NEWS FROM THE AMERICAN ASSOCIATION OF CARDIOLOGISTS OF INDIAN ORIGIN

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LETTER FROM THE EDITOR

Once again we are looking forward to the Fall meeting of the AACIO to be held in Dallas on Sunday Nov. 8, 1998 during the Scientific session of the AHA. I strongly urge all of you to attend, and please, return RSVP promptly.

We have a capable new team of office bearers : Atul Laddu, MD (President) , Satinder Swaroop, MD (Vice President), Sukh Dev Sharma, MD (Secretary), Dayan Naik, MD (Joint Secretary), Ramagopal Mudumbi, PhD (Treasurer), and Rajat Sanyal, MD (Joint Treasurer). We wish the new team luck, and we are sure the association will prosper under their leadership.

During this meeting we will be presenting the Merit Award and honoring R. Vijayanagar, MD for his outstanding clinical work as well as community service. Dr. Vijayanagar practices cardiac surgery in the Tampa area in Florida and is on the faculty of the University of South Florida. His brief profile is presented elsewhere in this newsletter.

Our Young Investigator Award program needs a boost. No abstracts were submitted for this meeting. I request all the AACIO members and cardiologists of Indian origin in the academic centers to encourage their fellows and junior colleagues to submit abstracts of their research work, either published recently or works in progress, to AACIO. This laudable program should not suffer from lack of interest and the Award committee should look into the matter, and come up with some suggestions to revitalize the program.

— M.M. Deshmukh, M.D.

PRESIDENT'S PAGE

Dear members of the Cardiology Community of Indian Origin and guests:

As we complete one more year of our existence, I see that we have come a long way in our efforts. We now have approximately 700 members from the Cardiology community, of whom most are MD's, and several are PhD's. We are one of unique associations where several of our members are and have been National and International Celebrities as judged by their accomplishments in their respective fields of research / competence. Some of the names come to my mind immediately are Drs. Kanu Chatterjee, Jawahar Mehta, Dayan Naik, Navin Nanda, Natesa Pandian, C. Venkata Ram, Prediman K. Shah, Pravin Shah, Bramah Singh, to name a few. Of course this list is by no means complete, and there is no intention to exclude others, who have achieved enormous success in their career. Space limitations prevent me from enlisting other names. The AACIO is extremely proud of having this experienced group of physicians as our members.

FROM ACADEMIA TO PRIVATE PRACTICE TO PHARMACEUTICAL INDUSTRY : A CAREER GOAL PATH ?

by Atul R. Laddu, MD, PhD, FACC

When I started my career about 30 years ago, I started a little differently. I went into the pharmaceutical industry, initially as a Pharmacologist, and later on as a Clinical Monitor. Whenever I talk with my colleagues, and tell them that all the Pharmaceutical Companies hire MD's, a question most commonly asked is "What does a physician do in Pharmaceutical Industry? I guess they examine and treat patients, right ?" Indeed although this may be true in a very small number of instances, in vast majority of cases the physicians carry an entirely different role-that of a Clinical Monitor. I would like to make an attempt to bring some of the high lights of the responsibilities of a Clinical Monitor to our group, so that it might open doors to some of our members as one of the professions they might like to choose.

A Clinical Monitor, (often called as Clinical

(continued on next page)

(President's Page — continued from front)

Research Physician, Assistant / Associate Director / Director) plays a very important part in the drug development process. The compounds, after being tested in animals for efficacy and safety, will be tested in human volunteers and patients to see if they could be used for treatment. It is at this point the Clinical Monitor comes into the picture. Based on his/her knowledge of Clinical Medicine, past experience with patients, use of drugs for treatment of various ailments, the Clinical Monitor will present ideas on how to test the drugs. The ultimate goal is drug approval by the Food & Drug Administration (FDA). The Clinical Monitor will prepare protocols, which are nothing but documents describing how the drug will be administered, the number of volunteers / patients to be tested, how to evaluate efficacy, how the safety of the volunteers / patients is protected, and how to treat the participants if an emergency occurs. Closely monitored pharmakokinetic, and pharmacodynamic studies are conducted under the supervision of he Clinical Monitor. Finally, long term safety and efficacy studies need to be conducted, depending on the length of the expected patient exposure.

The Clinical Monitor works very closely with a team consisting of several clinical research assistants, a statistician, a formulations expert, a regulatory person, and representatives from sales and marketing to get the product ready for ultimate marketing.

The efforts of a Clinical monitor require good presentation skills, because almost on a regular basis the Clinical Monitor will need to present protocol developments, and study results to peopie within the company, and the FDA. Good writing skills also help immensely in writing reports, summaries, abstracts, and full publications. Associations with peer-reviewed scientific journals as a member of the editorial board, or being an editor would also help the job tremendously.

The Pharmaceutical Industry has often been labeled as "for profit", "where employees are not honest", "where employees are told to twist, or cover up facts", etc. Frankly in the last 25 years, I have not found this attitude. In fact, I continue to enjoy immensely my career in Pharmaceutical Industry. One of the best rewards to one self is when one gets the drug approved by the FDA, or other regulatory agency World Wide. The industry does pay a handsome salary and a decent compensation package (such as cash bonus, stock bonus, stock options, etc.) which over the years could add to a handsome reward. What are the down sides ? Well, not many, really. In the academic arena and in industry, one has to work hard to establish oneself, and work according to the objectives set up ahead of the game, and monitor the progress all the way. Thus the risk is not any greater than in academia.

I would like to invite the members of AACIO to look seriously into making Pharmaceutical industry as a career. I will be happy to chat with anyone who wants more information on this career. Our association is blessed with at least two very important people who have been with Industry for some time with great achievements: Drs. Ramagopal Mudumbi and Prasad Turlapaty. Perhaps you may like to chat with them and ask them to share their experience with you. I am looking forward to working with all the members of the AACIO, and the committee!

A BRIEF HISTORY OF AMRITSAR MEDICAL COLLEGE AND CARDIOLOGY IN PUNJAB

by Inder Jit Anand, MD, FRCP, D Phil (1) , and Jawahar Mehta, MD, PhD (2)
(from V A Medical Center, Minneapolis, MN (1), and University of Florida, Gainesville, FL (2).

The Medical College at Amritsar has had a long and checkered history. During the fifth and sixth decades of this century, it held a prominent position amongst the medical schools in India, and was considered to be one of India's premier Medical institution. The school was started in 1864 at Lahore, the Capital of undivided Punjab in British India, and later on was moved to Amritsar in 1920. During those days, students were admitted to the medical school after matriculation (10 years in school). After 4 years of training, they were licensed to practice Medicine. In 1943, the school was upgraded to the status of a Medical College and admissions were restricted to undergraduates with at least 2 years training in sciences. Students graduated with an M. B., B. S. degree after 5 years of training. During training, major emphasis was placed on the detection and interpretation of physical signs at the bed side. Students often failed to graduate if they missed to detect even the faintest of cardiac murmurs or a slightly enlarged spleen !

At the time of independence from Britain in 1947, there were less than 20 Medical Colleges in India, as compared to over 150 today. There was a great need for doctors and Amritsar Medical College soon became a leader in providing teachers and clinicians the rapidly expanding infrastructure of medical education and research in the country. Institutions such as the Postgradute Medical Institute at Chandigarh, and medical colleges in Ludhiana, Patiala, and Rohtak were almost entirely staffed by graduates from Amritsar. All India Institute of Medical Sciences in New Delhi, and medical colleges at Lucknow, Kanpur, Jaipur, Jodhpur, Pondicherry appointed senior faculty on their staff that had been trained at Amritsar. Because most of the faculty at Amritsar was trained in the United Kingdom, medical education in India retained its British Legacy.

The hospital attached to the Amritsar Medical College, the V J Hospital, was founded in 1891 to celebrate the Golden Jubilee of Queen Vicotria's reign. For nearly 30 years after independence, it retained the only teaching and referral hospital for the states of Punjab, Jammu & Kashmir, Himachal, and Eastern Rajasthan. After independence. V J Hospital quickly acquired a reputation throughout the country for its excellent medical care, this was due largely to the efforts of 4 stalwarts; Dr. K. L. Wig, an internist, Dr. Tulsi Das, an ophthalmologist, and an ENT specialist, Dr. S. R. Dhall, a gynecologist, and Dr. Santokh Singh Anand, a surgeon.

Cardiology in Punjab — continued

Although Amritsar did not have a separate department of cardiology and cardiothoracic surgery, Dr. R. P. Malhotra, as Assistant Professor of Medicine, developed an interest in clinical cardiology and started a busy cardiology clinic. Dr. Malhotra was an excellent teacher, a great role model, and made cardiology one of the most popular specialties. For many years, only the top 2 graduates of the year got an opportunity to work as his house staff. At that time, most of the patients had rheumatic heart disease and yet myocardial infarction was seen very rarely. Although the wards were full of patients with heart failure due to vascular disease, the government refused to allocate funds to acquire equipment for investigative work. ECG and chest X-ray were the only means available to them to confirm their clinical diagnoses. It is remarkable, therefore, that even under such primitive conditions, Dr. Anand was able to carry our one of country's first successful closed mitral volvotomy in 1950. Three years later, he repaired an atrial septal defect under hypothermia. Unfortunately, despite such early enthusiasm and drive, these pioneers were unsuccessful in convincing the authorities to sanction a modern cardiothoracic unit with investigative facilities.

About that time, the United States opened it door to foreign medical graduates. A number of Amritsar Medical graduates took the opportunity to train in America. Two of them, Dr. P. L. Wahi, a cardiologist, and Dr. V. K. Saini, a cardiac surgeon, returned to set up a modern cardiothoracic program. However, by then the Punjab Government accepted the recommendations of Drs. Tulsi Das and Anand to establish a Postgraduate Institute of Medical Education and Research in Chandigarh, the new capital of Punjab. The glorious years of Amritsar began to fade when these stalwarts left, along with their younger colleagues to develop the Institute in Chandigarh. Despite this sad incidence, Amritsar will still be remembered for some of its exceptional graduates, many of whom occupy positions of importance in centers of excellence all around the World.

Drs. Anand and Mehta, the authors of this article, were trained in Amritsar, and have very fond memories of their alma mater. The training in cardiology by Prof. Malhotra was the stimulus for their respective chosen careers in academic cardiology years later. It is amazing that the training that started with the "word" of the professor about the diagnosis based on the presence of heart murmur would have a major impact on the careers of so many. Regardless of the right or wrong diagnosis and treatment plans at that time, cardiology is now a well established specialty in Punjab, Haryana, and Delhi, where all modern day technology is available for diagnosis and treatment, and the patients can expect the State of the Art Therapy at these institutions.

INTERVIEW

— with Jawahar Mehta, MD, PhD, Professor of Medicine and Physiology, University of Florida College of Medicine, Gainesville, FL

Jawahar (JM) recently published an editorial "Funding for Biomedical Research : What happened to our share of the Nation's wealth ?" in the March 1998 issue of Chest. Here are the excerpts of his editorial, in an interview with JM, conducted by Atul R. Laddu, MD, PhD (ARL) :

ARL : Your editorial is excellent, and must have raised a lot of interest in the scientific community. JM, what message do you want to give to the readers in this editorial ?

JM : The message I want to give is that biomedical research is absolutely essential for the survival and progress of the man kind. Significant advances in research have led to a marked prolongation of life and improvement of the quality of life in countries all over the World. Serious diseases, such as small pox, which would otherwise be fatal, have been eradicated, mortality from coronary heart disease and stroke has declined by over 50 % in the past 20 years.

ARL : What about therapies based on molecular biology ?
JM : Yes, such therapies have begun to alter the course of a number of chronic and deadly diseases. Assuming the present trend of understanding of mechanisms of disease continues, who knows we will soon have a cure for several serious diseases such as atherosclerosis, cancer, arthritis, etc. !

ARL : What does your crystal ball tell us ? Is the amount of money spent on biomedical research going up, down, or is steady ?
JM : Sadly, over the past 10 years, the status of biomedical research has markedly deteriorated. The primary reason for this is that most research and funding institutions now have increased their focus on "downsizing", and "rightsizing". Physicians who conduct procedures bring large amounts of money to the institutions, and thus receive significantly larger salaries than those who do not conduct such procedures. Further, a clinician scientist, who spends time in the laboratory discovering "Wonders of the World" is given less respect. The salary of a basic researcher, who thinks about the mechanism of the disease process gets the lowest salary.

ARL : Sure, this looks very sad. What can be done to improve the deteriorating conditions ?
JM : The U. S. has always indulged in high quality of research, and we have established that research is step # 1 in the success of a country. I recommend very strongly the readers of this interview to remind their respective Congressmen of the need to significantly increase funding for biomedical research.

ARL : Excellent message, Jawahar ! Thanks for the time and your thoughts! I hope that the readers will get the message and do their best to promote this type of research.

SAMPTH PARTHASARATHY, PH.D.

Sampth Parthasarathy, Ph.D. of Emory University School of Medicine, Atlanta, who is a previous Merit Awardee of the AACIO, published a paper on "Long Term Exercise and Cardiovascular Protection" in the Journal of Atherosclerosis, Thrombosis and Vascular Biology. He has kindly submitted an abstract for publication in this newsletter.

Dr. Parthasarathy has postulated that long term exercise which results in oxidative stress and oxidation of LDL might induce antioxidant defense in the artery. Members of the AACIO are encouraged to read this interesting article, since this has much relevance to the prevalence of coronary artery disease among some members of our community.

AACIO has a booth in the Exhibition Hall at the AHA meeting and request the members to visit the booth and make our presence felt. You can also visit AACIO on Web site at www.aacio.com.

We are all experiencing the rapidly changing scene of American medicine with shrinking medical economic conditions. We, the cardiologists of Indian origin, will be facing increasing difficulties in the practice of our profession. Therefore, it is important to demonstrate our strength in numbers by uniting in an organized manner, and helping each other in whatever manner we can.

— Madhukar M. Deshmukh, MD, FRCP, FACC.

MERIT AWARD

AACIO is pleased to confer the Merit Award for the Fall Meeting on R. Vijayanagar, MD, for his outstanding clinical work in the field of cardiothoracic and cardiac transplant surgery, as well as his community service. He is on the faculty of the University of South Florida College of Medicine, and in 1985 was the first cardiac surgeon to perform the first cardiac transplant in that State. For his achievements, the Florida Senate recently honored him. He was invited to the State Capital in Tallahassee, Florida, to be present when Senator Charlie Crist introduced a resolution on the floor lauding his for his contribution to the health care in the State of Florida.

Dr. Vijayanagar has also been very active in the affairs of AAPI, the largest and the most influential of the international medical groups in the country. He was Board Chairman of the AAPI, and chairman of the AAPI Charitable Foundation to which he was re-elected many times.

Dr. Vijayanagar is active in the Republican politics and has many friends in the US Senate and Congress, and often acts as a facilitator between the Indian Embassy and US senators and congressmen, when there are resolutions affecting Indian interests.

LONG TERM EXERCISE AND CARDIOVASCULAR PROTECTION

Studies from Dr. Sampath Parthasarathy and associates from Emory University School of Medicine suggest that long-term exercise strategies are needed for sustained cardiovascular protection. Oxidized LDL has been suggested to be atherogenic and recently oxidation was introduced as a non-risk factor for coronary artery disease. Vigorous aerobic exercise has known to be an oxidative stress and Dr. Parthasarathy and associates recently addressed this paradox, "how can exercise be beneficial and a deterrent of cardiovascular disease and at the same time be an oxidative stress?"

This study, published in the July issue of Atherosclerosis, Thrombosis and Vascular Biology, utilized two separate trials involving sedentary and chronic exercisers. Subjects were recruited from the Emory University.

In the first study, sedentary subjects were compared with subjects who were on an exercise training program. A number of oxidation parameters, including the susceptibility of isolated LDL from these subjects after six weeks of exercise training, were measured. The results suggested that sedentary subjects, when they embark on an exercise regime are subjected to an oxidative stress that reflected in the increased tendency of their isolated LDL to undergo oxidation. The lag-time of LDL from exercisers was much lower, indicating priming of LDL to undergo further oxidation. In the next study, sedentary subjects were compared to chronic exercisers, who had been training for over several hours a week for a long duration. Surprisingly, the LDL from these subjects was more resistant to oxidation as compared to that from sedentary subjects.

Further analysis of these studies showed that there were no changes in the oxidizibility of LDL from sedentary and chronic exercising women, when compared to LDL isolated form men. In other words, the LDL from women was protected regardless of their training status, whereas, the LDL from sedentary male subjects was more prone to oxidation as compared to that from chronic exercisers. Dr. Parthasarathy and associates, based on these results, have involved a novel hypothesis which suggests that short-term exercise or introductory exercise might be an oxidative stress which itself might induce oxidation of LDL from the plasma and clear it rapidly by the liver. In other words, the oxidative stress itself could be the key to lowering of cholesterol during initial exercise bout. However, upon long-term or chronic exercise the same oxidative stress might induce antioxidant defense in the artery, so that the circulating LDL not only becomes resistant to oxidative changes, but the artery itself might become capable of resisting the pathological effects oxidized LDL.

These preliminary studies have already prompted the investigators to probe deep into the mechanisms by which the oxidative stress might be a contributing factor to the defense mechanism on long-term exercise. The investigators are currently focusing on the duration, the intensity, and the type of exercise that might be important in protecting the arteries from atherosclerotic changes. (Drs. Robin Shern-Brewer, Nalini Santanam, Carla Weinstein, and Jill Welkley are co-authors of this publication).

INTERNATIONAL CONFERENCE ON UPDATE AND RECENT ADVANCES IN CARDIOLOGY AND SAFARI OF SOUTH AFRICA AND VICTORIA FALLS, ZIMBABWE, JULY 10-26, 1998.

CME credits were offered by the University of Alabama at Birmingham for this program. The course director was Navin Nanda, MD, the co-directors were Farooq Chaudhry, MD, Dayan Naik, MD, and Ashvin Patel, MD. The conference co-sponsors were Cardiological Society of Southern Africa and Associations of Black Cardilogists of America (Dr. Nanda is the Chairman of the Visiting Professors Program of the Association of Black Cardiologists). Other faculty members were Madhukar M. Deshmukh, MD, Mohan Durve, MD, Krishna Ramaswamy, MD, Gulshan Sethi, MD, and R. Vijayanagar, MD.

We landed at Cape Town on July 11th in the brilliant morning sun. Cape Town is one of the most beautiful cities in the world, situated as it is at the southern tip of Africa at the confluence of the Atlantic and Indian Oceans. The next day in the evening we had a meeting with the Cape Town branch of the Cardiological Society of Southern Africa at the Groote Schoor Hospital, where the world's first heart transplant was performed by Christian Barnard. Sadly, the hospital is scheduled for closure because of lack of funds. There were two other meetings with the Cardiological Society at Durban and Johannesburg. In Durban we met two prominent cardiologists of Indian origin, Adbul Mitha and D.P. Naidoo. In Johannesburg the meeting was presided over by Pravin Mang,

MB. BCh, PhD, FRCP, who is the current President of the Cardiological Socieity of Southern Africa. Dr. Nanda gave a talk on "New Horizons in Echocardiography", which stimulated a lively discussion. The audience was a bit disappointed by the absence of the President, Nelson Mandela, because of his more joyous engagement of getting married. He however sent an autographed copy of his autobiograph "Long Walk to Freedom" which was presented to Dr. Nanda (South Africa has a large number of cardiologists of Indian origin).

In addition to these meetings the faculty gave presentations on the current trends in diagnostic and clinical cardiology and cardiac surgery.

The highlight of the trip was the visit to the spectacular Victoria Falls in Zimbabwe, which truly is a great natural wonder. The trip was deemed a social and academic success, as the participants and their families got to know each other better.

THIRD WORLD CONGRESS OF INTERNATIONAL SOCIETY OF CARDIOVASCULAR ULTRASOUND AND ECHOCARDIOGRAPHY

The Congress was held in Rio de Janeiro, Brazil, from April 23 to 25, 1998. The meeting was a tremendous success. In attendance were two thousand delegates from 50 countries, and the faculty was composed of 120 adult and pediatric cardiologists, cardiac surgeon, and researchers. AACIO was well represented by the following members who were part of the faculty and chaired many sessions; Sanjiv Kaul, Bijoy Khanderia, Navin C. Nanda, Natesa Pandian, Aswin Patel, Kiran Sagar, Pravin Shah, Gulshan Sethi, Shiv Sharma, Vipul Shah, Mani Vannan, and Govindan Vijayaraghavan. The International faculty representative was Natesa Pandian, Navin Nanda was the international President of the Congress.

The meeting was a great success and during the 3 days there were 5 scientific sessions convening concurrently, covering vast areas of topics such as pediatric and fetal echocardiography, vascular ultrasound, contrast echocardiography, three dimensional reconstruction, harmonic and tissue Doppler imaging, and many diverse areas of clinical cardiac conditions.

Unfortunately I was unable to attend and fulfill my obligations on the faculty due to personal reasons and regret that I missed the splendors of the Brazilian landscape and the generous hospitality of the Brazilian Cardiological Society, which was described in glowing terms by the attendees.

— Madhukar M. Deshmukh, MD

ATTENTION MEMBERS / GUESTS

AACIO has arranged taxi rides from your hotel to the Faculty Club in Dallas on November 8, 1998 for the AACIO meeting at no cost to you. Please follow these simple instructions:

Please call Executive Taxi at 972-554-1212, identify yourselves to the receptionist as a member of AACIO. The driver will then know where to drop you. The function will take place at the A. W. Harris Faculty Club, University of Texas Southwestern Medical Center, adjacent to the Parkland Hospital, close to the intersection of Harry Hines Blvd and Inwood Road, 4th Floor of the Library Building on the evening of Sunday Nov 8, 1998. The Faculty Club is about 10 minutes taxi ride from the down town hotels in Dallas.

Please remember that during the AHA meeting, taxis are very busy. Please keep enough time for the transportation.

The drivers will drop the members and their guests at the Butler entrance.

When the ride in completed, the driver of the taxi will get a voucher signed by the member. In the evening (about 10 p.m.) the same day, members will return to their respective down town hotels, taxis will be waiting for them.

PLEASE DO NOT PAY THE TAXI DRIVER, THE PAYMENTS FOR RIDES WILL BE TAKEN CARE BY THE AACIO!

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The AACIO invites its member and guests to the semi-annual meeting to be held at the A. W. Harris Faculty Club, 4th floor of the library building, University of Texas Southwestern Medical Center, adjacent to the Parkland Hospital, close to the intersection of Harry Hines Blvd and Inwood Road, Fourth Floor of the Library Building, on the evening of Sunday Nov 8, 1998. The Faculty Club is about 10 minutes taxi ride from the down town hotels in Dallas.

Date: Sunday November 8, 1998

Place : A. W. Harris Faculty Club, University of Texas Southwestern Medical Center, adjacent to the Parkland Hospital, close to the intersection of Harry Hines Blvd and Inwood Road, Fourth Floor of the Library Building.

Program:
7 PM - 7:30 PM — Executive Committee meeting
7:30 PM - 7 : 45 PM — Presentation of the Merit Award honoring R. Vijayanagar, MD, Department of Surgery, University of South Florida, for his outstanding clinical work as well as community service.
7:45 PM - 8:30 PM — Presentation of Grand Rounds by Norman Kaplan, MD on Considerations in the modern management of hypertension
8 : 45 PM — Dinner

Please send information about your attendance to: Atul R. Laddu, MD, PhD, FACC, 1216 North Claridge Way, Carmel, IN 46032, 317-580-1241, FAX 317-580-1245

Atul R. Laddu, MD, PhD, FACC,
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