

"This Is What It's All About"

[Editors note: During the Symposium on the Future of Heart Health, Sir Magdi Yacoub had a very special encounter which he described to a TV reporter "We work so hard and this is what it's all about"]

Teen thanks MD with all her heart Famed surgeon meets the girl he saved as tot

Sun Oct 15 2006
By Jen Skerrett

SEVENTEEN-year-old Alys Turner was close to tears yesterday afternoon as she hugged and thanked the man who gave her a second chance at life when she was only a tiny newborn.

Alys was the third person in the world to have groundbreaking surgery to repair the abnormal arteries in her heart. London-based heart surgeon Sir Magdi Yacoub performed the operation despite the risk that the surgery could leave Alys with permanent brain damage or kill her.

Yesterday, Alys surprised Yacoub when the Brandon teen introduced herself at the Future of Heart Health Symposium at the Winnipeg Convention Centre. Yacoub is in Winnipeg for the Global Conference on Heart Health and was stunned to see his former patient.

It is the first time the two have met since the life-saving surgery in 1989.

"She's a miracle," Yacoub said, holding Alys's hands. "This is what makes it worthwhile."

"I want to cry," Alys said. "I can't put into words how much he's affected my life."

Alys was born in England with a heart condition that left her arteries unable to pump blood properly. Her parents began to suspect something was wrong when her whole body turned blue.

Her father, anesthesiologist David Turner, used his medical connections to contact Yacoub. Yacoub has performed more transplants than any other surgeon in the world and specializes in working with children with congenital heart defects.

At the time, the standard practice to correct Alys's condition involved reversing the blood vessels entering her heart. The problem with this surgery, Yacoub said, is patients usually need follow-up surgery later in life.

That's why Yacoub had been working on his method to repair the arteries altogether and eliminate the possibility that Alys might one day need heart surgery in her teens. He'd performed the operation on two other patients, and Alys's parents agreed it was the best option for their daughter.

For 47 minutes, Yacoub stopped Alys's walnut-size heart and worked to repair the tiny arteries, some of which were only one millimetre in diameter.

"There were lots of doubts whether it would work at all," Yacoub said.

Alys spent two months in pediatric intensive care before being released. Doctors initially installed a pacemaker to help make her heart beat. Without it, Alys's heart could not beat at all.

But over time, Turner watched as his daughter's heart became stronger and stronger. The family moved to Canada in 1991. Today, the Grade 12 student barely thinks about her cardiac surgery. Her heart no longer needs the pacemaker and she can run short distances, swim, and do everything her peers can.

"I can do anything I want pretty much," Alys said. "I still feel like a normal person inside."

Turner said Yacoub's success gave his family the greatest gift of all, and shook his hand in gratitude yesterday.

"It's very nice to be able to show him Alys and show him the result of his hard work. It's a gift to us, because she could've died," Turner said.

Yacoub said meeting Alys was a special highlight of his trip to Winnipeg and he asked her to write him and keep in touch.

"It's so overwhelming," Alys said.

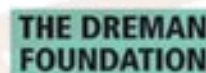
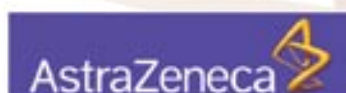


The International Academy of Cardiovascular Sciences extends sincere gratitude for commitments for support of various types.

WINNIPEG
PARTNERSHIP
AGREEMENT
Canada



ENTENTE DE
PARTENARIAT
DE WINNIPEG
Winnipeg



Winnipeg Regional Health Authority
Caring for Health
Office régional de la santé de Winnipeg
À l'écoute de notre santé



Notre passion, la vie
Life is our life's work



Finding answers. For life.
À la recherche de solutions.



Finding answers. For life.



Faculty of Medicine
DEPARTMENT OF PHYSIOLOGY



Foreign Affairs and
International Trade Canada

Affaires étrangères et
Commerce international Canada



Dinner Sponsors

ACHLA and SONNY DHALLA ♥ CHEMAWAWUN CREE NATION ♥ RBC ROYAL BANK ♥ BMO NESBITT BURNS

We exceeded our most optimistic vision!

by Ivan Berkowitz, Conference Director

To celebrate the 70th Birthday of Naranjan Dhalla and the 10th Anniversary of the International Academy of Cardiovascular Sciences, I began to conceive an event about two years ago. In my advance PR, I had repeated the quote "It sounds like an event fit for a King" and I guaranteed everyone the time of their life. In spite of being chastised by my daughter for being carried away in my salesmanship, I think with the total involvement of our Winnipeg team, we exceeded our most optimistic vision!



Superior planning made it possible for Prof. Gomes to make his very first snowball!

I personally contacted outstanding I A C S leaders from around the world and received unanimous agreement to serve as Honourary



L-R Ivana Ostadalova, Dr. Dhalla, Brigitte Nagano, Boja Ostadal and Dr. Nagano

Chairs from: Qi-De Han, China; Otoni Gomes, Brazil; N.K. Ganguly, India; Makoto Nagano, Japan; Academician Eugeny Chazov, Russia; Sen. Wilbert Keon, Canada; Eugene Braunwald, USA; Jutta Schaper, Germany; and Sir Magdi Yacoub who at a personal meeting in February 2006 agreed to deliver the Keynote Address. Encouraged by this global support, I approached Alan Menkis and Grant Pierce who agreed to co-chair a unique symposium on "The Future of Heart Health" for which we gathered an incredible faculty (for details, please visit our web site www.heart-conference.com) from various disciplines – their efforts have drawn praise from around the world. Sponsorship was aggressively pursued, including from the Winnipeg Partnership Agreement and achieved support from over 30 companies and agencies. We were delighted that an opening welcome was appropriately

delivered by Manitoba's Minister responsible for Healthy Living Hon. Kerri Irvin-Ross.

Upon contacting the University, Dr. Joanne



Mike Czubyrt and Dr. Pierce presented memento to Dr. Dhalla

Keselman, Vice-President of Research identified the potential of also celebrating the 10th Anniversary of the University joining



L-R Anne Keon, Vladimir Smirnov, Academician Chazov, Alan Menkis, Sen. Keon, Premier Gary Doer, Karen Menkis



Dr. Dhalla with Steven Fletcher MP

with St. Boniface Hospital to designate the Institute of Cardiovascular Sciences (ICS). With Drs. Hryshko and Pierce, we developed the plan to have the University and the Hospital jointly host a Luncheon on Oct. 13. During a visit to Rochester, I found that Dr. Hugh Smith from the Mayo Clinic was interested to join us and we invited him to be



Dr. Popescu made presentations

the guest speaker on "Do We Know What We Know" (see page 75). We recognized his return home with a unique award as a "Golden Boy". Mike Czubryt and Dr. Pierce presented a memento to Dr. Dhalla on behalf of the faculty of the ICS. Pawan Singal organized the 8th Annual Awards program of the ICS



Prof. Gomes presented his book



"Marilyn" serenaded the Birthday Boy

including excellent talks. In spite of our efforts to keep the plan secret as a surprise for Dr. Dhalla, he was told of the plans at a meeting in New Orleans and insisted on organizing an expanded scientific program which ultimately extended to twenty-three additional symposia. A last min-

ute feature was organized by Prof. Gomes. His Post-Graduation Symposium brought together surgeons from Brazil and North America for a unique discussion.

Unique social events were organized opening with a reception at the Manitoba Legislative Building under the Golden Boy with greetings delivered by Manitoba's Minister of Health Hon. Theresa Oswald. Also honouring us with his presence at the Opening, breakfast the next day and throughout the day of Oct 14 was Canada's Parliamentary Secretary to the Minister of Health Steven Fletcher MP. Prof. Laurentiu Popescu presented Honorary Member of the National

Academy of Medical Sciences, Bucharest, Romania and GE Palade Gold Medal for Internationally Recognized Achievements in Heart Research, Bucharest, Romania; Dr. Ostadal presented the Laufferger Medal of the JE Purkyne Medical Society in recognition of contribution to Czech Physiology,



L-R Mohinder Singh Dhillon, Ken Dhalla, Krishnamurti Dakshinamurti and Naranjan and Ranjit Dhalla



Drs. Hryshko, Pierce and Dhalla

Prague; to Dr. Dhalla; Prof. Gomes presented the first copy of his Latin American Book on Applied Cardiovascular Physiology Tribute; a 70th Birthday evening of Fun, Feasting and Roasting at McPhillips Street Station topped by birthday greetings delivered by "Marilyn"; an Indo-Canadian Tribute to Dr. Dhalla when over 1,200 friends were joined by Manitoba's Lieutenant-Governor, Premier, Parliamentary Secretary to the Minister of Health and Winnipeg's Mayor – the Indo-Canadian Cultural & Heritage Association presented a "LIFETIME ACHIEVEMENT AWARD", and Grant Pierce and Larry Hryshko presented a memento of the establishment of the "DR. NARANJAN DHALLA CARDIOVASCULAR SCIENCES ENDOWED CHAIR" of one million dollars. Dr. Grant Pierce hosted the farewell dinner at Tiffani's. Each meal highlighted Manitoba products.



"hot dogs are his favourite lunch"

We served Dr. Dhalla's favourite lunch on Oct 14 – hot dogs and beans. As well, a 'Made In Manitoba' bag including Old Dutch Salt & Vinegar Chips, ClodHoppers, Crown Royal, Leobard Strawberry-Rhubarb Wine and Bulldog Amber Ale was placed in each visitor's hotel room.

Media coverage included a 4-page Section in the Free Press, a half-page collage of photos from the Gala Dinner and their large Front Page report on a meeting between Dr. Yacoub and a patient from Brandon whose life he had saved with revolutionary surgery 17 years ago which was also covered by CTV News and CBC Radio. A Special Edition of "CV Network" of 40 pages was the official program, added to the website and distributed around the world. A Commemorative Tribute to Dr. Dhalla was produced by "Experimental & Clinical Cardiology". There was a full page tribute and follow-up articles in The Indo-Canadian Telegram. "NRC-CNRC Canadian Journal of Physiology and Pharmacology", edited by Grant Pierce, is accumulating articles from Dr. Dhalla's colleagues around the world, for two commemorative issues. With the assistance of St. Jude Medical, talks at the Future Symposium were video-taped and slides gathered to create a DVD which IACS and SJM will distribute around the world. From the DVD, plans are underway to capture talks of interest to use in presentations

at schools.

I enjoyed complete agreement in creating a local 'team' including: Lee & Bert Friesen as co-chairs; Hon. Peter Liba, Hon. Pearl McGonigal, Tannis Richardson, Bill Norrie and Arnold Naimark as Hon. Patrons; Mohinder Singh Dhillon, Ken Dhalla, Krishnamurti Dakshinamurti and Bidhu Jha for the Indo-Canadian gala; Eva Little and Sue Zettler – administration; Daniel Juric, Behzad Yeganeh and Anton Uvarov – transportation to meet all guests and drive them to the hotels via the luxurious Wellington Crescent; and extremely valuable assistance from Melissa Dent – coordination; and Mike Czubryt – Chief Operating Officer. Along with virtually all the ICS scientists, we met all the challenges and delivered on all the opportunities.

In addition to the above-mentioned visitors, we were delighted to have other friends, literally from around the world including Jordan, China, Cuba, Serbia, Turkey, India, Estonia, Pakistan, Nigeria, Chile, Hungary, Slovak Republic, Czech Republic, Denmark, United Kingdom, Germany, Egypt and Romania. It was a great joy to me that many of Dr. Dhalla's friends responded to my suggestion that they honour his birthday with a contribution to the Academy's NARANJAN DHALLA FUND. Proceeds of over \$40,000 are already being used to assist in his tireless efforts to encourage international education in heart health to assist in the creation of a conference in Cuba. I was delighted to accept a generous donation from Ursula and Karl Werdan from Halle, Germany. (photo below)

Buoyed by extremely kind, positive observations on the event, plans are underway for subsequent "Future of Heart Health" Symposia to be held in Winnipeg and other countries. Media reports and details are available online at www.heartconference.com



Karl and Ursula Werdan gave Ivan Berkowitz a big boost for the DHALLA FUND

“Do we know what we know”?

by Dr. Hugh Smith, Mayo Clinic, Rochester MN

[Editor's note: Dr. Hugh Smith, Mayo Clinic, Rochester MN was the Special Guest at the Oct. 13/06 Luncheon to celebrate the 10th Anniversary of the Institute of Cardiovascular Sciences. The Luncheon was hosted by the partners of the ICS: the Faculty of Medicine, University of Manitoba and the St. Boniface General Hospital. Dr. Smith, who was born in Selkirk, Manitoba and educated at the University of Manitoba, delivered the following address]

Thank you very much Larry. I appreciate the opportunity to be here today. This is a particularly happy time for me to speak. Happy for me, I don't know how it will be for you, but happy for me in that I feel like I am welcomed home! Arnold Naimark was one of the stimulating young University of Manitoba Medical School faculty members when I was a medical student and obtained my Bachelor of Science in Medicine degree. I carried out undergraduate research in my second and third year with Ted Cuddy and Rube Cherniak in a cardiorespiratory clinical research unit. It was mind opening for a young medical student to get his feet wet and get a sense of the stimulation that exists with inquiry and scientific discovery. I am profoundly appreciative of the Manitoba Medical School and the University of Manitoba leaders, like Arnold, and President Szathmary, for these opportunities, and they must continue. The second reason I am delighted to be here today is that this conference is in recognition of an outstanding scientist, Dr.

Naranjan Dhalla. We have talked about him as an outstanding scientist. I also like to think of him as an outstanding statesman for the global community of cardiovascular research. I am delighted to be here today to celebrate his birthday.

There are a lot of people who have made these events possible and have made it possible for me to be here today and speak from my experience and position. I am going to talk about something we must do with research and education. That is both exciting and a challenge. I am going to ask the question, "Do we know what we know"? It is the challenge of consistently providing medical care based on current scientific knowledge, such as that presented in this Global Conference on Heart Health and Disease.

I heard some exciting talks this morning and I am looking forward to hearing more. Here is the challenge:

Three months from now, how much will I have remembered? Six months from now, how much will I be

able to apply to the patient who comes into my office and has something relevant to what I heard today? It is the danger we face of having discovery stay within the lab or printed in a journal and not migrating to the clinical arena to have the impact on patients and populations. It requires that we think seriously about knowledge management.

Modern medicine is an information intensive industry and if you think about it, it has only two major components.

The first component is procedures; the second component is the intelligent management of data. There are major challenges in managing that data that I will share some with you as well as some potential solutions. I would like to stress that many good institutions and good individuals are working on these solutions, because these are challenges that affect all of us, across all nations. There is a hierarchy in managing data. Every one of us gets hit with streams of data all day long. Somewhere in that stream of data are important nuggets of key information. We synthesize and analyze this key information, and from that we gain knowledge. We apply this knowledge and watch its outcome, and from this, we learn how better to apply it and to whom and when it should be applied. Through this process we gain wisdom.

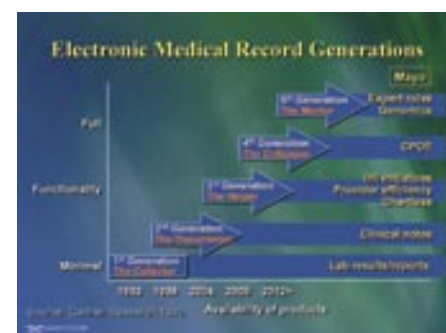
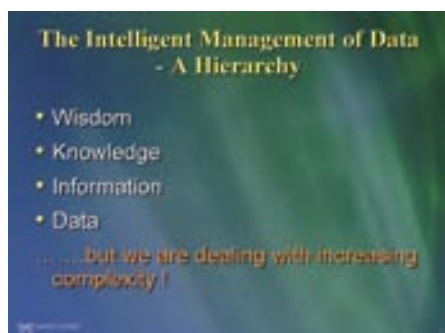
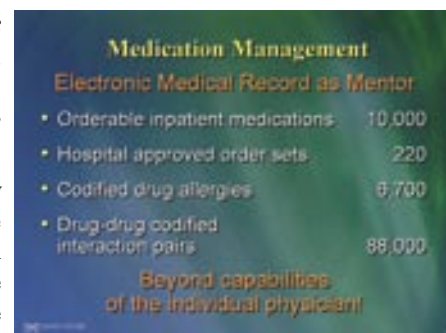
This brings us back to managing data. We are managing it at a time of increasing complexity. In our hospitals at Mayo Clinic there are 10,000 orderable medications for our inpatients. In the interest of patient safety, we have standardized these medications into 220 approved order sets. But, if one looks at individual drugs there are now 6,700 documented or codified drug allergies. There are also 88,000 documented drug-drug interactions. As busy cardiologists or clinicians, this is beyond our individual capabilities. One area we have looked for help is the Electronic Medical Record (EMR). We have been working on it for a decade. It is not done yet; it may never be done because it is under continuous enhancement and refinement.

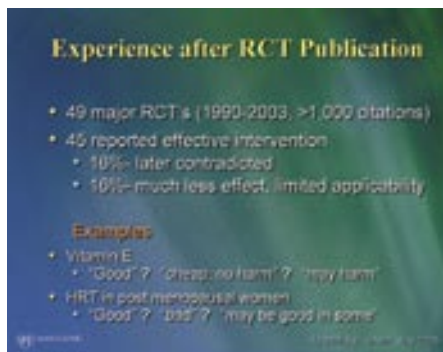
Electronic files are more than just a means of simplifying doctor/patient transactions. They should be thought about it in terms of their different generations, as defined by the Gartner Research Firm.

1. First Generation: The first generation of an electronic medical record is The Collector. If it is a really good program, it will send all patient data to wherever the patient or physician is so that data directed-decisions can be made. Access to all of the data on a patient at the time of a key decision is important. Many errors in medicine are made because of wrong data, inadequate or missing data, or incorrect interpretation of data.

2. Second Generation: The second generation of an electronic medical record is The Documenter. This is needed for many reasons; other people are going to see that patient and they need to know what you and the patient did.

3. Third Generation: The third generation is The Helper. We have been working with Don Berwick and Institutes for Healthcare (IHI) on enhancing the safety of the medical record and IHI initiatives. The Mayo Clinic outpatient area is entirely chartless; there is no paper. The hospital is about three-quarters chartless and we are gaining efficiency.





4. Fourth Generation: The fourth generation of the Electronic Medical Record is The Colleague and where we really address health and safety issues. When I order a drug, the EMR informs me that this patient is already on coumadin, perhaps prescribed by another physician. If I am going to order that drug, I will need to adjust her coumadin dose. Alternatively, if I have just ordered penicillin for this patient, the EMR reminds me that 16 years ago this patient developed a serious rash in response to penicillin. The busy clinician needs this help; help that must be on demand and at a distance, 24 hours a day, seven days a week.

5. Fifth Generation: The final generation is the Mentor, and is about expert rules. What information, what collective wisdom do we have to successfully guide us through a series of diagnostic tests for a patient with a specific constellation of symptoms? What therapeutic options offer the best outcome? This approach will also help us with genomics because we are going to

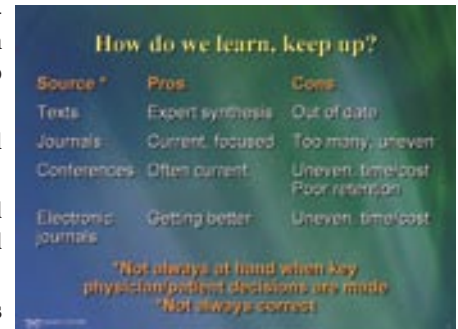
need a lot of help if we are to effectively manage this new knowledge.

The electronic medical record will not solve all of our problems, but we need it. Medicine is behind all other modern industries in managing data.

Medicine is a profession of lifelong learning. I am stimulated by new knowledge; most physicians are, and most scientists certainly are. We need to keep refining it, and we must revise it. How do we learn, and keep up with all this information?

But, there are too many of them and their quality is uneven. When I say too many, in preparation for this talk, I called our library to see how many journals were available in our medical library. Between paper and electronic journals, there were 3,650. This is an interesting number because if each journal published only one volume a year, one would still have to read ten a day to stay current. Nobody is doing that, but that is the challenge we face today.

Conferences like this Global Conference on Heart Health and Disease provide current, cutting edge information. But the quality of the papers may be uneven in scientific merit and clinical applicability. There is the time and the cost. We had to fly here to beautiful warm Winnipeg in October. I got off the plane, 40 mile an hour wind from the north, and I said I am home again. As I have already alluded there is less than perfect retention. Many of you are like me, our memories are powerful but short. Finally there are electronic journals - these are getting better but they are uneven in quality and there is both a time cost to these there. But here is the problem, most journals are not always readily at hand when key physician/patient decisions are made, and unfortunately, they are not always correct.



As many of you know, in the London subway or tube system, they are always telling you to "mind the gap." Figure X represents basic research and clinical practice and the big gap what we had learned had to be unlearned. For example, vitamin E has gone from being good, to being, "Well we can't find where its good, but at least it is causing no harm and its cheap", to "Well you know it may cause some harm". Hormone replacement therapy in postmenopausal women has also recently gone from being good, to bad, and then to may be good in some. The last chapter has likely not been written on either of these topics yet.

One of the ways of addressing this problem is to have an environment of translational research and learning and to continue minding the gap. Everyone talks about research going from bench to bedside,

but I am absolutely convinced about the importance of bedside back to the bench. It is in the clinical environment we see the unanswered questions and we go back to our researchers in this area with a very interesting question. Peter Drucker, the guru of business said, "Never underestimate the power of the naive question."

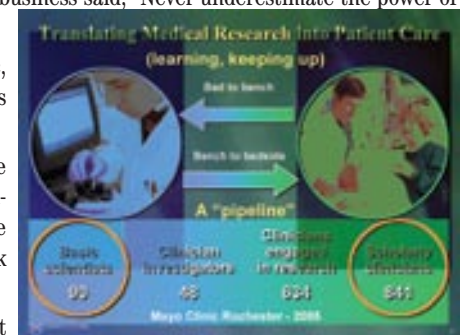
We look at the translational environment as a pipeline. It is a very important pipeline. At Mayo Clinic, as large as we are with 1600 scientists and physicians, we have only 90 full-time funded basic scientists and 48 full-time funded

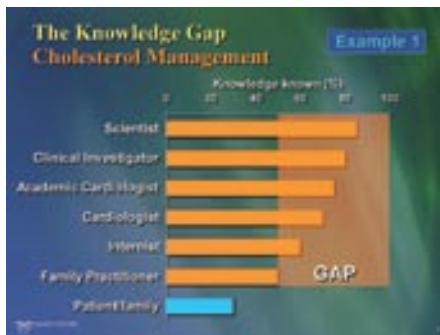
One means is by textbooks. The pro's, in this case, is that there is expert synthesis of the material; the con's are that by the time the book is published, it is out of date. I used to write an interventional cardiology chapter for a major cardiac surgical textbook. It was a multi-authored book, and some authors were always late submitting their chapters. The galley proofs would arrive 9 months later and the textbook would come out 14 months later, and it was embarrassing because it was already out of date.

There are journals. They are better, because they are more current and often, are specialty focused. that exists between these two, namely, translational research. It is two steps forward, one step back in translational research. We are always refining and revising the information; we have to keep learning, and, sometimes, we actually have to unlearn things.

The summary of a paper published in The Journal of the American Medical Association (JAMA, July 2006) looked at 49 major randomized clinical trials (RCT). They were major trials and each had more than a thousand citations. two-thirds of them were cardiovascular. Forty-five reported effective interventions. However between 5 and 10 years later, 16 percent of the findings were contraindicated and 16 percent had much less effect or limited applicability. Consequently, one-third of clinician investigators. We do have, however, 634 clinicians engaged in research who have five to ten percent, or more of their time in funded research (extramurally or intramurally). We also have 800 scholarly clinicians. Many academic medical centers and have is considerable focus on basic scientists and scholarly clinicians. But, what impresses me is that we need the entire pipeline of investigators we cannot succeed in either translational research direction unless we have clinician investigators and clinicians engaged in research. We have to keep these pipelines strong across all 4 modes.

I would like to present two examples of the knowledge gap pertaining to cardiovascular medicine. The first example is cholesterol management. Scientists





working in this area, individually, probably have 85 percent of the knowledge about cholesterol at their fingertips or close at hand. The clinical investigator has a little less, and the academic cardiologists a little less than that. The amount of information diminishes as you can go down the list of practitioners. The numbers provided are only estimates and may be off by 10% in either direction. However, the trend is that as number of areas that one has to cover increases, the less knowledge one will have in any specific area. Using this example, the family physician may be struggling with only 50% of the knowledge that he or she needs when they are dealing with a patient with hyperlipidemia, and the patient and family may have even less knowledge. This problem is common.

But, why is it common? The science is fairly stable and is widely applied; the science is of low complexity and it is not emergent. Why don't we have a smaller gap? It is a real challenge of how we take the tremendous knowledge that was shared with us at this conference, and make sure it gets out the physi-

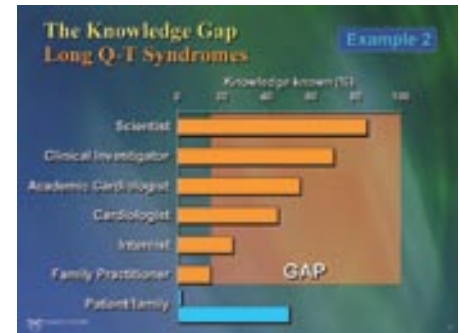
cian/patient interface where the impact with patients and with populations takes place.

The next example pertains to a case in which a little girl died at school due to a sudden cardiac death. An autopsy found no problems with this child's heart; there was no explanation for this death. The family was told it was just one of those things. Electrocardiograms on the other children in the family did not reveal any problems. About nine months later, a second child died. This family was in distress and needed to know what was the risk and fate of the remaining two children.

The coroner who dealt with the death of the second child had heard about a Dr. Mike Ackerman at the Mayo Clinic who had been looking at the genomic basis of long QT syndrome, a syndrome leading to potentially fatal cardiac arrhythmias. This coroner had heard Dr. Ackerman speak at a forensic medicine meeting.

By this time, the family had undergone ECG's and echocardiograms. The results were all normal. The coroner decided to send some tissue and blood to the Mayo Clinic where Dr. Ackerman performed a genomic analysis. He found a guanine-thymine substitution, a very serious form of genomic basis for long QT syndrome. In the remaining two children, the daughter was found to be positive for the genotype and required an implantable defibrillator (one of the youngest in the country). The little boy did not have this. Both are doing fine.

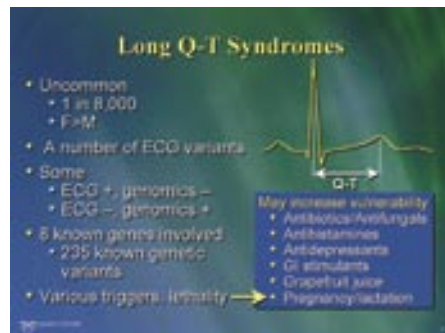
I would venture to say that the average family practitioner knows less than 10% of what needs to be known when they have a family like this come into their office. And, uniquely, the family knows nothing about it, or if they have had a previous death from long QT syndrome in their family, they know much more than the family practitioner, the internists, and the cardiologist, and perhaps even the academic cardiologist. They have probably gone to the Internet,



searched for information and then come to you for the extra answers. But, we do not have them. In this case, the knowledge gap is much worse. This is uncommon; the science is dynamic and the situation is complex; there are unique applications, the situation is critical and the knowledge is emergent.

This is long QT syndrome. The QT is based on a long period between recovery in the electrocardiogram. It is uncommon, occurring 1 in 8000 and in females more than males. There are also a number of ECG variants. In some cases, the ECG is positive but the genomics are negative whereas in some, the ECG is negative but the genomics are positive. There are 8 known genes, 235 known genetic variances reported by Schwartz and there are various triggers leading to lethal outcomes:

- Antibiotics
- Antifungals
- Antihistamines



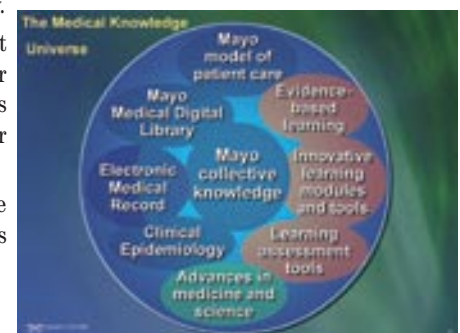
- Antidepressants
- Gastrointestinal stimulants like Propulsid-Grapefruit juice
- Pregnancy and lactation

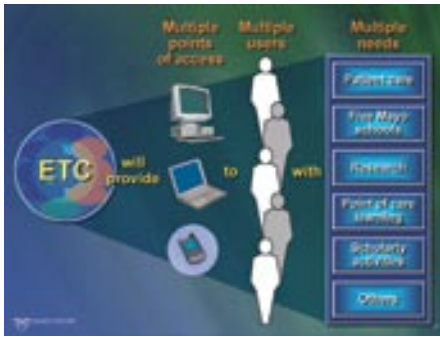
How can Dr. Ackerman, who is running this world-class laboratory know about the particular risks related to that long Q-T gene and other physicians within the same institution do not? This is a challenge for all academic medical centers, and for all of medicine—knowledge management. We have been working hard for the last several years on an information technology center, mindful of what Charles Mayo said, "Medicine can be used only as its practitioners are educated to its accomplishments." In other words, we must know how to apply the knowledge. The information, however, is scattered all over the place. What we are doing is pulling the information together within an Educational Technology Center. Parts of it are unique to the Mayo Clinic, such as: the Mayo model of care, the digital library, the electronic medical record, and clinical epidemiology.

We are also including evidence based learning programs, innovative learning, and learning assessment tools and information on advances in medicine and science. The Mayo Educational Technology Center will provide assistance through multiple points of access (desktop, laptop, Blackberry) to multiple uses with multiple needs. One of the most effective 24/7 learning devices is the video iPod. It is quick, and our hospitals are WiFi (wireless networks) so the residents can carry them with them everywhere.

Our first program is called "Socrates", and is directed by one of our cardiologist, Dr. Rick Nishamura. The focus of the program is to get to the practicing clinician for patient care. The program looks at today's decision-making model, which consists of two components:

What I know, and, what I do.





What I know is based on:

Symptoms and signs for the individual patient.

Risk factors for the patient. The basic science and clinical research.

What I do is:

Diagnostics Treatments

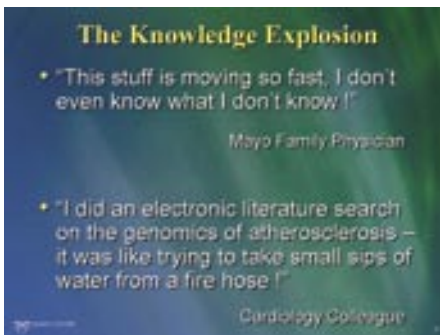
What I know leads to what I do.

Tomorrow, we hope to be increasing our knowledge base in what we know and improving what we do, that is, how we practice diagnosis and treatment.

Since Socrates, medicine has been practiced with pattern recognition. For example an elderly person comes to your office. They present with the following history:

- . Smoker
- . Hypertension
- . Elevated lipids
- . Unexpectedly short of breath for a week
- . Crushing chest pain

This is acute myocardial infarction and if they are perspiring, bradycardic, and nauseated it is probably an acute, inferior myocardial infarction. The diagnosis you just made was based on pattern recognition, despite the fact that an ECG was not provided. This is where we are in medicine today; using pattern recognition.



But, things have become more complicated. In February 2001, the human genome was mapped. In every cell there are 6 billion bases and 30,000 genes. If you unfold it, it is taller than me. The mapped genome provides us with a challenge and an opportunity. The opportunity is that we get to individualize medicine. Biochemically and physiologically we are unique individuals. A drug for a certain condition may work for one person, but may not work for you because we are not all the same. For example, there are probably 28 different patterns of breast cancer based on current biomarkers. Some women should have a mammogram every 6 months or even prophylactic mastectomy. Others, based on their biomarker pattern or their genomics, would probably need a mammogram only every 3 years. This translates into real saving, but, right now, all women over 40 are supposed to have

a mammogram every year. We treat everyone the same way. We know the map of the genome; what we don't know is what it means physiologically. We do not have the phenotype to match the genotype.

We are in a period of a knowledge explosion. The title for my talk was taken from a comment of a Mayo family physician, who said, "This stuff is moving so fast, I don't even know what I don't know". Another colleague said, "I did an electronic literature search on the genomics of atherosclerosis, it was like trying to take small sips of water from a fire hose." Huge amounts of information are coming at us. We have electronic medical records. What is important about these is not that they provide all the data for the transaction on the individual patient, but that it helps us get at the mechanics of the practice of medicine. If we are going to move the knowledge forward we have to look across the experience of hundreds of patients with the seemingly same condition and look for the unique subtypes or genotypes. We already have over four and a half million patients with their electronic medical records in Phase I. We have partnered with IBM in their Blue Gene project to incorporate all the snips in gene chip array data into the medical record. We have designed the medical record so that an IBM search engine can interrogate across the entire universe of medical records to find certain conditions. This is what is required to get to the practical impact of individualized medicine mentioned earlier.

We are also incorporating other key inputs. We have a bio-bank with over a million specimens, and we are incorporating tissue, disease, and other features into it.

This is a big job, but it is important and it needs to get done and the following example demonstrates this. In the US, our Medicare system, CMS, is proposing something called pay for performance, P4P. In other words, one is reimbursed an amount, "X", (which never equals your cost.) They will, however, pay you "X" plus five percent if you can show that you met certain performance criteria. We looked how we could pull the data together to achieve this level of performance for incremental reimbursement for just one disease entity, acute MI. Currently, at the Mayo Clinic, we have 14 electronic databases to pull together to meet the Medicare needs.



This is a series of "information" silos. The cost of information technology in most academic medical centers is going up by 12-16 percent a year because when something new comes along we just add a new silo of data and spend all of our time managing the connections. We are working on an Enterprise Data Trust. In the business world this is an enterprise data warehouse. It allows you to go to an ATM machine in Rome, insert your bankcard and get Euros. At the same time, it recognizes that your chequing account is overdrawn and is able to transfer money from savings to chequing. It then gives you your balance, and you can go about your business with your home bank in Winnipeg or wherever it is. It is an enterprise data universe. We are looking at taking all our systems and putting them into one warehouse, an Enterprise



Data Trust. We are well underway with this project because without it, we are not going to be able to move forward. We have 700 databases to incorporate, but this is not the biggest challenge. The IT experts tell us this is easy, our systems are infinitely scalable. The challenge is human. The challenge is amongst us. The challenge is standardization of data. The challenge is giving up your own set of definitions for a set of data and accepting somebody else's. It is a human challenge but we are stepping up to it. In closing, I wanted to share with you both my excitement and concern about this meeting. We have to take the knowledge presented at this meeting and transfer it to the practicing clinicians to have impact on the individual patients and populations. We are going to have to use better and newer ways of providing that data wherever they practice and whenever they practice. Thank you very much. ♥

PEOPLE AND PLACES

Health for Peace and Security _____ by Dr. Ismail Sallam MD, PhD



[Editor's note: This is the speech delivered by Dr. Ismail Sallam MD, PhD (Glasgow), FACC, FRCSP Hones (Glasgow) in Winnipeg on Oct 13, 2006. Dr. Sallam served as the Minister of Health and Population of Egypt from 1996 to 2002; the Chairman, Executive Council of the Arab Ministers of Health, League of Arab States, 1997 – 2002; the Chairman, Executive Bureau of the African Ministers of Health, Organization of African Unit, 1996 – 2001; The Chair, Partners Board. Partners in Population and Development, 1997 – 2002]

Ladies and Gentlemen

I am truly delighted to be here, in this distinguished gathering in honor of our great colleague and wonderful friend, Dr. Naranjan Dhalla. I carefully selected the topic of my talk today, "Health for Peace and Security" with the hope of bringing the World together, in the same spirit in which Dr. Dhalla always managed to bring us together to work for the sake of scientific innovations, better health and greater development. He managed to formulate his own United Nation.

Before describing what exactly I mean by the title of my talk: "Health for Peace" first, let me begin by saying a few words about a great concern, not particularly academic or scientific in nature, but still a major human concern that occupied the minds of thinkers, philosophers, and statesmen, for centuries. So much scholarship over the past decades has been devoted to the purpose of determin-

ing how one can resolve conflicts amongst humankind. Still, all the answers thus far have failed to provide an adequate solution to eliminate the living phenomenon of conflict throughout the world.

In the year 2002, humankind was losing 35 lives every hour as a result of armed conflicts. According to the World Health Organization, war will become one of the leading causes of disability and death in 2020 .

Although the number of inter-state wars has declined since the end of the Cold War, violence resulting from civil disturbance, guerilla warfare and terrorism seem to be growing.

An exemplification of this rising phenomenon has been covered by the international press on the 11th of September 2001; a day in which the whole world was shaken. It was truly a tragic event that came to affect every country if not every home in one form or another, directly and indirectly.

-It was a harsh reminder; a reminder to all of us that our world is simply too small, too close, and too vulnerable.

-It was also a reminder to every country, and every organization that aims to improve the quality of life for humanity, that our skills and capabilities are far too short to meet the needs of the third millennium; far too short to make a better world, a peaceful world.

If we look at the accomplishments of humanity over the past centuries, we find that a great deal has been achieved with respect to technological advancements and innovations in industry, communications, medicine, and in a host of other fields. But at the same time, when we look closely at this list, it becomes embarrassingly obvious that very little has been attained with respect to our ability to contain wars and conflicts. Not only that, but with all the breakthroughs we have achieved in the field of communications, we are still awfully bad at it: we still perform poorly in communicating across countries, ethnicities and cultures. We hear but we don't listen, and when we listen we don't understand, and when we understand we don't sympathize, and when we sympathize we don't act. Still we are responding with the frames of skills and culture of the Second World War.

Ladies and gentlemen, we need to act. We need to search the human conscience for new tools and skills that can advance our ability to combat conflict of all its form, or at the very least limit its disastrous effects and relieve people's suffering.

On my part, I did my search, and that's what I am here to talk to you about. In a world full of differences and disagreements, I believe that health could stand out as a common interest to bring us together in a quest to mend a fractured world. We need more leaders, politicians and professionals to develop a comprehensive strategy that could bring about more stability and more security to our world through our common health needs and concerns. This is what I would like to call "Health Diplomacy".

Why HEALTH?

A lot of evidence shows that health has the potential to act as a successful bridge for peace. This is seen in the achievements of the Red Cross since its establishment in 1864, along with a host of other organizations that have set forth health as a powerful instrument for bringing about peace and security. Several initiatives deserve our attention in this subject, though there are thousands more: the Nobel prize winner, Medicines sans Frontiers and the center for peace studies at McMaster University. The first provided the action by being available wherever there is conflict while the second provided the scientific basis for the concept of utilization of health for peace. Some initiatives were created to tackle serious problems with continuation to work for the same cause. A good example is the Partners initiative at Harvard University.

In 1999, Gallup Institute asked 50,000 individuals from 60 different countries to decide what of the following they valued the most: job, education, freedom, good health and happy family, along with a number of other choices. The majority of the respondents answered good health. This mirrors the reality that

health is indeed situated in a unique position whereby it is able to transcend the conflicting goals and needs of antagonists in any conflict. Not only that, but most of the costs incurred by individuals in situations of violence are health-related, be it the death, disabilities, destruction of healthcare infrastructure or the loss of access to water and food. Those basic concerns must be utilized to tackle the problem of wars and conflict .

Health also plays a major role in advancing comprehensive development. It is an important tool by which socio-economic disparities can be alleviated. It is equally important as a pillar of stability and security in every community around the world.

I recall in my experience as Minister of Health in Egypt, I was given the mandate to reform the country's health sector. In doing so, we expanded our targets to employ health for two important goals:

First, health reform was utilized to alleviate gender and socio-economic disparities, particularly in the countryside. This emerged from a belief that health is an integral component of comprehensive development. In practical terms, health clinics were redesigned, not only to provide an improved health services, but also to serve other goals of community developments. Clinics were supplemented by literacy programs, vocational training programs, health education and micro credits. This helped us achieve a great deal in the health sector, but equally important, it furthered the goals of comprehensive development, and more broadly stability and security, in the communities we served.

Much more: Health is an important tool to overcome sensitivities to cultural, religious, social and political differences.

The second goal we decided to adopt, which is more related to our international cooperation efforts, is the utilization of health as a new language in diplomacy. The basic philosophy that guided us is our belief that health diplomacy could markedly help in situations of conflicts. We adopted the view that humanitarian channels must remain open no matter what, even when political ties have dried up. As part of our efforts to bring this vision to reality, I headed many health missions to disastrous areas such as Rwanda, Iraq, Kenya, Sudan, Cote d'Ivoire, Palestine, Kosovo , Albania and many other places. In many of those cases, politics and regional conditions were not conducive for substantive diplomacy and dialogue with our hosts. Nevertheless, our mission was always above any political consideration or any hindrances to first-track diplomacy. And in all those situations, I seen firsthand the deep appreciation and gratitude of the common people we served in these areas. I saw for myself how healthcare initiatives can achieve a great deal in alleviating the suffering of people and in softening relations between countries and communities despite political tensions; I saw how doctors can sometimes be the most suited people for conducting diplomacy—health diplomacy, if you may.

I would like to set forth three recommendations on how to ensure that health diplomacy can become a more powerful and active player in improving security and resolving conflicts throughout the world.

First on the global level:

While health is widely recognized as a vital element of any effort aimed at achieving comprehensive development, it has never truly become a top priority on the world agenda. World leaders seem overly occupied by political and economic concerns at the expense of our basic health and development concerns. Ironically, this has exacerbated existing economic and political challenges.

Therefore, health should be given its proper position on the global agenda in order for us to realize the full potential of health diplomacy. Medical and healthcare personnel need the necessary political support to carry out the duties of health diplomacy. Moreover international bodies and organizations must undergo serious reforms in order to effectively support the efforts of health diplomacy. Well-equipped and experienced human resources are needed to attain this vision. The NGOs should attain the optimum position for cooperation in order to maximize their benefits and gaining their cooperation to do the part which cannot be achieved by government and international institutes.

Second, governments must support those efforts by working together to seize this great opportunity to further cooperation between our warring nations. They need to lend their support to international efforts to address the questions of: How can we better cooperate to save lives? How can we make scientific exchange easier and more useful? How can provide the developing world with the necessary Know How to move forward? How can we better promote peace and security by working together for a healthier world? All those questions will require great commitment and work on the part of governments.

My third recommendation concerns academic, clinical and research institutions and I am lucky to give this speech in front of this distinguished gathering that can make all the difference in peace building. We are experiencing a soaring need for a new discipline that can help in the development of a clear and solid conceptual framework through which health diplomacy can grow and flourish. More research resources need to be devoted to the goal of exploring the potential of these new tools, and to develop the proper approach to train health workers to implement a new health diplomacy strategy. The model that was set at McMaster University should extend all over the world. After all, it is the sacred duty of medical doctors to respond to human needs regardless of political barriers. I am certain that many members of this distinguished gathering have dedicated a big part of their lives for that cause, and will have more to offer our troubled world.

And when I talk about dedication and giving, I am reminded of the exceptional individual we are honoring today, Dr. Dhalla, someone who has devoted a big part of his life to promote science, health, peace and development. I got to witness 20 years of this distinguished career, 20 years of making a difference, not only in St Boniface Center, but all over the globe. He has been an excellent ambassador to Winnipeg but a real peace builder all over the globe.

Dr. Dhalla, my best wishes for you, for your family, your establishments, your community and your friends. I would like to congratulate the staff, organizers and the volunteers of the conference for their impressive and dedicated work which has been the usual in every meeting in this place.

Thank you ladies and gentlemen.



CV Network Editorial Team

Editor:

Ivan Berkowitz MBA

Assistant Editors:

Arun Chockalingam PhD

Ian Dixon PhD

Lorrie Kirshenbaum PhD

Editorial Board:

David Brasil MD

Mike Czubryt PhD

Lois DeBakey PhD

Otoni Gomes MD

Ramesh Goyal PhD

Suresh Gupta PhD

Gania Kessler-Icekson PhD

Keld Kjeldsen MD

Tom Kottke MD

Naoki Makino MD

Ricky Man PhD

Dennis McNamara PhD

Bohuslav Ostadal MUDr

Damaris Osunkwo MD

Pawan Singal PhD

Nobuakira Takeda MD

Guy Vassort PhD

Ursula Muller-Werdan MD

Yuyi Zhang MD

Editorial Support:

Melissa Dent MSc

5th International Symposium on Myocardial Cytoprotection

by Elisabeth Roth, Pecs, Hungary



Naranjan S. Dhalla, Ágnes Végh, Elisabeth Röth and László Lénárd at the opening ceremony.

'All roads lead to Rome' but even the Romans went out of their way to establish a city with a beautiful Mediterranean setting in the 2nd century B.C. The city today called Pecs located in southern Hungary has rightfully earned its place as the European cultural capital for 2010. This splendid place was the venue of the 5th International Symposium on Myocardial Cytoprotection (ISMC) between September 28-30th, 2006.

The ISMC has been a very successful meeting over the years since its humble beginning in 1996 and after its great success in 2003 where it not only had a European perspective but transatlantic speakers were invited to the symposium. This year's meeting was a repeat of its predecessor but with a different taste of cardiovascular research, its technical development and clinical application. The symposium was jointly organized by the Department of Surgical Research and Techniques of the University of Pecs, the Hungarian

Society of Cardiology and the International Academy of Cardiovascular Sciences. The speakers from various parts of Europe, USA and Canada enlightened and enriched the scientific and social environment of the meeting and in the process provided valuable advice to interacting young enthusiastic scientists. Along with excellent opportunity to experience the advances in myocardial protection against deleterious injury at the cell level or clinically, the gathering celebrated and honoured with the 'Medal of Merit', its most distinguished speaker Professor Naranjan Dhalla, the Executive Director of the International Academy of Cardiovascular Sciences.

ISMC 2006 was scientifically at its peak this year compared to its previous meetings allowing over 80 robust abstracts to be presented by speakers or in the form of posters. The scientific program consisted of nine oral and two poster sessions covering enormous areas of myocardial cytoprotection: history and update of the coronary story, mitochondrial protection and hypoxic heart preconditioning-from basics to clinics, ischemia-reperfusion injury-from subcellular mechanisms to whole heart, regulatory mechanisms in cardiovascular system, new developments of heart protection in cardiac surgery, myofibrillar contractile function, myocardial contractility. The lectures were presented by some of the most revered individuals in the field of myocardial cytoprotection. The poster session reflected 22 posters presented by some of the youngest and most enthusiastic scientists in the field. Basic science was counterbalanced by its clinical counterpart in various aspects as debates in the field of cardiac surgery and anaesthesia with the speakers coming from the likes of Royal Brompton and Harefield NHS Trust and Oxford University Hospital, UK.

In conclusion, ISMC 2006 is an ongoing success and the organizing committee would like to thank all the participants for their priceless contribution to the success of the meeting. A special vote of gratitude to Professor Naranjan Dhalla for his enormous contribution to the symposium. As president of the congress, I would like to thank the organizing committee for their dedication and hard work for the success of the meeting. We hope the guests enjoyed science and social life equally during their stay in Pecs. We look forward to welcoming you warmly at ISMC 2009. ♥



Prof Ágnes Végh presented the "Medal of Merit" award of the Hungarian Society of Cardiology to Prof. Naranjan S. Dhalla.



Participants of the ISMC2006.

Heart Health Visions for Angola

by Denoel Marcelino de Oliveira, Rio de Janeiro, Brazil



Dr. Moisés Ezequiel Chissonde (L) from Angola and Prof. Dr. Denoel Marcelino de Oliveira (R), NPG-FCSCA - Course Coordinator – taken at Post Graduation Course on Cardiology

The access to medical literature worldwide is getting easier every year. Nowadays, the Internet has helped very much with the diffusion of science in all areas of health but some countries still lack access due to costs and poor infrastructure. Angola is an example of such a shortcoming. Medical education and implementation in Angola is being rebuilt after 30 years of civil war. There is only one medical school for a total population of about 15 million people. It is located in Luanda, the capital, where 70% of medical doctors live. Between 1976 and 1985 only 224 doctors graduated in the country, an average 22.4 each year. The overall MD/population ratio was estimated as 1 MD/46 000 inhabitants. The medical education lasts 6 years and there are few centers for specialization. By now, there are about 1,000 doctors working in Angola but almost 70% work in the capital and many of them lack medical improvement due to poor scientific actualization.

And good example of such disaster is the actual literature used by medical students from Angola dated from 30 years ago. What is amazing to us is that they do not really use the books but photo copies of 30 year old books.

The official language of Angola is Portuguese, the same as in Brazil. Brazil is the biggest country speaking the language and has the power of about 90 medical schools studying themes similar to Angolan epidemiology. The largest Portuguese medical publishers operate in Brazil with more than 10,000 edited health books in the Portuguese language selling nowadays with more than 120 in the field of Cardiology.

We are working with a Project Called CONECTIONS which brings the unique opportunity for Brazil to help all countries speaking Portuguese, including Angola. In May, we hosted the Director of a Hospital in Lubango, Dr. Stephen Foster at our Brazilian Congress on Intensive Cardiology held in Vitória. He attended the Congress and had some meetings about medical conditions in Angola, stimulating Brazilian doctors to share their knowledge and promise assistance. Prof. Otoni Gomes was the Chairman of the Congress and suggested the IACS could program a Medical Symposium on Intensive Cardiology in Angola in 2008 or 2009. The first action in this Hospital is to install a library with books donated from Brazil to become an educational center.

The specific action of CONECTIONS is a trip to Lubango, south of Angola, in December of 2006. We will send about 500 kilograms of books to inaugurate the medical library of the city. During this period, there will be the possibility to diagnose the medical education and actualization in this area of the country. There will be some seminars and courses held on ECG, Cardiovascular Radiology, Cardiovascular emergency and especially on Rheumatic Fever sponsored by IACS. There is a great interest by CONECTIONS to spread knowledge about Rheumatic Fever to the population and doctors as it is the greatest cardiovascular disease in the country.

There is a project called PREFERE, a Rheumatic Fever Prevention Program from the Instituto Nacional de Cardiologia de Laranjeiras, a Brazilian Health Ministry Hospital located in Rio de Janeiro. We plan to approach them to help our CONECTIONS project to develop this concept as they have substantial experience with lay populations.

Ivan Berkowitz also developed a link with Sir Magdi Yacoub who invited Brazilians delegates to the Conference in Winnipeg to join his projects in Portuguese-speaking Mozambique.

During Scientific Forum XVI in Rio, Dr. Dhalla appointed Prof. Denoel Marcelino de Oliveira as Director of Regional Development (Portuguese).

For more details, please contact:

Prof. Dr. Denoel Marcelino de Oliveira, MD, M.Sc.

Fundação Cardiovascular São Francisco de Assis, Brazil

Contacts: drdenoel@hotmail.com or

55 021 21 81345276



A BIG HIT

Thanks to A H A for providing a Booth for the Academy at their Annual Scientific Sessions in Chicago, we created real excitement with close to 1,000 visitors coming to visit. While we were able to talk of Academy activities, many were only interested in sampling CocoaVia! Our friends from MARS were most supportive and we offer sincere gratitude for their tasty/healthy products. For details: <http://www.cocoaavia.com/story/professionals.aspx>

Yanis Fernandez and Ivan Berkowitz had a serious discussion about Delfin's Meeting in Cuba as she is from Cuba and most interested to attend! She loved the CocoaVia she sampled!

Thank You for your generous Donations to the NARANJAN DHALLA FUND

Achla & Sonny Dhalla
Lee & Bert Friesen
Karl & Ursula Werdan
Asper Foundation
CC Kartha
Pulsus Group
Henry Friesen
Roberto Bolli
Mahesh Gupta
Paul Armstrong
Michael Sole
Eldon Smith
Suresh Gupta

Bruce McManus
Tannis Richardson
Harpal Buttar
Sukhinder Kaur Cheema
Ruth Collins-Nakai
Muttart Foundation
Tofy Mussivand
Bill Norrie
Larry Fliegel
Navin Nanda
Garret Gross
Jacques de Champlain

Pearl McGonigal
M.A.Q. Siddiqui
Nilanjana Maulik
Robert Roberts
John McNeill
Peter Liu
Shetuan Zhang
Sureah Tyagi
Keld Kjeldsen
Ramesh Goyal
Roland Vetter
PPW Accountants

February 8 - 10, New Orleans, USA

Southern Society for Clinical Investigation along with the SAFMR, SSPR, SSGIM, and APA. For the coming year (2007), the North American Chapter of the International Academy for Cardiovascular Sciences will be joining the meeting.

For details, please contact IACS North America
President Karl Weber, Memphis, TN
Tel: (901) 448-5759 / 5750
Fax: (901) 448-8084
E-mail: ktweber@utmem.edu
Web site: <http://ssciweb.org/meetings.php>

International Academy of Cardiovascular Sciences North America Young Clinician Scientist Award

Friday, February 9, 2007
Hotel InterContinental
New Orleans, LA

Eligibility

- Persons holding an MD degree or an MD-PhD and who are within eight (8) years of having graduated medical school
- A letter from the candidate's mentor verifying the candidate's leading role in the conduct of the submitted study
- An abstract of the study consisting of Objective, Methods and Results, and Conclusions (see the APMF Southern Regional Meetings Call for Abstracts (<http://www.apmf.org/2007SRMC/Abstracts/Abstracts.pdf>) for details)

Submission Deadline: Monday, October 15, 2006

1) Submit photos to online at <http://www.sccisociety.com>. Please to check for the 2007 Young Clinician Scientist Award

2) Send mentor letter, with copy of abstract, to e-mail to: Joan.Romp@scsccis.org
Joan.Romp@scsccis.org

A travel stipend may be available to each of the four finalists

Announcement

Joint Annual Conference of International Society for Heart Research & International Academy of Cardiovascular Sciences

Bikaner (Rajasthan), India, Feb 16-18th 2007

Dr. Raja Babu Panwar
Organising Chairman

Prof & Head, Department of Cardiology,
S.P. Medical College, Bikaner
Ph: 0091-151-2202666
Email: panwarraja@rediffmail.com

Dr. R.P. Agrawal
Organising Secretary
Associate Professor

2, Adarsh Colony, Bikaner-334003

Ph: 0091-151-2202431, Fax: 0091 151 2202131
Email: rpagrawal@sanchamnet.in, agrawalrp@datainfosys.net

Applications are Invited for Young Investigator Awards

NIRMAL K. GANGULY AWARD FOR CLINICAL RESEARCH NARANJAN DHALLA AWARD FOR BASIC SCIENCES

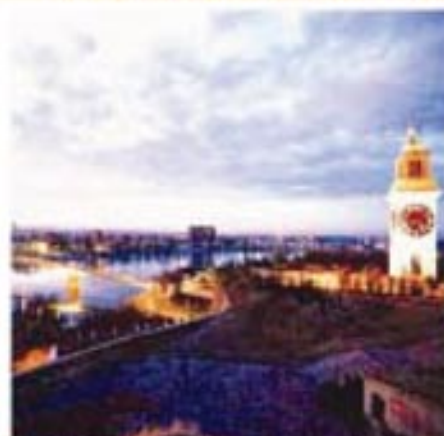
for outstanding Research in Cardiovascular Sciences
to be presented at Annual Conference, Bikaner 2007

For Further Information

Professor S.K. Gupta, Secy. IACS

E-mail: skgup@hotmail.com, sk.skgup@gmail.com

SERBIAN ASSOCIATION FOR ARTERIOSCLEROSIS, THROMBOSIS AND VASCULAR BIOLOGY RESEARCH & THE SERBIAN PHYSIOLOGICAL SOCIETY



are pleased to announce

A SCIENTIFIC CONFERENCE WITH INTERNATIONAL PARTICIPATION AND WITH CME CERTIFICATES FOR ATHEROSCLEROSIS PREVENTION ON

NUTRITION, TREATMENT AND CARDIOVASCULAR RISK MANAGEMENT

**UNDER THE AUSPICES OF
THE INTERNATIONAL ACADEMY OF
CARDIOVASCULAR SCIENCES (IACS)
AND THE INTERNATIONAL
ATHEROSCLEROSIS SOCIETY (IAS)**

**MAY 24-27, 2007
HOTEL PARK, NOVI SAD, SERBIA**

ANNOUNCEMENT & CALL FOR ABSTRACTS AND PAPERS

www.physiology.org.yu/eng/htm/konf2007/announcement.pdf

CO- CHAIRMEN PROGRAM/ORGANIZING COMMITTEE

Jakovljević V (Kragujevac), Djurić D (Belgrade), Lepsanović L (Novi Sad)

CONFERENCE HONORARY CO-CHAIRMEN

Dhalla NS (Winnipeg, Canada), Pierce GN (Winnipeg, Canada), Sirtori C (Milan, Italy)

INTERNATIONAL ADVISORY BOARD*

**Buttar H, Ottawa, Canada
Hryshko LV, Winnipeg, Canada
Nešić M, Ottawa, Canada
Tappia P, Winnipeg, Canada**

CONFERENCE DIRECTOR

Berkowitz I, Winnipeg, Canada



PLAN NOW TO ATTEND

INTERNATIONAL SYMPOSIUM ON CARDIOVASCULAR RESEARCH

Holguín, Cuba
January 25 - 27. 2007

For details please contact
the Chairman:

Delfin Rodriguez Leyva, MD, PhD.

Email: delfin@cristal.hlg.sld.cu

Tel: (+5324) 421221, 427830

Web Site: www.hvil.sld.cu/symposium

or

Ivan Berkowitz, MBA

Email: ivan@mts.net

Tel: (204) 228-3193



Organized by:
*Biomedical Research Division
University Hospital "V.I.Lenin"
Holguín, Cuba.*



Co-Sponsored by:
*International Academy of Cardiovascular Sciences.
Cuban Cardiology Society*