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THE OFFICIAL BULLETIN OF THE INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES

VOL. 1 · NO. 2 · Pages 13-24, 2002

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From The President



Dr. Howard Morgan

A mission of the Academy is to promote education of professionals and lay people throughout the world. This mission offers an exciting challenge for those involved in cardiovascular research both to discover new knowledge and to translate new and existing knowledge into improved patient care.

The publication of a preliminary human genome sequence in 2000 and the anticipated complete sequence in the next two years provide the opportunity to identify genes associated with atherosclerosis and other life threatening diseases. This opportunity will be seized and used to identify persons and families who are at risk for serious illness and death. These genes and their protein products will be used as targets to develop new drugs and other forms of therapy.

The functions of these genes will be explored in transgenic mice that overexpress the gene or have the gene knocked-out. These animals will provide a unique test system for drugs that act on specific molecular targets. Transgenic animals also are a potential source for cells with specific genetic defects for definition of the cellular phenotype in tissue culture. Gene function may also be inferred

by comparison of the gene sequence with a gene of the same sequence in yeast, bacteria or flies in which the gene function is known.

Transgene expression has been used to protect the heart from tissue injury due to ischemia and oxidative stress. A recent study from Dzau's laboratory (Melo et al. *Circulation*, 2002;105:602-607) demonstrated the direct delivery of a cytoprotective gene, heme oxygenase-1 into rat myocardium with a recombinant adeno-associated virus as a vector. Eight weeks later, acute coronary ligation and release led to a dramatic reduction (>75%) in left ventricular myocardial infarction in the area at risk, as compared to control animals. The authors suggest that their novel "pre-event" gene transfer may provide sustained tissue protection and may be beneficial in patients at risk for developing coronary ischemic events.

These approaches derived from a more complete understanding of human genetics indicate that research in the 21st century will provide more breakthroughs in the prevention, diagnosis and treatment of cardiovascular disease than ever before. The challenge is to translate new and existing knowledge into improved patient care.

An early example of translational research was derived from the pioneering work of Michael S. Brown and Joseph L. Goldstein aimed at the causes of inherited hypercholesterolemia and associated coronary atherosclerosis. In an effort to translate these research findings into lower rates of coronary heart disease, the National Cholesterol Education Program issued guidelines for treatment of adults in 1988, 1993 and 2001 (Gotto and Kuller. *Circulation* 2002;105:136-139). The most recent guidelines for use of statins to reduce LDL-cholesterol and other risk factors indicate that 36 million persons in the target US population are eligible for drug therapy.

Far fewer persons are currently using statins for primary and secondary prevention of coronary heart disease. A similar situation exists in the use of β -adrenergic blockers and aspirin in the management of patients after myocardial infarction. Although the efficacy of these drugs to prevent a second myocardial infarction is well known, these drugs are not used in all post-MI patients.

The importance of translational research in the care of patients and in population-based prevention of atherosclerosis and atherosclerotic heart disease led the Trustees of the Donald W. Reynolds Foundation to bring the Foundation's resources to bear in the fight against heart and vascular diseases. In 1998 the Trustees established the Foundation's

Cardiovascular Clinical Research Program. Two-multiyear grants under the program have been made to the University of Texas Southwestern Medical Center at Dallas and to Stanford University. Each institution receives \$6 million/year from the Foundation. I have served on the Scientific Advisory Panel that selected the awardees and monitors their progress. Of particular interest under the Program is the combination of fundamental and discovery research on novel strategies and concepts with potential therapeutic or preventive value and provision for its clinical or preventive application.

Recently, the National Heart, Lung and Blood Institute (Lenfant. Circulation 2002;105:400-401) announced the refocusing of the

Specialized Centers of Research (SCOR) program on their "vision of a research environment in which clinical issues define and drive basic research, and basic research findings are rapidly applied to clinical problems". "Accordingly, SCOR programs will be restructured and renamed Specialized Centers of Clinically Oriented Research or SCCOR".

The challenge for the Academy and its members is to adopt a mind-set, which continuously raises the question of how new and existing knowledge, can be translated into prevention, improved diagnosis and therapy of cardiovascular disease. This approach offers the hope of a continued reduction in morbidity and mortality due to cardiovascular disease. ♥

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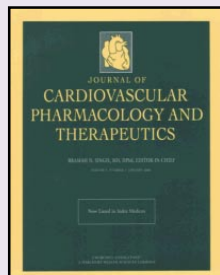
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Academy Honours Choong-Chin Liew with Makoto Nagano Award for Achievements in Cardiovascular Education

At the International Symposium hosted by The University of the West Indies in St. Augustine, Trinidad, March 4 – 8, 2002, the International Academy of Cardiovascular Sciences honoured Dr. Choong-Chin Liew as the first recipient of the Makoto Nagano Award for Achievements in Cardiovascular Education

Founder of the Cardiac Gene Unit at the University of Toronto, Canada, and the Cardiovascular Genome Unit, Brigham and Women's Hospital, Harvard Medical School, Boston, Professor Choong-Chin Liew is a pioneer in the field of cardiovascular molecular biology. Most recently, Dr. Liew and his research team have been working to develop applications of novel genomic technologies to explore the genes of the cardiovascular system. His group at Harvard has developed a 12,000 unique transcript cDNA microarray termed the "CardioChip" which is currently showing great promise as a valuable tool for the continued investigation of genes yet to be discovered or characterized in complex heart diseases.

Dr. Liew was born in Malaysia and educated in Singapore. He was awarded a CH Best fellowship to begin his graduate studies in Canada in 1962, and received his PhD in physiological chemistry from the University of Toronto in 1967. Shortly afterwards he joined the Faculty of Medicine at the Department of Clinical Biochemistry (now Department of Laboratory Medicine and Pathobiology) at the University of Toronto. His early career focused on the investigation of the biochemistry of heart nuclei in relation to myocardial development and cardiac hypertrophy. In the 1970s, his laboratory developed techniques to isolate myocardial nuclei for use in a two-dimensional polyacrylamide gel electrophoresis (2-D PAGE) system to analyze nuclear proteins in the myocardium. This work led to his continued interest in the relationship between gene expression and chromatin remodeling in cardiac hypertrophy. The 2-D PAGE technology has recently been applied in proteomics analysis.

In the early 1980s, Dr. Liew's laboratory constructed the first human heart cDNA library and began to isolate and characterize mammalian cardiac myosin heavy chain genes. His team completely sequenced the human and hamster α - and β -cardiac myosin heavy chain genes (>52 kb for each species). He also performed in-depth studies of these genes in *Homo sapiens* and rodent species, comparing their structure, function and molecular evolution. His publications in the late 1980s and early 1990s related mutations in the β -myosin heavy chain gene to familial hypertrophic cardiomyopathy.

By the early 1990s, Dr. Liew began to address the quantitative as well as qualitative aspects of genes in the cardiovascular system. He used the expressed sequence tag (EST) strategy to identify genes in both human heart and artery. His group at the Cardiac Gene Unit in Toronto sequenced more than 57,000 ESTs, generated from 13 different cardiovascular tissue cDNA libraries. Of these, approximately 7,000 represented previously uncharacter-

ized genes. This work, which was published in 1997 in *Circulation*, is the most comprehensive analysis of cardiovascular gene expression undertaken. The project has provided the largest existing database for a single human organ and will serve as a key to facilitate the understanding of cardiovascular development and complex heart diseases. The catalogue was called a "major molecular legacy" and a "groundbreaking event" in an accompanying editorial in *Circulation*.

Currently, Dr. Liew's group has actively been investigating genes related to human heart failure using strategies of genome research. Applications of microarray analysis identified 142 genes upregulated >1.5-fold in heart failure, including several previously suspected genes (e.g. atrial natriuretic factor, brain natriuretic peptide etc.) as well as many novel candidates. Extensive database analysis in his laboratory has revealed the expression of over 26,000 genes in the cardiovascular system, out of the over 35,000 genes in the whole human genome. Thus, Dr. Liew's group has estab-

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Dr. C.C. Liew receiving Makoto Nagano Award from Dr. N. Alpert.



Cardiovascular Scientists Assemble in Trinidad

by Junor A. Barnes · Trinidad · West Indies



The Eric Williams Medical Sciences Complex, at the St Augustine Campus of the University of the West Indies, was the venue for the International Symposium on "Advances in Cardiovascular Research – Clinical and Basic Sciences" from March 4 – 6, 2002. The Conference was followed by a Workshop on "Genome Based Research for Identification of Cardiovascular Genes" on March 7 – 8.

Dr. Courtenay F. Bartholomew, who chaired the opening ceremony, described landmark contributions of West Indian medical scientists, to key areas of progress in the history of medical sciences. Welcomes were then presented by Dr. Phyllis Pitt-Miller, Dean of the Faculty of Medical Sciences on behalf of Prof. Rex Nettleford, Vice Chancellor of the University of the West Indies (UWI); Dr. Bhoendradatt Tewarie, Principal of the St Augustine Campus, The University of the West Indies; Dr. Phyllis Pitt-Miller, on behalf of the Faculty of Medical Sciences; Dr. Naranjan S. Dhalla, Director of the Institute Of Cardiovascular Sciences, St Boniface General Hospital Research Centre and Chairman of the International Organizing Committee; and Dr. Junor A. Barnes, Chairman of the local organizing committee. The formal opening ceremony was concluded by a captivating

performance by the "Arts in Action" Performers, from the Creative Arts Centre at St. Augustine. They depicted very graphically some of the causes and consequences of heart disease.

Some 33 foreign delegates including cardiac surgeons, cardiologists and basic medical scientists from 8 countries were present at the conference which was sponsored by the International Academy of Cardiovascular Sciences, the Wellcome Trust the British Heart Foundation and the University of the West Indies. This conference was convened in Trinidad because of the exceedingly high incidence of cardiovascular disease in Trinidad and Tobago. The 1993 WHO Health Statistics Annual showed that Trinidad and Tobago was in fifth position with respect to death rates from ischemic heart disease in males. The international organizing committee for the conference was comprised of Dr. Naranjan Dhalla; Dr. Claus Heizman, (Head of the Department of Pediatrics, University of Zurich, Zurich, Switzerland); Dr. Chong-Chin Liew (Director of the Cardiovascular Gene Unit, Brigham and Women's Hospital, Harvard Medical School, Boston, USA); Dr. James D Potter (Head of the Department of Molecular and Cellular Pharmacology, University of

Miami, School of Medicine); Dr. Jaipaul Singh (Professor of Physiology, University of Central Lancaster, Lancaster, UK); and Dr. Junor A Barnes (Head, Biochemistry Unit, Department of Pre-Clinical Sciences, Faculty of Medical Sciences, The University of the West Indies, St. Augustine Campus, Trinidad). The success of the conference was ensured by the efforts of the members of the local organizing committee. The scientific program was quite broad based and allowed for in-depth presentations in a variety of symposia sessions including: β -adrenergic control in health and disease, genetic determinants of heart disease, indices of diabetic cardiomyopathy proteomic and genomic predictors of myocardial dysfunctions, regulatory factors involved in normal heart function, and clinical indices of cardiac signaling and remodeling.

Two parallel sessions were held in order to accommodate some of the speakers. One dealt with varied approaches to heart diseases in Trinidad and the other dealt with medical education at the University of the West Indies, St Augustine, Trinidad and Tobago. There was one keynote lecture by Dr. Giani Davide Angelini and five plenary lectures by Dr. David Eisner, Manchester, UK; Dr. Naranjan S. Dhalla, Manitoba, Canada; Dr. C. C. Liew,

Boston, USA; Dr. Marek Michalak Edmonton, Canada; and Dr. Nanette Bishopric Miami, USA. Dr. C. C. Liew presented the Makoto Nagano Cardiovascular Landmark lecture, sponsored by the International Academy of Cardiovascular Sciences. This lecture and award was based on the distinguished achievements in the field of genomic applications to cardiovascular sciences. Dr. Norman Alpert, Vice President of the International Academy of Cardiovascular Sciences, made this presentation.

A highlight of the conference was the "Public Forum on Cardiovascular Health", held in the evening on March 5. The four speakers at the Public Forum were Dr. Bruce Holub of Guelph, Canada, who spoke on "Good Fat, Bad Fat and the Heart". He extolled the benefits of Omega 3 fatty acids in conferring protection against myocardial infarction. Dr. Geoffrey B Frankson, Director of the Wellness Centre in Trinidad gave an impressive presentation on "Life Style Factors and the Heart." Dr. Norman R Alpert from Burlington USA, spoke on "Red Wine and the Heart" and he emphasized the role of flavanols and other anti-oxidants in conferring protection against heart disease. Dr. Walter J Koch of Durham USA, addressed the controversial issue of "Gene Therapy for Heart Failure". The public showed keen interest in the Forum by the

many inquires that were received at the Secretariat prior to the event and the many questions that were posed to the panels.

The workshop on "Genome-based Resources for the Identification of Cardiovascular Genes" by Dr. Liew and his assistants presented an overview of micro array technology and a comparison of the Affimetric Gene Chip Oligonucleotide Arrays with that of the cDNA Arrays. Workshop participants were also shown how to construct a cDNA library and a cDNA microarray. The major advantage of DNA microarray technology lies in the capability to profile and compare thousands of genes between mRNA populations simultaneously. This novel technology can be used for both transcript profiling and the identification of differences in expression between single genes on a large scale. Dr. Peter Law gave a graphic presentation of the manufacturing and use of myocyte cultures for heart therapy. This workshop certainly introduced the audience including staff and trainees at St. Augustine to state of the art gene technology for genomic and proteomic research and therapeutic applications.

Special efforts were made to entertain the delegates and to facilitate the easy exchange of ideas between the delegates and the local participants. Delegates were exposed to a

wide range of Trinidadian hospitality and cuisine when they were cordially hosted by the President of the Republic of Trinidad and Tobago, His Excellency Arthur Napoleon Raymond Robinson. Delegates were also entertained and thrilled at the Millennium Mixer by a range of local performers, including: steel band music, stories by folk artist, Indian Dance routine, calypsos and extemporaneous compositions covering a wide range of topics by Black Sage, one of the leaders of the local art form and other presentations by members of the "Arts in Action" Group.

According to verbal comments by delegates and the returns of a survey, the International Conference and the Workshop were considered to be highly successful and rewarding for all participants, due largely to the high quality of the presentations. Selected papers from the Conference will be published in Official Academy Journals. Another outcome from the conference is many offers of training opportunities for graduate students and postdoctoral fellows. It is clear that the exchange of information at international conferences is a prerequisite for trust and the building of bridges with scientists from around the world. I would like to thank the International Academy of Cardiovascular Sciences for their strategic support in this effort. ♥

REMEMBERING SOMEONE SPECIAL



Keith Arnold Reimer

by Charles Steenbergen · Duke University, Durham U S A

Dr. Keith Reimer was truly one of the leaders in the world of heart health.

The International Academy of Cardiovascular Sciences mourns his untimely passing and salutes his lifetime of achievements.

Dr. Reimer was born April 10, 1945 in Beatrice, NE. He graduated from Bethel College in 1967. He received MD and PhD degrees from Northwestern University Medical School in 1972, where he established a long-standing research collaboration with Dr. Robert B. Jennings. He moved to Duke in 1975 as an Assistant Professor of Pathology,

and he became a full Professor of Pathology in 1988. Before his death, Keith listed the achievements of which he was most proud. Included among these are:

(1) His discovery with colleagues in 1979 of the "wave front" phenomenon of ischemic cell death; (2) In 1983, co-authoring the book Sudden Death, Cardiac and other Causes; (3) In 1986, discovering with colleagues the phenomenon of ischemic preconditioning in myocardium; (4) In 1991, co-authoring Chapter 75 "Myocardial Ischemia, Hypoxia, and Infarction" in The Heart and Cardiovascular System, 2nd edition, vol. 2;

(5) In 1995, co-authoring Chapter 3 "Myocardial Ischemia and Reperfusion" in Cardiovascular Pathology: Clinicopathologic Correlations and Pathogenetic Mechanisms; and (6) Since 1976, serving the International Society for Heart Research and its American section, in various positions and as President of the American section from 2000 until his death. Keith was diagnosed with renal cell carcinoma in early September 2001 and died March 15, 2002. ♥



IACS - South American Section is Established

Dr. Otoni M. Gomes (Belo Horizonte, Brazil) is providing extraordinary service to the International Academy of Cardiovascular Sciences. As one of the founders of the IACS, he is a Fellow. He is chair of Academy's 1st World Congress. He has been the catalyst in organizing IACS – South American Section - there is an awesome web site created by him and we invite you to visit:

http://www.servicor.com.br/site_iacs/index.htm

IACS South American Section has acknowledged an official publication - "The Latin American Archives of Cardiovascular Sciences".

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With utmost satisfaction, IACS South American Section welcomes the world of heart health to participate in the upcoming Academy's 1st World Congress - "On The Way to New Cardiovascular Horizons" to be held in Belo Horizonte, Brazil, October, 11 to 15, 2003. Attendance at this exciting meeting will certainly reinforce the initiatives of the Academy in building connectivity and teamwork among researchers, educators and health professionals in the field of cardiovascular sciences. ♥

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1ST WORLD CONGRESS
 INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES

ON THE WAY TO NEW CARDIOVASCULAR HORIZONS

Public Heart Health Forum

Scientific Forum XIII

- V Ecumenical Forum
- XIII Meeting of the ISHR Latin American Section
- II Meeting of the IACS - South American Section
- III International Forum on Clinical Cardiology
- XXI Brazilian Congress of Extracorporeal Circulation
- XIII International Forum on Cardiovascular Surgery
- II International Forum on Cardiovascular Physiology
- V International Symposium on Beating Heart Surgery
- IV International Symposium on Artificial Heart Devices
- I Symposium on Clinical and Surgical Veterinary Cardiology

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Truth is Jesus the Word of God
 John 1.1;17.17

BELO HORIZONTE · BRAZIL
 OCTOBER, 11 to 15, 2003 - OURO MINAS PALACE HOTEL

Myocardial Protection Distress

by Otoni Moreira Gomes · Belo Horizonte · Brazil

In the development of cardiovascular surgery techniques during the past 5 years, the search for safer techniques for cardiac protection has paradoxically introduced new patterns of myocardial distress and loss of function which are frequently responsible for patient mortality. The first of these disturbing trends, sometimes referred to as "paralyzing cardiac distress" or "paralyzed heart" was first noted in 1955, when MELROSE et al (1) injected potassium in the aortic root to promote heart arrest to facilitate surgical manipulation.

Although this method is viewed as a pioneering step in the development of modern cardioplegia, K⁺ injection has been linked to irreversible cardiac arrest resulting from specific development of myocardium lesions induced by the high levels of potassium citrate.

In a landmark study, LAM et al in 1955 first coined the term cardioplegia (2) in describing cardiac arrest via acetylcholine. In the early 1960's, the development of biochemical technology led to the recognition of the importance of ATP concentration for cardiac muscle relaxation and vital ionic pumps function preservation (4). In 1965, REIDMEISTER et al (5) provided the groundwork for the basis of the modern cardioplegia in describing the cardioprotective effect of induced arrest using solutions containing procaine and low sodium concentration. COOLEY et al in 1972 (3) recognized and named "stone heart" syndrome, resulting from relatively lengthy anoxic arrest. The conclusions of this group were confirmed and widely reported by BRETSCHNEIDER et al (6). URSCHEL et al (7) as well as SHUMMWAY and LOWER (8) demonstrated the importance of the selective myocardial cooling by topical hypothermia. In 1963, JATENE (9) improved this technique with favourable results. In 1972, KIRSCH et al (10) provided work that improved the approach used by YOUNG (11) insofar as they introduced cardioplegia that included high magnesium concentration. A short time later, BRAILE et al (12) introduced crystalloid cardioplegia in Brazilian cardiovascular surgery. In 1978 FOLLETE et al (13) introduced the use of blood cardioplegia and reported consistent results with this technique.

Although experience with myocardial protection by hypothermia and cardioplegic solutions has proven their superiority in preventing myocardial subcellular degeneration from when compared to normothermic arrest (14, 15). Despite this, as the depth of understanding of

cardioplegia grew with its increased usage, new forms of myocardial distress were described including the "frozen heart", the "drunken heart" and "cardioplegic overdose distress". The frozen heart syndrome was first identified by WILLIAMS et al (16) in neonatal surgery. SAKAI and KURIHARA found that deep hypothermia employed for total circulatory arrest was associated with cases of permanent ventricular contracture and in some cases, death (17). WILLIAMS et al also reported that cardioplegia employing warm blood during body cooling prevented ventricular contraction and improved patient survival. REBEYKA et al (18) demonstrated this phenomenon in rabbits and reported that myocardial cooling in the diastolic arrested hearts prevented abnormal ventricular contraction and protected the myocardium. This finding was confirmed in work by JYNGE (19), showing the importance of the abnormal cellular calcium flux induced by the fast myocardial cooling; this type of distress was prevented by slow cooling techniques and procaine injections.

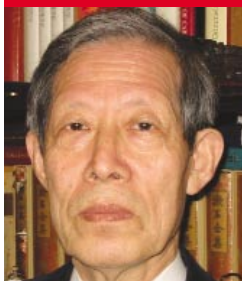
Cardioplegic overdose distress was first described by KOFISKY et al (20) to explain myocardial impairment resulting from prolonged blood cardioplegia. Furthermore, PITCHON et al (21) reported myocardial dysfunction induced by continuous perfusion with crystalloid cardioplegic solutions in isolated rat hearts. Another interesting kind of myocardium distress (i.e., drunken heart) describing temporary impairment by a synergism of anesthetic drugs associated with cardioplegia, as demonstrated with diazepam injections in isolated hearts (22).

Currently the most widely used techniques for myocardial protection includes potassium, crystalloid or blood cardioplegia which meet the needs of routine cardiac surgery. The most common functional disturbance is myocardial ionic distress i.e., calcium/potassium imbalances occurring even in short-term cardioplegic arrest. This problem is identified during cardiac reperfusion by QRS enlargement and ST deviation, resembling acute myocardial ischemia which is reversible by calcium and potassium level correction.

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Dr. Makoto Nagano

Academy Japan Section Selects Council

The Japan Section Council has been established with the executive committee to be:

Makoto Nagano President (Tokyo)

Nobuakira Takeda Secretary (Tokyo)

Hideharu Hayashi (Hamamatsu)

Satoshi Kurihara (Tokyo)

Tohru Izumi (Kitasato)

Naoki Makino (Beppu)

Takashi Katagiri (Tokyo)

Ryoji Matoba (Osaka)

Hideaki Kawaguchi (Sapporo)

Teruhiko Toyo-Oka (Tokyo)

Masafumi Kitakaze (Suita)

Honorary Members:

Kenichi Harumi (Tokyo)

Takayuki Ozawa (Nagoya)

Issei Imanaga (Fukuoka)

Shigetake Sasayama (Kyoto)

Shunzo Onishi (Osaka)

Noboru Yamazaki (Hamamatsu)

The 2nd Meeting of the Japan Section of the International Academy of Cardiovascular Sciences (25th Annual Meeting of the Japanese Working Group on Cardiac Structure and Metabolism) will be held July 19-20, in Sapporo, Japan; Chairman:

Hideaki Kawaguchi MD

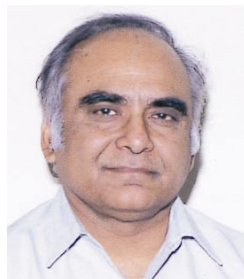
(E-mail: hideaki@med.hokudai.ac.jp) ♥

India Section of IACS is Established

The International Academy of Cardiovascular Sciences – India Section has started functioning as the regional section and is planning to organize various activities in the near future.

The following are the office holders:

Dr. N.K. Ganguly, President



Dr. Ganguly is presently the Director General of Indian Council of Medical Research and President of the National Academy of Medical Sciences. He has a rich teaching experience of approximately 31 years, out of which for eleven years he was Professor and Head of multidisciplinary Dept. of Experimental Medicine and Biotechnology at Post Graduate Institute of Medical Education and Research, Chandigarh. Microbiology and immunology have always been his key areas of interest and he has earned several awards

and honors for his significant achievements in these areas.

He was also Acting Director, Post Graduate Institute of Medical Education and Research, Chandigarh; and Professor of International Health, University of Minnesota, Minneapolis. He is a Fellow of National Academy of Medical Sciences; Indian National Science Academy; National Academy of Science; Indian Academy of Sciences; Royal College of Pathologists (London, UK) and Royal School of Tropical Medicine (London, UK). He is a Member, New York Academy of Sciences, USA; Vice President International Association of Adaptive Medicine, Canada; Council Member, International Society for Heart Research (Indian Chapter); and Council Member, Federation of Immunological Societies of Asia-Oceania (FIMSA) for 2000-20003. He is also a

Member, Guideline Development Group in the updating of the Technical Report on Rheumatic Fever and Rheumatic Heart Disease, WHO, Geneva; Foundation Council, Global Forum for Health Research, Geneva; Scientific and Technical Advisory Committee for a period of three years w.e.f. 1st January, 2000, WHO, Geneva; and WHO South-East Asia Advisory Committee on Health Research (SEA/ACHR), for a period of three years from January, 2000. He is the Chairperson for WHO Scientific Working Group on Criteria for Setting Health Research Priorities and WHO SEARO, New Delhi; WHO South-East Asia Advisory Committee on Health Research (WHO/SEA/ACHR). He is Chairman of Scientific Advisory Committee, Centre for DNA Fingerprinting and Diagnostics, Hyderabad; and Research Council, Central Drug Research Institute, Lucknow.

He has guided about 260 M.D./Ph.D. theses and has published close to 650 scientific papers in national and international journals. His works have also been cited in journals and books of international repute.

Prof. K.K.Talwar, Vice President



Prof. Talwar is currently Professor of Cardiology at the Cardio-Thoracic Centre in AIIMS, New Delhi. His main interest is in clinical cardiology

including invasive procedures. The main contribution include in the fields of arrhythmia, heart muscle diseases and pacemakers. He has the largest experience of radiofrequency ablation procedure in arrhythmia and ICD implants in the South Asian Region. Prof. Talwar has performed more than 1000 endomyocardial biopsy procedures in patients with various tropical heart muscle viz dilated cardiomyopathy, restricted heart diseases, rheumatic heart disease and Takayasu arteritis to assess its diagnostic utility. He is involved with evaluation of newer therapeutic modalities in heart failure including use of biventricular pacemakers and assistance devices. Prof. Talwar is in charge of the Medical Section of the Cardiac transplant program with the largest experience in the country.

Prof. Talwar is the recipient of the prestigious Dr. B.C. Roy Award, Ranbaxy Award, and Amrit Mody Unichem ICMR Award, Dr. K.L. Wig Oration. He is a Member of Scientific Council on Cardiomyopathy of World Heart Federation and Secretary General of International Society of Heart Research (Indian Section).

Prof. S.K.Gupta, Secretary General



Prof. S.K. Gupta is presently Head of the Department of Pharmacology at the All India Institute of Medical Sciences (AIIMS), the premier institution of the country. He is President of the Indian Pharmacological Society (Delhi Branch) and President of the Indian Ocular Pharmacological Society. He has been on the faculty of the AIIMS for more than 30 years. Dr. Gupta received his initial training at the University of Strathclyde (UK) with Prof. Bill Bowmen and Jim Parrot during Commonwealth Fellowship. He is a member of several national and international Societies from UK, USA and Canada. For his outstanding contributions he has been decorated with several national and international awards. Prof. Gupta is directing the WHO Pharmacovigilance Centre and National Poisons Information Centre at AIIMS, New Delhi. He is a member of the several drug consultative committees of the Ministry of Health and Welfare. Prof. Gupta has organized several prestigious national and international conferences and workshops. He has been a Visiting Professor at various universities in USA, UK, Canada and Japan. Prof. Gupta has published more than 250 research papers in national and international journals and his work has been cited journals and books of international repute. He has also edited several books which have been published by prestigious publishing houses. Prof. Gupta has guided more than 150 graduate and postgraduate students. His research interest includes Cardiovascular Pharmacology – Role of herbal drugs in cardiac protection, diabetics, hypertension, oxidative stress and Pharmacovigilance in cardiac therapy, etc.

Prof. S.K. Gupta is presently Head of the Department of Pharmacology at the All India Institute of Medical Sciences (AIIMS), the premier institution of the country. He is President of the Indian Pharmacological Society (Delhi Branch) and President of the Indian Ocular Pharmacological Society. He has been on the faculty of the AIIMS for more than 30 years. Dr. Gupta received his initial training at the University of Strathclyde (UK) with Prof. Bill Bowmen and Jim Parrot during Commonwealth Fellowship. He is a member of several national and international Societies from UK, USA and Canada. For his outstanding contributions he has been decorated with several national and international awards. Prof. Gupta is directing the WHO Pharmacovigilance Centre and National Poisons Information Centre at AIIMS, New Delhi. He is a member of the several drug consultative committees of the Ministry of Health and Welfare. Prof. Gupta has organized several prestigious national and international conferences and workshops. He has been a Visiting Professor at various universities in USA, UK, Canada and Japan. Prof. Gupta has published more than 250 research papers in national and international journals and his work has been cited journals and books of international repute. He has also edited several books which have been published by prestigious publishing houses. Prof. Gupta has guided more than 150 graduate and postgraduate students. His research interest includes Cardiovascular Pharmacology – Role of herbal drugs in cardiac protection, diabetics, hypertension, oxidative stress and Pharmacovigilance in cardiac therapy, etc.

Dr. R.K.Goyal, Treasurer



Dr. Ramesh K. Goyal is Professor of Pharmacology at the Post-graduate Centre of L. M. College of Pharmacy, Ahmedabad, India. He has

over 24 years of experience in teaching and research. He has been actively working in the field of cardiovascular changes associated with diabetes mellitus for the past 17 years. Dr. Goyal has published 9 books, 123 full research papers and 170 abstracts in various journals of repute. He has guided over 100 postgraduate and doctoral students in pharmacology. Dr. Goyal was a Post-Doctoral Fellow (1984-85) and a Visiting Scientist (1995) with Prof. J. H. McNeill at the Faculty of Pharmaceutical Sciences, The University of British Columbia, Vancouver. He was also a Visiting Professor (1999 and 2001) with Prof. N. S. Dhalla at the Institute of Cardiovascular Sciences, The University of Manitoba, Winnipeg, Canada. He has delivered several lectures in India and also in various countries, including UK, USA and Australia.

Dr. Goyal is the Fellow of the Institution of Chemists, National Academy of Medical Sciences, Indian Pharmacological Society, and International College of Nutrition. He has been a member of the International Society of Heart Research (India Section) for the last 12 years. He is a Life Member, a Member on an Editorial Board and Organizing Secretary of several professional bodies. He is currently the Secretary General of the Indian Pharmacological Society. Dr. Goyal has received 39 awards from various professional bodies of India for his research papers and presentations.

The International Academy of Cardiovascular Sciences – India Section will be a sponsor of the annual conference of ISHR Indian Section to be held in Chandigarh on Feb. 7-9, 2003. Dr. Anil Grover, Professor of Cardiovascular Medicine, PGI, Chandigarh will be organizing secretary. His email is: anilgrover444@hotmail.com



Academy Establishes Endowed Awards

by Ivan Berkowitz · Director of Development · International Academy of Cardiovascular Sciences



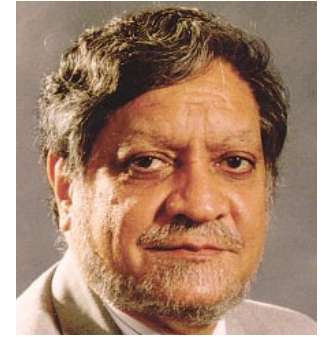
1. Makoto Nagano Award for distinguished achievements in cardiovascular education.



2. Howard Morgan Award for distinguished achievements in cardiovascular research.



3. Norman Alpert Award for established investigators in cardiovascular sciences.



4. Naranjan Dhalla Award for young investigators in cardiovascular sciences.

As an integral element of its mandate to recognize major cardiovascular achievements, the International Academy of Cardiovascular Sciences is pleased to announce that the four endowed Awards, shown above, have been established to be given, effective 2002, to outstanding professionals in the world of heart health. *The Awards will be presented annually at different meetings sponsored by the Academy around the world.* ♥

continued from page 15

PEOPLE AND PLACES

lished an efficient means for the continued investigation of genes yet to be discovered or characterized in complex heart disease.

During his research career, Dr. Liew has published nearly 300 peer-reviewed articles, monographs and abstracts. He has been invited to present his research at numerous national and international conferences including, in 2001, at the Gordon Conference on Angiotensin, Ventura, CA; AHA Scientific Sessions, Anaheim, CA; Biofutures 2001, Toronto, Ontario; Sao Paulo State Cardiology Meeting, Sao Paulo, Brazil; 4th Congress of Cardiovascular Biology, Spain; ACC Heart Failure Summit, Toronto, Ontario; and the XVII ISHR World Heart Congress, Winnipeg, Manitoba. In 2002, he was invited as Distinguished Lecturer by the Ottawa Heart Institute, Ottawa, Canada; to speak at the International Academy of Cardiovascular Sciences sponsored Advances in Cardiovascular Research International Symposium and was the prin-

cipal facilitator of the Workshop, St. Augustine, Trinidad; and to speak at the 9th International World Congress of Pharmacology, San Francisco.

Past-President of the Society of Chinese Bioscientists in America, co-coordinator of the 3x3 Canada-China Biotechnology Working Group and Director of the China-Hong Kong-Toronto Biotechnology Workstation, Dr. Liew has devoted much of his career to the promotion of internationalization in science. He has received some twenty honorary professorships, including professorships from Peking Union Medical College, The Chinese Academy of Medical Sciences, Peking University, Beijing, and the Chinese University of Hong Kong. Dr. Liew was elected Fellow of the Academy of Clinical Biochemistry in 1992 and received the Canadian Society of Clinical Chemists Research Excellence Award in 1998. While presenting the Makoto Nagano Award, Dr. Norman Alpert, vice-president of the Academy, said that C. C. Liew is most worthy of the recognition. ♥

Please visit us when the Academy will exhibit at:

11th Int'l Congress on
Cardiovascular Pharmacotherapy
in Montreal, Quebec, Canada
May 18-21

Web Site: www.iscp2002.com

A Symposium organized by Institute
for Heart Research, Slovak Academy
of Sciences in collaboration with:
International Academy of
Cardiovascular Sciences: "THE FAILING
HEART - from Molecular Mechanisms
to Clinical Applications Stara Lesna,
the High Tatras Slovak Republic
June 30 - July 2, 2002

Web Site:
www.nic.savba.sk/sav/inst/usrd/usrdconfer

22ND Annual Meeting of the ISHR
European Section will be held in
Szeged, Hungary, July 3-6, 2002.
Scientific Secretariat: Prof. Dr. Agnes
Vegh, University of Szeged, Faculty
of Medicine, Dept. of Pharmacology
and Pharmacotherapy,
Domter 12. H-6720 Szeged,
Hungary

Web Site:
www.cardiovasc.com/ishr2002

75th Scientific Sessions of the
American Heart Association in
Chicago, USA
November 17-20

Web Site:
www.americanheart.org

SCHEDULE OF INTERNATIONAL CONFERENCES

2002

May 05-09, Sydney, Australia: Interventional Cardiology Congress, Echocardiography Symposium, Nuclear Cardiology Symposium –satellite meetings of the XIV World Congress of Cardiology, wcc@icms.com.au, <http://www.wcc2002.com.au>

May 05-09, Sydney, Australia: XIV World Congress of Cardiology (ICMS Pty Ltd., QVB Post Office Locked Bag Q4002, Sydney, NSW Australia 1230, fax: +61-29290 2444, wcc@icms.com.au, <http://www.wcc2002.com.au>)

May 16-19, Puebla City, Mexico: First Congress Interamerican Society of Heart Failure (ISHF, Tepic 113-710, Mexico City, 06700, fax: +52 52 64 49 56)

May 18-21, Montreal, Canada: 11th International Congress on Cardiovascular Pharmacotherapy (ISCP 2002 Congress Secretariat, fax 514 874 1580, info@iscp2002.com, www.iscp2002.com)

June 08-11, Oslo, Norway: Heart Failure Update 2002 (ESC, congress@escardio.org; www.escardio.org)

June 08-12, Miami, FL, USA: 17th International Interdisciplinary Conference on Hypertension and Related Risk Factors in Ethnic Minority Patients (ISHIB, 2045 Manchester Street, NE, Atlanta, GA 30324-4110, Fax : +1 404 875 6334)

June 09-13, Boston, MA, USA: Joint Annual Meeting of the International Society for Cardiovascular Surgery and the Society for Vascular Surgery (SVS/ISCVS, 13 Elm Street, Manchester, MA 01944, fax : +1-978 526 7521, jvs@prri.com)

June 12-15, Florence, Italy: 6th International Symposium on Global Risk of Coronary Heart Disease and Stroke: Assessment, Prevention and Treatment (Fondazione Giovanni Lorenzini, Via A Appiani 7; 20121 Milan, Italy, fax: +39 02 2900 7018); www.lorenzinifoundation.org

June 19-22, Nice, France: Cardiostim 2002, A World Congress on Cardiac Electrophysiology (Dr. J Mugica, Cardiostim, 12, rue Pasteur, 92210 Saint-Cloud, fax : +33 1 46 02 05 09, email: cardiostim@wanadoo.fr, www.cardiostim.fr)

June 21-24, Mar del Plata, Argentina: XXI Congreso Nacional de Cardiología, (Federación Argentina de Cardiología, Secretariat: Bulnes 1004, 1176 Buenos Aires, fax : +54-11 4866 5910, email: 2002fac@pcvc.sminter.com.ar)

June 23-27, Prague, Czech Rep.: 19th Scientific Meeting of the International Society of Hypertension (Guarant Ltd., Opletalova 22, 110 00 Prague, fax: +420-2 8400 1448, hypertension2002@guarant.cz, www.hypertension2002.cz)

June 27-29, Zurich/Feusisberg, Switzerland: The Practice of Evidence-Based Cardiology (Thomas Lüscher, Prof. and Head of Cardiology, University Hospital Zurich, CH-8091 Zurich, fax: +41 1 255 42 51, ama@dplanet.ch)

June 30 - July 2, Stara Lesna, the High Tatras, Slovak Republic: A Symposium organized by Institute for Heart Research, Slovak Academy of Sciences in collaboration with: International Academy of Cardiovascular Sciences - "THE FAILING HEART - from Molecular Mechanisms to Clinical Application" (WEB SITE: nic.savba.sk/sav/inst/usrd/usrdconfer)

July 03-06, Szeged, Hungary: Annual Meeting of the Int. Society for Heart Research – European Section (fax: +36 62 544 565; vegh@phcol.szote.u-szeged.hu)

July 07-10, Salzburg, Austria: 73rd Congress of the European Atherosclerosis Society (PO box 50006, Tel Aviv 61500, Israel, Fax +972 3 517 5674 or +972 3517 2484, 73eas@kenes.com, www.kenes.com/73eas)

July 17-21, Kuala Lumpur, Malaysia: 14th Asean Congress of Cardiology (Dr. David K Quek, Chairman, Organizing Committee, fax: +60 3 757 8363)

July 19-20, Sapporo, Japan: The 2nd Meeting of the Japan Section of the International Academy of Cardiovascular Sciences (25th Annual Meeting of the Japanese Working Group on Cardiac Structure and Metabolism); Chairman: Hideaki Kawaguchi MD (E-mail: hideaki@med.hokudai.ac.jp)

July 24-27, Madison, Wisconsin, USA: 24th Annual Meeting, ISHR, North American Section Translational Approaches to Cardiovascular Disease (Richard L. Moss, Ph.D., Director, UW Cardiovascular Research Center, Professor and Chair, Department of Physiology, Telephone: 608-262-1939, Fax: 608-265-5072, email: rlmoss@physiology.wisc.edu)

Aug 31-Sep 04, Berlin, Germany: XXIV Congress of the European Society of Cardiology (ESC, webmaster@escardio.org)

Sept 03-07, Monte Carlo, Monaco: 12th World Congress of the International Society of Cardio-Thoracic Surgeons (Centre Cardio-Thoracique de Monaco, fax : +377 92 16 8299)

Sept 29-Oct 3, New Delhi, India: 2nd World Assembly on Tobacco Counters Health (Maj. Gen. A K Varma, fax: +91 11 694 4472 or 694 9573, cancerak@ndf.vsnl.net.in, www.watch-2000.org)

Oct 23-26, Caracas, Venezuela: Fourth Latin American Congress on Hypertension (Rafael Hernandez-Hernandez, MD, rhernan@cantv.net)

Oct 30 to Nov 1, Yamagata City, Japan: 2002 ISHR Japanese section meeting In addition there will be a Satellite Symposium on "Modern Therapy of "Congestive Heart Failure" on November 2, 2002 at the same place. Inquiries: Masao Endoh at men-dou@med.id.yamagata-u.ac.jp · Web site at: <http://square.umin.ac.jp/ishr/>

Nov 17-20, Chicago, IL, USA: 75th Scientific Sessions of the American Heart Association (AHA, www.americanheart.org)

Nov 23-25, Limassol, Cyprus: "Cardiology Today" (info@escardio.com)

Dec 01-03, Buenos Aires, Argentina, ICSE 2002 (Joint Meeting of the International Society for Noninvasive Electrocadiology, Favoloro Foundation and Interamerican Society of Cardiology), (Congresos Internacionales, fax 54 11 4331-0233, email: icse-2002@congresosint.com.ar www.congresosint.com.ar/isce2002)

2003

Feb 7-9, Chandigarh, India: 2003 Annual Conference of ISHR - Indian Section, Enquiries: Contact address: Dr. Anil Grover, Head, Dept. of Cardiology, PGLMER, Chandigarh, India, Telephone : 91 172 747585 ext 244 Fax 91 172-264484, Email : anilgrover444@hotmail.com

Feb 10-14, Davos, Switzerland, Cardiology Update 2003 (Thomas Lüscher, Prof. and Head of Cardiology, University Hospital Zurich, CH-8091 Zurich, fax: +41 1 255 42 51, ama@dplanet.ch)

Mar 19-22, Florence, Italy: Second International Symposium on PPARs: From Basic Science to Clinical Applications (Fondazione Giovanni Lorenzini, Via A Appiani 7; 20121 Milan, Italy, fax: +39 02 2900 7018); www.lorenzinifoundation.org

May 25-29, Barcelona, Spain: 12th International Congress on Cardiovascular Pharmacotherapy (Jose Milan, Grupo Pacifico, Marià Cubí 4, 08006 Barcelona, fax: +34 932 387 488, gp@pacifico-meetings.com)

June 21-24, Strasbourg, France: Heart Failure 2003 (ESC, fax: +33 4 9294 7601, congress@escardio.org)

June 26-30, June, Singapore: 14th Asian-Pacific Congress of Cardiology (Singapore Cardiac Society, Level 3, Mount Elizabeth Hospital, Singapore 228510, fax +65 735 3308, scosoc@singaporecardiac.org)

Aug. 30-Sept 3, Vienna, Austria: XXV Congress of the European Society of Cardiology (ESC, webmaster@escardio.org)

Sept 29-Oct 2, Boston, Massachusetts, USA: Update in Clinical Cardiology, Harvard MED-CME (PO Box 825, Boston, USA, fax:+1 617 432 1562, hms-cme@hms.harvard.edu)

Aug 1-3, Buenos Aires, Argentina : VII World Congress of Echocardiography and Vascular Ultrasound (International Society of Cardiovascular Ultrasound, PO Box 323, Gardendale, AL 35071, tel : +1 205-934-6747, iscu@iscu.org, www.iscu.org)

Oct 11-15, Belo Horizonte, Brazil: 1st World Congress - International Academy of Cardiovascular Sciences "On The Way To New Cardiovascular Horizons" (Any questions - E-mail: spasso@spassoeventos.com.br)

Nov 02-07, Orlando, FL, USA: 76 th Scientific Session of the American Heart Association (AHA, www.americanheart.org)

MISSION STATEMENT AND OBJECTIVES

Our Mission

To promote cardiovascular education of professionals and lay people and to recognize major cardiovascular achievement throughout the world.

The Academy

The International Academy of Cardiovascular Sciences was founded in 1996 and is headquartered in Winnipeg, Manitoba, Canada. Established by renowned Cardiovascular Scientists, Surgeons and Cardiologists, the Academy provides the organizational structure for the world-wide sharing of research and education information in the field of heart health.

Although great strides have been made in improving the death rate from heart disease, heart attacks and related problems are still the number one killer. The Academy believes that a fundamental problem is the lack of transmission of knowledge to the public. Research has found answers but the facts are too slow in moving beyond the labs.

The Academy, through world-wide representation, builds connectivity and encourages networking through traditional means of journals, texts and symposia, as well as consensus panels made up of advisory board members and other experts. The Academy continually pursues new information technologies which will result in more rapid and wider availability of the latest discoveries to help save lives.

Membership

This Academy will consist of Members, Fellows, Corporate Members, Patrons and Supporters.

a) Members: Cardiovascular Academics, Scientists, Cardiologists, Surgeons and Health Professionals who are interested in furthering the objectives of the Academy can apply for membership of the Academy.

b) Fellows: A Member with outstanding achievements in cardiovascular research and education who will be elected by membership with 80% majority.

The number of Fellows will not exceed 250 at any given time.

c) Corporate Members: Any corporation or organization which shares the mission of the Academy and willing to support its activities will be invited to become Corporate Members.

d) Patrons and Supporters: Any individual who shares the mission of the Academy and is willing to support its activities will be invited to become part of the Academy in an appropriate category.

Objectives

1. To promote the scientific basis for the practice of cardiology and cardiovascular surgery by:

a) organizing Cardiovascular Teach-ins all over the world for continued education of practicing physicians, surgeons and experimental cardiologists

b) establishing cardiovascular forums in all major cities of the world for organizing and increasing the interaction of clinical cardiologists as well as surgeons with basic scientists

c) setting up national offices of the Academy for coordinating its activities in different countries

d) cooperating with various national agencies in different countries concerned with the education of medical students, graduate students and postdoctoral fellows

e) collaborating with various national and international organizations dedicated to both clinical and experimental research in the area of cardiovascular sciences

2. To foster the exchange of information among cardiovascular scientists by:

a) establishing national and international networks of various centres and institutions for optimal utilization of resources

b) promoting exchange programs among different countries through respective governmental agencies

c) holding scientific symposia on focussed topics of current interest

d) developing news bulletins highlighting different programs of cardiovascular centres and institutes all over the world

e) adopting cardiovascular journals, publishing books and symposia proceedings and a quarterly Official Bulletin **CV NETWORK** as well as developing an interactive Web Site - www.heartacademy.org - for promoting cardiovascular education

3. To increase public awareness with respect to cardiovascular health and disease by:

a) making the general public aware of the cardiovascular risk factors by holding public seminars and lectures

b) expressing views on cardiovascular issues through national and international media

c) cooperating with national government, public and private agencies concerned with improving cardiovascular health and preventing cardiovascular disease

4. To recognize the achievements of cardiovascular investigators by:

a) identifying established investigators of high reputation for awarding Fellowships of the Academy (not more than 250 at any given time)

b) awarding major prizes to distinguished scientists

c) selecting young talents for awards and travel grants

5. To raise funds from individuals and corporate sources for various programs of the Academy by:

a) naming symposia/workshops/seminars in cardiovascular sciences

b) establishing corporate members of the Academy

c) identifying patrons and supporters of the Academy