



# CV network

THE OFFICIAL BULLETIN OF THE INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES

VOL. 2 • NO. 2 • Pages 13-24, May 2003

## Editorial Team

**Editor:**  
Ivan Berkowitz

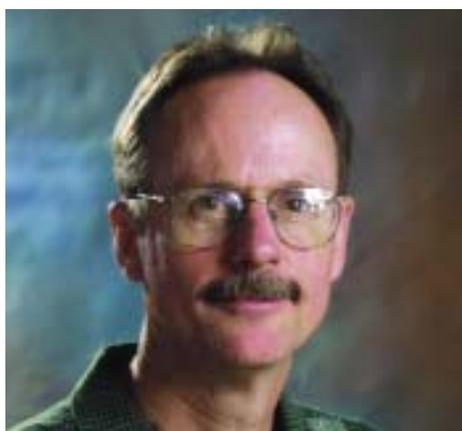
**Assistant Editors:**  
Ian Dixon  
Lorrie Kirshenbaum

**Editorial Board:**  
Jaroslaw Barwinsky  
John Ducas  
Otoni Gomes  
Suresh Gupta  
Keld Kjeldsen  
Ricky Man  
Peter McLennan  
Dennis McNamara  
Bohuslav Ostadal  
Arie Pinson  
Grant Pierce  
Pawan Singal  
Bramah Singh  
Rajinder Suri  
Nobuakira Takeda

## In This Issue

- 13 "Closing Global Cardiovascular Research Gaps"
- 15 The American Heart Association
- 16 Report from India Meeting
- 17 The Burgeoning Cardiovascular Disease Epidemic
- 20 B.K. Sharma Honoured
- 21 K. Gopal Nair Honoured
- 21 Merck Frosst Canada becomes Corporate Partner
- 22 Cardiovascular Education - Are We On The Right Track?
- 23 Remembering Someone Special
- 24 Academy Meetings

## From the Director of Scientific Affairs



Dr. Grant N. Pierce

In the last issue of the CV Network, Dr. Stephen Vatner wrote an eloquent article describing the need to promote cardiovascular research on a global perspective. He documented the growing disparity between medical research in the United States and elsewhere in the world. He described the problem particularly well with a figure depicting the geographic distribution of manuscripts received at *Circulation Research*. Medical researchers from the United States contributed the overwhelming majority of papers to *Circulation Research*. Western Europe, Japan and Canada lagged behind, but were still significant contributors. Unfortunately, the rest of the world is far behind in quality medical research contributions. Asia (excluding Japan), South America, Africa, Eastern Europe and the Middle East are conspicuous in their absence as major players in cardiovascular research.

As described by Dr. Vatner, the solution to the problem is not an easy one. Ultimately research requires funding support. If medical research in

the cardiovascular field is to be stimulated in these under-represented parts of the world, two choices are available: Either a) the individual countries within this region must devote more resources to supporting medical research or, b) the more active countries (U.S., Japan, Canada and Western Europe) must support the development of research in these less active regions. With few exceptions, the first option is probably not available. Most of these countries simply do not have the financial resources to initiate and maintain a large cardiovascular research effort. The second option therefore, represents the most plausible one. Strategic initiatives to stimulate an appreciation of cardiovascular research across the globe should be welcomed and supported enthusiastically within the United States, Japan, Canada and Western Europe. However, such ventures are unfortunately, not as numerous as they should be.

The purpose of this article is to highlight an initiative undertaken by members of the International Academy of Cardiovascular Sciences to promote the appreciation and development of cardiovascular research in one of these areas that could contribute more to our understanding of cardiovascular disease: The Middle East. Many of the countries within the Middle East have the financial resources available to support a significant research initiative in the area of cardiovascular disease. Part of the reason that a large research initiative has not been developed from this area, in my opinion, is that an appreciation of the value of basic and clinical cardiovascular research has not yet been cultivated in this region. Perhaps the best place to target and stimulate an appreciation of medical research is in the front lines of health care: the medical students. If we can begin to pique their curiosity and engage their interest in the value of research, this may rad-

*continued on page 14*

**EDITORIAL OFFICE:** Institute of Cardiovascular Sciences, St. Boniface General Hospital Research Centre, Faculty of Medicine, University of Manitoba

3006 - 351 Taché Avenue, Winnipeg, Manitoba R2H 2A6 Canada · Tel: (204) 228-3193 · Fax: (204) 233-6723  
e-mail the Editor: ivan@mtnet.net · Academy web site: www.heartacademy.org

ically change the way medical schools are run and health care is administered in this region. To provide an example of a collaborative initiative that may stimulate research in the Middle East, it was my honour to travel to Arabian Gulf University (AGU) in Bahrain to sign a Memorandum of Understanding between Arabian Gulf University and the University of Manitoba. The initiative was significant. It formally acknowledged agreements between these two universities to initiate collaborative research endeavours and to support student exchanges. Specifically, the Agreement formally acknowledged a collaborative research interaction between the College of Medicine and Medical Sciences at AGU and St. Boniface Hospital Research Centre, within the Faculty of Medicine at the University of Manitoba. AGU is an important university within the Gulf because it exists as a feeder school for a number of countries in the area. Instead of simply recruiting its students from Bahrain, AGU also receives its medical students from Kuwait, Saudi Arabia, Qatar, Oman and many other countries within the Gulf. This leads to a very rich cultural experience as well as a stimulating educational environment in medicine. Last year, two young medical students from the College of Medicine and Medical Sciences at AGU came to the Faculty of Medicine at St. Boniface Hospital Research Centre to participate in the B.Sc. (Med.) Program. This Program was developed over 40 years ago to provide medical students an introduction to research during two consecutive summers after their first year in medicine. Students work with their supervisor on pre-approved projects for three months the first summer and a further three months in the second summer before presenting their data to their colleagues and faculty members. If the students pass the program, they receive a B.Sc. (Med) Degree, upon completion of their M.D. Degree. Many of the medical students that participate in this Program continue to do research during their entire career as physicians. Thus, the Program serves not only as a learning experience regarding the importance of medical research but also as a stimulus to continue as clinician scientists throughout their career. Perhaps predictably, the Program has produced a large proportion of leaders in their respective fields over the years.

The significance of medical students from AGU participating in this Program should be obvious. Medical research is just developing at AGU. They have recognized that one of the

ways to stimulate interest in medical research would be to encourage participation of their medical students in a program like the B.Sc. (Med.) Program at the University of Manitoba. The Deans of Medicine, Dr. Hossam Hamdy and Brian Hennen and the two Presidents Rafia Ghubash and Eموke Szathmary should be congratulated for their foresight and vision. They have recognized that this international collaborative exchange is critical to the development of leaders and clinician scientists in the Gulf Region. One of the major concerns of a collaborative program such as this is that the medical students that train in Canada will remain in North America and not return to their county of origin to transfer their newly acquired skills to those in their home countries. This has certainly happened with other countries like China where many of their scientists leave their homeland to receive training abroad and never return. However, this does not appear to be a concern for AGU. The students who have participated in the Program have enjoyed it immensely but have already expressed a strong desire to return to practice in their home countries. It is significant because it means that the educational training that they receive in cardiovascular research has a very good chance of being transferred to others in the Middle East and stimulating a whole new generation of clinicians who have an appreciation (and hopefully a passion) for cardiovascular research.

It is hoped that through examples of collaborative interactions like this more members of the International Academy of Cardiovascular Sciences can promote the scientific basis for the practice of cardiology and cardiovascular surgery on a global perspective. It is hoped that this training will directly benefit not only the clinicians in countries like Bahrain but also the patients as well. It will also foster the exchange of information among cardiovascular scientists in an international manner. It is not insignificant to emphasize that in these times of political unrest in the Middle East any effort that scientists can do to promote friendly scientific and cultural interactions should be supported and encouraged. It is through initiatives like this that we at the International Academy of Cardiovascular Sciences may achieve our mission of promoting the cardiovascular education of both professionals and lay people to improve medical research throughout the world. It should also begin to address some of Dr. Vatner's concerns regarding the widening research gap in global cardiovascular research.

Grant N. Pierce, PhD, FACC, FAHA, FIACS,  
 Director, Division of Stroke & Vascular Disease,  
 St. Boniface Hospital Research Centre,  
 Winnipeg, Canada

E-mail: [Grant\\_Pierce@sbrc.ca](mailto:Grant_Pierce@sbrc.ca)



**(from left to right: Dr. Hassam Hamdy, Dean of Medicine, Arabian Gulf University, Manama, Bahrain; Dr. Grant Pierce, Director, Division of Stroke & Vascular Disease, St. Boniface Hospital Research Centre, Winnipeg; Dr. Riyadh Yousif Hamzah, Vice President, Arabian Gulf University, Manama, Bahrain.**



# The American Heart Association

by Kathryn A. Taubert, Vice President, Sciences and Medicine AHA National Center, Dallas TX

It is my pleasure to write this overview article about the American Heart Association (AHA) – an organization that many of you belong to. The AHA is a national voluntary not for profit health agency whose mission is to reduce disability and death from cardiovascular diseases and stroke. The AHA also has a major division known as the American Stroke Association (ASA), which helps focus educational efforts about stroke. We have more than 22.5 million volunteers and supporters who carry out our mission in communities across the country. The AHA's National Center is located in Dallas, Texas. The 50 states and Puerto Rico are organized in 12 regional affiliates. General information about the AHA and the ASA and about cardiovascular health, risk factors, and CV disease and stroke can be found at: [www.americanheart.org](http://www.americanheart.org)

To help focus efforts, the association has adopted a strategic plan, which contains a strategic driving force and year 2010 impact goal. The current strategic driving force, most recently updated by the Board of Directors in February, 2003 reads: "Effecting change by providing information and solutions for the prevention and treatment of cardiovascular diseases and stroke in people of all ages, with special emphasis on those at high risk." Our 2010 impact goal is to reduce coronary heart disease, stroke and risk by 25%.

The scientific backbone of our organization is the 13 scientific councils, which have about 31,000 professional members. These include:

- 1) Arteriosclerosis, Thrombosis and Vascular Biology;
- 2) Basic Cardiovascular Sciences;
- 3) Cardiopulmonary and Critical Care;
- 4) Cardio-Thoracic and Vascular Surgery;

- 5) Cardiovascular Disease in the Young;
- 6) Cardiovascular Nursing;
- 7) Cardiovascular Radiology and Intervention;
- 8) Clinical Cardiology;
- 9) Epidemiology and Prevention;
- 10) High Blood Pressure Research;
- 11) Kidney in Cardiovascular Disease;
- 12) Nutrition, Physical Activity & Metabolism;
- 13) Stroke

We also have recently started three Interdisciplinary Working Groups (IWGs). These groups serve as a resource for topical areas that are not covered by one of the councils or that had been diffused through several of the councils. The three current IWGs are Quality of Care and Outcomes Research, Atherosclerotic Peripheral Vascular Disease, and Functional Genomics and Translational Biology.

Our new professional membership program, which is currently being rolled out, has four membership levels, including premium professional, early career, student/trainee, and general professional. An individual now joins the AHA and depending on the category of membership, can affiliate with up to two councils and one IWG. More information on membership categories and on joining or renewing your membership is available on our new web portal for professionals: [www.my.americanheart.org](http://www.my.americanheart.org) You will also be able to see new additions for members to the website, such as textbooks, clinical updates, Facts and Comparisons drug database and other medical/scientific information.

Our councils and their science subcommittees are responsible for writing scientific statements, recommendations and guidelines for the association. Statements are published in *Circulation* and/or one of the other official AHA journals (*Circulation Research*, *Stroke*, *Hypertension*, and *Arteriosclerosis, Thrombosis, and Vascular Biology*). All of our scientific statements and practice guidelines are available online (go to the professional portal and click on the "library" or "practice guidelines" tab.)

The association receives no government funding – all of our income is from contributions,

special fund-raising events and bequests. Our largest single expense is funding research – in the past fiscal year the AHA funded over \$134 million in cardiovascular/stroke research, bringing our total to more than one billion in the past decade alone, and about \$2 billion since the research program started in 1949. The \$134 million included 873 continuing awards and 1073 new awards in 48 states. The association offers a variety of grants, awards and fellowships at the national and affiliate levels. A listing of these, as well as application forms and deadlines can be found on the AHA professional website at: [www.my.americanheart.org](http://www.my.americanheart.org) (click on the "research" tab).

The association holds multiple scientific conferences each year. Our annual scientific sessions is the largest meeting devoted to cardiovascular disease. Held each November with 30,000+ attendees, there are some 3,500-4,000 abstracts selected from the approximately 14,000 submitted. The annual International Stroke conference draws over 2,000 attendees, and continues to grow by about 10% per year. We have other annual conferences as well as "one time" conferences on specialty topics. Information on these meetings, abstract forms and deadlines, and registration forms can be obtained from the professional website.

Finally, the association is committed to increasing our focus on, and opportunity for, early career investigators. There is a special program for them on the day before the official start of the annual scientific sessions, as well as special sessions geared to them held during some of the other AHA conferences. Early career clinicians/investigators now sit on council leadership committees, the research committee, and other science-governing committees. We are also working on an early career mentoring program, and a handbook for mentors and mentees is in development.

I hope this information has been helpful to those of you who were not fully aware of the association and its activities. The International Academy of Cardiovascular Sciences will have a booth at AHA's 2003 Scientific Sessions so that our constituency will be able to learn more about you.





# Academy Sponsored ISHR INDIA Annual Meeting

by Archana Bhatnagar, Chandigarh, India

The Fourteenth International Society of Heart Research – Indian Section, Annual Conference was organized by Department of Cardiology, PGIMER, in Chandigarh February 7 – 9, 2003. The Conference was also sponsored by the International Academy of Cardiovascular Sciences.

It was a successful step in pursuit of the global mission of containing the surging epidemic of cardiovascular disorder. There was an urgent need to initiate steps of mutual discussion, taking ideas from benches of experimental laboratory to patient's bedside; by sharing of ideas to prevent, reverse and/or reduce the development of premature cardiovascular diseases. The organizers were Dr. Anil Grover (Chairman), Dr. Rajesh Vijayvergiya and Dr. Archana Bhatnagar (Organizing Secretaries), with Dr. Pawan K. Singal as the International Coordinator.

Academy Fellows from various parts of India and abroad participated in this conference. The Indian experts included Professor N.K. Ganguly, Director-General ICMR, Dr. K.G. Nair, Head Hinduja Hospital, Mumbai, Professor K.K. Talwar, Head, All India Institute of Medical Sciences (AIIMS), New Delhi, and Professor S.K. Gupta from AIIMS, New Delhi. International speakers included: Prof. Makoto Nagano from Japan, Prof. Jasbir S. Juggi from Kuwait, Prof. G. Singh Chhatwal and Prof. Bernhard Maisch from Germany, and Prof. N.S. Dhalla and Prof. P.K. Singal from Canada.

The Conference was declared open by Professor S.K. Sharma, Director, PGIMER on February 7. The Inaugural issue of the Indian Journal of Cardiology was released on this occasion. The journal included abstracts of this conference. A Hindi book on "You & Your Healthy Heart" was also circulated.

During this two day conference, over 40 oral presentations were made by various distinguished speakers from India & abroad. On Feb. 8, the P.L.Wahi Memorial Oration was delivered by Prof. N.S. Dhalla from Winnipeg, Canada. Prof. Dhalla spoke on "Role of renin angiotensin system in sub cellular remodeling in congestive heart failure". The session was chaired by Dr. K.K. Talwar & Dr. N.K. Ganguly. This was followed by an interesting

session on endothelial dysfunction. Prof. N.K.Ganguly delivered a perspective lecture on "Gene polymorphisms/mutations in coronary artery disease in young Indians."

The Berry Memorial Oration, an institute function, was organized on Feb. 8. Professor S.K. Sharma, Director PGIMER, presided over this function, which was attended by a very large audience. Professor Bernhard Maisch, a renowned cardiologist from Phillips University, Marburg, Germany delivered this oration. He delivered his talk on "Inflammatory Cardiomyopathy - A multifaceted approach to aetiology, pathogenesis & treatment". The talk was appreciated by the august gathering. The oration was followed by lunch which was organized in honor of Professor B. Maisch and other dignitaries who attended this oration.

The other sessions on Coronary Artery Disease and Heart Failure were also well attended and equally appreciated. All distinguished guests were also awarded a memento for oral presentation.

In order to encourage young scientists, a Young Investigator Awards Session was held. Six selected participants made oral presentations followed by questions from Jury. The Judges included - Prof. B. Maisch, Prof. Paresch Dandona, Professor V.K. Bhargava & Prof. C.C.Kartha. Dr. Idris Ahmed Khan was awarded first prize for his paper on "Effect of roxythromycin in CAD: A case control study". Ms. F. F. Eghlim, was awarded second prize for her paper on "Genetic determinants of hyperhomocystenimiamia".

Dr. Pawan Singal and Dr. S.K. Gupta presented Dr. Bal K. Sharma with the Academy's annual Makoto Nagano Award in Chandigarh with Dr. Nagano assisting. Dr. Gopal Nair received the Academy's Howard Morgan Award, presented by Dr. S. K. Sharma and Dr. M. Nagano. At this gala evening, the P. L. Wahi Memorial Award was presented to Dr. N. S. Dhalla by the organizers in appreciation of his help to the Conference as well as to the Institute.

During this conference, 48 posters were displayed. Awards were given to two best posters on each of the two days.

Awards for poster presentation on Feb. 8 were:

1st: Reversal of "slow" or "no reflow" during

percutaneous transluminal coronary angioplasty wing boluses of infracoronary drugs. K. H. Parikh, K. Mehta, M. C. Chag et al.

2nd: Time course studies on the initiation of acute myocardial infarction and complete fixation in Albino rats. M. Sumitra, P. Manikandan, Mohammed Nayeem et al.

Awards for poster presentation on Feb. 9 were:

1st: Vitamin A in Adriamycin - induced heart failure. I. Danielson, T. Sudha, H. Lou, P. K. Singal et al.

2nd: Development of sustained release oral dosage form of trimetazidine dihydrochloride using hydrogen microspheres. S.S. Agarwal, Anu Shilpa & Alok R.Roy.

A Banquet was organized on Feb. 8. Over 350 people enjoyed this dinner and cultural program which included typical Punjabi music and Bhangra dance. This evening was held in the beautiful setting of Chandigarh Golf Club. ♥

**ACADEMY**  
to sponsor

**International Symposium  
on Pharmacotherapy  
of Heart Failure**

**New Delhi, India  
Jan. 7 - 8, 2004**

**Inquiries:**  
**Dr. Suresh K. Gupta,**  
**All India Institute of Medical  
Sciences, Department of  
Pharmacology,**  
**Ansari Nagar, New Delhi,**  
**110 029, India**

**Tel: +91-11-2658-9691**  
**Fax: +91-11-2686-2663**  
**E-mail: skgup@hotmail.com**



# The burgeoning Cardiovascular Disease epidemic in low and middle income countries: *Urgent need to implement what is known.*

by Shanti Mendis, Coordinator, Cardiovascular Diseases, World Health Organization, Geneva, Switzerland

### The burgeoning epidemic

Cardiovascular diseases (CVD) account for 11% of the global burden of disease and 33% of global deaths. Three-fourths of this morbidity and mortality are from low and middle income countries. It is projected that by the year 2020, there will be 25 million deaths due to CVD, 19 million from low and middle-income countries. Urbanisation associated with adoption of adverse life styles and increasing life expectancy are important factors contributing to the epidemic. The social and economic impact of the CVD burden in low and middle-income countries is particularly severe as a substantial proportion of deaths due to CVD in low and middle-income countries are premature (figure 1).

According to first ever global analysis of impact of risk factors on global health conducted by the World Health Organization, major cardiovascular risk factors hypertension, elevated cholesterol and tobacco use are the top 10 risks to global health even in high mortality developing countries (figure 2). More than three-quarters of CVD is due to these risk factors. Overall, elevated blood pressure causes 7 million premature deaths a year, tobacco use causes almost 5 million and elevated cholesterol more than 4 million (figure 3).

Although scientific evidence indicates that heart attacks and strokes can be halved through population wide and individual prevention strategies, 32 million heart attacks and strokes occur every year; three-fourths of them in low and middle

income countries. About 12 million succumb to the first attack and the remainder require long-term treatment to prevent recurrent attacks and death resulting in a devastating socioeconomic impact on families, communities and governments. Few risk factors explain these life-threatening conditions. In the case of ischemic heart disease about 49% of it is due to suboptimal blood pressure, 36% due to high cholesterol, 31% due to low intake of fruit and vegetables, 22% due to tobacco, 21% due to a BMI above 21 kg/m and 22 % due to physical inactivity (figure 4). Similarly in the case of stroke, 62% of it is due to sub-optimal blood pressure, 18% due to high cholesterol 11% due to low intake of fruit and vegetables and 22% due to physical inactivity (figure 5).

Taking concrete action to improve the health outcomes of 32 million people who develop heart attacks and strokes is a major challenge. An even more urgent challenge is the task of addressing the high cardiovascular risk of an estimated 2 billion of the world population due to tobacco use, physical inactivity, unhealthy diet, overweight, diabetes, hypertension and high lipids singly or in combination. An estimated 1.3 billion due to tobacco use alone, 1 billion due to overweight (300 million of them obese) and at least another billion due to hypertension, diabetes and high cholesterol. A substantial proportion of major cardiovascular events could be prevented if preventive action is taken to reduce the cardiovascular risk of these

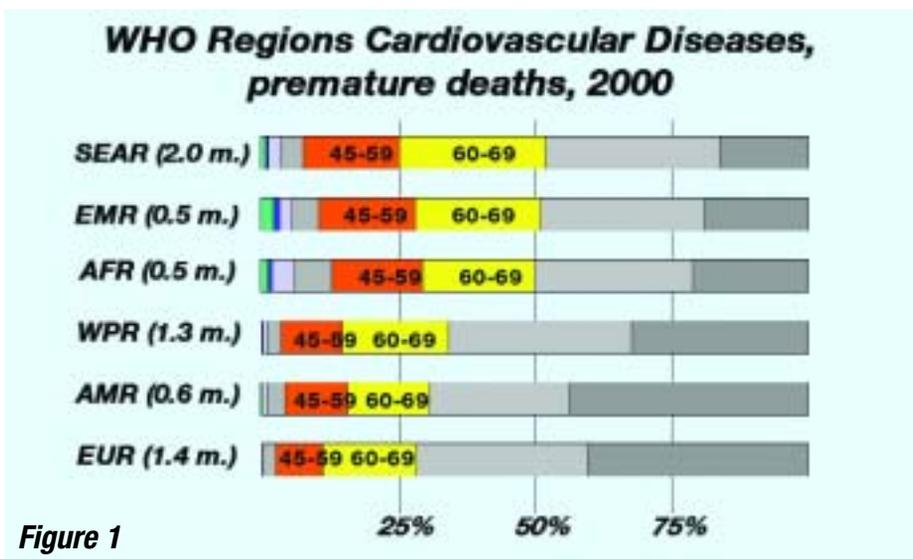


Figure 1



**Figure 2**

individuals through an appropriate mixture of population wide and high risk strategies.

**What type of strategies have been shown to be effective?**

Indiscriminate increase in resources for high technology CVD care will neither yield desired results nor be sustainable in the long-term for most of these countries.

As the World Health Report 2002 demonstrates individuals are at risk of developing stroke and IHD even at blood pressure and cholesterol levels previously considered below normal; systolic blood pressure of >115 mm Hg and total cholesterol levels of >3.8 mmol/l. These optimal levels cannot be obtained in an equitable way through curative care alone as medications are costly and risks may outweigh the benefits when drugs are used at these levels. Therefore curative care by itself, does not have the potential to control the CVD epidemic particularly in low and middle income countries.

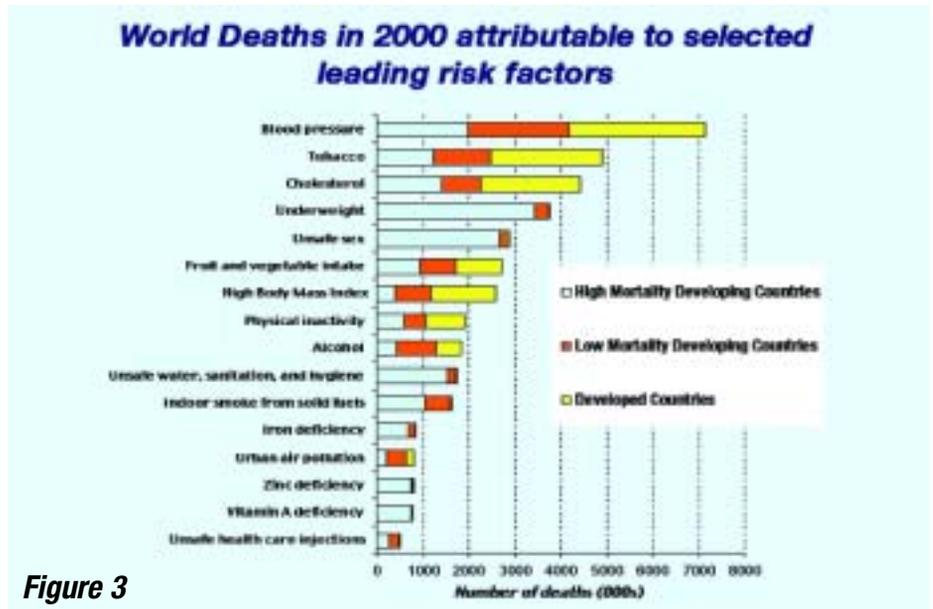
For example, in the case of blood pressure about 15-25% of the population have blood pressure levels above 140 mmHg . When a high risk approach is used only these individuals at the tail end of the population risk distribution are targeted (figure 6). But twice as many heart attacks and strokes occur in those with blood pressure

levels between 115-140 mmHg. The only viable way of lowering their blood pressure to more acceptable levels is through affordable and sustainable population strategies. Similar reasoning applies to the need for combined population wide and high risk approaches to control of cholesterol levels.

It is estimated that such a combined approach could have population-level effects exceeding a 50% reduction in cardiovascular events. Many population wide strategies have been shown to be very cost effective in reducing the level of individual

risk factors. For example, increased prices through taxation, combined with a ban on tobacco advertising, better access to smoking cessation and bans on smoking in public places have led to declines in smoking rates in several countries. Other cost effective interventions such as national health education campaigns that increase consumption of fruits/vegetables reduce blood cholesterol; interventions to reduce salt consumption through health education, legislation or voluntary agreements will help to shift the blood pressure and lipid distribution of the entire population to more optimal levels. These preventive measures, if effectively implemented, have the potential to impact on millions. Implementing them however requires complex alliances led by governments but drawing upon the full range of partners that comprise professional organizations, private sector and civil society.

In addition to management of cardiovascular risk through a combined approach as referred to above, if cost-effective secondary prevention interventions can be made available and accessible to those with established CVD, two-thirds to three-quarters of future vascular events can be prevented in developing countries. Given the above robust evidence on what is cost-effective, developing countries can deploy limited resources more effectively by identifying and reallocating inefficient and wasteful expenditure devoted to ineffective high technology CVD management. It



**Figure 3**

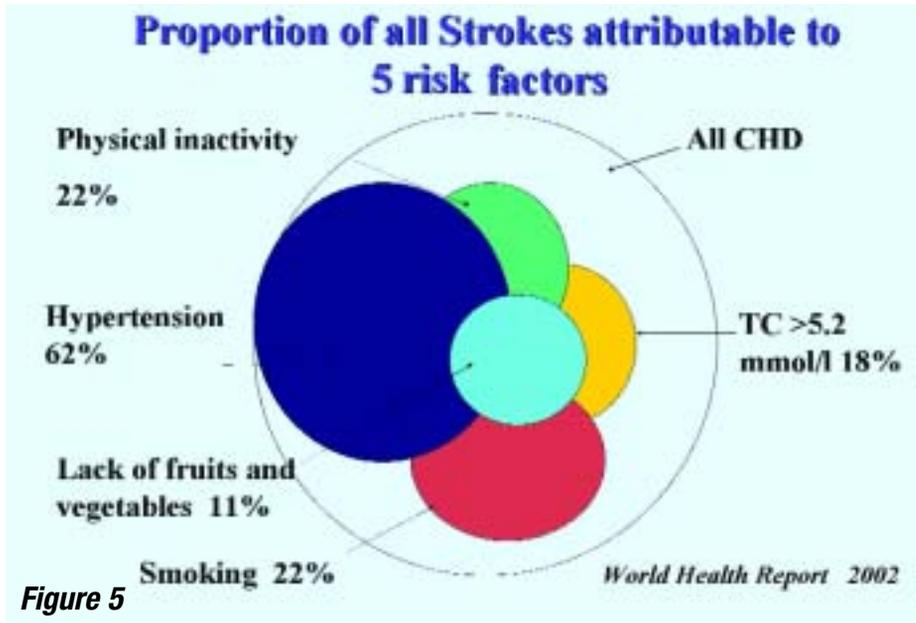
is imperative that some of these resources be reassigned for strengthening of primary health care for delivery of CVD care equitably.

**What is hampering progress?**

Lack of progress in prevention and control of the CVD epidemic is certainly not due to lack of knowledge and scientific evidence about what works to prevent CVD.

There is strong scientific evidence about what works to prevent CVD. Massive declines in CVD mortality in Finland (*figure 7*), the United Kingdom, USA and Australia show that a combination of risk factor control and effective treatment can make a significant difference. However, several important factors are hampering the progress in CVD control activities particularly in low and middle income countries. Failure of governments in prioritising prevention, lack of investment in strategies that have the most cost-effective impact and the influence of powerful commercial interests that block progress are some of them.

As exemplified in tobacco industry documents that became public after the USA litigation of the late 1990's, industry can resort to a variety of covert measures to avoid public health action in order to protect profits. Further, both tobacco and multinational fast food chains that are looking for profits all over the developing world often advance powerful arguments



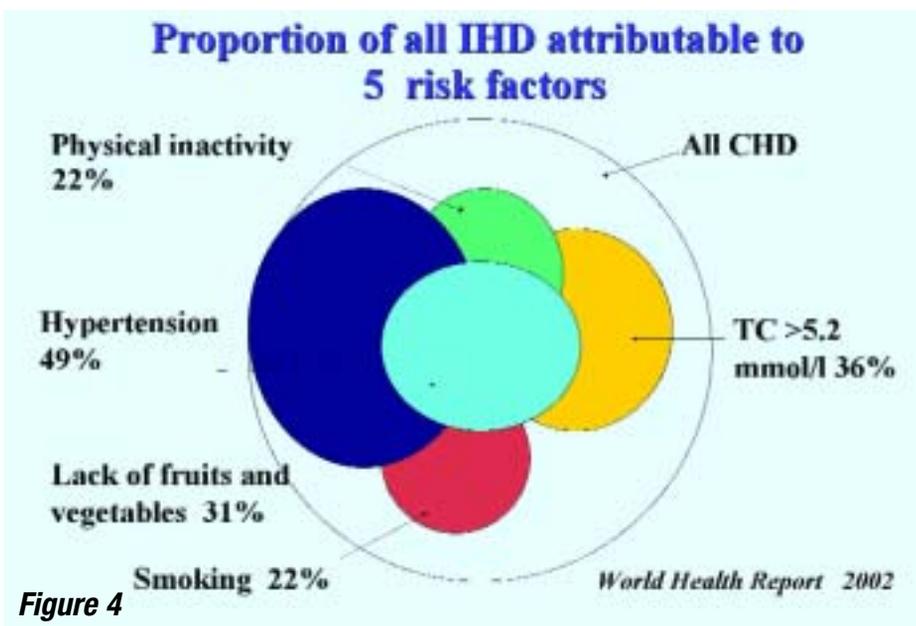
through the media on individual freedom. This is an effective way of misleading the young and the public at large. They who advance such arguments choose to ignore the fact that choice has little meaning when advertising campaigns target minors and uninformed or illiterate adults who are unable to gauge the future health risks associated with the products that are promoted. A full range of policy responses are required to overcome the powerful and globalized marketing and production campaigns of the tobacco and food industries. Regrettably, the capacity and resources for this response are limited in low and middle income countries and over 57% of coun-

tries have no cardiovascular health policy, and 65% have no national cardiovascular programmes. International collaboration and North-South links have to be strengthened to help low and middle income countries to build national capacity to respond to the colossal challenges of the CVD epidemic.

Finally, in many populations in the developing world low levels of literacy, gender inequality and poverty are major constraints for prevention and control of CVD. One billion people in the world who live on less than 1 dollar a day are deprived of opportunities for education, prevention of illness as well as health care. In September 2000 at the United Nations Millennium Summit, world leaders agreed to a set of time-bound and measurable goals and targets aimed at combating poverty, hunger disease, illiteracy environment degradation and discrimination against women. To guarantee chances of success, it is imperative that CVD control strategies and programs in developing countries be placed within the context of other government programmes that address these fundamental development goals related to alleviation of poverty, illiteracy and gender inequality.

**WHO activities**

The World Health Report 2002 provides scientific and economic information that provide strong justification and legitimacy for



**Figure 4**

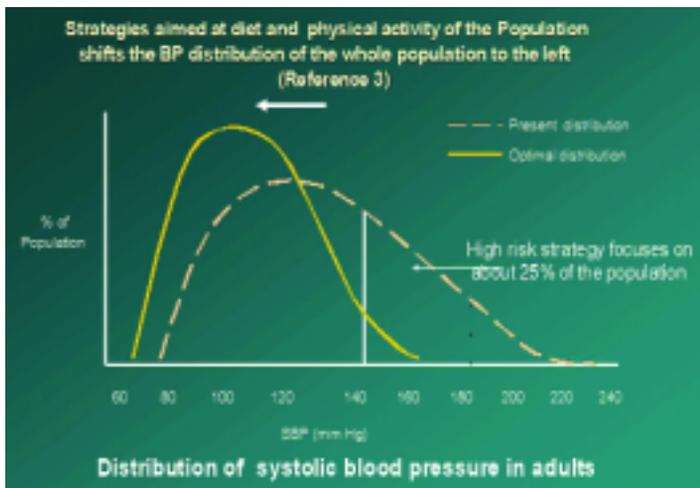


Figure 6

bold policy decisions for risk management by governments. The World Health Organization has stepped up its activities for prevention and control of cardiovascular diseases. It is targeting the main risk factors of cardiovascular disease through global action such as the Framework Convention on Tobacco Control and the development of the global strategy on diet

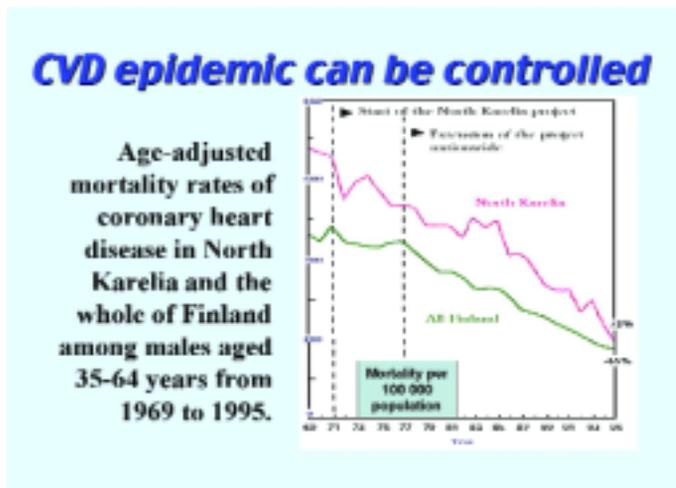


Figure 7

and physical activity. National surveillance systems for key risk factors have been strengthened through standardized approaches. In addition, regional networks are being established to strengthen capacity and advocacy for prevention and control of noncommunicable diseases at country level. Further, WHO has also initiated a multi-country program to scale-up

secondary prevention of major cardiovascular diseases within the WHO's Innovative Care for Chronic Conditions framework and is also in the process of introducing a cost effective cardiovascular risk-management package into low resource settings.

E-mail: [mendiss@who.ch](mailto:mendiss@who.ch)



## PEOPLE AND PLACES



# 2003 Makoto Nagano Award Honours Bal K. Sharma

reprinted from The Sunday Tribune, Chandigarh, India, February 16, 2003

Japanese medical scientist Dr. M. Nagano. Another Indian cardiologist, Dr. K.G. Nair, was also honoured.

Dr. B. K. Sharma has been given this award for his consistent research work and teaching in the field of cardiovascular medicine, especially hypertension. He has been working in the field of hypertension for the past three decades and has published numerous papers in this field. He has especially done a lot of research on a disease known as "Takayasu Arteritis", a disease which was thought to be prevalent in Japan but seems to occur in India also with great frequency.

Because of this he has had a long collaborative research with well known Japanese doctor Fujio Numano. He was invited to Japan almost annually during the past decade. He also had a collaboration with the Institute of Cardiovascular Sciences, University of Manitoba, Winnipeg, Canada. Incidentally,

Dr. Nagano from Japan and Drs. Naranjan Dhalla and Pawan Singal from Winnipeg were also present on the occasion.

Readers will be familiar with Dr. Sharma's health column "Keeping Fit" in The Tribune, running well over two years.

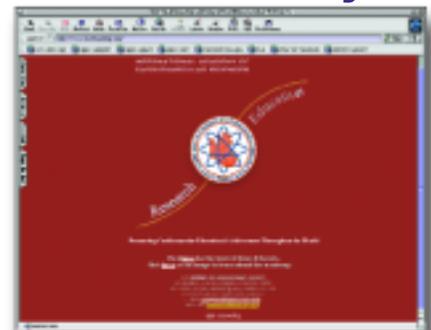


## "Rare Honour for Dr. B. K. Sharma"

Dr. B. K. Sharma, a former Director of the PGI, was honoured with the Makoto Nagano Award at a combined meeting of the International Academy of Cardiovascular Sciences and the Indian Chapter of the International Society for Heart Research held at the PGI recently.

The award is constituted by the International Academy of Cardiovascular Sciences in the name of the well known

Visit The Academy At:



[www.heartacademy.org](http://www.heartacademy.org)



## 2003 Howard Morgan Award Honours K. Gopal Nair

by Ivan Berkowitz · Winnipeg, Canada

As a highlight of the meeting co-sponsored by the Academy in Chandigarh, India, Feb. 7 – 9, K. Gopal Nair was presented with the second "Howard Morgan Award for Distinguished Achievements in Cardiovascular Sciences".

Dr. K. G. Nair was born in 1931 in Kerala, but he had most of his education outside the State. He studied in St. Vincent's High School, Pune, where he topped the class and he later on did his Inter-science from the Fergusson College where he was first in his class and won many prizes. He then went on to Seth. G. S. Medical College where he did his M.B.B.S. and M.D. He had a distinguished academic career winning many prizes and obtaining record marks at the final examination. He went on a Rotary Foundation Fellowship to the famous Massachusetts General Hospital in Boston where he did his Cardiology Fellowship in 1956-57 under the famous Dr. Paul Dudley White. Even as a post-graduate student, he was quickly invited to become an Assistant Professor at the Harvard University. He was a pioneer in Vector-cardiography. He spent 12 years in USA mainly at the University of Chicago where he obtained his Ph.D. in Physiology. His work was on the now known 2nd messenger, cyclic AMP. He was the first

to purify the enzyme hydrolyzing cyclic AMP. The presentation on this subject attracted wide attention in the USA. Dr. Nair went on to the renowned National Institute for Medical Research in London where he did pioneering work on ribosomes. He then returned to the University of Chicago where his first article on this subject appeared in 'Nature'. He then took up the subject of the molecular basis of cardiac hypertrophy. He is internationally recognized as the first person to study this subject in this manner – as early as 1963. Important publications on this subject have appeared in 'Circulation Research'. For his original and brilliant work he was awarded the United State's P.H.S. award for 5 years.

Dr. K. G. Nair returned to India in 1971 as the Professor Director of Medicine and the Head of the Department of Cardiology at his own alma mater Seth. G. S. Medical College and K. E. M. Hospital. He started the first DM Cardiology program in Maharashtra. Simultaneously he set up the first Ph.D. program in Applied Biology. At the K. E. M. Hospital he was widely known for his academic activities and was easily the best clinical teacher. After 10 years of services Dr. Nair joined the Jaslok Hospital and later the P. D. Hinduja National Hospital. In addition to being an Honorary Cardiologist at these places, he was the Director of Research at the Hinduja Hospital. At the Hinduja Hospital he set up one of the best research labs in the country. It is at this place that he worked on allopurinol and adenosine in cardiac surgery. His was the first paper to show by using Electron Spin Resonance methods, the protective role of Allopurinol and

Adenosine in bypass surgery.

Other research activities include:

- Role of taurine in cardiomyopathy,
- Homocysteinemia in endothelial damage,
- Genetic mechanisms in hyperlipidemia, and
- Polymorphisms in the ACE and angiotensinogen gene.

Dr. K. G. Nair has been the President of the API, CSI and several other societies nationally as well as internationally. Currently he is the President of the Indian Section of the International Society for Heart Research. He has to his credits more than 200 publications in national and international journals. He is a contributor to several textbooks including the Oxford Textbook of Medicine. He has given many orations and won many awards.

Currently Dr. K. G. Nair is the Medical Director of Breach Candy Hospital and the Chief Executive of the Breach Candy Medical Research Centre.

Recently Dr. Nair was awarded the Fellowship of the European College of Cardiology. He is a Fellow of the American College of Cardiology and the Phillipine College of Cardiology and in November last year he was honoured by the Chinese Academy of Medical Sciences. He is also one of the very few persons in medicine, who is a Fellow of the Academic Sciences, Bangalore.

At the Mapicon meeting in Bombay he was recognized by the API as one of the most distinguished teachers of Maharashtra.

Dr. Nair is also known as a brilliant clinician and he is an excellent bedside teacher of cardiology. ♥

### **MERCK FROSST CANADA is Corporate Partner of the ACADEMY!**

Dr. Naranjan Dhalla, C.E.O., is delighted to announce a new association with Merck Frosst Canada which agreed:

"To support the development program with young professionals in developing countries, directed by the Academy of Cardiovascular Sciences. The Academy's plans to assist these young professionals in academic endeavors, including further scientific training, is a worthwhile one and falls within our corporate mission."

For additional details on the corporate development programs, please contact:

**Ivan Berkowitz, Director of Development**

**Telephone: (204) 228-3193**

**E-mail: [ivan@mts.net](mailto:ivan@mts.net)**



# Cardiovascular Education: Are We On The Right Track?

by Pallab K. Ganguly, Department of Anatomy, Arabian Gulf University, Kingdom of Bahrain

The recent explosion in scientific and professional knowledge, the growing realization of the need for health promotion, disease prevention, effective utilization of the research-based data and global efforts for cost saving program have placed new demands on the education of the cardiovascular community of the 21st century. Medical education must, therefore, equip the students, researchers and physicians with the knowledge and the skills necessary for critical appraisal, clinical reasoning, and problem solving, continuing self-study and practicing evidence-based medicine. Although the task is difficult particularly at the global perspective, the International Academy of Cardiovascular Sciences can take an effective role in promoting cardiovascular education at various levels of organizations of the health care system. It is necessary at this stage to redefine the goals and objectives of cardiovascular education so that the Academy can monitor the planning and implementation of some of the critical issues related to cardiovascular sciences. We should be more active in promoting excellence in cardiovascular education so that health care is delivered at the highest standards without compromising specialty training in the field of cardiovascular sciences.

## CARDIOVASCULAR EDUCATION: WHERE CAN WE HELP?

### 1. Undergraduate curricular development

In spite of the fact that many of us are actively involved in undergraduate teaching, we tend to shy away from curricular development. We should be part of the overall philosophy, goals and objectives of a medical program so that we understand the pitfalls of the system. We should know the scientific validity of the new concepts and recent developments of medical education in order to fine tune the existing cardiovascular program. For example, one can consider the car-

diovascular sciences within the integrated problem based learner-directed learning (PBL) curriculum. Several important changes and development were introduced in various medical colleges throughout the world. The PBL curriculum will help to acquire clinical, psychomotor and laboratory skills related to cardiovascular system in an effective way. The students are divided into small groups with a tutor for each group, who works as a facilitator, rather than an instructor, to help the students learn by solving the problems in the cardiovascular system. It may be pointed out that the essential characteristics of PBL also include the development of the skills of self-assessment.

### 2. Introduction of better system of evaluation for students, faculty and curriculum

A global effort has been made establishing criteria for a better system of evaluation for students, faculty and curriculum. The cardiovascular community must be aware of the various centers of the world who are leading the way in this rapidly developing domain.

### 3. Medical practice along the evidence-based medicine

If it is a duty of every practitioner to evaluate new development critically, then evidence-based medicine requires new skills for decision-making, including efficient literature search and the application of formal rules in evaluating scientific literature. Medical practitioners have a responsibility to learn some basic interpretive research skills and should identify the research evidence upon which their practice is based.

### 4. Understanding of the community oriented health problems

Care must be taken to address the preventive aspect of some of the cardiovascular diseases particularly in relation to the need of the developing world.

### 5. Distance learning and participation in cardiovascular research programs

We should not forget that E-learning is integral to our day-to-day activities. We must develop contact so that we are in a position to carry out cardiovascular research activities in a state-of-the-art way. For that reason, it is often unnecessary to duplicate research while the innovative ideas could be still refined through distance learning.

### 6. Strengthening basic sciences program leading to M.Sc. and Ph.D. in cardiovascular sciences

Perhaps the time has come when the leading Institutes must offer and pursue graduate programs in Cardiovascular Sciences. Once again, the program needs a careful thought process.

### 7. Faculty development program via continuing education and workshop

The activities related to this program are essential if we are to survive in this rapidly developing world.

### 8. Participation in comprehensive healthcare planning and resource management related to cardiovascular sciences

This can only be achieved if our politicians hear our ideas. Our active participation in the management, therefore, is pivotal to healthcare planning in relation to cardiovascular sciences.

### 9. Ethical aspects of cardiovascular research

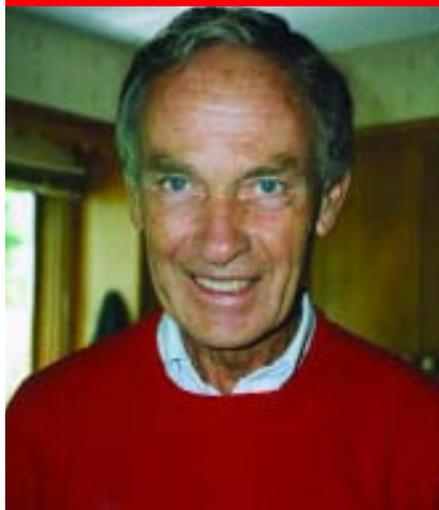
Organ transplant, stem cell research, gene therapy involve ethical aspects. The Cardiovascular community is certainly not immune to those ethical aspects. Although there is no clear answer in this issue, we have to respect the opinion particularly when it involves human research.

### 10. New discovery and the patients' awareness

If our main aim is to provide the best health care system to our patients, then we all have the responsibilities so that each and every patient of the 21st century should know what is going on in cardiovascular research. Such communication undoubtedly is key to the success of our modern medicine.

## ARE WE ON THE RIGHT TRACK?

The 21st century professionals must be able to adapt to change, for learning how to reason critically, for delivering a holistic approach to medicine and also for participating in education by cutting across his/her own boundary. Each one of us can identify our strength/weakness allowing us to measure whether or not we are on the right track. The Academy may provide crucial information to which some of the expectations can be met. ❤️



## Peter Harris

by Inder Anand, University of Minnesota, Minneapolis, USA

Peter Charles Harris was born in 1923 to David and Nelly Harris, an electrical engineer and a homemaker. He recognized and honored his love for art, literature and all things beautiful as bequests of his heritage. His father too was a gifted artist. Till the very end, Peter tended with the characteristic warmth and dedication of his mother, the roses he had transplanted at her death, from her home to his garden in Islington, London. His initial education was at St. Olaf's Grammar School and as a science scholar at the Kings College, London. He qualified in medicine at Kings College Hospital in 1946 where he became a house surgeon before moving to the Brompton Hospital as house physician. He obtained his MD degree in 1951 winning the University Gold Medal and his PhD in 1955. This was followed by a two year Nuffield fellowship with the Nobel Laureate Andre Cournard, at Bellevue Hospital and Columbia University, New York, USA. On his return to the UK, he was appointed lecturer in 1957, and reader in medicine, in 1962, at the Birmingham University.

Prof. Harris committed his life's work to exploring the cardiovascular system and the origins of heart disease, greatly advancing knowledge, and pioneering and facilitating radical new modalities of research and treatments in the field. In the early stages of his career he utilized established methods of hemodynamic

measurements to explore the pulmonary circulation and metabolism of the heart muscle. These studies culminated in the monograph *The Human Pulmonary Circulation* co-authored with his colleague and dear friend Donald Heath. It still remains the authoritative text on the subject.

In 1966, he was appointed to the first Simon Marks British Heart Foundation Chair of Cardiology at the University of London. By now he was veering to the view that the future of cardiovascular research lay in the physiology and biochemistry of the abnormalities of the heart muscle. Starting with one room and a skeletal staff of a single technician and a secretary, over the years Peter Harris's laboratory became a focal centre for the study of the underlying physiology and biochemistry of heart disease. The number of clinical cardiologists and scientists in vantage positions all around the world and in whose work and lives he still remained involved, bear witness to his research acumen and teaching abilities.

In his St. Cyres lecture in 1986 he argued that the origins of clinical heart failure lay in ancient reflexes established by an evolutionary process to promote maintenance of the arterial blood pressure. An intense intellect and enthusiasm for learning made him an inveterate traveler. This together with his interest in pulmonary circulation led him to the Andes, Ladakh and Tibet to research animals and man at high altitude. His study of the blood flow to the lungs of the yaks showed that they had adapted genetically to high altitude by eliminating the vasoconstrictor response to hypoxia. An examination of cross breeds with cows, the dzo and stols revealed that this characteristic was transmitted as a simple autosomal dominant.

In 1988, Prof. Harris described a new disease occurring in Tibet, sub acute infantile moun-

tain sickness. This lethal condition affected Han infants born in the plains of China and brought to live at high altitude. He believed the syndrome demonstrated the evolutionary processes involved in pulmonary circulation to promote the survival of the species.

In 1970, he organized a meeting of the European section of the international study group for research in cardiac metabolism which resulted in the publication of *Calcium and the Heart*, a work of enormous significance and influence in the field of cardiology. The study group laid the foundation of the International Society of Heart Research, whose President he was from 1981-83. In 1986, the Society created the prestigious Peter Harris Award for Achievement in Research.

After his retirement, he moved to Venice to edit the journal *Cardioscience*. Venice also offered him the opportunity to further his appreciation of art and nurture his immense facility to paint. He was able to complete his book on the Bricks of Venice and had all but the final chapter of his book on the Angels to be completed. Besides, he was a musician of talent, playing the violin with dexterity. He was also an able writer. His writings spoke of his evolved sensibilities, sharp wit and humor.

'Prof' as he was fondly known, succumbed to cancer on December 11, 2002 surrounded by his family. For the last quarter of a century his work and persona had been a vital presence in the world of cardiovascular medicine and research. His life lived with verve, in worth and substance, greatly enriched all those in his association.

Peter Harris is survived by his wife Francesca, daughters Sophie and Libby, brother David, sister Dorothy, stepsons Mark and Rick, and eleven grandchildren. ❤️

## Academy pays highest tribute to its Fellow

Quote from Naranjan S. Dhalla, Executive Director, International Academy of Cardiovascular Sciences

Peter Harris was not only the doyen of international cardiology but also was a great human being who believed in and helped young people to achieve their

potential. He was highly skillful in blending cardiovascular education, research and practice, and the Academy will continue to promote his vision.

On a personal note, His Royal Highness (as I always addressed him) will be remembered for a long time.

# 1<sup>ST</sup> WORLD CONGRESS

INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES

## Scientific Forum XIII



Chairman:  
Dr. Otoni M. Gomes  
R. José do Patrocínio, 52  
Santa Mônica -  
Belo Horizonte, MG,  
Brazil - 31.525-160  
Tel. / Fax: (55) 31 3452.7143  
E-mail:  
servicor@servicor.com.br

WEB SITE:  
www.heartconference.com

**BELO HORIZONTE - BRAZIL  
OCTOBER · 11-15 · 2003**

## ACADEMY

to sponsor

### Joint International Conference with International Society for Heart Research (Indian Section)

Encouraged by the great success of the 2003 meeting, Prof. V. K. Puri has announced plans for the conference entitled; 'Coronary Artery Disease - Molecule to Man' to be held from January 9-11, 2004 in Lucknow, India.

Inquiries: Prof. V.K. Puri, Head,  
Department of Cardiology, King  
George's Medical College,  
Lucknow-226003, INDIA.

Phone & Fax: +91-522-2255830;

E-mail: vijaykurmarpuri@hotmail.com  
& aniket@sancharnet.in

## From Basic Science to Clinical Perspectives



The IV International Symposium on Myocardial Cytoprotection will be held in Pécs, Hungary, September 25-27, 2003.

The Department of Experimental Surgery and Experimental Section of the Hungarian Society of Cardiology will organize the Symposium in collaboration with: International Academy of Cardiovascular Sciences.

- 2003 Scientific Secretariat: Prof. Dr. Elizabeth Roth, University of Pécs, Faculty of Medicine, Department of Experimental Surgery, Kodaly Z. str.20, H-7624 Hungary; Fax:36-72-535821;
- E-mail: [zsoka@expsurg.pote.hu](mailto:zsoka@expsurg.pote.hu)
- Web Site: <http://expsurg.pote.hu/ismc2003s>

## Mendel Symposium: Genes and the Heart

August 26 - 29, 2003

The Symposium is being organized by Masaryk University in cooperation with the Academy of Sciences of Czech Republic, the Slovak Academy of Sciences and the Czech Cardiological Society, and sponsored by the International Academy of Cardiovascular Sciences, August 26 - 29, 2003, Brno, Czech Republic.

### GENERAL INFORMATION:

- Venue:** Abbey of St. Thomas, Mendel Square 1, Brno, Czech Republic
- Date:** August 26 - 29, 2003
- Language:** English
- Accommodation:** Hotel Voron - 10 minutes walking distance
- Information:** [morwen.rect.muni.cz/conference/](http://morwen.rect.muni.cz/conference/)
- E-mail:** [braveny@med.muni.cz](mailto:braveny@med.muni.cz)  
[majka@med.muni.cz](mailto:majka@med.muni.cz)
- See also:** [www.mendel-museum.org](http://www.mendel-museum.org)