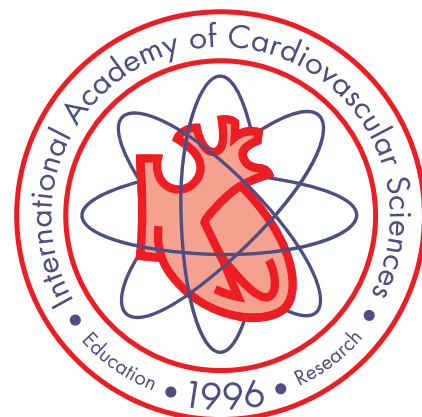


Promoting Cardiovascular Education, Research and Prevention

# CV Network

THE OFFICIAL BULLETIN OF THE INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES



PUBLISHED WITH THE ASSISTANCE OF THE MYLES ROBINSON  
MEMORIAL HEART TRUST & ST. BONIFACE HOSPITAL FOUNDATION

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September 4 – 6, 2014



# XXIV SCIENTIFIC FORUM

**INTERNATIONAL CONGRESS OF CARDIOVASCULARES SCIENCES**  
**SÃO FRANCISCO DE ASSIS CARDIOVASCULAR FOUNDATION - SERVCOR**  
**Truth is Jesus - St John 14,6**

**13-15**  
**NOVEMBER 2014**  
**MACEIÓ - AL**  
**BRAZIL**

**LOCAL: HOTEL RADISSON MACEIÓ**

**Av. Dr. Antônio Gouveia, 925 - Pajuçara, Maceió - Alagoas**

**XX Forum Prof. Dr. Naranjan S. Dhalla - South American Section**  
**International Academy of Cardiovascular Sciences**

**XXXII Brazilian Congress of Extracorporeal Circulation**

**IV Forum of Cardiovascular Biomedicine**

**XVI Ecumenic Forum**

**"To Heal the Wounded Hearts - St. Isaiah 61,1"**  
**Archbishop Dom Walmor Oliveira de Azevedo**

**X Brazilian Meeting on Cardiology for the Family**

**IV Symposium of Brazil Association of Postdoctoral Fellows on Cardiovascular Surgery - ABRECCV**

**XI Student's Brazilian Congress of Cardiovascular Sciences Leagues**

**XV International Forum on Applied Cardiovascular Physiology**

**International Course of Scientific Initiation on Cardiovascular Sciences - 30 Hours**



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## MEDAL OF MERIT

# IACS Honours Nobel Laureate Dr. Ferid Murad with Medal of Merit

Dr. James Willerson, President of the International Academy of Cardiovascular Sciences, was pleased to announce the election of an individual for the Medal of Merit award for 2014. This award, the highest honour of the Academy, was bestowed upon Dr. Ferid Murad of Washington, DC for his outstanding achievements in cardiovascular education and research. The Medal was presented to Dr. Murad by Dr. Naranjan S. Dhalla, along with Dr. Ranjit Roy Chaubhury and Dr. Suresh K. Gupta at the Opening of the IACS-India Section Conference in New Delhi on January 31, 2014.

Previous winners of this prestigious Medal of Merit award:

*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, Makoto Nagano and Roberto Bolli.*



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 pre-med 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.

## Nominations for President-Elect of the Academy

Nominations are requested for the position of President-Elect of the International Academy of Cardiovascular Sciences. Please send one page of the achievements and a brief CV of the candidate by May 31, 2014 to Mr. Ivan Berkowitz, Editor, CV Network [ivan@mymts.net](mailto:ivan@mymts.net). The current President-Elect, Prof. Bohuslav Ostadal, Prague, will be assuming the position of the President, IACS, for a 3 year term whereas the current President, Dr. James Willerson, will become Past President in September, 2014. Previous Presidents of the Academy were: Dr. Howard Morgan, Danville, Dr. Stephen Vatner, Newark, and Sir Magdi Yacoub, London.

# International Academy of Cardiovascular Sciences-India Section 6th International Conference on Recent Advances in Cardiovascular Sciences

*S. K. Gupta, New Delhi, India*

International Academy of Cardiovascular Sciences-India Section successfully organised the 6th International Conference on Recent Advances in Cardiovascular Sciences at Delhi Institute of Pharmaceutical Sciences and Research, New Delhi from January 31 to February 1, 2014. The conference was attended by more than 300 Delegates. The inauguration was chaired by Nobel Laureate Dr. Ferid Murad and graced by Prof. Ranjit Roy Chaudhury (National Professor of Pharmacology); Dr. Jagdish Prasad (DGHS, Ministry of Health & Family Welfare, India); Dr. G.N. Singh (DCGI, India); Dr. N.K. Ganguly (Former Director General ICMR India), Dr. S.K. Gupta (President IACS-India Section); Dr. S.S. Agrawal (Secretary General IACS-India Section), Dr. N.

S. Dhalla (IACS Executive-Director) and Dr. B. Ostadal (IACS President-Elect from Academy of Sciences of the Czech Republic, Prague). Inauguration was followed with presentation of awards and orations to eminent scientists.

The scientific session started with a plenary lecture by Dr. Ferid Murad on "Application of Nitric Oxide Research to Drug Development and Disease Therapy" and was followed by Six Plenary Sessions covering topics such as: Recent Techniques in Therapeutics of Heart failure, stem cell therapy for cardiovascular diseases, Role of Genetics in development of new treatment strategies and molecular mechanisms involved in heart failure. Besides plenary sessions, an oral session as well as poster session



IACS Medal of Merit (the highest Academy recognition) was awarded to Ferid Murad, Nobel Laureate for Medicine (1998), Washington University, USA



IACS Distinguished Leadership Award to S.K. Gupta, President-International Academy of Cardiovascular Sciences, India Section



Suresh K Gupta Oration Award to B. Ostadal, Institute of Physiology, Academy of Sciences of the Czech Republic, Prague



Ramesh K Goyal Oration Award to Grant N. Pierce, St. Boniface Hospital Research, University of Manitoba, Winnipeg, Canada





The newly-endowed Harpal S. Buttar (R) Oration Award to K. K. Aggrawal, President-Heart Care Foundation of India Sr.Consultant Medicine & Cardiology, Moolchand, India.



Drs. Pierce (L) and Singal presented Dr. Tejal Gandhi with her certificate of IACS Fellowship



Dr. Murad presented Dr. Dhalla with IACS-India Lifetime Achievement Award



IACS-India Lifetime Achievement Award to Dr. Jagdish Prasad



was organised and student delegates showed active participation. Naranjan Dhalla Awards for Young Investigators were awarded for best oral and poster presentations. In total, seven awards were presented for poster presentations and 2 awards were presented for oral presentations. Trayambak Basak, CSIR-Institute of Genomics & Integrative Biology, Sukhdev Vihar, New Delhi and Anupam Mittal, Dept. of Cardiology, PGIMER, Chandigarh received awards for best oral presentations. Madhu Nath, AIIMS, New Delhi; Abul Kalam,

Jamia Hamdard, New Delhi; Saifudeen Ismael, Tirunal inst. for Medical Sciences & Tech., Trivandrum; Noorus Saba, DIPSAR, New Delhi; Gurinder Bir Singh, PGIMER, Chandigarh; Shirish Dongare, DIPSAR, New Delhi and Shantanu Jawla, DIPSAR, New Delhi received awards for best poster presentations. The scientific program was followed by a beautiful cultural programme organised by DIPSAR Students. The scientific sessions were highly appreciated and the conference was a great success.

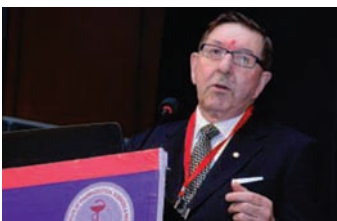
# Highlights of 6th International Conference on Recent Advances in Cardiovascular Sciences 2014



### Cardiovascular Diseases: Indian Scenario

*N.K. Ganguly, Former D.G., ICMR & Distinguished Biotechnology Professor, Govt. of India*

Cardiovascular diseases forms a major share of the deaths & disability adjusted life years (DALYs) lost in India. Ischemic heart disease is likely to be the highest cause of disease burden by 2020. A number of research initiatives to tackle the disease have been initiated in India, including the “polypill”. Other interventions such as tobacco control, integrated national program to control CVD are ongoing.



### Genetics: A Glimpse of Medicine in the Future

*Robert Roberts, President and CEO, University of Ottawa Heart Institute, Ottawa, Canada*

Coronary Artery Disease is in large part preventable, with 30 to 40% reduction by treating known risk factors. About 50% of risk for CAD is due to genetic predisposition, most of the genetic risk variants are extremely common, occurring in more than half the population. Analysis of the frequency of these genetic risk variants in cases & controls show that the combination of a no. of variants is responsible for genetic risk rather than a single variant.



### Developmental Aspects of Cardiac Adaptation to Hypoxia

*B. Ošťádal, Institute of Physiology, Academy of Sciences of the Czech Republic, Prague*

Experimental results have clearly shown that the immature heart is significantly more tolerant to acute oxygen deficiency than the adult myocardium. They are likely the result of developmental changes in cardiac mitochondrial function & energy metabolism. Adaptation to chronic hypoxia confers long-lasting protection in both adult and immature heart.



### The Curious Case of the Effects of Trans Fats on Cardiovascular Health

*Grant N. Pierce, Faculty of Medicine, University of Manitoba, Canada*

Trans fats have been classified as detrimental to our cardiovascular health. These effects have been largely concluded from epidemiological evidence. Here we will contrast the effects of two different trans fats, elaidic acid, an industrially produced trans-fat, and the ruminant trans-fat, vaccenic acid on the vasculature and on cardiomyocyte viability during non-ischemic, ischemic & ischemia/reperfusion conditions.



### Savitri Mantra for Reviving a Heart After SCD

*K. K. Aggarwal, President-Heart Care Foundation of India*

Consciousness does not leave the body for ten minutes after cardiac arrest. During this period If Hands Only CPR is done by a bystander the person can be revived. We have designed Savitri Mantra for easy remembrance by the public. It states “Savitri Mantra: Formula of 10 (CPR-10)



### Mechanisms of Spontaneous Rhythmic Beating in Developing Cardiomyocyte

*Martin Morad, Cardiac Signaling Center, USC, MUSC and Clemson University, Charleston, US*

Spontaneously beating is the quintessential property of developing cardiac myocytes. The molecular mechanisms underlying spontaneous rhythmic activity of developing cardiomyocytes remain unclear and not fully understood. I will explore the mechanisms responsible for spontaneous beating in cells derived from human inducible pluripotent stem cell-derived cardiac myocytes (hiPS-CM) & compare them to those of Neonatal Cardiac Myocytes (rNCM), a generally used cardiomyocyte model.





## **Role of Protease Activation in Ischemia-Reperfusion Injury in the Heart**

*Naranjan S. Dhalla, Institute of Cardiovascular Sciences University of Manitoba, Canada*

Both calpains & matrix metalloproteases (MMPs) are activated in the heart during Development of ischemic-reperfusion injury. By employing isolated rat hearts, subjected to 30 min ischemia followed by 30 min reperfusion, we showed that depressed contractile function was associated with marked increases in calpain & MMP-2 activities as well as reduced sarcoplasmic reticular Ca<sup>2+</sup>-pump & sarcolemmal Na<sup>+</sup>-pump activities.



## **Anti-apoptotic Effects of IL-10 and Innate Signaling in Cardiomyocytes**

*Pawan K. Singal, Institute of Cardiovascular Sciences, University of Manitoba, Canada*

Heart failure subsequent to myocardial infarction in rats is associated with an increase in TNF- $\alpha$  & a decrease in Interleukin-10 (IL-10). In isolated cardiomyocytes, IL-10 antagonizes the pro-apoptotic effect of TNF- $\alpha$ . Although the anti-apoptotic action of IL-10 in cardiomyocytes is now accepted, its molecular basis is not yet well understood. We studied the role of Toll-like Receptor 4 (TLR4) and its downstream pathway in the survival of adult cardiomyocytes in the presence of IL-10



## **Alterations in Sirtuin 3 Control of Fatty Acid Oxidation in the Myocardium of Obese Mice**

*Gary D. Lopaschuk, Mazankowski Alberta Heart Institute, University of Alberta, Canada*

Reversible lysine acetylation has emerged as a novel post-translational mechanism regulating the activity of various enzymes involved in fatty acid & glucose metabolism. We examined whether lysine acetylation was involved in the control of glucose and fatty acid oxidation in hearts from high fat diet induced-obese mice. C57BL/6 mice were placed on either a HFD (60% fat) or low fat diet (4% fat) for 16 or 18 wk. Overall acetylation of mitochondrial proteins was increased in HFD mice, which was accompanied by a decrease in sirtuin 3 expression (the major mitochondrial deacetylase).



## **Cardiac Surgery in Patients of Chronic Kidney Disease on Haemodialysis with 0% in hospital or 30 Days Mortality: How We Achieve It**

*Sanjay Gupta, S. C. Tiwari, Director, Fortis Institute of Renal Sciences & Transplantation, New Delhi*

The mortality rate for patients on hemodialysis is 20% per year. Approximately 50% of deaths among these patients are due to a cardiovascular cause. The early outcome of patients with CKD on HD undergoing cardiac surgery can be improved with good surgical skills, minimizing Blood transfusion, combined team effort including intensive care and nephrology backup.



## **Strategy to Prevent Cardiovascular Epidemic: Time to Act is Now**

*Shridhar Dwivedi, Hamdard Institute of Medical Sciences & Research, New Delhi*

Cardiovascular diseases particularly (CAD) has been on ascending graph in India. Prevalence of Diabetes in urban population has doubled in last 25 years. A large number of asymptomatic & subclinical cases have not been taken into account in 'tip of the iceberg' symptomatic pool. Further, young asymptomatic patients typically do not undergo medical investigations leading to the serendipitous discovery of CAD. Thus it is utmost crucial to adopt health promotive measures right during conception even before the onset of risk factors or at a stage when risk factors are at subclinical stage.



## **Influence of Dietary Interventions and Lifestyle Modifications in the Prevention of Cardiometabolic Disorders**

*Harpal S. Buttar, Faculty of Medicine, University of Ottawa, Canada*

Cardiovascular diseases are on ascending graph in India. Prevalence of Diabetes has doubled in last 25 years. A large number of asymptomatic & subclinical cases have not been taken into account in 'tip of the iceberg' symptomatic pool. Further, young asymptomatic patients typically do not undergo medical investigations leading to the serendipitous discovery of CAD. Thus it is crucial to adopt health promotive measures right during conception even before the onset of risk factors or at a stage when risk factors are at subclinical stage.



## **MicroRNAs in Diabetic Cardiomyopathy: Role in Cardiac Fibrosis and Hypertrophy**

*Madhu Khullar, Department of Experimental Medicine & Biotechnology, PGIMER, Chandigarh*

Myocardial fibrosis and hypertrophy are the established pathological features of diabetic cardiomyopathy & are associated with differential expression of genes involved in cardiac fibrosis and hypertrophy. Results from our study suggests that altered expression of myocardial miRs in DCM plays an important role in the pathogenesis of diabetes induced cardiac fibrosis and hypertrophy.



## **Prevention and Treatment of Diabetes induced Cardiovascular Complications by Herbal Drugs: From Concept to Reality**

*Ramesh K. Goyal, Ahmedabad University, Ahmedabad, Gujarat, India*

Taking strategies of Reverse pharmacology and Translational Phytopharmacology we have come up with new anti-diabetic drugs and possible leads from the herbal sources. Our studies have established antidiabetic and antiobesity activities of various fractions of plants such as *Enicostemma littorale*, *Embblica officinale* and *Tephrosia purpurea* and have shown to be effective. In diabetes induced cardiovascular complications and cataract formation in eyes.



## **Role of Cyp450 Inhibitor as Cardioprotector in Myocardial Infarction**

*Tejal Gandhi, Anand Pharmacy College, Gujarat Technological University, Gujarat*

Myocardial infarction is the leading cause of morbidity and mortality world over. ROS cause oxidative protein modification and is the major mediator of ischemia/reperfusion injury. Cyt.P450 (CYPs) have the ability to produce ROS such as, O<sub>2</sub>-, H<sub>2</sub>O<sub>2</sub> and hydroxyl radicals. In this study, cardioprotective effect of CYP450 inhibitor against experimentally induced myocardial infarction in rats was evaluated.



## **Potential Anti-thrombotic Efficacy and Inhibition of Collagen Mediated Platelet Activation by CDRI Compound S007-867**

*Madhu Dikshit, CSIR-Central Drug Research Institute, Lucknow, INDIA*

Progress has been made in identifying & describing molecular events regulating platelet- collagen interaction. Deficiency of platelet GPVI slightly prolong bleeding time in both humans & mice & also produces anti-thrombotic effects. S007-867 partially inhibited both GPVI & integrin  $\alpha$ B1 platelet adhesion and was effective inhibitor of collagen mediated platelet activation.



## **Combating Cardiovascular Complications of Diabetes by Targeting MMP-2 and MMP-9**

*Addepalli Veeranjanyulu, Professor, NMIMS University, Mumbai*

We hypothesized that interruptions of Matrix Metalloproteinase-2 & Matrix Metalloproteinase-9 may reduce the ensuing threatening risk factors of cardiovascular complications of diabetes by alteration in Extracellular Matrix. Using various synthetic analogues & naturally available MMP-2 & MMP-9 inhibitors we targeted MMP-2 & MMP-9 for the amelioration of cardiovascular dysfunction of diabetes. Our study revealed that MMP-2 & MMP-9 inhibition ameliorate cardiovascular dysfunction of diabetes.



## **Experimental Studies on Methylxanthine Induced Cardiotoxicity**

*Arunabha Ray, Department of Pharmacology, Vallabhbbhai Patel Chest Institute, Delhi*

Methylxanthines are re-emerging as alternative treatment modalities in diseases like bronchial asthma & COPD. Cardiotoxicity & neurotoxicity are common adverse effects of treatment with methylxanthines. From our study on methylxanthines, it is inferred that oxidative stress & ROS-RNS interactions could have contributed to the aminophylline induced cardiotoxicity &, further, anti-oxidants & NO mimetics could be used to protect against such aminophylline induced cardiotoxic effects.



# Naranjan Dhalla Awards for Young Investigators



## PODIUM & POSTER PRESENTATION AWARDEES

Trayambak Basak and Anupam Mittal; Madhu Nath; Abul Kalam; Saifudeen Ismael; Noorus Saba; Gurinder Bir Singh; Shirish Dongare and Shantanu Jawla.

## 7th International Conference on Recent Advances in Cardiovascular Sciences (RACS) • March 10–11, 2015

Amity University (Sector 125, Noida, Uttar Pradesh-201303)  
Please Contact Professor S. S. Agrawal, Secretary General, IACS-India Section • Email: [ssagrawal@amity.edu](mailto:ssagrawal@amity.edu)

## International Conference on Heart Failure: Progress and Prospects March 13–14, 2015

Rajeev Gandhi Centre for Biotechnology, Trivandrum, Kerala, INDIA  
Please contact Dr. Chandrasekharan Kartha • Email: [cckartha@gmail.com](mailto:cckartha@gmail.com)

## IACS Fellow and 2011 Medal of Merit Recipient Who Helped Shape Cardiovascular Treatment Wins Prestigious Award



A Canadian researcher who has spent more than three decades investigating how to prevent and treat cardiovascular disease among populations around the world is among the winners of the 2014 Canada Gairdner Awards for significant medical research.

Dr. Salim Yusuf, director of the Population Health Research Institute at McMaster University, will receive the Canada Gairdner Wightman Award for leadership in global clinical

trials and population studies that have shaped prevention and treatment of cardiovascular disease.

Yusuf's epidemiological work in about 85 countries has shown that most heart attacks result from similar risk factors, no matter where a person lives. One of the many studies he has led, the HOPE trial, showed that the ACE-inhibitor drug ramipril saved lives by preventing heart attacks and strokes among patients with stable heart disease.

"I was obviously very pleased," he said of the honour, noting that it's unusual for clinical and population research to be recognized with major awards, despite the direct impact such work has on human health.

Selection committees "usually give them to people who make discoveries of a molecule or an enzyme or genetics," Yusuf said in an interview from Hamilton.

"So in a sense it's a recognition that improving human health is just as important as the elegance of a discovery ... I'm pleased because it may be part of a cultural shift in recognizing what is valued in research."

Yusuf, who came to McMaster in 1992 after working at the U.S. National Institutes of Health and Oxford University in England, said the Gairdner may be in his name, but it really pays tribute to the entire international team that has conducted the research.

Recipients of the awards, which were created in 1959, each receive \$100,000. Gairdners have been dubbed the "baby Nobels" because more than 80 recipients have gone on to win the world's most coveted scientific prize.

"The Canada Gairdner Awards distinguish Canada as a leader in biomedical research, raising the profile of science both nationally and on the world stage," said Dr. John Dirks, president and scientific director of the Gairdner Foundation. "This year's winners are an exceptional example of highly effective outcomes from translational research."

To learn from Dr. Yusuf, his recent Harold Buchwald Lecture is online at: <http://www.sbr.ca/2013/10/yusuf-premature-heart-disease-preventable>

# IACS Fellow Victor J. Dzau, M.D., To Head US Institute of Medicine



Victor J. Dzau, M.D., has been named to be the next president of the Institute of Medicine, the National Academy of Sciences announced today. Currently chancellor for health affairs at Duke University, president and CEO for Duke University Health System, and James B. Duke Professor of Medicine, Dzau will succeed Harvey V. Fineberg, who has served as IOM's president for 12 years. Dzau's six-year term as president will begin July 1, 2014.

Dzau is highly regarded as a trailblazer in translational research, health innovation, and global health care strategy and delivery. He was the guiding force in establishing the Duke Translational Medicine Institute, Duke Global Health Institute, Duke-NUS Medical School in Singapore, and Duke Institute for Health Innovation.

Dzau's own seminal research laid the foundation for the development of angiotensin-converting-enzyme (ACE) inhibitors, which are used globally for the treatment of high blood pressure and congestive heart failure. He pioneered gene therapy for vascular disease, being the first to introduce DNA decoy molecules to block transcriptions as gene therapy in humans.

The Institute of Medicine was established in 1970 by the National Academy of Sciences and has become recognized as a valuable resource for independent, scientifically informed analysis and recommendations on health issues. Under the Academy's 1863 congressional charter, IOM provides advice to government policymakers, health professionals, and the public on issues such as health care delivery and quality, the obesity epidemic, vaccine safety, nutrition, cancer prevention and management, and military and veterans' health. Dzau was elected to the IOM in 1998 and has served on several leadership committees.

In announcing Dzau's appointment, National Academy of Sciences President Ralph J. Cicerone said, "Victor Dzau is an internationally acclaimed leader and scientist whose work has improved health care in the United States and globally. Under his direction, the Institute of Medicine will continue to advance research and improve health by providing objective, evidence-based guidance on critical issues."

As science, engineering, and medicine are increasingly interconnected, Victor Dzau's foresight in advancing innovation and the translation of research into diagnostic methods, medicines, and creative solutions for human health issues will be a tremendous asset to the Academies," said National Academy of Engineering President C.D. (Dan) Mote Jr.

"I am delighted to welcome Victor Dzau as my successor," added current Institute of Medicine President Harvey V. Fineberg.

"He has already contributed a great deal to the IOM – and was a great personal help to me – as a member of the IOM Council from 2008 through 2013. As a physician-scientist and leader in academic medicine, Victor has consistently demonstrated inspirational leadership, innovative thinking, and multifaceted achievement. Now, all of us at the IOM, both members and staff, will benefit more fully from his leadership."

Dzau is a member of the board of directors of the Singapore Health Services, and a former member of the Advisory Committee to the Director of U.S. National Institutes of Health and the International Review Board of the Canadian Institute for Health Research. He chaired NIH's Cardiovascular Disease Advisory Committee and is a past chair of the Association of Academic Health Centers. In 2011, Dzau led a partnership among Duke Medicine, the World Economic Forum, and McKinsey & Co. to establish the International Partnership for Innovative Healthcare Delivery. He chairs its board of directors.

Prior to his tenure at Duke, Dzau was the Hersey Professor of the Theory and Practice of Physic (Medicine) at Harvard Medical School; chair of the department of medicine and director of research at Brigham and Women's Hospital; and Arthur Bloomfield Professor and chair of the department of medicine at Stanford University. He has received numerous awards and recognitions including the Max Delbruck Medal from Humboldt University, Charite, and Max Planck Institute; Gustav Nylin Medal from the Swedish Royal College of Medicine; the Polzer Prize from the European Academy of Sciences & Arts; the Ellis Island Medal of Honor; and the Distinguished Scientist Award of the American Heart Association, among many others. Dzau received his undergraduate and medical degrees from McGill University.

"I am humbled and honored to be selected to lead the IOM at a time of unprecedented opportunities and challenges in health, health care, and biomedical sciences," Dzau said. "Harvey Fineberg has been an exceptional leader of the IOM, and I am committed to building on his outstanding work and advancing the impact of the IOM on the nation and globally."

The National Academy of Sciences is a private, nonprofit institution that was established under a congressional charter signed by President Abraham Lincoln in 1863, and with the National Academy of Engineering, Institute of Medicine, and National Research Council, it provides science, technology, and health policy advice to the federal government and other organizations. IOM members are elected for their excellence and professional achievement in a field relevant to the IOM's mission and for their willingness to participate actively in its work. These individuals represent the health care professions as well as the natural, social, and behavioral sciences, law, administration, engineering, and the humanities.



# IACS Fellow John Cairns is President of Canadian Academy of Health Sciences



John Cairns, MD, FRCPC, FRCP (Lond), FCAHS, FACC, FIACS is a Professor of Medicine at the University of British Columbia. He is a cardiologist whose research has focused on the modification and non-invasive measurement of myocardial infarct size in humans and dogs, antithrombotic therapies for acute ischemic syndromes and for atrial fibrillation, and post-myocardial infarction arrhythmias. He has over 160 peer-review publications

and co-edits the textbook "Evidence-Based Cardiology". He practiced cardiology for many years in Ontario, focusing on acute coronary care and invasive cardiology. He has been a member of the editorial board of several peer-review journals, has served on numerous scientific committees of peer-review agencies and professional/scientific societies and has chaired or been a member of the Steering Committees and Data Safety Monitoring Boards of numerous large clinical trials. He has held a number of academic leadership roles, including Co-ordinator of the Hamilton Regional Cardiovascular Program (1979-88), Chair of Medicine, McMaster University (1988-96) and Dean of Medicine, UBC (1996-2003), where he worked closely with UBC and the provincial government to build the rationale and plans for the two-fold expansion of the Medical School in partnership with the Universities of Victoria and Northern BC. He is currently co-chair of the Steering Committee of CANNeCTIN, a Canadian and international clinical trials network funded by CFI and CIHR and headquartered at McMaster University.

He became the president of the Canadian Academy of Health Sciences in September, 2013.

In his October 6, 2004 response to the Throne Speech, Canada's Prime Minister stated the following:

...Mr. Speaker, I am announcing today that the government of Canada will mandate the Canadian Academies of Science.

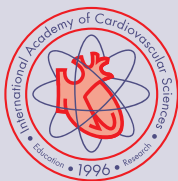
We seek to create a national alliance of leading scientific and engineering societies, one that will operate at arm's length from government and receive operational funding of \$35-million over the next 10 years. The new Academies of Science will be a source of expert advice on scientific aspects of important domestic and international issues, and will give our country a prestigious voice among the choir of international science groups.

The Council of Canadian Academies (CCA), formerly the Canadian Academies of Science, was established in 2005. The CCA is an alliance of three organizations:

- The Royal Society of Canada (RSC)
- The Canadian Academy of Engineering (CAE)
- The Canadian Academy of Health Sciences (CAHS)

The objective of the Canadian Academy of Health Sciences is to provide assessments of and advice on key issues relevant to the health of Canadians. In order to achieve this role it will:

1. Serve as a credible, expert and independent assessor of science and technology (S&T) issues relevant to the health of Canadians;
2. Support the development of timely, informed and strategic advice on urgent health issues;
3. Support the development of sound and informed public policy related to these issues;
4. Enhance understanding of S&T issues affecting the public good by transmitting the results of assessments and providing opportunities for public discussion of these matters;
5. Provide a collective authoritative multi-disciplinary voice of health sciences communities;
6. Represent Canadian health sciences internationally and liaise with like international academies to enhance understanding and potential collaborations on matters of mutual interest.



## Officers and Directors of the International Academy of Cardiovascular Sciences

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# Stress and Ageing: from Molecular Biology to Clinical Perspectives

*Ursula Müller-Werdan, Halle, Germany*



*Keynote speaker and Schober award laureate Prof. Judith Campisi with Prof. Andreas Simm and Prof. Rolf-Edgar Silber*

In cooperation with the European Section of the International Academy of Cardiovascular Sciences a symposium on “Stress and Ageing: from Molecular Biology to Clinical Perspectives” was held in Halle (Saale). More than 140 scientists from all around the world met from 6 to 8 September 2013 to discuss how stress may impact on the ageing process of cells. Average life expectancy has grown dramatically in the last century leading to an increase in age-related degenerative diseases. While the accumulation of molecular damage is thought to be the cause of biological ageing, the capacity of repair and regeneration seems to be the basis of longevity. Stress is known to influence both. It is still unclear if stress per se or what kind of stress is harmful or beneficial. Individual predisposition and susceptibility to stress additionally adds to the diversity of the ageing processes.

The goals of the meeting were (1) to make the general public more aware of the problems of stress as a modifier of the ageing process, (2) to promote communication and translational research among the diverse disciplines of ageing research and (3) to introduce and invite young students to join this area of research.

The meeting initiated by the Heart Centre Halle was organized by Andreas Simm, Ursula Müller-Werdan and Rolf-Edgar Silber, all from Halle (Saale), Germany. As Chairpersons representing the International Academy of Cardiovascular Sciences served Prof. Naranjan S. Dhalla, Winnipeg, CA, Prof. Bohuslav Ostadal, Prague, CS, and Jan Slezak, Bratislava, SK.

Judith Campisi from Buck Institute, Novato, US, gave as a highly appreciated key note lecture on “Cancer and Aging: Rival Demons?” and was honored with the Schober award of the University Halle by the Director of the Heart Centre Halle, Prof. Rolf-Edgar Silber, during the opening ceremony of the meeting by Prof. Naranjan S. Dhalla.



*Prof. Bohuslav Ostadal and Prof. Grant Pierce with Prof. Ursula Müller-Werdan who was awarded with the Distinguished Service Award in Cardiovascular Science, Medicine and Surgery upon for the year 2013 by the IACS.*



*Prof. Naranjan S. Dhalla and Prof. Bohuslav Ostadal with Prof. Karl Werdan who was awarded with the Distinguished Leadership/Lifetime Achievement Award in Cardiovascular Sciences for the year 2013 by the IACS*

Ursula Müller-Werdan, Halle (Saale), Germany, received the Distinguished Service Award in Cardiovascular Science, Medicine and Surgery for the year 2013

On behalf of the International Academy of Cardiovascular Sciences, the Leadership/ Lifetime Achievement Award in Cardiovascular Sciences for the year 2013 was bestowed upon Prof. Karl Werdan, Halle (Saale), Germany,

The ageing meetings in Halle take place every other year and represent a forum of scientific exchange particularly for the members of the European Section of the International Academy of Cardiovascular Sciences.



# European Section Meeting of the International Academy of Cardiovascular Sciences (IACS)

**October 9 – 12, 2014 • Balatongyörök (Lake Balaton), Hungary**

The upcoming European Section Meeting of the International Academy of Cardiovascular Sciences (IACS) will be held in Balatongyörök (Lake Balaton), Hungary between 9 and 12 of October in 2014. On behalf of the IACS and the Local Organizing Committee I have great pleasure in inviting you to this fascinating scientific meeting presented on the following topics:

- Sport and sudden cardiac death
- Exercise and various cardiovascular diseases (CVD)
- Cardiac adaptation and maladaptation; mechanisms of cell survival and death
- Cardiac gene expression and regulation
- Sport and cardioprotection
- Genetic aspects of CVD
- Cell to cell interactions
- Coronary angiogenesis from bench to bedside
- Drug therapy and side effects; new approaches to the management of CVD

On this occasion instead of plenary lectures we should like to offer special “three generation” sessions given by invited speakers from the outstanding senior, excellent

established and junior level scientist’s generations. There will be also regular sessions, including lectures of invited speakers and free oral communications selected from the submitted abstracts. We are expecting a number of presenters for the poster session.

We believe that your participation will greatly contribute to the success of the meeting and provide opportunity to discuss the latest advances in experimental and clinical cardiovascular research. In addition to serious science, the local organisers intend to provide a friendly atmosphere by preparing various relaxing and cultural programmes around the Lake Balaton. We invite you to share in this meeting, to renew old friendships, and to make new ones!

## **President of the Meeting**

*Prof. András Varró, MD, DSc*

## **Honorary President of the Meeting**

*Prof. Naranjan S. Dhalla, PhD, MD (Hon), DSc (Hon)*

## **Main Organizers**

*Dr. István Baczkó MD, PhD and Dr. Norbert Jost, PhD*

## **Head of the Scientific Advisory Board**

*Prof. Ágnes Végh, DSc*

**A Second Announcement with more information is coming April 30, 2014!**

## **Organizing Secretariat**

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## **Meeting Venue**

Hotel Panorama  
H-8313 Balatongyörök, Petöfi u 5  
Hungary



# Not What You'd Expect at a Hockey Game!

*Editor's Note: As those of you who know me will attest, I am a great hockey fan. I have had concern, even discouraged my son from continuing his recreational hockey as he entered his thirties, because hockey seems the antithesis of good aerobic exercise. The players skate full bore for a minute or two, sit for two or three minutes and then jump on the ice for another aerobic blast on their system. I have known friends who did suffer cardiac arrest and died. When I heard of the incident in Dallas, I thought it was appropriate to these pages to share the online story by FOX News Southwest. His recollections of his Dad's death remind me that if my parents, who both died nearly 50 years ago, had this kind of care, would likely not have been lost in their prime of life.*

Just two nights after one of the greatest nights in Dallas Stars history, where franchise icon Mike Modano saw his trademark No. 9 raised to the rafters at American Airlines Center on Saturday evening, the mood took a serious turn the other way on Monday night against the Columbus Blue Jackets.

That's because Dallas center Rich Peverley had what was termed a cardiac event by medical personnel upon returning to the Stars bench following a shift 5:50 into the game. Dallas head coach Lindy Ruff immediately called for medical personnel to provide assistance.

And to the credit of the team of medical professionals who immediately arrived to provide aid, that's exactly what they did. After moving Peverley to a hallway behind the Dallas bench, they administered oxygen, then an IV, started performing chest compressions and defibrillated him, a process which was quickly successful in restoring a rhythm to his heart.

During all of this, Peverley's teammates and the Columbus players along with the crowd stood in stunned silence, largely unaware of what had just happened but knowing the circumstances had to be rather serious for on-ice officials to stop play 6:23 into the game.

About 10-15 minutes later, both teams headed to their dressing rooms and about 10 minutes after that, Stars PA announcer Jeff K. announced the game had been postponed.

My vantage point for all of this was as it normally is with most of the rest of the leering press, in the hockey press box high above the rink. It was a somber place as we all knew of Peverley's history as far as a heart issue, that he had a procedure prior to preseason to correct an irregular heartbeat.

We also knew that Peverley missed all of training camp and the Stars' opener last October against the Florida Panthers. But we also realized that until last week, his heart had not been an issue. However, Peverley evidently had an issue after the Stars lost to the Tampa Bay Lightning on March 1st at the AAC and couldn't travel with the team to Columbus in advance of last Tuesday's 4-2 loss to the Jackets.

Peverley's absence from that road loss was initially termed as being because of a lower-body injury. But when Ruff was asked after morning skate two days later, prior to the Stars hosting the Vancouver Canucks last Thursday, if Peverley not playing was tied to his issue from earlier in the season, Ruff confirmed it was.

Of course, prior to a short press conference right after the game had been postponed, none of us knew for sure this incident had been heart-related. Sure, we thought it was, but it wasn't until hearing the remarks of Stars President and CEO Jim Lites, UT Southwestern's Dr. Gil Salazar, Stars Team Physician Dr. Bill Robertson and Ruff that we knew exactly how the whole sequence of events had played out.

It truly was a scary and surreal scene down on Victory Avenue last night, but as Ruff aptly stated in his final remarks of the night, those medical professionals who quickly rushed to Peverley's aid deserve a lot of credit for their effectiveness and efficiency in not only quickly assessing the situation but taking actions which likely saved Peverley's life.

"Personally, I thought the medical staff did an unbelievable job tonight. And I was there first-hand and if it wasn't for our doctors and all the members reacting so quickly and so efficiently, I could be standing here with a different story," Ruff said. "But they did an absolutely fabulous job."

So, in a night that was truly like no other for someone like myself who is blessed enough to cover this great game of hockey, the bottom line is that Peverley, thanks to quick and top-notch medical attention, is now stable at UT Southwestern's St. Paul University Hospital and that really is all that matters here.

Of course, the incident casts a considerable cloud over the future of the Stars center in the NHL, but all of that discussion is for another day. Dallas returns to the ice tonight in St. Louis to begin a quick road trip, but the one thing I take away from the entire night besides the obvious that sometimes sports just really don't matter much all that much is that the true heroes of the night were the trained medical professionals who were instrumental in not only resuscitating Peverley but also stabilizing him.





And to end on a personal note, this event brought back some rather painful personal memories. When I was 19 or 20, I was awoken one morning by a loud thud in the kitchen. I jumped out of bed, ran to the other part of the house only to see my father laying on the floor with his eyes rolled back in their sockets, convulsing violently.

As my mother attended to him, I quickly called 911. After several minutes on the phone, my dad sat up and appeared fine. He went to the doctor later that same day and after the tests came back, he told me it wasn't his heart, that it was viral in nature. But even though I was just a college kid with limited medical knowledge, I knew better.

Things were fine with my old man, to whom I largely owe my passion in sports to, until January of 1994. That was when while in graduate school at Oklahoma State, my mom called me early in the morning to tell me to get home to Tulsa ASAP. We had to fly to Houston, where my dad was living, because he'd had multiple heart attacks and was now in the hospital.

I never saw my dad conscious again and seeing him pass later that night was tough to say the least as that was my first taste of losing someone close to me. But tying all this back in to Peverley, my first instinct given his medical history was that it was heart-related, which immediately made me think of what happened to my father just over 20 years ago.

Rich Peverley has always been nothing but a gracious soul and good quote for us in the leering press and based on what those in the Stars organization and in that room say about him, he's a great guy who is universally loved.

And the incredible outpouring of well wishes not just from his colleagues in the NHL but from every team and also from every

other team in the Metroplex says great things about us all and our ability to realize what truly is important.

In fact, some of the most ardent well wishers came from Boston, where Peverley was traded from this summer along with Tyler Seguin as the backers of the Bruins wanted to send along their thoughts on their former centerman, who remains a beloved figure back in Beantown.

So, it's understandable this incident shook that entire roster and organization. But I personally am so glad that he received such superior medical attention as is his wife, Nathalie, who was at the game and rode with him in the ambulance to the hospital.

It remains to be seen what is next both for the Stars on Tuesday night against the Blues and for Peverley, but all that talk can be tabled for a bit. Monday was a truly surreal experience for all who saw it live in the AAC or on TV, but I am so thankful to the man upstairs that it turned out the way it did.

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# Dhalla and Colleagues Edited Two New Books



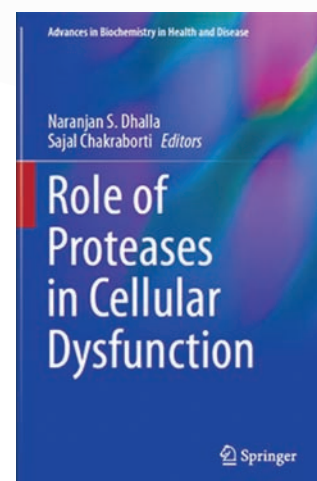
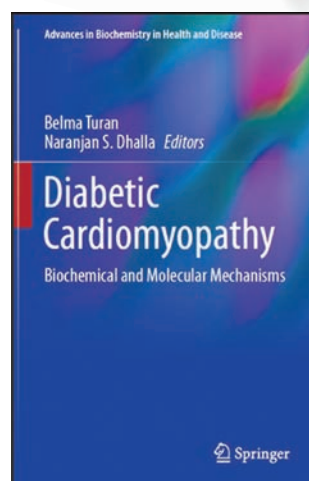
**Professor Suresh K. Gupta, Head, Department of Clinical Research Institute of Pharmaceutical Sciences and Research, Delhi University, New Delhi, India**

### Diabetic Cardiomyopathy

This book is dedicated to Prof. S.K. Gupta for his outstanding leadership in promoting cardiovascular research and education throughout the Indian continent. In his capacity as Head of the Department of Pharmacology at the All India Institute of Medical Science, Dr. Gupta established the National Pharmacovigilance Center for promoting health and family welfare. He published more than 250 research papers and seven books mostly on the role of herbal drugs in the prevention and treatment of cardiovascular diseases and trained more than 150 postgraduate students. As Dean and Director General of The Institute of Clinical Research, he initiated and promoted a comprehensive education program for Clinical research throughout India. Dr. Gupta has been heavily engaged in promoting the scientific basis for the practice of cardiology as well as young investigators and is currently serving as President of Indian Section of the International Academy of Cardiovascular Sciences. This book dealing with molecular and cellular aspects of cardiac dysfunction during the development of diabetic cardiomyopathy pays a special tribute to Prof. Suresh Gupta for his distinguished services.



*During the XXIII Forum Cientifico in Recife, Brazil, Dr. Dhalla visited with Arthur Henrique Cunha Volpato and Adriana Frota, who did medical student research at the University of Manitoba. During their programs, they worked in Dr. Dhalla's lab and assisted with some chapters in the above books.*



**Dr. Ranbir Chander Sobti, Vice Chancellor, Babasahed Bhimrao Ambedkar University, Lucknow, India**

### Role of Proteases in Cellular Dysfunction

This book is dedicated to Prof. Ranbir C. Sobti, Vice Chancellor, Babasahed Bhimrao Ambedkar University, Lucknow, India for his untiring efforts to promote excellence in science throughout the Indian subcontinent. Prof. Sobti served the Punjab University with great distinction, first as Professor and Head, and then as Vice Chancellor. In view of his outstanding record as scientist in the field of Biotechnology as well as high commitment for developing scientific culture and promoting young investigators, he was elected President of the 101st Indian Science Congress. Dr. Sobti was bestowed a great honor "Padma Shree" by the Government of India.



## REMEMBERING SOMEONE SPECIAL

# Professor Heinz Rupp, PhD, Died at Age 66

*Bernhard Maisch, Marburg, Germany*



Heinz Rupp, died on March 4th, 2014 in Hannover from the sequelae of myocardial infarction. Even the implantation of a cardiac assist device could not alter the fatal clinical course.

Professor Rupp was head of the molecular cardiology laboratory of the clinic of Internal Medicine & Cardiology, UKGM (Director Prof. Dr. Bernhard Maisch)

in Marburg from 1994 to his retirement in 2012. We have lost a personal friend, an excellent scientist and enthusiastic teacher. He has been one of the initiators of the Marburg Heart Walk for young and old from the historic market place to Marburg castle at the traditional Elisabeth Market with educatory public information on life-style, hypertension, coronary artery disease and heart failure on the central market place.

Heinz Rupp studied biochemistry from 1967 to 1975 at Eberhard Karl's University in Tuebingen, Germany. After a research period from 1976 to 1979 at King's College, School of Biological Sciences, London, he conducted several research projects at the Physiological Institute in Tuebingen with Professor Dr. Ruthard

Jacob. From 1980 to 1994 he covered a wide spectrum of topics in basic cardiac physiology, the prevention and treatment of heart failure. These research topics were also in the focus of several visits to conduct research at the Faculty of Medicine of the University of Manitoba under the guidance of Professor Naranjan S. Dhalla, who became a good friend. From 1994 until his retirement from the Molecular Cardiology Laboratory in Marburg Professor Rupp was very productive performing research in fields of prevention and treatment of atherosclerosis and heart failure, performing studies on cardioprotection by omega 3 fatty acids and on inflammatory cardiac diseases. We had several international patents to improve the pericardial access to and the motility of devices in the pericardium.

Heinz Rupp was a member of the German Cardiac Society, the European Society of Cardiology, treasurer of the Cardiac Promotion Society Marburg and a Fellow of the esteemed International Academy of Cardiovascular Sciences.

Professor Rupp will stay in our fond remembrance as a friend, as an enthusiastic researcher, an excellent teacher and outstanding speaker at national and international scientific meetings. Our condolences go to his wife Karin and his children Thomas and Susanne.

## A Tribute to Professor Heinz Rupp, Deceased on March 4, 2014

*Ursula Müller-Werdan and Karl Werdan, Halle (Saale), Germany*

Heinz Rupp had been known to us for several decades, not only as a scientific co-operating partner, but also as a very reliable personal friend. Our families have had close contact for more than a quarter of a century.

Heinz Rupp's unexpected death is a tremendous loss for all who have had the chance to know and work with him. He had made major contributions in the area of cardiac metabolism, a field to which he added substantially with brilliant new ideas often beyond the scope of mainstream. He was an active member in high-ranking scientific societies including the International Academy of Cardiovascular Sciences, the International Society of Heart Research and the German Cardiac Society, which had honored him with the Fraenkel Award. He had excelled in several meetings that he had organised, in which he had a both smart and exceptionally friendly way of presenting his visions and projects. Thus in many instances he also became a scientific networker, helping younger scientists to get to know each other



*Heinz, Karin and Thomas Rupp at a private party in Halle in 2005*

and find their own way in research. He was an inspirational tutor for his students, whom he took care of with much enthusiasm, he always took his time to help them in difficult situations, no matter what time of day or week. Heinz Rupp no doubt was devoted to his scientific work with his whole life and soul. He had a way to persistently strive for new frontiers that was strong and calm at the same time. He was an outstanding example of personal integrity and excellence.

Heinz Rupp was an internationally educated academic with a very fine sense of humor, very polite and friendly manners and a happy family man. We shall treasure our memories of Heinz Rupp. Our deep-felt sympathies go to his family, his widow Karin with daughter Susanne and son Thomas.

## REMEMBERING SOMEONE SPECIAL

# Heinz Rupp – A True Loss for the Cardiovascular Community

*Naranjan S. Dhalla, Winnipeg, Canada*

It was with great sadness and pain to hear that Dr. Heinz Rupp passed away on March 4, 2014. He served the Philips University of Marburg, Germany and was the Head of Molecular Cardiology and Professor of Physiology from 1994 to 2012. He was a serious scientist of high caliber and was highly committed to finding solutions to diverse cardiovascular problems. He was not only meticulous in conducting his experiments in the area of heart disease, he was also creative and innovative in his approach and his integrity in revealing his observations was established beyond any shred of doubt. His work on the pathophysiology of myofibrillar proteins, particularly with respect to switch of myosin isoforms, during the development of cardiac hypertrophy, heart failure and diabetes, has now become classic literature. He genuinely believed that interventions such as etomoxir, which promote glucose utilization and depress free fatty oxidation, will be most effective for the treatment of heart failure. He was also convinced that nutrition plays a pivotal role in the regulation of cardiac gene expression and thus its modification is essential

for the prevention of cardiac dysfunction. In this regard, he published extensively on omega-3 fatty acids and heart failure. Furthermore, he created the International Society of Molecular Nutrition and Therapy for promoting research and education. He received several awards including the Fellowship of the International Academy of Cardiovascular Sciences and served on the Editorial Boards of several journals, such as the Canadian Journal of Physiology and Pharmacology as well as Molecular and Cellular Biochemistry. I had the distinct honor of closely associating with Dr. Heinz Rupp, who used to spend 2 to 3 months every year as a Visiting Professor in Winnipeg during 1979-1994. He will be remembered for a long time to come for the high standards he set and the devotion he showed for promoting young investigators. We, at the Institute of Cardiovascular Sciences, St. Boniface Hospital Research Centre, will cherish the beautiful memories of our interactions with him and his family. Indeed, he was a special man who loved his family (Karin, Susi and Tommy), his friends, colleagues and students.

## PEOPLE AND PLACES

# Dhalla Feted in Serbia, India

*Bill Peters, Winnipeg, Canada*

Dr. Naranjan S. Dhalla, Distinguished Professor of Physiology, University of Manitoba, and Director of Cardiovascular Developments, St-Boniface Hospital Research has been awarded an honorary doctorate of the University of Kragujevac, Serbia. The official ceremony was held Feb 28th, 2014, at 10 a.m. at the Rectorate of the University of Kragujevac. The award is Dhalla's 5th honorary doctorate in addition to 4 honorary professorships from different institutions around the globe.

The award was presented to Dhalla by university Rector Professor Slobodan Arsenijevic for "outstanding contribution to the development of medical thought and scientific and research work in the field of physiology of the cardiovascular system, and as a token of gratitude for contributions to the development of the University of Kragujevac in this field".

"I am truly honored," says Dhalla. "Not only for me, but St-Boniface Hospital Research and the University of Manitoba as well. I am deeply touched by this gesture, and look forward to promoting the excellent work the faculty has done here in the





areas of lifestyle and cardiovascular problems". He also gave an inaugural address on Potential Therapy for the Prevention of Cardiac Dysfunction During the Development of Diabetic Cardiomyopathy.

Dhalla recently returned from two weeks in his native India, attending conferences in several cities with St-Boniface Hospital Research colleagues Dr. Grant Pierce, Executive Director of Research, St-Boniface Hospital, and Dr. Pawan Singal, Director of the Institute of Cardiovascular Sciences, also at St-Boniface.

In late January, Dhalla was guest of honour and keynote speaker at the 5th National Conference on Rational Pharmacotherapeutics in Ludhiana, India, presenting "Search for Rational Therapy or Prevention of Sudden Cardiac Death". Shortly after, at the International Academy of Cardiovascular Science's India Section Meeting in New Delhi, Dhalla gave the presentation "Role of Protease Activation in Ischemia-Reperfusion Injury in the Heart". During this visit, Dhalla also received a Lifetime Achievement Award of the Indian Section of the International Academy of Cardiovascular Science. 7 awards were also given in his name – the Naranjan Dhalla Awards for Young Investigators – for 2 oral and 5 poster presentations.

In early February at the 101st Session of Indian Science Congress in Jammu, India, Dhalla presented "Modification of Myocardial Infarction Induced Heart Failure by Anti-platelet Agents". The Prime Minister of India, Dr. Manmohan Singh, presented an award to Dr. Dhalla in recognition of his exemplary contributions in science and technology. The award was received in the presence of 8,000 conference delegates, and chaired by Dr Ranbir Sobti, General President, and Mohan P.S. Ishar, President.

Dhalla then presented "Reversal of Cardiac Remodeling in Heart Failure by a-adrenoceptor Blockade" at the 11th Annual Conference of ISHR-India Section in Mohali, India. At this meeting, a Naranjan Dhalla Young Investigator Competition was also held.

From March through November, Dhalla will attend or present at the following international meetings:

- ACC 63rd Annual Scientific Session, Washington DC
- 39th World Congress of ISMH and 79th BCPM Joint Meeting, Tokyo
- Cuban Congress of Cardiology, Havana
- Inaugural Lecture, University of Buenos Aires
- 19th World Congress on Heart Disease, Boston
- European Section of IACS Meeting, Lake Balaton
- 3rd Congress of Physiological Sciences of Serbia, Belgrade
- 2014 Canadian Cardiovascular Congress, Vancouver
- American Heart Association Meeting, Chicago

## Academic and Professional Achievements

Naranjan Dhalla is a Distinguished Professor of the University of Manitoba at the St-Boniface Hospital Research Centre in Winnipeg. In view of his dedicated services and high profile leadership qualities, he is known for promoting cardiovascular science and medicine all over the world.

In his capacity as Secretary General and then as President during 1972-1995, Dhalla developed and promoted the International Society for Heart Research for the exchange of scientific information and to foster research collaborations.

He also founded the International Academy of Cardiovascular Sciences for promoting education and research and has been serving as Executive Director since 1996.

Dhalla has been serving as Editor-in-Chief of a major international journal "Molecular and Cellular Biochemistry" for the past 26 years. He has edited/authored 50 books in the area of cardiovascular health and disease, primarily for the benefit of developing investigators.

Dhalla has given 526 invited talks at national and international conferences and symposia as well as academic institutions around the globe. He has organized (as Chairman) 12 highly successful conferences in Winnipeg, which were attended by 400 to 2,000 established and young investigators, in addition to serving as a Member for the organization of another 106 international meetings for the past 40 years.

Dhalla has published more than 775 full length research papers and review articles on the pathophysiology and pharmacology of heart failure, ischemic heart disease and diabetic cardiomyopathy throughout his professional career and his work has been cited more than 14,000 times in the literature.

Dhalla has trained 161 graduate students, postdoctoral fellows and visiting scientists in the field of experimental cardiology. He served as Founding Director of the Institute of Cardiovascular Sciences for 19 years and recruited several highly talented investigators with diverse expertise in biomedical sciences to build a multidisciplinary centre for the prevention and therapy of heart disease.

## Doctorate Degrees

- Honorary Degree of Doctorate of Medicine, Charles University, Prague (1995)
- Honorary Degree of Doctor of Science, Slovak Academy of Sciences, Bratislava (1997)
- Honorary Degree of Doctor of Science, Panjab University, Chandigarh (2009)
- Honorary Degree of Doctor of Science, Guru Nanak Dev University, Amritsar (2010)

## Honorary Professorships

- Honorary Professor of the Peking Union Medical College, Beijing (1991)
- Honorary Professor of the Xian Medical University, Xian (1992)
- Professor Honoris Causa of the Faculty of Medicine, Carol Davila University, Bucharest (1996)
- Professor Honoris Causa of the National Academy of Medical Sciences, Bucharest, Romania (2006)

## 2nd Cardiovascular Forum for Promoting Centers of Excellence and Young Investigators

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For further information, visit  
[www.cvforum.org](http://www.cvforum.org)

# XXIII Scientific Forum

*Elaine Maria Gomes Freitas, Elton Silva Gomes, Marcella Albuquerque, Otoni Moreira Gomes, Belo Horizonte, Brazil*

The XXIII Scientific Forum – International Congress of Cardiovascular Sciences – was held in the period of 5 to December 7, 2013 at the Convention Center of the Atlante Plaza Hotel in Recife – PE, Brazil. The congress brought together renowned national and international guests who enriched the event with the education and important results of their research and professional experiences for cardiovascular sciences, culminating in improving care for our patients as well as new research proposals emerging from their presentations. Highlighted by the brilliance and dedication of the organizing committee, the success of the event was made possible by outstanding support of the Ministry of Health and CAPES.

The opening session, organized by Mr. Elton Silva Gomes and Ms. Elaine Maria Gomes de Freitas was chaired by Prof. Dr. Elias Kallas, Prof. Dr. Enio Lustosa Cantarelli and Prof. Dr. Otoni M. Gomes. After implementation of the Brazilian National Anthem, Prof. Dr. Enio Lustosa Cantarelli gave a lecture on “Historical Landmarks” of PROCAPE-UPE, the Nurse and Perfusionist Sintya Tertuliano Chalegre, president of the Brazilian Society of Extracorporeal Circulation, presented “The Extracorporeal Circulation in Brazil: Achievements and Challenges”; Prof. Biom. Perf. Jeffchandler Belem de Oliveira reported “Cardiovascular Biomedicine: Achievements and Challenges” and Prof. Dr. Naranjan S. Dhalla, Founder and Executive Director of the International Academy of Cardiovascular Sciences addresses the conference on “World Landmarks of International Academy of Cardiovascular Sciences” and presided over the ceremony of Certificates delivery of “The International Academy’s Fellows of Cardiovascular Sciences” to Prof. Dr. Elias Kallás, Prof Dr. Elmiro Santos Resende, Prof. Dra. Tania Maria de Andrade Rodrigues, Prof. Dra. Veronica D’Annunzio, Prof. Dr. Enrique Castañeda Saldaña. Prof. Dr. Naranjan S. Dhalla solemnly closed the meeting by delivering to Prof. Dr. Otoni M. Gomes the Plaque in recognition of “Lifetime Awards Achievements” of the International Academy of Cardiovascular Sciences.

During the three days of the Forum also participated actively students and recent graduates in many areas of knowledge; greatly appreciating and stimulating the scientific initiation in academic formation for research, with lectures and work contributions in clinical and experimental areas, emphasizing the exchange of information in distinct areas and discussions with renowned professionals in their specialties.

### The ABRECCV’ Symposium

‘Residents of Cardiovascular Surgery’ Brazilian Association - confirmed the success of the previous year. Under the coordination of Dr. Francisco Siosney (President) with Dr. Alexandre Magno (Vice-president) and Dr. Anderson da Silva Terrazas (Secretary),



with dedicated competence, surgeons discussed important topics of cardiovascular surgery, valuation of the Doctor’s work and the formation of the current cardiac surgeon ahead to new technologies and national needs for expansion of the population cares.

### The SBCEC’ Congress

Brazilian Society of Extracorporeal Circulation – coordinated by its Board with the renowned perfusionists Syntia Tertuliano Chalegre-PE (President), Edvaldo do Nascimento-PR (Vice-President), Márcio Roberto do Carmo-SP (1th Treasurer), Yohana Catharine Albrecht-SP (2th Treasurer), Robersi Andréia Rodrigues-SP (1th Secretary), Élio Barreto de Carvalho Filho-PI (2th Secretary), confirmed the traditional success, when Perfusionists of consecrated competence discussed important themes of Extracorporeal Circulation such as the advances and the ECMO’ demands and Assisted Circulation circulating cardiovascular surgery.

The Traditional Forum Events confirmed the success and prestige of the Scientific Forum with South American Section’s Forum of the Cardiovascular Sciences’s International Academy, XXIX Meeting of the Professor E.J. Zerbini’s Disciples, the XVII Symposium Prof. Dr. Tomas A. Salerno, XV Ecumenical Forum coordinated by Reverend Priest Prof. Dr. Geraldo Guilherme da Silva, XII Symposium Prof. Dr. Domingos Junqueira de Moraes, XI Symposium Prof. Dr. Pawan K. Singal, IX Brazilian Symposium Angiology, IX Scientific Meeting of the Prof. Dr. Domingos Marcolino Braille’s friends, IX Symposium Prof. Dr. Tofy Mussivand, III Biomedicine Cardiovascular Forum, VIII Symposium Prof. Dr.



Domingos Sávio Souza, VI Symposium Prof. Dr. Ricardo J. Gelpi, III ABRECCV's Symposium and the XI Academic Leagues's Brazilian Congress of Cardiovascular Sciences.

The XXIII Scientific Forum 2013 in fact developed with great success by the renowned prestigious international audience, enriching the Congress with relevant international contributions and the notable presence of Prof. Dr. Andras Varró – Hungria, Prof. Dr. Diego A. Borzelino – Venezuela, Prof. Dr. Dinender Singla – Canada, Prof. Dr. Enrique Castañeda Saldaña – Peru, Prof. Dr. Harpal S. Buttar – Canadá, Prof. Dr. Lorrie Kirshenbaum – Canadá, Prof. Dr. Maximo Guida – Venezuela, Prof. Dr. Michael Dashwood – United Kingdom, Prof. Dr. Naranjan S. Dhalla – Canadá, Prof. Dr. Pawan K. Singal – Canadá, Prof. Dr. Per Blomstrom – Sweden, Prof. Dr. Péter P. Nánási – Hungria, Prof. Dr. Rafael Asturillo – Sweden, Prof. Dr. Ricardo J. Gelpi – Argentina, Prof. Dr. Silvia F. Gelpi – Argentina, Prof. Dr. Torbjorn Sundelin – Sweden.

The Scientific Forum traditionally marks the worldwide scientific calendar. Proof of this is that thirty-four countries were already represented in what is now one of the largest international events in continuing education cardiovascular science's field.

The Scientific Forum has on its curriculum the partnership in the organization of 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 scientific journals and published books, among them unpublished works, with master's theses, doctoral and postdoctoral also recognized internationally 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 the industries and representatives of the health area, medical students, perfusionists, surgeons and professional healthcare, we express our testimony of gratitude, recognizing the very important contribution that they continue giving initiative in this third decade of work.

The Scientific Forum would not be possible without the unconditional competent support motivation, and love of our family staff.

## New Fellows from South America



**Elias Kallás**

*Pouso Alegre, MG, Brazil*

Elias Kallás earned his Master's of Surgery from the Universidade de São Paulo (1976) and Ph.D. of Surgery from Universidade de São Paulo in 1986. His experience in medicine is in the following subjects: surgery, vascular surgery, trauma, cardiac surgery, cardiology, thoracic surgery and renal transplantation. He earned his surgical training in Thoracic surgery from the Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo in 1972. There, he also earned his Cardiac surgery training in 1973-1974. Dr. Kallás is the Clinical Professor of Surgery, Faculdade de Medicina da Universidade do Vale do Sapucaí, Pouso Alegre, MG, Brazil; Surgeon-in-Chief, Department of Thoracic and Cardiovascular Surgery, Hospital das Clínicas Samuel Libânio, Pouso Alegre, MG, Brazil and Visiting Professor, Fundação São Francisco de Assis, Servcor, Belo Horizonte, MG, Brazil.



**Elmiro Santos Resende**

Elmiro Santos Resende earned his Undergraduate Medicine from the Federal University of Uberlândia in UFU, Brazil, in 1977. He earned his Doctor in Medicine (PHD) from the Federal University of São Paulo in UNIFESP Brazil, in 1986. He has a title of specialist in Cardiology - SBC; Intensive Care - AMIB and Hospital Administration. His University Teaching and Management are as follows: Current Rector from Federal University of Uberlândia - Management 2013-2016; Associate Professor, Faculty of Medicine - Federal University of Uberlândia; Medical Intensivist - Hospital de Clínicas, Federal University of Uberlândia; Researcher and Coordinator of the Centre for Clinical Research - Clinical Hospital Federal University of Uberlândia (HC - UFU); Coordinator of the Laboratory of Experimental Medicine - Faculty of Medicine - UFU and Coordinator of the Telemedicine Center - HC - UFU. Dr. Resende is a participant in the following societies: Brazilian Society of Cardiology; Society of Cardiology of Minas Gerais;

Brazilian Association of Cellular Therapy and Brazilian Society of Intensive Care. He has been Professor, Faculty of Medicine for the Federal University of Uberlândia, since 1980. He is Professor of the Postgraduate Course of Health Science at the Federal University of Uberlândia. He has been Researcher at the Institute of Biomedical Sciences since 1987. He is currently in charge of management and administration at the Rector of the Federal University of Uberlândia. Dr. Resende was also Head of the cardiology department until 2012.

### **Verónica D'Annunzio**

*Buenos Aires, Argentina; Têl: 54-11-49624945, 54-11-1544161118 (mobile); Email: vdannunzio@gmail.com*

Verónica D'Annunzio is Researcher at the Institute of Cardiovascular Pathophysiology, Faculty of Medicine University of Buenos Aires and Research Assistant at National Council of Scientific and Technological Research (CONICET). She earned her Degree of Medical Doctor in 2002 from the Faculty of Medicine, University of Buenos Aires; Physician Degree in 2009 from the University of Buenos Aires and an International Master of Biomedical Sciences in 2010 from the University of Buenos Aires, Freiburg University in Germany. Dr. D'Annunzio received training in Molecular Biology module at IMBS International Master Program in Biomedical Sciences. She also earned training from the Medizinische Universitätsklinik, University Medical Center - Dept. Hematology and Oncology, University of Freiburg Germany in October, 2009. She has been Instructor of Pathology, Faculty of Medicine of University of Buenos Aires, since 2005. She was Co-director of a Post-graduate Course on Cardiovascular Pathophysiology, Faculty of Medicine, University of Buenos Aires and Co-ordinator of Pathology module of International Master of Biomedical Sciences (University of Buenos Aires-Freiburg University, Germany) from 2011 to present. Dr. D'Annunzio is a Full Member of the Argentine Society of Cardiology (MTSAC) and of the Argentina Society of Clinical Research since 2005. She was President of the Basic Research Council of the Argentine Society of Cardiology from 2010-2011.

# President Clinton's Health Matters Conference was Focused on Increasing Physical Activity for Adults and Children

*Editor's Note: For the third time, I was invited as Editor of CV Network to the Clinton Foundation's "Health Matters Conference: Activating Wellness in Every Generation". I was able to enjoy extraordinary talks by the President and others. I did chat with Gary Player, the South African who had incredible success in golf and now serves as Global Ambassador for the Humana Challenge PGA golf event which is a partnership with the Clinton Foundation in Palm Springs. He has been renowned throughout his career for his physical fitness. He told me about his diet which obviously has worked to allow him to keep in shape to do, for example, 300 sit-ups every morning. In my opinion, the most amazing speaker was Dr. Patrick Soon-Shiong from Los Angeles. Forbes Magazine has reported: "Surgeon-turned-entrepreneur Patrick Soon-Shiong had already sold two successful businesses for \$8.5 billion before starting his most ambitious project yet, Nantworks. The company aims to revolutionize medicine by adding big data to patient care. He believes that if doctors have the most updated and complete information about*

*their patients, they'll make more informed treatment decisions. At Nantworks' core is a 12,000-mile fiber data network and algorithms that, among other things, can analyze the data contained in a human genome in 47 seconds. An increased valuation of Nantworks through additional investment rounds has pushed Soon-Shiong's fortune up by a third since September 2013. In addition to Nantworks, Soon-Shiong is developing two cancer drugs. The son of a village doctor in China, his family moved to South Africa during World War II. He graduated high school by 16 and became a doctor at 23. He made a name for himself in the 1980s as a transplant surgeon, then developed the cancer drug Abraxane. He also started two drug companies, American Pharmaceutical Partners and Abraxis, before selling both for a major pay day. As a member of the Buffett-Gates Giving Pledge, he plans to give away at least half his fortune. His donations include \$5 million to the University of Chicago to develop technology to improve patient care and \$136 million to St. John's Health Center in Santa Monica, CA".*

While past conferences focused on nutrition and information on healthy foods, President Clinton said this year an emphasis was on increasing physical activities for adults and children through Boys & Girls Clubs and other organizations. The Aspen Institute's Sports in Society Program, Nike, the U.S. Olympic Committee and others were some of the corporate and non-profit sponsors.

Clinton said one of his favorite initiatives this year will be the 800-Calorie Challenge from the James Beard Foundation and Palisades Media, a national cooking campaign to focus on healthy eating and nutrition. Pastor Rick Warren of Southern California's Saddleback Church shared details on the Daniel Plan, which allowed his church members to lose more than 250,000 pounds.

"We've done about all we can do now to reduce the total calories and to improve the nutrition of the food (in schools)," Clinton said. "The physical activities depend in large part on what is available to the schools and what they are prepared to do. So we are working on out-of-school (programs) now. The Knight Foundation is going to help us with using digital platforms to make the right kind of knowledge available to individuals and community groups."

Having knowledge on healthy foods is one thing. Having access to that food or to health care in general is another. Near Palm Springs, in parts of the eastern Coachella Valley and the Imperial Valley with higher unemployment and poverty, healthy food options are harder to come by. Clinton calls those generally low-income areas food deserts. One area with pockets of low income that is not a food desert is Manhattan, where the tradition of small, local food markets dates back more than 100 years.

"The people in the valley should be really proud of the fact that since we started this wellness initiative there, there are people everywhere else that read about it and asked us to start there," Clinton said in an exclusive telephone interview with The (Palm Springs, Calif.) Desert Sun. "We have a great program in Little Rock now, where my library is. We've got a great program in Jacksonville, Fla. Now the program is spreading to other places in the country, and it is all because of the publicity from the valley effort," he added.

Thirteen years after leaving office, Clinton, 67, devotes almost all of his time to his foundation. Clinton quickly points out the initiatives have made an impact on the Coachella Valley as much as anywhere in the country. He apparently has continued on his vegan diet. His slim, exuberant appearance belies the extremely serious heart issues he faced.



President Bill Clinton and Gary Player



Dr. Soon-Shiong enjoying his sports investment – LA Lakers basketball team



# 2nd Cardiovascular Forum for Promoting Centers of Excellence and Young Investigators

September 4 – 6, 2014 • Winnipeg, Manitoba

## Objectives of the Forum

### The Cardiovascular Forum is being organized to:

- (i) Encourage the interaction of young investigators with established individuals to improve their training and develop highly qualified manpower in the fields of cardiovascular science, medicine and surgery;
- (ii) Exchange and blend biomedical and clinical information to emphasize translational knowledge for improving the therapy of heart disease;
- (iii) Promote research collaborations and establish linkages to carry out multi-disciplinary investigations for finding solutions to diverse cardiovascular problems;
- (iv) Facilitate interaction with industrial partners for cardiovascular technology development
- (v) Share the scientific and clinical experiences between South and North American investigators.

## Symposia Sessions

1. Thematic Symposium: Sudden Cardiac Death and Arrhythmias
2. Grant Pierce Young Investigator Award Competition in Cardiovascular Science: Graduate Students and Postdoctoral Fellows
3. Advances in Women Heart Health
4. Thematic Symposium: Cardiac Fibrosis and Heart Failure
5. James Willerson Young Investigator Award Competition in Cardiovascular Medicine: Residents and Postgraduate Fellows
6. Gender Difference in Heart Disease
7. Frontiers in Cardiovascular Science: miRNA in the Regulation of Cardiovascular Function
8. Karl T. Weber: Presentations by Clinical Fellows and Residents
9. Cardiovascular Complications in Obesity
10. Pathophysiology and Therapy of Diabetic Cardiomyopathy
11. Pathophysiology and Therapy of Hypertension
12. Ischemia-reperfusion Injury and Preconditioning
13. Signal Transduction in Heart Disease
14. Thematic Symposium: Cardiovascular Complications in Chronic Diabetes
15. Eric Olson Young Faculty (within 10 years of appointment) Orations in Cardiovascular Biomedical Sciences
16. Cardiac Remodeling and Heart Failure
17. Nutritional Strategies for the Prevention of Heart Disease
18. Thematic Symposium: Vascular Remodeling and Hypertension
19. Kern Wildenthal Young Faculty (within 10 years of appointment) Orations in Cardiovascular Medicine and Surgery
20. Myocardial Infarction and Acute Ischemic Syndrome
21. Cardiac Care and Patient Safety
22. Frontiers in Cardiovascular Medicine: Stem Cells and Cardiac Regeneration
23. Dennis B. McNamara Symposium: Presentations by Biomedical Fellows and Students
24. Pathogenesis and Therapy of Atherosclerosis
25. Lifestyle Strategies for the Prevention of Heart Disease
26. Biomarkers and Risk Factors for Heart Disease
27. Molecular Biology of Cardiac Dysfunction
28. Pharmacotherapy of Ischemic Heart Disease
29. Cardiovascular Devices: Diagnosis and Treatment
30. Canada-Brazil Postdoctoral Symposia (3 Sessions)
31. Poster Mentoring: Biomedical Sciences (4 Sessions)
32. Poster Mentoring: Translational Sciences (4 Sessions)
33. Distinguished Lectures: Developments in Cardiovascular Science and Translational Medicine (4)

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September 4 – 6, 2014 • Winnipeg, Manitoba

A Unique Opportunity for Young Investigators  
in Biomedical Sciences and Translational Medicine to:

1. Compete for 8 Best Poster Awards named in honour of Margaret P. Moffat and Morris Karmazyn.
2. Participate in Karl T. Weber and Dennis B. McNamara Oral Presentations by Young Scientists
3. Contest for James T. Willerson and Grant N. Pierce Awards Competition for Graduate and Postgraduate Fellows.
4. Attend Kern Wildenthal and Eric Olson Orations by Young Faculty Members.
5. Pay tribute to John McNeill and attend Distinguish Lectures by Cardiovascular Leaders in Genetics, Molecular Biology and Cardiac Regeneration.
6. Interact with the international Faculty of more than 130 highly respected and established investigators in the area of heart failure, hypertension, myocardial infarction, ischemic heart disease, arrhythmias, diabetes and atherosclerosis.
7. Engage in Special Scientific Sessions to promote Women's Heart Health and Canada/Brazil Postdoctoral Training Program.

For further information, visit  
[www.cvforum.org](http://www.cvforum.org)

