension may be due to uncoupling of the atrial natriuretic peptide receptor-effector system in kidney basolateral membrane. *American Heart Journal*, 122:164-170, 1991.
6. Kirouac, G.J. and Ganguly, P.K. Cholecystokinin induced release of dopamine in the nucleus accumbens of the spontaneously hypertensive rat. *Brain Research*, 689:245-253, 1995.
7. Ganguly, P.K., Shao, Q., Dhalla, K.S. and Dhalla, N.S. Differential changes in sympathetic activity in left and right ventricles in congestive heart failure after myocardial infarction. *American Heart Journal* 133:340-345, 1997.
8. Abu-Hijleh, M.F., Kassab, S., Al-Shboul, Q, Ganguly, P.K. Evaluation of the teaching strategy of cardiovascular system in a problem-based curriculum: student perception. *Advances in Physiological Education* 28: 59-63, 2004
9. Juurlink, B.H.J., Azouz, H.J., Aldalati, A.M.J., AlTinawi, B.M.H., Ganguly, P. Hydroxybenzoic acid isomers and the cardiovascular system. *Nutrition Journal*, 13: 63-68, 2014.
10. Ganguly, P.K., Alam, S.F. Role of homocysteine in the development of cardiovascular disease. *Nutrition Journal*, 14:6-18, 2015
11. Ganguly, P.K., Yaqinuddin, A., Al-Kattan, W., AlKattan, K. Medical education dilemma: How can we best accommodate basic sciences in a curriculum for 21st century medical students? *Canadian Journal of Physiology and Pharmacology*, 97: 293-296, 2019
12. Ganguly, P.K. Oxidative Products of Catecholamines During Heightened Sympathetic Activity Due to Congestive Heart Failure: Possible Role of Antioxidants. *International Journal of General Medicine*. 17:919-923, 2024.

## Call for Applications/Nominations for IACS Fellowships

The International Academy of Cardiovascular Sciences bestows Fellowships upon established investigators/promoters of cardiovascular activities all over the world. These individuals are usually full professors, senior scientists and/or high-profile administrators in the area of cardiovascular sciences. At any given time, the total number will not exceed 250. See listing of active Fellows on the Academy website ([www.iacsworld.com](http://www.iacsworld.com)). Applications/Nominations with 2 pages of major achievements and a brief C.V. should be sent by October 15, 2024 to Dr. N.S. Dhalla, Executive Directors, IACS, St. Boniface Albrechtsen Research Centre, Winnipeg, Canada (Email: [nsdhalla@sbrca](mailto:nsdhalla@sbrca)).

# Women's Heart Health Initiative

## Women's Cardiovascular Health Program, Winnipeg, Canada

***Lorrie Kirshenbaum***

St. Boniface Hospital Albrechtsen Research Centre & Department of Physiology and Pathophysiology  
Max Rady College of Medicine, Rady Faculty of Health Sciences  
University of Manitoba, Winnipeg, Canada  
Email: [lkirshenbaum@sbrc.ca](mailto:lkirshenbaum@sbrc.ca)

### **Preamble**

Heart disease is the number one killer of women worldwide, and it affects women of all ages. Contrary to popular belief, women are in fact just as likely as men to experience a stroke or heart attack; only their risk factors can differ. Over 40% of women do not survive their first heart attack. Studies have shown that more than half of women who experience heart attack symptoms go unrecognized. For this reason, there is active ongoing research at St. Boniface Hospital to bridge the gap in understanding heart disease in women with the goal of improving the ability to diagnose and treat women with cardiovascular disease. In fact, studies have shown that 53% of women who experience heart attack symptoms go unrecognized resulting in higher incidence of undiagnosed heart disease in women than men. *While other Provinces in Canada have health care programs that support research, education and health delivery to women, the Province of Manitoba is among the only provinces that does not have a dedicated cardiac care program that addresses health care needs of women. As a result, there is a major gap in the health care delivery to women living with cardiovascular disease. Therefore, there is an immediate need for a program that focuses on the heart health needs of women in the Province of Manitoba.*

### **Leadership in the fight against heart disease in women**

The Institute of Cardiovascular Sciences (ICS) under the leadership of Dr. Lorrie Kirshenbaum, Director, ICS has taken the lead role in partnership with the St. Boniface Hospital and the University of Manitoba in developing a dedicated women's heart health research program to decrease the burden of heart disease and improve the quality of life in women. Priority areas in women's heart health at St. Boniface Hospital include research on heart attack, diabetes, hypertension, cardio-oncology and Maternal health. We are very excited about this initiative and opportunity toward decreasing the cardiovascular disease burden and improving the quality of life.

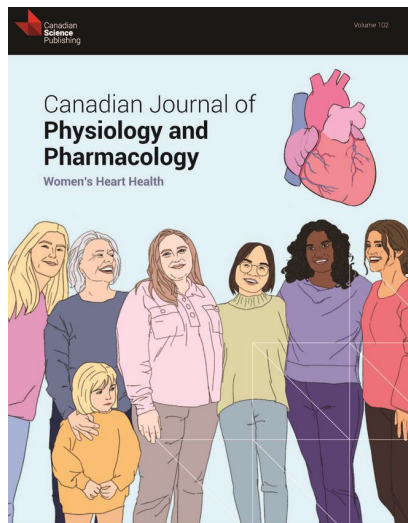


*Dr. Lorrie Kirshenbaum, Director  
Institute of Cardiovascular Sciences  
Photo credit: St. Boniface Hospital*



*St. Boniface Hospital Albrechtsen  
Research Centre, Winnipeg, Canada*

# Invitation for Manuscripts from the Canadian Journal of Physiology and Pharmacology



## Women's Heart Health

The *Canadian Journal of Physiology and Pharmacology (CJPP)* is excited to present a new special issue: **Women's Heart Health**. In this special issue, we provide a collection of original research articles and review papers highlighting the most recent advancements in the area of Women's Heart Health. The papers in this special issue provide novel and seminal clinical and basic research evidence for better understanding the symptoms, risk factors, diagnosis, and treatments that can improve heart health in women. The Guest Editors are Drs. Inna Rabinovich-Nikitin, Shuangbo Liu, and Lorrie A. Kirshenbaum. The issue spans three journal issues: Part 1 is in the August 2024 issue and Part 2 is in the September 2024 issue. Part 3 will be available October 2024. [Image credit: Raneeta Thingnam]



## IACS-NAS Tampa 2023 collection

The 10th Annual Meeting of the North American Section of the IACS was held in Tampa Bay, Florida, on September 7–9, 2023. It was attended by distinguished scientists from around the world to discuss the theme of the meeting: Aging, Heart Failure, Regeneration, and Cardiovascular Medicine. CJPP presents a collection that comprises papers by researchers who attended that meeting. The Guest Editors are Drs. Srinivas Tipparaju, Guilherme Oliveira, Prabodh Sadana, and Vijaykumar Sutariya. The special collection, which is still in progress, is available here:

<https://cdnsiencepub.com/topic/cjpp-IACS-NAS-2023>

[Image credit: Visit Tampa Bay]

## Editor's Choice - Canadian Journal of Physiology and Pharmacology

The following are choice selections of papers from each journal month by the Editor-in-Chief, Dr Lorrie Kirshenbaum, for 2024 (year to date).

September 2024: Epigenetic regulation of sex dimorphism in cardiovascular health.

<https://doi.org/10.1139/cjpp-2023-0406>

August 2024: Engaging women in decision-making about their heart health: a literature review with patients' perspective.

<https://doi.org/10.1139/cjpp-2023-0471>

July 2024: Cytochrome P450 1B1 is critical in the development of TNF- $\alpha$ , IL-6, and LPS-induced cellular hypertrophy

<https://doi.org/10.1139/cjpp-2024-0037>

June 2024: Discontinuing semaglutide after weight loss: strategy for weight maintenance and a possible new side effect

<https://cdnsiencepub.com/doi/full/10.1139/cjpp-2023-0464>

May 2024: Targeting the vivid facets of apolipoproteins as a cardiovascular risk factor in rheumatoid arthritis

<http://dx.doi.org/10.1139/cjpp-2023-0259>

March 2024: Stem cell therapy for cardiac regeneration: past, present, and future

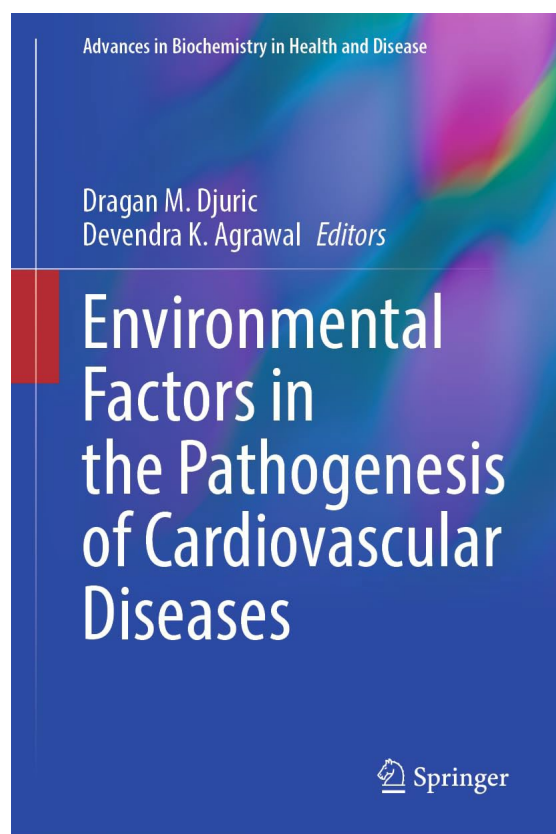
<https://cdnsiencepub.com/doi/full/10.1139/cjpp-2023-0202>

February 2024: Considerations for choosing an optimal animal model of cardiovascular disease

<https://cdnsiencepub.com/doi/full/10.1139/cjpp-2023-0206>

## Springer Nature Publishes Books on Environmental Factors in the Pathogenesis of Cardiovascular Diseases

Advances in Biochemistry in Health and Disease focus on the latest developments in biochemical research with implications for health and disease. This book series consists of original edited volumes and monographs, presented by leading experts in the field and provides an up to date and unique source of information for all those interested in the fundamental, biochemical processes of the latest and emerging topics and techniques. Covering a wide variety of topics, this book series is a valuable source of information from those at the lab bench through to the Health Care workers. Since 2006 to date, 30 volumes in this series have been published with Series Editor, Dr. Naranjan S. Dhalla

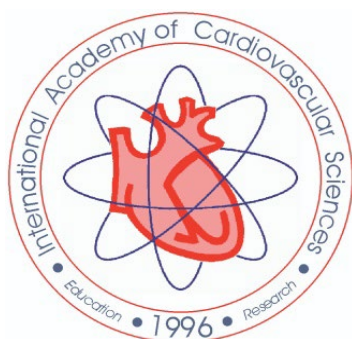


Environmental conditions and processes are one of the major pillars on which the human well-being rests. It is the core responsibility of the society to preserve and enhance better conditions for the human well-being. Indeed, there are several evolving unmet needs in public health. Emerging and re-emerging infectious diseases and a surge in the incidence of non-communicable diseases, including cardiovascular diseases (CAD), chronic respiratory diseases, and metabolic diseases have been impediments to sustainable well-being.

Many factors are critical in the global surge in the rate and incidence of cardiovascular diseases. These include the shift from acute to chronic conditions, the shift from single risk factor vs. multiple influences, aging population, global health disparities, exposure to lower harmful influences over a longer period, etc. However, the epigenetic factors due to unhealthy environment play a most significant role in the underlying pathogenesis of cardiovascular diseases. Unfortunately, this has been ignored for a long time and realized lately to expand and disseminate knowledge to general population, expand research activities to investigate the cellular and molecular mechanisms, and develop better preventive and treatment strategies.

The most significant environmental impoverishment in the pathogenesis of cardiovascular diseases include different genetical, chemical, physical, and biological influences, but not limited to, socio-economic status and lack of nutrients, nutritional aspects including habits, diets and additives, inhaled and ingested pollutants, exhaust gas and gasoline products, tobacco smoke, water pollution, alcohol consumption, soil and mineral pollution, solvents, pesticides, microplastics, non-critical usage of drugs, climate change, extreme atmospheric conditions, extremes in noise and temperature, electromagnetic influences, microwaves and radiation, outdoor light pollution, mental stressors, lack of or over exercise, microbiota and microbiological agents like SARS CoV-2 virus, etc.

For more information:  
<https://link.springer.com/book/10.1007/978-3-031-62806-1>



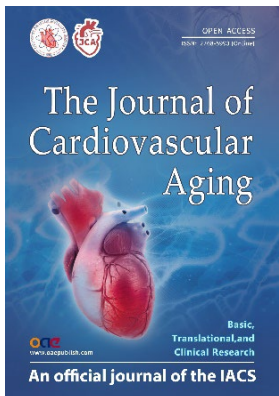
## Partnering Journals of the IACS



*Canadian Journal of Physiology and Pharmacology*  
**Impact Factor: 2.1**

**Editor-in-Chief:**  
**Dr. Lorrie A. Kirshenbaum**

**Editorial Office:**  
Canadian Science Publisher  
1840 Woodward Drive, Suite 1  
Ottawa, ON K2C 0P7 Canada  
Email: cjpp@cdnsiencepub.com



*The Journal of Cardiovascular Aging*  
**An Open Access Journal**

**Editor-in-Chief:**  
**Dr. Ali J. Marian**

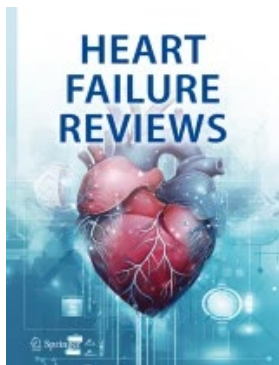
**Editorial Office:**  
OAE Publishing Inc.  
245 E Main Street Ste 107,  
Alhambra, CA 91801, USA  
Email: editorialoffice  
@cardiovascularaging.com;  
cardiovascularaging@gmail.com



*American Journal of Cardiovascular Drugs*  
**Impact Factor: 2.8; CiteScore: 6.7**

**Editor-in-Chief:**  
**Dr. Amitabh Prakash**

**Editorial Office:**  
Adis, Springer Healthcare  
74 Taharoto Road, Takapuna  
Auckland, 0622, New Zealand  
Email: amitabh.prakash@springer.com



*Heart Failure Reviews*  
**Impact Factor: 4.5**

**Editor-in-Chief:**  
**Dr. Andrew P. Ambrosy**

**Editorial Office:**  
Kaiser Permanente San Francisco Medical  
Center and Kaiser Permanente Northern  
California Division of Research, USA  
Email: Lovely.Obico@springernature.com

### IACS partnering journals:

1. *Canadian Journal of Physiology and Pharmacology*
2. *The Journal of Cardiovascular Aging*
3. *American Journal of Cardiovascular Drugs*
4. *Heart Failure Reviews*

Readers are encouraged to submit original research articles and reviews to these partnering journals.