



CV network

THE OFFICIAL BULLETIN OF THE INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES

VOL. 3 • NO. 2 • Pages 13-24, 2004

Editorial Team

Editor:

Ivan Berkowitz MBA

Assistant Editors:

Ian Dixon PhD

Lorrie Kirshenbaum PhD

Editorial Board:

Lois DeBakey PhD

Otoni Gomes MD

Suresh Gupta PhD

Keld Kjeldsen MD

Tom Kottke MD

Ricky Man PhD

Dennis McNamara PhD

Bohuslav Ostadal MUDr, DrSc

Damaris Osunkwo MD

Arie Pinson PhD

Grant Pierce PhD

Pawan Singal PhD

Rajendar Suri PhD

Nobuakira Takeda MD

In This Issue

- 13 The Physician-Scientist an Endangered Species
- 16 Cardiac Research - Past, Present and Future
- 17 Bruce McManus wins Nagano Award
- 18 International Symposium
- 19 Current list of Academy Fellows
- 20 A Revolutionary Initiative for Young Investigators
- 21 Academy Journal Expands
- 22 German Physiological Society Meeting
- 23 Heart Failure Reviews is an Official Academy Journal
- 23 A Book Review
- 24 Special Announcements

The Physician-Scientist: An Endangered Species

by Burton E. Sobel, Burlington, Vermont



Burton E. Sobel

Professional responsibility of a physician-scientist is performing research, most physician-scientists play pivotal roles in teaching.

Physicians of diverse types fulfill valuable responsibilities in our academic medical centers. Master clinicians provide optimal care. Physician administrators provide leadership and implement strategic plans. Clinician educators and scholars teach clinical skills and enhance clinical decision making. Clinical trialists help to validate advances in diagnosis and treatment. Nevertheless, the physician-scientist is an important element. Because of their immersion in scientific pursuits and its impact on their own thinking, physician-scientists are, perhaps, uniquely able to hone hypothesis generation and refinement, healthy scepticism, and critical thinking in their students at all levels (2).

What Is a Physician-Scientist?

Several characteristics define a physician-scientist. Being a physician is but one. Some physician-scientists are Ph.D.'s as well as M.D.'s. All spend most of their time performing fundamental laboratory research, disease oriented research, or patient oriented research (1). The physician-scientists who are the focus of this commentary perform investigator initiated research frequently reflected by acquisition of peer-reviewed, competitive grant support from agencies such as the National Institutes of Health (NIH), the National Science Foundation, the American Heart Association, the American Diabetes Association among numerous others. They publish their work in peer-reviewed journals and, if successful, produce a corpus of work that moves a field. Although the primary pro-

Almost a century ago, Flexner revolutionized medical education. He differentiated academic medical centers from institutes about which he noted the following: "The creation of such institutes does not relieve the university of its research function; for if it be true that higher teaching cannot be efficiently prosecuted except in the atmosphere of scientific inquiry, then the existence of research institutes does not alter the educational situation." He indicated that medical faculties continue to be charged with the responsibility to advance, disseminate, and apply medical science. His analysis transformed the nature of medical schools in the United States and Canada and led to the integration of research and education on the one hand and the development of a contingent of physician-scientists on the other (3).

continued on pg. 14

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

3006 - 351 Taché Avenue, Winnipeg, Manitoba R2H 2A6 Canada · Tel: (204) 228-3193 · Fax: (204) 233-6723

e-mail the Editor: ivan@mtns.net · Academy web site: www.heartacademy.org

Growth and Decline of the Contingent of Physician-Scientists

A robust core of physician-scientists was spawned by the aftermath of WWII and the explosive evolution of the NIH. Various “great society” programs undertaken by President Lyndon B. Johnson’s administration fueled a continual accretion of highly trained, professional scientists. Their expertise, support and facilities, and commitment made research careers competitive and progressively less available to part-time investigators (4). A paradigm evolved in which clinician scholars and physician-scientists in academic medical centers traveled parallel paths. However, threats to the physician-scientist contingent emerged beginning about 20 years ago (5). They reflected a social transformation of American medicine (6) driven by profound political and economic forces.

No society has been able consistently to sustain total health care costs in excess of 12% of its gross domestic product (7). The accelerating costs of biomedical research in our society could not be sustained either. The notion that “we must make sure that no life-saving discovery is locked up in the laboratory” (8) led to a proliferation of expensive systems such as those used in electron beam computed tomography, magnetic resonance imaging, and positron emission tomography. Expensive procedures evolved including percutaneous coronary interventions, dialysis, interventional radiology, and endoscopy. Economic competition led virtually every community hospital to acquire and employ these technologies. Thus, expense mounted. Political pressure became a threat as well. It led to portrayal of the pharmaceutical industry as “public enemy number one.” The industry provided a juicy target for candidates who implied that a vote for them was a vote to curtail pharmaceutical expense thereby saving the voter money.

The promulgation of phrases such as “evidence based medicine” and the adoption of the randomized controlled clinical trial as the gold standard for assessing the value of diagnostic and therapeutic interventions have subtly eroded the perceived value of the physician-scientist who performs investigator initiated research focusing on mechanisms underlying disease and its modification (9). These threats have, in fact, contributed to a substantial decline in the ranks of physician-scientists.

Throughout a nearly 30 year interval, physician-scientists have become a progressively smaller minority of scientists seeking and obtaining support from the NIH (5). More disturbing is the decline in the number of first time physician applicants for NIH support. It has plummeted recently, by 31% between 1994 and 1997, without a compensatory increase in applications from MD/PhD’s. Since 1992 a 51% decrease has occurred in the total number of MD postdoctoral trainees being supported by the NIH (5). The number of MD,s applying for the prestigious Howard Hughes Medical Institute Postdoctoral Fellowships declined by 57% between 1996 and 1998 (5).

The Role of the Physician-Scientist

Physician-scientists are dedicated to discovery, but paradoxically, discovery may not be their most important contribution. Examples of profound discovery abound. In the late 18th century Jenner,s research on cow pox and documentation of its efficacy led to its widespread use and established vaccination (vacca means cow in Latin) as the preferred means to prevent smallpox and led to the discontinuation of variolation, an earlier and more toxic approach. In the late 19th century Koch identified the bacterial cause of tuberculosis, discovered anthrax, and formulated his powerful postulates. Development of cardiac catheterization by Forssmann, Cournand, and Richardson; the discovery of oncogenes by Varmus and Bishop; elucidation of causes and consequences of hypercholesterolemia by Brown and Goldstein; development of vaccines for polio by Salk and Sabin; and development of artificial organs and development of kidney dialysis by Kolff are more recent cogent examples. These and innumerable other examples illustrate the diverse disciplines in basic and clinical science in which physician-scientists engage and the diverse medical and surgical specialties in which they participate.

The most salient impact of physician-scientists is, perhaps, on the nature of the educational environment in which they participate and the nature of the educational experience to which they contribute for medical students, house staff, clinical specialty fellows, graduate students, postdoctoral fellows, and colleagues on faculties. Teaching in academic medical centers requires clinical acumen. However, it can be strengthened by experience in investigative pursuits that continually sharpen independent

thinking through hypothesis generation and refinement predicated on acquisition of data rather than resort to authority or dogma. Skills conveyed through such teaching enhance the capacity of “students” including medical students, house officers, clinical and research fellows, as well as graduate students, postdoctoral fellows, and faculty to embrace critical thinking. The quality of the diagnostic assessments and therapeutic decision making of such students who care for patients is augmented. Physician-scientists are valuable mentors not only because of the thought processes they utilize in their investigational pursuits but also because the scientific questions they attack frequently derive from their experience in taking care of patients.

A Prescription for Preservation of the Physician-Scientist

The financial pressures on academic medical centers are unprecedented. As pointed out by Barker (10), “Typically, even public state-supported centers must now generate 85% to 95% of their annual operating funds through patient care revenues, research grants, tuition, and philanthropy...Patient care revenue from hospital and physician services typically makes up most of a center’s total operating revenue.” Such sources of revenue are stringently controlled by third-party payers including public and private insurers. Not only the academic medical centers and the physician-scientist that populate them but also physicians who do not participate in them but who might otherwise have been attracted to careers as physician-scientists face unprecedented financial pressures. The debt incurred by medical students has skyrocketed, now frequently exceeding \$100,000 by the time of graduation. Careers in research provide considerably less remuneration compared with those in clinical disciplines, particularly procedurally based disciplines. The competitive nature of the research environment is often viewed as a discouraging one by young physicians.

Accordingly, our academic medical centers need to allocate funds to support young physician-scientists and to provide them with an infrastructure needed for effective research so that they can germinate without having to penalize their families and themselves unduly. They need and deserve a platform enabling them to be successful in an increasingly competitive research environment. Our academic

medical centers must provide substantial amounts of protected time for physician-scientists without demanding that they become employees slavishly responsible for clinical throughput to enhance the financial well being of their institutions. Boards of trustees of such institutions, presidents, provosts, deans, and chairs must avoid bestowing second class citizenship on physician-scientists compared with "productive clinicians" whose merit is often judged to be proportional to the RVU's of clinical service they provide. Such leaders must exhibit an unambiguous commitment to nurturing young faculty and physician-scientists in general in addition to an unambiguous commitment to clinical excellence and clinical education. The latter are ultimately contingent in part upon the positive impact of robust programs undertaken by physician-scientists on education throughout the academic medical center and beyond. Leaders in academic medical centers must nourish the development of multidisciplinary programs, multidepartmental activities, research centers, all of which, if successful, will enhance success in acquisition of support through program project grants, Specialized Centers of Research (SCORs), research training grants, and other external sources of funding.

Our political climate must be changed as well. It is, after all, the obligation of the leaders of our universities and academic medical centers to communicate with our political leaders and the public. The message must be disseminated (11). The value of the physician-scientist must be more broadly recognized by the public (12). Agencies such as the NIH must not become consumed with investments in massive clinical trials at the expense of supporting and sustaining the development of physician-scientists who perform independent, investigator initiated research.

All of this takes money. Academic medical centers must commit to expanding endowment so

that a stable financial environment can support the nurturing of young physician-scientists. In our institution the untimely death of Dean Joseph B. Warshaw in December of 2003 was followed by such a commitment. Dr. Warshaw was a passionate advocate for establishing an M.D./Ph.D. program at the University of Vermont that was formalized in 2001. He envisaged attracting a small cadre of superbly talented M.D./Ph.D. students and supporting them while they undertook their lengthy and expensive training. At the request of the Warshaw family, a scholarship fund in memory of Dr. Warshaw was established to reify his vision.

Signs of Recovery of the Contingent of Physician-Scientists

There are many criteria with which we will be able to judge the success of preserving the physician-scientist. Tracking the number of first time physician applicants for independent research support from the NIH and other agencies will provide an obvious index of the intellectual and numerical health or lack thereof of the physician-scientist contingent. The quality and quantity of publications by American physician-scientists in peer-reviewed journals will provide another. The extent to which physician-scientists assume and are elected to leadership positions in scientific societies will provide a third. Population of study sections including those in basic science by physician-scientists will be indicative of resuscitation of the endangered species. The quality of education in our academic medical centers, reflected by the performance of medical students, house staff, and fellows on objective examinations and in clinical practice should be indicative of the educational benefits conferred by a growing contingent of physician-scientists. We do know how to keep score. We must be committed to implementing the changes needed to reverse the decline of the physician-scientist. We must remove the physician-scientist from the endangered species list.

REFERENCES

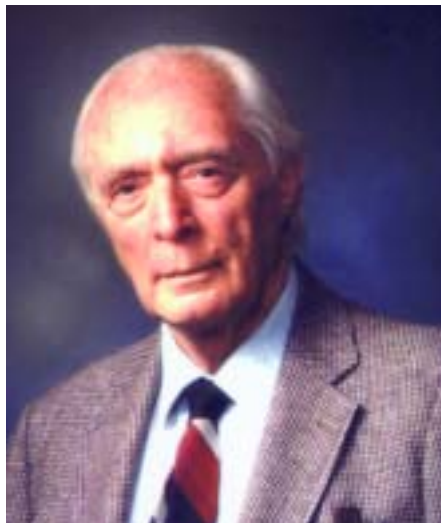
1. Kaushansky K. Physician-Scientists: Preparation, opportunities, and national need. *Exp Biol Med* 228:1258-1260, 2003.
2. Sobel BE. Saving the physician/scientist, an endangered species. *Coron Artery Dis* 13:131-3, 2002.
3. Flexner A. *Medical Education in the United States*. Carnegie Foundation for the Advancement of Teaching, New York, NY, 1910.
4. Schrader WT. Career choices in the biosciences: What companies are looking for when they are filling a position. *Exp Biol Med* 228:1261-5, 2003.
5. Rosenberg L. Physician-scientists-endangered and essential. *Science* 283:331-8, 1999.
6. Starr P. *The Social Transformation of American Medicine*. Basic Books, Inc., New York, NY, 1982.
7. Ginzberg E. *From Physician Shortage to Patient Shortage*. Westview Press, Boulder, CO, 1986.
8. Johnson J B. Comments made in an address at the National Institutes of Health, Bethesda, MD, 1968.
9. Sobel BE, Levine MA. Medical education, evidence-based medicine, and the disqualification of physician-scientists. *Exp Biol Med* 226:713-6, 2001.
10. Barker KL. Building and supporting effective academic clinical research programs in today's market-driven health care environment: Is research valued and how much and by whom? *Exp Biol Med* 228:1269-71, 2003.
11. Naftolin F, Lockwood CJ, Sobel BE. Keeping medicine and science together. *Exp Biol Med*, in press.
12. Bowles MB, Dawson VP. Academic medicine and the public. In: *With One Voice*, Association of American Medical Colleges, Washington, DC, 2003, pp. 186-191. ♥



Buoyed by the extraordinary success of the International Conference held in Lucknow, India, Jan. 9 - 11, 2004, the International Academy of Cardiovascular Sciences and the International Society for Heart Research (Indian Section) have announced plans for a second Joint International Conference - "BENCH to BEDSIDE in GHANDI'S GUJARAT", December 31, 2004 - January 2, 2005. Grand Bhagwati, Grandhinagar - Sarkhej Highway, AHMEDABAD, INDIA. For details, please visit the web site: <http://www.indianheart.com/conference/index.html> Or contact the Conference Co-ordinator: Dr. Ramesh K. Goyal, Professor, Dept. of Pharmacology, L.M. College of Pharmacy, P.O.Box 4011 Navarangpura, Ahmedabad, 380 009, India. E-mail: goyalrk@hotmail.com

Cardiac Research – Past, Present, and Future

by Richard J. Bing, Pasadena, California



Dr. Richard J. Bing

I am grateful to my friends from the International Academy of Cardiovascular Sciences for asking me to relate some of the impressions of a 94-year-old physician and scientist to look back at the development in cardiac research that have taken place during his long lifetime. The other great society concerned with cardiovascular research, the International Society for Heart Research, with which I am also connected, was the brain child of Dr. Baijusz who, frustrated with the lack of interest in fundamental research, founded the Society to give members an opportunity to exchange scientific ideas on fundamental cardiovascular problems. Dr. Baijusz was a man with a mission, a true pioneer. He was a Hungarian working in Canada and in Boston

and I remember him as a very attractive man, whose scientific interest was mainly cardiomyopathy. Unfortunately Dr. Baijusz died young from coronary heart disease. Scientific societies like biological creations are subject to natural selection. What is useful survives. The society had a rough beginning, finances were tight, and one of the early meetings in Italy almost had to be cancelled because the sponsor defaulted. The society survived its early infancy because of the interest of men like Opie, Dhalla, Naylor, Rona, Fleckenstein, Wollenberger, Harris, and others. It was at that time that I was asked to take over the job as president of the society and as editor of *The Journal of Molecular and Cellular Cardiology*. But the society, like the Academy of Cardiology, survived and flourished because the idea to organize and support fundamental research was a timely one.

When I compare an early issue of the *Journal of Molecular and Cellular Cardiology* with a recent publication, I notice the tremendous difference in approach to cardiac research. Ninety-five percent of articles deal with the molecular biology. In historical articles one reads sometimes statements of disdain about the bad old times in which the heart was considered just a pump and the blood vessels were elastic tubes. Clinicians used to argue for hours on the origin of the second heart sound. The subsequent phase of research, describing that the heart was also a metabolic organ which used fatty acids, carbohydrates, amino acids and ketones according to their availability, is also forgotten.

This trend to disdain the work of the past and store it in the dusty attic of memory is aided by the computer whose memory is also short-lived, not more than ten years. I would love to avenge myself by reading the contents of our *Journal* 50 years from now. I am sure I would find much of the research today either forgotten or worse, looked upon with a high degree of condescension. This amnesia is paralleled by a total lack of recall of political and social events. Each generation has to start again from the beginning and is forced to learn the hard way.

The present generation should be proud of the advances in molecular biology of the heart. But while this fruit ripens on the tree of science, the greatest advances in cardiology that benefit the patient during the last 40 years have been technical discoveries by physicians. To mention but a few: coronary angioplasty, initiated by a cardiologist; coronary arteriography, by a radiologist; coronary bypass surgery, by a surgeon; and cardiac pet scan, by a radiologist.

What advice to give to young investigators in the field of investigative cardiology? My spontaneous answer would be "none" because advice is never heeded unless it is paralleled by personal experience. But, nonetheless I would advise the young investigators to have fun with their work, maintain confidence in themselves, and shun by all means the deadly poison of local politics. Science and medicine by themselves offer glorious experiences. The combination of science with other interests – the arts, human relationships, history – makes for an even richer and more rewarding life. ♥

Nominations for Fellows Invited!

Nominations are invited for the election of Fellows of the Academy for the year 2004.

Nominees should be individuals with outstanding achievements in cardiovascular research and education, who will be elected by the Fellows. The number of Fellows will not exceed 250 at any given time. Please submit a letter highlighting the distinguished accomplishments of the individual along with his/her curriculum vitae. It is understood that the nominee has given consent for letting his/her name stand for election.

PLEASE FORWARD: c/o Ivan Berkowitz, Director of Development
International Academy of Cardiovascular Sciences
3006 – 351 Taché Ave.
Winnipeg MB R2H 2A6 Canada
or - E-mail: ivan@mts.net

Visit Us At:



www.heartacademy.org

Bruce McManus Wins Nagano Award

by Ivan Berkowitz, Winnipeg, Canada



Dr. Bruce McManus (R) at work as an educator

The International Academy of Cardiovascular Sciences was delighted to recognize Dr. Bruce McManus as the 2004 winner of the Makoto Nagano Award for Achievements in Cardiovascular Education. The Award was presented at the recent Ignacio Chavez Rivera Symposium on Cardiovascular Disease in Mexico City, April 30, 2004.

Dr. Bruce McManus was appointed Scientific Director of the CIHR Institute of Circulatory and Respiratory Health in 2000. In this capacity, he leads the development and implementation of a national research strategy for addressing outstanding questions related to cardiac, respiratory, vascular, brain (stroke), blood, critical care, and sleep disorders and diseases. Over the past 4 years, he has inaugurated several strategic initiatives in research and knowledge translation. He has established international linkages and program development with such health research funding agencies as the National Health, Lung, and Blood Institute of the National Institutes of Health, USA and the National Institutes of Health, Mexico. The recent National Research Forum for Young Investigators in Circulatory and Respiratory

Health, sponsored by the CIHR Institute of Circulatory and Respiratory Health and its many partners, reflects Dr. McManus' commitment to a national environment for circulatory and respiratory trainees and young stars which is second to none.

Dr. McManus received BA and MD degrees at the University of Saskatchewan, an MSc in Applied Physiology from Pennsylvania State University, and a PhD in Exercise Physiology and Biochemistry from University of Toledo. He pursued post-doctoral fellowships in Environmental Physiology at the University of California - Santa Barbara and in Cardiovascular and Pulmonary Pathology at the National Heart, Lung, and Blood Institute in Bethesda, MD. Residency training at the Peter Bent Brigham Hospital - Harvard University in Internal Medicine and Pathology led to board certification in Anatomic Pathology, with subsequent specialization in Cardiovascular Pathology. Following 11 years as a faculty member at the University of Nebraska Medical Centre, Dr. McManus joined the Faculty of Medicine of the University of British Columbia as Department Head of Pathology and

Laboratory Medicine in July 1993.

Dr. McManus' investigative program is focused on injury and repair involved in inflammatory diseases of the heart and blood vessels, with particular emphasis on enteroviral infections of the heart and transplant vascular disease. He has co-authored 250 full-length publications, as well as many chapters. He has edited three books, and has been recognized for his scientific contributions by numerous institutions through visiting professorships and lectureships. He has served as Councillor for the International Society for Heart Research and for the American Society for Investigative Pathology. He is currently on the editorial board of several professional and scientific journals. He is past-president of the Society for Cardiovascular Pathology. He has convened many public and private sector partnerships in research. He has long been committed to training and mentoring scientist trainees across a range of disciplines. He was co-recipient of the prestigious Max Planck Research Award with Dr. Reinhard Kandolf, and he was recently elected to the Royal Society of Canada as a Fellow of the Academy of Sciences. He received the UBC Killam Research Prize Senior Scientist Category, and was elected as Fellow of the International Academy of Cardiovascular Sciences in 2003. ♥

IACS Japan Section Meeting

July 17-18, 2004

Osaka-Senri, Japan

The 4th Annual Meeting of IACS Japan Section

(The 27th Japanese Working Group on Cardiac Structure and Metabolism).

Chairman: Ryoji Matoba, MD, PhD.
Osaka University.

Email: matoba@legal.med.osaka-u.ac.jp

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



Western Economic
Diversification Canada

Diversification de l'économie
de l'Ouest Canada

International Symposium on Cardiovascular Diseases in honour of Dr. Ignacio Chávez _____ by Angel Zarain-Herzberg, Mexico City, Mexico



(left to right) - Naranjan Dhalla, Alberto Guevara Rojas, José Narro Robles, Pawan Singal, Angel Zarain-Herzberg

The Faculty of Medicine (FM), the International Academy of Cardiovascular Sciences and the National Institute of Cardiology Dr. Ignacio Chávez (INCIC) organized the Symposium on April 30, 2004 in Mexico City, on Cardiovascular Diseases in honour of his founder Dr. Ignacio Chávez.

"Cardiovascular diseases are the major cause of death in Mexico and one of the factors that along with other problems of health represent an important percentage of the morbidity in the Mexican society", indicated Dr. José Narro Robles, Dean of the FM, when welcoming the guests in the auditorium Dr. Alberto Guevara Rojas, of the Faculty of Medicine, National University of México (UNAM).

The importance of the symposium was that the adult population having begun the aging process and the great number of adults over 65 years is affected by myocardial infarction, stroke, hypertension and other types of cardiomyopathies. Smoking, obesity, sedentary life and an inadequate diet are risk factors for cardiovascular diseases. This type of sufferings, abounded, both by its direct hit in the health of the person as well for the economic impact that represents in the use of medical services, is one of the great challenges to win. "The cardiovascular diseases in this country and many other parts of the world represent great challenges for the health system of our societies", asserted Dr. Narro. "This symposium is an opportunity to discuss with the experts the development of the knowledge in the basic and clinical aspects of cardiovascular diseases."

He stressed that there is an indissoluble relationship between the INC. Ignacio Chávez and the UNAM. It is a bond because the founder Ignacio Chávez was an extraordinary colleague for the doctors of the FM and the professionals of

Mexican medicine. He is one of the great symbols of Mexican medicine. The relation of cardiology with the FM happened first in the General Hospital of Mexico and thereafter with the INCIC. Dr. Narro added "I thank the INCIC for their support, by this common and shared history with the Faculty, for these 60 years and we must celebrate one of the great medical institutions of 20th Century. Similarly, the FM has the commitment to work to maintain and to increase the relation between these two great medical institutions of the country".

On the other hand, Naranjan S. Dhalla, Executive Director of the Academy located at the Institute of Cardiovascular Sciences of St. Boniface General Hospital, University of Manitoba, Winnipeg, Canada, emphasized that the dynamic Mexican infrastructure was wisely created to stimulate educational work and research in the cardiovascular field. He mentioned that for this Symposium, the best specialists of the field participate representing subspecialty in cardiac failure and cardiomyopathies. On behalf of the Academy Dr. Dhalla offered 50 memberships, which should be given free to Mexican doctors for the next three years. He also donated 11 books published by the Institute to the INCIC and the same number to the Faculty of Medicine, UNAM.

During the Opening Ceremony, Dr. Faúse Attié Cury, director of the National Institute of Cardiology Ignacio Chávez, was presented by Karl T. Weber, Fellow of Academy, with the "Distinguished Service Award" of the International Academy of Cardiovascular Sciences, in the category of Cardiovascular Sciences, Medicine and Surgery. Faúse Attié was born in Brazil and acquired Mexican nationality.

He graduated as a doctor from the University of Brazil, where he also received the Internal Medicine Degree. In México, he was graduated as a cardiologist at the INC. Ignacio Chávez. He is recognized as a promoter of the cardiovascular activities throughout this continent.

Dr. Daniel Villarreal, professor and head of the Division of Cardiology of the Medical Upstate University, Syracuse, New York, also was recognized by the Academy. He was presented with a Distinguished Service Award by William Weglicki.

Dr. José Narro presented the Makoto Nagano Award for Achievements in Cardiovascular Education to Dr. Bruce McManus, director of the Institute of Circulatory Health and Respiratory, CIHR Canada. His investigation has concentrated on the injury and repair in the inflammatory diseases of the heart and the blood vessels.

Pawan K. Singal, Director of Education of the International of Academy Cardiovascular Sciences emphasized the Academy anywhere in the world promotes investigation and education in cardiovascular sciences. "Within this mandate it is our desire to reunite different participants. An example of it is the relationship that exists between INCIC and the FM of the UNAM".

The main topics of the symposium were ischemic cardiomyopathy and cardiac hypertrophy. Symposium participants included distinguished cardiologists from the INCIC, Dr. Eulo Lupi Herrera, Dr. Carlos Martínez Sánchez and Dr. José Guadalajara Boo; from the Faculty of Medicine, UNAM, Dr. Erick Alexanderon, chief of the PET unit and Dr. Angel Zarain-Herzberg from the Dept. of Biochemistry and Molecular Biology; and Fellows from the Academy, Dr. Karl Weber from the University of Tennessee, Dr. William Weglicki from the George Washington University Medical Center, Dr. Bruce McManus from the Institute of Circulatory and Respiratory Health, Vancouver, and Dr. Pawan Singal and Dr. Naranjan Dhalla from the Institute of Cardiovascular Sciences in Winnipeg.

After the Symposium, there was a closing dinner where the participants in the Symposium and their spouses had the opportunity to strengthen the personal friendship and the links between the institutions. During dinner Dr. Faúse Attié gave recognition medals to Drs. Dhalla, Singal, Weglicki, Weber, McMannus, Villarreal and Zarain-Herzberg for their effort organizing and participating in a successful Symposium in México City. ♥

Current List of Academy Fellows

Osama Abdel Aziz	Cairo Egypt	Joseph S. Janicki	Auburn USA	B. Soma Raju	Hyderabad India
Norman Alpert	Burlington USA	Michiel J. Janse	Amsterdam The Netherlands	Karel J. Rakusan	Ottawa Canada
Giuseppe Ambrosio	Perugia Italy	Robert B. Jennings	Durham USA	Jose Antonio F. Ramires	Sao Paulo Brazil
Inder Anand	Minneapolis USA	Jasbir S. Juggi	Safat Kuwait	Robert Roberts	Ottawa Canada
Aubie Angel	Winnipeg Canada	Hanjörg Just	Freiburg Germany	Janet D. Robishaw	Danville USA
James A. Angus	Victoria Australia	Philip J. Kadowitz	New Orleans USA	Peter Rösen	Dusseldorf Germany
Piero Anversa	Valhalla USA	Sérgio E. Kaiser	Rio de Janeiro Brazil	Leonid V. Rosenshtraukh	Moscow Russia
Paul W. Armstrong	Edmonton Canada	Hideo Kanaide	Fukuoka Japan	Elizabeth Roth	Baranya Hungary
Domingo M. Braille	Sao Jose do Rio Preto Brazil	Sjukri Karim	Jakarta Barat Indonesia	Heinz Rupp	Marburg Germany
Richard J. Bing	Pasadena USA	Arnold Katz	Norwich USA	Edson A. Saad	Rio de Janeiro Brazil
Sanford P. Bishop	Birmingham USA	Hideaki Kawaguchi	Sapporo Japan	Hani N. Sabbah	Detroit USA
Colin M. Bloor	La Jolla USA	Wilbert J. Keon	Ottawa Canada	Valdur A. Saks	Grenoble France
Roberto Bolli	Louisville USA	Gania Kessler-Icekson	Tikva Israel	Tomas A. Salerno	Miami USA
David P. Brasil	Belo Horizonte Brazil	Keld Kjeldsen	Copenhagen Denmark	Ismail Sallam	Cairo Egypt
Eugene Braunwald	Boston USA	Robert A. Kloner	Los Angeles USA	Nizal Sarraf-Zadegan	Isfahan Iran
Pavel Braveny	Brno Czech Republic	Frantisek Kolbel	Prague Czech Republic	Shigetake Sasayama	Hamamatsu City Japan
Dirk L.E. Brutsaert	Edegum Belgium	Borivoj Korecky	Ottawa Canada	Jutta Schaper	Bad Nauheim Germany
L. Maximilian Buja	Houston USA	Evangelia G. Kranias	Cincinnati USA	Wolfgang Schaper	Bad Nauheim Germany
John A. Cairns	Vancouver Canada	Ernst-Georg Krause	Berlin Germany	Ernesto L. Schiffrin	Montreal Canada
Claudio M. Calderera	Bologna Italy	Satoshi Kurihara	Tokyo Japan	Arnold Schwartz	Cincinnati USA
Ernesto Carafoli	Padova Italy	Antonio L'Abbate	Pisa Italy	Ketty Schwartz	Paris France
Edward E. Carmeliet	Leuven Belgium	Edward G. Lakatta	Baltimore USA	Peter J. Schwartz	Pavia Italy
James B. Caulfield	Birmingham USA	Jos M.J. Lamers	Rotterdam The Netherlands	Enn Seppet	Tartu Estonia
Suphachai Chaiithiraphan	Bangkok Thailand	Glenn A. Langer	Little River USA	Ajay M. Shah	London England
Kanu Chatterjee	San Francisco USA	Frans H.H. Leenen	Ottawa USA	Bal K. Sharma	Haryana India
Eugene I. Chazov	Moscow Russia	Robert J. Lefkowitz	Durham USA	Shahryar A. Sheikh	Lahore Pakistan
Patrick Choy	Winnipeg Canada	Claude Lenfant	Gaithersburg USA	Nobuhiko Shibata	Osaka Japan
Horacio Cingolani	La Plata Argentina	Bernard Lévy	Paris France	Mohammed A.Q. Siddiqui	Brooklyn USA
Richard A. Cohen	San Francisco USA	Bohdan Lewartowski	Warsaw Poland	Manfred Siess	Tubingen Germany
Jay N. Cohn	Minneapolis USA	Martin M. LeWinter	Burlington USA	Pawan K. Singal	Winnipeg Canada
Jean Davignon	Montreal Canada	Depei Liu	Beijing China	Bramah N. Singh	Los Angeles USA
Adolfo J. de Bold	Ottawa Canada	Guoqing Liu	Beijing China	Manjeet Singh	Patiala India
Jacques de Champlain	Montreal Canada	Peter P. Liu	Toronto Canada	Jan D. Slezak	Bratislava Slovak Republic
Sergio Dalla Volta	Padova Italy	Amanda Lochner	Tygerberg South Africa	Vladimir N. Smirnov	Moscow Russia
Depak K. Das	Farmington USA	Benedict R. Luchesi	Ann Arbor USA	Eldon R. Smith	Calgary Canada
Walmar C. De Mello	San Juan Puerto Rico	Thomas F. Lüscher	Zurich Switzerland	Hugh C. Smith	Rochester USA
Michael E. DeBakey	Houston USA	Bernard Maisch	Marburg Germany	R. John Solaro	Chicago USA
Prakash C. Deedwania	Fresno USA	Naoki Makino	Beppu Japan	Michael J. Sole	Toronto Canada
Naranjan S. Dhalla	Winnipeg Canada	Ricky Y.K. Man	Hong Kong	Andrew P. Somlyo	Charlottesville USA
Paolo Di Nardo	Rome Italy	Douglas L. Mann	Houston USA	Avril V. Somlyo	Charlottesville USA
Wolfgang H. Dillmann	La Jolla USA	Mordechai Manoach	Tel Aviv Israel	Edmund H. Sonnenblick	Bronx USA
Raul Domenech	Casilla Chile	Mario F. De Carmargo Maranhão	Curitiba Brazil	Nicholas Sperelakis	Cincinnati USA
James M. Downey	Mobile USA	Bruce McManus	Vancouver Canada	Hiroyuki Suga	Osaka Japan
Settsuro Ebashi	Okazaki Japan	Dennis B. McNamara	New Orleans USA	Tsuneaki Sugimoto	Tokyo Japan
David A. Eisner	Manchester England	John H. McNeill	Vancouver Canada	Rajendar K. Suri	Chandigarh India
Masao Endoh	Yamagata-shi Japan	Jawahar L. Mehta	Little Rock USA	Bernard Swynghedauw	Paris France
Mark L. Entman	Houston USA	Nazir A. Memon	Hyderabad Pakistan	Laszlo Szekeres	Szeged Hungary
Edgardo Escobar	Santiago Chile	Jean-Jacques Mercadier	Paris France	Heinrich Taegtmeyer	Houston USA
Wafia Eteiba	Cairo Egypt	Seibu Mochizuki	Tokyo Japan	Nobuakira Takeda	Tokyo Japan
Alexandre Fabiato	Richmond USA	Terrence Montague	Dorval Canada	Kewal K. Talwar	Chandigarh India
Carlos M. Ferrario	Winston-Salem USA	Josef Moravec	Lyon France	Chaoshu Tang	Beijing China
Wagner C. Pádua Filho	Belo Horizonte Brazil	Howard Morgan	Winfield USA	Sadagopan Thanikachalam	Chennai India
Alfredo Inacio Fiorelli	Sao Paulo Brazil	Tofy Mussivand	Ottawa Canada	Paulo J.F. Tucci	Sao Paulo Brazil
Luis E. Folle	Montevideo Uruguay	Réginald Nadeau	Montreal Canada	M. Sankaran Valiathan	Manipal India
Gary S. Francis	Cleveland USA	Ryozo Nagai	Tokyo Japan	Paul M. Vanhoutte	Hong Kong
Jean-Charles Fruchart	Calmette Lille France	Makoto Nagano	Tokyo Japan	Guy Vassort	Montpellier France
Nirmal K. Ganguly	New Delhi India	K. Gopal Nair	Bombay India	Stephen F. Vatner	Newark USA
Pallab K. Ganguly	Manama Bahrain	Navin C. Nanda	Birmingham USA	Agnes Vegh	Szeged Hungary
Detlev Ganten	Berlin-Buch Germany	Raimundo M. Nascimento	Belo Horizonte Brazil	Panangipalli Venugopal	New Delhi India
Keith D. Garlid	Beaverton USA	Akinori Noma	Kyoto Japan	Daniel Villarreal	Syracuse USA
Junbo Ge	Shanghai China	Eric N. Olson	Dallas USA	Richard A. Walsh	Cleveland USA
Ricardo J. Gelpi	Buenos Aires Argentina	Robert E. Olson	Tampa USA	Xian Wang	Beijing China
Sidney Goldstein	Detroit USA	Shunzo Onishi	Amagasakishi Japan	Karl T. Weber	Memphis USA
Otoni M. Gomes	Belo Horizonte Brazil	Juarez Ortiz	Sao Paulo Brazil	William B. Weglicki	Washington USA
Ramesh K. Goyal	Ahmedabad India	Bohuslav Ostadal	Prague Czech Republic	Myron L. Weisfeldt	Baltimore USA
Sigmundur Gudbjarnason	Reykjavik Iceland	Takayuki Ozawa	Shimadashi Japan	Karl Werdan	Halle Germany
Suresh K. Gupta	New Delhi India	Rodolfo Paoletti	Milan Italy	Kern Wildenthal	Dallas USA
Pavel Hamet	Montreal Canada	Julius Gy. Papp	Szeged Hungary	James T. Willerson	Houston USA
Qi-de Han	Beijing China	William W. Parmley	Salt Lake City USA	Ruiping Xiao	Baltimore USA
Gerd Hasenfuss	Göttingen Germany	James R. Parratt	Glasgow Scotland	Sir Magdi Yacoub	London England
Neils Haugaard	Philadelphia USA	Grant N. Pierce	Winnipeg Canada	Norboru Yamazaki	Hamamatsu-shi Japan
Michael L. Hess	Richmond USA	Arie Pinson	Jerusalem Israel	Yoshio Yazaki	Tokyo Japan
Thomas H. Hintze	Valhalla USA	Bertram Pitt	Ann Arbor USA	Salim Yusuf	Hamilton Canada
Masayasu Hiraoka	Tokyo Japan	Philip A. Poole-Wilson	London England	Youyi Zhang	Beijing China
Norman K. Hollenberg	Boston USA	Laurentiu M. Popescu	Bucharest Romania	Ding-Liang Zhu	Shanghai China
Bruce J. Holub	Guelph Canada	Kailash Prasad	Saskatoon Canada	Attila Ziegelhoffer	Bratislava Slovak Republic
Rutai Hui	Beijing China	Vijay K. Puri	Lucknow India	Heinz-Gerd Zimmer	Leipzig Germany
M. Mohsen Ibrahim	Cairo Egypt	Shahbudin H. Rahimtoola	Los Angeles USA		
Issei Imanaga	Fukuoka Japan	Babeth Rabinowitz	Tel Aviv Israel		
Ruthard Jacob	Tubingen Germany	Sir George K. Radda	London England		

A Revolutionary Initiative for Young Researchers

by Ivan Berkowitz, Winnipeg, Canada



Winnipeg's Mayor Glen Murray presents Dr. Bernstein with Honorary Citizenship in Winnipeg

From the most negative situations, exceptional concepts can lead to wonderful, positive results. International Academy of Cardiovascular Sciences Executive Director Naranjan Dhalla and our Fellow, Bruce McManus, Scientific Director of the Canadian Institutes of Health Research (CIHR) Institute of Circulatory and Respiratory Health, were marooned in Washington DC for five days after 9/11. Their creativity turned to ideas to stimulate the education and networking among young people in Canada's research community. They agreed to pursue the idea which took three years to build to the NATIONAL RESEARCH FORUM FOR YOUNG INVESTIGATORS IN CIRCULATORY AND RESPIRATORY HEALTH, Winnipeg, Manitoba, Canada, May 6-8, 2004.

The Young Investigators Forum was inaugurated as a unique annual event sponsored by the CIHR Institute of Circulatory and Respiratory Health and its many partners. 555 young investigators spanning disciplines and themes in circulatory and respiratory research registered for this event. Trainees and young investigators were the focus of this meeting and they had opportunities to give scientific presentations

based on their research programs, to learn about current circulatory and respiratory research activity in Canada and elsewhere, and to interact and share ideas with colleagues and mentors spanning disciplines and themes. Faculty assisted trainees and young investigators in moderation and facilitation of scientific sessions and in contributions to workshops on a diverse range of topics. The Forum will become the meeting place for young people interested in the circulatory and respiratory sciences in Canada and for stimulating research collaborations and personal development.

Program highlights were:

- Opening Ceremonies and Reception – Alan Bernstein, CIHR President challenged delegates with his talk "Opportunities and Challenges Facing Young Investigators". Bruce McManus welcomed the delegates. Formal greetings were delivered by Hon. Tim Sale, Manitoba's Minister of Energy, Science, and Technology and by Winnipeg's Mayor Glen Murray who also presented Dr. Bernstein with Honorary Citizenship in Winnipeg.

- Landmark Lectures – renowned speakers from various disciplines stimulated the scientists. David Naylor, Dean of the University of Toronto Faculty of Medicine's topic was "Generating and Using Research Evidence"; Peter Macklem, Professor-Emeritus from McGill talked on "Life, Health and the Second Law of Thermodynamics"; Barbara Alving, Acting Director, NIH Heart, Lung and Blood Institute projected the future on "Reinventing Clinical Research: A Roadmap to the Future"; and Victor Dzau came home to Canada from his posts as Hersey Professor at Harvard and Chairman of Dept. of Medicine, Physician-in-Chief and Director of Research at Brigham and Women's Hospital to excite our imagination with "Predicting the Future of Coronary Heart Disease Therapy in 2010 and Beyond: The Potentials of Gene and Cell Based Therapies".
- Presentations by young investigators and trainees – to illustrate areas of common scientific and approaches that bridge the gap between disciplines and themes of research and to explore novel management and care strategies (such as telehealth/telemedicine and physician/pharmacist/nurse team-based care) that take advantage of new technological tools and human resources.
- Meet the Experts Breakfasts and Lunch & Learn Workshops – there was no time wasted even for food.
- Poster sessions and mentoring – there were more than 300 posters at which the presenters discussed the specifics of the work with delegates and a team of specially selected judges who not only selected award winners but stimulated interactive discussions to contribute to future excellence.
- Career Development Fair – an outstanding networking opportunity, opening with a wine and cheese reception, the Fair hosted the Public and Voluntary Partners as well as the Corporate Partners: Grand Patrons - Aventis, Merck Frosst and Pfizer (with much appreciated stations to retrieve E-mails); Patrons – Biovail and Glaxo Smith Kline; and Donors – AstraZeneca, Bristol-Myers Squibb and Solvay

- Dinner celebration and awards – Winnipeg's reputation as the best venue for international meetings was enhanced by the warmth of the welcome, superb organization, the magnificent facilities and support of the Winnipeg Convention Centre and great social opportunities for interaction and relaxation.

Friends of CIHR organized a satellite meeting "The Economic and Socioeconomic impact of Investments in Health Research", chaired by another Fellow of the Academy, Aubie Angel.

The Forum was organized by a team which included Academy executives: Naranjan S. Dhalla, Chairman; Pawan K. Singal, Organizing Secretary; Grant N. Pierce, Chair, Local Organizing Committee; and Ivan Berkowitz, Conference Coordinator as well as Fellows Bruce McManus, Vancouver, Special Advisor

and Claude Lenfant, Bethesda, International Advisor. Alan Bernstein, Ottawa was the Honorary Chair of the ORGANIZING COMMITTEE which also included: André Cantin, Sherbrooke; Jacques de Champlain, Montreal; Arun Chockalingam, Vancouver; Karen Dewar, Ottawa; Kim Gaudreau, Ottawa; Salima Harji, Vancouver; Melanie Larson, Vancouver; Stanley Nattel, Montreal; Elissa Hines Reimer, Munich; and Salim Yusuf, Hamilton. The local hosts included over 50 volunteers from the Institute of Cardiovascular Sciences, Faculty of Medicine, University of Manitoba and St. Boniface General Hospital Research Centre

Undoubtedly the following objectives were achieved:

- To celebrate and promote Canadian trainees and young investigators in the circulatory and respiratory research community includ-

ing heart, blood vessel, stroke, lung, blood, sleep, critical and intensive care research

- To facilitate interaction, learning, sharing of knowledge and collaboration among trainees and researchers in the circulatory and respiratory research community
- To promote mutual respect and appreciation among researchers working in diverse disciplines and across research themes
- To encourage networking and provide opportunities for career development

After the presentation of the awards at the closing banquet, plans were confirmed for the 2nd Annual Forum in Winnipeg, April 28-30, 2005. To keep posted on plans, evaluate the first Forum or just to read from the 95 page program, please visit the web site at www.yiforum.ca ❤️

ADVANCES IN HEART HEALTH

NEW EDITORIAL BOARD EXPANDS ACADEMY JOURNAL



To aggressively encourage growth of "EXPERIMENTAL & CLINICAL CARDIOLOGY" the Editorial Board has been expanded significantly. This Journal represents a most unique opportunity to have articles on wide ranges on heart health to be published for global circulation. E C & C is indexed/abstracted by EMBASE/Excerpta Medica. Articles or inquiries should be forwarded to the editors or board members.

EDITOR-IN-CHIEF Prof. MUDr. B. Ošťádal, DrSc. (Czech Republic)

e-mail: ostadal@biomed.cas.cz

ASSOCIATE EDITORS Assoc. Prof. RNDr. F.

Kolář, Ph.D. (Czech Republic)

e-mail: kolar@biomed.cas.cz

Prof. F.H.H. Leenen, MD (Canada) e-mail: fleenen@ottawaheart.ca

Assoc. Prof. A. Lukas, Ph.D. (Canada)

e-mail: anton_lukas@sbrc.ca

EDITORIAL BOARD

A. Beresewicz (Poland) R. Bolli (USA) P. Braven_ (Czech Republic) S. K. Cheema (Canada) D. K. Das (USA) N. S. Dhalla (Canada) R. Domenech (Chile) R. Ferrari (Italy) R. Fischmeister (France) S.K. Gupta (India) P. Hamet (Canada) H. Hayashi (Japan) J. Herget (Czech Republic) V.I. Kapelko (Russia) M. Karmazyn (Canada) H. Kawaguchi (Japan) G. Kessler-Ickelson (Israel) K. Kjeldsen (Denmark) A. Kumar (India) M. M. LeWinter (USA) R. R. Markwald (USA) D. B. McNamara (USA) A. Morris (Canada) J. J. Mercadier (France) M. Nagano (Japan) L. Neyses (UK) J.R. Parratt (UK) V. Pelouch (Czech Republic) G. N. Pierce (Canada) J. Pirk (Czech Republic) K. Rakusan (Canada) E. Roth (Hungary) M. Samanek (Czech Republic) J.-L. Samuel (France) J. Schaper (Germany) K. Schwartz (France) E. Seppet (Estonia) M. A. Q. Siddiqui (USA) P. Singal (Canada) J. Slezák (Slovak Republic) B. Swynghedauw (France) N. Takeda (Japan) J. Tam (Canada) K. K. Talwar (India) R. Tomanek (USA) A. Torbicki (Poland) A. Vegh (Hungary) M. Vornanen (Finland) J. Widimsky (Czech Republic) P. Widimsky (Czech Republic) J. Zicha (Czech Republic) A. Ziegelhoeffer (Slovak Republic) H. G. Zimmer (Germany)

PUBLICATION COORDINATOR

I. Berkowitz (Canada)

FOR DETAILS, PLEASE VISIT:

<http://www.pulsus.com/ecc/home2.htm> ❤️

NATIONAL RESEARCH FORUM FOR YOUNG INVESTIGATORS IN CIRCULATORY AND RESPIRATORY HEALTH

A program of the CIHR Institute of Circulatory & Respiratory Health & partners

April 28 - 30 • 2005

Winnipeg, Manitoba, Canada

Web: www.yiforum.ca

Cardiovascular Highlites of the 83rd Meeting of the German Physiological Society in Leipzig, Germany

by Wilfried Briest, PhD Leipzig, Germany



(left to right) Makoto Nagano, Heinz-Gerd Zimmer, Naranjan Dhalla

The Meeting of the German Physiological Society in Leipzig, March 14-17 2004 was a great success. The sponsorship and assistance of the International Academy of Cardiovascular Sciences was most appreciated. 797 scientists from throughout Germany and guests from all over the world participated. All major topics of physiology were covered. Cardiovascular subjects were powerfully represented. Two of 6 plenary sessions were dedicated to perspectives of this field. Professor Dr. H. Michael Piper (Giessen, Germany) summarized the knowledge about the twist of cellular signaling in the heart during ischemia-reperfusion injury which leads to protection. He explained the jeopardy by Ca²⁺ overload of heart cells and the development of myofibrillar contracture in the first minutes of reperfusion. Signaling through gap junctions plays a major role and is therefore a target for protective therapy. Several protective kinase pathways have been identified that, if activated during reperfusion, reduce necrotic or apoptotic cell death. These include PKG, PI 3-K/Akt, and Erk γ which are part of protective approaches that can be used for the treatment of acute myocardial infarction. Prof. Dr. Ulrich Pohl (Munich, Germany) started his lecture about signaling pathways of pressure and flow in blood vessels with the so called myogenic answer of vessels to elevation of intravascular pressure which was first described by Sir William Bayliss 1902. Elevation of transmural pressure induces endothelial and smooth muscle depolarization yielding elevated oxygen free radical production. Moreover, increased pressure acti-

vates the RhoA pathway, resulting in increased Ca²⁺ sensitivity of vascular smooth muscle, and subsequently, elevated basal tone and myogenic reactivity. Conversely, shear stress stimulates the endothelium to release vasoactive factors and induces remodeling of vessels as an adaptation to chronically altered flow load. The extracellular matrix (ECM) plays a critical role in this process: the ECM-cell connections possess mechanosensor function; and certain matrix components are pivotal for regulating gene expression and growth factor release. Professor Pohl pointed out that the active roles of the ECM and the Ca²⁺-sensitizing mechanisms in the vascular responses to pressure and flow offer new insights into the activation pathways exerted by mechanical forces. Thus providing novel potential targets for the therapy of hypertension and atherosclerosis.

Two symposia which presented novel mechanisms in cardiac hypertrophy and overviews of gap junctions in the cardiovascular system were part of the congress. In several oral presentations the viability of cardiovascular research was demonstrated. Special interest was produced by the presentation of Dr. Alexander Deten (Leipzig, Germany) in the controversial field of stem cell therapy of injured heart. He had analyzed the effect of increased circulating bone marrow derived stem cells on morphological and hemodynamic parameters of mouse hearts 5 weeks after induction of chronic myocardial infarction (MI). He tested also the effect of re-injection of isolated bone marrow cells in these mice.

However, there was no effect of stem cells on cardiac repair. The left and right ventricular function revealed no improvement in any treatment group when compared to untreated MI-animals at baseline resting conditions as measured by catheterization. Also, histological analysis did not show differences between treated and untreated animals as to scar thinning and remodeling of the remote myocardium.

Professor Dr. Wolfgang A. Linke (Heidelberg, Germany) presented new results in the field out of titin research. He found an isoform shift of this biggest protein what we know in patients with dilated cardiomyopathy to the longer form. This shift lowered sarcomeric passive tension. To test whether the isoform switching might be triggered by myocardial hypertrophy, he and his co-workers generated an animal model, the experimental 2K1C rats. The titin-isoform composition in the heart of hypertrophic and sham-operated samples was not changed 6-7 weeks following surgery. Professor Linke concluded, that a lower-than-normal proportion of titin-based stiffness in end-stage failing hearts may be result partly due to the loss of titin and increased fibrosis, and partly due to the titin-isoform shift. This shift may be independent of hypertrophy signaling pathway.

Very interesting pictures of beat-to-beat Ca²⁺ changes in contracting myocardium by confocal microscopy were shown by V. Dyachenkov (Halle, Germany). He concluded that mitochondrial Ca²⁺ concentrations of mouse ventricular myocytes follow the beat-to-beat changes in the cytosolic Ca²⁺ concentration.

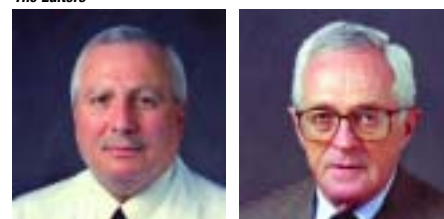
In addition to the highly interesting scientific program, the participants had the opportunity to share the exciting cultural life of Leipzig, famous among other as a home for great musicians like Johann Sebastian Bach, Felix Mendelssohn Bartholdy and Richard Wagner. There was enough time and room for discussions in the breaks and during poster sessions since this congress was a meeting of short distances. All activities were concentrated right in the city center. The Opening Ceremony and the Get Together on the first day took place in the "Gewandhaus" of Leipzig. One highlight of the meeting was the birthday party celebrating the 100th anniversary of the German Physiological Society. The guests and participants will remember Leipzig as a most dynamic place concerning science and culture.

Heart Failure Reviews is an Academy Official Journal



The editors of Heart Failure Reviews published by Kluwer Academic Publishers are delighted to announce that the International Academy of Cardiovascular Sciences has selected Heart Failure Reviews as one of its official journals. Heart Failure Reviews is a quarterly journal in its tenth year of publication focused on providing up-to-date information to physicians and scientists about the evolving heart failure field. The Journal has published reviews and symposia covering heart failure from epidemiology to molecular biology. Members of the Academy are welcome to participate in the Journal and encouraged to send manuscripts to the editor on topics in heart failure.

The Editors



Hani Sabbah
[HSABBAH1@hfs.org]

Sidney Goldstein
[SGOLDST1@hfs.org]

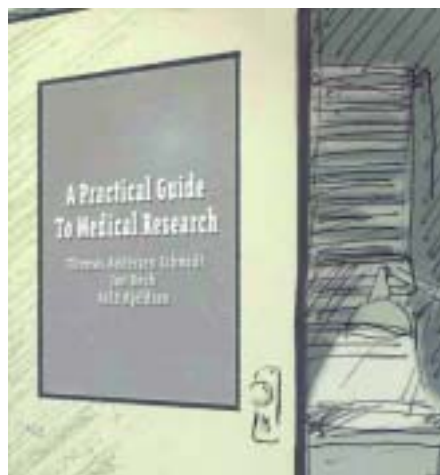
Kluwer Academic Publishers is pleased to announce that Heart Failure Reviews is available to members of the International Academy of Cardiovascular Sciences at the low subscription price of \$88.00 for four issues.

Please send your orders to:

Kluwer Academic Publishers
Order Dept.
PO Box 322
3300 AH Dordrecht, THE NETHERLANDS
Fax: 31-78-6576474 • Phone: 31-78-6576050
E-mail: frontoffice@wkap.nl

Book Review: "A Practical Guide to Medical Research"

by Morten Woejdeman, MD DSc London, England



Outstanding book. Nothing less than a scoop. One only wonders why the book hasn't been written before. This book should be owned by anyone considering to launch a career in medical research or even only attempt a brief encounter with the research community. The book, written by TA Schmidt, J Bech and K Kjeldsen from Copenhagen, focuses on the collaboration between mentor and apprentice in

particular the obligations that mutually need to be met. Both parties would spare time and frustrations by having read this book. Very useful information, indeed. In good form the reader is lead through the whole process; from the initial contact with the research community to working out research plans, applications for grants and an attractive CV. Even tips regarding computers and software are rendered. This is followed by detailed instructions on how to efficiently write a research paper including interesting examples. Even a whole chapter is dedicated to the art of giving a talk. Everything is included from start to finish, the beginner and even the experienced researcher is guided through it all, whether it concerns writing the title page of a paper or creating a figure. This is efficient pedagogy, something that works. The reasons why seemingly endless drafts and corrections may be necessary are presented, in a way that should make anyone accept even serious commenting.

The book is concluded with a review of the editorial process and the peer review system. Many researchers will have a déjà vu experi-

ence seeing the examples given, and many may benefit by taking up the elegant phrasing during a rebuttal. I laughed out loud when I read the authors' phrase: "We thank the Reviewer for the constructive criticism of our manuscript," having a vision of a humiliating review in mind.

The book consisting of 148 pages of text is well illustrated and contains several boxes with highlights to remember in the best US text book tradition. Of course the authors have even thought of electronic references to be used for in depth study or merely downloaded for future surfing on the Web.

The great surprise is that the three Danish authors have opted to write their book in English. This is however natural since English is the major language for any scientific communication. The language used is easily read, and easily understood. The potential of the book is huge. I can clearly state that the book has my best recommendations. I would also recommend it to other biological researchers than physicians. Enjoy this scoop of a book. If I am to undertake any further mentoring, the first thing I shall do is to ask the hopeful apprentice to buy and read this book.

The book was published in 2003 by FADL's Forlag, Copenhagen, Denmark (ISBN 87-7749-402-4),
Web site: www.forlag.fadl.dk
E-mail: forlag@fadl.dk

Special Announcements



1

1st Joint Symposium Society of Brazilian Cardiologists - Funcor, InterAmerican Heart Foundation & International Academy of Cardiovascular Sciences on Sunday Sept. 26 to Wednesday Sep 29, 2004. This part of SBC-Funcor program is intended for healthcare professionals and will be at the Convention Centre, Rio de Janeiro, Brazil. Also, there will be a CardioForum (Public Forum), which will take place on Sunday Sept. 26. For details, contact – David Brasil, Co-ordinator for International Affairs, Telephone: +55-31-3281-2027, E-mail: davidb@pib.com.br

2

Teaching Course – "FAITH AND DISEASE" with the focus on the importance of faith in heart disease. The course is featured by the General County Counsel for Continuous Medical Education, Copenhagen, La Facolta di Medicina et Chirurgia, Universita degli Studi de Roma and the International Academy of Cardiovascular Sciences (IACS) in Rome, Italy, 1-5 December 2004. Lectures will be in English. Course fee is 1500 EURO. Accommodation and meals included. For further information contact Deputy Executive Secretary IACS Europe Thomas A Schmidt, MD, DSc: tas@dadlnet.dk. Enrolment on first come first serve basis.

3

IACS - South America will again be a sponsor of XV Scientific Forum and 1st World Congress on Cardiology for the Family. Dec. 2 - 5, 2004, Belo Horizonte, Brazil. For details, please contact Dr. Otoni M. Gomes, Rua Manoel Lopes Coelho, 365 - Itapoa - 31710-530 Belo Horizonte - MG, Brazil
Tel: +55-31-3444-8807 / 3441-2254 (res.) E-mail: gomes@sevicor.com.br

4



The ACADEMY has been accepted as an "associate" of Amazon.com To make it easy (and even find bagains) to buy the six books recently published from the 2001 World Heart Congress or by many of our Fellows, people can click to Amazon.com from the logo on our home page - <http://www.heartacademy.org/>

5

Stress-Induced Biochanges in the Heart: From Genes to Bedside. Antalya, Turkey, February 2 - 7, 2005:

The Nato Advanced Research Workshop, organized by the Academy, will focus on the effects of different stresses on:

- transport of signals through biological membranes and interpretation of such signals by cellular systems
- calcium signaling in animal cells
- mitochondria and their channels in pathological situation and apoptosis
- endogenous myocardial protection against ischemic stress
- the role of plasmalemmal ATPases in signaling and termination of signals
- myocardial injury mediated by endocardium
- calcium handling in the diabetic heart
- endogenous cardioprotection operating in diabetic heart
- oxidative stress and antioxidants in myocardium
- nitric oxide signaling and effect of NOSs in cardiac protection
- catecholamine signaling in the heart

LIST OF KEY SPEAKERS

ALTAN M. (Turkey), CERBAI E. (Italy), DAS D. K. (USA), DHALLA N. (Canada), KESSLER G. (Israel), KJELDSEN K. (Denmark), LOPASCHUK G. D. (Canada), McNAMARA D. B. (USA), OSTADAL B. (Czech Republic), SEPPET E. (Estonia), SINGAL P. K. (Canada), SLEZAK J. (Slovak Republic), SMIRNOV V. N. (Russia), TURAN B. (Turkey), VASSORT G. (France), VEGH A. (Hungary), WERDAN K. (Germany)

For more information, please visit the website or contact:

Belma Turan Ph. D.

Dept. of Biophysics, University of Ankara
Sihhiye 06100, Ankara, Turkey

E-mail: belma.turan@medicine.ankara.edu.tr

Web page:

www.ankara.edu.tr/nato/heart2005