



# CV network

THE OFFICIAL BULLETIN OF THE INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES

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## Academy Takes Shape in Europe!



Dr. Keld Kjeldsen

**D**r. Naranjan S. Dhalla, Executive Director of the International Academy of Cardiovascular Sciences, is pleased to announce the formal expansion to Europe. Nominated by the Academy, Dr. Keld Kjeldsen, Copenhagen, Denmark, has accepted appointment as Executive Secretary for the International Academy of Cardiovascular Sciences Europe. Thomas Andersen Schmidt, also from Copenhagen, has agreed to serve as Deputy Executive Secretary.

Keld Kjeldsen was born in Denmark in 1952 and obtained his M.D. from the University of Aarhus in 1979. He was awarded the Gold Medal of the University of Aarhus in 1983, Young Investigator's Award at the World Congress of Cardiology in 1986 and became D.Sc. (Medicine) at the University of Aarhus 1986. He is a board-certified specialist in cardiology and internal medicine and the author of more than 150 internation-

al publications with a total of more than 2,250 citations. He participates on a regular basis as speaker and chairman at international meetings and conferences as well as referee for various international journals. In 1994, Dr. Kjeldsen co-organized a major Scientific Conference which attracted more than 1000 cardiovascular scientists from all over the world to visit Copenhagen. His main scientific interests are clinical aspects of Na,K-ATPase regulation in heart and muscle with a particular focus on the extrarenal potassium homeostasis, and clinical genetic cardiology. He is well established as a teacher on practical research strategy, clinical cardiology and cardiovascular pharmacology and is an exceptional scientific advisor for doctoral and Ph.D. projects. He has been organizer and teacher at international courses in various fields of cardiology at the European Heart House in Nice, France. He is also a Fellow of the Academy.

Thomas Andersen Schmidt was born in U.S.A. 1958 and earned his M.D. from the University of Copenhagen in 1985. He won the Young Investigator's Award at the IV International Symposium on Cardiovascular Pharmacology, Geneva, Switzerland, 1991 and became D.Sc. (Medicine) at the University of Copenhagen 1997. He is the author of a number of international publications, has given oral and poster presentations at various international meetings and been invited speaker at symposia and conferences. His main scientific field of interest is regulatory aspects of human myocardial and skeletal muscle digoxin receptors. He is a board certified specialist in thoracic surgery. His teaching expertise includes surgery and organizing numerous post-graduate courses for physicians. Together with Keld Kjeldsen, he has taught a large number of young physicians about practical research strategy, and was the

*continued on page 26*

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**Dr. Thomas Schmidt**

author of a book entitled: "Success in Medical Research – A Practical Approach."

Dr. Kjeldsen has stated: "The Mission of the International Academy of Cardiovascular Sciences Europe will focus on research and clinical skills. We wish to promote heart health education in Europe at large. In particular, emphasis will be given to Eastern Europe where the demand for high-level education is the greatest. Through this European initiative, cardiovascular academics, scientists, cardiologists, surgeons, health professionals and students will gain

access to the world-wide network of the International Academy of Cardiovascular Sciences."

Part of the International Academy of Cardiovascular Sciences Europe activities include a symposium: "Genes and the Heart", August 26-29, in Brno, Czech Republic, organized by Dr. Pavel Braveny. Dr. Elizabeth Roth is organizing a symposium: "Myocardial Cytoprotection" September 25-27, in Pecs, Hungary.

Next year the Academy will host educational and scientific activities all over the world, including Europe. The Academy is a sponsor of the German Physiological Society 83rd Meeting in Leipzig, Germany, March 14 – 17, 2004, to be chaired by Heinz-Gerd Zimmer. This is the first time that the Carl-Ludwig-Institute of Physiology will organize a Meeting of the German Physiological Society. It will be the 100th anniversary of this Society, since it was founded in 1904. The opening ceremony will be at the "Gewandhaus" of Leipzig, which is a famous concert hall dating back to the 18th century. According to the number of expected participants (600 to 800) the ceremony will be in the "Mendelssohn-Saal". The main part of the Meeting will be held in the lecture hall building of the University of Leipzig which is located in the downtown area. It will last for full three days (March 15 through March 17,

2004). All major topics of physiology will be covered according to the abstracts submitted. There will be two plenary lectures every day. A poster exhibition on "Classical Physiology in Leipzig" will be displayed throughout the Meeting. The "birthday party" will take place on the evening of March 16, 2004 in the "Moritzbastei" which is the only existing part of the old city wall. This basic information will be updated at: <http://www.physiologische-gesellschaft.de>

A formal agreement has been reached with the Slovak Academy of Sciences (see following article).

Through collaboration with the Danish Cardiovascular Research Academy (DaCRA), it may become possible for foreign young scientists to join educational courses within a broad spectrum of cardiovascular research (in English) in Denmark. Moreover, it is the goal of the Danish team to host, in a few years time, a major scientific meeting in Copenhagen, Denmark. At present they will seek collaboration throughout Europe with people, foundations, companies etc. dedicated to education and science within the field of heart health. Hopefully you will all join them in this endeavour.

You may contact the International Academy of Cardiovascular Sciences Europe using E-mail: [Kjeldsen@rh.dk](mailto:Kjeldsen@rh.dk) 

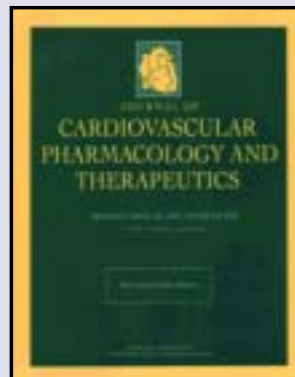
## Official Journals of the International Academy of Cardiovascular Sciences



### 1) EXPERIMENTAL & CLINICAL CARDIOLOGY

(Editor: Dr. B. Ostadal)

- An international, peer review journal covering all aspects of cardiology from basic science to clinical trials and reviews.
- An internationally renowned editorial board comprising leading experimental and clinical cardiologists from Europe, North America and around the world provides direction to the journal.



### 2) JOURNAL of CARDIOVASCULAR PHARMACOLOGY & THERAPEUTICS

(Editor: Dr. B. Singh)

- Published four times a year, this focuses on critical evaluation and discussion of pharmacologic and therapeutic advances in the treatment of cardiovascular disease.

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Prof. Claudio M. Caldarera

## A Bold Initiative for Research in Italy

by Claudio M. Caldarera, University of Bologna, Bologna, Italy

The Inter-University Consortium for Cardiovascular Research (ICCR) came into being on 18th October 1996 after the Delegates of the Chancellors of eleven Italian Universities had signed the notarial deed enacting its formal establishment and approved its by-laws. The need for such a Consortium emerged from a debate among researchers involved in the advancement of studies in the field of the cardiovascular system in several Italian Universities. Many meetings had pointed to the need for an institutional frame to coordinate scientific work in cardiovascular sciences, in order to promote "basic" and "clinical" research on a topic dealing with a major public health problem: the prevention and treatment of diseases representing the leading cause of death in western society. The need for an interdisciplinary approach was the main factor

behind the initiative, which entails commitment, considerable effort and much enthusiasm, to make the most of research in a field in which masters like Mondino de Liuzzi, Spallanzani, Malpighi, Morgagni, were very famous.

This Consortium is born at a time of widespread commitment to cardiovascular research: we are living at the dawn of a "Copernican" revolution in biology and medicine which will yield unforeseeable results in the molecular pathophysiology of the cardiovascular apparatus and will disclose the most appropriate therapeutic strategies for the serious illnesses of these organs. Biotechnologies and genetic approaches, responsible for outstanding results in the biology and medicine of the heart and its vessels, promise remarkable benefits to public health with "gene thera-

py" at the forefront of clinical treatment in the next century. Here are described the scientific activities of the Consortium, as they are developed by highly specialized fifty-seven Units researching into cardiovascular function, at present distributed among thirteen Universities.

### *Main research topics*

The main role of the Interuniversity Consortium for Cardiovascular Research (ICCR) is to coordinate the projects undertaken by each single research unit belonging to the consortium in order to use resources and equipment to the full and to circulate the research findings. On one hand, this coordination requires considerable organization; on the other, it taps the vast scientific and technical experience of the research groups belonging to the Consortium, which have pooled their knowledge to embrace all the major topics essential to basic as well as clinical research.

It is difficult to summarize the specific tasks of each research unit and the problems tackled by the Consortium's working groups. There is a risk of oversimplifying the complexity of the scientific and technological approach required in an attempt to answer questions, which have major implications for the quality of life. It is nevertheless possible to pinpoint some key-areas of research shared by the scientists and physicians who belong to the ICCR. The metabolic aspects of cardiovascular pathophysiology, for example, represent an important topic, given the implications of the impairment of the biochemical processes regulating the metabolism of cholesterol, triglycerides and lipoproteins in the pathogenesis of atherosclerosis. The understanding of key events which occur in the development of the cellular changes underlying atherosclerotic disease will eventually help devise pharmacological strategies against the formation and



progress of atherosclerotic lesions. This topic is closely linked to the study of interactions between blood flow, the endothelium and the wall of the cardiovascular tree. Blood circulation and flow dynamics are much more than a simple series of vessels passively subjected to the action of external factors. Recent research in this direction has led to the development of effective means to control hypertension and the severe consequences it has on the peripheral vascular beds as well as the efficiency of the heart's contractile activity. In particular, cardiac contraction is a central topic among the studies fostered by the ICCR.

It is now clear that the balance between cell proliferation and cell death - in both blood vessels, cardiomyocytes and non-myocytic cardiac cells- is crucial to the remodeling processes triggered by the myocardium under conditions of ischemia (angina, infarction) and to the dynamic overload which heralds hypertrophy. The mechanisms underlying arrhythmias and the treatment of heart rate disorders will be clarified by electrophysiological studies and the physiopharmacological modulation of the excitatory-contractile properties of cardiomyocytes. New strategies protecting the myocardium in schema and reperfusion have been devised by focusing on mitochondrial metabolism, vascular reactivity and the possibilities of preconditioning to enhance the endogenous mechanisms of cell resistance. The study of the pathogenesis, diagnosis and treatment of cardiomyopathies now hinges on the new scientific and technological approaches to acute and chronic ischemic disease and idiopathic dilative pathologies. In this field more than in any other, enormous advances made possible by molecular biology, occur daily and the clinical applications of the striking results of experimental gene therapy have generated great expectations. The opening of new frontiers of research is flanked by a consolidation and reassessment of well-established strategies in the light of new knowledge. The surgical treatment of cardiovascular

disease has always been a point of reference and continues to evolve with the advent of vascular implantology and new perspectives in the field of transplantation and alternative strategies like cardiomyoplasty and cardioplasty. The study of molecular genetics of cardiovascular disease, because it represents the frontier of gene therapy, is one of the big challenges of the next decade.

Finally, the recent successes of cellular biology have induced some researchers to suggest a special strategy of recovery for the damaged cardiovascular tissues through stem cell transplantation. As a matter of fact, new studies have been published on the regeneration of human cardiac tissue that has been damaged by acute ischemia or infarction, through the activation of multipotent stem cells. These researches open new therapeutic perspectives which are related to the reduction of the ischemic damage and to the formation of new cardiac and vascular cells substituting the necrotic tissue.

### ***Planned target projects:***

Study of stem cell differentiation into cardiac lineages.

The most important aspect in the functional recovery of the cardiac tissue after an infarction is the degree of sparing of living cells in the ischemic area, in particular during the coronary reperfusion phase. In recent years, several cerebral and hemopoietic pathologies have been approached in the attempt to recovery damaged tissues and cells, through the activation of circulating or resident stem cells. The same strategy has been recently proposed in the cardiovascular field. Studies on the regeneration of rat and human cardiac tissue that was damaged by acute ischemia have been recently performed. Several kinds of pluripotent cells have been utilized, among them mesenchymal stem cells (MSCs) seem to differentiate into cardiomyocyte under both in vitro and in vivo experimental conditions.

MSCs will be obtained from human or rodent bone marrow and then cultured in order to separate adherent cells from hematopoietic precursors. MSCs will be definitively selected by sorting a cell population positive to CD90 (Thy-1) and CD59 (SCA-1 homologue) and negative to CD34 and CD45 (both markers of the hematopoietic lineage). MSCs will grow in the presence of factors increasing cell replication rate. The intracellular signaling transduction pathways regulating their specific phenotypic expression will be evaluated, with particular regard to the role of cyclic nucleotide-dependent protein kinases and mitogen-activated protein kinases (MAPKs). These studies will be paralleled by the investigation of the in vitro processes of stem cell senescence and apoptosis. The study of the molecular mechanisms favouring MSCs differentiation into cardiomyoblasts will be carried out by exposing MSCs to hypoxic conditions (5% O<sup>2</sup>), or to growth factors which more likely can modulate cardiomyocyte differentiation (i.e. cardiotrophin-1, insulin-like growth factor-1, bone morphogenetic proteins), also in the presence of aspecific differentiating substances. The stages of differentiation will be followed by measuring the transcript levels of genes naturally expressed during the embryonic and fetal development of the heart (GATA-4, NKx2.5/ Csx, MEF-2, Atrial Natriuretic Peptide). Other markers will be related to specific myocardial proteins (derainocyte precursors to the necrotic cardiac tissue. At first, a film of stem cells with known density and thickness will be prepared in the laboratory. Then, a surgical procedure will be performed in order to transfer the film of stem cells over the necrotic area of the infarcted animals. This technique should assure an elevated standardization and distribution of the transplanted cells in the scared tissue.

The temporal evolution of the recovery of the action potential propagation in the regenerated cardiac tissue will be monitored in rats subjected to myocardial infarction. An electrophysiological charac-

terization of the tissue during the phases of stem cell proliferation and differentiation will be further carried out. This electrophysiological study will be focused on the analysis of passive electric properties in the regenerated tissue depending on the cardiac interstitial network. Another study will be addressed to the active electric properties of stem cell-derived cardiomyocytes and to their transmembrane ionic currents and action potential.

Allelic polymorphism and phenotypic expression of proinflammatory molecules for identifying groups at risk of cardiovascular diseases

Recent data from the literature show that some molecules that are involved in the regulation of the inflammatory processes, such as C-reactive protein (C-PR) and interleukine 6 (IL-6), are increased in the plasma of patients with myocardial infarction or unstable angina. Moreover, the plasma levels of these two molecules may be considered as risk factors for cardiac infarction and stroke since they rise before clinic manifestations and remain higher with respect to the values shown by healthy patients. Other pathologies, such as Alzheimer's disease, show an elevated variability in the promoter region of genes localized on two homologue chromosomes (alleles) which express interleukine-1-beta (IL-1). This research aims at studying the allelic polymorphism of C-PR and IL-6 genes in association with the plasma levels of the corresponding proteins. The nucleotide sequences of the gene expressing apolipoprotein E (APOE), which is a risk factor for cardiovascular diseases, will be also determined. At first, a wide number of patients will be studied in relation to their previous clinic manifestations of cardiac infarction or stroke. These patients will be compared to healthy subjects and selected by age and sex. In these subjects, the study of the

allelic polymorphism will be carried out by analyzing genes for C-PR and IL-6 extracted from circulating leucocytes. This study will attempt to verify whether some polymorphisms of C-PR and/or IL-6 are related to the risk of clinic cardiovascular manifestations and their interrelationship with the genotype APOE. As a consequence of the eventual relationship between C-PR and IL-6 genotypes, and cardiac infarction and stroke, another study will be performed on a wide population aged from 40 to 60 years. C-PR and IL-6 polymorphisms will be evaluated and the plasma levels of the expressed proteins will be periodically measured. The aim is to verify whether through the study of these genotypes and phenotypes it will be possible to find groups with elevated risk to develop cardiovascular diseases. The correlation between C-PR, IL-6 and classic parameters of lipid metabolism will be also evaluated. The results of this research should favour the individuation of groups with elevated risk of cardiovascular pathologies in a population without significant clinic signs. It will be also possible to follow these subjects with new therapeutic trials by using anti-inflammatory drugs for the acute clinic manifestations and for the secondary prevention. Moreover, markers for genotypes will be employed in order to develop strategies of prevention against cardiovascular diseases on a high-risk population.

### ***Concluding remarks:***

Coordination among the different research groups, each of them is necessarily highly specialized, is like fitting together all the pieces of a mosaic into a unified whole. This mosaic results in a research program that is more readily managed and whose results will enhance our quality of life. The Interuniversity Consortium for Cardiovascular Research has already spon-

sored important scientific meetings; our hope is that its future coordinating work will continue to offer a meeting-point for its members to share their findings and exchange views for the benefit of the community at large.

The experience acquired during these seven years has been very positive for both the scientific collaboration and the possibility to receive financial support. In fact, the Committee of Delegates during these years has received grants from the Italian Ministry of University, Foundations and Banks, and distributed about eighty fellowships and research contracts.

Finally, to involve foreign Scientific Units is one of the major directions provided under the Statute of our Consortium. ❤️

### ***The Administration of the Academy welcomes new members of the Editorial Board of "CV network"***

- ❤️ **Dr. Lois DeBakey,**  
Baylor College of  
Medicine, Houston, Texas
- ❤️ **Dr. Tom Kottke,**  
Mayo Clinic, Rochester,  
Minnesota
- ❤️ **Dr. Damaris Osunkwo,**  
National Hospital, Abuja,  
Nigeria.

***Gratitude is extended to those who have served well and now have retired to allow others to make their contributions.***

***The International Academy of Cardiovascular Sciences extends sincere gratitude for a commitment of support from:***



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*Dr. Jan Slezak (L), Dr. Pawan Singal (C), and Dr. Naranjan Dhalla (R)*

# Academy Establishes Link with Slovak Academy

by Ivan Berkowitz, Winnipeg, Canada

During his recent tenure as a Visiting Professor in Winnipeg, Dr. Jan Slezak, First Vice President, Slovak Academy of Sciences, Bratislava, Slovak Republic confirmed an understanding between the Slovak Academy of Sciences and the International Academy of Cardiovascular Sciences. Recognizing the importance of international co-operation and desiring to strengthen and promote effective scientific relations between the

Slovak Academy of Sciences and the International Academy of Cardiovascular Sciences, a Formal Agreement was signed to agree on developing and promoting mutually beneficial co-operation between the Academy scientists and research institutions for finding solutions to scientific problems of common interest.

Scientific co-operation between both sides may be achieved in the following manner:

- reciprocal exchange of individual scientists for the purpose of carrying out joint research work and initiating joint research projects to be carried out by scientists and scholars of both organizations;
- exchange of information about ongoing research activities, and exchange of scientific publications;
- participation in joint seminars, congresses, international conferences and workshops
- teaching and training activities.

Both partners shall encourage joint research projects on subjects of mutual interest among institutions in their respective countries. If appropriate, both organizations shall act as intermediaries with the purpose of concluding inter-institutional agreements. Such agreements will be negotiated and signed by representatives of the institutions concerned, agreeing mutually about:

- research objectives
- forms of co-operation
- obligation of each partner
- persons responsible for the progress of co-operation

After completing joint research on a specific subject, the scientific institutes concerned will exchange the results of their research. The results of joint research will be published by mutual consent. Both Academies will give preference to scientists from the collaborating institutions when selecting nominees for the exchange program. ❤️

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**Prof. Belma Turan, Ankara, Turkey**

It has been an extraordinary feeling to get acquainted with International Academy of Cardiovascular Sciences during my visit to the Institute of Cardiovascular Sciences, as a visiting scientist in the lab of Dr. Naranjan Dhalla. After I read about the mission and objectives of this scientific organization, which attempts to develop educational and scientific programs, I am inspired to get deeply involved in the development of cardiovascular sciences in my country, Turkey.

In the last two issues of the CV Network, Drs. Stephen Vatner and Grant Pierce wrote excellent articles describing the needs to promote cardiovascular research both on a global perspective and with a special perspective of Middle East in mind. It is now clear that there is not only a wide discrepancy between the national origins of the high quality research but also there is wide discrepancy between the regions of the same country. I am concerned that cardiovascular research does not receive high priority in the

# Visions for Cardiovascular Education & Research in Turkey

by Belma Turan, Ankara, Turkey

developing countries which can be called less-represented parts of the world in terms of the quality of medical research, even though mortality rates related cardiovascular diseases are high.

Turkey is between Europe and the Middle East, and has little financial resources available to support significant research initiative not only in the field of medicine but also in cardiovascular sciences. There has been a marked increase in funding general research activities over the last decade thanks to grants by the Turkish Government Planning Organization and also Universities' research funds in Turkey. This has facilitated considerable increase in the number of research publications relative to the previous decades. This increase in funding is just enough to help carry out research in the laboratories. Being a developing country, it is becoming more and more important for the country and the students of medicine and also basic researchers to get exposed to not only new research techniques but also to scientists from all over the world.

The developing countries have to be stimulated in the development of the medical research by the more active countries and their organizations. One of the techniques would be to provide collaborative support, to support and motivate research and student exchanges. A second way would be to organ-

ize some condensed international training programs and/or workshops in the developing countries to train and give exposure to young investigators in the graduate programs by well-known experts. This way, there will be significant progress in educational training and research activities of potential young researchers and clinicians besides their possible easy contact with these experts. Indeed, during my stay in Winnipeg, I have discussed this subject with Drs. Dhalla, Singal and Slezak who was a visiting scientist in Dr. Singal's lab in the Institute. With the assistance of Ivan Berkowitz, we have developed plans to organize an international workshop on "Stress-induced Biochanges in the Heart – from Genes to Bedside" in my country February 2 – 7, 2005. The objective of this workshop is to initiate research cooperation and to establish enduring personal links between professionals of the developed and developing countries. This workshop will be focused on new important topics in cardiovascular sciences and will provide directions to future research and promote close working relations between scientists from different countries and with different professional experience.

For details on the meeting, please contact: [belma.turan@medicine.ankara.edu.tr](mailto:belma.turan@medicine.ankara.edu.tr) ♥

## **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)**

# Heart Research in Israel

by Gania Kessler-Icekson, PhD and Arie Pinson, DSc

In 1982, the Laboratory for Myocardial Research in Jerusalem and the Research Laboratory of the Heart Institute in Tel-Hashomer were the only two laboratories in Israel exclusively dedicated to heart research. In several other institutions the heart was investigated as a part of other more diverse projects. At that time, very few Israeli researchers either knew of or had contacts with researchers outside of Israel. However, at the world ISHR Meeting held in London in 1982, three Israeli heart researchers met and realized that the time was ripe for establishing a local Heart Discussion Group. They circulated their idea among colleagues in academic and medical institutions and searched for those sharing their interests. Finally, some 20 participants assembled at the Beilinson Medical Center in Petach-Tikva on a bright spring day. Eleven studies were presented and at the end of the day a new Association was established: The Israeli Group for Heart Research (IGHR) with the aim of meeting annually and working to attract new membership and promote heart research in Israel. In 1984, then President of the ISHR and now President of the Academy, Prof. Howard

Morgan and the Secretary General of the ISHR-European Section, Prof. Jutta Schaper, granted the IGHR's request to become a sub-section of the ISHR.

Since then, cardiovascular research in Israel has developed at a rapid pace. At present, 20 teams located in medical schools, hospitals and research institutes are devoted to cardiovascular research. Approximately 100 scientists and students attend the IGHR meetings annually and the number of scientific reports greatly exceeds the capacity of a one-day meeting. Israeli heart researchers

Dr. Mordechai Manoach, Tel Aviv University; Dr. Arie Pinson, The Hebrew University, Jerusalem; Dr. Babeth Rabinowitz, Tel Aviv University; and Dr. Gania Kessler-Icekson, Tel Aviv University; have been given the global recognition of being elected Fellows of the Academy.

An Annual Young Investigator Competition was launched in 1994 by the IGHR in memory of Professor Rena Yarom, a leading member of the Group who passed away that year. The Competition awards a travel fellowship to the winner, enabling the young scientist to participate in International Heart Research confer-

ences. Organizers of the meetings, in recognition of this Award, have traditionally waived participation fees for the Rena Yarom prizewinners.

In 1993, the Annual Meeting of the ISHR-European Section was held in Jerusalem offering a stimulating scientific program as well as diversified and unusual social events.

In 2001, an International Symposium honoring Professors Jutta Schaper and Wolfgang Schaper for their outstanding achievements in cardiovascular research was held in Caesaria. About 100 researchers and colleagues of the Schapers from all over the world attended the meeting, and the Proceedings were published in a special issue of the Official Journal of the Academy "Experimental and Clinical Cardiology".

The third millennium is witness to cardiovascular research being a lively yet solid branch of biomedical investigation in Israel, with a fine record in many areas: imaging and bioengineering; biomechanics and energetics, electrophysiology and ion channels, vascular regulation and gene therapy, stem cell biology and tissue engineering, pathophysiology of cardiac remodeling, mechanisms of cardioprotection, drug development and novel pharmacotherapy. ♥

## ACADEMY

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### International Symposium on Pharmacotherapy of Heart Failure

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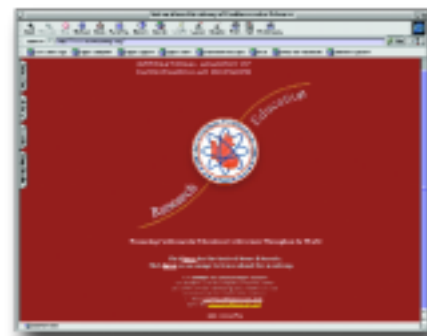
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# 1<sup>ST</sup> WORLD CONGRESS

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## Scientific Forum XIII

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BELO HORIZONTE - BRAZIL

OCTOBER · 11-15 · 2003

**Please make plans immediately to attend the Academy's 1st WORLD CONGRESS in Brazil. The program is exceptional. The following is a partial list of presentations, which includes more than 30 Fellows of the Academy:**

*Artificial Heart: Goals and Challenges and Contemporary Results with Circulatory Support Devices* – Dr. Tofy Mussivand - Canada

*Valved Venous Stents and Fundamental Concepts on Circulation Physiotherapy- Update* – Dr. Otoni M. Gomes – Brazil

*Advances in Diagnosis & Treatment* - Dr. Wagner Cardoso de Pádua Filho – Brazil

*Contributions from Echocardiography to Heart Failure Management* - Dr. Juarez Ortiz – Brazil

*Potassium Dysregulation and Sudden Death in Patients with Heart Disease* - Dr. Keld Kjeldsen - Denmark

*Cell-Extracellular Matrix Interaction in Cardiomyopathy* – Dr. Shunzo Onishi - Japan

*Chronic Ventricular Volume Overload Model of Heart Failure* - Dr. Joseph S. Janicki -USA

*Study of Cytokines and Oxidative Stress in Adriamycin-Induced Heart Failure* – Dr. Pawan K. Singal - Canada

*Cardiac Rehabilitation and Remodeling* - Dr. Ricardo Gelpi – Argentina

*Myofilament Remodeling in Failing Myocardium* - Dr. Martin M. LeWinter - USA

*Autonomic Dysfunction in the Critically Ill: Clinical Relevance and Mechanisms* – Dr. Karl Werdan – Germany

*Experimental Remodeling* - Dr. Paulo J. F. Tucci – Brazil

*Signaling Pathways Involved in ischemia-reperfusion mediated Cardiac dysfunction and preconditioning mediated cardio-protection* - Dr. J. S. Juggi – Kuwait

*No-reflow phenomenon: Pathophysiology and clinical implications* - Dr. Guiseppe Ambrosio - Italy

*Redox Regulation of Myocardial Ischemia* - Dr. Dipak K. Das - USA

*The altered function AT1 receptor by pressure stress* - Dr. Hideaki Kawaguchi - Japan

*Physiological and Pathophysiological Aspects of Natriuretic Peptide Production* - Dr. Adolfo J. de Bold - Canada

*Insulin Resistance and Hypertension* - Dr. John H. McNeill - Canada

*On the role of endogenous and exogenous angiotensin II on heart cell coupling* - Dr. Walmore C. De Mello - Puerto Rico

*Protective mechanisms in the developing heart* - Dr. Bohuslav Ostadal - Czech Republic

*Recent epidemiological and interventional studies in support of the cardioprotective effects of Docosahexaenoic Acid* - Dr. Bruce J. Holub - Canada

*Pharmacologic Protection In Lower Limbs Ischemia: Which is Better?* - Dr. David de Pádua Brasil, Brazil

*A primary study of gene expression network in marine cardiac hypertrophy* - Dr. Qi-de Han - China

*Mitochondrial DNA mutations and cardiovascular diseases* - Dr. Takayuki Ozawa - Japan

*Cardiac gene expression during the development of congestive heart failure* - Dr. Naranjan S. Dhalla - Canada

*Study of Apolipoprotein Genes Regulation in BAC-Mediated Transgenic Mice* - Dr. Dipei Liu – China

*Interaction of  $\alpha 1$ -Adrenoceptors with Non-G protein and its Molecules* – Dr. Youyi Zhang – China

*The Effect of CARP, a Novel Gene on Cardiomyocyte Hypertrophy in Failing Heart* - Dr. Rutai Hui - China

*Ventricular Reduction does not favor Left Ventricular Performance* - Dr. Paulo J. F. Tucci – Brazil

*Myocardial Hypertrophy* - Dr. Horacio Cingolani - Argentina

*Physiopathological and Pharmacological Aspects of Post-Infarction Ventricular Remodeling* – Dr. Ricardo Gelpi - Argentina

*The Association of Infection with Atherosclerosis* - Dr. Grant N. Pierce - Canada

*Differential Effects of PPAR alpha and gamma Agonists on the Development of Intimal Hyperplasia in an Animal Model of Insulin Resistance* - Dr. Dennis B. McNamara - USA

*Surprising findings in ALLHAT?* - Dr. Frans H.H. Leenen - Canada

*Angina Prevention by Non Ischemic Myocardial Preconditioning – Overview* – Dr. Raúl Domenech-Lira - Chile

*Delayed Protection Against Arrhythmia Induced by Physical Exercise: Role of Nitric Oxide* - Dr. Agnes Vegh - Hungary

*Prevention by Foods: Mits and Facts* - Dr. Juarez Ortiz - Brazil

*Promotion of Heart Health In Brazil* - Dr. Raimundo Marques Nascimento Neto – Brazil

*Promotion of Heart Health In Canada* - Ivan Berkowitz - Canada

**Features of Academy Activities at the World Congress:**

*Satellite Symposium on Heart Failure* – Rio de Janeiro – Friday, Oct.10

*Presentation of: NARANJAN S. DHALLA YOUNG INVESTIGATOR AWARD* – Saturday, Oct. 11

*Meeting of Fellows of the Academy to develop plans for future global activities* – Tuesday, Oct. 14

*Meeting of IACS – SOUTH AMERICA to elect the Section's President* – Tuesday, Oct. 14

# Brazilian Society of Cardiology FUNCOR and ACADEMY are planning a unique event: "International Intensive Cardiology Education Program"

by Ivan Berkowitz, Winnipeg, Canada



Dr. Raimundo Nascimento, Dr. Wagner Padua, Dr. Naranjan Dhalla, and Dr. David Brasil

During a visit to Winnipeg by a delegation from the Brazilian Society of Cardiology, Agreement was reached between the Society and the Academy to work together to encourage Brazilian cardiologists who have been in practice for more than 10 years, to attend educa-

tional regimens in Brazil and in Canada. The team of Brazilian cardiologists was composed of Academy fellows Wagner Padua and David Brasil as well as Raimundo Nascimento who is also the incoming chair of the Society's FUNCOR which is responsible for CEM and other

education programs.

In Brazil, plans to be introduced at the Society's Annual Meeting in Salvador in August, will offer weekend sessions throughout 2004 in 10 major cities around the country. As a highlight, participants may travel to Winnipeg for "International Intensive Cardiology Education Program" – this concept will offer six half-day lectures by teams each composed of a senior Academy fellow, one exceptional cardiologist from each of Brazil and Canada, as well as a scientist from the host Institute of Cardiovascular Sciences. There will also be case discussions and tours of medical and research facilities. It is anticipated that a monograph of proceedings will be published in the Academy's Journal – "Experimental and Clinical Cardiology"

In Brazil, Fundação Cardiovascular São Francisco de Assis / ServCor will also be a sponsor Institution. ♥



## 3rd Annual Meeting – Japan Section

by Teruhiko Toyo-oka, Tokyo, Japan

The 3rd Annual Meeting of the International Academy of Cardiovascular Sciences (26th Japanese Working Group for Cardiac Structure and Metabolism) was held on July 19-20th, 2003 at Nadao Hall, Tokyo, Japan.

The meeting was an impressive and highly successful gathering of scientists and clinicians presenting their latest findings. It included eight sessions, one special lecture, one symposium on "Recent Progress of Gene- or Cell-based Therapy of Cardiovascular Diseases", five special presentations by qualified young investigators and 43 selected papers presented about recent advancements in Basic Research on Cardiovascular Sciences.

We invited Dr. Makoto Endo, Professor Emeritus, Faculty of Medicine, University of Tokyo, as a special lecturer. He presented his life work on the cardiac muscle and Ca ions, especially Calcium-induced Calcium release that he discovered around 1980.

The topic of this meeting covered angioneogenesis, cardiac hypertrophy/cardiac remodeling, Ca handling, myocardial ischemia/reperfusion injury, heart failure/myocarditis/cardiomyopathies, apoptosis and signal transduction.

All participants enjoyed exchanging scientific information and mutual friendship. ♥





*Ivan Berkowitz, Coordinator; Debbie Brown, C.E.O. Heart & Stroke Foundation of Manitoba; Hon. Dave Chomiak, Manitoba Minister of Health*

# Public Forums Prove to be Great Success

*by Ivan Berkowitz, Winnipeg, Canada*

Buoyed by the amazing media coverage and excellent attendance for the Public Heart Health Forum which kicked off the 2001 World Heart Congress in Winnipeg, the Academy has facilitated annual Forums at its headquarters as well as in Trinidad and Brazil. Stimulated by the growing attendance of more than 800 at the 3rd Annual Forum held on June 7, 2003, we believe the mission of the Academy demands that we aggressively pursue such public education around the world. The Academy's Fellows and visiting speakers should be encouraged to go beyond traditional formats and share their immense knowledge at Forums, through the media and online.

Imaginative selection of topics has proven to stimulate media interest in the Forums which is critical to building attendance and maximizing the dissemination of the information. Such topics as wine and health; prevention of cardiovascular disease through personal commitment and community action; chocolate and flavanols; risk factors; yoga lifestyle and hypertension; and, most recently, women's heart health, have proven to attract attention through newspaper


articles, live radio interviews, television reports and intensive questioning by the audience. Our conclusion is that such newsworthy subjects are critical to success in attracting the public.

Community-wide promotion has been uniquely productive in developing dynamic partnerships. Our first major sponsor was Manitoba's major food retailer Canada Safeway who produced and prominently displayed in-store posters and distributed tickets which have been free for all Forums. The Manitoba Liquor Control Commission, our principal vendor of wines, has been an annual sponsor, offering similar support as Safeway. Critical to the success has been an expanding partnership with the Heart & Stroke Foundation of Manitoba for ticket distribution to known supporters and a financial sponsorship this year as well from the Canadian Institutes of Health Research. Aggressive distribution initiatives and public relations have been effective through the St. Boniface Hospital & Research Foundation. Drug companies and cardiologists have assisted in distribution of posters and tickets right to patients in doctors' offices.

Undoubtedly, a major factor has been the commitments for partnership from the highest levels of management of our major newspaper the Winnipeg Free Press which has yielded full-colour advertising of the Forums, an 8-page section "Frontiers in Heart Health", over 50 stories and half-page collages of pictures reporting on "The Free Press was there!"

Our #1 talk radio station CJOB has also been our partner contributing public service ads, news coverage and numerous live interviews. Such involvement is based on our knowledge of their interest in good news and service to their readers and listeners. Sharing world-class knowledge is important to their mandates which have also been attractive to many other media outlets.

We have proven that Forums can be funded by sponsors. With careful packaging of promotion, public forums are an excellent model to increase public awareness of heart problems and research efforts to resolve them.

For further information and assistance, please contact Ivan Berkowitz: [ivan@mts.net](mailto:ivan@mts.net) 



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INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES

## Scientific Forum XIII



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Joint International Conference  
International Society for Heart Research (Indian Section)  
and  
International Academy of Cardiovascular Science  
(Lucknow-India, 9th - 11th January - 2004)



## **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.

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