Lecture Series

Second World Ayurveda Congress (Theme: Ayurveda for the Future)—Inaugural Address: Part I

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Introduction

In November 2006, the Second World Ayurveda Congress was held at the University of Pune, often known as the 'Oxford of the East'. For the Congress to be held alongside the University's hallowed halls speaks much for the progress, Ayurveda has made in recent decades, particularly as it was housed just behind the main University administration building, once the summer residence of British Viceroys, including Ayurveda's most ruthless persecutor, Lord Macaulay. The choice of Pune was particularly due to the University's Professor of Interdisciplinary Health Sciences Professor Bhushan Patwardhan, also an editorial board member of *eCAM* who did much to organize the event.

The last 5 years, in particular, have seen a sea change in Ayurveda's national profile. India's ancient medical system has slowly grown through a long period of rehabilitation from the depressed state in which it was left at independence by British antipathy. Although over half British materia medica at the time were of South Asian origin, Ayureda's value as a source of national wealth and wisdom, and more importantly of genuine medical insight and expertise, have only recently come to be officially acknowledged by India's academic community. Today, leaders from the nation's medical and scientific communities are working to promote research and scientific understanding of Ayurveda in the most up to date terms.

No one has done more to promote the new surge of scientific interest in Ayurveda than the Director-General of India's Council for Scientific and Industrial Research (CSIR) Dr R. A. Mashelkar. Beginning in 2003-2004, he started over 25 research programs at CSIR research institutes around India, under the aegis of his 'Golden Triangle' initiative. Not unnaturally, Professor Mashelkar was asked to deliver the Congress's inaugural address, and set the tone for the new collaboration between

modern science and ancient wisdom. His speech has been divided into three parts, which will be printed in successive issues of *eCAM*, Volume 5. The following is an almost verbatim account of the first part—Editors.

Inaugural Address (Eliminate personal points between)

As I stand before you, my mind goes back to the morning of January 3, 2000, more than 6 years ago, when this great university had organized the Indian National Science Congress (1). I remember very similar scenes. The then Prime Minister Atal Bihari Vajpayeeji inaugurated it. Nobel laureates, Richard Ernst and Jean Marie Lehn were with us. There was enormous excitement. There was a great 'smell in the air'. I sense that smell today, exactly like the one I had at that time.

Dr Bhatkar and I and many others said it cannot be just a science congress, it has to be a 'knowledge congress', because science is just a part of the whole body of knowledge. So we arranged for practitioners of traditional knowledge to be on stage: artisans, farmers a whole range of people. In fact, some of the innovators were illiterate—grass roots innovators, who occupied the same stage as Nobel laureates like Richard Ernst. I can assure you they got more applause than the Nobel laureates, such was the integration. We turned it into a people's science congress.

I still remember the great scenes at the Congress. There were queues stretching from the University to Pune's Shivaji Nagar station. For the first time, there were headlines 'Science Congress causes traffic jams'. It was amazing, because normally when the Prime Minister inaugurates a science congress, and he goes away, then everyone goes away. That was how it was then. Today, the scenes are similarly terrific. The Vice-chancellor was

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just telling me about the Second World Ayurveda Congress Exhibition, and the response to it—how 50 000 people have been coming everyday, the only exception being the rainy day when only 20 000 came. It is amazing. I am sure hundreds of thousands will come. I think it augurs extraordinarily well for the Congress. There is a great spirit. The omens seem tremendous.

The day before yesterday, I was in Malaysia at the invitation of their Prime Minister. I spent 2 days while they showed me their science, technology and innovation landscape, seeking advice and help. At the end, I spent almost an hour one-on-one with the Malaysian Prime Minister, Mr Badavi. I was amazed to find in him a champion of traditional medicine. I was amazed to discover that he had enormous respect for Ayurveda. He referred to it not only as a great knowledge system, but also he said it contains great wisdom. He used the words, 'wise knowledge system, perhaps the wisest'. So the Malaysian Prime Minister is our champion.

New Interest in Ayuveda

Things could not be better for us. The environment is right. What is going right? First and foremost, a sufficient number of our country's leading scientists and doctors are now persuaded of the real value of Ayurveda to have stimulated huge support from the central government, in addition to the large patronage from our country's various states. Leading figures like Dr Valiathan, whose new book (2) will be presented tomorrow, have provided observations, analysis and proposals of critical importance (3), many of which I shall mention. As he says, the major organizations in our world's health system all now recognize Ayurveda. These include organizations in developed and undeveloped countries, in Russia and America, like the US National Institute of Health's NCCAM (4), as well as the great international organizations like WHO (5,6) (including its Commission of Intellectual Property Rights (7) for which I was a Vice-chair). Following the lead of the Commonwealth (8), the UK (9) and several European countries recognize Ayurveda as a form of complementary medicine (5) [it is now even being compared to some of the other systems (10)].

In India, there are half a million registered practitioners of Ayurveda, so we have created a department for AYUSH (11), which is actively promoting every aspect of its development. Ayush means life, and Ayurveda means 'Science of Life'. It is a beautiful terminology. Our educational system includes two dedicated Ayurveda universities with both undergraduate and post-graduate studies. There are also 200 Ayurvedic colleges training practitioners of all aspects of Ayurveda.

Also, if you look at the way things are marketed today in many countries, be it diet, cosmetics, you will find they are marketed with Ayurvedic nuances. A number of books and other publications concern Ayurveda (12). In addition to those referenced above, I would particularly mention Valiathan's Legacy of Charak (13), and his essay on Ayurvedic Biology (14), published by the Indian Academy of Sciences.

Programs and systems, which have never previously been concerned with Ayurveda, are becoming involved. Consider a system like India's Council for Scientific and Industrial Research (15) (I speak as its retiring Directorgeneral), CSIR programmes like the New Millennium Indian Technology Leadership Initiative (16), which traditionally concerned technology domains, are now looking at Ayurveda. There is an absolutely unbelievable vitality, but there are great challenges before us. What are they? I shall enumerate some of them.

Ayurveda and Modern Science: The 'GOLDEN TRIANGLE'

As we know Ayurveda literally means, 'Science of Life'. It dates from long before the emergence of life sciences, which have now become so fashionable. Everybody wants to go into the life sciences, but Ayurveda was the original science of life itself. It encompasses the total sweep of life sciences, pursuing its quest for understanding life in all its ramifications. It is truly holistic.

Ayurveda is possibly the earliest formal system of healthcare (17). It is no mere compendium of therapeutic recipes as many other systems tend to be; nor was it the first one to use herbs. Herbs have been used from time immemorial. Ayurveda is one of the earliest frameworks that systematized knowledge of health and healthcare. Its framework is not only self-consistent, but also uses cause and effect arguments to correlate manifestations of sickness, its causes and its treatments. When this framework was developed in ancient India-and I am very proud of this—the notion of a molecule did not exist, nor was the cell and the role it plays in the life process known. The discoveries of DNA and functional genomics lay more the 3000 years in the future, yet in spite of all this Ayurveda offered effective treatments for many disorders, particularly those with multiple causes (18). For some degenerative diseases, most Indians consider it to be the treatment of last resort. There is a general belief that, when all other treatments fail, Ayurveda may still succeed and it often does! We should be proud of this.

The 20th century has revealed some of the greatest insights into our understanding of life at successively higher levels of organization: molecules, subcellular organelles, cells, tissues, organs, organisms, species and ecosystems. A remarkable feature of modern medicine is its close integration with basic sciences, like physics, chemistry and biology. For example, that new frontier of modern medicine, gene therapy, would not have been possible if the structure of DNA had not been known.

That itself was made possible by structural elucidation achieved by X-ray diffraction. The contribution of modern physics to the elucidation of the structure of DNA—and then gene therapy is obvious.

This example illustrates how the connection between modern medicine and modern science has always been strong, whereas that between modern science and traditional medicine, including Ayurveda, has been poor. This has resulted in a poor connection between modern medicine and traditional medicine. That is why India can benefit enormously if we can build a Golden Triangle between Modern Science, Modern Medicine and Traditional Medicine. I used the term, 'Golden Triangle', for the first time at a meeting in Chitrakoot where I gave the valedictory envoi (19). I am very happy the term has become so popular. Indeed, triangles are a popular concept in complementary medicine (20), but for AYUSH, the Golden Triangle project is not merely a triangle, but a 'Golden Triangle' because it presents a golden opportunity to bring these different systems together.

I am a scientist. As Dr Bhatkar said, it might be considered remarkable for an information technologist or a scientist to give the inaugural address at this World Ayurveda Congress, but in this role I must admit an unfortunate error on behalf of my own community—that we rejected traditional knowledge as extraneous. During the colonial period of world history, which was also a time of phenomenal growth in science and technology, science was projected and accepted as an essential feature of western civilization. An unfortunate, retrogressive corollary was that modern scientific knowledge was seen as an adversary of traditional wisdom and traditional knowledge: the two were considered mutually exclusive. This was a regrettable syndrome, because it had the effect of belittling the intellect and wisdom of the vast proportion of the world's population, the heritage of the whole human race. You see that when the Malaysian Prime Minister said, 'it is a wise system of knowledge', he used the word 'wise' very precisely in referring to that wisdom. We as modern scientists really lost the plot. That is why I am so happy to see other people here today who belong to the same community, as I do—like Professor Gerry Bodeker of Oxford and Columbia Universities.

I believe, we need to remind ourselves of a profound statement made by Mahatma Gandhi. He said 'I do not want my house to be walled in on all sides and my windows to be stuffed, I want the cultures of all the lands to be blown about my house as freely as possible' (21). Gandhiji implied that our minds should be open and uninhibited. We should be open to new ideas and new thinking. There should be no artificial boundaries, no walls or borders between different domains of knowledge

or their practitioners. That is why I am so happy to see the present confluence of these different domains of knowledge, and their adherents.

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