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Promoting Cardiovascular Education, Research and Prevention

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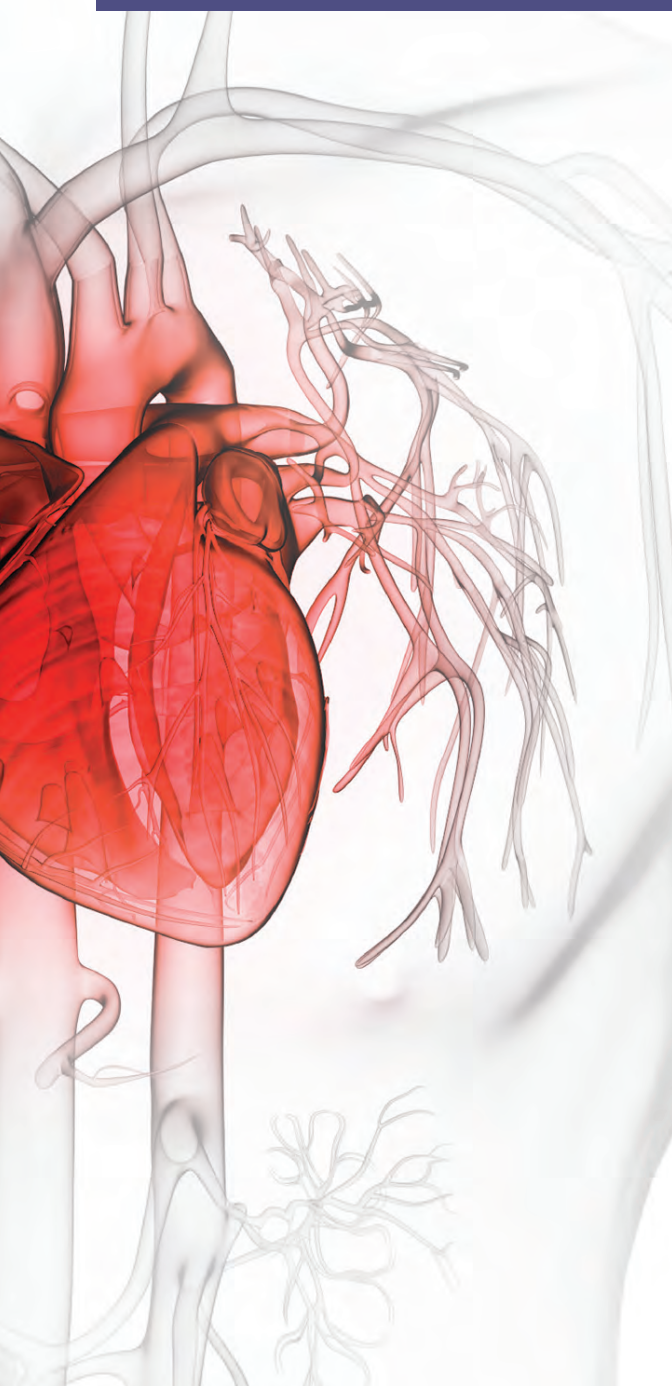


In this issue

To launch celebration of 20th Anniversary of IACS

Special Recognition for Ivan Berkowitz MBA

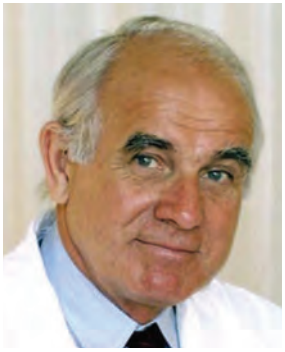
Ivan Berkowitz MBA

At a reception held in Winnipeg in February, 2016, the International Academy of Cardiovascular Sciences has recognized Ivan Berkowitz with "Distinguished Service Award in Cardiovascular Science, Medicine and Surgery". In his capacity as Editor of CV Network and Heart Health Scholar of the Academy for more than 15 years, Ivan has played a critical role in the development of cardiovascular health programs throughout the world. He served as conference coordinator for 11 national and international meetings and symposia held in Winnipeg for exchanging information on cardiovascular health and disease. In addition, he organized several public forums in Winnipeg and paid particular attention to lifestyle modifications and nutritional approaches for the prevention of heart disease. He edited a book "Frontiers in Cardiovascular Health" published by Kluwer Academic Publishers, Boston, 2003. He has also been serving on the editorial board of the Journal of Cardiovascular Translational Research. The work of Ivan Berkowitz was recognized by several awards from different organizations. He received Medal of Merit from SERVCOR, Brazil and was bestowed the title "Honourary Professor of Fundaco Cardiovascular Sao Francisco de Assis" Belo Horizonte, Brazil. He was granted Queen Elizabeth II Diamond Jubilee Medal, 2009 Reh-Fit Foundation Healthy Living Award, and Big Heart Award for Organizational Achievement by the Heart & Stroke Foundation of Manitoba. He has been serving as President of Myles Robinson Memorial Heart Trust for the past 9 years. Indeed, Ivan has rendered invaluable services in promoting the mission of the International Academy of Cardiovascular Sciences and thus all the Officers and Members of the Executive Council extend their best wishes for his future endeavors.

Naranjan S. Dhalla, Honourary Life President, IACS

Look at home page www.heartacademy.org for reference to formalities at the reception

A Message from the President



Bohuslav (Boja) Ošťádal

I was very pleased and honored by the result of the presidential election in 2011 of the International Academy of Cardiovascular Sciences. I realize very well the high responsibility connected with the chairmanship of this unique scientific society composed of esteemed experimental and clinical scientists from the whole world. I would like, therefore, to express my sincere thanks for the confidence to all voters, and I promise to do my best for the success of the Academy.

As you know, the International Academy of Cardiovascular Sciences (IACS) was founded in 1996 on the proposal of Prof. Naranjan Dhalla and it was headquartered in the home city of the founder, Winnipeg. Established by renowned cardiologists, both experimental and clinical, the Academy provides the organizational structure for the world-wide sharing of research and education in the field of heart health. The importance of such effort is strongly supported by the fact that cardiovascular diseases represent the number one killer; the mortality exceeds 50% of the total deaths. The Academy believes that the effective collaboration of experimental and clinical cardiologists may improve this unfavorable situation.

One can ask whether world cardiology needs one more international society. I am deeply convinced that the only answer is yes and I would like to briefly explain my arguments. I am old enough to be able to follow the development of the international cardiological community, particularly the relationships between the clinical and experimental cardiologists, from the early sixties of the last century. European Congress of Cardiology in 1964 was organized in Prague. From the total number of accepted presentations only three were devoted to the experimental cardiology. This fact stimulated the congress participants, Richard Bing, the father of cardiac metabolism, Eors Bajusz, a brilliant Hungarian-American biologist and my teacher Otakar Poupa to undertake the steps in order to improve this abnormal situation. Their very enthusiastic effort to promote basic cardiology led finally to the foundation of the International Study Group for Research in Cardiac Metabolism in Dubrovnik, former Yugoslavia in 1968. The name was later - at the suggestion of Naranjan Dhalla, one of its founders - changed into the International Society for Heart Research. Unfortunately, during the further development, the thinking and philosophy of experimental and clinical cardiologists became very divergent. The problems were, of course on both sides: extreme concentration on evidence based medicine among clinical cardiologists and massive orientation of experimental cardiologists on the molecular biology became the leading reasons. This development led the officials of the American and European Cardiological Societies to the introduction of basic research sessions into the regular scientific program of their congresses. This laudable step was important contribution to the better understanding between both communities. The disadvantage is, however, the size of the main congresses, often exceeding 20,000 participants and thus the complicated communication among the clinical and experimental cardiologists. And here I see the space for the activities of the Academy. It is more than clear that only the close cooperation between the clinical and experimental cardiologists is the driving force of the progress of the present cardiology. More intimate and friendly atmosphere of the meetings of the IACS thus should create the productive background for the effective discussion.

And now a few words to the name of the society. English term "Academy" is derived from ancient Greek "Academia", a grove of trees and gymnasium outside of Athens where Plato taught; the word relates to the name of the supposed former owner of that estate, the Attic hero Akademos. According to the Webster dictionary, "Academia" continues to provide scientific education and research. Alternatively it means the life, community or world of teachers, schools, and education. In accordance with this definition, the main goal of IACS is, therefore, the continuous education of the cardiovascular community with the aim to contribute to the translation of basic knowledge into prevention, improved diagnosis and therapy of cardiovascular disease worldwide. In addition to the working conferences, the small specialized teaching seminars, oriented predominantly on the young researchers should be organized by all 7 Sections of IACS. I would appreciate very much the help of older experienced colleagues in this respect. In addition, IACS will continue in the recognition of achievements of cardiovascular investigators by Fellowship of the Academy as well as major prizes to distinguished scientists and travel grants and awards for young investigators.

Medal of Merit Recipients

THIS HIGHEST HONOUR OF THE ACADEMY IS BESTOWED FOR OUTSTANDING ACHIEVEMENTS IN CARDIOVASCULAR EDUCATION AND RESEARCH

1. Michael DeBakey: Houston, USA	2001	17. Salvador Moncada: London, UK	2008
2. Richard Bing: Pasadena, USA	2001	18. Wolfgang Schaper: Bad Nauheim, Germany	2008
3. Edwin Krebs: Seattle, USA	2002	19. Howard Morgan: Winfield, USA	2008
4. Robert Furchgott: Brooklyn, USA	2002	20. Ernesto Carafoli: Padua, Italy	2009
5. Eugene Braunwald: Boston, USA	2003	21. Eric Olson: Dallas, USA	2009
6. Robert Lefkowitz: Durham, USA	2003	22. Arnold M Katz: Norwich, USA	2010
7. Sir John Vane: London, UK	2004	23. Laszlo Szekeres: Szeged, Hundary	2010
8. James Willerson: Houston, USA	2004	24. Jay Cohn: Minneapolis, USA	2011
9. Sir Magdi Yacoub: London, UK	2005	25. Salim Yusuf: Hamilton, Canada	2011
10. Robert B Jennings: Durham, USA	2005	26. Piero Anversa: Boston, USA	2012
11. Sir George Radda: Singapore	2006	27. Laurentiu M Popescu: Bucharest, Romania	2012
12. Victor Dzau: Durham, USA	2006	28. Makoto Nagano: Tokyo, Japan	2012
13. Louis Ignarro: Los Angeles, USA	2007	29. Roberto Bolli: Louisville, USA	2013
14. Sen. Wilbert Keon: Ottawa, Canada	2007	30. Ferid Murad: Washington, USA	2014
15. Jutta Schaper: Bad Nauheim, Germany	2007	31. Francois M Abboud: Iowa City, USA	2015
16. Nirmal Ganguly: New Delhi, India	2008		

The following were published in CV Network when awards were announced

Academy Establishes Medals of Merit

The International Academy of Cardiovascular Sciences will honour extraordinary people with Medals of Merit. They will be recognized for making major original research discoveries that clearly stand on their own or contributing important educational initiatives that have influenced how cardiovascular science is learned and practiced. Officers of the Academy will be excluded from consideration of the Medal.

Michael E DeBakey

Dr. Michael DeBakey was recently made a Fellow of the International Academy of Cardiovascular Sciences. In Winnipeg, at Cardiovascular Awards Day hosted by the Institute of Cardiovascular Sciences on October 1, 2002, he will be recognized for his extraordinary lifetime achievements with the Medal of Merit from the Academy.

A native Louisianan, Dr. DeBakey received his undergraduate and medical education at Tulane. After his residency at Charity Hospital in New Orleans, he went to the Universities of Strasbourg and Heidelberg for further study. Returning to Tulane Medical School, he served on the surgical faculty from 1937 to 1948. From 1942 to 1946, he was on military leave, serving in the Office of Surgeon General as director of the Surgical Consultants' Division and led the development of mobile army surgical hospitals (MASH units). He joined the Baylor faculty in 1948, serving as Chairman of the Department of Surgery until 1993. Dr. DeBakey was president of the college from 1969 to 1979 and served as Chancellor from 1979 to January 1996.

Dr. DeBakey is Chancellor Emeritus, Distinguished Service Professor and Olga Keith Wiess Professor of Surgery, and Director of the DeBakey Heart Center of the Baylor College of Medicine and the Methodist Hospital in Houston, Texas. Dr. DeBakey's surgical career has earned

him world renown as a surgeon, innovator, medical educator, and international medical statesman. He has performed more than 60,000 cardiovascular procedures and has trained thousands of surgeons who practice throughout the world, many now as heads of their own departments of surgery. He has operated on heads of state, princes and celebrities, as well as paupers, and applies the same exacting surgical technique and compassion to all.

While still a medical student, he devised a pump that years later became one of the essential components of the heart-lung machine that made open-heart surgery possible. He has developed more than 50 surgical instruments.

Best known for his innovations in treating cardiovascular diseases, Dr. DeBakey was the first to do successful excision and graft replacement of arterial aneurysms and obstructive lesions, particularly on the carotid artery and aortic arch. A pioneer in the development of an artificial heart, he was the first to use a heart pump successfully in a patient. He also conceived the idea of lining a bypass pump and its connections with Dacron velour.

In 1953, Dr. DeBakey performed the first successful carotid endarterectomy, thereby establishing the field of surgery for strokes. In 1964, Dr. DeBakey and associates performed the first aortocoronary bypass with autogenous saphenous vein graft. In 1968, he led a team of surgeons in an historic multiple transplantation procedure in which the heart, kidneys, and one lung of a donor were transplanted to four recipients.

His ability to bring his professional knowledge to bear on public policy earned Dr. DeBakey a reputation as a medical statesman. He was a member of the medical advisory committee of the Hoover Commission and was chairman of the President's Commission on Heart Disease, Cancer and Stroke during the Johnson Administration. He has worked tirelessly in numerous capacities to improve national and international standards of health care. Among his numerous consultative appointments is a three-year membership on the National Advisory Heart and Lung Council of the National Institutes of Health.

Dr. DeBakey holds membership and fellowship in the most distinguished medical and surgical societies in the world. A life-long scholar, he has published more than 1,300 medical articles, chapters, and books on various aspects of surgery, medicine, health, medical research, medical ethics and socioeconomics, and education.

Dr. DeBakey is the recipient of numerous honourary degrees and citations from universities around the world. He has received honours from many heads of state, including the Medal of Freedom, the highest honour the President of the United States can bestow on a civilian, the Presidential Medal of Science, and the Lasker Award, the American equivalent of the Nobel Prize.

Richard J Bing

The International Academy of Cardiovascular Sciences is honoured to announce that Dr. Richard J. Bing has accepted appointment as a Fellow of the Academy.

Dr. Bing is also being recognized for his extraordinary lifetime achievements with the Medal of Merit from the Academy.

Dr. Bing was born in Nurnberg, Bavaria and is a U.S. citizen. After graduation with M.D.'s from the Universities of Munich and Bern, he chose to work on the culture of whole organs at the Rockefeller Institute in New York with Alexis Carrel, the surgeon who had won a Nobel Prize, and Charles Lindbergh, the "Lone Eagle" who made the famous solo flight to Paris in 1929 and was attracted to medical research where he made important contributions. After an internship in surgery at Columbia University, Dr. Bing worked for six years in physiology, first at Columbia and later at New York University, studying the mechanism of hypertension and of crush injuries. He then joined the staff of the Department of Medicine at Johns Hopkins as an instructor where he worked on neurogenic hypertension and also became a resident in medicine. After one year, he joined the U.S. Army, the chemical warfare division, studying the mechanisms of action of various agents. Dr. Bing then rejoined the Department of Surgery at Johns Hopkins Hospital to work with Alfred Blalock and Helen Taussig on congenital heart disease.

After eight years, he joined the University of Alabama, working on the metabolism of the heart. He further pursued this subject as a Professor of Medicine at Washington University, in St. Louis, and as director of the Veterans Administration Medical Service. In 1959, Dr. Bing became Chairman of the Department of Medicine at Wayne State

University in Detroit, where he continued his studies in cardiac metabolism, and also began work on the feasibility of coincidence counting and the measurement of coronary flow and visualization of the heart in situ. Ten years later, he moved to Pasadena, California as Professor of Medicine at USC and Chief of Medicine and Cardiology at the Huntington Memorial Hospital, and as Director of Experimental Cardiology at Huntington Medical Research Institutes. His initiative focused on new methods of visualizing the coronary microcirculation by transillumination and the metabolism of the heart after myocardial infarction. He is now working on the mechanism of the COX-2 enzyme in the kidney and heart, and its inhibition by non-steroidal anti-inflammatory drugs.

Dr. Bing has been awarded honourary degrees by the German Academy of Medicine, University of Bologna, and Johns Hopkins University. In recognition of Dr. Bing's contribution as a founder, the International Society for Heart Research instituted the "Richard Bing Award for the Best Young Investigator in the Field of Heart Research". In 2001, he received the Presidential Citation of the American College of Cardiology.

Dr. Bing has often expressed that he has a good time doing his work and wishes that it could last forever. In addition to medicine, he is addicted to music which, he says, has given him the opportunity to weather the vicissitudes of life.

Edwin Krebs

The Mission of the Academy includes recognizing extraordinary cardiovascular initiatives. The International Academy of Cardiovascular Sciences is delighted to recognize Dr. Edwin G. Krebs for his amazing achievements with the Academy's Medal of Merit.

Edwin G. Krebs was born in Lansing, Iowa in 1918, the third of four children of William Carl Krebs and Louise Helen (Stegeman) Krebs. In the period from 1933 to 1940 in Urbana, he completed the last three years of high school and carried out undergraduate work at the University of Illinois. Washington University School of Medicine proved to be an excellent choice as a place where he received classical medical training but at the same time learn to appreciate "medical research." After being discharged from the Navy in 1946, he returned to St. Louis with the idea of continuing residency and becoming an academic internist but he was accepted by Dr. Carl and Gerty Cori as a postdoctoral fellow. In 1948, he had an opportunity to go to Seattle as an Assistant Professor of biochemistry. In 1950, Hans Neurath became the first permanent chairman of the Department of Biochemistry at the University of Washington and began to build what was to become one of the major departments in the country. Dr. Krebs had been in Seattle for five years when Ed Fischer joined the Department.

Together they decided to see whether or not they could determine the mechanism by which 5'-AMP served as an activator of phosphorylase b. They didn't solve that problem, but in the course of trying we discovered the molecular mechanism by which interconversion of the two forms of phosphorylase takes place; namely, reversible protein phosphorylation. During the early years of work on protein phosphorylation, Ed Fischer and Edwin Krebs worked together very closely even to the point that if one had to leave to give a lecture the other could carry on the experiment of the day. In 1968, Dr. Krebs went to University of California in Davis where a new medical school was taking shape. He became the founding chairman of the Department of Biological Chemistry and stayed for a period of eight years. In 1977, however, he returned to the University of Washington as Chairman of the Department of Pharmacology.

On October 12, 1992, Edmond H. Fischer and Edwin G. Krebs of the University of Washington School of Medicine received the Nobel Prize for Medicine for their discoveries in the 1950s concerning "reversible protein phosphorylation." The Nobel Prize was established in the will of Alfred Nobel (1833-1896) for annual awards to men and women who confer the greatest benefit on humankind in the fields of physics, chemistry, physiology or medicine, literature, and peace. Scientists worldwide have drawn on the work for a vast spectrum of research on cellular processes. They shared the $1.2 million prize.

Dr. Krebs was a professor in Pharmacology and Biochemistry and Dr. Fischer was a professor in Biochemistry. Their discovery was a key to unlocking how glycogen in the body breaks down into glucose. It fostered techniques that prevent the body from rejecting transplanted organs. Their breakthrough opened new doors for research into cancer, blood pressure, inflammatory reactions and brain signals. Their work helped researchers better understand such things as diabetes; Alzheimer's disease; why certain cancers develop; and how the body mobilizes sugar to produce energy.

In each university, Dr. Krebs viewed the principal role of the chairman to be the selection of good faculty members, and he has great pride of the results of his efforts in each place including the opportunity to interact with colleagues in the development of the respective institutions.

As UW professor emeritus and Howard Hughes Medical Institute senior investigator emeritus, Dr. Krebs still leads an active lab. But it's down from 20 to five lab people, who are all now looking elsewhere. "I hope to close my lab in a year," he says.

An important part of his autobiographical sketch concerns his family. During residency at Barnes Hospital he met his wife, Deedy, who was a student nurse at Washington University and they were married in 1945. They had three children, Sally, Robert, and Martha and now have five grandchildren.

Looking at the world today, Dr. Krebs is disappointed that the goal of becoming a scientist— or even of getting an education—is becoming less accessible to poor children: "I would like to see a day when any kid would be able to go as far as his abilities could carry him," he says. "In many ways, the situation for young people seems worse now than when I graduated."

Robert F Furchgott

As part of the Mission to recognize major cardiovascular achievement throughout the world, the International Academy of Cardiovascular Sciences recognizes Dr. Robert F. Furchgott for his extraordinary accomplishments with the Academy's Medal of Merit.

Dr. Furchgott was born in Charleston, South Carolina in 1916. He received a B.S. degree in chemistry from the University of North Carolina in 1937 and a Ph.D. degree in biochemistry from Northwestern University in 1940. He was at Cornell University College of Medicine (Departments of Medicine and Physiology) from 1940-1949 and at Washington University (Department of Pharmacology) from 1949-1956. He served as Professor and Chairman of the Department of Pharmacology of the State University of New York Downstate Medical Center at Brooklyn from 1956-1983, and is presently Distinguished Professor Emeritus at that institution. He has also been Adjunct Professor of Pharmacology at the University of Miami School of Medicine (1989-2001), and Distinguished Professor of Pharmacology at the Medical University of South Carolina (since 2001).

Dr. Furchgott is recognized for his research in cardiac pharmacology, adrenergic peripheral mechanisms, theory of drug-receptor mechanisms, and vascular pharmacology and physiology. Much of his research has been carried out on isolated, living preparations of heart and blood vessels. His development in the 1950's of the helical strip of rabbit thoracic aorta as a model system for studies on drug-receptor mechanisms led to its use in laboratories worldwide. He was one of the first investigators to demonstrate the importance of the neuronal uptake mechanism for modulating responses of adrenergic effector organs to norepinephrine and epinephrine. Before the advent of radio-ligands for studying receptors, he developed theory and pharmacological procedures for the characterization and differentiation of cell membrane receptors on which drugs, neurotransmitters and hormones act. He also made the novel discovery that vascular smooth muscle is photosensitive, undergoing reversible relaxation when exposed to near ultraviolet light, and determined the action spectrum and other characteristics of this phenomenon.

In 1980, he reported his discovery of the obligatory role of endothelial cells in the relaxation (vasodilation) of arteries by the neurotransmitter acetylcholine, and demonstrated that the relaxation resulted from release of a labile factor (later called endothelium-derived relaxing factor or EDRF) from the stimulated endothelial cells. This novel discovery was followed by the discovery in his laboratory and other laboratories that many vasodilators, both endogenous substances and drugs, act by stimulating release of EDRF. He independently showed that EDRF acts by stimulating the enzyme guanylate cyclase in the vascular smooth muscle cells, leading to an increase in cyclic guanosine monophosphate (cGMP) which mediates relaxation. He also found that photorelaxation of blood vessels is mediated by an increase in cyclic GMP. In 1986, he presented evidence for his independent proposal that EDRF is nitric oxide (NO), and that the neurotransmitter released by non-adrenergic non-cholinergic (NANC) nerves may also be NO. The discovery of endotheliumdependent vasodilation and the identification of EDRF as NO opened up a new area of research which is contributing much to our understanding of cardiovascular physiology and pathology.

Dr. Furchgott is a recipient of a number of awards and honors. Among these are the Goodman and Gilman Award for Research on Receptor Pharmacology from the American Society for Pharmacology and Experimental Therapeutics (ASPET, 1984); the CIBA Award from the Hypertension Section of the American Heart Association (1988); the Research Achievement Award of the American Heart Association (1990); the first Annual Bristol-Myers Squibb Award for Achievement in Cardiovascular Research (1991); the Gairdner Foundation International Award (1991); Medal of the New York Academy of Medicine (1992); Roussel Uclaf Prize for Research in the Field of Cell Communication and Signalling (1994); Wellcome Gold Medal of the British Pharmacological Society (1995); the ASPET Award for Experimental Therapeutics (1996); the Gregory Pincus Medal and Award (1996); the Albert Lasker Basic Medical Research Award (1996); the Louis and Artur Lucian Award (1997); the Nobel Prize in Physiology or Medicine (1998).

He is the recipient of Honorary Doctoral Degrees (in Medicine or Science) from the Autonomous University of Madrid, the University of Lund, Sweden, the University of North Carolina, the University

of Ghent, Belgium, the Mount Sinai School of Medicine, Ohio State University, the Medical University of South Carolina, the Medical

College of Ohio, Northwestern University, University College London, and Washington University at St. Louis. He was President of the American Society for Pharmacology and Experimental Therapeutics (1971-1972). He is a member of the National Academy of Sciences (1990), a Foreign Honorary Member of the Royal Academy of Medicine of Spain (1998), and a Fellow of the American Academy of Arts and Sciences (2000).

Eugene Braunwald

Eugene Braunwald, M.D. is the Distinguished Hersey Professor of Medicine at Harvard Medical School, Faculty Dean and Chief Academic Officer of the Partners HealthCare system founded by the Brigham and Women's and Massachusetts General Hospitals. The International Academy of Cardiovascular Sciences has bestowed on Dr. Braunwald the Academy's Medal of Merit for lifetime achievements.

Dr. Braunwald was born in Vienna Austria on August 15, 1929. He and his family fled Austria after the Nazi occupation and came to the U.S. in November 1939. Dr. Braunwald received his medical training at New York University and completed his Medical Residency at the Johns Hopkins Hospital. In 1955 he became a Clinical Associate in the (then) National Heart Institute. Subsequently, he served as the first Chief of the Cardiology Branch and then as Clinical Director of the National Heart, Lung and Blood Institute. After he left the intramural program, Dr. Braunwald became the founding Chairman of the Department of Medicine at the University of California, San Diego. From 1972 to 1996 he was Chairman of the Department of Medicine at the Brigham and Women's Hospital. Dr. Braunwald is the only cardiologist who is a member of the U.S. National Academy of Sciences. He has served as President of the American Society for Clinical Investigation and the Association of Professors of Medicine.

Dr. Braunwald has received numerous honors and awards including the Wiggers and Bowditch Wards of the American Physiological Society, the Abel Award of the American Society for Pharmacology and Experimental Therapeutics, the Research Achievement, and Herrick Awards of the American Heart Association, the Distinguished Scientist Award of the American College of Cardiology, and the Kober medal of the Association of American Physicians. He is the recipient of nine honorary degrees from distinguished universities throughout the world. In 1996, Harvard University created the Eugene Braunwald Professorship in Medicine as a permanently endowed chair. In 1999, the American Heart Association created the Eugene Braunwald Academic Mentorship Award as a permanent annual award. In 2000, the living Nobel Prize winners in medicine voted Dr. Braunwald as "the person who has contributed the most to cardiology in recent years". During the International Society for Heart Research

XVII World Congress in Winnipeg, Canada in July 2001, Dr. Braunwald was presented with the St. Boniface Hospital and Research Foundation International Award. In 2002, the Brigham and Women's Hospital dedicated a research facility as the "Eugene Braunwald Research Center".

Dr. Braunwald is the author of more than 1100 publications and an editor of Harrison's Principles of Internal Medicine, (Editor-in-Chief of the 11th Edition and the current 15th Edition) and the founding editor/author of Heart Disease, now in its 6th Edition. These two books are the leading texts in internal medicine and cardiology respectively. Dr. Braunwald has been Chairman of the TIMI trials since 1984 and he has led the SAVE and CARE trials.

Dr. Braunwald's research has illuminated many aspects of cardiology. He has been a major force in cardiovascular research continuously for almost five decades and remains so. His earliest work in the 1950's dealt with the hemodynamics of valvular heart disease. In studies with Stanley Sarnoff at the NIH, Braunwald characterized the hemodynamic determinants of myocardial oxygen consumption and coronary blood flow, identifying the tension time index as a major determinant of myocardial oxygen consumption. He and John Ross then clarified the importance of Starling's Law of the heart as a major determinant of ventricular performance in man; and with Andrew Morrow he made seminal contributions to the description of, and then named, idiopathic hypertrophic subaortic stenosis, a relatively common form of heart disease.

Braunwald and his colleagues developed techniques for characterizing myocardial force-velocity relations in intact unanesthetized man. Together with Ross and Sonnenblick, Braunwald identified velocity of cardiac contraction as a major determinant of myocardial oxygen consumption. He and Steven Epstein performed some of the earliest studies on beta-adrenergic receptor blocking drugs and with Charles Chidsey described an important biochemical defect in heart failure -- the depletion of norepinephrine in the hearts of patients with this condition.

Dr. Braunwald demonstrated, first in experimental animals and then in patients, that limitation of infarct size (by improving the balance between the heart's supply of and demand for oxygen) can improve the outcome of patients with this common condition. This led to widely used methods of treatment of myocardial infarction such as reperfusion therapy (to improve oxygen supply) and beta adrenergic receptor blockade (to reduce oxygen demand). He then showed in patients who had survived a heart attack that survival can be improved further by preventing remodeling of the left ventricle using an angiotensin converting enzyme inhibitor. Most recently, he showed that clinical outcome in victims of infarction with average cholesterol levels can be improved with cholesterol reduction. Thus, taken together, Dr. Braunwald's major scientific contributions are central to the dramatic worldwide improvement in the outcome of patients suffering myocardial infarction.

Robert J Lefkowitz

With great pleasure, the Academy announces the award to Dr. Robert J. Lefkowitz of the Medal of Merit for his extraordinary lifetime of research, teaching and contribution to heart health in the world.

Dr. Lefkowitz was born in the Bronx, New York City in 1943. The only child of Max and Rose Lefkowitz, he had set his career goal of becoming a practicing physician as early as elementary school. Highly focused on this goal, he graduated from Columbia College with a Bachelor of Arts Degree at age 19 and from Columbia University College of Physicians and Surgeons at age 23. After an internship and 1 year of medical residency at Columbia Presbyterian Medical Center, he moved in 1968 to the NIH to fulfill his two-year military obligation as a Clinical Research Associate at the National Institute of Arthritis and Metabolic Diseases (NIAMD, as it was then called). During the subsequent two years, he worked together with Jesse Roth and Ira Pastan and developed the first radioligand binding assay for ACTH receptors leading to his very first publication in The Proceedings of the National Academy of Sciences. This study was amongst the very first to ever label a membrane receptor with a radioligand and was contemporaneous with the early work on the nicotinic cholinergic receptor. This first research experience greatly excited him, but he moved to Boston to finish his clinical training in General Internal Medicine and Cardiovascular Diseases at the Massachusetts General Hospital. During this period (1970-73) he began working in the laboratory of the Chief of Cardiology, Dr. Edgar Haber, a noted immunochemist, and initiated

the studies that ultimately formed the basis for his life's work on adrenergic receptors. In July of 1973, he moved to Duke University as an Associate Professor of Medicine and Biochemistry and started his own independent research program. In 1976, he became an Investigator of the Howard Hughes Medical Institute, a position he holds to this day. He became a James B. Duke Professor of Medicine and Biochemistry in 1982.

Working with the adrenergic receptors as models, Dr. Lefkowitz's research has formed the basis for the now vast field of research into socalled G protein-coupled membrane receptors. This, the largest superfamily of membrane receptors, includes approximately one thousand members in the mammalian genome and regulate virtually all physiological processes from hormonal and neurotransmitter signaling to sensory signaling in the visual, olfactory and taste systems to chemokine signaling. Virtually all cardiovascular regulation is controlled by members of the seven membrane spanning receptor superfamily such as the adrenergic and muscarinic cholinergic receptors, angiotensin and endothelin receptors and many others.

In the early 1970's, Lefkowitz and his numerous students and fellows systematically developed ligand binding approaches for the study of each of the then-known adrenergic receptors, both a1 and 2 and b1 and 2. They then developed methods to solubilize, photoaffinity label and ultimately purify by affinity chromatography each of these receptors. In the 1980's, they were able to obtain small amounts of protein sequence from the purified receptors and clone their genes and cDNAs. His cloning, together with collaborators at Merck, of the gene for the b2-adrenergic receptor, announced in Nature in 1986, revealed its homology and secondary structure relationship to the visual pigment, rhodopsin. The common theme of seven membrane spanning domain receptors was rapidly confirmed by his laboratory on the other members of the adrenergic receptor family. This early work made possible the cloning of essentially all the other members of the vast superfamily of receptors by various homology techniques over the ensuing fifteen years.

Lefkowitz also unraveled the molecular mechanisms underlying the phenomenon of desensitization of receptors, in the process discovering and cloning the G protein-coupled receptor kinase and b-arrestin families of proteins which regulate this universally important regulatory phenomenon. More recently, he has found that G protein-coupled receptor kinases and b-arrestins not only desensitize receptors, but can link them to novel signaling pathways. Exciting new functions for the arrestins are being reported by laboratories around the world including their important role in mediating clathrin-mediated endocytosis of the receptors.

His laboratory has also made numerous other discoveries about the molecular mechanisms of functioning of the receptors, how they signal, interact with G proteins, etc. They also discovered the phenomenon of constituitively active mutant receptors, now known to be the cause of an ever-growing list of human diseases.

As he approaches his sixtieth birthday, he continues as actively engaged in his research as ever, with the major current focus being on unraveling the novel signaling roles of barrestins and G protein-coupled receptor kinases. His approaches range over the entire spectrum from genetically altered knockout and transgenic animals to detailed molecular and structural studies. Despite all of his accomplishments in research, the professional accomplishment of which he is most proud is the training of a large number of extremely successful and productive investigators. Almost 200 individuals have worked in his laboratory over the past 30 years, many of whom have gone on to distinguished careers as scientists and administrators in both the academic and commercial settings. Along the way, he helped raise five children, three boys and two girls, none of whom have pursued careers in Science or Medicine, but four of whom are involved in one or another aspect of the entertainment business.

For his research, Lefkowitz has been repeatedly recognized and honored. Some of his awards include: 1976 Howard Hughes Medical Institute Investigator; 1979 George W. Thorn Award for Scientific Excellence of the Howard Hughes Medical Institute; 1982 Ernst Oppenheimer Memorial Award of the Endocrine Society; 1982 Gordon Wilson Medal, American Clinical and Climatological Assn.; 1986 Goodman and Gilman Award of the American Society for Pharmacology and Experimental Therapeutics; 1987 North Carolina Award for Science; 1988 National Academy of Sciences; 1988 American Academy of Arts and Sciences; 1990 Association of American Medical Colleges Biomedical Research Award; 1990 American Heart Association Basic Research Prize; 1990 Honorary Member Japanese Biochemical Society; 1994 Institute of Medicine National Academy of Sciences; 1995 The Endocrine Society Gerald D. Aurbach Lecture Award; 1997 The New York Academy of Medicine, 2000 F.E. Shideman-Sterling Award, University of Minnesota; 2001 The Louis and Arture Lucian Award for Research in Circulatory Disease 2001 Jessie Stevenson Kovalenko Medal, The National Academy of Sciences; 2001 Peter Harris Distinguished Scientist Award, International Society for Heart Research (presented at the World Congress in Winnipeg); and 2001 Appointed as a Fellow in the International Academy of Cardiovascular Sciences and is now a most befitting recipient of the Academy's Medal of Merit.

Sir John Vane

The William Harvey Research Institute, London, England, refers to Sir John Vane as "our Field Marshall in the battle against disease". He has devoted his life to battling the disease enemy with new pharmaceutical weapons, with new biochemical intelligence and with new alliances among disparate human communities in big pharma, academia and self-help groups. In 1982, his efforts were recognized with a Nobel Prize and since that time he has re-doubled his efforts to fight disease, with a special focus on curing pulmonary hypertension.

Sir John Vane graduated in Chemistry, took a D.Phil. in Pharmacology and received the Nobel Prize in Medicine for his work on prostaglandins and for the discovery of the mechanism of action of aspirin. He spent 20 years in academic research. As a consultant to Squibb, he initiated the program on inhibiting angiotensin-converting enzyme which led to the marketing of Captopril. During 12 years as R&D Director at the Wellcome Foundation, he oversaw the development of Tracrium, Flolan, Zovirax, and Lamictal.

In 1971, Vane and his colleagues discovered that aspirin and similar drugs produced their effects because they inhibited the biosynthesis of a group of lipid mediators called prostaglandins. In the last five years it has become clear that there are two enzymes involved. One of the "cyclo-oxygenases" called Cox 1 is responsible for making prostaglandins, which protect the stomach and kidney from damage. Inhibition of Cox 1 accounts for the unwanted side effects of aspirin-like drugs such as gastric irritation and renal damage. The other enzyme, Cox 2, is induced by inflammatory stimuli and it is prostaglandins made by this enzyme that contribute to the inflammation in diseases such as rheumatoid arthritis. The presently marketed aspirin-like drug inhibits both enzymes and the research may lead to selective inhibition of Cox 2, the enzyme responsible for inflammation.

The William Harvey Research Institute was established in 1986 by Sir John. Under his direction, it grew to a staff of over 120 scientists and became one of the 20 top medical charities in the UK. He is now Honorary President of the charitable arm, the William Harvey Research Foundation.

The International Academy of Cardiovascular Sciences is pleased to recognize Sir John Vane for his extraordinary achievements with the Academy's Medal of Merit.

James T Willerson

The International Academy of Cardiovascular Sciences is delighted to recognize Dr. James T. Willerson for his lifetime of exceptional accomplishments with the Academy's Medal of Merit.

James T. Willerson, MD is the President of The University of Texas Health Science Center at Houston where he has recently been named the Alkek-Williams Distinguished Professor. In 1989, he was named the Edward Randall III Professor and Chairman of the Department of Internal Medicine at The University of Texas Medical School at Houston, where an Annual Lectureship has been established in his name. He is also the Medical Director, Chief of Cardiology, Director of Cardiology Research, and Co-Director of the Cullen Cardiovascular Research Laboratories at the Texas Heart Institute; the Chief of Cardiology at St. Luke's Episcopal Hospital; and until recently, he served as the Chief of Medical Services at Memorial Hermann Hospital (1989-2000). He is also an Adjunct Professor of Medicine at Baylor College of Medicine, an Adjunct Professor of Medicine at The University of Texas MD Anderson Cancer Center, and he was named the Robert J. Hall Chair of Cardiology at St. Luke's Episcopal Hospital.

Dr. Willerson is a Phi Beta Kappa graduate of The University of Texas at Austin where he lettered for three years in swimming. Upon graduating as a member of Alpha Omega Alpha from Baylor College of Medicine in Houston, Texas, he completed his medical and cardiology training as an intern, resident, and research and clinical fellow at the Massachusetts General Hospital in Boston, Massachusetts, and as a Clinical Associate at the National Institutes of Health in Bethesda, Maryland.

He is the former Chairman of the National American Heart Association Research Committee and of the NIH Cardiovascular and Renal Study Section. He has received the Award of Merit from the American Heart Association and has served as a member of the Board of Directors and Steering Committee of the National American Heart Association. Before coming to The University of Texas Medical School at Houston, Dr. Willerson was Professor of Medicine and Director of the Cardiovascular Division at The University of Texas Southwestern Medical School in Dallas and Director and Principal Investigator of the National Heart, Lung, and Blood Institute's Specialized Center of Research under a major grant from the NIH. Upon his departure, the "James T. Willerson, MD Distinguished Chair in Cardiovascular Diseases" was established at The University of Texas Southwestern Medical School.

Dr. Willerson has served as visiting professor and invited lecturer at more than 170 institutions. He has received numerous national and international awards, including the "James B. Herrick Award" from the American Heart Association in 1993, the American College of Cardiology's Distinguished Scientist Award for 2000, and the American Heart Association's Distinguished Scientist Award for 2003. He has been elected a Fellow in the Royal Society of Medicine of the United Kingdom and made an Honorary Member of the Society of Cardiology in Peru in 1994, in Spain in 1996, the Hellenic Society of Cardiology in Greece in 1997, and the Society of Cardiology of Venezuela in 2000. He is a member and past President of the Paul Dudley White Cardiology Society at Harvard Medical School and Massachusetts General Hospital.

He has served on the following editorial boards for professional publications: American Journal of Cardiology, American Journal of Medicine, Circulation Research, Cardiovascular Medicine, American Heart Journal, Journal of the American College of Cardiology, Journal of Clinical Investigation, and The New England Journal of Medicine. Since 1993, he has been the Editor-in-Chief of Circulation, the major publication of the American Heart Association. He has edited or co-edited twenty textbooks, including the 2nd Edition of Cardiovascular Medicine which was released in July of 2000. Additionally, he has had published more than 770 scientific articles.

He has been elected to membership in numerous professional societies, including the American Society of Clinical Investigation, the Association of American Physicians, the Association of Professors of Medicine, the Institute of Medicine of the National Academy of Sciences and as a Fellow in the International Academy of Cardiovascular Sciences. He was named a "Distinguished Alumnus" by the Baylor College of Medicine in 1998 and a "Distinguished Alumnus" by The University of Texas at Austin in 1999.

His recent research work has concentrated on elucidating mechanisms responsible for the conversion from stable to unstable coronary heart disease syndromes, the prevention of unstable angina and acute myocardial infarction, and the detection and treatment of unstable atherosclerotic plaques. Very recently, he and his colleagues at the Texas Heart Institute and in Houston, Texas, and at Hospital Procardico in Rio de Janeiro have begun bone marrow derived stem cell transplantation directly into the hearts of patients with severe heart failure and have demonstrated objective and subjective evidence of clinical improvement. The work will be expanded to centers in the United States.

Sir Magdi Yacoub

Professor Sir Magdi Yacoub FRS, FRCS, FRCP(Hon), DSc(Hon), MCh(Hon), FACC was born and educated in Cairo where he qualified as a doctor in 1957. After qualification, he did a spell as a houseman and then as registrar. In 1962, he came over to England to take up the post of surgical officer, and then surgical registrar at the London Chest Hospital. The following year he became Senior Surgical Registrar at the National Heart Hospital and Brompton Hospital where he worked for the next five years under Lord Brock and Donald Ross. After a year in America as Assistant Professor at the University of Chicago Medical School, he returned to this country to take up the position of Consultant Cardiac Surgeon at Harefield Hospital, a position which he still holds in addition to being Director of Medical Research and Education. Under his leadership, Harefield Hospital has become Britains' leading transplant centre, performing over 200 heart transplants a year. He was also Consultant Cardiac Surgeon to the National Heart Hospital from 1973 to 1989 and in 1986 was appointed to be the first British Heart Foundation Professor of Cardiothoracic Surgery at the National Heart & Lung Institute in association with the Royal Brompton Hospital. In 1995, the Institute became a Department of Imperial College School of Medicine.

Following retirement from the NHS in September 2001, Sir Magdi continues to head his research programme as Founder and Director of Research of the Magdi Yacoub Institute (formerly known as Harefield Research Foundation) and British Heart Foundation Professor of Cardiothoracic Surgery, in an academic capacity. In addition, at the beginning of 2002, Mr. Alan Milburn, MP appointed Sir Magdi as Sir Magdi Yacoub Special Envoy to the NHS in a National drive to recruit overseas qualified specialists in a new and innovative International Fellowship scheme.

As the Founder Patron of the global charity Chain of Hope, Prof. Yacoub devotes his boundless energy in pursuit of the mission he stated: "It is a little known fact that around 1 child in every 100 is born with a heart defect. Most of these defects can be corrected by operations which are performed as a matter of routine in the developed world. In contrast, if uncorrected these defects can cause considerable suffering

and premature death. This afflicts a massive number of children around the world. Chain of Hope is dedicated to helping as many of these children as we can. This is accomplished by bringing children to the UK and also by sending volunteer teams to their countries in the longer to help develop local facilities. I feel privileged to be a link in the chain that helps these children". In October, 2004, the Chain of Hope also established a new partnership with the Variety Children's Lifeline for which Prof. Yacoub will lead pediatric cardiac missions to Mauritius, Kenya, Mozambique, Jamaica and Morocco.

Professor Yacoub is a pioneer in the field of heart and lung transplantation and one of the world's leading cardiac surgeons,. He carried out his first heart transplant operation at Harefield Hospital in 1980. Since then he has carried out hundreds of these operations; the 1,000th transplant at Harefield was undertaken by him in July 1989. Magdi Yacoub has specialised in working with children with congenital heart malformations and has done pioneering work on the "switch" operation. Sir Magdi's other surgical interests include the homograft and pulmonary autograft aortic valve replacement, and the aortic root repair.

Sir Magdi Yacoub has made a remarkable contribution to heart and heart-lung transplantation not only as the surgeon who has performed more transplants than anybody else in the world, but as a scientist interested in the fundamental aspects of organ transplantation. In ten years, he has attracted approximately 80-90 colleagues who are closely involved with the clinical work of his department and are investigating physiological and disease processes at molecular and cellular levels. The Department is rapidly becoming one of the leading academic departments of cardiothoracic surgery in the world.

Professor Yacoub is a Fellow of the Royal College of Surgeons, Licentiate of the Royal College of Physicians and Fellow of the Royal Society of Medicine. He holds honorary degrees from Brunel University, Cardiff University, The University of Loughborough, University of Middlesex and also from the University of Lund in Sweden. He holds honorary posts in Lahore, Pakistan and University of Siena, Italy. He has received many awards and distinctions including the Clement Prize Thomas Award of the Royal College of Surgeons of England in 1989. In 1999, he was elected a Fellow of The Royal Society and presented with the Lifetime Outstanding Achievement Award in recognition of his contribution to Medicine by the Right Hon. Frank Dobson, MP, Secretary of State for Health. In April 2004, he was presented with a Lifetime Achievement Award by the International Society for Heart & Lung Transplantation.

The International Academy of Cardiovascular Sciences is pleased to recognize Sir Magdi Yacoub for his extraordinary lifetime of achievements with the Academy's Medal of Merit.

Robert B Jennings

The International Academy of Cardiovascular Sciences is delighted to recognize his extraordinary achievements and honour Robert Jennings with its most prestigious Medal of Merit.

Dr. Robert B. Jennings graduated from the Northwestern University Medical School in Chicago Illinois in 1949 at the age of 22. After a rotating internship, he spent a year in research in the Pathology Department of the Medical School prior to entering the U. S. Navy in 1951 during the Korean War. He reported for duty at the Great Lakes Naval Hospital where he was assigned to the Pathology Service. After serving for two years as a Medical Officer, he transferred to the inactive reserve and became an Instructor in Pathology at Northwestern University. He spent much of the next 50 years studying the heart and pursuing a career in academic medicine.

His first job was a good one from the point of view of research. His only responsibility was to teach medical students general pathology for roughly six months of the year. The remainder of his time was available for research. He applied himself and was lucky in his choice of questions to study. He rose from instructor to professor in 10 years and became Chairman of the Department of Pathology in 1969 when he also was named Magerstadt Professor of Pathology.

The search for an answer to a single question has guided much of Dr. Jenning's research on the heart, namely: What event or series of events kills myocytes when they are made acutely ischemic? In 1953, as well as now, necrosis is not obvious in the human heart for hours after a patient develops signs and symptoms of acute myocardial infarction. Jennings hypothesized that it was likely that cell death occurred much faster than the histological study of autopsy hearts indicated. Using experimental acute myocardial infarcts in which he knew the part of the heart that was going to die in sustained occlusion, he was able to show that myocytes tolerated 15 to 18 minutes of severe ischemia. He termed this "Reversible Injury". However, longer periods of ischemia resulted in the death of more and more myocytes in the subendocardial myocardium. Although dead, these myocytes were grossly normal. This state was termed "Irreversible Injury". The question then became one of ascertaining which changes occurred in the reversibly injured myocytes at the time of transition to irreversibility. Dr. Jennings was able to show, together with Charles Steenbergen and Charles Ganote that, at about the time of the transition, electron microscopy indicated that the sarcolemma was disrupted. Functional assessment of sarcolemmal integrity in tissue slices prepared from irreversibly injured tissue confirmed this finding. Thus, loss of cell membrane integrity is considered to be the critical event that leads to the death of ischemic myocytes.

In a critical experiment performed in 1959 and 1960, Dr. Jennings attempted to learn precisely when myocytes passed the "point of no return". He did this by reperfusing the ischemic myocytes with arterial blood after having exposed them to various periods of ischemia. Using this technique, he was able to show that myocytes remained reversibly injured for an extended period of time and moreover, that they did not die simultaneously. These findings served as the scientific basis of reperfusion therapy in man, a procedure developed in the mid-1970s by Rentrop and others.

In 1978, Dr. Jennings and his long time collaborator, Keith Reimer, gave a blueprint for the salvage of ischemic myocytes in the dog heart. They showed that there was a transmural wave front of cell death in acutely ischemic myocardium in which the subendocardial myocardium died first followed by the death of myocytes in the mid- and subepicardial myocardium. Cell death progressed transmurally as a function of collateral arterial flow until all myocytes destined to die were dead. Salvage was possible during the first six hours of ischemia but not thereafter. Thus, significant numbers of myocytes can be salvaged by reperfusion for an extended period of time. This work was done at the Duke University Medical Center where in 1975 Dr. Jennings became Chairman of Pathology and a James B. Duke Professor. These studies were the basis of the American Heart Association Discovery Health Channel Award in 2004 for a basic science discovery that led to a major advance in clinical medicine.

From 1978-90, a number of important studies looked at the mechanism of cell death. Most of these studies involved analysis of the changes occurring in reversibly and irreversibly injured myocytes during or as a consequence of reperfusion of the damaged tissue, demonstrating that massive sarcolemmal destruction occurs within seconds of the onset of reperfusion of irreversibly injured tissue, and that this change is associated with massive calcium loading. This was the first direct link between calcium loading and cell death. Anthony Shen and Dr. Jennings identified that the calcium came from the plasma reperfusing the tissue and that most of the calcium was actively accumulated by the mitochondria. Dr. Jennings also showed a close association

between ATP depletion, lactate accumulation and cell death during the first episode of ischemia, and hypothesized that sarcolemmal disruption might be related to one or both of these changes, although ATP depletion and lactate accumulation slowed greatly during a second brief episode of ischemia. This unexpected observation led to the discovery of the phenomenon known as "Ischemic Preconditioning". A bright graduate student named Charles Murry, who was working with Drs. Jennings and Reimer, showed clearly that a brief episode of reversible ischemia protected the heart against the effect of a prolonged episode of ischemia, and proposed that the slowed metabolic changes might be the cause of the beneficial effect. In any event, this was the strongest protective effect ever identified in the experimental animal heart and was shown to occur in the human heart as well.

In 1989, Dr. Jennings retired from the Chair in Pathology at Duke and continued to be active in research until 2003. He has been awarded multiple honors over the course of his career including the Borden award for the best research done while a medical student, a Markle Scholarship in Academic Medicine, the Peter Harris Award for Excellence in Research of the International Society of Heart Research in 1992, the Cardiovascular Pathologist of the Year Award by the American Society of Cardiovascular Pathology in 1993, and the American Heart Association's Discovery Health Channel award in 2004.

Sir George Radda

Sir George Radda was born in 1936 in Hungary. He began his career as a chemistry student in Budapest. In 1956 he left Hungary and arrived in England, where he finished his first class degree at Merton College before going on to complete his PhD. Sir George completed his postdoctoral work and a student fellowship with Melvin Calvin in Berkley, California, and then returned to England for a lectureship at Oxford in 1969, followed by a rapid rise to be Professorial Fellow. His main research interests center on the biochemical basis and cellular functions in heart disease. He became interested in using spectroscopic methods including Nuclear Magnetic Resonance (NMR) and in 1981, Sir George and his fellow colleagues published the first scientific report on the clinical application of his work. This resulted in the installation the first clinical magnetic resonance spectroscopy unit with a magnet large enough to accommodate the whole human body for NMR investigations in 1983 at the John Radcliffe Hospital in Oxford. In recognition of his pioneering research, which opened up the study of the workings of the living body, he was given a chair in 1984 by the British Heart Foundation. From 1996 to 2003 (on secondement) he was Chief Executive of the Medical Research Council. Also, he was Chairman National Cancer Research Institute (2001-2003). Sir George received numerous prestigious awards and honours for his pioneering efforts in using spectroscopic techniques for metabolic studies, including a CBE in June 1993 and a Knighthood in June 2000. He is a Fellow of Merton College, Oxford, a Fellow of the Royal Society and is the British Heart Foundation Professor of Molecular Cardiology. He is an Honorary Member of the American Heart Association and was awarded the Citation for International Achievement. From 1996 to 2003, Sir George was Chief Executive of the Medical Research Council in the UK. He is currently Emeritus Professor of Molecular Cardiology at the University Laboratory of Physiology Cardiac Science Centre, University of Oxford and Chairman of the Singapore Bioimaging Consortium.

In recognition of his lifetime of extraordinary achievement, Sir George Radda is honoured by the International Academy of Cardiovascular Sciences with the 2006 Medal of Merit.

Victor J Dzau

Victor J. Dzau, MD, was appointed Chancellor for Health Affairs at Duke University and President and CEO of the Duke University Health System effective July 1, 2004. He is also James B. Duke Professor of Medicine and Director of Molecular and Genomic Vascular Biology at Duke.

Dr. Dzau served previously as Arthur Bloomfield Professor and Chairman of the Department of Medicine at Stanford. Most recently, he was the Hersey Professor of the Theory and Practice of Physics (Medicine) at Harvard Medical School, Chairman of the Department of Medicine at Brigham and Women's Hospital, and Physician-in-Chief and Director of Research at Brigham and Women's Hospital, Boston MA.

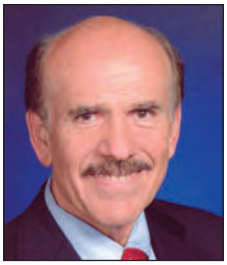
Dr. Dzau's academic interests are in cardiovascular translational research and mission-based education. His laboratory has studied the molecular and genetic mechanisms of cardiovascular disease and applied genomic and gene transfer technologies to develop novel therapeutic approaches. His work on the renin angiotensin system (RAS) paved the way for the contemporary understanding of RAS in cardiovascular disease and the development of RAS inhibitors (e.g. ACE inhibitor) as therapeutics. He pioneered gene therapy for vascular disease, being the first to introduce DNA decoy molecules to block transcriptions as gene therapy in vivo. Two of his discoveries E2F decoy and nitric oxide synthase gene therapy are now being evaluated in clinical trials. He is currently advancing the novel concept of "preemptive gene therapy" using hypoxia regulated expression of heme oxygenase 1 transgene for coronary heart disease and recently has proposed the "Paracrine Hypothesis" for stem cell action in tissue repair and regeneration.

The recipient of many awards and honors, Dr. Dzau received the first Hatter Award from the Medical Research Council of South Africa in 2000. He was awarded the prestigious Gustav Nylin Medal by the Swedish Royal College of Medicine and the Swedish Cardiology Society, the Novartis Award for Hypertension Research by the American Heart Association (which also named him one of its Distinguished Scientists for 2004), the 2004 Max Delbruck Medal by the Max Delbruck Center for Molecular Medicine, Berlin, Germany, the 2005 Golden Door Award by the International Institute of Boston, and a 2005 Ellis Island Medal of Honor by the National Ethnic Coalition of Organizations.

Dr. Dzau has served on numerous committees and advisory boards, including, previously, the Executive Committee of The Academy at Harvard Medical School (of which he is a founding member) and the boards of Brigham and Women's Hospital, Partners Healthcare, and the Harvard Clinical Research Institute. Currently, he serves as a member of the Board of Directors for both Duke University Health System and Genzyme Corporation. He has been elected to the Institute of Medicine of the National Academy of Sciences (USA) and the European Academy of Sciences and Arts. Previous Chairman of the National Institutes of Health (NIH) Cardiovascular Disease Advisory Committee, he served on the Advisory Committee to the Director of the NIH. In 1999, he became Editor-in-Chief for the American Physiological Society's new journal, Physiological Genomics. A founding member of the Society of Vascular Medicine and Biology and the Council of Arteriosclerosis, Thrombosis, and Vascular Biology of the American Heart Association, Dr. Dzau was Editor-in-Chief of the Journal of Vascular Medicine and Biology.

Dr. Dzau received his MD from McGill University in Montreal and underwent postgraduate training at Harvard Medical School. He was born in Shanghai, China, raised in Hong Kong, and is a citizen of the United States. He and his wife Ruth have been married for 32 years and are the parents of two daughters.

The International Academy of Cardiovascular Sciences is delighted to present its prestigious Medal of Merit for 2006 to Dr. Victor Dzau.



Louis J Ignarro

Louis J. Ignarro was born in 1941 in Brooklyn, New York and grew up in Long beach, New York. He received a B.Sc. degree in Pharmacy/Chemistry from Columbia University in 1962, and a Ph.D. degree in Pharmacology/Physiology from the University of Minnesota in 1966. He did a postdoctoral fellowship at the N.I.H. in the Laboratory of Chemical Pharmacology from 1966 to 1968. Dr. Ignarro's first research position after training was with the CIBA-Geigy Pharmaceutical Company and in 1973 took on his first academic position at Tulane Medical Center in the Department of Pharmacology. In 1985, he accepted the position of Professor of Pharmacology at the UCLA School of Medicine, where he remains today. His current endowed position is the Jerome J. Belzer, MD, Distinguished Professor of Pharmacology. Dr. Ignarro has received many Awards but perhaps the most notable are: The Basic Research Prize of the American Heart Association, Election into the National Academy of Sciences, Election into the Academy of Arts and Sciences, and the 1998 Nobel Prize in Physiology and Medicine.

Louis J. Ignarro and two other researchers received the 1998 Nobel Prize in Medicine for their three major discoveries involving nitric oxide as a unique signaling molecule in the cardiovascular system. In 1972, Dr. Ignarro discovered nitric oxide causes vasodilation - a widening of the blood vessels - and inhibition of thrombosis, which leads to improved blood flow to the arteries and veins. In 1986, Dr. Ignarro confirmed his suspicion that blood vessels can make nitric oxide, the active ingredient in nitroglycerin, a common drug used to treat heart conditions. Experiments in 1990 led to the discovery that nitric oxide is the neurotransmitter responsible for penile erection. The discovery made it possible for a drug company to develop and market Viagra, the first oral medication for the effective treatment of erectile dysfunction.

Dr. Ignarro's discoveries created an explosion of research involving nitric oxide. In 1986, there were a dozen papers published on nitric oxide and just 10 years later, there were about 7,600 papers published on nitric oxide. His observations with nitric oxide have made it possible for medical professionals to understand what protects the cardiovascular system against pathological conditions such as hypertension, stroke, coronary artery disease and other forms of atherosclerosis, gastrointestinal ulcers and vascular complications of diabetes.

Dr. Ignarro's laboratory at the David Geffen School of Medicine at UCLA has never been larger than eight or nine people. Throughout his career, funding for the lab has come from the National Institutes of Health (NIH) and local heart associations. In 2000, Ignarro testified before Congress on the importance of NIH funding for basic science research. In his testimony, he said that only in America could the son of an uneducated carpenter receive the Nobel Prize in Medicine.

Sen. Wilbert J Keon

Dr. Keon was born and raised in Sheenboro; Quebec received his primary and secondary education locally and his M.D. from the University of Ottawa. His post-graduate education was from McGill, Toronto and Harvard Universities. After his medical and scientific training, Dr. Keon moved to Ottawa in 1969 to found the University of Ottawa Heart Institute. Dr. Keon was the Chief Executive Officer until April 2004 and his vision and leadership build the University of Ottawa Heart Institute to an international centre of excellence for cardiac care, research and education, an enterprise budget exceeding $190 million per year.

During his tenure at the University of Ottawa Heart Institute, Dr. Keon established international standards in clinical program delivery, cardiac facilities design, public and professional education programs and research and technology development. A passionate spokesman for the rights of Canadians to quality cardiac care, and to the local community benefits of leading-edge research, he communicated his message as a relentless fundraiser to garner millions of dollars for the Ottawa Heart Institute.

Innovation has been a hallmark of Dr. Keon's career, having drawn research grants totalling 66 million dollars during his career. His clinical innovations are numerous, but most notable include the pioneering of surgical reperfusion in acute heart attacks during the early 1970s, the first cardiac transplant in Ottawa in 1983, the first use of Jarvik 7-70 artificial heart in Canada in 1986, and in 1989, the first Canadian infant heart transplant.

Dr. Keon's academic leadership is evidenced by over 475 presentations, over 200 publications including authorship or contributions to 22 books, and 16 visiting professorships. He was a member of 72 national and international societies. He developed Canada's largest research and clinical artificial heart development program that spun-out into World Heart Corporation in 1996. He led early demonstration projects and advocacy for telehealth. These innovations also required new approaches to industrial collaboration, while maintaining scientific leadership through peer-reviewed grants.

Dr. Keon has received numerous medical scientific awards as well as many civic awards, including the Order of Ontario, the Order of Canada, membership in the Order of St. Gregory the Great, from Pope John Paul II, and appointment to the Senate of Canada in 1990. In this latter capacity, he has participated in numerous major health and science related reports.

Dr. Keon remains active in health and economic policy through participation on Scientific and Clinical Advisory Boards, membership on several Boards of Directors and as a consultant to public and private sector clients.

Jutta Schaper

Jutta Schaper was born in Berlin, Germany and received her M.D. in 1961 in Dusseldorf, Germany. In 1958 she married Wolfgang Schaper, M.D., Ph.D. with whom she has 3 children. In 1961 Jutta Schaper started to work at Janssen Pharmaceutica, Beerse, Belgium where she trained in the newly developing art of electron microscopy and later became head of the Department of Morphological Studies. In 1972, the family moved to Bad Nauheim, Germany and both Schapers were employed at the Max Planck Institute for Physiological and Clinical Research. Jutta Schaper has an affiliation with the Pathology Department at the University of Giessen where she obtained her Ph.D. in 1981. She was Head of the Department of Cardiovascular Cell Biology in the Max Planck Institute until 2004 when she retired. Up to the present time, Jutta Schaper is still professionally active as honorary consultant for the "Core Group for Confocal Studies" at the Max Planck Institute in Bad Nauheim.

Jutta Schaper's work has been based on morphological techniques, electron microscopy and confocal laser microscopy and structural studies of the normal and pathological heart and of blood vessels were the themes of her work. Jutta Schaper, in life-long collaboration with her husband Wolfgang, studied the morphology of collateral blood vessels under various conditions producing numerous joint publications and 4 books on this topic.

Another subject starting in 1976 was the protection of ischemic myocardium during open-heart surgery. After many trials of numerous protection

methods, the Bretschneider cardioplegic solution was found to provide optimal protection under experimental conditions and in the human heart during surgery. This work has been publicized in many scientific periodicals.

The main issue of Jutta Schaper's work, however, was the investigation of the morphology of the failing human heart. She was the first to describe the structural impairment of the failing heart and she defined structure-function relationships in both, patients with dilated cardiomyopathy and patients with pressure overload due to aortic valve stenosis. The origin of fibrosis with its different components, disappearance of the contractile filaments and functional disturbance of specialized proteins such as the connexins or the cytoskeleton, loss of cardiomyocytes due to different types of cell death, were found to be significant factors in causing heart failure. The contribution of these structural changes to diastolic and systolic dysfunction were carefully identified and described in numerous publications.

Jutta Schaper attended, mostly upon invitation to give oral presentations, innumerable national and international scientific meetings and was invited to Universities to lecture on the failing myocardium mostly in Germany, the US and Canada, and in Japan, but also in most of the other European countries and in Israel. Jutta Schaper has been active as officer in the International Society for Heart Research (ISHR), first for 9 years as Secretary General of the European Section and from 1992-1995 as President of the ISHR worldwide. Her aim was to promote the knowledge of cardiaovas cular pathophysiology on a world-wide basis through publications and congresses.

Jutta Schaper has received many awards and medals from various organizations.

Dr. Schaper feels very honored to be allowed to join the group of famous colleagues who already received the Medal of Merit and she would like to thank the colleagues of the Academy for this recognition of her lifetime achievements.

Nirmal K Ganguly

Prof. N. K. Ganguly completed his MBBS at University of Kolkatta, MD (Microbiology) from Post Graduate Institute of Medical Education & Research, Chandigarh and obtained D.Sc. (h.c.) from University of Calcutta, Kolkata; Bundelkhand University, Jhansi; Chhatrapati Shahu Ji Maharaj University, Kanpur and Guru Nanak Dev University, Amritsar.

Until recently, he was Director General, Indian Council of Medical Research, New Delhi. He was General President (Elect), the Indian Science Congress Association for the year 2004-2005 and was acting Director, Post Graduate Institute of Medical Education & Research, Chandigarh for the period from 8.12.1999 to 6.3.2000 and 1.10.2003 to 20.12.2003. He was also acting Director, National Institute of Biologicals, NOIDA.

Prof. Ganguly has published 725 papers and guided 130 Ph.D thesis as guide/co-guide. His major research areas have been tropical diseases, cardiovascular diseases and diarrhoeal diseases. His area of specialization is infection and has interests in this area ranges from immunology, biotechnology and public health. Prof. Ganguly is Fellow, Imperial College Faculty of Medicine, London; Royal College of Pathologists, London; International Academy of Cardiovascular Sciences, Canada; Third World Academy of Sciences, Italy; and International Medical Sciences Academy, New Delhi. He is also Fellow of National Academy of Medical Sciences, New Delhi; Indian National Science Academy, New Delhi; National Academy of Science, Allahabad; and Indian Academy of Sciences, Bangalore.

He was the President of National Academy of Medical Sciences, New Delhi and was President, Asian Society of Diarrhoeal Diseases and Nutrition (2000-2003). He was Chairman, Lancefield International Society on Streptococci and Streptococcal Diseases; President, International Society of Health Research (Indian Chapter); was President, Academy of Cardiovascular Sciences (Indian Chapter).

He has been Emeritus Professor of National Academy of Medical Sciences (India), New Delhi; Honorary Professor, Special Centre for Molecular Medicine (SCMM), Jawaharlal Nehru University, New Delhi; Emeritus Professor, Postgraduate Institute of Medical Education & Research, Chandigarh; Honorary Global Health Research Fellow and Adjunct Professor at Boston University; Adjunct Professor of Environmental Health, School of Public Health, University of Minnesota; Honorary Professor, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore; was Visiting Professor, Dr. B. R. Ambedkar Centre for Biomedical Research, Delhi; was Professor of International Health, University of Minnesota, Minneapolis; was Guest Lecturer, S.N.Pradhan Centre for Neuro-Science, Calcutta University, Calcutta; Honorary Doctor, Yerevan State Medical University; Honorary Consultant/Adviser, Armed Forces Medical Services Raksha Mantralaya.

He has been Chair of WHO-SEARO Advisory Committee on Health Research for the last several years. He was Vice-Chairman, Joint Coodinating Board (JCB) for Special Programme for Research and Training in Tropical Diseases (TDR); Joint Indo-US Vaccine Action Program. He was Chairman, WHO Scientific Working Group on Criteria for Setting Health Research Priorities, WHO SEARO, New Delhi and Co-Chairman, Global Alliance for Vaccines and Immunization (GAVI). He was member, Scientific and Technical Advisory Committee (STAC) of TDR; Special Program of Research, Development and Research Training in Human Reproduction; Foundation Council, Global Forum for Health Research, Geneva; UNAIDS Vaccine Advisory Committee; Scientific Board Grand Challenges, Bill & Melinda Gates Foundation; was Board of Trustees, International Centre for Diarrhoeal Diseases Research, Bangladesh (ICDDR, B); was National Advisory Council, International Centre for Research on Women (ICRW), Delhi; was International Advisory Group (IAG), Fogarty International Centre (FIC), National Institutes of Health, Bethesda, Maryland. He was Member of Joint Coordinating Board (JCB) for Special Program for Research and Training in Tropical Diseases (TDR); was Proto-board and Working Group of World Bank; International Advisory Committee, Vaccine Research Centre, National Institutes of Health, Maryland, USA; and Guideline Development Group in updating of the Technical Report on Rheumatic Fever and Rheumatic Heart Disease, WHO, Geneva. He is Chairman, Research Council of Central Drug Research Institute, Lucknow and Chairman, Scientific Advisory Committee, National Centre for Cell Science, Pune. He was Chairman, Scientific Advisory Committee, Centre for Cellular & Molecular Biology, Hyderabad; Centre for DNA Fingerprinting and Diagnostics, Hyderabad; Tata Memorial Centre, Mumbai; Bose Institute, Kolkata and Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow. He is Governing Body member of 27 Indian institutes and Public Health Foundation of India. He has been Scientific Advisory Committee member of various research institutes in India. He has participated as Temporary Advisors in 121 WHO meetings till date. He is also Chairman of various committees of Govt. of India like GM Food, Vitamin A, Environmental Health etc.

He had been Chief Editor of PGI's Bulletin, Chandigarh and was member, Editorial Board of various national and international journals. He is Chairman, Editorial Board of Indian Journal of Medical Research and ICMR Bulletin.

He has won 100 awards (International-4; National-96). He received Norman Alpert Award, 2004 of International Academy of Cardiovascular Sciences; Annual Award, 2004 of International Spirit of Life Foundation,

USA and Gaylord Anderson Memorial Lecture, 2006 of School of Public Health, University of Minnesota, Minneapolis, USA. Notable among national awards are Goyal Prize in the area of Applied Science (2002); 24th Rameshwardas Birla National Award, 2005 of the Rameshwardasji Birla Smarak Kosh; Om Prakash Bhasin Award in Health & Medical Sciences, 1997; Ranbaxy Research Award, 1996; FICCI Awards, 1998-99; Excellence in Science and Technology, 2006 of the Indian Science Congress Association and Shanti Swarup Bhatnagar Medal (2007); INSA's Shambu Nath De Memorial Lecture Award, 1993; Dr.Yellapragada SubbaRow Memorial Lecture, 1999; five ICMR awards; Prof. Naranjan S Dhalla Award for lifetime achievement in Cardiovascular Pharmacology of the Indian Pharamcology Society.
He has made important contributions in the field of rheumatic fever and rheumatic heart disease and its public health aspects and pathogenesis. His other contributions include immunological basis of chronic artery disease and pathogenesis of Takawasu disease.

Salvador Moncada

Prof. Moncada was born in Honduras and graduated from Medical School in El Salvador. In 1971 he came to the Royal College of Surgeons in London to do a PhD. There he contributed to the dis¬covery of the inhibition of the enzyme cyclo-oxygenase, and thus of prostaglandin biosynthesis, by aspirin-like drugs and to the elucidation of the mechanism by which these drugs act as anal¬gesic and anti-inflammatory agents. In 1975, at The Wellcome Research Laboratories, he was re¬sponsible for the discovery of thromboxane synthase, an enzyme in platelets that converts pros¬taglandin endoperoxides into the vasoconstrictor and platelet-aggregating agent thromboxane A2; he also identified inhibitors of this enzyme. In 1976 he initiated and led the work that resulted in the discovery of prostacyclin, a potent vasodilator and inhibitor of platelet aggregation pro¬duced by vascular endothelium. Many of the fundamental discoveries in the area of thromboxane and prostacyclin research were carried out by this group over the following 10 years. His studies have contributed to the understanding of how small doses of aspirin prevent cardiovascular episodes such as myocardial infarction and stroke. In addition, a synthetic analogue of prostacyclin (iloprost) is used clinically to treat primary pulmonary hypertension.

In 1986 Professor Moncada developed a method for the biological detection of the so-called endothelium-derived relaxing factor (EDRF). Using this system, which has become widely accepted as a bioassay for the study of EDRF, he and his group made two observations; firstly, that EDRF was inactivated by superoxide anions (O_2^-) but not by other oxygen-derived radicals and secondly, that many of the described putative inhibitors of EDRF act as a result of their redox properties leading to the genera¬tion of O_2^- in solutions. This initial work provided some of the clues for the later identification of the chemical structure of EDRF and helped to clarify the controversy that existed at the time about the possible nature of EDRF and the mechanism of action of its inhibitors.

Professor Moncada and his colleagues demonstrated the release of nitric oxide (NO) from vascular endothelial cells and showed that this release occurred in quantities sufficient to account for the biological actions of EDRF. For this they developed a chemilu¬minescence detection technique that is now widely used in the field of NO research. Furthermore, they showed that NO is synthe¬sized from the amino acid L-arginine, specifically from its terminal guanidine nitrogen atom(s), by an enzyme (NO synthase) which concomitantly forms L-citrulline. His group first showed that the L-arginine analogue NG-monomethyl-L-arginine (L-NMMA) is an enantiomerically-specific inhibitor of the synthesis of NO in vitro and that inhibition of NO synthesis in vivo leads to hypertension. They thus demonstrated that NO was an endogenous regulator of blood pressure. Prof. Moncada's group also showed that NO inhibits platelet aggregation and adhesion via elevation of cyclic GMP and that prostacyclin potentiates the anti-aggregatory but not the anti-adhesive properties of EDRF. The L-arginine:NO pathway is now known to be ubiquitous in both mammalian and non-mammalian tissues and the synthesis of NO has been shown to underlie a wide variety of physiological and pathophysiological functions in the cardiovascular, central and peripheral nervous, and immune systems.

In 1989, Prof. Moncada's group demonstrated that the L-arginine:NO pathway is present in the central nervous system where it acts as a neuromediator with many physiological roles. They also found that oestrogens increase the quantities of endothelial and neuronal NO synthases. This is probably one of the mechanisms by which the cardiovascular system adapts itself to the increased load of pregnancy and may explain, at least in part, why premenopausal women are protected against heart disease.

Prof. Moncada and his group later discovered that glucocorticoids inhibit the expression of the inducible NO synthase in vitro. Inhi¬bition by glucocorticoids of the induction of an NO synthase might account for some of the physiological, pharmacological and toxic effects of these compounds. They also found NO to be present in the exhaled air of normal animals and man and they speculated that this may be a physiological excretion which might be augmented in pathological states such as asthma. This has led to a widespread interest in the possible role of NO in this and other inflammatory conditions. Furthermore, measurements of the fraction of exhaled NO constitute a non-invasive marker in patients with asthma for adjustment of their inhaled corticosteroid treatment.

Prof. Moncada's group cloned the inducible human NO synthase from chondrocytes and was one of the first groups that pro¬duced knockout mice for this enzyme. These mice are proving extremely useful in the investigation of the roles played by NO in defence mechanisms of the body and in immunopathology. They later used human tumour cell lines transfected with inducible NO synthase to induce tumours in nude mice and have found that NO might have some tumour-promoting activity through an angiogenic effect.

More recently Prof. Moncada has focused on the role of NO as a regulator of cell respiration. In 1994 he and his group demon¬strated that NO, at physiological concentrations, inhibits the mitochondrial enzyme cytochrome c oxidase (complex IV), in compe¬tition with oxygen. They also showed in endothelial cells that endogenous NO modulates oxygen consumption under basal and stimulated conditions and that the interaction of NO with cytochrome c oxidase can act as a signalling mechanism that confers cytoprotection. Furthermore, they demonstrated that at low oxygen concentrations this interaction causes the diversion of oxy¬gen to non-mitochondrial oxygen-dependent targets. They went on to characterize the sequence of events that follow inhibition of cytochrome c oxidase by continuous exposure to NO and showed that oxidative stress develops with the subsequent inhibition of other mitochondrial and cytosolic enzymes. This led them to suggest that in this way NO may progress from acting as an impor¬tant physiological regulator of cell respiration to becoming an agent of cell pathology. Indeed, they showed that NO is a factor in the stabilization of hypoxia-inducible factor in cancer.

Prof. Moncada's group have shown that inhibition of respiration by exogenous NO leads to mitochondrial membrane hyperpo¬larization dependent on the utilization of glycolytic ATP by the F1F0-ATPase and other transporters acting in reverse mode. This process occurs in highly glycolytic cells, but not in neurons, which do not invoke glycolysis to maintain ATP concentrations. They further demonstrated that this hyperpolarization correlates with protection against apoptotic cell death.

Most recently, Prof. Moncada and co-workers have investigated the role of endogenous NO in mitochondrial biogenesis; they have shown that NO promotes mitochondriogenesis (and hence oxidative metabolism) and that the inflammatory cytokine tumour necrosis factor (TNF)-alpha

downregulates this process in obese animals. Furthermore, they have demonstrated that calorie restric¬tion promotes mitochondriogenesis by inducing the expression of endothelial NO synthase. These findings have implications for novel treatment of diseases of metabolic origin, including type-2 diabetes mellitus and obesity-linked cardiovascular disorders.

Since 1996 Prof. Moncada has established and directed The Wolfson Institute for Biomedical Research at University College London.

Wolfgang Schaper

My main interest in science since 40 years was (and still is) the capacity of the vascular system to repair itself. In particular its ability to build a new artery in cases of arterial occlusion. When I started my post-doctoral training in pathology more than 40 years ago, I made the observation that patients dying from non-cardiac causes exhibited, upon autopsy, occluded coronary arteries but no infarctions. These hearts had developed a natural "bypass" circulation that had salvaged their myocardium. This was not a frequent observation but I found that often enough to come to the conclusion that a genetic program must exist that enabled the heart to use this escape hatch when needed. I brought this observation to the laboratory and found that indeed mammals differed in their ability to develop a collateral circulation and that man was not at the bottom of the evolu¬tionary scale for its ability to build one. I could show that the collateral arteries were the product of active cell proliferation and not one of passive stretch. Already in the late 1960ies I could show that endothelial and smooth muscle cells of these tiny pre-existent arterioles synthesized DNA and underwent cell division whereupon the collateral vessel diameter increased manyfold reach¬ing thereby full arterial size. In 1975 I discovered together with Dr. Jutta Schaper that circulating monocytes attached to the wall of developing canine coronary arterioles and later studies revealed that these cells are indeed essential to the growth of collateral arteries, because removal of monocytes or tampering with their activ¬ity inhibited arterial growth. We discovered that monocyte chemo-attractant factor (MCP-1) is important for the repair and genetic targeting of this factor as well knock-out of its cognate receptor (CXCR2) inhibits arteriogenesis. These studies were the experimental basis for the subsequent clinical studies with bone marrow derived stem cells that are now intensely studied. We also found that the physical force that triggers collateral artery growth is the fluid shear stress and we designed new experiments to alter and maxi¬mally increase fluid shear stress. Arterial tissue from these experiments was subjected to genome-wide screening for differentially expressed genes and we discovered an abundance of new and unsuspected genes that we are currently studying. We found that several signaling pathways are involved in arteriogenesis namely the MAPKinases ERK-1, 2, the Rho- and the NO-pathway. Our stud¬ies led to the new concept of "Arteriogenesis", the adaptive growth of collateral arteries, which differs from angiogenesis because it does not rely on ischemia/hypoxia and its growth factor needs differ significantly from that of capillary sprouting. Our studies have advanced far enough to begin thinking of ways and means to translate our knowledge, accumulated over 4 decades, into strategies for new pharmacological agents. Should this be possible the dream of my life would come true.

Dear Naranjan, you may not remember that your advice was once very helpful to me. We met 25 years ago at Duke University where you had given a seminar at Bob Jennings lab. I had taken you out to dinner and I told you the reason for spending a sabbatical year in Bob's Department: I had felt, that my research with the collateral circulation had got stuck and was searching for a different topic. You strongly advised me not to do that but stick to the topic for which was already well known. I heeded your advice and with the new molecular methods my research in collaterals took a new and productive turn. Thanks very much again for your serendipitous advice.

Howard Morgan

Dr. Howard Morgan was born in Bloomington, Illinois, and began his college education there with one year at the Illinois Wesleyan University (1944-45). He then moved directly into medical school at Johns Hopkins University, where he received his M.D. degree in 1949. His original intention was to become an obstetrician-gynecologist, a career he began on the house staff of the hospital of Vanderbilt University (1949-53). The following year (1953-54) he was instructor in these disciplines. He then became for a year a fellow in medical research in the unit of the Howard Hughes Medical Institute established in the Department of Physiology at Vanderbilt (1954-55). But the following year he was back in obstetrics and gynecology as assistant chief of that service on active duty in the U.S. Army Station Hospital at Fort Campbell, Kentucky. He then returned to Vanderbilt, and for the next ten years (1957-67) he was an investigator in the Hughes Institute, with faculty rank that progressed from assistant professor (1959-62), to associate professor (1962-66), and professor (1966-67). Morgan then became the first professor and chairman of the Department of Physiology in the Milton S. Hershey Medical Center of the Pennsylvania State University in Hershey, Pennsylvania. From 1973 he has been also Associate Dean for Research, and in 1974 was honored by designation as the Evan Pugh Professor of Physiology. In 1982 he was further honored by appointment as a scholar of the Howard Hughes Medical Institute. Morgan wrote briefly of his training:

"Because I entered physiological research after eight years of clinical training, research, and practice in obstetrics and gynecology, my training was entirely as a postdoctoral fellow. Charles R. Park served as my preceptor and guided me into studies of the effects of insulin on glucose uptake and sugar transport. With a solid background obtained in Park's laboratory, I later was able to undertake the new areas of investigation that have characterized the remainder of my career."

Dr. Morgan was been a member of the Executive Committee of the American Section of the International Society for Heart Research (1976-79; president, 1979-82). From this office he became president elect of the International Society (1980-83) and served as president (1983-86).

In 1996, Dr. Morgan was elected to be the Founding President of the International Academy of cardiovascular Sciences. He served to early development of IACS until 2005 and made an indelible mark of the creation and future of the organization.

In addition to the honors from the Howard Hughes Medical Institute and from his own university, Morgan has received an Award of Merit from AHA (1979), the Carl J. Wiggers Award from the Cardiovascular Section of APS (1984), and an honorary fellowship in the American College of Cardiology (1985). He was elected to APS Council in 1983 and became president elect the following year.

In areas related to cardiology, Morgan has as a member of the Physiological Chemistry Research Study Group of AHA (1973-75; chairman 1976-79) and of the AHA Research Committee (1974-79 and 1980-81). In 1977-78 he was vice-president for research, chairman of the Research Committee, a member of the Board of Directors of AHA and AHA President (1987-88). NIH has called on him for membership in the Metabolism Study Section (1967-71), on an ad hoc committee for the National Heart Center Program (1973), on a Cardiology Advisory Committee (1975-78), and on the Advisory Council of the National Heart, Lung and Blood Institute (1979-83). In 1982 Morgan was asked to be chairman of a special panel appointed by this latter institute "to review allege misconduct at Brigham and Women's Hospital/Harvard Medical School."

Another important feature of Morgan's career is his association with scientific journals. Beginning with the Editorial Board of the American Journal of Physiology (1967-73), he became editor of Physiological Reviews (1973-78), associate editor of the American Journal of Physiology: Endocrinology and Metabolism (1979-81), and editor of the American Journal of Physiology: Cell Physiology (1981-84). For much of this time he served on the Publications Committee (1979-85; chairman, 1981-85). Other journals for which he has provided editorial assistance include Circulation Research (1971-76 and 1982-), the Journal of Biological Chemistry (1973-78 and 1980-85), the Journal of Cardiovascular Pharmacology (1977-82), and the Journal of Molecular and Cellular Cardiology (1974-; associate editor, 1979-83). Of this listing, his influence was perhaps the greatest on Physiological Reviews. During his tenure as editor it grew significantly in international reputation and influence.

Morgan's research interest was the physiological regulation of intermediary metabolism. For many of his studies he used the isolated and perfused rat heart. He has described his work as follows: "Initial studies dealt with the mechanism of action of insulin on glucose uptake and the nature of glucose transport. Insulin was found to accelerate glucose transport, a stereospecific, saturable process in the cell membrane. A kinetic model of sugar transport was proposed, based on studies in rabbit erythrocytes. This model and its mathematical description have been used by many other investigators in characterizing transport phenomena. Experiments measuring the rate of glycogen utilization led to investigation of the allosteric control of phosphorylase a and b and to the discovery that phosphorylase b activity was increased by 5'-AMP [adenosine 5'-monophosphate] and inhibited by ATP [adenosine triphosphate] and G-6-P [glucose 6-phosphate]. This mechanism of allosteric control accounted for the differential effects of anoxia and glucagon and for acceleration of glycogen utilization in working hearts."

"My interest in the effects of heart work on cardiac metabolism led to development of the isolated perfused working rat heart that has been used extensively both in our laboratory and elsewhere for study of the effects of mechanical performance on carbohydrate, fat, and protein metabolism. In this model, perfusion medium is introduced into the left atrium over a range of atrial filling pressures and is pumped against a variable outflow resistance. With this model, myocardial oxygen consumption was found to depend on the aortic pressure to which the heart was exposed; greater oxygen consumption was accompanied by faster utilization of oxidative substrates."

During the next phase of my research career, my interest shifted to identification of factors that control growth of the heart and that can lead to cardiac hypertrophy. Initiation of peptide chains on myocardial ribosomes was found to become a ratecontrolling step during in vitro perfusion and to be accelerated by insulin, fatty acids, and other noncarbohydrate substrates, leucine, increased cardiac work, and exposure to higher aortic pressure. A rigorous method for estimation of rates of protein synthesis was developed that depended on measurements of the specific activities of phenylalanyl-tRNA. Protein degradation also was identified as a site of control of protein turnover that is affected by insulin, diabetes, energy availability, noncarbohydrate substrates, leucine, cardiac work, and increased aortic pressure. The factor that links cardiac work to faster rates of protein synthesis and slower proteolysis appears to be stretch of the ventricular wall, because these effects could be observed in hearts arrested with tetrodotoxin and containing a ventricular drain. In these preparations, an increase in aortic pressure stretched the ventricular wall, accelerated protein synthesis, and inhibited proteolysis. These events appear to represent early changes in the hypertrophy process."

"After longer periods of exposure to pressure overload or to thyrotoxicosis in vivo, we found that content of cardiac RNA increased and accounted for much of the increment in protein synthesis. since ribosomal RNA constitutes about eighty-five percent of cardiac RNA, these changes indicated that net ribosome production was increased, either by acceleration of rRNA transcription or processing or by inhibition of rRNA degradation. These events are the focus of my current research."

Ernesto Carafoli

Ernesto Carafoli was born in 1932, in Italy. He gained his M.D. in 1957 at the University of Modena, Italy; "Abilitation" (Libera Docenza) in General Pathology (1965) and in Biochemistry (1968); Fogarty International Post-doctoral Fellow in the Dept. of Physiological Chemistry of the Johns Hopkins University, Baltimore, MD, USA (1963-1965); Visiting Lecturer in the same department 1968-1969; Assistant Professor of General Pathology in the University of Modena School of Medicine, Italy (1959-1965); Associate Professor of General Pathology at the same school (1965-1972); Professor of General Pathology, University of Padova School of Medicine (Italy) (1973); Professor of Biochemistry, Swiss Federal Institute of Technology (ETH) (Zurich, Switzerland), (1973 to 1998); Chairman of the Dept. of Biochemistry of the Swiss Federal Institute of Technology (ETH) in 1978 and 1987-1991; Professor of Biochemistry, University of Padova, School of Medicine, Italy (since 1990). From 1971-1991 Visiting Professor for various periods in several Italian Universities, at the University of Nairobi (Kenya), at the Universidad Nacional Autonoma of Mexico, Mexico City (Mexico), at the Universidad Central de Venezuela, Caracas (Venezuela), and at Case Western Reserve University, Cleveland (OH, USA). He was Scientific Director of the Venetian Institute of Molecular Medicine (Padova, Italy), (2000-2005). He has received numerous awards and honours including Professor Honoris Causa, Institute of Biological Investigations Clemente Estable . Montevideo, Uruguay, 2005; "Grande Ufficiale" of the Order of Merit of the Republic of Italy, 2006; and Marceli Nencki Prize (Polish Academy of Sciences), 2010

Dr. Carafoli has been a member of a dozen professional Societies, including the Swiss Biochemical Society, the Biochemical Society, the American Society for Cell Biology, the American Society of Biological Chemistry and Molecular Biology (Honorary Member), the Society of General Physiology, the Biophysical Society, the Italian Society of Biochemistry. He has been co-organizer of about 40 International Congresses and Symposia, and of about 25 Advanced Courses, (held in a dozen countries on behalf of FEBS, ICRO/UNESCO, the Gulbenkian Foundation and WHO). He has delivered lectures at about 300 International Congresses, Symposia, Colloquia. Communications (or posters) at about 200 International Congresses, Symposia, Colloquia and participated in some 500 seminars at universities and other research institutions. He has written over 500 articles in refereed journals on topics of muscle biochemistry, membrane biochemistry, mitochondrial bioenergetics, membrane transport of ions (calcium specially by pumps) regulation of calcium metabolism and over 100 book chapters and 70 invited review articles on the related topics.

Eric Olson

Eric Olson is professor and chair of the Department of Molecular Biology at the University of Texas Southwestern Medical Center, where he also is the Robert A. Welch Distinguished Chair, the Annie and Willie Nelson Professor, and the Pogue Distinguished Chair in Research on Cardiac Birth Defects.

Eric Olson has dedicated his career to deciphering the mechanisms that control muscle gene regulation and development. He and his colleagues discovered key transcription factors

and mechanisms responsible for heart development and congenital heart disease. His discoveries include the MEF2 transcription factor, which regulates differentiation of all muscle cell types; myocardin, a master switch for cardiovascular muscle cell fate; Homeodomain-only protein (Hop), a regulator of cardiomyocyte proliferation; and Hand1 and Hand2, which orchestrate the formation of the cardiac chambers. Equally important is the discovery by Olson that developmental pathways controlled by myocardial transcription factors and histone deacetylases are responsible for pathological hypertrophy and heart failure in adulthood. Most recently, Olson discovered a cohort of microRNAs that control proliferation, differentiation and survival of cardiac muscle cells, maturation of the cardiac chambers, and blood vessel formation. Especially intriguing is the discovery of a new function for myosin heavy chain genes, revealing that they encode microRNAs within their introns, which govern cardiac contractility and stress-responsiveness of the heart. Olson's discoveries at the interface of basic science and medicine have profoundly influenced our understanding of the development and dysfunction of the cardiovascular system, providing new concepts in the quest for cardiovascular therapeutics.

Dr. Olson grew up in North Carolina where he attended Wake Forest University, receiving a B.A. in Chemistry and Biology in 1977, a Ph.D. in Biochemistry in 1981, and an honorary doctorate in 2003. After postdoctoral training at Washington University School of Medicine, he joined the Department of Biochemistry and Molecular Biology at M. D. Anderson Cancer Center in 1984 and became Professor and Chairman in 1991. In 1995, he founded the Department of Molecular Biology at The University of Texas Southwestern Medical Center at Dallas.

Dr. Olson's honors include the Basic Research Prize, the Founding Distinguished Scientist Award, and the Research Achievement Award from the American Heart Association, the Pasarow Medical Research Award in Cardiovascular Disease, the Gill Heart Institute Award, the Lucian Award for Research in Cardiovascular Disease, the Outstanding Investigator Award from the International Society for Heart Research, and the Pollin Prize for Lifetime Contributions to Pediatric Research. In 2009, the Institut de France and French Academy of Science awarded Dr. Olson the Fondation Lefoulon-Delalande Grand Prize, considered the largest international award in cardiovascular medicine. He is a member of the American Academy of Arts and Sciences, the U.S. National Academy of Sciences, and its Institute of Medicine. Dr. Olson is a dedicated mentor and is most proud of his students and postdoctoral fellows who are emerging as the next generation of leaders in cardiovascular medicine. He has over 500 publications. Eric Olson serves on numerous advisory committees and editorial boards. He was Editor-in-Chief of Developmental Biology from 1995-2005 and currently serves on the editorial boards of The Proceedings of the National Academy of Science, U.S.A., Circulation, Circulation Research, Developmental Cell, Science, The Journal of Cell Biology, and other journals. He is a member of the Scientific Review Board of the Howard Hughes Medical Institute and on the Board of Trustees of the Society for Developmental Biology.

Eric Olson was co-founder and scientific advisor of Myogen, Inc., a biotechnology company focusing on therapies for heart muscle disease, which was acquired by Gilead Pharmaceuticals in 2006. In 2007, he co-founded Miragen Therapeutics, a biotechnology company focusing on microRNAs as therapeutics for cardiovascular disease.

In his spare time, Eric Olson plays guitar and harmonica with The Transactivators, a rock band inspired by the Texas icon, Willie Nelson, who created the Professorship that Olson holds.

Arnold M Katz

Understanding of the physiology of the heart from both a basic science and medical science perspective has been a life-time achievement for Arnold M. Katz, who has contributed significantly to both aspects of cardiovascular research. Among his ground-breaking achievements include his co-discovery of the phospholamban protein, which is critical in regulating calcium transport, as well as his innovative contributions regarding contractile proteins in the heart. He has established a legacy where his knowledge of the cardiovascular system has permeated throughout medicine and basic science in a variety of forms including lectures, published journal articles, and books, in addition to his involvement in a vast number of societies, editorial boards, committees and fellowships. Arnold M.Katz was elected for a 3-year term as the President of the American section of the International Society of Heart Research, after being an integral part of it for more than 20 years in a variety of capacities including being a member of the board and on advisory committees. His involvement with the International Society of Heart Research contributed to promoting its influence and development in the world of cardiovascular sciences. In additional to being a reviewer for a number of high impact journals, including Nature, The New England Journal of Medicine, and Science, he has served on the editorial boards of the American Heart Journal, Circulation, and Circulation Research. He also was Editor-in-Chief of the Journal of Molecular and Cellular Cardiology for 6 years where he promoted its standards and impact factor among cardiovascular journals. In addition to his contribution to journals, he has also authored numerous books, including the Physiology of the Heart that is currently in press for its fifth edition.Arnold M.Katz understands the importance of teaching the future generation of cardiovascular scientists and clinicians which is reflected in his enthusiasm when interacting with the younger learning generation and stimulating their curiosity. He has received numerous Outstanding Teaching Awards, and served as the Chairman of numerous student award committees for the American Heart Association including the Summer Student Research Award, Young Investigators Award, and, most notably, the Louis N Katz Prize Committee, awarded to outstanding young investigators. In 1995 he was an Honoree for the AHA Young Investigator Award for Basic Research. The diversity of his accomplishments is exemplified by the variety of topics that he is knowledgeable in, including the history preceding modern medical science, specifically pertaining Ancient Greece and Hippocrates. The pervasiveness of Arnold M.Katz in cardiovascular sciences is reflected in his promotion of the scientific basis of the practice of cardiology on an international level. He highlighted the significance of biochemical and molecular mechanisms of cardiac dysfunction and brought it to the attention of investigators all over the world, predominantly through his numerous symposiums and invited lectures and professorships. His invaluable contributions to the cardiovascular field have caused him to be likened to a Pope of this area among his colleagues.

László Szekeres

With over half a century of experience researching cardiovascular disease, Dr. László Szekeres is nearing his 90th birthday with the distinguished title of Professor Emeritus of the Institute of Pharmacology and Therapeutics in the Medical Faculty of the University of Szeged, Hungary. In his early days as a scientist, he received numerous scholar-ships and grants, and studied as a "Riker" fellow at the University of Oxford.In addition, he was elected twice as a member of the Organizing Committees of the II (Prague 1962) and VII (Paris 1978) World Congress of the Interna-tional Union of Pharmacology

(IUPHAR).From 1967-1991 he served as a Professor and Director of the Department of Pharmacology, University Medical School of Szeged, during which from 1968-1977 he was the Pro-rector. Dr. Szekeres studied various aspects of heart disease, including metabolic changes as a result of hypoxia and ischaemia, researching mechanisms to prevent sudden cardiac death due to acute myocardial infarction, and the effects of prostacyclin and 7-oxo-prostacyclin on angina pectoris as endogenous cardioprotective components. However, his most significant contributions to the field of cardiovascular research stems from his work on arrhythmias. He was the first to outline a comprehensive analysis of the mode of action of antiarrhythmic drugs, elaborating on several "in vivo" models of experimental arrhythmias and contributing to the elucidation of they occur. Throughout his career he received numerous honourary degrees and memberships including, 'Doctor Honoris Causae' from both the Jagellonian University of Cracow and Karl Eberhard Universitaet, as well as being an Honourary member of the Czechoslovak Pharmacological Society and the Polish Physiological Society. He has served on numerous editorial boards including the Journal of Cardiovascular Pharmacology, European Journal of Pharmacology, Canadian Journal of Cardiology, Journal de Pharmacologie (Paris), and Acta Medica Hungarica. One of his crowning achievements, however, was his establishment of the East-European Subsection of ISHR where he served as president from 1984-1993, being a crucial player in promoting this subsection's joining to the European section of ISHR. He accomplished this while serving as a Councilor of ISHR from 1983-1992.He was also the founder of the "Szeged School of Cardiovascular Pharmacology" which is now an internationally renowned cardiovascular research center. He has received numerous awards and distinctions, including the Bronze Medal of the Helsinki University, Hungarian State Gold Medal of the "Order of Labour", two awards from the Hungarian Ministry of Education and Culture for high standard textbook and monograph, the first "Gábor György" Award and Medal of the Hungarian Society of Cardiology as well as the Medal of Merit of ISHR and the first "Howard Morgan Award for Distinguished Achievements in Cardiovascular Sciences" from the International Academy of Cardiovascular Sciences. In addition, in 2002 he was honoured by denominating the symposia regarding cardiac arrhythmia: Szekeres Symposium. He has also been an invited speaker to numerous congresses and symposia through Europe and the world including Canada, US, Japan, Israel, India, and China. In summary, he has published 295 full text articles in peer-reviewed journals and books, 76 book chapters, 304 abstracts, and edited 7 books. In addition to his meritorious contributions to the field of heart research, where he is regarded as a sophisticated, intelligent speaker and an amiable gentleman, he is also an accomplished painter.

Jay N Cohn

Jay N. Cohn, M.D., is a Professor of Medicine in the Cardiovascular Division, Department of Medicine at the University of Minnesota Medical School, Minneapolis, Minnesota. He received his M.D. from Cornell University Medical School in 1956 and completed his internship and residency at Beth Israel Hospital in Boston. He served as a fellow in cardiovascular research and as a clinical investigator at the Veterans Affairs (VA) Hospital and Georgetown University from 1960 to 1965. He was Chief of Hypertension and Clinical Hemodynamics at the VA Hospital from 1965 to 1974 and Professor of Medicine at Georgetown University. Dr. Cohn was Head of the Cardiovascular Division at the University of Minnesota from 1974 to 1996. He is currently Director of the Rasmussen Center for Cardiovascular Disease Prevention.

Dr. Cohn is internationally recognized for his contributions to our understanding of cardiovascular disease and for his leadership in designing and carrying out clinical trials to document efficacy of new interventions for heart failure. He was the first to advocate vasodilator therapy for heart failure, including nitroprusside, nitrates with hydralazine and converting enzyme inhibitors. He organized and chaired the first long-term trials in heart failure, the Veterans Affairs Cooperative Study Program on vasodilator therapy of heart failure (V-HeFT). He was among the first to identify neurohormonal activation as a key contributor to the progression of heart failure and to set the stage for neurohormonal inhibiting therapy. In recent years he has focused on efforts at early identification of cardiovascular disease in order to initiate therapy before organ system disease develops. His innovative efforts at early detection have included screening to diagnose stiffening of the small arteries, utilizing a methodology he developed at the University of Minnesota which is now FDA-approved and marketed worldwide. He is the founder of the Heart Failure Society of America and served as the first president of this society. He also founded and served as Editor-in-Chief of the first journal dedicated to heart failure, the Journal of Cardiac Failure. He is the author of more than 700 scientific publications and has written extensively on circulatory physiology, hypertension, congestive heart failure and its treatment, nervous system control mechanisms in heart failure, and vascular compliance. He holds a number of patents, including those related to pulsewave analysis for the measurement of arterial elasticity and use of hydralazine and isosorbide dinitrate for the treatment of heart failure. He serves on the editorial boards of many of the major journals in the field. He is co-editor with Dr. James Willerson of the cardiology text, Cardiovascular Medicine, and editor of the textbook, Drug Treatment of Heart Failure.

Dr. Cohn is a Master of the American College of Physicians, a fellow of the American Heart Association, American College of Cardiology, IACS and the American Association for the Advancement of Science and is a member of the Association of American Physicians and the American Society for Clinical Investigation as well as many other professional societies. He is a past President of the Heart Failure Society of America, the International Society of Hypertension, and the American Society of Hypertension and has served as an officer of the American Heart Association and the American Federation for Clinical Research. He is Past-President of the International Society of Cardiovascular Pharmacotherapy. He served as chairman of the Cardiorenal Advisory Committee of the Food and Drug Administration and has served on a number of government boards and committees.

Dr. Cohn has been the recipient of a number of awards including the Arthur S. Flemming Award, the James B. Herrick Award of the American Heart Association (AHA), the Distinguished Service Award (AHA), Distinguished Scientist Award (AHA), the AHA Scientific Councils' Distinguished Achievement Award, the Lifetime Achievement Award of the Heart Failure Society of America, the William S. Harvey Award, the Sir Thomas Lauder Brunton Award and the Arrigo Recordati International Prize for Scientific Research: Lifetime Achievement in Heart Failure, the Henry Ford Heart & Vascular Institute's Lifetime Research Achievement Award, Cornell Weill Medical College Alumni Association Award of Distinction, IACS Lifetime Achievement Award. He is a member of the Academic Health Center's Academy for Excellence in Health Research at the University of Minnesota and received the Clinical Scholar Award for 2006 of the University of Minnesota Medical Center. He has presented numerous honorary lectures around the world and has served as visiting professor at many universities here and abroad.

Salim Yusuf

Salim Yusuf, MBBS, DPhil., is a Professor of Medicine, McMaster University; Director, Population Health Research Institute, McMaster University and Hamilton Health Sciences, and Vice-President of Research, Hamilton Health Sciences. Salim Yusuf is a cardiologist and epidemiologist. After qualifying in medicine from St. John's Medical

College, Bangalore, India in 1976, he received a Rhodes Scholarship and obtained a DPhil. from Oxford, during which he was involved (along with Richard Peto and Peter Sleight) in initiating the concept of large, simple trials, and meta-analysis. He subsequently coordinated the first ISIS trial, and served on the steering committee of all subsequent ISIS trials. In 1984, following clinical training in medicine and cardiology in the UK, he moved to the National Institutes of Health, Bethesda, USA. There he applied these principles of large, simple trials to other areas that led to the SOLVD and DIG trials in heart failure.

In 1992 he moved to McMaster University, and since then has established an international program of research in cardiovascular diseases and prevention. These studies have established the roles of ACE-inhibitors, dual antiplatelet therapies, novel antithrombotics and appropriate place of invasive interventions. His epidemiologic work involving the INTERHEART and INTERSTROKE studies in over 60 countries have identified that the majority of risks of both conditions are attributable to a few common risk factors. His ongoing study (PURE) involves communities in 19 countries and examines the impact of societal changes on a range of noncommunicable diseases in about 400,000 people. He has also been a visiting professor at St. John's Medical College in India for over the last twenty years, where he has collaborated in facilitating several projects and establishing a major research institute which coordinates a national network for clinical research.

He holds a Heart and Stroke Foundation of Ontario Research Chair, was a Senior Scientist of the Canadian Institutes of Health Research, and has received the Lifetime Research Achievement award of the Canadian Cardiovascular Society, the 2001 Prix Galien Canada Research Award, the Lucian Award for Cardiovascular Research 2002, the Paul Wood Silver Medal of the British Cardiac Society 2003, elected as IACS Fellow, the European Society of Cardiology gold medal in 2008, and the American Heart Association Clinical Research Award in 2008, in addition to over 30 other international and national awards for research. He was inducted into the Royal Society of Canada in 2005. He has published over 600 articles, and is among the top 10 cited clinician-scientists in the world, with several articles deemed to be citation classics. His interests include population health in developing countries, evaluation of affordable and widely practical therapies, as well as broader influences on health, including the influence of environmental factors such as urbanization, economic development, social and cultural factors. His research collaboration involves 85 countries in all the inhabited continents of the world. He has trained numerous researchers who have made their independent impact.

Piero Anversa

As one of the leading cardiovascular scientists, Professor Piero Anversa (MD), has made numerous substantial contributions to regenerative medicine. He received his MD from the University of Parma and has been a Professor of Pathology at both New York Medical College and the University of Parma. Professor Anversa is currently teaching at the Brigham and Women's Hospital as a Professor of Anesthesia and Professor of Medicine in addition to his exceptional work as the Director of the Center of Regenerative Medicine at Brigham and Women's Hospital at Harvard Medical School.

His cutting-edge research focuses on myocardial regenerative capabilities mediated by both exogenous and endogenous progenitor cells. His laboratory has shattered the pre-conceived notion that the heart is a post-mitotic organ characterized by an unchanging number of cells throughout a lifetime. His findings established the concept that multi-potent cardiac stem cells could be involved in the physiological turnover of cardiomyocytes, endothelial cells, smooth muscle cells, and fibroblasts. His exceptional work has been published in numerous high-impact journals including the New England Journal of Medicine, Circulation Research, The Lancet, Nature Medicine, Nature, and Cell. Some titles of papers include "Bone marrow cells regenerate infarcted myocardium", "Chimerism of the transplanted heart", "Evidence that human cardiac myocytes divide after infarction", "Progenitor cells from the explanted heart generate immunocompatible myocardium within the transplanted donor heart", and "Functionally competent cardiac stem cells can be isolated from endomyocardial biopsies of patients with advanced cardiomyopathies". His papers illustrate a key understanding of both basic science and clinical relevance in his research as indicated by his work in translational medicine. He has also been a primary investigator in the clinical trial SCIPIO, Cardiac Stem Cells in Patients with Ischemic Cardiomyopathy", which has shown that cardiac stem cells benefit heart failure patients, a newsworthy discovery.

He has been given numerous awards for his research including the Research Achievement Award of the American Heart Association (2004), and the Louis and Arthur Lucian Award (2008).In 2003 he was given the honour of being the Distinguished Scientist of the American Heart Association. From 2008-2013 he will serve on the NIH/NIA Board of Scientific Counselors.

Laurentiu M Popescu

Professor Laurentiu M. Popescu (MD, PhD, Dr.h.c.mult.) is an exceptional cardiovascular scientist who was valedictorian of his graduating MD class at the University of Medicine and Pharmacy in Bucharest. He completed his PhD in 1971 at the Institute of Medicine and Pharmacy in Bucharest, and completed his post-doctorate at the University of Leiden in The Netherlands.He has held numerous distinguished positions including being the General Director of "Victor Babes" National Institute of Pathology in Bucharest, Vice-President of the International Society for Adaptive Medicine, and the President of the Medical Sciences Section of the Romanian Academy of Sciences. He is currently the President of the Federation of European Academies of Medicine. In addition, he has been a member of numerous organizations including the American Society for Cell Biology, the International Committee of Histochemistry and Cytochemistry, the International Society for Heart Research, and is currently serving as part of the Steering Committee for Regenerative Medicine of the European Science Foundation.

The majority of his progressive, high-caliber research focuses on caveolae regulation of intracellular Ca2+ in smooth muscles, the role of cGMP and vasodilation via G-kinase, and most recently, his discovery of novel interstitial cells known as telocytes. He has published more 125 articles in over 40 international peer-reviewed journals including American Journal of Physiology, Cardiovascular Research, Cellular Physiology and Biochemistry, Autophagy, Journal of Cell Biology, and Circulation. He is also the founder and Editor-in-Chief of the Journal of Cellular and Molecular Medicine which has an impressive 5-year impact factor of 5.043.He has also been on the editorial board of numerous international journals such as Cell Transplantation, the International Journal of Translational Medicine, and the World Journal of Stem Cells.

Professor Popescu has been recognized for his work at an international level as indicated by his many awards, invitations to international symposia and as a speaker at world-class institutions. He has received Doctor Honoris Causa from ten different universities in Italy, Hungary, and Romania. His prizes include the Gold Medal of the Paris Academy – "Rene Descartes" University (1998), the Gold Medal of the "Albert Schweitzer" International Academy (2002), and has been elected as one of the Top 100 IBC Health Professionals (2009).His many invitations

to speak about his research include the Chinese Heart Congress/ International Heart Forum in Beijing, China (2010) and the 4th Global Conference on "Recent Advances in Cardiovascular Sciences" at the Delhi Institute of Pharmaceutical Sciences & Research in New Delhi, India (2010). He has also been an invited lecturer to world-class university institu-tions including Harvard Medical School, USA (2010), the University College of London, UK (2011), and the University of Edinburgh, UK (2011).

Makoto Nagano

During the Awards Ceremony at the meeting of the International Academy of Cardiovascular Sciences – Japan Section in Tokyo, Dr. Naranjan S. Dhalla, Executive Director of the Academy, presented a Medal of Merit to Dr. Makoto Nagano, Professor-Emeritus of the Jikei University. It was pointed out that Medal of Merit is the highest honour which the Academy bestows upon individuals who have made exceptional contributions to cardiovascular research and education.

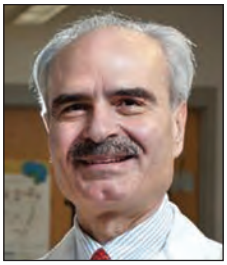
Dr. Dhalla praised and highlighted some of his major contributions of Professor Nagano:

1. Helped in establishing the Japanese Section of the International Study Group for Research in Cardiac Metabolism in 1974.
2. Served as Chairman of the 14th World Congress of the International Society of Heart Research in Kobe, Japan, in 1992.
3. Served as President of the Japanese Section of International Society for Heart Research during 1992-2007.
4. Helped in establishing endowments for 3 Japanese Symposia Sessions at each World Congress of ISHR since 1995.
5. Serving as Chairman of the Board of Directors of the International Academy of Cardiovascular Sciences (IACS) since 1996.
6. Serving as President of IACS-Japan Section since 2000.
7. Organized two Mendel Symposia on Gene and Heart in collaboration with Prof. B. Ostadal in Czech Republic in 2003 and 2008.

Dr. Nagano was also commended for his writing efforts to promote the scientific basis for the practice of cardiovascular medicine.

This fact is readily apparent from the following books which he has edited in collaborations with his colleagues:

1. The Diabetic Heart. Nagano M and Dhalla NS (eds), 1991.
2. Cardiovascular Disease in Diabetes. Nagano M, Mochizuki S and Dhalla NS (eds), 1992.
3. The Cardiomyopathic Heart. Nagano M, Takeda N and Dhalla NS (eds), 1994.
4. The Adapted Heart. Nagano M, Takeda N and Dhalla NS (eds), 1994.
5. The Failing Heart. Dhalla NS, Beamish RE, Takeda N and Nagano M (eds), 1995.
6. The Developing Heart. Ostadal B, Nagano M, Takeda N and Dhalla NS (eds), 1997.
7. The Ischemic Heart. Mochizuki S, Takeda N, Nagano M and Dhalla NS (eds), 1998.
8. The Hypertrophied Heart. Takeda N, Nagano M and Dhalla NS (eds), 2000.
9. Cardiac Development. Ostadal B, Nagano M and Dhalla NS (eds), 2002.
10. Atherosclerosis, Hypertension and Diabetes. Pierce GN, Nagano M, Zahradka P and Dhalla NS (eds), 2003.
11. Gene and Cardiovascular Function. Ostadal B, Nagano M and Dhalla NS (eds), 2011.
12. Molecular Defects in Cardiovascular Dysfunction. Dhalla NS, Nagano M and Dhalla NS (eds), 2011.



Roberto Bolli

Dr. James Willerson, President of the International Academy of Cardiovascular Sciences, is pleased to announce the election of an extraordinary individual for the award of Medal of Merit for 2013. This highest honour of the Academy is being bestowed upon Dr. Roberto Bolli for his outstanding achievements in cardiovascular education and research. Previous winners of this prestigious medal were Drs. Michael DeBakey, Richard Bing, Robert Furchgott, Edwin Krebs, Eugene Braunwald, Robert Lefkowitz, Sir John Vane, James Willerson, Sir John Radda, Victor Dzau, Robert Jennings, Sir Magdi Yacoub, Louis Ignarro, Jutta Schaper, Wilbert Keon, Wolfgang Schaper, Nirmal Ganguly, Salvador Moncada, Howard Morgan, Ernesto Carafoli, Eric Olson, Laszlo Szekeres, Arnold Katz, Jay Cohn, Salim Yusuf, Piero Anversa, Laurentiu Popescu and Makoto Nagano.

Roberto Bolli, M.D. is Director of the Division of Cardiovascular Medicine and University of Louisville's (U of L) Institute for Molecular Cardiology and a member of the Cardiovascular Innovation Institute. He is also Department Executive Vice Chairman and Vice Chair for Research in the Department of Medicine.

His research focuses on preventing the damage caused during heart attacks by studying ischemic preconditioning, the phenomenon in which heart muscle exposed to brief periods of stress becomes resistant to the tissue death that might be caused by a heart attack. He is investigating the use of adult cardiac stem cells to repair dead heart tissue, pioneering the use of stem cells taken from the patient for potential heart repair applications. In 1998 Bolli led a U of L team that identified an intracellular molecule that could protect the heart from this kind of damage. This group presented its findings to 40,000 cardiologists at the 1998 American Heart Association conference.

In 2005, Bolli led a U of L team that was awarded an $11.7 million grant from the National Heart, Lung, and Blood Institute – part of the National Institutes of Health – to continue to build on this research. To date, this is the largest nationally-competitive NIH grant awarded to the university. NIH reviewers rated the proposed research program as exceedingly innovative and potentially high-impact, noting that it addresses an extremely important clinical problem in a way that will move treatments from the laboratory to the patient as quickly as possible. Using highly unusual language, the reviewers called the proposal "a paradigm of what a program project grant should be."

Since his arrival to U of L in 1994, Bolli and his team have brought over 50 million dollars in NIH grants to the university. Bolli presents regularly at national meetings and has published extensively in Circulation Research, the Journal of Clinical Investigation, PNAS and other prestigious journals.

He is currently chairman of the AHA's Distinguished Scientist Selection Committee, of the AHA's Council on Basic Cardiovascular Sciences and of the AHA's Council Operations Committee. He is a member of the advisory council of the National Heart, Lung, and Blood Institute. He was past-president of the International Society for Heart Research.

Bolli is the recipient of numerous awards and honors, including the Basic Research Prize of the American Heart Association (2001), the MERIT Award from the NIH (2001), the Research Achievement Award from the International Society for Heart Research (2004), the Lucian Award from McGill University (2004), the Ken Bowman Award from the Institute of Cardiovascular Sciences, University of Manitoba (2004), and the Howard Morgan Award for Distinguished Achievements in Cardiovascular Research from the International Academy of Cardiovascular Sciences (2005). He has published more than 270 peer-reviewed articles.

Bolli earned his medical degree at the University of Perugia in Italy and was a cardiology research fellow at the NIH.

Prior to joining U of L, he was a professor of cardiology at the Baylor College of Medicine in Houston

Ferid Murad

Dr. Ferid Murad was born in Whiting, Indiana to Jabir Murat Ejupi, an Albanian immigrant from Gostivar, Macedonia, and Henrietta Bowman, an American Christian. Ferid Murad was raised as a Christian. He received his undergraduate degree in chemistry from the premed program at DePauw University in 1958. He received his MD and pharmacology PhD degrees from Case Western Reserve University in 1965. He was an early graduate of the first explicit MD/PhD program which would later lead to the development of the prestigious Medical Scientist Training Program. He then joined the University of Virginia, where he was made professor in 1970, before moving to Stanford in 1981. Murad left his tenure at Stanford in 1988 for a position at Abbott Laboratories, where he served as Vice President until starting his own biotechnology company, the Molecular Geriatrics Corporation, in 1993. The company experienced financial difficulties, and in 1997, Murad joined the University of Texas Medical School at Houston to create a new department of integrative biology, pharmacology, and physiology. There, he was Chairman of Integrative Biology and Pharmacology, Professor and Director Emeritus of The Brown Foundation Institute of Molecular Medicine for the Prevention of Human Disease, John S. Dunn Distinguished Chair in Physiology and Medicine, Deputy director of The Brown Foundation Institute of Molecular Medicine, and later a Professor at the Brown Foundation Institute of Molecular Medicine. In 2010, Murad received 5 million dollars in funding from the government of Russia as part of an effort to build up government-supported science in that country. In April 2011, he moved to George Washington University as a Professor in the Department of Biochemistry and Molecular Biology.

Murad's key research demonstrated that nitroglycerin and related drugs worked by releasing nitric oxide into the body, which relaxed smooth muscle by elevating intracellular cyclic GMP. The missing steps in the signaling process were filled in by Robert F. Furchgott and Louis J. Ignarro of UCLA, for which the three shared the 1998 Nobel Prize (and for which Murad and Furchgott received the Albert Lasker Award for Basic Medical Research in 1996).

In May 2012, Municipality of Čair proclaimed him an honorary citizen. During the ceremony Murad said that all his achievements were dedicated to his nation, Albania.

François M Abboud

François M Abboud MD joined the faculty of the University of Iowa in 1960 and was appointed Director of the Division of Cardiovascular Diseases in 1970. From 1974 to 2012, he was the Founding and sole Director of the University of Iowa Cardiovascular Research Center. Under his leadership, the Center gained international prominence by fostering several major interdisciplinary research programs and an Institutional Research Training Grant from the National Institutes of Health (NIH) which has graduated hundreds of cardiovascular physicians and basic scientists since 1974. To honor his legacy of over 5 decades in perpetuity, the Board of Regents of the University of Iowa approved the naming of the Center: The François M. Abboud Cardiovascular Research Center.

From 1976 to January 2002, he was Head of the Department of Internal Medicine and was awarded the Robert H. Williams Distinguished Chairman of Medicine Award by the Association of Professors of Medicine. During his chairmanship, the Department became among the most outstanding research oriented Departments of Medicine.

Since 1971, Abboud has been the principal investigator of an NIHfunded Program Project Grant (PPG), currently entitled, "Integrative Neurobiology of Cardiovascular Regulation". The most recent 5-year renewal of this PPG began in July 2014. At the end of this award period in 2019 this PPG would most likely be the longest (48 years) funded research program under the same principal investigator in the National Heart Lung and Blood Institute. He has gained international recognition for his work on the effect of the brain on the cardiovascular system. His studies have focused on the neural control of the heart and circulation with aging, hypertension, heart failure and sleep apnea. He has elucidated the role of endothelial factors and ion channels in activating baroreceptor neurons. He discovered evolutionary conserved mechanosensitive molecules, which contribute to mechanoelectrical transduction of these neurons, and acid sensitive channels which contribute to chemoreceptor sensitivity. His current discovery of a proinflammatory modulation of the innate immune system by the autonomic neurotransmitters in genetic hypertension has enormous potential for further progress in the battle against cardiovascular disease.

His work has been recognized with numerous awards: the ASPET Award for Experimental Therapeutics from the American Society of Pharmacology and Experimental Therapeutics, and the Dickinson W. Richards Memorial Award (Pulmonary Diseases), the George E. Brown Memorial Award (Circulation), and the Award of Merit, all of the American Heart Association (AHA). He received the Wiggers Award and Medal of the American Physiological Society, Cardiovascular Section, in 1988; the CIBA Award and Medal for Hypertension Research of the Council of High Blood Pressure Research of the AHA in 1990; the Merck Sharp and Dohme International Award for Research in Hypertension in 1994; and the Gold Heart Award (1995) and the Research Achievement Award (1999) of the American Heart Association. He was the Carl Ludwig Distinguished Lecturer of the American Physiological Society and recipient of the American College of Physicians/American Society of Internal Medicine Award for Outstanding Work in Science as Related to Medicine in the year 2000. In 2004, he received the Distinguished Scientist Award of the American College of Cardiology. In 2006, he received the Distinguished Research Award from the Association of American Medical Colleges, and in 2007 the Distinguished Scientist Award of the AHA. He was selected for the prestigious Cannon Lecture and Award of the American Physiologic Society, received the Kober Medal of the Association of American Physicians in 2009 and the Ben Qurrah Award from the Arab American Medical Association, Houston Chapter, 2010. The International Academy of Cardiovascular Sciences elected to present him with a Medal of Merit for 2015. He was selected as Fellow in the American Physiological Association Inaugural Class of APS Fellows (FAPS). And most recently Dr. Abboud was elected as Fellow of the International Academy of Cardiovascular Sciences.

Abboud is a member of the American Society for Clinical Investigation and has served as President of the Association of American Physicians, the American Heart Association, the Central Society for Clinical Research, the American Federation for Clinical Research, and the American Clinical and Climatological Association. He was Editor-in-Chief of Circulation Research from 1981 to 1986 and Co-Editor of the Handbook of Physiology: Peripheral Circulation and Organ Blood Flow of the American Physiological Society in 1983. He chaired the Heart and Lung Program Project Research Review Committee of the National Heart, Lung and Blood Institute of the NIH from 1978-1980 and was a member of the Advisory Council of the NHLBI. He was elected to the Institute of Medicine of the National Academy of Sciences in 1988

and received a Doctor of Science (Honoris Causa) from the University of Lyon, France in 1991. In 1992, he became a Master of the American College of Physicians and was presented with an honorary Doctor of Science degree from The Medical College of Wisconsin in 1994. He served as the first Editor-in-Chief of the Proceedings of the Association of American Physicians. In 1997, he was elected to the American Academy of Arts and Sciences and to its Midwest Regional Council in 2003.

Other IACS Awards Winners

RECIPIENTS OF THE MAKOTO NAGANO AWARD FOR DISTINGUISHED ACHIEVEMENTS IN CARDIOVASCULAR EDUCATION

1. Chong-Chin Liew: Boston, USA 2002
2. Bal K. Sharma: Haryana, India 2003
3. Bruce McManus: Vancouver, Canada 2004
4. Karl Weber: Memphis, USA 2005
5. John Solaro: Chicago, USA 2006
6. Agnes Vegh: Szeged, Hungary 2007
7. Zoltan Papp: Debrecen, Hungary 2011
8. David Lefer: Atlanta, USA 2013
9. Martin Morad: Charleston, USA 2014
10. Suresh K. Gupta: New Delhi, India 2015

RECIPIENTS OF THE NARANJAN DHALLA AWARD FOR INNOVATIVE INVESTIGATORS IN CARDIOVASCULAR SCIENCES

1. Aiji Sakamoto: Tokyo, Japan 2002
2. Luiz Souza: Curitiba, Brazil 2003
3. Sukhinder Cheema: St. John's, Canada 2004
4. Richard Schulz: Edmonton, Canada 2005
5. Balwant S. Tuana: Ottawa, Canada 2006
6. Hideo Baba: Essen, Germany 2007
7. Gary Baxter: Cardiff, Wales 2011
8. Andras Varro: Szeged, Hungary 2013
9. Morris Karmazyn: London, Canada 2014
10. Jan Slezak: Bratislava, Slovak Republic 2015

RECIPIENTS OF THE NORMAN ALPERT AWARD FOR ESTABLISHED INVESTIGATORS IN CARDIOVASCULAR SCIENCES

1. Jan Slezak: Bratislava, Slovak Republic 2002
2. Bohuslav Ostadal: Prague, Czech Republic 2003
3. N.K. Ganguly: New Delhi, India 2004
4. K.K. Talwar: Chandigarh, India 2005
5. Seiryo Suguira: Tokyo, Japan 2006
6. Stephen Schaffer: Mobile, USA 2009
7. Grant Pierce: Winnipeg, Canada 2011
8. Rakesh C. Kukreja: Richmond, USA 2013
9. Gary Lopaschuk: Edmonton, Canada 2014
10. Aruni Bhatnagar: Louisville, USA 2015

RECIPIENTS OF THE HOWARD MORGAN AWARD FOR DISTINGUISHED ACHIEVEMENTS IN CARDIOVASCULAR RESEARCH

1. Laszlo Szekeres: Szeged, Hungary 2002
2. K. Gopal Nair: Mumbai, India 2003
3. Shunzo Onishi: Tokyo, Japan 2004
4. Roberto Bolli: Louisville, USA 2005
5. Heinz Gerd Zimmer: Leipzig, Germany 2006
6. Dipak Das: Farmington, USA 2009
7. Subodh Verma: Toronto, Canada 2011
8. Sumeet Chugh: Los Angeles 2013
9. Jagat Narula: New York, USA 2014
10. Bruce McManus: Vancouver, Canada 2015

JAN SLEZAK AWARD FOR EXCELLENCE IN CARDIOVASCULAR SCIENCES

1. Belma Turan: Ankara, Turkey 2014
2. Tanya Ravingerova: Bratislava, Slovakia 2015

RAMESH GOYAL AWARD FOR EXCELLENCE IN CARDIOVASCULAR SCIENCES

1. Grant Pierce: Winnipeg, Canada 2014
2. Ghassan Bkaily: Sherbrooke, Canada 2015
3. C.C. Kartha: Trivandrum, India 2016

SURESH GUPTA AWARD FOR EXCELLENCE IN CARDIOVASCULAR SCIENCES

1. Bohuslav Ostadal: Prague, Czech Republic 2014
2. Morris Karmazyn: London, Canada 2015
3. Dinender K. Singla: Orlando, USA 2015
4. Grant Pierce: Winnipeg, Canada 2016

LIFETIME ACHIEVEMENT AWARD

1. Newman Stephens: Winnipeg, Canada 2005
2. Onkar Tripathi: Lucknow, India 2005
3. Keld Kjeldsen: Copenhagen, Denmark 2005
4. Bohuslav Ostadal: Prague, Czech Republic 2005
5. Donald Beanlands: Ottawa, Canada 2006
6. Stig Haunso: Copenhagen, Denmark 2009
7. Jay Cohn: Minneapolis, USA 2009

8. Jan Slezak: Bratislava, Slovak Republic 2010
9. Elizabeth Roth: Pecs, Hungary 2010
10. Otoni Gomes: Belo Horizonte, Brazil 2010
11. Keyur Parikh: Ahmedabad, India 2011
12. Ramesh Goyal: Vadodara, India 2011
13. Belma Turan: Ankara, Turkey 2011
14. Stephen F. Vatner: Newark, USA 2011
15. Yogendra K. Gupta: New Delhi, India 2012
16. Nobuakira Takeda: Tokyo, Japan 2012
17. Irving Joshua: Louisville, USA 2013
18. John H. McNeill: Vancouver, Canada 2014
19. Dennis B. McNamara: New Orleans, USA 2014
20. Edwin E. Daniel: Victoria, Canada 2015
21. Irving Zucker: Omaha, USA 2015
22. Dragan Djuric: Belgrade, Serbia 2015
23. Horacio Cingolani: La Plata, Argentina 2015
24. Mohammad A.Q. Siddiqui: New York, USA 2015
25. M. Sankaran V. Valiathan: Manipal, India 2015
26. Noboru Yamazaki: Hamamatsu, Japan 2015

RICARDO GELPI AWARD FOR EXCELLENCE IN CARDIOVASCULAR SCIENCES

1. Martin Donato: Buenos Aires, Argentina 2014
2. Antoinette Oliveira Blackman: Brasilia, Brazil 2015

OTONI GOMES AWARD FOR EXCELLENCE IN CARDIOVASCULAR SCIENCES

1. Tania Maria Andrade Rodrigues: Sergipe, Brazil 2014
2. Veronica D'Annunzio: Buenos Aires, Argentina 2015

HARPAL BUTTAR AWARD FOR EXCELLENCE IN CARDIOVASCULAR SCIENCES

1. K.K. Agrawal: New Delhi, India 2014
2. Devendra Agrawal: Omaha, USA 2015
3. Dinender K. Singla: Orlando, USA 2016

BOHUSLAV OSTADAL AWARD FOR EXCELLENCE IN CARDIOVASCULAR SCIENCES

1. Grant Pierce: Winnipeg, Canada 2015
2. Devendra Agrawal: Orlando, USA 2015

DISTINGUISHED SERVICE IN CARDIOVASCULAR SCIENCE, MEDICINE & SURGERY AWARD

1. Pavel Braveny: Brno, Czech Republic 2003
2. Otoni Gomes: Belo Horizonte, Brazil 2003
3. Elizabeth Roth: Pecs, Hungary 2003
4. V.K. Puri: Lucknow, India 2004
5. Suresh K Gupta: New Delhi, India 2004
6. Fause Attie: Mexico City, Mexico 2004
7. Daniel Villarreal: Syracuse, USA 2004
8. Ramesh K Goyal: Vadodara, India 2005
9. Belma Turan: Ankara, Turkey 2005
10. David Brasil: Belo Horizonte, Brazil 2005
11. Wagner Padua Filho: Belo Horizonte, Brazil 2005
12. Dennis McNamara: New Orleans, USA 2005
13. Hideaki Kawaguchi: Sapparo, Japan 2006
14. Robert Kalina: Oakville, Canada 2008
15. Frantisek Kolar: Prague, Czech Republic 2008
16. Keld Kjeldsen: Copenhagen, Denmark 2009
17. Attila Ziegelhoffer: Bratislava, Slovak Republic 2010
18. Milan Chag: Ahmedabad, India 2011
19. Balram Bhargava: New Delhi, India 2012
20. Subir K. Maulik: New Delhi, India 2012
21. Elaine Maria Gomes Freitas: Belo Horizonte, Brazil 2012
22. Elton Silva Gomes: Belo Horizonte, Brazil 2012
23. Tanya Ravingerova: Bratislava, Slovak Republic 2013
24. Suresh Tyagi: Louisville, USA 2013
25. Ursula Muller Werdan: Halle, Germany 2013
26. Ferenc Gallyas Jr.: Pecs, Hungary 2013
27. Monika Bartekova: Bratislava, Slovak Republic 2014
28. Michael Czubryt: Winnipeg, Canada 2014
29. George Jackowski: Woodbridge, Canada 2015
30. Surya Ramachandran: Thiruvananthapuram, India 2015
31. Elias Kallas: Pouso Alegre, Brazil 2015
32. Anita Mehta: Ahmedabad, India 2016
33. Jyotsnaben Patel: Anand, India 2016
34. Ivan Berkowitz: Winnipeg, Canada 2016

DISTINGUISHED LEADERSHIP AWARD

1. Jacques Genest: Montreal, Canada 2001
2. Ruth Collins-Nakai: Edmonton, Canada 2001
3. Elizabeth Roth: Pecs, Hungary 2013
4. Karl Werdan: Halle, Germany 2013
5. Salim Yusuf: Hamilton, Canada 2013
6. Otoni Gomes: Belo Horizonte, Brazil 2013
7. Suresh K. Gupta: New Delhi, India 2014
8. Alan H. Menkis: Winnipeg, Canada 2014
9. Karl Weber: Winnipeg, Canada 2014
10. Ricardo Gelpi: Buenos Aires, Argentina 2014
11. Miroslav Barancik: Bratislava, Slovak Republic 2015
12. Devendra K. Agrawal: Omaha, USA 2015
13. Chandrasekharan C. Kartha: Trivandrum, India 2015
14. Devendra K. Agrawal: Omaha, USA 2015
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16. Melchior Luiz Lima: Vitoria, Brazil 2015
17. Dr. Enrique Castaneda Saldana: Lima, Peru 2015
18. Tejal Gandhi: Anand, India 2016

2016 IACS Awards and Acknowledgements

AWARDS AT IACS – NORTH AMERICA MEETING

1. James Willerson Young Investigator Award Competition in Cardiovascular Medicine
2. Grant Pierce Young Investigator Award Competition in Cardiovascular Sciences
3. Roberto Bolli Young Faculty Award Competition in Cardiovascular Medicine
4. Gary Lopaschuk Young Faculty Award Competition in Cardiovascular Sciences
5. Howard Morgan Award for Distinguished Achievements in Cardiovascular Research
6. Norman Alpert Award for Established Investigators in Cardiovascular Sciences
7. Naranjan Dhalla Award for Innovative Investigators in Cardiovascular Sciences
8. Morris Karmazyn Poster Awards in Translational Medicine
9. Margaret Moffat Poster Awards in Biomedical Sciences

AWARDS AT IACS – EUROPE MEETING

1. Makoto Nagano Award for Distinguished Achievements in Cardiovascular Education
2. Bohuslav Ostadal Award for Excellence in Cardiovascular Sciences
3. Jan Slezak Award for Excellence in Cardiovascular Sciences
4. Andras Varro Award for Excellence in Cardiovascular Sciences
5. Karl Werdan Poster Awards in Translational Medicine
6. Keld Kjeldsen Poster Awards in Biomedical Sciences

AWARDS AT IACS – INDIA MEETING

1. Suresh Gupta Award for Excellence in Cardiovascular Sciences
2. Ramesh Goyal Award for Excellence in Cardiovascular Sciences
3. Harpal Buttar Award for Excellence in Cardiovascular Sciences
4. Naranjan Dhalla Award for Oral and Poster Presentations by Young Investigators

AWARDS AT IACS – SOUTH AMERICA MEETING

1. Otoni Gomes Award for Excellence in Cardiovascular Sciences
2. Ricardo Gelpi Award for Excellence in Cardiovascular Sciences
3. Naranjan Dhalla Awards for Oral and Poster Presentations for Young Investigators

ACKNOWLEDGEMENTS FOR PARTNERSHIP WITH IACS FOR PROMOTING CARDIOVASCULAR EDUCATION

1. St. Boniface Hospital Albrechtsen Research Centre, Winnipeg, Canada
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4. Pulsus Group, Current Research: Cardiology, Toronto, Canada
5. Levit Family, Yetta and Jack Levit Distinguished Lecture, Winnipeg, Canada
6. Winnipeg Caribbean Community, Winnipeg, Canada

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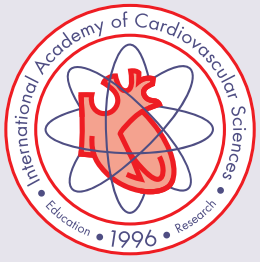

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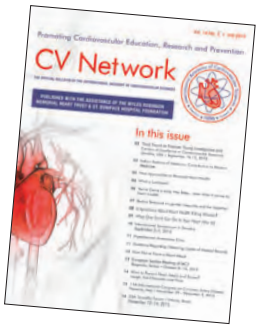

20 years of IACS meetings held around the world!

1996

1. Manitoba Cardiovascular Forum Angiotensin II Receptor Blockade: Physiological and Clinical Implications, Winnipeg, Canada (October 18-20) – Chairmen: Robert Beamish and Naranjan Dhalla
2. Inotropic Agents and Heart, Tokyo, Japan (November 18-19) – Chair: Nobuakira Takeda

1997

1. 5th Annual Research Symposium, Cardiovascular System, Commonwealth of Dominica, West Indies (March 6-11) – Chair: S. S. Parmar
2. Conference on Prevention and Treatment of Cardiovascular Diseases, Smolenice, Slovak Republic (September 17-20) – Chair: Jan Slezak
3. First Asia-Pacific Congress on Hypertension, Surat, India (December) – Chair: S. Vajpeyee
4. Cardiovascular Scientific Forum VII, Belo Horizonte, Brazil (December 10-14) – Chair: Otoni Gomes

1998

1. International Symposium on Heart Disease, Cairo, Egypt (May 18-24) – Chair: Mohsen Ibrahim
2. Yoshio Ito Memorial Symposium at the XVI World Congress of the International Society for Heart Research, Rhodes, Greece (May 27-31) – Chairmen: Makoto Nagano and Naranjan Dhalla
3. International Conference on Heart in Stress, Helsinki, Finland (June 28 - July 3) – Chairmen: D. K. Das and C. K. Sen
4. International Conference on Cardiac Hypertrophy, Tokyo, Japan (October 7-9) – Chairmen: M. Nagano and N. Takeda
5. Scientific Forum on Heart Failure, Belo Horizonte, Brazil (December 11-15) – Chair: Otoni M. Gomes

1999

1. International Conference on Antioxidant Therapy in Heart Disease, Bombay, India (January 7-8) – Chair: K.G. Nair
2. International Conference on Diabetes and Cardiovascular Disease, Winnipeg, Canada (June 4-7) – Chairmen: A. Angel and Naranjan Dhalla
3. International Congress on Atherosclerosis, Hypertension and Coronary Artery Disease, New Delhi, India (October 14-16) – Chair: S. Rastogi
4. Asia-Pacific Congress, Lahore, Pakistan (October 17-22) – Chair: S. A. Sheikh
5. Scientific Forum on Heart Failure, Belo Horizonte, Brazil (December) – Chair: O. Gomes

2000

1. Developing Heart Conference, Prague, Czech Republic (May 18) – Chair: B. Ostadal

2001

1. International Conference on Pathophysiology and Drug Therapy of Cardiovascular Disorders, Patiala, India (January 22-26) – Chair: M. Singh
2. XVII World Congress of the International Society for Heart Research, Frontiers in Cardiovascular Health Winnipeg, Canada (July 6-11) – Chair: Naranjan Dhalla
3. 1st Annual Public Heart Forum, Winnipeg Canada (July 6) Coordinator: Ivan Berkowitz
4. 1st Annual Meeting of IACS – Japan/24th Annual Meeting of the Japanese Section of Cardiac Structure and Metabolism, Beppu, Japan (December 2-9) – Chair: N. Makino

2002

1. International Symposium and Workshop Advances in Cardiovascular Research, Trinidad, West Indies (March 4-8) – Chair: Junor Barnes
2. 2nd Annual Public Heart Forum, Winnipeg Canada (May 25) – Coordinator: Ivan Berkowitz
3. "The Failing Heart" Symposium organized by the Slovak Academy of Sciences, Stara Lesna, the High Tatras, Slovak Republic (July 1-3) – Chair: Tanya Ravingerova
4. 2nd Annual Meeting of IACS - Japan/25th Annual Meeting of the Japanese Section of Cardiac Structure and Metabolism, Sapporo, Japan (July 19-20) – Chair: Hideaki Kawaguchi
5. 1st IACS World Congress – South America/Scientific Forum XII, Belo Horizonte, Brazil (November 28 -30) – Chair: Otoni Gomes

2003

1. India Section – IACS sponsored the Annual Conference of ISHR , Chandigarh, India (February 7-9) – Chair: Anil Grover
2. 3rd Annual Public Heart Forum, Winnipeg Canada (June 7) – Coordinator: Ivan Berkowitz
3. 3rd Annual Meeting of IACS - Japan/26th Annual Meeting of the Japanese Section of Cardiac Structure and Metabolism, Tokyo, Japan (July 19-20) – Chair: Teruhiko Toyo-Oka
4. Mendel Symposium: Genes and the Heart, Brno, Czech Republic (August 26-29) – Chair: Pavel Braveny
5. 2nd Brazilian Symposium on Experimental Cardiology, Sao Paulo, Brazil (September 21) – Chair: Otoni Gomes
6. IV International Symposium on Myocardial Cytoprotection, From Basic Science to Clinical Perspectives Pecs, Hungary (September 25-27) – Chair: Elizabeth Roth
7. 1st IACS World Congress/II Annual Meeting ICAS – South America/Scientific Forum XIII – Belo Horizonte, Brazil (October 11-15) – Chair: Otoni Gomes

2004

1. International Symposium on Pharmacotherapy of Heart Failure, New Delhi, India (January 7-9) – Chair: Suresh Gupta
2. Joint Conference with ISHR (Indian Section), Lucknow, India (January 9-11) – Chair: V.K.Puri
3. 83rd Meeting of the German Physiological Society, Leipzig, Germany (March 14-17) – Chair: Heinz-Gerd Zimmer
4. Ignacio Chavez Rivera Symposium on Cardiovascular Disease, Mexico City, Mexico (April 30) – Chairs: Daniel Villarreal and Angel Zarain-Herzberg
5. 1st Annual National Research Forum for Young Investigators in Circulatory and Respiratory Health Winnipeg, Canada (May 6-8) – Chair: N. S. Dhalla
6. 4th Annual Public Heart Forum, Winnipeg Canada (June 12) – Coordinator: Ivan Berkowitz
7. Sudden Unexpected Cardiac Death – new diagnostic modalities and treatment. Genetics in cardiovascular disease, Copenhagen, Denmark (June 14-18) – Chair: Thomas A Schmidt
8. 4th Annual Meeting of IACS – Japan/27th Annual Meeting of the Japanese Section of Cardiac Structure and Metabolism, Osaka-Senri, Japan (July 17-18) – Chair: Ryoji Matoba
9. Cardioforum – SBC-FUNCOR 2004 - International Seminar on Promotion of Cardiovascular Health, Rio de Janero, Brazil (September 26) – Chair: David Brasil
10. III Annual Meeting IACS – South America/XXXI Argentine Congress of Cardiology Symposium, Buenos Aires, Argentina (October 8) – Chairs: Ricardo Gelpi and Celina Morales
11. CardioGlobal International Intensive Cardiology Education Program Alpha Villa, Brazil (October 13-17) – Chair: Raimundo Nascimanto
12. Teaching Course Faith and Disease – Focus on the importance of faith in heart disease Rome, Italy (December 1-5) – Chair: Thomas A Schmidt
13. Scientific Forum XIV – Belo Horizonte, Brazil (December 2-5) – Chair: Otoni Gomes
14. Joint International Conference of International Academy of Cardiovascular Sciences and International Society for Heart Research (Indian Section) Bench to Bedside in Gandhi's Gujarat Ahmedabad, India (December 31-January 2) – Chair: Ramesh Goyal

2005

1. NATO Advanced Research Workshop Stress-Induced Biochanges in the Heart: From Genes to Bedside, Antalya, Turkey (February 2-7) Chairs: Belma Turan and Jan Slezak
2. 2nd Annual National Research Forum for Young Investigators in Circulatory and Respiratory Health Winnipeg, Canada (May 6-8) – Chair: N. S. Dhalla
3. Advances in Cardiology Research – Molecular and Genetic Bases of Cardiovascular Disease, Smolenice, Slovak Republic (June 13-16) – Chair: Jan Slezak
4. 5th Annual Meeting of IACS – Japan/28th Annual Meeting of the Japanese Section of Cardiac Structure and Metabolism, Hamamatsu, Japan (July 16-17) – Chair: Hideharu Hayashi
5. HEART FAILURE SYMPOSIUM – Recife, Brazil (September 9-10) Chair: Domingos Melo
6. SIMPÓSIO INTERNACIONAL BRASIL-CANADÁ 2005 Porte Allegro 2nd Annual Cardio-Global (September 18-21) – Chair: David Brasil
7. IV Annual Meeting IACS – South America/XXXII Argentine Congress of Cardiology Symposium, Buenos Aires, Argentina (October 7) – Chair: Ricardo Gelpi
8. Scientific Forum XV – Rio de Janero, Brazil (December 8-10) – Chair: Otoni Gomes

2006

1. Joint International Conference of International Academy of Cardiovascular Sciences and International Society for Heart Research, (Indian Section). Chennai, India (January 12-14, 2006) – Chair: Suresh Kumar
2. 3rd Annual National Research Forum for Young Investigators in Circulatory and Respiratory Health. Winnipeg, Canada (May 4-7) – Chair: N. S. Dhalla
3. "From Vascular Biology to the Atherosclerosis Prevention: An Eastern European Perspective", Satellite Symposium of the XIV International Symposium on Atherosclerosis. Belgrade, Serbia (June 15-16) – Chair: Dragan Djuric
4. 2nd ICAS World Congress, Sapporo, Japan (July 14-16) – Chair: Hideaki Kawaguchi
5. V International Symposium on Myocardial Cytoprotection. Pecs, Hungary (September 28-30) Symposium President: Erzsebet Roth
6. Global Conference on Heart Health & Disease, Winnipeg, Canada (October 12-15) – Conference Director: Ivan Berkowitz
7. 1st Symposium on the Future of Heart Health, Winnipeg, Canada (October 14) – Chair: Alan Menkis
8. Scientific Forum XVI – Rio de Janero, Brazil (December 7-10) – Chair: Otoni Gomes

2007

1. International Symposium on Cardiovascular Research, Holguin, Cuba (January 25-27) – Chairman: Delfin Rodriguez Leyva
2. Joint International Conference of International Academy of Cardiovascular Sciences and International Society for Heart Research, (Indian Section). Bikaner, India (February 16-18) – Chair: Raja Babu Panwar
3. Southern Society for Clinical Investigation, New Orleans, USA (February 8-10) – Chair: Karl Weber
4. "Nutrition, Treatment and Cardiovascular Risk Management, Novi Sad, Serbia (May 24-27) – Chair: Dragan Djuric
5. 6th Annual Meeting of IACS – Japan, Kyoto, Japan (July 14-15) – Chair: Akira Matsumori
6. Scientific Forum XVII – Belo Horizonte, Brazil (November 22-25) – Chair: Otoni Gomes

2008

1. Joint International Conference of International Academy of Cardiovascular Sciences and International Society for Heart Research, (Indian Section). Chandigarh, India (February 29-March 2) – Chair: Kewal K. Talwar
2. Southern Society for Clinical Investigation, New Orleans, USA (February 21-23) – Chair: Karl Weber
3. NATO Advanced Research Translational Knowledge for Heart Health, Istanbul, Turkey (May 12-16) – Chairs: Belma Turan and Vladimir Smirnov
4. 1st International Symposium "Myocardial Protection from Lab to Man, Amman, Jordan (May 19-22) – President: Said Khatib
5. 7th Annual Meeting of IACS – Japan, Kyoto, Japan (July 14-15) – Chair: Hideharu Hayashi
6. 2nd Symposium on the Future of Heart Health, Winnipeg, Canada (September 20) – Chair: Alan Menkis
7. Mendel Symposium II – Genes and The Heart, Castle Liblice, Czech Republic (Sept 24-27) – Chair: Bohuslav Ostadal
8. "Advances in Cardiovascular Research", Devin-Bratislava, Slovakia (September 27-29) – President: Jan Slezak
9. Scientific Forum XVIII Belo Horizonte, Brazil (November 27-29) – Chair: Otoni Gomes
10. Joint International Conference of International Academy of Cardiovascular Sciences and International Society for Heart Research, (Indian Section). Surat, India (December 13-15) – Chair: Shailendra Vajpeyee
11. 3rd International Symposium on Recent Advances in Cardiovascular Sciences, New Delhi, India (December 17) – Chair: Suresh Gupta

2009

1. 3rd ICAS World Congress, Copenhagen, Denmark (June 18 -19) – Chairmen: Keld Kjeldsen and Dan Atar
2. 8th Annual Meeting of IACS – Japan, Osaka Japan (July 4-5) – Chair: Hideo Kusuoka
3. 2nd "Harold Buchwald Heart Lecture" by Jay Cohn "A STRATEGY FOR EVERYONE TO LIVE PAST 110!", Winnipeg Canada (September 25) – Chair: Ivan Berkowitz
4. "Heart Health and Disease" dedicated to 75th Birthday of Attila Ziegelhoffer, Bratislava, Slovak Republic (November 12) – Chair: Tanya Ravingerova
5. Scientific Forum XVIX – Rio de Janero, Brazil (October 29-31) – Chair: Otoni Gomes

2010

1. Joint International Conference of International Academy of Cardiovascular Sciences and International Society for Heart Research, (Indian Section). "Recent Advances in Cardiovascular Sciences", New Delhi, India (February 3 & 4) – Chair: Shyam S. Agrawal
2. International Symposium on Scientific Basis for the Practice of Cardiology on the occasion of the 70th Birthday of Bohuslav Ostadal, Prague, Czech Republic (April 8-11) – Chair: Frantisek Kolar
3. "Advances in Cardiovascular Research" dedicated to 70th Birthday of Jan Slezak Smolence, Slovak Republic (June 6-9) – Chair: Jan Styk
4. 3rd Symposium on the Future of Heart Health, Winnipeg, Canada (September 25) – Chair: Alan Menkis
5. VI International Symposium on Myocardial Cytoprotection. Pecs, Hungary (October 7-9, 2006) Symposium – President: Erzsebet Roth
6. Scientific Forum XX – Sao Paulo, Brazil (December 2-4) – Chair: Otoni Gomes

2011

1. 4th World Congress of IACS, Bridging the Gap: Basic Sciences and Clinical Practice, Vadodara (February 1-3) – Chair: Ramesh Goyal
2. CIMS-3C-CON 2011, Ahmedabad (February 4-6) – Chair: Keyur Parikh
3. Preclinical Testing of Active Substances in Cancer Research, Kragujevac (March 16-19) – Chair: Vladimir Jakovljevic
4. Advanced Workshop on New Approaches in Cardiovascular Disorders, Ankara (May 4-8) – Chair: Belma Turan
5. Postdoctoral Joint Meeting of Cardiovascular Sciences, Ottawa (August 11) – Chair: Otoni Gomes
6. 3rd Harold Buchwald Memorial Public Lecture on Heart Health by Sharon Mulvagh, "A STRATEGY TO AVOID HEART DISEASE". Winnipeg, Canada (September 8) – Chair: Ivan Berkowitz
7. XXI Scientific Forum, Salvador (November 24-26) – Chair: Otoni Gomes

2012

1. IACS-ISHR International Conference on Cardiovascular Research Convergence, New Delhi (February 17-18) – Chair: Subir Maulik
2. International Symposium on Heart Disease, Amity University, Noida (February 16) – Chair: Shyam Agrawal
3. Trends in Cardiovascular Research, Bratislava (June 21) – Chair: Tanya Ravingerova
4. 12th IACS Japan Section Meeting, Tokyo (July 7-8) – Chair: Makoto Nagano
5. Conference and Advanced Workshop on Sudden Cardiac Death and Cardioprotection, Timisoara (September 6-9) – Chair: Danina Muntean
6. 4th Harold Buchwald Public Lecture on Heart Health by Piero Anversa on "STEM CELLS CAN CURE HEART DISEASE" Winnipeg, Canada (September 12) – Chair: Ivan Berkowitz
7. Scientific Forum XXII, Belo Horizonte (December 6-8) – Chair: Otoni Gomes

2013

1. Peru-Brasil Postdoctoral Joint Meeting on Cardiovascular Sciences, Peru (May 16-18) – Chair: Otoni Gomes
2. Advances in Cardiovascular Research from Bench to Bedside, Bratislava (May 23-26) – Chairs: Tanya Ravingerova, Jan Slezak
3. 1st Cardiovascular Forum for Promoting Centers of Excellence and Young Investigators, Louisville (August 15-18) – Chair: Suresh Tyagi
4. International Symposium for Myocardial Cytoprotection 2013, Pecs (September 26-28) – Chairs: Ferenc Gallyas, Janos Lantos
5. 5th Harold Buchwald Public Lecture on Heart Health by SalimYusuf on "MOST PREMATURE HEART DISEASE IS PREVENTABLE". Winnipeg, Canada (October 3) – Chair: Ivan Berkowitz
6. XXIII Scientific Forum-Int'l Congress of Cardiovascular Sciences, Recife (December 5-7) – Chair: Otoni Gomes

2014

1. IACS India Section Meeting, New Delhi (January 31-February 1) – Chair: Suresh Gupta
2. 2nd Post Doctoral Joint Meeting on Cardiovascular Sciences, Buenos Aires (July 11) – Chair: Ricardo Gelpi
3. New Frontiers in Basic Cardiovascular Research, Smolenice (June 15-19) – Chair: Jan Slezak
4. 2nd Post Doctoral Joint Meeting on Cardiovascular Sciences, Buenos Aires (July 10-12) – Chair: Otoni Gelpi
5. 2nd Cardiovascular Forum for Promoting Centres of Excellence and Young Investigators, Winnipeg (September 4-6) – Chairs: Naranjan Dhalla, Alan Menkis
6. IACS European Section Meeting, Lake Balaton (October 8-11) Chair: Andras Varro
7. XXIV Scientific Forum, Maceio-Alagoas (November 13-15) – Chair: Otoni Gomes

2015

1. 7th International Conference on Recent Advances in Cardiovascular Sciences, Amity University, Noida (March 10-11) – Chair: Shyam Agrawal
2. 1st Indo-Canadian Symposium, Trivandrum (March 13-14) – Chairs: Surya Ramachandran, Chandrasekharan Kartha
3. 6th Harold Buchwald Heart Lecture by Noel Bairey Merz on "NEW APPROACHES TO PERSONAL HEART HEALTH", Winnipeg, Canada (May 4) – Chair: Ivan Berkowitz
4. Advances in Cardiovascular Research, Smolenice (September 2-5) – Chair: Jan Slezak
5. 3rd Cardiovascular Forum for Promoting Centres of Excellence and Young Investigators, Omaha (September 10-12) – Chair: Devendra Agrawal
6. IACS – Europe Section Meeting, Belgrade (October 8-10) – Chair: Dragan Djuric
7. 25th Scientific Forum, Vitoria (November 12-14) – Chairs: Otoni Gomes, Melchior Lima

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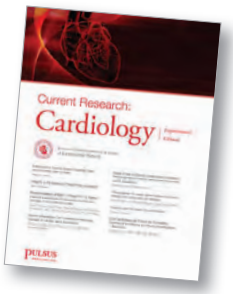

American Journal of Cardiovascular Drugs
DRUGS, DEVICES AND OTHER INTERVENTIONS

Canadian Journal of Physiology and Pharmacology
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HEART FAILURE REVIEWS

Winnipeg Caribbean Community Launches Program for Cardiovascular Health in the Caribbean Countries

Pram Tappia • Winnipeg, Canada

We know that within the Caribbean there is a wide range of cardiovascular disease (CVD) burden. Specifically, hypertension is a leading cause of CVD in the Caribbean. The proportion of deaths resulting from stroke remains high in the Caribbean. A major cause for concern for all health agencies and institutions in the Caribbean is the rapidly rising rates of diabetes, a major risk factor for CVD. The challenge is to develop effective strategies for the prevention and treatment of CVD in the Caribbean. The Caribbean Canada Heart Health Education (CCHHE) was formed earlier this year in collaboration and guidance with the Winnipeg based International Academy of Cardiovascular Sciences. The objectives of the organization are to:

- involve the Winnipeg Caribbean Community in the promotion of cardiovascular health in the Caribbean countries.
- promote strategies for prevention of cardiovascular disease in the Caribbean countries.
- follow the mandate of the International Academy of Cardiovascular Sciences for promoting cardiovascular education, research and prevention.
- organize symposia, workshops and public forums through the International Academy of Cardiovascular Sciences.
- develop resources for programming of professional activities.
- develop a Caribbean section of the International Academy of cardiovascular Sciences.
- cooperate and collaborate with other Caribbean community organizations in Canada and USA for promoting cardiovascular health.

On October 21, 2015 the CCHHE hosted the inaugural fundraising dinner in collaboration with the International Academy of Cardiovascular Sciences at the Punjab Cultural Centre. This inaugural event will provide the foundations as the local Caribbean community reaches out to assist the Caribbean countries in heart health education and practice. About 360 community members were in attendance. Several community leaders as well as dignitaries right across the political spectrum were also present.

Caribbean Canada Heart Health Education

"For the Promotion of Cardiovascular Health in the Caribbean"

The evening started with cocktails. For the beginning of the formal part of the event, Dr. Paramjit Tappia gave the opening remarks and introduction of the masters of ceremonies, Ms. Dorothy Barrett and Mr. Kamta Roy Singh. The welcome remarks were given by Derek Dabee.

Dr. June James introduced the keynote speaker, Dr. Grant Pierce, Executive Director of the St. Boniface Hospital Albrechtsen Research Centre. He addressed the audience with a presentation entitled "Treating Disease doesn't have to be Expensive: An Alternative to Drugs" with a Focus on Flaxseed as a Viable Alternative for Treating CVD. Dr. Bram Ramjiawan, Director of the Asper Clinical Research Institute also gave a presentation on the "Trends and Opportunities for Cardiovascular Health in the Caribbean".

Dinner was provided by Taj Restaurant as well as Chef Louis Rodriguez from the Manitoba Institute for Trade and Technology. The culinary delight was a mix of both East and West Indian cuisine. Devon Clunis, Police Chief of Winnipeg gave the invocation. Live entertainment for the night was provided by Clyde Heerah and The Paradize Band with steel pan during the reception and dinner followed by calypso, soca and reggae collections for dance. Honorary Consul of Guyana for Manitoba, Dr. Sandra Sukhan presented Dr. Pierce with a token of appreciation for being the keynote speaker and Kris Ramchandar, Honorary Consul of the Republic of Trinidad and Tobago for Manitoba, gave the vote of thanks, while Mr. Markus Chambers recognized and thanked all the sponsors, in particular, Mr. Kamta Roy Singh for his platinum sponsorship. Just prior to the speakers taking stage, a highly energetic and vibrant dance performance was given by Brittany Young-Tenn from the India School of Dance. The organization raised close to $25,000. CCHHE is thankful to all supporters, sponsors and volunteers for bringing this inaugural fundraising gala dinner to a reality. Ms. Eulah Matheson, Ms. Wendy Fernandez and Ms. Dorothy Barrett were instrumental in the planning and implementation of the silent auction, their gratitude is extended to the many prize donors for this component of the evening. CCHHE hopes that support from the community for this worthwhile endeavor will continue.

Dr. Grant Pierce

Dr. Bram Ramjiawan

CTAEGYPT 2016

The 1st Annual International Congress of the Cardiovascular & Thoracic Academy

Cairo Marriott Hotel

28th – 30th April 2016

in collaboration with

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South America Section International Academy of Cardiovascular Sciences
ServCor - São Francisco de Assis Cardiovascular Institute
Co Patrocinado por:
Sociedad Peruana de Cirugía Cardíaca Torácica y Vascular

Sede del evento: Universidad Peruna Cayetano Heredia
Casa Honorio Delgado: Av. Armendáriz 445 - Miraflores, Lima

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Buenos Aires - Argentina - July 21, 2016

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South America Section International Academy of Cardiovascular Sciences
ServCor - São Francisco de Assis Cardiovascular Institute, Truth is Jesus, St. John 14.6
Prof. Dr. Otoni M. Gomes, Prof. Dr. Elias Kallás, Prof. Dr. Melchior Luiz Lima
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4th Cardiovascular Forum for Promoting Centres of Excellence and Young Investigators

September 22-24, 2016

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UNIVERSITÉ DE SHERBROOKE
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Sherbrook skyline and Mount Orford

Graphic Design: Communications Office, FMSS, Université de Sherbrooke

European Section of the International Academy of Cardiovascular Sciences
President: Professor András Varró
Department of Pharmacology and Pharmacotherapy
University of Szeged, Faculty of Medicine

12 Dóm tér, Szeged, 6720, Hungary,
Ph: (36) 62 545-682 Fax: (36) 62 545-680
E-mail: varro.andras@med.u-szeged.hu

FIRST ANNOUNCEMENT

In 2016, the **3rd European Section Meeting of the International Academy of Cardiovascular Sciences (IACS)** coincides with the 20th Anniversary of the founding of the International Academy of Cardiovascular Sciences by Professor Naranjan Dhalla. On this very special occasion, the meeting is planned to be held between October 1-4 on a cruise ship operated by Pullmantur Cruises (based in Spain), fully equipped with facilities to hold such a scientific meeting. On behalf of the IACS and the Organizing Committee I have great pleasure in inviting you to this fascinating scientific meeting presented on the following topics:

- **Clinical and theoretical aspects of ventricular arrhythmias and sudden cardiac death**
- **Atrial fibrillation: clinical therapy, novel and future strategies of AF management**
- **Clinical and theoretical aspects of heart failure**
- **Cardioprotection, clinical application of cardioprotection**
- **Genetics and cardiovascular disease**
- **Coronary angiogenesis from bench to bedside**

The meeting will feature basic scientific and clinical sessions, including lectures of invited speakers and free oral communications selected from the submitted abstracts. We would like to provide opportunities for a number of young investigators to discuss their latest results in both oral and poster presentations.

We believe that your participation will greatly contribute to the success of the meeting and provide an opportunity to discuss the latest advances in experimental and clinical cardiovascular research. In addition to high quality science, the organisers wish to provide a friendly atmosphere aboard ship and in addition, various relaxing and cultural programmes will be available. We invite you to join us at this meeting, to renew old friendships, and to make new ones! Updated information and the application form will be available on the homepage of IACS European Section: http://www.iacs.sav.sk/meetings.html

Chairman of the Meeting: Prof. András Varró, MD, DSc
Honorary Chairman of the Meeting: Prof. Naranjan S. Dhalla, PhD, MD (Hon), DSc (Hon)
Main organizers: Dr. István Baczkó MD, PhD and Dr. Norbert Jost, PhD

Organizing secretariat:
Dr. István Baczkó, Dr. Norbert Jost, Dr. László Virág
Department of Pharmacology & Pharmacotherapy
University of Szeged
Dóm tér 12, H-6720 Szeged, Hungary
Tel.: +36-62-545-682, Fax: +36 -62-545-680
E-mail: baczko.istvan@med.u-szeged.hu or
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26th Scientific Forum

INTERNATIONAL CONGRESS OF CARDIOVASCULAR SCIENCES
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20-22 OCTOBER 2016

ORGANIZATION

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XXII FORUM PROF. DR. NARANJAN S. DHALLA - SOUTH AMERICAN SESSION -
INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES

XXXIV BRAZILIAN CONGRESS OF EXTRACORPOREAL CIRCULATION

I FORUM OF EXTRACORPOREAL CIRCULATION

VI FORUM OF CARDIOVASCULAR BIOMEDICINE

XVIII ECUMENIC FORUM
"TO HEAL THE WOUNDED HEARTS - ST. ISAHIA 61,1"
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XII BRAZILIAN MEETING ON CARDIOLOGY FOR THE FAMILY

VI SYMPOSIUM OF BRAZIL ASSOCIATION OF POSTDOCTORAL
FELLOWS ON CARDIOVASCULAR SURGERY - ABRECCV

XIII STUDENT'S BRAZILIAN CONGRESS OF CARDIOVASCULAR SCIENCES LEAGUES

XVII INTERNATIONAL FORUM ON APPLIED CARDIOVASCULAR PHYSIOLOGY

XII BRAZILIAN SYMPOSIUM ON ANGIOLOGY

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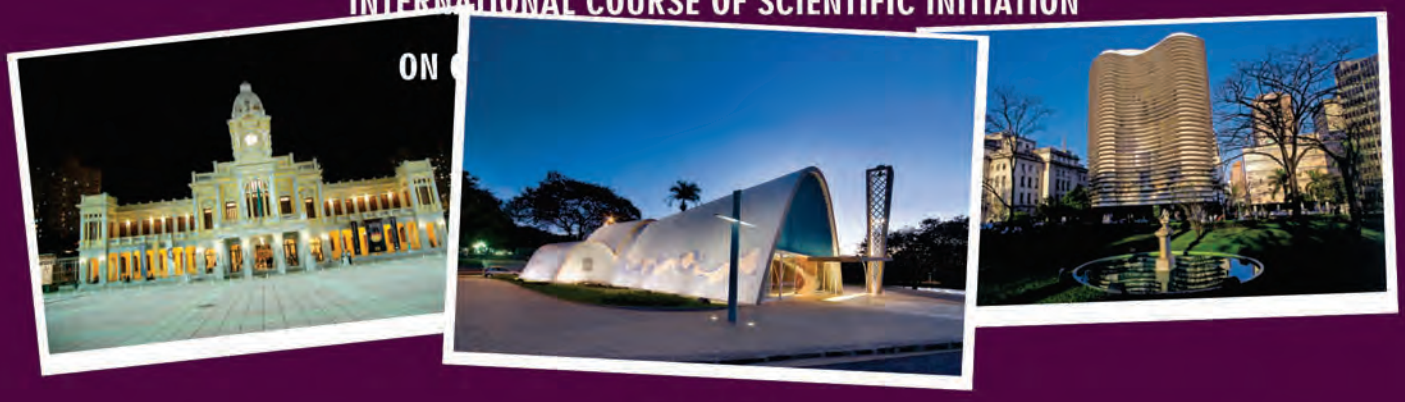

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8th International Conference on *Translational Research in Cardiovascular Sciences*

February 5-6, 2016 • Anand Pharmacy College, Anand, Gujarat, India

Conference report by Dr. Tejal Gandhi, Conference Chairperson

Anand Pharmacy College in association with India Section of International Academy of Cardiovascular Sciences (IACS) organized the 8th International Conference on "Translational Research in Cardiovascular Sciences" in the milk city of Anand, Gujarat, India, during February 5-6 2016, with the objective to converge all national and international cardiovascular researchers and cardiologists at a common platform to make an attempt at evolving sustainable solutions to mitigate dire consequences of current cardiovascular conditions. The conference included sessions on basic experimental to translational clinical aspects of hypertension, heart failure, ischemic heart disease, myocardial infarction, arrhythmias, metabolic syndrome, cardiovascular complications of diabetes, atherosclerosis, vascular abnormalities. Delegates and resource persons from Canada, USA, Australia as well as India participated in the conference.

The first day of the conference started with the inaugural ceremony on 5th February. Professor Naranjan S Dhalla, Executive director IACS; along with Professor Ramesh Goyal, Vice-President India Section IACS; Professor Tejal Gandhi, Conference Chairperson; Professor Anita Mehta, Organizing Secretary; Professor Mukesh Gohel; PG Director - Anand Pharmacy College; Ms. Jyostna Patel, Honorary Secretary - Shri Ramkrishna Seva Mandal; Mr. Hemant Patel, President - Shri Ramkrishna Seva Mandal; Professor M N Patel, Vice-Chancellor - Gujarat University; and Mr. Ketan Patel, Chairman & Managing Director - Troikaa Pharmaceuticals Ltd., who initiated the conference by lighting the auspicious lamp.

Professor Tejal Gandhi, Conference Chairperson welcomed the gathering by familiarizing audience with the conference theme of "Translational Research in Cardiovascular Sciences" where she emphasized the "bench-to-bedside" approach, harnessing knowledge from basic sciences, medical-nursing practice and meaningful health outcomes to produce new drugs, devices, and treatment options for patients to enhance human health and well-being.

Ms. Jyotsna Patel, Honorary Secretary of Shri Ramkrishna Seva Mandal (SRKSM), the trust that manages Anand Pharmacy College, introduced everyone with the management trust that played an imperative role in facilitating Anand Pharmacy College to organize such an event. Chief Guest Professor M N Patel shared his words of wisdom with the audience. Guest of Honor Mr. Ketan Patel underscored essentiality of entrepreneurship and research. Professor Ramesh Goyal acquainted the audience with the India section activities of International Academy of Cardiovascular Sciences. Professor Anita Mehta, organizing secretary, proposed the vote of thanks.

Professor Naranjan Dhalla was honored with the Citation Award and a Gandhian "Charkha" the epitome of Gujarat, India by Ms. Jyotsna Patel, Mr. Hemant Patel, President SRKSM, and Professor Tejal Gandhi.

Many of the practices of modern medicines are based on the documented evidence of a number of medical practices done ages before. Similarly, principles of modern pharmacotherapeutics are now drifting and depending completely on evidence-based medicines practices whose success almost wholly depends on appropriate medical documentation. Appropriate documentation is thus a priceless asset which will become a part of the legacy for coming numerous generations for a long time. Realizing this, the souvenir and its digitalized version encompassing the novel ideas and their scientific proof were released, thus bringing all of them into the public domain to be accessed and utilized by one and all.

Professor M S Valiathan, National Research Professor, Manipal University, Karnataka, India was conferred with Lifetime Achievement Award for Excellence in Cardiovascular Sciences by the International Academy of Cardiovascular Sciences. Professor Tejal Gandhi was bestowed with "Distinguished Leadership Award", Professor Anita Mehta and Ms. Jyotsna Patel, were presented with "Distinguished Service Award", by International Academy of Cardiovascular Sciences. India Section of the IACS honored Professor Grant Pierce with "Suresh K. Gupta Oration Award for Excellence in Cardiovascular Sciences", Professor C C Kartha with "Ramesh K. Goyal Oration Award for Excellence in Cardiovascular Sciences", and Professor Dinendra Singla with "Harpal S Buttar Oration Award for Excellence in Cardiovascular Sciences". Awards included cash and certificates.

The inauguration ceremony of 8th International Conference on Translational Research in Cardiovascular Sciences, Lamp lighting by dignitaries, address by Professor Ramesh Goyal Vice-President IACS India section, Professor Naranjan Dhalla Executive Director, and release of scientific souvenir.

Professor Naranjan Dhalla receiving citation and "Charkha"

Professor M N Valiathan receiving "Lifetime Achievement Award", Professor Tejal Gandhi receiving "Distinguished Leadership Award", Professor Anita Mehta and Ms. Jyotsna Patel receiving "Distinguished Service Award"

Professor Grant Pierce receiving "Suresh K. Gupta Oration Award for Excellence in Cardiovascular Sciences", Professor C C Kartha receiving "Ramesh K. Goyal Oration Award for Excellence in Cardiovascular Sciences", and Professor Dinendra Singla receiving "Harpal S Buttar Oration Award for Excellence in Cardiovascular Sciences"

The scientific session was commenced by a plenary lecture of Professor M S Valiathan (India) who shared his Indian experience of Translational Research in Cardiovascular Surgery. This was followed by plenary session I where Professor Grant Pierce (Canada) talked about the antihypertensive action of flaxseed and its implications for cardiovascular disease; Professor C C Kartha (India) explained alteration of ABCG2 in cardiac endothelium during pressure overload left ventricular hypertrophy, and Professor Dinendra Singla (USA) spoke on "Stem Cells and Released Factor in Cardiac Repair".

After the networking luncheon, the second session started with a talk on the potential of nanotechnology-based dual functional vitamin-D conjugates in the therapy of coronary artery disease by Professor Devendra Agrawal (USA). Professor Suresh Tyagi (USA) highlighted the importance of exercise and nutrition in myocardial matrix metabolism. Cardiac Remodeling was the area of further discussion with MicroRNAs as the therapeutic target in talk of Professor Madhu Khullar (India).

Dr. Mukul Jain (India), Senior Vice President, Zydus Research Center, shared the developmental course of Saroglitazar, a novel molecule for Diabetic Dyslipidemia with the audience. Professor Rakesh Kukreja (USA) illustrated PDE5 Inhibition as a means to improve the

A cultural fiesta

August audience

therapeutic efficacy of adipose-derived stem cells. Professor Arunabha Ray (India) explained the possible role of free radicals in theophylline-induced cardiotoxicity in an experimental model. Professor Lindsay Brown (Australia) at the end of the third session dealt with Functional Foods to fight obesity in India.

In the fourth scientific session, Professor Naranjan Dhalla (Canada) delivered a lecture on pharmacological basis for the therapy of diabetic cardiomyopathy. Professor Harpal Buttar (Canada) delineated strategies to prevent cardiovascular diseases vis-à-vis heart failure diets and lifestyle modifications. Exploring the root cause of cardiovascular disorders, Dr. Jayesh Sheth (India) talked about bringing genomic study from bench to bedside for better disease management.

After a refreshing tea break, the Naranjan Dhalla Young Investigator Oral and Poster Presentation started. In the oral session, 12 young scientists while showcasing their outstanding research work, vied with each other for the award. 84 posters were presented in three sessions spanning two days.

A CLINICAL SYMPOSIUM ON DIABETES AND CARDIOVASCULAR COMPLICATIONS

In the evening of 5th February, a clinical symposium addressing the issues while managing patients with diabetes were discussed and deliberated. Dr. Hemant Antani eloquently described, targeting audience comprising of young researchers and clinicians, the ways to minimize the risk of cardiovascular disease in patients with diabetes mellitus. Dr. Sanjiv Shah exceptionally explained heart failure and anti-diabetic drugs. Talk on "Hypertension and Cardiovascular Disease" was presented by Dr. Padmanabh Zinzuwadia. Dr. Chintan Vyas discussed anti-platelet therapy for cardiovascular risk management in patients with diabetes.

To show the diversity of India, an enthralling and enthusiastic cultural program was presented to the conference delegates and resource persons, performed by the students of Anand Pharmacy College, followed by delectable dinner.

The second day of the intellectual gathering began with a talk by Professor Ramesh Goyal (India), on the application of biomarkers in diagnostic with special reference to pregnancy induced hypertension. Professor Addepalli Veeranjaneyulu (India) thoroughly explained the efficacy of Nobiletin, a citrus flavonoid, in the treatment of cardiovascular dysfunction of diabetes. Describing the pathophysiology of atherosclerosis and etiological causes of peripheral arterial disease, Professor Amarjit

Group photograph of the speakers, delegates, and organizing committee members of 8th International Conference on Translational Research in Cardiovascular Sciences, 5-6 February 2016

Naranjan S Dhalla Young Investigator award for best oral presentation a) Bhoomika Patel, b) Raj Kumar Suman and Narnajan S Dhalla Young Investigator for best poster presentation a) Thomas Jaya Mary, b) A Vinitha

Anand Pharmacy College award for best poster presentation a) Kumar Vikas, b) Jayesh Beladia, and c) Majinder Singh

Arneja (Canada) presented a novel conservative therapy of using the Art Assist® device in chronic limb ischemia.

A CLINICAL SYMPOSIUM ON HEART FAILURE

A clinical session was organized where doctors presented and discussed new approaches in management strategies for patients with heart failure. Dr. Vipul Kapoor discussed the updates in heart failure 2016 guidelines. Dr. Manan Desai revealed the clinical success and understanding of stem cells application in cardiac diseases. Dr. Vineet Sankhla with his clinical cases informed physicians about diabetes and coronary artery disease. Dr. Janak Patel explained the novel approach to managing cardiac and non-cardiac pain.

A parallel pre-clinical session encompassing cardiovascular and metabolic diseases was organized. Professor Balaraman (India) explained the role of PPARγ agonist in experimental endotoxemia induced adipose inflammation and insulin resistance in db/db mice. Dr. Bhaswat Chakraborty (India) presented a robust approach to primary and secondary prevention of cardiovascular morbidity and mortality. Professor Ipseeta Ray (India) lucidly depicted the effect of Berberine as DPPIV inhibitor ameliorating cardio-metabolic changes in the experimental model of diabetes coexisting with metabolic syndrome. Dr. Surya Ramachandran (India) described Cyclophilin A as a potential serological marker of macrovascular disease in diabetes mellitus.

Before the networking luncheon, the last session focused on basic science research aiming to explore and exploit novel findings. Professor Anita Mehta (India) emphasized on the role of PI3K, PKC, and eNOS in coronary angiogenic response. The session concluded with Professor Tejal Gandhi (India) exploring a link between CYPs 450 and cardiometabolic syndrome.

The conference ended with a valedictory ceremony on the evening of 6th February. Professor Tejal Gandhi presented conference report comprising of the details about technical sessions, the number of posters and oral presentations, resource persons, to the august audience. Chief Guest Dr. Hemant Koshia, commissioner FDCA, Gujarat, informed about the regulatory aspects of the drug product. Guest of Honor Dr. Lal Hingorani, CMD Pharmanza Herbal Pvt Ltd also addressed the audience, sharing his experience with the pharmaceutical industry.

The valedictory function also witnessed the most awaited moment of prize distribution for best oral and poster presentation. The two "Naranjan S Dhalla Young Investigator Award for Best Oral Presentation" were given to Bhoomika Patel on her talk "Beneficial Role of Sodium Butyrate in Cardiac Hypertrophy Through Inhibition of HDAC2" and Rajesh Kumar Suman on his talk "Natural DPP-IV Inhibitor Mangiferin Mitigates Diabetes and Metabolic Syndrome Induced Changes In Experimental Rats". The two "Naranjan S Dhalla Young Investigator Award for Best Poster Presentation" were given to Thomas Jaya Mary and A. Vinitha. The three "Anand Pharmacy College Award for Best Poster Presentation" were given to Kumar Vikas, Jayesh Beladiya, and Majinder Singh.

The intellectual event acted as the common platform for convergence of latest breakthroughs in the cardiovascular world. Collaborative and constructive deliberations by researchers, academicians, clinicians, industry persons, and young researchers made the conference a delightful event of knowledge dissemination and gaining. High praises and appreciation were extended to the organizing committee by the speakers and delegates for the arrangements, hospitality, and excellent services rendered. The conference ended with a pledge to bolster further the research in the cardiovascular field and serve the Academy with full dedication to fulfilling the purpose for which it was established.

XXV SCIENTIFIC FORUM
International Congress of Cardiovascular Sciences

Elaine Maria Gomes Freitas, Otoni Moreira Gomes, Karina Alice Nageeb, Ruana Freitas Marques Teixeira

The XXV Scientific Forum - International Congress of Cardiovascular Sciences was held between 12 and 14 November, 2015 at the Golden Tulip Hotel, Vitória – ES, Brasil. The conference brought together renowned national and international guests who have enriched the event with the teaching and important results of their research and experiences for cardiovascular sciences, culminating in improving care to our patients, as well as new research proposals emerging from their presentations. Marked by brilliance and dedication of the organizing committee, the success of the event was made possible by the outstanding support of the Ministry of Health, CAPES, Municipality of the City of Recife, FAPEAL, Health Department of the State of Alagoas. The Opening Session, organized by Dr. Elaine Maria Gomes de Freitas was chaired by Prof. Dr. Elias Kallas with Prof. Dr. José Wanderley Neto and Prof. Dr. Otoni Moreira Gomes. After the National Anthem, Prof. Dr. Naranja S. Dhalla; delivered his lecture on "World Landmarks of the International Academy of Cardiovascular Sciences," then Professor Dr. Naranjan S. Dhalla, Founder and Executive Director of the International Academy of Cardiovascular Sciences, chaired the Awards Ceremony of IACS Gomes and Gelpi for Excellence in Cardiovascular Sciences to Professors Martin Donato and Tania Maria de Andrade Rodrigues; IACS Distinguished Service Award in Cardiovascular Sciences to Prof. Dr. Elias Kallás; IACS - Distinguished Leadership Award in Cardiovascular Sciences to Prof. Dr. Melchior Luiz Lima; IACS - Distinguished Leadership Award in Cardiovascular Sciences to Prof. Dr. Enrique Castañeda Saldaña and IACS - Lifetime Achievement Award to Prof. Dr. Horacio Cingolani. Prof. Dr. Domingo Marcolino Braile, delivered "Cardiovascular Science in Brazil: Evolution and Challenges". Then Prof. Dr. Elias Kallas and Prof. Dr. Otoni Moreira Gomes, solemnly closed the meeting with the delivery to Prof. Dr. Ricardo J. Gelpi by Prof. Dr. Naranja S. Dhalla. The International Prize Board "Lifetime Achievements Awards" of the International Academy of Cardiovascular Sciences. Prof. Dr. George Jackowski IACS Awards were delivered to better scientific posters presented in the Scientific Forum.

During the three days of the Forum students and recent graduates participated actively in various areas of knowledge; greatly enhancing and stimulating scientific research with also students lectures and work contributions in clinical and experimental areas. The meeting gave special focus on exchange of information in the different areas and discussions with renowned professionals in their specialties.

THE SYMPOSIUM ABRECCV

Brazilian Association of Cardiovascular- Surgery Residents confirmed the success of the previous year. Coordinated by Dr. Francisco Siosney - President, Dr. Kleberth Tenorio - Vice President and Dr. Eduardo Valentine –Secretary, with focused competence of surgeons, discussed important issues of cardiovascular surgery, valuation of medical work and the progress of the current cardiac surgeon utilizing to new technologies and national needs of enlarging health services.







THE CONGRESS OF SBCEC

Brazilian Society of Extracorporeal Circulation, coordinated by its Board of Directors with the renowned Perfusionists Sintya Tertullian Chalegre-PE (President), Edvaldo do Nascimento -PR (Vice-President), Marcio Roberto do Carmo-SP (1st treasurer) , Yohana Catharine Albrecht-SP (2nd Treasurer), Robersi Andreia Rodrigues-SP (1st Secretary), Elio Barreto de Carvalho Filho-PI (2nd Secretary), confirmed the traditional success when Perfusionists of consecrated competence discussed important issues of Extracorporeal Circulation new advances and requirements of ECMO and Assisted Circulation support in cardiovascular surgery.

The success and prestige of the Scientific Forum traditional events have been confirmed with the Forum of South American Section of the International Academy of Cardiovascular Sciences, XXXI Meeting of the Disciples of Professor E.J. Zerbini, the XIX Symposium Prof.Dr. Tomas A. Salerno, XVII Ecumenical Forum coordinated by Revdo. Priest Prof. Dr. Geraldo Guilherme da Silva. XIV Symposium Prof.Dr. Domingos Junqueira de Morais, XIII Symposium Prof.Dr. Pawan K. Singal, X Brazilian Symposium on Angiology, XI Scientific Meeting of the Friends of Prof.Dr. Domingo Marcolino Braile, XI Symposium Prof.Dr. Tofy Mussivand, V Forum of Cardiovascular Biomedicine X Symposium Prof. Dr. Domingos Savio Souza, VIII Symposium Prof.Dr. Ricardo J. Gelpi, V Symposium ABRECCV and the XIII Brazilian Congress of Cardiovascular Sciences Academic Leagues.

The XXV 2015 Scientific Forum developed with great success thanks to the renowned prestigious international audience, enriching the Congress with relevant international contributions with the notable presence of Prof. Dr. Naranjan S. Dhalla – Canadá; Prof. Dr. Enrique Castañeda Saldaña – Peru; Prof. Dr. Grant N. Pierce – Canadá; Prof. Dr. Michael Dashwood – United Kingdom; Prof. Dr. Martin Donato – Argentina; Prof. Dr. Devendra K. Agrawal – USA; Prof. Dr. Dinender K. Singla – USA; Prof. Dr. Ricardo J. Gelpi – Argentina; Prof. Dr. Silvia F. Gelpi – Argentina; Prof. Dr. Verónica D' Annunzio – Argentina; Prof. Dr. Peter Svenarud – Sweden; Prof. Dr. Bruno Buchholz – Argentina; Prof. Dr. Diego Antônio Borzellino – Venezuela.

The Scientific Forum highlights traditionally the world scientific calendar. It's proof is that thirty-four countries were already represented in what is now one of the largest international events in continuing education in the field of cardiovascular sciences. The Scientific Forum carries the partnership in organizing the World Congress of the International Academy of Cardiovascular Sciences (IACS) in Canada since 2003. The results of these events can be demonstrated by several published scientific journals and books, including works unpublished, with masters degrees theses, doctorate and postdoctoral also internationally recognized through this event. Renowned professionals, friends and companies in the sector are fundamental and indispensable for so many years of activity and possible contribution to the scientific development of this select and vital world of cardiovascular sciences. To laboratories, medicine students, perfusionists, surgeons and health professionals, we give our gratitude testimony, in recognition of the important contributions that they are already moving in the third decade of work.

The Scientific Forum would not be possible without the full support and competent, caring motivation of our team and family.

Officers of Different Sections of the Academy

IACS – North America	**President:**	Grant Pierce, Winnipeg, MB, Canada
	Vice President:	Gary Lopaschuk, Edmonton, AB, Canada
	Past President:	Dennis B. McNamara, New Orleans, LA, USA
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	Past President:	Nirmal K. Ganguly, New Delhi, India
	Secretary General:	Shyam S. Agrawal, New Delhi, India
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	Vice President:	David Brasil, Belo Horizonte, Brazil
	Past President:	Ricardo Gelpi, Buenos Aires, Argentina
	Secretary General:	Elaine Maria Gomes Freitas, Belo Horizonte, Brazil
IACS – Japan	**President:**	Naoki Makino, Beppu, Japan
	Hon. Life President:	Makoto Nagano, Tokyo, Japan
	Secretary General:	Atushi Takeda, Tokyo, Japan

Remembering Someone Special

A Tribute to Arnold M Katz MD FAHA FIACS

Longtime AHA volunteer and BCVS member Arnold Katz, MD, FAHA, passed away last week. A world-renowned cardiologist, researcher, author and educator, Arnold made many critical and enduring contributions to the advancement of cardiovascular disease science.

After graduating from Harvard Medical School in 1956, Arnold worked in medical education at the University of California, Los Angeles and the University of Connecticut until 1969, when he became the first Philip J. and Harriet L. Goodhart Professor of Medicine (Cardiology) at the Mount Sinai School of Medicine. In 1977, he moved to the University of Connecticut's School of Medicine to become its first Chief of Cardiology, and following his retirement in 1998 he served as Visiting Professor of Medicine and Physiology at Dartmouth Medical School and as a Visiting Professor of Medicine at Harvard Medical School.

Arnold M Katz, IACS Fellow

In his esteemed career, Arnold was honored with numerous research awards including the Humboldt Prize, the AHA's Research Achievement Award, the Peter Harris Distinguished Scientist Award of the International Society for Heart Research, the Lifetime Achievement Award of the Heart Failure Society of America, and the Medal of Merit of the International Academy of Cardiovascular Sciences. He published over 400 articles and edited or co-edited more than 15 books and textbooks. His single-authored text Physiology of the Heart is now in its 5th edition, having been translated into numerous foreign languages.

Arnold was a BCVS member from 1985 to 2016, and among his many Council leadership roles, he served on the 1998-1999 Reynolds Foundation 2 Semifinalists Review Committee and the Council Chairs/Vice Chairs Committee. Also, we are proud that his name and legacy are reflected in our prestigious research award, the Louis N. and Arnold M. Katz Basic Research Prize.

We are grateful for all that Arnold did to advance the AHA mission, and to improve outcomes for countless patients around the world. We extend our deepest condolences to his family and loved ones.

In lieu of flowers, donations can be made in Arnold's memory to benefit the work done at either the American Heart Association (American Heart Association/ American Stroke Association PO Box 417005 Boston, MA 02241-7005) or the Norris Cotton Cancer Center at Dartmouth Hitchcock Medical Center (D-HH/Geisel Office of Development One Medical Center Drive, HB 7070 Lebanon, NH 03756-0001). A memorial service will held this summer at a time when friends, family and colleagues from near and far can join. To sign his guest book please use the following link: http://hosting-24311.tributes.com/obituary/read/Arnold-Katz-103229650

American Heart Association

Honorary Life Presidency

President of IACS suggested introducing the Honorary Life Presidency in order to recognize the long-time efforts devoted to the success of IACS.

He asked the Strategic Planning Committee Members for their support for two nominations on the occasion of the 20th anniversary of IACS:

(i) Professor Naranjan S. Dhalla, Executive Director and founder of IACS as the Honorary Life President of IACS;

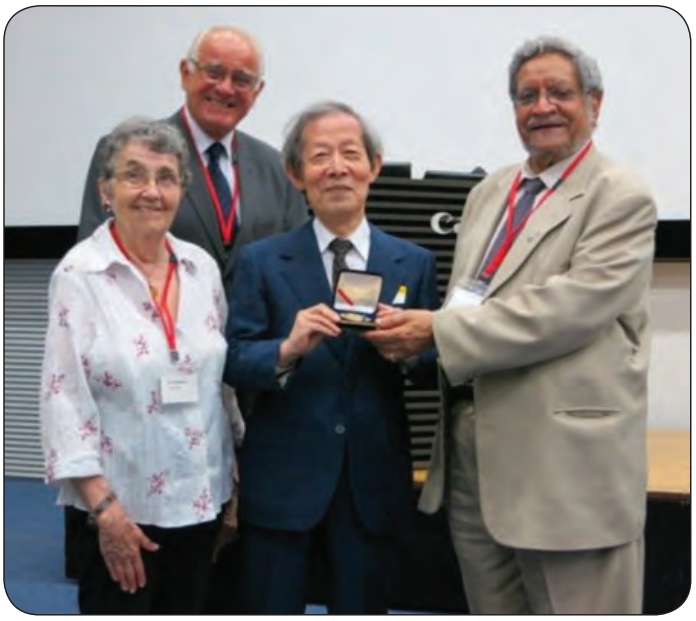
(ii) Professor Makoto Nagano, founder of the Japanese Section as the Honorary Life President of the Japanese Section.

Members of the Strategic Planning Committee unanimously agreed with this suggestion. Executive Council Members then approved these nominations.

On behalf of the International Academy of Cardiovascular Sciences I would like to express our sincere thanks for everything they have done on the behalf of the Academy.

My best congratulations,

Prof. Dr. Bohuslav Ostadal, DrSc
President of IACS



L-R Mrs. Brigitte Nagano; Dr. Ostadal; Dr. Nagano; Dr. Dhalla

Retire? Not a chance – it's time for a major new focus!

Ivan Berkowitz • Winnipeg, Canada

In 1965, my family began to learn the hard way that heart diseases were BAD. We lost my Uncle Sam who collapsed in his doctor's office. The next year. my mother was immobilized with a sore back in hospital - we were told "she looks like she is going to have a heart attack" and she died that afternoon. In a continuing series of shocks, heart attacks took my father, another uncle, my mother's cousin Maitland Steinkopf with whom we were very close, two fathers-in-law, my special friend Myles Robinson and a tragic loss one morning of our friend who was being treated for breast cancer but was felled by a blocked artery.

It was easy for me to agree to join the Board of the Manitoba Heart Foundation (MHF). I accepted a major opportunity to lead MHF's first public campaign to raise funds. Buoyed by major success, I was invited to become President and served on Board of Canadian Heart Foundation. When Cam MacLean was President of the St. Boniface Hospital Foundation (SBHF), we identified the wisdom of SBHF and MHF collaborating formally which we achieved when he appointed me to SBHF Board and we established a five-year program of a Heart Health Scholar. An incredible SBHF highlight was serving on the Committee to honour Mother Theresa who told me not to worry about the weather for our outdoor celebration because "I have very good connections"!

Friends knew I could help the launch of the Variety Club in Manitoba which really excited me. I worked on leading fund raising, especially as we produced annual Telethons. Using our first major gift which came from Winnipeg's own Monty Hall (a driving force in Variety Clubs International (VCI) , we supported the creation of the Winnipeg's Variety Children's Heart Centre. The success of the Telethon allowed us to help to fund the Variety Pediatric Heart Surgeon. With proceeds of more than one million dollars from major House Lotteries, with two great friends of SBH Peter Liba (who subsequently served as SBH President) and Hon. Larry Desjardins (Member of the MB Legislature from St. Boniface and Minister of Health), we agreed to refurbish the Children's Hospital Cardiac Intensive Care Unit. I was elected a Vice President of VCI and my lasting impact was leading an international project to select a logo which still is used today and identifies VCI's interest in hearts.

This work on heart-related causes, led me to visit the Exhibition as part of an American Heart Association conference in L A. I was impassioned with a vision to bring such undertakings to Winnipeg. Dr. Naranjan Dhalla encouraged me into 20 years on such work.

He gave me an extraordinary opportunity to be Editor of CV Network, the quarterly Official Bulletin of IACS. I have been the Editor of 57 Issues and written numerous articles on Heart Health.

Harold Buchwald

In 1978, a small group of friends recognized that Myles Robinson's untimely sudden death left not only a massive hole in his family but also in his business community where he had achieved incredible success

Ivan Berkowitz was introduced to Mother Theresa by Hon. Pearl McGonigal, Manitoba's first female Lt. Gov.

but virtual anonymity. Led by the indefatigable Harold Buchwald, the group expanded to include Victor Krepart, the President of Myles' Metropolitan Properties; John Rae, Met's CFO; Jack Levit, President of Lakeview Properties (a partner in a number of Myles' ventures); Al Fraser, President of Furnasman Heating (from which Al was proud of having installed his products in all of the thousands of homes Myles' companies had built); Bernie Wolfe (a friend and consultant to Myles, especially for Myles' expansive projects in Transcona); and me (a friend whose cousin Connie Heft, Myles' wife, had died 6 years earlier leaving Myles to care for their 4 young children). The initial vision was to raise some funds which started with a community dinner at which many business leaders with whom Myles had associated, as well as many small building tradesmen whom Al Fraser gathered, agreed to significant donations. Family and friends also contributed. Fueled by the 18-20% interest rates on deposits in the '80's, the MYLES ROBINSON MEMORIAL HEART TRUST grew to half a million dollars.

After many meetings, the 7 founders became the Directors of the TRUST and visualized how best to create a program of which Myles would have been proud. Agreement was reached to pursue three visions:

1. encourage pursuit of knowledge to improve heart health
2. encourage the work of a young person (a lifelong dream of Myles)
3. encourage a "Scholar" to continue to work in Manitoba

Accepting the suggestion of the Dean of Medicine, Dr. Arnold Naimark, the Directors were enthused to select Dr. Luis Oppenheimer as the first MYLES ROBINSON MEMORIAL HEART SCHOLAR. Dr. Oppenheimer has often said that such support encouraged him to stay in Manitoba. His research and growth as a leader in our Medical Community brought such great delight to the Trustees that his appointment was extended for 12 years.

In 2001, I introduced Dr. Dhalla to the Trust Board which agreed to become to a significant sponsor for our World Congress which brought nearly 2,000 cardiologists, scientists and cardiac surgeons to Winnipeg from 72 countries. We not only planned 5 parallel sessions for 6 days but I organized unique social events for each evening including a Welcoming Reception with the theme Winnipeg's world-renowned multi-ethnic "Folklorama" - a feast of foods and entertainment; a French-Canadian Evening of food and culture held in our extraordinary Fort Gibralter; a Reception and Casino Night in our Club Regent Casino; a formal Reception and Dinner hosted by Manitoba's Premier Gary Doer (who subsequently became Canada's Ambassador to the USA); a fun night of western-style barbecue and horse racing at our Assiniboia Downs Track; and the ultimate grand feast - the St. Boniface General Hospital Foundation's "International Award" Dinner which recognized Dr. Eugene Braunwald with their previous honourees which includes Dr. Jonas Salk, Dr. Christian Barnard, Prince Philip, Mrs. Rosalynn Carter, Sir Edmund Hilary and, as previously noted, Mother Theresa of Calcutta. We received amazing media coverage including by CNN. This contributed to more than 1,000 people attending our Public Forum kick-off which stirred the public with discussions of wine, chocolate, yoga and the Mayo Clinic's lifestyle program "Cardio-Vision 2020". Two years later, when Dr. Dhalla was shattered by the death of his son Sam, the Fund made a donation in Sam's name to the organization which Dr. Dhalla had founded and encouraged to locate its global headquarters in Winnipeg – the International Academy of Cardiovascular Sciences (IACS). Howard Morgan, founding President who had given us his vision: "The challenge for the Academy and its members is to adopt a mind-set, which continuously raises the question of how new and existing knowledge, can be translated into prevention, improved diagnosis and therapy of cardiovascular disease. This approach offers the hope of a continued reduction in morbidity and mortality due to cardiovascular diseases."

Mr. Buchwald was especially enraptured by the potential of this initiative and its importance to Winnipeg as the world centre for heart health. He made numerous efforts to assist. He had proposed that the Fund support the work of Dr. Dhalla's Institute of Cardiovascular Sciences at the St. Boniface Research Centre by funding as Dr. Oppenheimer's successors as the Myles Robinson Scholars Dr. Anton Lucas and then Dr. Ian Dixon for 6 years. When I organized the Global Conference on Heart Health & Disease in collaboration with Dr. Alan Menkis and the WRHA Cardiac Sciences Program in 2006 to celebrate the 70th Birthday of Dr. Dhalla, the Directors again recognized, with a contribution, that this work was important not only to the science but, as Mr. Buchwald was always cognizant, such events made Winnipeg a more important place to live and work.

In 2006, as plans were being made for the IACS to celebrate the privilege to honour the 100th Birthday of Dr. Michael DeBakey, from Houston Texas and recognized as the "Founder of Cardiac Surgery", discussions were begun between Dr. Dhalla and Mr. Buchwald to explore how the Fund and the Academy might work more closely to improve heart health right here in Manitoba. Sadly, "Bucky" died on April 17th and Dr. DeBakey did not make his 100th Birthday by two months as he died on July 11th.

Accepting the subsequent proposal by Dr. Dhalla, the Myles Robinson Memorial Heart Fund Directors agreed to support for the work of the IACS initiatives to promote Prevention and Early Detection Heart Disease in Manitoba. IACS utilized all opportunities to acknowledge this support in all of the IACS print and online materials. More importantly, to honour the vision and persistence of Harold Buchwald, the Keynote Address in the Symposium on the Future of Heart Health which had shifted to "Celebrate the Life of Dr. Michael DeBakey", IACS named it the Harold Buchwald Memorial Lecture. Most appropriately, the lecture was given by one of Canada's leading cardiologists Dr. Eldon Smith from Calgary. He delivered a progress report on two years of work as Chair of the Committee which created a Canadian Heart Health Strategy. While the Strategy has not brought the Canada-wide results envisioned, Manitoba Health has translated many of the recommendations into practice.

The 2nd Harold Buchwald Memorial Public Lecture on Heart Health was delivered at a Luncheon on Sept. 25, 2009 by Dr. Jay Cohn from Minneapolis, one the world's most outstanding cardiologists whose work has shifted significantly to focus on prevention and early detection of cardiovascular disease as head of the Rasmussen Centre at the University of Minnesota. His dynamic talk was titled "A STRATEGY FOR EVERYONE TO LIVE PAST 100!" Utilizing new technology, the talk was recorded and available online so that over 2,500 have learned from Dr. Cohn. I had been recognized as IACS HEART HEALTH SCHOLAR. I was inspired by the outpouring of interest from Manitobans who expressed interest in the highlight of Dr. Cohn's talk – Rasmussen Center for Cardiovascular Disease Prevention, University of Minnesota. I was the catalyst of investigations which led to encouragement of Dr. Todd Duhamel, who holds a joint appointment with the Institute of Cardiovascular Sciences at the St. Boniface Hospital and the Faculty of Kinesiology and Recreation Management at the University of Manitoba. Todd has obtained some funding from the Sir Thomas Cropo and St. Boniface Hospital Foundations to screen 1,000 women volunteers. This investigative diagnostic screening project could have potential to be used in Manitoba/Canada as a tool to better diagnose heart disease in women. Dr. Cohn's prevention initiative became a Manitoba reality in October, 2015 and very quickly, following two promotions by my friend Terry MacLeod (who has thrived after quintuple bypass surgery by Dr. Alan Menkis) on his CBC Weekend Morning Show, has already attracted over 400 volunteers..

The 3rd Harold Buchwald Memorial Public Lecture on Heart Health was delivered at a Luncheon on Sept. 8, 2011 by Dr. Sharon Mulvagh, an exceptional cardiologist who is Director of the Women's Heart Clinic at the Mayo Clinic in Rochester MN. Her topic was "A STRATEGY TO AVOID HEART DISEASE". Her experience aroused interest and contributed to focus at St. Boniface Hospital to launch their "WOMEN'S HEART HEALTH INITIATIVE".

Indeed, bringing such imaginative thinking to Manitoba represents the future vision of the Academy to share such developments from around the world, analyze possible application locally and work with the local medical community to incorporate appropriate action to lower the incidence of cardiovascular disease, reduce morbidity and allow Manitobans to live longer, healthier lives.

Utilizing my credentials as Editor of CV Network, I have been delighted to attend in person and online the five Clinton Health Matters Conferences. I have learned and shared a lot from President Clinton's experience and even was able to present him with a copy of CV Network which he signed for me **[see outside back cover]**

Over 300 Winnipeggers from all parts of the community attended the IACS Luncheon on Sept. 20, 2012. The 4th Speaker in tribute to Harold Buchwald was Dr. Piero Anversa from Harvard who was the recipient of a 2012 IACS Medal of Merit for his outstanding achievements in cardiovascular education and research. He has been leading ground-breaking research which promises to translate knowledge about adult stem cells into lifesaving use of extremely ill patients' own stem cells to prolong their lives.

The Directors, now reduced by the deaths of Al Fraser, Vic Krepart and Harold Buchwald and retirement of Bernie Wolfe, leaving only Jack Levit, John Ray, and me and with the addition of Luis Oppenheimer, considered options to assure the potential of the Fund will be realized and continue. With Charles LaFleche, President and C. E. O. St. Boniface Hospital Foundation, I followed the direction the Board and we created a proposal which was unanimously accepted on December 20, 2012.

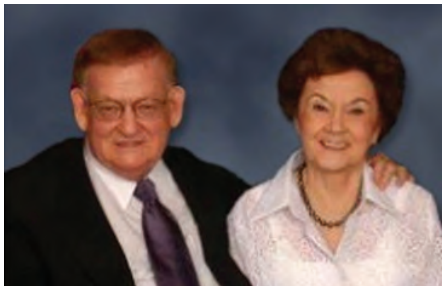
L - R Back – John Rae, Chuck LaFleche;
Front – Jack Levit; Ivan Berkowitz; Luis Oppenheimer

The Myles Robinson Fund transferred $500,000 to the St. Boniface Hospital Foundation (STBHF) and the balance in their account to IACS.

Support for IACS from Myles Robinson Fund and the St. Boniface Hospital Foundation Collaboration has continued has been prominently recognized in print and online on the cover of CV Network.

On Oct. 3, 2013, the first project supported was the 5th Harold Buchwald Memorial Heart Health Lecture by Dr. Salim Yusuf, now President of the World Heart Federation and an IACS Fellow, who spoke on "MOST PREMATURE HEART DISEASE IS PREVENTABLE". The awesome talk was recorded in the style of TED.com and along with many other IACS talks is available freely to the world through the IACS website: **www.heartacademy.org** A special edition of CV Network was distributed at the Luncheon and subsequently to interested Manitobans.

Since the development of the Myles Robinson Memorial Heart Fund and the collaboration with the St. Boniface Hospital Foundation, the Directors have sought ways to emulate the significant success of this fund-raising project. Dr. Dhalla and I met with Diane and Keith Levit and proposed honouring their parents. Very quickly, Jack Levit confirmed a commitment to IACS of $100,000 to be paid in equal annual installments. The first $10,000 supported the 2nd Cardiovascular Forum for Promoting Centers of Excellence and Young Investigators in Winnipeg on Sept. 4 – 6, 2014. To recognize the support of the launch of the Yetta & Jack Levit Program for Promotion of Heart Health in Manitoba, there was an outstanding Lecture by the renowned Canadian Cardiologist Dr. Robert Roberts and a Reception as the Official Opening of the IACS 2nd Cardiovascular Forum on Sept. 4, 2014. Sadly, the event will never be the same as Jack Levit passed away soon after he was so delighted to attend Dr. Roberts' Lecture.



Yetta and Jack Levit

We did carry on Nov. 2, 2015 when we welcomed Dr. John Cairns. He is an IACS Fellow, cardiologist, researcher, educator and, currently, President of the Canadian Academy of Health Sciences. He delivered the 2nd Annual Yetta and Jack Levit Distinguished Lecture captivating an audience of lay public, students and professionals and online on the subject of "CAN ASPIRINS PREVENT HEART ATTACKS WITHOUT CAUSING MORE HARM THEN GOOD".

On May 4, 2015, I organized the 6th Harold Buchwald Heart Health Luncheon. More than 300 Manitobans enjoyed a very healthy Lunch and an outstanding talk by Dr. Noel Bairey Merz Director of the Preventive Cardiac Center and the Barbra Streisand Women's Heart Center at the Cedars-Sinai Heart Institute in Los Angeles. To help us attract a wide audience, her topic was "NEW APPROACHES TO PERSONAL HEART HEALTH". Dr. Merz was welcomed at a "BRAINSTORMING BREAKAST ON WOMEN'S HEART HEALTH" by 22 carefully selected guests with active interest. Dr. Merz also talked of her involvement in a new Women's Heart Alliance (W H A) with whom I have developed a link. The C E O of W H A has provided material they are using to RAISE AWARENESS of the crisis and authorized our use which began with promotion on radio and our web site where a link is set to Dr. Merz' talk – **www.heartacademy.org**.

At the Luncheon, researchers from St. Boniface Research conducted tests of Blood Pressure to identify undisclosed risks. Subsequently, their trials have been encouraged at offices of corporate friends of IACS and now booked to be located in the public area of the RBC Winnipeg Convention Centre during the 2016 Boat, RV and new Home & Garden Shows.

I have also followed up from the Breakfast and encouraged collaboration with the Victoria Hospital's "For Her Heart's Sake" emphasizing secondary prevention for women.

As well, I have been the catalyst for a project to investigate "Aboriginal Expressions of Cardiovascular Health of Women in Winnipeg and Opaskwayak Cree Nation" for which initial funding of $100,000 has been contributed by CIHR.

I have encouraged a researcher on women's issues, supported by an international advisory team, in Gujarat in India, Mahatma Gandhi's home. I had a wonderful experience when I supported Dr. Dhalla's project with Israel and Gail Asper to bring the government of India's gift to Winnipeg of the statue of Gandhi which appropriately now graces the path to the Canadian Museum for Human Rights Museum.

WHAT A TRIP ... from Mother Theresa to President Clinton to Gandhi! As my friend "Izzy" Asper's vision inspired the topping of the architectural masterpiece of the Museum with the iconic "Israel Asper Tower of Hope", I continue to reach for the stars and now I expect to encourage more people than ever to follow my lead to a HEART HEALTHY Lifestyle!

Originally published in 2012 and then signed by President Clinton at his 2nd Health Matters Conference is 2013

Editor's note: By a stroke of good fortune, I was in Palm Springs and received an invitation to view online the Clinton Foundation Health and Wellness Conference: Health Matters: Activating Wellness In Every Generation which kicked off the HUMANA Challenge tournament's commitment to health & well-being. Indeed , they had begun to share their vision with public events during the previous weekend and the launch of the Humana "Well-Being Tour". I requested and received a Media Pass to attend in person and was able to enjoy an extraordinary experience. Each speaker was outstanding and, of course President Clinton stole the show. He recounted the history of heart disease in his family – no male since his great-grandfather has lived to the age the President celebrated recently. He credited his earlier program of running 25 miles a week with keeping him alive as he had told CNN's Dr. Sanjay Gupta recently "I was lucky I did not die of a heart attack". He was significantly overweight and challenged the Conference audience that no one has eaten more hamburgers than he has and probably not as many french fries. His by-pass surgery was complicated and required two subsequent procedures. As we reported in CV Network 10/4 "President Clinton's Heart Healthy Diet - If President Clinton can do it, we all can avoid heart attacks!" He looks great and said he is feeling like he will live to be 100!

The following was online from The Palm Springs Desert Sun (photos were taken by the Editor)

Bill Clinton: Decide to live a healthier life

It's pretty basic: EAT LESS and MOVE MORE.

President Clinton led the opening panel including: (L to R) Dr. David Satcher, Former U S Surgeon General & Director, Satcher Health Leadership Institute, Morehouse School of Medicine; Jillian Michaels, Health & Wellness Expert; Dr. Mark Hyman, family physician & Chairman of the Institute for Functional Medicine; Billie-Jean King, Founder, Women's Sports Foundation; Richard Gephardt, Democratic Representative from Missouri for 28 years; and President William J. Clinton

Former president Bill Clinton sponsored a whole conference Tuesday, Jan. 17, 2012 dedicated to that simple strategy for living a healthy life. He brought his daughter, celebrity exercise and cooking gurus, doctors, athletes, and a few politicians with him. Within half an hour of launching the first Health Matters meeting tied to the Humana Challenge golf tournament, they all acknowledged the solution is a no-brainer.

But while Tuesday's talk clearly wasn't breaking new ground, the conference was. Clinton's daylong workshop with doctors, spa owners, pharmaceutical reps and a handful of locals was the first of its kind, part of an extreme makeover of the former Bob Hope Classic. In the end, panelists from actress Goldie Hawn to PGA player Notah Begay III said healthy living is a personal journey. But it's also a journey Americans have to walk together. "I think every human being has a responsibility to live as long as they can and to help others do the same," Clinton said, echoing a line from his book "Giving." The experts spent the rest of the day tackling the structural and psychological obstacles that keep Americans unhealthy, from cuts in funding for physical education in schools to racial and genetic differences in diabetes rates.

The former president's conference is the highlight of Humana's week of healthy living initiatives including a 5K walk and playground project last weekend, a series of biometrics booths at PGA West's Hope Square and pedometer-based contests for Challenge spectators. The week's events are meant to inspire Challenge players and watchers to make a change. "After I had my heart surgery, I had a much more personal interest in this," Clinton said. The former president's appearance has morphed over 20 years — changing from the chubby resident of the White House to the lean vegan father walking his daughter down the aisle two years ago. Clinton said Tuesday his weight finally meets the approval of former U.S. Surgeon General David Satcher. "Every day is a gift for me, and it just kills me to see all these kids sort of zonking themselves."

"The Biggest Loser" drill sergeant Jillian Michaels said every person has to find his or her own motivation — from walking a daughter down the aisle to looking good for spring break.

"A lot of us don't like to exercise. And I personally can't stand broccoli and grilled chicken," Michaels said.

Pres. Clinton and NBC Chief Medical Editor, Surgeon Nancy Snyderman joked at the start of the Town Hall which concluded the Health Matters Conference

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