

CV network

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Dr. James Willerson, President of the International Academy of Cardiovascular Sciences, is pleased to announce the election of two individuals for the award of Medal of Merit for 2012. This highest honour of the Academy is being bestowed upon Drs. Piero Anversa, Boston, USA and Laurentiu Popescu, Bucharest, Romania for their outstanding achievements in cardiovascular education and research. Previous winners of this prestigious medal were Drs. Michael DeBakey, Richard Bing, Robert Furchgott, Edwin Krebs, Eugene Braunwald, Robert Lefkowitz, Sir John Vane, James Willerson, Sir John Radda, Victor Dzau, Robert Jennings, Sir Magdi Yacoub, Louis Ignarro, Jutta Schaper, Wilbert Keon, Wolfgang Schaper, Nirmal Ganguly, Salvador Moncada, Howard Morgan, Ernesto Carafoli, Eric Olson, Laszlo Szekeres, Arnold Katz, Jay Cohn and Salim Yusuf.



Professor Piero Anversa, MD – Harvard Medical School, Boston, Massachusetts, USA

As one of the leading cardiovascular scientists, Professor Piero Anversa (MD), has made numerous substantial contributions to regenerative medicine. He received his MD from the University of Parma and has been a Professor of Pathology at both New York Medical College and the University of Parma. Professor Anversa is currently teaching at the Brigham and Women's Hospital as a Professor of Anesthesia and Professor of Medicine in addition to his exceptional work as the Director of the Center of Regenerative Medicine at Brigham and Women's Hospital at Harvard Medical School.

His cutting-edge research focuses on myocardial regenerative capabilities mediated by both exogenous and endogenous progenitor cells. His laboratory has shattered the pre-conceived notion that the heart is a post-mitotic organ characterized by an unchanging number of cells throughout a lifetime. His findings established the concept that multi-potent cardiac stem cells could be involved in the physiological turnover of cardiomyocytes, endothelial cells, smooth muscle cells, and fibroblasts. His exceptional work has been published in numerous high-impact journals including the New England

Journal of Medicine, Circulation Research, The Lancet, Nature Medicine, Nature, and Cell. Some titles of papers include "Bone marrow cells regenerate infarcted myocardium", "Chimerism of the transplanted heart", "Evidence that human cardiac myocytes divide after infarction", "Progenitor cells from the explanted heart generate immunocompatible myocardium within the transplanted donor heart", and "Functionally competent cardiac stem cells can be isolated from endomyocardial biopsies of patients with advanced cardiomyopathies". His papers illustrate a key understanding of both basic science and clinical relevance in his research as indicated by his work in translational medicine. He has also been a primary investigator in the clinical trial SCIPIO, Cardiac Stem Cells in Patients with Ischemic Cardiomyopathy, which has shown that cardiac stem cells benefit heart failure patients, a newsworthy discovery.

He has been given numerous awards for his research including the Research Achievement Award of the American Heart Association (2004), and the Louis and Arthur Lucian Award (2008). In 2003 he was given the honour of being the Distinguished Scientist of the American Heart Association. From 2008-2013 he will serve on the NIH/NIA Board of Scientific Counselors.



Professor Laurentiu M. Popescu (MD, PhD, Dr. h.c. mult.) – “Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

Professor Laurentiu M. Popescu (MD, PhD, Dr. h.c. mult.) is an exceptional cardiovascular scientist who was valedictorian of his graduating MD class at the University of Medicine and Pharmacy in Bucharest. He completed his PhD in 1971 at the Institute of Medicine and Pharmacy in Bucharest, and completed his post-doctorate at the University of Le-

iden in The Netherlands. He has held numerous distinguished positions including being the General Director of "Victor Babes" National Institute of Pathology in Bucharest, Vice-President of the International Society for Adaptive Medicine, and the President of the Medical Sciences Section of the Romanian Academy of Sciences. He is currently the President of the Federation of European Academies of Medicine. In addition, he has been a member of numerous organizations including the American Society for Cell Biology, the International Committee of Histochemistry and Cytochemistry, the International Society for Heart Research, and is currently serving as part of the Steering Committee for Regenerative Medicine of the European Science Foundation.

The majority of his progressive, high-caliber research focuses on caveolae regulation of intracellular Ca^{2+} in smooth muscles, the role of cGMP and vasodilation via G-kinase, and most recently, his discovery of novel interstitial cells known as telocytes. He has published more 125 articles in over 40 international peer-reviewed journals including American Journal of Physiology, Cardiovascular Research, Cellular Physiology and Biochemistry, Autophagy, Journal of Cell Biology, and Circulation. He is also the founder and Editor-in-Chief of the Journal of Cellular and Molecular Medicine which has an impressive 5-year impact factor of 5.043. He has also been on the editorial board of numerous international journals such as Cell Transplantation, the International Journal of Translational Medicine, and the World Journal of Stem Cells.

Professor Popescu has been recognized for his work at an international level as indicated by his many awards, invitations to international symposia and as a speaker at world-class institutions. He has received Doctor Honoris Causa from ten different universities in Italy, Hungary, and Romania. His prizes include the Gold Medal of the Paris Academy – "Rene Descartes" University (1998), the Gold Medal of the "Albert Schweitzer" International Academy (2002), and has been elected as one of the Top 100 IBC Health Professionals (2009). His many invitations to speak about his research include the Chinese Heart Congress/International Heart Forum in Beijing, China (2010) and the 4th Global Conference on "Recent Advances in Cardiovascular Sciences" at the Delhi Institute of Pharmaceutical Sciences & Research in New Delhi, India (2010). He has also been an invited lecturer to world-class university institutions including Harvard Medical School, USA (2010), the University College of London, UK (2011), and the University of Edinburgh, UK (2011).



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The Journal of the
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LETTER FROM THE PUBLISHER
Experimental Cardiology: A rebirth

EXPERIMENTAL & CLINICAL
CARDIOLOGY
now indexed
in Thomson Reuters
Science Citation Report
1st Impact Factor due July, 2012

IACS GLOBAL NETWORK TO FIGHT CARDIOVASCULAR DISEASES

IACS STEERING COMMITTEE met in Orlando during AHA Scientific Sessions, Nov. 14, 2011

by Ivan Berkowitz, Winnipeg, Canada



Clockwise around the table starting with closest - Cristina Rabadan-Diehl, Sharon Mulvagh, James Willerson, Salim Yusuf, Ivan Berkowitz, Jay Cohn, Suzy Lanier, Benedict Maniscalco, Bohuslav Ostadal, Naranjan Dhalla, Arun Chockalingam, Mohamed Boutjdir

Dr. Willerson and Mr. Berkowitz welcomed committee members: Drs. Dhalla, Boutjdir, Cohn, Ostadal, and Mulvagh and Ms Suzy Lanier; Dr. Salim Yusuf who has agreed to serve as an Advisor; Dr. Benedict Maniscalco, C E O of HeartBeat International; Dr. Arun Chockalingam, NHLBI Director, Office of Global Health; and Dr. Cristina Rabadan-Diehl, Project Director and Deputy Director Office of Global Health; as well as Dr. Angel Zarain-Herzberg, by telephone from Mexico. Later, Mr. Berkowitz was also able to meet productively with Dr. Jawahar Mehta who has identified sources of funding and emphasized the need to include young people.



Dr. Willerson presented the 2011 IACS Medals of Merit to Dr. Cohn and to Dr. Yusuf



Dr. Willerson and Mr. Berkowitz reviewed the concept of the GLOBAL NETWORK and reported on developments, particularly the potential of various collaborations and discussions of funding prospects which appear to be most promising if targeted very specifically because general requests have yet to be successful.

Dr. Cristina Rabadan-Diehl introduced the development of National Heart, Lung and Blood Institute Centers of Excellence in 9 countries and the United Health Services GLOBAL HEALTH INITIATIVE followed by discussion of collaboration between NHLBI and IACS global programs.

Subsequently, we have had a series

of exchanges. Dr. Chockalingam has introduced us to Dr. Prem Pais, Dean of St. John's Medical College in Bangalore, India and Dr. Denis Xavier, St. John's Principal Investigator, NHLBI-UH-Center of Excellence to counter chronic diseases in developing countries. Dr. Chockalingam recommended we work together to create a program for collaboration in research and training in basic cardiovascular science. Dr. Xavier responded positively. He has agreed to come to New Delhi to meet with Dr. Willerson during the Cardiovascular Research Convergence International Conference.

There was a report on a potential program in Mexico by Dr. Angel Zarain-Herzberg. A copy of his vision follows. We will focus on Mexico as it holds immense promise of becoming the model for future efforts.

Dr. Willerson stressed that Committee members are urged to identify potential sources of funding for the IACS GLOBAL NETWORK. They might recommend Fellows or other dynamic individuals who might become Ambassadors to facilitate the Network in emerging countries. A statement of the responsibility of Committee Members is outlined on the following page: ►

Responsibilities of Members of the I A C S Steering Committee

The formation of the Steering Committee is complete with the addition of Dr. Jan Slezak from Slovak Academy of Sciences, Bratislava, Slovak Republic to members including: Drs. James Willerson, Sir Magdi Yacoub, Bohuslav Ostadal, Naranjan Dhalla, Nirmal Ganguly, Otoni Gomes, Jay N. Cohn, Junbo Ge, Ernest Madu, Sharon Mulvagh, Edward Kaplan, Jawahar Mehta, Mohamed Boutjdir, Giuseppe Ambrosio, Naoki Makino, Angel Zarain-Herzberg, Dragan Djuric, Suzanne Oparil, MS Suzy Lanier and Ivan Berkowitz.

We were also delighted that Dr. Victor Dzau, Duke University, Durham, NC and Dr. Salim Yusuf, McMaster University, Hamilton, ON, accepted our invitations to serve as Advisors to the Steering Committee. The primary communication will be electronic, but also include quarterly conference calls. We will take the opportunity for the Steering Committee to meet when members are attending Academy meetings and international conferences such as AHA, ESC and ACC. The first formal meeting was held in Orlando on November 14, 2011 during AHA and next on March 26, 2012 in Chicago during ACC.

Members of the Steering Committee regularly will be given full presentations on developments of the Global Network by President James Willerson and Ivan Berkowitz. Their input will be encouraged.

The most dynamic efforts of Members of the Steering Committee are needed to facilitate the process of raising funds without which the Global Network cannot reach its potential. We have developed a package which will support any presentations to prospective donors and will arrange to meet with them as negotiations proceed. As a start, we will encourage each member of the Steering Committee to provide one specific lead to a potential donor for the Global Network each year of their membership on the Steering Committee.

As a Steering Committee, we will plan for the new initiative to ultimately extend the IACS Global Network into each and every country (using the United Nations as our model). We will select one Ambassador, possibly an IACS Fellow, from each country. Members will be asked to investigate and recommend the appointment by Ambassadors in countries without representation. In their home country, the Ambassadors will facilitate activities of the Network by identifying promising medical personnel and research, including young people and mature professionals, with the potential to become leaders in the delivery of heart and vascular health. Individuals nominated by the Ambassadors to be a Global Network Scholar will be evaluated by the experts on the Steering Committee. Those selected will pursue advanced translational, clinical and/or basic cardiovascular research training in centers of excellence in highly regarded laboratories in the USA, Europe, and Canada or other well-established research centers. Scholars will be committed to the discovery of new methods for early detection and treatment to reduce the morbidity and mortality from CVD. Upon returning to their home countries, they will be encouraged and assisted by the IACS in the building of local centers of excellence for future education and training.

Ambassadors will be expected to participate in IACS Conferences and "Team Visits" (as introduced in CV Network by Dr. Grant Pierce in Vol. 10 No. 1) when it is convenient for them. They will be assisted to host such events and facilitate local fund raising to cover costs.

Report of potential IACS Global Network program in México from Dr. Angel Zarain-Herzberg.

I have contacted and talked twice with Dr. Edmundo Chávez, who is Director of Research at the National Institute of Cardiology of México, in México City, regarding the initiative of the IACS Global Network to identify potential young MD candidates who may compete to receive a Scholarship for three years from the Global Network program to receive training in a Research Centre of Excellence abroad (USA or Canada).

We have agreed that we can identify 5 outstanding MD candidates who might be interested to participate in the program, some from the National University of México (UNAM) and some from the National Institute of Cardiology. Hereby, we propose to the IACS Global Network Steering Committee, that the mechanism to select the winning candidate(s) should be as follows:

1. The CV and application letter of the participant candidates will be send to Ivan Berkowitz (International Academy of Cardiovascular Sciences, Winnipeg, Canada).
2. The Steering Committee will review the applications of the candidates and give a recommendation of who is (are) the winning candidate(s).
3. The IACS Global Network will present an official request to the funding agency to obtain funds to cover the specific expenses for the scholarship(s) estimated at \$50,000 per year.
4. Once specific funding is confirmed, a letter informing the final decision from the IACS Global Network will be send to the winning recipient of the Scholarship(s).
5. Upon acceptance of the Scholarship by the awarded recipient(s) the procedure to reach an agreement with the Institution most appropriate to each specific recipient and laboratory where the training will be done. The program would start as soon as feasible.

Subsequently, we have received applications from two young cardiologists requesting assistance for post-doc work in Canada. We are continuing discussions with a most interested company about their support of the Network in Mexico.

Scientific Forum XXI: International Congress of Cardiovascular Sciences

by Alison Muller - Canada



The XXI Scientific Forum: International Congress of Cardiovascular Sciences, organized by Professor Otoni Gomes, took place in beautiful Salvador, Brazil, from November 24-26, 2011. The congress was held in the lovely Pestana hotel situated right next to the Atlantic Ocean. It was well attended by local basic scientists, clinicians and surgeons as well as internationally renowned researchers specializing in clinical, surgical and basic research. The primary focus of the meeting was cardiovascular disease with special interests pertaining to novel surgical techniques, new and/or improved medical devices and heart monitoring mechanisms, and biochemical pathways involved in cardiovascular dysfunction. Topics of various symposia included Cardiovascular and Respiratory Monitoring, New Frontiers in Cardiovascular

Bioengineering, Mitral Valve Surgery, and Intervention Cardiology. Among the many noteworthy scientists at the meeting the named symposia recognized Dr. Tofy Mussivand and Prof. Pawan Singal from Canada, Prof. Domingos Souza from Sweden, Dr. Domingos Junqueira de Moraes from Brazil, and Prof. Ricardo Gelpi from Argentina. Here is what Prof. Pawan Singal, Director, Institute of Cardiovascular Sciences had to say. "In Salvador, it was my 20th forum out of a total of 21 organized by Dr. Otoni Gomes and his team. Each time the organizers have expanded the scope as well as the number of other participating professional and scientific organizations. The XXI Scientific Forum had a very good mix of basic and clinical presentations as well as a goodly number of international participants. Salvador as the location and hospitality was outstanding. I was thoroughly impressed and enjoyed the experience." The forum focusing on the South American Section of the International Academy of Cardiovascular Sciences was named after Professor Naranjan S. Dhalla from Canada. In addition to established scientists there were a number of excellent students taking part in the XXII Brazilian Meeting of Student's Ligaes of Cardiovascular Sciences who presented various aspects of cardiovascular anatomy topics ranging from cardiovascular embryology to the anatomy of circulation in various organs and peripheral areas. Not only were there a large number and variety of oral presentations, there were posters presented which ranged from the impacts of medication on developing fetuses to evaluating post-operation inflammatory responses in heart surgery by measuring parameters in extracorporeal circulation. This meeting was brilliantly organized and is looking forward to the XXII Scientific Forum in Belo Horizonte in the December 6-8, 2012. Hope to see you there!



World-Renowned Cell-Therapy Researcher, Doris Taylor, PhD, Joins Texas Heart Institute



Houston, Texas (January 25, 2012) – Officials at the Texas Heart Institute (THI) at St. Luke's Episcopal Hospital (St. Luke's) announced today that Doris Taylor, PhD, FAHA, FACC, one of the world's leading cell therapy and cardiac regeneration scientists, will join THI beginning March 1, 2012.

Dr. Taylor's research includes: Cell and gene therapy for treatment of cardiovascular disease; tissue engineering of bioartificial organs and vasculature; cell-based prevention of disease; stem cells and cancer; and holistic approaches to using cell therapy for treating chronic disease. She was recruited to THI with generous support from the Houston Endowment.

Most recently, Dr. Taylor and her team garnered international recognition for her work involving "whole organ decellularization," in which they showed they can remove the existing cells from hearts of laboratory animals and even humans to leave a framework for building new organs. By then repopulating the framework with another human adult stem cells and giving it a blood supply, the heart regenerates, taking on the characteristics and functions of a revitalized beat-

ing heart. The hope is that this research is an early step toward being able to grow a fully functional human heart in the laboratory. Dr. Taylor has demonstrated that the process works for other organs as well – opening a door in the field of organ transplantation. It is significant in that the need for transplants continues to grow, while the supply of donor organs remains critically low.

"Dr. Taylor is certainly one of the stars in the adult human stem cell field, and we feel extremely fortunate to have her join our team," said Dr. James T. Willerson, THI's President and Medical Director. "Her work fits very well with our mission and goals, and she certainly helps to solidify THI as a leader in cell therapy, which is one of the most promising hopes for treating cardiovascular disease."

"The chance to work with Dr. Willerson and the THI team as colleagues is very exhilarating. From molecules, to cells, to organs and tissues, we want to create solutions for people with disease," said Dr. Taylor. "I am confident that I am joining a regenerative medicine program that is unparalleled. And, given the breadth of innovation and science in Houston, I have every confidence that building solutions for heart diseases not only has a long history, but a bright future."

The move to Houston will also bring her closer to her family, notes Dr. Taylor.

Dr. Taylor has been serving as director of the Center for Cardiovascular Repair and Medtronic Bakken Chair in Integrative Biology and Physiology at the University of Minnesota. Prior to that she was on the faculty as Associate Professor in Cardiology at Duke University Medical Center. A native of Mississippi, Dr. Taylor holds a B.S. in biology from Mississippi University for Women and a Doctorate in pharmacology from the University of Texas Southwestern Medical School in Dallas.

As we complete the 10th year of publication of CV Network, The Executive of the IACS expresses deep gratitude to all who have served this noble endeavour. We specifically thank those who have worked diligently on the Editorial Board. We recognize that we need to add some new ideas so have created a new Editorial Board as follows.

CV NETWORK Editorial Team:

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AN OUTSTANDING RESEARCH ACTIVITY

Editor's note: At a recent meeting with local members of the CV Network Editorial Team, it was suggested we ask IACS Fellows to write detailed reports on the exemplary work – the first is from Dr. Heinrich Taegtmeier and we hope his outstanding example will stimulate others to submit their reports on a regular basis.

FROM: *Dr. Heinrich Taegtmeier,
Professor of Medicine
University of Texas Houston Medical School
Houston, Texas, USA*

I want to continue with the tradition we started three years ago and write to you about some of the happenings in the Lab during the past 12 months. Overall, it's been a quiet year. I can say so, because in the spring we got notice that our "Atrophy Grant" was renewed for another 5 years. The R01, now in its 10th year and appropriately renamed "Self-renewal of the Cardiomyocyte", gives us much needed stability and hope for the future. It is also a testimony to the hard work by Kedryn, Shiraj, and Romain (each responsible for one of the three Specific Aims) and especially, the tireless efforts of Roxy and our many helpers. I am grateful for (nearly) uninterrupted support from the NIH since 1976, i.e. for the last 35 years. With over 150 original papers, I hope we have been productive stewards of the public's investment in us.

I have often said, it is difficult to run a lab on one NIH grant alone. We are therefore grateful to the American Heart Association (AHA) for a pre-doctoral fellowship to Kedryn and post-doctoral fellowship to Romain, and the DDFG (Germany) for support of Moritz during his stay with us. We are equally grateful for the generous donations we received from three former members of the lab: Dr. Mazen Ganim, Dr. Ramesh Hariharan, and Dr. Peter Razeghi. These donations allowed us to pay for the much needed reagents, publication fees and tuition fees.

Publications and Meetings

A list of this year's publications follows the letter. Our flagship paper was Kedryn's "AMP-kinase activates E3 ligases in the heart" in *Circulation Research*. She shows that AMP kinase acts as a transcriptional regulator in cardiomyocytes. This supports our broad hypothesis that metabolic signals regulate intracellular protein turnover. Two additional original papers appeared in *Molecular and Cellular Biology* and in the *Journal of the American College of Cardiology*. Here we were fortunate to be collaborators with colleagues from the University of North Carolina and from the University of Pittsburgh, respectively. A further three original manuscripts are currently under review.

We presented our work at the Annual Scientific Sessions of the American Diabetes Association (Romain), the Council of Basic Cardiovascular Science (BCVS) of the AHA (Kedryn, Shiraj, Romain and Meredith) and the AHA National meeting (Romain, Kedryn and Shiraj). I was invited to speak at the Heart Failure Society of the ESC in Gottenborg, Sweden, at the workshop organized by the Technion in Haifa, Israel, (where I also presented Shiraj's work at the European Section of the ISHR), and at the Obesity Society in Orlando. The BCVS meeting was held in New Orleans which allowed all of us to attend. And to learn a lot! Also, in October I was invited to speak at the annual Research Retreat of our Medical School. This year's theme was "Metabolism", and the key note speaker was Dr. Sahli Wakil from Baylor College of Medicine.

I was pleased to serve as faculty sponsor of two Cardiology Fellows who received a Travel Award from the AHA, allowing them to attend the 2011 Scientific Sessions in Orlando. Drs. Ijeoma Ananaba and Jean Onwuchekwa received the awards, which were made specifically to minority applicants for the purpose of attending the AHA meeting.

Students' Progress

On December 16, Kedryn gave her Public Seminar in front of a large audience (I counted 98) and defended her thesis with an unconditional pass. We welcomed my long-time colleague, Dr. Gary Lopaschuk, Director of the Mazankowski Heart Institute and Distinguished University Professor at the University of Alberta, as Kedryn's external examiner. On December 21 Mer, who had joined the lab in the summer, passed her candidacy exam with flying colors. I would like to thank all the examiners for their time and diligence. You have certainly succeeded in your determination to raise the bar for our students and for the lab. Likewise, I thank the CRB Program for providing an intellectual home for our students. The next to defend his thesis will be Shiraj (MD/PhD student) whose exam is on February 14, 2012. Shiraj has already interviewed at several clinical investigator programs for his residency training.

Honors

In December Kedryn was awarded the Presidents' Scholar Award for the Presidents of MD Anderson Cancer Center and the UT Health Science Center. Kedryn will speak at a ceremony on January 26 and receive a \$5000 cash award. This is a great honor for Kedryn and the lab.

Comings and Goings

In productive labs, like in metabolism, "all is in flux," as I like to say. In the summer we said "good-bye" to Patrick, who was retiring after nearly 20 years of service as a Senior Research Assistant, and to Moritz at the end of his research year as a German medical student who returned to the University of Leipzig to finish his clinical training. We saw a good turn out at luncheon for both of them in the Board Room of Memorial Hermann Hospital. Truong put on a wonderful entertainment in the form of a slide show with pictures from the lab over nearly 30 years. ►

In the summer we welcomed first Mer and then Hernan and Matt to the Small Lab with Big Ideas. Meredith Rees was an undergraduate student at the University of Colorado and a graduate student in Dr. Aarif Khakoo's lab until he left MD Anderson to become the Scientific Director for Drug Development at Amgen. Mer will explore metabolic causes for cardiotoxicity of RTK inhibitors, a class of tumor suppressing drugs, in her thesis project. She has brought many new skills into the lab, and I am happy to see that she has settled in quickly. Dr. Hernan Vasquez "hails from Chile with pride" (as I like to tease him), and has also joined us from MD Anderson. He received his PhD in Dr. Strobel's lab in our Department of Biochemistry and is now rapidly becoming one of us "metabolites". Hernan will devote his time and effort to our heart perfusions. The third new member of our lab is Matt Terwelp who joined us fresh out of Harvard College where he had already spent some time in an excellent metabolism lab. He hit the ground running. We "share" Matt with Dr. Smalling which strengthens the ties with our neighbors Jim and Patti.

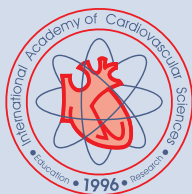
In the summer we also had, once again, two students in the lab. Genna Lubrano (MSII) returned to work on an exciting project examining glucotoxicity in LG myotubes. Katharine Yang (junior at Rice) did her first Western blots under Mer's watchful eyes and taught me how to use my new iPhone.

Of the members of the lab who continued their service, Dr. Romain Harmancey (PhD, University of Toulouse), has had another productive year as a post-doctoral fellow. He loves the bench. Romain plans to transition into a junior faculty position, and has been helped at the bench by Truong Lam (BS, UT Austin) who has applied to several MD/PhD programs. Rebecca Salazar (BS, Texas A&M) continues to support us part time with her skills in preparing cardiomyocytes. None of us would, however, be able to work at the bench if it were not for Roxy's untiring efforts to keep our house in order. She is the secret to our success in the "quiet year".

We heard many stimulating lectures and seminars here at the UT Medical School, at Baylor, and at MD Anderson. We are incredibly lucky to live and work in the research community of the Texas Medical Center, and we enjoy the long friendship of Dr. Mark Entman (BCM), Dr. AJ Marian (IMM) and Dr. Michael Gambello (Department of Pediatrics), to name just three of our closest allies. We rejoice in their successes. We are also grateful for the continued opportunities provided in the form of a tissue bank at the Texas Heart Institute, established and maintained by Dr. Bud Frazier and he crew, especially Sylvia Carranza. Furthermore, we enjoyed collaborating with Dr. Erin Reineke (post-doc in Dr. Bert O'Malley's lab at BCM), Dr. Bijoy Kundu (Assistant Professor of Radiology at UVA), and Dr. Florin Despa (Assistant Professor in Don Ber's department UC Davis).

And finally...this has been the year I turned 70. More than ever Gabriele and I think about the future. I remind her of a saying attributed to Martin Luther: "If I knew the world came to an end tomorrow, today I would plant an apple tree."

I am grateful that I am still allowed to see patients and to teach residents and fellows. One of them, Evren Kaynak, asked for a project in the lab. I am also grateful to Dr. David McPherson and the Department for the much needed renovation of our lab space. Even in a small lab, the well-being of an individual is inextricably linked to the well-being of all. Let's remember that.



Officers and Directors of the International Academy of Cardiovascular Sciences

(Effective July 1, 2011)

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Editor's note: By a stroke of good fortune, I was in Palm Springs and received an invitation to view online the Clinton Foundation Health and Wellness Conference: Health Matters: Activating Wellness In Every Generation which kicked off the HUMANA Challenge tournament's commitment to health & well-being. Indeed, they had begun to share their vision with public events during the previous weekend and the launch of the Humana "Well-Being Tour". I requested and received a Media Pass to attend in person and was able to enjoy an extraordinary experience. Each speaker was outstanding and, of course President Clinton stole the show. He recounted the history of heart disease in his family – no male since his great-grandfather has lived to the age the President celebrated recently. He credited his earlier program of running 25 miles a week with keeping him alive as he had told CNN's Dr. Sanjay Gupta recently "I was lucky I did not die of a heart attack". He was significantly overweight and challenged the Conference audience that no one has eaten more hamburgers than he has and probably not as many french fries. His by-pass surgery was complicated and required two subsequent procedures. As we reported in CV Network 10/4 "President Clinton's Heart Healthy Diet - If President Clinton can do it, we all can avoid heart attacks!" He looks great and said he is feeling like he will live to be 100!

The following was online from The Palm Springs Desert Sun (photos were taken by the Editor)

Bill Clinton: Decide to live a healthier life

It's pretty basic: EAT LESS and MOVE MORE.



President Clinton led the opening panel including: (L to R) Dr. David Satcher, Former U.S. Surgeon General & Director, Satcher Health Leadership Institute, Morehouse School of Medicine; Jillian Michaels, Health & Wellness Expert; Dr. Mark Hyman, family physician & Chairman of the Institute for Functional Medicine; Billie-Jean King, Founder, Women's Sports Foundation; Richard Gephardt, Democratic Representative from Missouri for 28 years; and President William J. Clinton

Former president Bill Clinton sponsored a whole conference Tuesday, Jan. 17, 2012 dedicated to that simple strategy for living a healthy life. He brought his daughter, celebrity exercise and cooking gurus, doctors, athletes, and a few politicians with him. Within half an hour of launching the first Health Matters meeting tied to the Humana Challenge golf tournament, they all acknowledged the solution is a no-brainer.

But while Tuesday's talk clearly wasn't breaking new ground, the conference was. Clinton's daylong workshop with doctors, spa owners, pharmaceutical reps and a handful of locals was the first of its kind, part of an extreme makeover of the former Bob Hope Classic. In the end, panelists from actress Goldie Hawn to PGA player Notah Begay III said healthy living is a personal journey. But it's also a journey Americans have to walk together. "I think every human being has a responsibility to live as long as they can and to help others do the same," Clinton said, echoing a line from his book "Giving." The experts spent the rest of the day tackling the structural and psychological obstacles that keep Americans unhealthy, from cuts in funding for physical education in schools to racial and genetic differences in diabetes rates.

of healthy living initiatives including a 5K walk and playground project last weekend, a series of biometrics booths at PGA West's Hope Square and pedometer-based contests for Challenge spectators. The week's events are meant to inspire Challenge players and watchers to make a change. "After I had my heart surgery, I had a much more personal interest in this," Clinton said. The former president's appearance has morphed over 20 years — changing from the chubby resident of the White House to the lean vegan father walking his daughter down the aisle two years ago. Clinton said Tuesday his weight finally meets the approval of former U.S. Surgeon General David Satcher. "Every day is a gift for me, and it just kills me to see all these kids sort of zonking themselves."

"The Biggest Loser" drill sergeant Jillian Michaels said every person has to find his or her own motivation — from walking a daughter down the aisle to looking good for spring break.

"A lot of us don't like to exercise. And I personally can't stand broccoli and grilled chicken," Michaels said. "But how are those things going to improve every facet



Pres. Clinton and NBC Chief Medical Editor, Surgeon Nancy Snyderman joked at the start of the Town Hall which concluded the Health Matters Conference



Jillian Michaels, health and fitness expert, led about 200 getting warmed up for the Conference

members of Congress and President Barack Obama will get back to doing something – perhaps even on health care. “There’s bound to be people butting heads,” said Clinton, a veteran of his own power struggle with then-House Speaker Newt Gingrich in the mid-1990s. “I had a pretty contentious third year, too. It’s not all that bad,” he said. “First the ice breaks, the leverage comes. We’ll see in the first 60 days of this new year whether that has happened. What is the difference between being a Republican and being a Democrat about being able to live to 100?”

Glasses perched mid-bridge on his nose, Clinton wagged his finger, sometimes lecturing, other times drawling an Arkansas joke or praising the merits of Mexican chipotle soybean sausages. His standing-room only audience of 200 ticket holders invited to the Renaissance Esmeralda in Indian Wells was receptive. They gave the white-haired former president the rock star treatment: jumping to their feet when he walked across the stage, laughing at all the right puns, interrupting with ready applause.

When he finished the keynote, a scrum of 50 clustered around him to get their programs signed.

In between the panel discussions, the crowd munched on fruit, scrambled eggs and muffins in the morning. For lunch, Miami chef Lorena Garcia served ceviche and lomo saltado, a marinated Peruvian beef dish. In the afternoon, the group mingled at a spa reception.

Susie Ellis, president of Spa Finder and board member of Global Spa Summit, said the conference brought a lot of people together who don’t typically talk with each other about health. “It’s a lot of worlds coming together,” Ellis said. “It’s such a big problem that it’s going to take more than one group.”

Desert Hot Springs Mayor Yvonne Parks considers Tuesday’s conference a call to action. She plans on consulting with the city manager about working 15-minute activity breaks into the schedule at City Hall. By dividing the staff into groups, Parks said the breaks wouldn’t interrupt operations. “It’s kind of energized me,” the 75-year-old mayor said as she did calisthenics during a conference recess. “If we can get us moving, we can lead by example. Activity always helps productivity.”

Palm Springs resident Mary Ann Kaestner, 82, came leaning on a cane, with her severely sprained ankle in a fuzzy clog. Kaestner is convinced her exercise classes at the medical center saved her foot from a more serious break earlier this month.

“If this (talking) gets anybody to start exercising,” Kaestner said, “it will be worth it.”

of my life? People will achieve anything if they believe it’s worth it, and they believe they are capable. Identify your reason.”

Partnered with Humana Healthcare and the PGA Tour for eight years, the former president has pledged to be back in the Coachella Valley every year, focusing and refocusing attention on what has become one of his signature causes since leaving the White House 11 years ago. Drawing from more than 30 years in politics, Clinton framed the issue in topical terms. Health care costs, he said, threaten to divide American generations, parents from their children, employers from their middle-class workers. “One of the reasons middle-class Americans will never get a raise is because their employers are paying higher health care premiums every year,” he said. “We’re never going to get back to a full-employment economy unless we change. We have to stay healthy.” He predicted Washington’s partisan cold war will thaw and



James Curleigh, CEO of KEEN Footwear, led the “Recess” breaks which he said were the most beloved part of school and for his business format

Desert Sun reporters Erica Felci, Kate McGinty and Michelle Mitchell contributed to this story.

Happiness and Optimism



online from Health is Wealth: Health Alert
by Nobel Laureate in Medicine Dr. Louis Ignarro
and Naturopathic Physician Dr. Andrew Myers (shown on left)

In addition to nutrition and exercise, which are necessary for good health, happiness and optimism appear to be psychological indicators of physical health. Whether good health leads to happiness or happiness leads to good health isn't known, but it appears that the same actions that lead to good health, such as proper nutrition and regular exercise, are the same actions that lead to happiness.

Multiple studies have documented the association between heart disease and optimism. One study, published in 2004, followed nearly a thousand men and women over a nine year period. Individuals in the study who had higher than normal levels of optimism had a more than 50% lower risk of death from all causes and a 23% lower risk of heart disease compared to individuals who tended toward pessimism. The study, published in *The Archives of General Psychiatry*, concluded "[T]he trait of optimism was an important long-term determinant of all-cause and cardiovascular mortality in elderly subjects independent of sociodemographic characteristics and cardiovascular risk factors." The study not only found that optimism improved health conditions, but also that hopelessness or pessimism actually increased the progression of disease.

Another study, published in the *European Heart Journal*, followed 1,739 adults over a ten year period. The study found that individuals who frequently experienced feelings of joy, happiness, excitement, enthusiasm, and contentment had a significantly reduced risk of developing heart disease. Individuals who experienced little to no happy feelings were 22% more likely to have a heart attack or angina than those with moderate experience of happiness, who were at a 22% higher risk than those with moderate levels of happiness experience.

New research from the University of Michigan, recently published in the journal *Stroke*, found that optimism was an indicator of significantly reduced stroke risk. This study of 6,000 adults over 50 with no history of stroke found that the reduction in risk from being optimistic was similar to the reduction that can be achieved from eating additional fruits and vegetables.

While it is clear that feelings of happiness and optimism are associated with reduced risk of heart disease and stroke, it is not well known whether the attitude causes good health or good health causes the attitude. It does seem likely that many actions that make a person healthier also make a person happier. Consider a person who smokes a pack of cigarettes every day, doesn't regularly exercise, sits on a couch or in an office chair for 6 or more hours a day, eats fast food regularly, and never eats fresh fruits and vegetables. Every single one of these actions individually puts the person at a higher risk of heart disease, and together they create a perfect storm of poor health. This person is likely to be pessimistic and unhappy for the very same reasons that they have an increased risk of heart disease. I, for one, wouldn't be very happy if I was forced to inhale poison, eat chemicals, and deprive my body of much-needed nutrition and activity on a daily basis!

A person who feeds their body what it needs nutritionally and physically is more likely to be happy because their body is happy. Exercise burns cortisol, a hormone produced naturally in the body during times of stress. Exercise also causes the brain to release endorphins which create powerful euphoric feelings. Together, the reduction of cortisol and increase of endorphins create feelings of happiness.

Ultimately, happiness and optimism are merely parts of the overall picture of wellness. Simple behaviors and lifestyle changes can help everyone be more happy and healthy.

 **INTERNATIONAL ACADEMY OF CARDIOLOGY**
17th WORLD CONGRESS ON
HEART DISEASE
ANNUAL SCIENTIFIC SESSIONS 2012
TORONTO, ON, CANADA, July 27-30, 2012



The Fairmont Royal York, Toronto, ON, Canada

Abstract deadline: February 29, 2012

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CHAPTER



Dr. László Szekeres

With profound sadness, we heard of the death on Jan. 9, 2012 of Dr. László Szekeres from Szeged, Hungary.

Dr. Naranjan Dhalla wrote the following to his colleagues:

Prof. Drs. Andras Varro, Agnes Vegh, and Julius Gy. Papp
Department of Pharmacology and Pharmacotherapy
University of Szeged, Dom ter, 12, H-6720, Hungary

Dear Profs. Varro, Vegh, and Papp:

It is with great regret that I received your e-mail indicating that Prof. Laszlo Szekeres passed away. He was a true friend who over the years helped me in promoting cardiovascular activities all over Eastern Europe and this sad new is painful indeed. He was a superior scientist, an extraordinary scholar and great human being, and will be missed by the international cardiovascular community for a long time. On behalf of the International Academy of Cardiovascular Sciences, may I request you to convey our heartfelt condolences to Mrs. Szekeres.

Just before Dr. Szekeres passed away, Dr. Dhalla had received an optimistic and positive statement from Dr. Szekeres which we felt it was appropriate to share as his last message:

Dear Friends!

I send you my 'Seasons Greetings' a bit late. The reason why is the following:

I am pleased to tell that I have just recently come home from Bonn (Germany), after a successful TAVI (Trans-Catheter Aortic Valve Implantation) repairing my severe aortic stenosis due to extreme calcification of the aortic valves. I stayed two weeks in Bonn, accompanied by my daughter Susie. (Later my elder daughter Julie joined her).

I have chosen Bonn because the leading cardiologist of the Bonn Gemeinde-krankenhaus Kreislaufzentrum: Ulrich Gerckens so far conducted 600 successful interventions in otherwise inoperable patients of the 80-85 years age group.

The point of the procedure is briefly: A special (valve core) catheter (in its head a compressed annular frame containing the porcine valves) is introduced under fluoroscopic control via the right femoral artery to the aorta and pushed forward until the site of the original calcified valves. Here a pacemaker induced short tachycardia and balloon inflation elicits deployment of the annulus with the porcine valves, pressing the original calcified valves to the aortic wall. The procedure is performed in local anaesthesia.

The operation described above in keywords seems to be much simpler as it is in reality. The main difficulty is the careful selection of the catheter size in order to fit the aortic diameter as well as its exact positioning at the level of the original valves. In addition there is a high risk of cerebral emboli of calcified plaques drifted by the catheter from the aortic wall. The intervention itself does not last longer than 30-45 minutes but the preliminary preparations take about two hours. (3 catheters are introduced into the central vein and left radial artery is used for direct measurement of the blood pressure. A bladder catheter is inserted as well). In addition catheters were inserted into both femoral arteries during the intervention. I looked probably like my instrumented rabbits and dogs in my earlier animal experiments. Is it perhaps their late revenge?

Excellent care and accommodations, detailed and peer discussions with the leading cardiologists, as well as daily visits of my daughters made my stay in the hospital pleasant and comfortable. The homeward journey was a little bit strenuous but now I am all right.

I thank you for your friendship and knowing that my letter will arrive late, I hope that you had a Merry Christmas and I wish you also on behalf of Ibolya a very happy and successful New Year and good health above all!

László Szekeres

With over half a century of experience researching cardiovascular disease, Dr. László Szekeres had the distinguished title of Professor Emeritus of the Institute of Pharmacology and Therapeutics in the Medical Faculty of the University of Szeged, Hungary. In his early days as a scientist, he received numerous scholarships and grants, and studied as a "Riker" fellow at the University of Oxford. In addition, he was elected twice as a member of the Organizing Committees of the II (Prague 1962) and VII (Paris 1978) World Congress of the International Union of Pharmacology (IUPHAR). From 1967-1991 he served as a Professor and Director of the Department of Pharmacology, University Medical School of Szeged, during which from 1968-1977 he was the Pro-rector. Dr. Szekeres studied various aspects of heart disease, including metabolic changes as a result of hypoxia and ischaemia, researching mechanisms to prevent sudden cardiac death due to acute myocardial infarction, and the ef-

fects of prostacyclin and 7-oxo-prostacyclin on angina pectoris as endogenous cardioprotective components. However, his most significant contributions to the field of cardiovascular research stems from his work on arrhythmias. He was the first to outline a comprehensive analysis of the mode of action of anti-arrhythmic drugs, elaborating on several “in vivo” models of experimental arrhythmias and contributing to the elucidation of they occur. Throughout his career he received numerous honorary degrees and memberships including, ‘Doctor Honoris Causae’ from both the Jagellonian University of Cracow and Karl Eberhard Universitaet, as well as being an Honourary member of the Czechoslovak Pharmacological Society and the Polish Physiological Society. He has served on numerous editorial boards including the Journal of Cardiovascular Pharmacology, European Journal of Pharmacology, Canadian Journal of Cardiology, Journal de Pharmacologie (Paris), and Acta Medica Hungarica. One of his crowning achievements, however, was his establishment of the East-European Subsection of ISHR where he served as president from 1984-1993, being a crucial player in promoting this subsection’s joining to the European section of ISHR. He accomplished this while serving as a Councilor of ISHR from 1983-1992. He was also the founder of the “Szeged School of Cardiovascular Pharmacology” which is now an internationally renowned cardiovascular research center. He has received numerous awards and distinctions, including the Bronze Medal of the Helsinki University, Hungarian State Gold Medal of the “Order of Labour”, two awards from the Hungarian Ministry of Education and Culture for high standard textbook and monograph, the first “Gábor György” Award and Medal of the Hungarian Society of Cardiology as well as the Medal of Merit of ISHR and the first “Howard Morgan Award for Distinguished Achievements in Cardiovascular Sciences” from the International Academy of Cardiovascular Sciences. He was also an invited speaker to numerous congresses and symposia through Europe and the world including Canada, US, Japan, Israel, India, and China. In summary, he published 295 full text articles in peer-reviewed journals and books, 76 book chapters, 304 abstracts, and edited 7 books. In addition to his meritorious contributions to the field of heart research, where he was regarded as a sophisticated, intelligent speaker and an amiable gentleman, he was also an accomplished painter.

The Academy extends our deepest sympathy to his wife Ibolya Pamuk and his two daughters: Julia Barthó-Szekerés MD, PhD, DSc., Professor and Head of the Department of Microbiology at the University of Pécs (born 1950) and Zsuzsa Szekerés MD, pediatrician in Budapest (born 1954).

REMEMBERING SOMEONE SPECIAL

Steve Lawrence



Editor’s note: Steve Lawrence was an exceptional man as sadly outlined in the following obituary published in the Toronto Star. What only I know is the depth of his vision and enthusiasm for the concept I had evolved to maximize the exposure of great talks we were offering by recording and sharing copies around the world. Steve was able to obtain funding from St. Jude Medical and took charge of having a set of DVD’s produced of our 1st SYMPOSIUM on the FUTURE of HEART HEALTH. His encouragement led us to use even more efficient technology to record subsequent talks and set links from our website – www.heartacademy.org

STEPHEN (STEVE) LAWRENCE October 4, 1963 - May 31, 2011 It is with great sadness after a courageous battle with cancer that Steve passed away at Perram House hospice in Toronto just before sunrise on Tuesday, May 31st surrounded by his family. Steve always lived life to the fullest, even during his last years battle with cancer. He was a fighter who never gave up. He was optimistic and considered by many as a role model for courage, dignity and compassion. Steve was a kind, gentle, giving man with great passion for the simple things in life. His passions included golf, snowmobiling, travel, Arabian horses, snowboarding/skiing, waterskiing/wakeboarding, history, sporting events, music/concerts, and spending time with family and friends. Steve was an entrepreneur at heart and owned his own medical imaging company Nor-Chem in Sudbury, ON. Steve’s medical sales/marketing career started with Bristol Myers Squibb in 1987 as a Territory Manager with a move to Xomed as a Territory Manager in 1997. He was promoted to National Sales and Marketing Manager for the E.N.T division at Medtronic in 2000. In 2003 Steve was promoted to Director of Cardiac Surgery followed by a move to St. Jude Medical in 2005. Steve’s final appointment was as Director, Sales and Marketing for Biotronik Canada. “Steve, you left us too young and too soon, but we had the time of our lives, you were ‘Born free with Angels on the moon’. Thank you for sharing your passion for life and always lending a helping hand to those in need and for your incredible smile and sense of humour. You will be sadly missed and forever loved.”

U.S. Rep. Lois Capps Reintroduces The HEART For Women Act

(WASHINGTON, Nov. 30, 2011) – U.S. Rep. Lois Capps, D-Calif., today reintroduced vital legislation aimed at improving the cardiovascular health of millions of women nationwide.

The HEART for Women Act would require the U.S. Health and Human Services secretary to submit an annual report to Congress on the quality of and access to care for women with cardiovascular disease. It would also ensure that new and experimental drug and medical device safety and efficacy data reported to the federal government is classified by gender, race and ethnicity. Additionally, the legislation would expand eligibility for funding to all 50 states for the Centers for Disease Control and Prevention's WISE-WOMAN screening program for low-income, underinsured and uninsured women.

While we have made great progress in the fight against heart disease it remains the number one killer of American women, needlessly claiming the lives of far too many of our mothers, wives, sisters and daughters, Capps said. Unfortunately not enough people – including health professionals – recognize that heart disease poses such a serious and unique threat to women, and far too many women pay a terrible price for that lack of knowledge. My legislation addresses this critical health issue by ensuring more women have access to screening for heart disease, filling the critical knowledge gaps by ensuring that healthcare professionals are informed about the risks of cardiovascular disease in women, and supporting increased data collection to identify new treatments for women.

American Heart Association President Gordon Tomaselli, M.D., said the measure would make a major impact. With nearly 422,000 women's lives lost each year from heart disease and stroke, we applaud U.S. Representative Lois Capps for introducing legislation that will help improve the diagnosis, prevention and treatment of the number one killer of women. The HEART for Women Act seeks to eliminate cardiovascular inequities and reduce death rates from this largely preventable disease, Tomaselli said.

Women have a greater risk of heart disease than men. It is imperative to provide access to proper cardiovascular disease care for all women through passage of the HEART for Women Act. The HEART for Women Act is vital to the health of all women and is must-pass legislation, said Phyllis Greenberger, M.S.W., president and chief executive officer of the Society for Women's Health Research.

We need to know how drugs, treatments and devices affect women living with heart disease if we are going to decrease morbidity and mortality caused by heart disease, the number one killer of women. This bill will shine a light on how well the FDA reports research results stratified by sex, race and ethnicity, said Lisa M. Tate, chief executive officer of WomenHeart: The National Coalition for Women with Heart Disease.

Every minute, someone's wife, mother, daughter or sister dies from heart disease, stroke or other forms of cardiovascular disease in the U.S. More than one in three women has some form of cardiovascular disease, including nearly half of all African-American women and 34 percent of white women. More than 90 percent of primary care physicians do not know that more women die each year from these diseases than men, according to an American Heart Association survey.

The HEART for Women Act was introduced in the U.S. Senate earlier this year by Senators Debbie Stabenow, D-Mich., and Lisa Murkowski, R-Alaska, and has received strong bipartisan support. In addition to the American Heart Association, Society for Women's Health Research and WomenHeart: The National Coalition for Women with Heart Disease, the bill is also supported by more than 40 other organizations. For more information, visit yourethecure.org.

American Heart Association

The American Heart Association is devoted to saving people from heart disease and stroke – America's No. 1 and No. 4 killers. We team with millions of volunteers to fund innovative research, fight for stronger public health policies, and provide lifesaving tools and information to prevent and treat these diseases. The Dallas-based association is the nation's oldest and largest voluntary organization dedicated to fighting heart disease and stroke. To learn more or to get involved, call 1-800-AHA-USA1, or visit heart.org and heart.org/advocacy.

Society for Women's Health Research

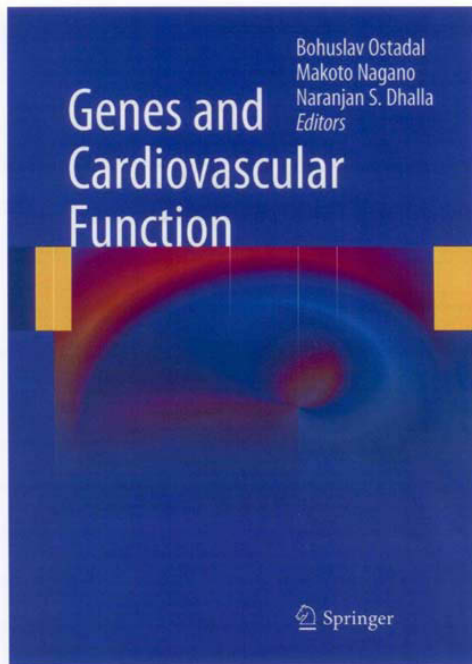
The Society for Women's Health Research (SWHR), a national nonprofit organization based in Washington D.C., is widely recognized as the thought leader in research on sex differences and is dedicated to improving women's health through advocacy, education and research. Our focus is to clearly demonstrate that sex and gender differences exist and that more research needs to be done to explore conditions that affect women differently, disproportionately or exclusively; and to identify these differences and understand the implications for diagnosis and treatment. Visit SWHR's website at swhr.org for more information.

WomenHeart: The National Coalition for Women with Heart Disease

WomenHeart: The National Coalition for Women with Heart Disease is the only national patient- centered organization dedicated to promoting women's heart health through advocacy, and patient support. As the leading voice for the 42 million American women living with or at risk of heart disease, WomenHeart advocates for equal access to quality care and champions prevention and early detection, accurate diagnosis and proper treatment of women's heart disease. For more information, visit womenheart.org/kit.

International Academy of Cardiovascular Sciences

Springer books by Fellows of the Academy



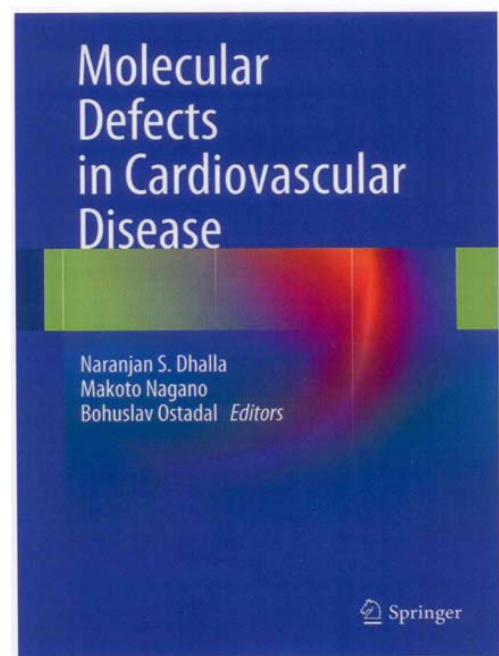
Genes and Cardiovascular Function EDITORS: BOHUSLAV OSTADAL, MAKOTO NAGANO and NARANJAN S. DHALLA

Rapid advances in molecular medicine have led to pronounced new developments in experimental and clinical cardiology. In the embrace of modern molecular biology and bridging the gap between the clinical and the genomic, cardiovascular medicine has seen major strides in the understanding of the molecular mechanisms that drive disease progression. Gene therapy is steadily increasing in viability and represents a fascinating arena of research and

Molecular Defects in Cardiovascular Disease

EDITORS: NARANJAN S. DHALLA, MAKOTO NAGANO, BOHUSLAV OSTDAL

Provides an in-depth discussion of the molecular mechanisms underlying the genesis of cardiovascular defects and the implications this has on current and emerging targeted therapeutics. Divided into three sections, this book covers the scientific foundations of our present understanding as well as the array of clinical manifestations and their treatment.



FOR DETAILS, GO TO:

<http://www.springer.com/medicine/cardiology/book>

Editor's note: In 2001, a group of concerned Brazilians formed CONNEXTIONS and have encouraged support in medicine and other areas, particularly in Portuguese-speaking Angola. On Dec. 10, 2006, Denoel Marcelino de Oliveira and the Heart Health Scholar Ivan Berkowitz met with the CONNEXTIONS group in Rio prior to Dr Denoel leading a initial training program to Lubango which included a Public Forum, attended by over 300 Angolans. Dr. Denoel was appointed as the Academy's Ambassador for Portuguese-speaking Africa. He sent us this recent report on their dynamic progress.



The INC will train the first team of cardiac surgery in the Mauritanian city of Nouakchott, Atlantic coast of the Sahara.

DEVELOPMENT AND DISSEMINATION OF CARDIOVASCULAR TECHNOLOGY IN BRAZIL AND ABROAD

The INC is the Brazilian Ministry of Health reference center for cardiology. Its mission is, "To promote cardiovascular health, train professionals, develop and disseminate knowledge and technologies for the social and economic development of the country." However, since 2007 our mission was extrapolated beyond the shores of the Atlantic, with development of international projects and training on cardiovascular surgery and cardiology, initially in countries of North Africa (Maghreb) and Palestine.

Currently, 13 missions were carried out in partnership with the Brazilian Cooperation Agency, an agency of the Ministry of Foreign Affairs of Brazil (Itamaraty).

The project began in Algeria in order to accomplish the training of cardiovascular surgery teams to perform surgeries on children. At that time the country did not have trained doctors, and several children had to travel to Europe to be operated with an approximate cost of 30 000 euros per surgery.

Until the last mission, in October 2011, 144 procedures were performed. 136 surgeries and 8 catheterizations. More than 300 children were evaluated and the transmission of knowledge already allows the Algerian team to perform surgery without the presence of INC team.

The good results obtained with the training, attracted the attention of other hospitals in Algeria, which requested the Ambassador of Brazil, Henrique Sardinha Pinto, to open cooperation.

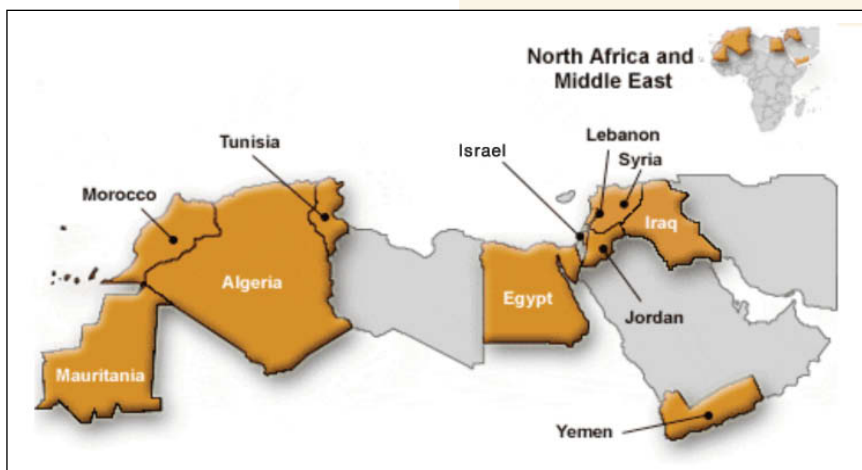
Statement on INC



Brazilian Government understands the South-South technical cooperation as an instrument to strengthen ties in order to produce positive impacts on people, change and raise standards of living, changing realities, promoting sustainable growth and contribute to social development. In this sense, the technical cooperation promoted by the Brazilian Cooperation Agency (ABC), based on the values of excellence, solidarity and respect. These values are transformed into concrete projects implemented in various regions of the world, through transfer of technical knowledge and experience by various Brazilian institutions, in order to promote the autonomy of local partners involved.

In this context, the ABC and the National Heart Institute (INC) conducted a project in Algeria, whose goal is to train local teams to perform pediatric cardiac surgery. From this successful experience, other countries including Mauritania, have shown interest in developing this model of cooperation. The partnership with the INC represents a source of pride for ABC, and for the Brazilian government in general. INC offers the opportunity to other countries of the South, to receive all the experience and competence of personnel involved in the project. In fact, this initiative incorporates all the features arising from its successful work in Brazil, not only from its technical but also human support.

Minister Marco Farani
Director of ABC



Training the first team in Mauritania will be challenging.

Mauritania has approximately 3.5 million inhabitants. It has most of its territory formed by the Sahara Desert and has high levels of poverty. The General Director of INC, **Dr. Jos   Le  ncio Feitosa**, reiterated that currently there is no local team to perform cardiac surgery and confirmed that, "The big challenge is to enable the a team of cardiac surgery do perform routine surgeries at the Centre National de cardiologie of Nouakchott. This will prevent the Mauritians to travel to europe for treatment. It will end the dependence on foreign missions to treat their patients in their own country. "It will be a major step towards developing country's medicine.

In the October   mission, the teams of INC were received by the Health Ministers of Algeria, **M. Djamel Ould Abbes**, and Mauritania, **Ba Housseynou Hamady**, who praised the initiative of the Brazilian government to help the countries of North Africa. The Minister Ba Housseynou Hamady emphasized that South-South cooperation is very important not only to disseminate knowledge, but also to lessen prejudice



Team of nurses in training with the Perfusionist Jos   Hamilton in Hospital in Mohamed Abderrahman. Over five perfusionists have been trained.

and increase trade of medical products of Brazilian companies in the Arab world. INC teams were composed by the following professionals; Denoel Oliveira, Jos   Caliani,   lvio Bastos, Cl  udia Fernanda, Renata Mattos, Jos   Athayde, F  bio Bergman, Daniel

Kawencki, Rodrigo Barcelos, R  mulo Guimar  es, Jos   Hamilton Torres, Corali Oliveira and Fellipe Allevato.

Countries and cities acting

Algeria - Argel

Missions training

9 missions have been undertaken at the Hospital Mohamed Abderrahman. We are helping to build the pediatric cardiology outpatient clinic and improving pediatric echocardiography.

Algeria - Tipaza - Bou Ismail

Training in complex pediatric surgeries at (CMCI) to operate children under 4 Kg and neonates.

Mauritania - Nouakchott

Training of staff for adults surgery

there is no team established and operating in the country. We conducted two surveys and we will have the first training mission this year.

Palestina - Ramallah

Training in cardiology

There is a huge shortage of professionals and need for improvement. One mission of exploration and assembly of the training project is nearing completion.



The Palestine Medical

Complex is a conglomerate of hospitals built by humanitarian aid in the city of Ramallah. The center has two cardiac surgeons and cardiac hemodynamics. The lack of professionals is huge and they need technical improvement on many levels.

The INC held prospecting mission in Palestine in 2010

The state of Palestine, was recently recognized by UNESCO, however, Brazil has recognized previously and maintains good diplomatic relations, including the inauguration of Brazil Street by President Lula in 2010, right in front of the memorial of **Yasser Arafat**. The INC held prospecting mission in the West Bank in 2010 for development of cooperation projects in cardiology together with the Ministry of Health and the Brazilian Cooperation Agency. The Palestine Medical Complex, located in the city of Ramallah, was identified as a medical center capable of receiving training in cardiology, hemodynamics, pediatric cardiology and cardiovascular surgery. The cooperation projects are being finalized and the training project will start soon.

February is Heart Month

compiled from material from American Heart Association, WebMD Health News, Center for Disease Control and Lippincott Williams & Wilkins

Cardiovascular diseases, including stroke, are our nation's No. 1 killer. To urge Americans to join the battle against these diseases, since 1963, the US Congress has required the President to proclaim February "American Heart Month." The American Heart Association (AHA) led initial efforts to develop an annual American Heart Month.

Although heart disease is one of the most costly and widespread health problems in the United States, it is among the most preventable.

In a New Report: some good news but causes for deep concern "Heart Disease Deaths Down, but Obesity, Inactivity Threaten Progress"

Among seven factors for heart health, almost all Americans have at least one factor at a "poor" level.

The American Heart Association has issued America's annual heart health report card. While there is good news, much of it is overshadowed by bad news, and we definitely have room for improvement. The death rate from heart disease and stroke dropped more than 30% between 1998 and 2008, but we're remiss on habits that help the heart, such as getting regular exercise and maintaining a healthy weight.

"We have seen a dramatic decline in death due to heart disease and stroke," says researcher Donald Lloyd-Jones, MD, ScM, chair of preventive medicine at the Northwestern University Feinberg School of Medicine. "While there is reason to celebrate that progress, we have a major tsunami that is threatening us. That is the obesity epidemic, which has been with us for 25 years. We are seeing the leading edge of this tsunami that is going to reverse many of the gains we have achieved in the last 40 years. We need to get serious about the obesity epidemic yesterday," he tells WebMD.

The report, "Heart Disease and Stroke Statistics -- 2012 Update," is published in *Circulation: Journal of the American Heart Association*.

Heart Health by the Numbers

Every year, the American Heart Association works with the CDC and the National Institutes of Health to gather the most up-to-date statistics on heart disease, stroke, and other vascular diseases and their risk factors. The latest information:

- Heart disease and stroke accounted for 32.8%, or 1 in 3, of all U.S. deaths in 2008.
- Slightly more than 67% of adults are either overweight or obese.
- Among children and young adults ages 2 to 19, almost 32% are overweight or obese.
- Children aren't getting enough physical activity. In 2009, 29.9% of girls and 17% of boys in grades nine to 12 said they had not done 60 minutes of moderate to vigorous physical activity even one time in the previous week.
- Among adults, one-third report they engage in no aerobic leisure-time physical activity.
- Calorie intake is up. The average total calorie intake from 1971 to 2004 rose 22% in women and 10% in men. Women average 1,886 calories a day now, men 2,693.

24 Foods That Can Save Your Heart: fresh herbs, black beans, red wine, salmon, tuna, walnuts, extra virgin olive oil, almonds, edamame, tofu, sweet potatoes, oranges, Swiss chard, carrots, barley, oatmeal, flax seed, low-fat yogurt, foods fortified with sterols, coffee, cayenne chili pepper, kosher salt, cherries and blueberries (view a slideshow at: <http://www.webmd.com/heart-disease/ss/slideshow-foods-to-save-your-heart>)

7 Heart Health Factors: How Do You Stack Up?

Besides having a diagnosis of blood vessel or heart disease, the American Heart Association considers seven factors important to heart health:

- Smoking status
- Healthy weight
- Physical activity
- Healthy diet
- Good cholesterol levels
- Normal blood pressure levels
- Normal blood sugar levels

This year's report found that 94% of U.S. adults have at least one of these factors at "poor" levels. And 38% of adults score poorly on three or more. Half of U.S.

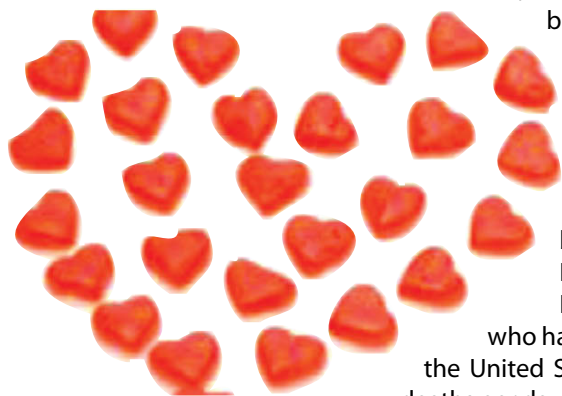
"This is a wake-up call," says P.K. Shah, MD, director of cardiology at Cedars-Sinai Heart Institute in Los Angeles. He reviewed the findings but was not involved in the study. The decline in stroke deaths is among the best news, he says. That is due, he says, to better management of stroke patients. The drop in overall death from heart disease and other vascular disorders is also good news. "The bad news is we still have a September 11th-type tragedy occurring every 24 hours," he says. Heart disease and stroke claims

2,200 Americans each day -- one death every 39 seconds. The lifestyle issues -- overeating, not exercising, and not maintaining a healthy weight -- threaten the advances, Shah agrees. He worries that our bad habits could wipe out the potential benefits of medical advances within 15 or 20 years. "The key here is, we aren't doing enough on the front of lifestyle modification," Shah says.

Robert Michler, MD, surgeon-in-chief and co-director of the Montefiore Einstein Center for Heart and Vascular Care at Montefiore Medical Center in New York, agrees. "What needs to be learned from this is: very simply, that lifestyle cannot be eliminated from one's heart health. It has an enormous impact on one's health. The economic climate results in great pressure on people and their ability to follow healthy habits, he says. People are also bombarded with offers to "supersize" their meal, he says. "People have lost perspective on what is appropriate body size and meal size."

"He advises people to focus on making daily decisions about their diet and their physical activity. Every meal needs to be a conscious decision about portion size and what it is you are eating," he says. "Deciding how you will transport yourself is another important decision. Think stairs, not elevator. Every day the decisions you make [in those two areas] will have enormous impact over the long haul," Michler says.

Some members of the writing group that authored the report disclose serving on advisory boards for pharmaceutical companies, including Abbott and Boehringer Ingelheim, as well as serving on various speakers bureaus.



Be One in a Million this American Heart Month

"Heart disease takes the lives of far too many people in this country, depriving their families and communities of someone they love and care for—a father, a mother, a wife, a friend, a neighbor, a spouse. With more than 2 million heart attacks and strokes a year, and 800,000 deaths, just about all of us have been touched by someone who has had heart disease, heart attack, or a stroke." - Department of Health and Human Services Secretary Kathleen Sebelius

February is American Heart Month, and unfortunately, most of us know someone who has had heart disease or stroke. Cardiovascular disease is the leading cause of death in the United States; one in every three deaths is from heart disease and stroke, equal to 2,200 deaths per day. These conditions are also leading causes of disability preventing people from working and enjoying family activities. Cardiovascular disease is also very expensive—together heart disease and stroke hospitalizations in 2010 cost the USA more than \$444 billion in health care expenses and lost productivity. However, we can fight back against heart disease and stroke. CDC and other parts of the US government have launched Million Hearts™, to prevent the nation's leading killers and empowering everyone to make heart-healthy choices.

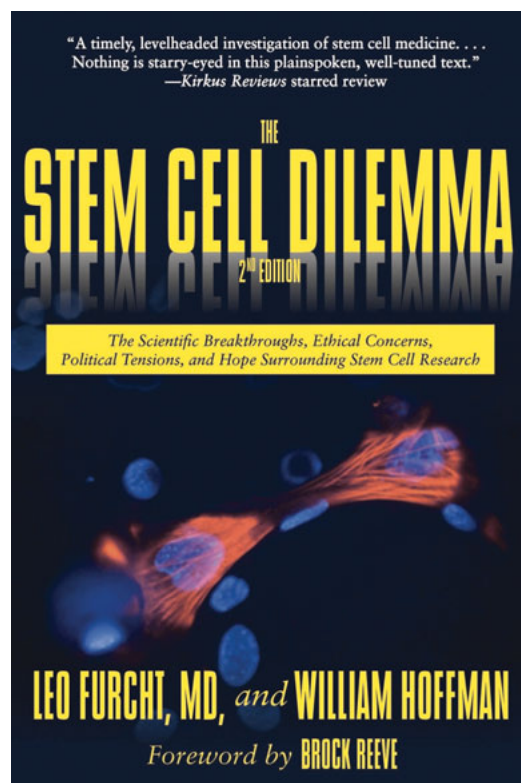
What is Million Hearts™?

Launched in September 2011 by the Department of Health and Human Services (HHS), Million Hearts™ is a national initiative that aims to prevent 1 million heart attacks and strokes in the U.S. over the next five years. This public-private partnership, co-led by CDC and the Center for Medicare and Medicaid Services (CMS) is integrating and amplifying a range of existing heart disease and stroke prevention programs, policies, and activities.

What Million Hearts™ Means to You

Heart disease and stroke affects all of our lives, but we can all play a role in ending it. Prevention starts with everyone. Protect yourself and your loved ones from heart disease and stroke by understanding the risks and taking these steps.

- Drive the initiative by challenging your family and friends to take the Million Hearts™ pledge at www.millionhearts.hhs.gov.
- Get up and get active by being physically active for at least 30 minutes on most days of the week.
- Know your **ABCS**:
 - Ask your doctor if you should take an **A**spirin every day.
 - Find out if you have high **B**lood pressure or **C**holesterol, and if you do, get effective treatment.
 - If you **S**Smoke, get help to quit.
- Make your calories count by eating a heart-healthy diet high in fresh fruits and vegetables and low in sodium and trans fat.
- Take control of your heart health by following your doctor's prescription instructions.





XXII SCIENTIFIC FORUM

BELO HORIZONTE - MG
OURO MINAS PALACE HOTEL CONVENTION CENTER
DECEMBER 6 - 8, 2012



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

XVIII FORUM - SOUTH AMERICAN SECTION
INTERNATIONAL ACADEMY OF CARDIOVASCULAR SCIENCES
XXX BRAZILIAN CONGRESS OF EXTRACORPOREAL CIRCULATION
XIV ECUMENIC FORUM

VIII BRAZILIAN MEETING ON CARDIOLOGY FOR THE FAMILY
VI MEETING SOUTH AMERICAN CHAPTER OF LE CLUB MITRAL
AT HOSPITAL EUROPEEN GEORGES POMPIDOU

**VIII SYMPOSIUM AMERICAN SOCIETY OF
ANGIOLOGY BRAZILIAN CHAPTER**
II CARDIOVASCULAR BIOMEDICINE FORUM
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