IASTAM - INDIA

Communiqué

NEWSLETTER

INDIAN ASSOCIATION FOR THE STUDY OF TRADITIONAL ASIAN MEDICINE
पारंपारिक आशियाई स्वास्थ्य परिषद – भारत

April - June 2015

LET COLORS DRIVE US

Dr. Narendra Bhatt,
President, IASTAM - India

Greetings of This Colorful Season.

Spreading one's wings! Moving Beyond!

IASTAM – India is necessarily a multidisciplinary organization bringing together those interested in indigenous systems of medicines from backgrounds as diverse as practitioners, academics, researchers or any other profession thereby enabling the pooling of varied resources for the promotion of the indigenous medical systems. The various categories of awards which have been instituted by our association have projected the spirit of IASTAM very clearly.

While this interdisciplinary approach is well recognized, a palpable need was always felt to widen the scope of IASTAM Activities. This desire enabled us to take a decision to have our Award and Oration Function 2015 at Gujarat Ayurved University, Jamnagar and the effort was very fruitful. On other pages of this *Communiqué* you will find observations, records and pictorial presentations of the event. As president of this 35 year old association, I feel satisfied with the outcome. The event at Jamnagar was significant, with the historicity being unmistakable. One will recall Jamnagar as the place that was the epicenter of ***Vaidya Zandu Bhattji,*** *and it was also the place where the* first ***Zandu International Award*** sponsored by M/s EMAMI Ltd, was awarded to Prof. Dr. Ikhlas Khan from USA.

IASTAM Awardees 2015

This event also remains in our memory as we offer our respect to **Prof. R. K. Mutatkar,** founder secretary general and former president of our association for his lifetime contribution. Personally for me it was also an

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emotional moment when I had the opportunity to offer my own gratitude and respect of working together for almost 34 years wherein through a personal relationship with someone with whom I was able to identify a common objective. For IASTAM it was a historic moment where the upcoming generation acknowledges and respects the contribution and effort that helped the association grow over a period of time.

In **Dr. H. R. Nagendra,** the recipient of the Yoga Forum Munchen Award, we found an epitome of humility which is intensely personified and his words reveal the depth of intuitive excellence and the realistic approach he lives by.

Prof. Dr. Subhash Ranade is someone who has visited 67 countries. He took us on a world tour with sharing his activities of different kinds taking place in all those places. His experience helps boost confidence particularly for our newer generation in our systems for their global potential.

Prof. Maltiben Chauhan who received the award instituted in memory of our peer Dr. K. M. Parikh was at home among the participants. Her motherly words were applauded by all.

Prof. Y. K. Gupta, an eminent scientist from Delhi, a recipient of the Prof. K. N. Udupa award shared his integrative vision thereby bringing different paradigms of our systems together.

Vaidya G. G. Gangadharan and Prof. Dr. Bhushan Patwardhan have been very much a part of IASTAM and its activities. Since the early days it has indeed been a pleasure to see them growing in experience and stature now as recipients of the Shri Mathuradas B. Parikh Award and Shri Gopaldas Parikh Award respectively based on their admirable work and contribution.

Prof. Dr. P. K. Debnath has been an icon of integration based on strong Ayurvedic principles. He received the award for treading in the footsteps of Dr. C. Dwarkanath, one from his very own city of Kolkatta.

Dr. Subhashchandra Varshney, a silent and sincere worker as was visible even in his demeanor in Jamnagar received the Vaidya Bhausaheb Paranjape award for contributions to the field of Shalya- Shalakya Tantra, the Ayurvedic surgery.

In **Prof. Ikhlas Khan** we can trace the scientific discipline and training that emanates from one of three major herbal institutes in the USA where he is leading a team of scientists in natural products. Prof. Khan's desire to provide a bridge between product development and the ushering in of a scientific spirit for natural products from Indian systems of medicine was clearly manifest.

Of course it was a new experience to conduct an event away from one's hometown. This was definitely an experience worth having. Hope we will have opportunities to organize similar events in other parts of the country as well.

In our endeavor to strengthen the procedure of the selection of awardees a new procedure was followed. We definitely experienced some difficulties with the broad based procedures for nominations but it was worth the effort taken. We have taken note of related issues and the necessary steps will be coordinated by Dr. Ashwinikumar Raut to evolve a robust but simple procedure. Credibility of 'IASTAM Awards' shall remain focus of all our efforts.

We remain indebted to Vaidya Rajesh Kotecha Hon. Vice Chancellor, Gujarat Ayurved University for his support and the help received from his team of Dr. K. Dhiman, Dr. Joban Modha, Dr. Galib, Dr. Prajapati and others. Dr. Manasi Deshpande, being an alumni of Jamnagar provided much needed assistance in the interaction between these two organizations.

IASTAM GAAMA Award & Institution of Zandu International Award on Permanent Basis

A surprise came in the form of three words written on a small piece of paper that reached the podium while I was addressing the meet. The Gujarat Ayurvedic Aushadh Manufacturers Association (GAAMA) had decided to institute a new award for IASTAM.

I am also happy to declare that after observing outcome of the Jamnagar event M/s Emami Ltd. has now confirmed the institution Zandu International Award on permanent basis with provision of required corpus. I wish to express our gratitude to Shri Harsha Agarwal for this gesture. I must put on record efforts by our member and former regional secretary Dr. C. K. Katiyar.

I pray and hope the commitment of our members to the objectives of the association and the collective spirit of the kinship we have achieved will help us further build a manifold recognition of IASTAM Awards.

Our Relationship With International Association

IASTAM and IASTAM India were practically established together at the same time.The enthusiasm of Indian participants at Canberra during 1"ICTAM in 1978 established the Indian Chapter in 1980 as an independent organization registered with statutory body as per Indian laws in presence of Prof. A. L. Basham. The Indian chapter has remained active whereas several other country wise associations that were established have unfortunately ceased to exist. Right from the beginning the IASTAM International Council and our association have enjoyed a cordial relationship.

The two organizations have complemented activities conducted by either. We were delighted with presence of the then president of IASTAM, Prof. Waltraud Ernst when we celebrated our silver jubilee. The Indian chapter – IASTAM India has succeeded for to establish its national identity and structure undertaking various activities such as conducting meetings, instituting awards, holding a series of conclaves on important subjects, participating at seminars and taking up issues at the national level.

The Indian chapter has actively participated at all international conferences by IASTAM, shortly referred to as ICTAM. The Indian chapter organized an Asian Conference – 'ACTAM' in 1983 and organized the 'Third International Conference on Traditional Asian Medicine' (ICTAM III) held in 1990, both in Mumbai when Prof. Charles Leslie, the then president of IASTAM personally supervised the meet by staying in Mumbai for nearly two months.

IASTAM India had accepted to organize the 9th ICTAM in India in 2016. However the present IASTAM council insisted on the mandatory combining of the conference fee and the member ship of IASTAM with the subscription fees of the Journal. This would have put additional pressure on participants and thereby would have impacted the participation. An issue related to dates – 2016 or 2017 - was also brought in late at this juncture after official agreement since April 2014. Present executive committee of IASTAM Council has opted to overrule the decisions taken by the council in South Korea. Despite consistent efforts over last three months we could not resolve the issue to organize 9th ICTAM as was planned.

With a view to prevent jeopardizing the participating numbers at the international meet the managing committee of our association in a collective decision has decided to continue with the international meet under a new title ***'International Conference on Advances in Asian Medicine' [ICAAM].*** Asian interests and aspirations are very much at the heart of this difficult decision. We sincerely felt that there is a need to uphold the interests of countries with a background in Asian Medicine in its totality where we have to work for the development and global impact of Asian Medicine beyond limited academic interests. This has not been easy and I thank every member of the managing committee for sharing their views clearly to evolve right conclusion. I seek your support to reach out for the participation at *ICAAM* to experts known to you from Asian countries and those from other parts of the world interested in Asian medicine.

Preparations for the International Conference on Advances in Asian Medicine – [ICAAM] have already begun. As we move forward we urge each and every one of you to ensure that you participate and strengthen our attempts to have a great meet.

"ICAAM"

Preparations for the '***International Conference on Advances in Asian Medicine*** – ***[ICAAM]*** have already begun. As we move forward we urge each and every one of you to ensure that you participate and strengthen our attempts to have a great meet. Please do help us create better awareness about the event objectives. Your suggestions are most welcome.

We are happy to present the colorful "ICAAM" logo, fascinating in color and deeper in meaning. I invite you to join us to plan an event, full of colors.

Book Review: Good Ayurvedic Therapy Practices

The book 'Good Ayurvedic Therapy Practices' provides a detailed account and well illustrated information as to how to practice Ayurvedic therapies in a modern setting. The book has 3 parts - part 1, dealing with 29 therapies in a SOP format, part 2 dealing with resources and research; and part 3 comprises of Annexures.

Part 1 provides detailed procedures and steps to perform 29 Ayurvedic therapies in a format that resembles standard operating procedure (SOP) commonly adopted in pharma or food companies Part 2 of the book deals with resources and research related to Ayurvedic therapy and its administration.

Very senior person in profession namely Mr. Krishna Kumar, a renowned Ayurveda Expert of AVP & Dr. David Frawley of USA, a global Indologist & Ayurveda Expert have written Preface & Foreword and have appreciated the contents of the Book.

The book is ready to use manual for Ayurvedic clinical treatment management. It is also useful for all serious ayurvedic treatment centers and all Ayurvedic Schools. The content of the book is informative and provides minute details that it is worth being considered as a part of the text books for Ayurvedic teaching. It reflects the growing sophistication of Ayurveda today. Ayurvidye Trust and the authors Dr. Arun and Shri Narayana need to be complemented for these invaluable contributions which are a need of the hour to provide quality Ayurvedic therapies and enhance image of Ayurveda.

Oration: Lifetime Contribution to IASTAM India

Prof. R. K. Mutatkar
Department of Anthropology,
University Of Pune
Hon. Director of AYUSH in Public Health
Founder Secretary General of IASTAM India
Former President of IASTAM India

Prof. R. K. Mutatkar

I also enjoy the rare privilege of having been blessed by Prof. Charles Leslie, Prof. A. L. Basham and Pandit Shiv Sharma, respectively the first Secretary General, President and Vice President of International IASTAM.

I

I feel privileged to visit the Jamnagar Ayurved University as an academic pilgrimage. The first research centre in the indigenous system of medicine in India was established here in 1953 with Dr. Pranjivan Mehta as the Director under the aegis of The Gulab Kunwarba Ayurvedic Society created by Her Highness the Maharani. Dr. C. G. Pandit, the Founder-Director, Indian Council of Medical Research was the Chairman of a committee appointed by Rajkumari Amrit Kaur, the first Health Minister of India in December 1949 to work out a detailed scheme for the establishment of such an Institute.

Dr. Pandit in his autobiography "My World of Preventive Medicine" published by ICMR in 1982 has written a full chapter on this issue "Research in Ayurved- Birth and Death of a Concept". Since I enjoyed his affection while he settled down at Pune, I had the privilege of reading the typescript of the autobiography. He did admit to me his mistake of superimposing the allopathic team to partner research with ayurvedic faculty. Pandit Nehru visited the Institute on November 2, 1955 and wrote his remarks in the visitor's book. Ultimately Morarjibhai Desai persuaded Dr. Sushila Nayar, the then Minister of Health to handover the Institute to Saurashtra Government presumably to establish the Ayurved University. I am sure you must be having a documentation of this process from your perspective. I was directed to be a part of the process of organizing a meeting at Pune University to approve the draft of the Constitution of IASTAM-India and to select the first Managing Committee and Office Bearers.

I witnessed the academic preparation of first ICTAM at Canberra held in September 1979, while Prof. Basham attended the first International symposium on Medical Anthropology at the Department of Anthropology, Pune University, to meet about 50 International medical anthropologists from Europe and U.S. in December 1978. Prof. Charles Leslie who was the co-chairman of Pune Symposium had advised me to invite Pandit Shiv Sharma to chair a session on Ayurved. Incidentally, an International Congress of Anthropological and Ethnological Sciences, a five yearly regular feature was held at Delhi and Pune was selected as a venue for post-congress symposium since we had started teaching Medical Anthropology, first time in India in 1974. The rest of IASTAM - India is history propelled by Dr. K. M. Parikh at Zandu and continued by Dr. N. S. Bhatt, following the Parikh tradition.

II

Where was the need to discuss Traditional Medicine at international level in 1979 ? The two big countries in Asia, India and China, the two great ancient civilizations, became politically or ideologically independent. Many western scholars such as Basham, Arthur Kleinman, Paul Unschuld, Charles Leslie were studying some aspects of Indian and Chinese Culture and Society. In India, the Community

Development Program started in 1952 which attracted American anthropologists to study Indian villages. Communist China had its roots in rural China and peasantry. Basham's unparalleled classic book "The Wonder that was India" published in 1954 carries a note on Medicine mentioning Charak and Sushrut only in Appendix. Anthropological monographs about villages and tribes did not discuss Health as a distinct Chapter. Leslie's "Asian Medical Systems: A Comparative Study", published in 1976 came out of a symposium held in Austria, sponsored by Wenner-Gren Foundation for Anthropological Research in 1971, to develop new lines of research in Medical Anthropology. Basham's paper in the book " The Practice of Medicine in Ancient and Medieval India" describes about The Vaidya, his training and practice. Majority of the papers are written from historical perspective. WHO came out with Alma Ata primary health care approach in 1978 to profess Health For All by the year 2000. The essential element of the doctrine has been the intersectoral co-ordination between the conventional non-health sectors to achieve

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better health. Traditional medicine was accepted for health care. The book "Limits to Medicine-Medical Nemesis: The Expropriation of Health" by Ivan Illich was published in 1976 with the opening sentence "The medical establishment has become a major threat to health" He called Iatrogenesis as an epidemic. There have been resurgence movements as a reaction to colonialism. In the social sector, health and education are very significant for development. Indian national movement channeled through Congress decided to adopt indigenous systems as the national health systems after Independence. In China, the traditional Chinese medical system got ascendancy over modern medicine. The modern science producing antibiotics, which won the war against communicable

III

Medical Anthropology and AYUSH :

Anthropology as a science of man in totality when applied to contemporary issues gets primarily linked with indigenous people, their knowledge systems and their culture systems. Although, health has not been documented in the ethnographic monographs, issues relating to health such as nutrition, traditional health care professionals and the rituals connected with treatment and cure have been documented under relevant chapters.

Anthropologists studying isolated island societies or tribal communities and village communities, through the method of participant observations, produced ethnographic documentation of the cultures through the eyes of people under study. The functionalist theories propounded the local cultures as satisfying the needs of the communities. Although codified and textual knowledge from Charak, Sushrut etc was available, what was actually practiced in villages were the folk medicine or little traditions or local health traditions. Good interpretative studies required knowledge of textual language, botany, history, religion cultural practices and social organization. Culture is a historically designed system and so is health as an aspect of culture.

Since plural medical systems are not natural sciences, they are a subject of academic inquiry of various disciplinary perspectives. As a result, with health becoming a focus of inquiry, multidisciplinary studies became relevant. Anthropology being a holistic study of The national movement for Independence set in process the ideologies of post-independence reconstruction. Mahatma Gandhi had his constructive programs for national reconstruction including programs of health and education. National

Medical Anthropology is Applied Anthropology in Medicine. Like the plurality of cultures, there is plurality of medical systems.

Institute of Naturopathy at Pune is a kind of health memorial to Mahatma Gandhi. Leaders like Nehru educated in Britain since childhood had a different vision based on modern western science. Simultaneously he also had a sense of culture and history, having written books on history. Two eminent allopathic physicians, Dr. B. C. Roy and Dr. Jivraj Mehta were senior congress leaders. Pandit Shiv Sharma had to struggle hard to establish the statutory structure for Indian Systems of Medicine by getting elected to the political body, Parliament, to pilot the bills for establishment of CCIM.

Dr. C. G. Pandit in his autobiography has mentioned what Pandit Shiv Sharma said, "Well Pandit, Ayurveda will prosper in India only when it is imported from other countries !" There have been Bhore Committee, Chopra Committee, ICSSR-ICMR document on Health for All, Udupa committee etc. In the context of all these happenings, the need for the study of Traditional Asian Medicine has been a natural outcome. However if the focus of western scholars has been on history, the focus of Indian scholarship has to be on contemporary issues as they affect people's health. Historical perspective is necessary to understand the processes which have led to the present, so that future vision can be charted out more systematically.

Mankind to unravel the mysteries of biological and cultural evolution into plurality, anthropology being history, mainly of pre-literate communities, Medical Anthropology and Indology became natural partners in the study of traditional medical systems, of both the little and great codified textual systems and their interactions. However all these studies, mainly emulating from Western Scholarship are descriptive or ethnographic in nature. Ideologically they are static having been undertaken in the colonial period, while the changing reality is dynamic, more so in independent nations. The scenario exhibits a system copying the Western allopathic model of education and practice and pharmaceutical industry. In competition are the traditional systems with parallel educational institutions, dispensaries, clinics and pharma industry. Both types as practised are curative; to identify the disease and cure illness by medical treatment. People's health however cannot be promoted by treatment of diseases. Disease is deviance from health, which is corrected for normalcy by the use of therapeutics, which has different packages of drugs alone, or in combination with food restrictions and prescriptions. There is plurality of medical systems.

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The theory of cultural relativism which prevents or debars cultures being placed on a hierarchical ladder of superiority and inferiority, as also the language systems; the health systems also cannot be ranked as superior and inferior. All cultures are functional for their respective ethnic groups, having been historically designed to satisfy the needs of the people as per Malinowskian functionalist doctrine.

The universal triangle of man to man, man to nature, and man to supernatural relationships encompasses the holistic understanding of health, environment and man, which also denotes the epidemiological triangle of host, agent and environment relationship. While modern medicine focuses on Agent for causation and treatment, Anthropology and AYUSH focus on Man .Research Institutes in modern medicine are designed for diseases such as Tuberculosis, Leprosy, Malaria, Aids etc. On the other hand, AYUSH hospitals do not have even the maternity wards although training is given in Obstetrics and Gynaecology, which is a great anomaly. Interestingly, cosmetic industry advertises use of herbal material for skin which are normally used as condiments or food articles. These products seem to have magical qualities advertised in the name of science.

The acronym AYUSH which refers to Indian systems of medicine and homeopathy is a natural subject matter of Medical Anthropology. The term Ethnomedicine should therefore refer to indigenous systems of medicine which are also termed as folk medicine or as local health traditions or as little tradition in the conceptual framework of little tradition – great tradition of Robert Redfield. In that sense, the classical text like Charak, Sushrut and Vagbhat could be referred as great tradition. The term Alternative Medicine used for Ayush and Chinese Systems is totally wrong since, excluding Homeopathy, the other systems are respectively the health aspects of Indian and Chinese culture.

The knowledge of herbal medicine of the tribal communities or caste hindu peasantry refers to the knowledge of medicinal properties of the environment around their localities. The home remedies so widely used all over the world as grandma therapy or kitchen medicine again refers to the little traditions which have universal coverage as well as local variations, depending upon the availability of herbal material. Charak has compiled these traditions after reflecting on the clinical evidence, as Charak Samhita.

Since food is medicine and food makes the body and s also considered to be affecting the mind, food is an important component of all medical systems. As culture is an integrated whole and functions in a state of equilibrium, particularly the hard aspects of culture, i.e. non-material aspects of culture so is the body-mind equilibrium affecting each other about health and disease.

It is now with the organ transplants being propagated widely, that integrative nature of the human body is being challenged. Ethnomedicine is people's medicine and is closely linked with the bio-diverse environment. Other animal species with their instinctive behavior and closeness to nature take care of their health without the use of health professionals except in the case of domesticated pets like dogs whose life style we influence. Hospitals for dogs have now come up. Man with his acquired behavior, in his effort to adjust with different geographical climatic zones and with a capacity to produce surplus food for consumption and distribution, has created several health and disease problems for himself. The ethnography of health practices and behavior could provide documentation of similarities and differences in the culture and health care systems. With industrialization and urbanization, which have led to occupational diversity, mobility and migration, culture and life style which used to be co-terminus are showing increasing variability. As a result, new disease patterns supposed to have been caused by new viruses have developed. Issues of immunity are yet a grey area in modern medical science, although given great importance in the traditional health systems.

In the first book on Medical Anthropology by George Foster, a medical anthropologist of repute, Ayurved and Chinese medicine have been listed under Ethnomedicine. I asked George Foster in a meeting in Spain as to how could the Indian and Chinese Systems of Medicine which were codified and the textual Great traditions be referred as ethnomedicine. He did not respond to my question.

But, he recommended me to be on the editorial board of the prestigious International Journal, Social Science and Medicine.

After we established IASTAM-India, there has been a great opposition from some Ayurvedic organizations, to the use of the word 'tradition'.

Charles Leslie in exasperation asked us whether the term Tradition be dropped from IASTAM. We had to profess that tradition was neither anti-science nor non-science. Tradition is not only related to health, but also refers to mathematics, astronomy, architecture, metallurgy and such other advanced scientific fields in India and other ancient civilizations. With background of Anthropology, I started to use the term Plural Systems of Medicine in preference to cosmopolitan medicine or alternative systems of medicine. Now, the term Plural Systems of Medicine has been accepted in common usage. However, there is opposition to these terms from some leaders of Ayurved, who fear that Ayurved would be

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equated with herbalism which in our terminology would mean ethnomedicine. Although, the local folk healers provide symptomatic treatment, it is not true that they do not have the concept of body, mind and its relationship with the forces and elements of nature or with the universe.

May be, we have not gone in exploring these conceptual issues in our folk ethnography. The Dais in Madhya Pradesh and Chhattisgarh have clear concepts of monthly fetal growth, about 8th month of pregnancy considered dangerous for labour. There are male dai among the Bhils of Nandurbar district conducting labour although their number is fast dwindling. We are aware that Great and Little Tradition interaction has kept Gita and Bible useful even today. To keep Charak, Susrut, Vaghbhat alive, they need to be constantly reinterpreted and demystified. Dnyaneshwar demystified Gita by reinterpreting it in common man's language, Marathi, relating their lives to philosophy. Dnyaneshwar is referred to as Mauli – Mother, by common people in Maharashtra. Tilak demystified Gita by linking it with Karmayoga. What else could the dialogue be on the battlefield of Kurukshetra with armies facing each other in war formation, if not action ? We use the term 'war footing' for urgent and time bound focused action.

AYUSH and Health Care:

Coming to the use of Ayush in health care at the nationallevel, we have to bear in mind that India is the only countrywith two national health policies passed by Parliament inhe Year 2002. NRHM was expected to co-locate the twoby mainstreaming Ayush in national health care. However,in the Government system, we find the two functioning as parallel systems in the States like – Chhattisgarh andHimachal Pradesh, where our Centre: AYUSH in Public Health is functioning. In the State of Maharashtra, 30 % of AYUSH doctors are employed in the Primary Health Centres (PHCs) claiming success in integration. In the geographical areas, such as in tribal area, where MBBS doctors are notvavailable, AYUSH doctors are appointed. Maharashtra hasb got the largest number of AYUSH medical colleges in the country with the Director of AYUSH functioning as Director of Medical Education (AYUSH). Although, statistically the presence of AYUSH doctors in the PHC system, is projected as integration, in effect, many of them have no access to AYUSH medical kit and are performing the work of National Health Programmes as delegated by the allopathic District Health Officers or the Director of Health Services.

Similar studies in 18 states in India by National Health Systems Resource Centre(NHSRC-NRHM), coordinated by Dr. Ritu Priya found that these home remedies were validated as per the codified and textual ayurvedic classics. However, the District Ayurvedic Hospitals in Chhattisgarh, Himachal Pradesh and in Madhya Pradesh do not offer any maternity services, although, several lady Ayush doctors are employed in the Ayush Health Centres. We have undertaken a small study of the ethnography of maternity practices of lady doctors themselves from all systems of medicine.

Our studies in four States – Himachal Pradesh, Chhattisgarh, Madhya Pradesh and Maharashtra, clearly brings out the knowledge of herbal medicine and the home made drug preparations in the homes used for common ailments.

It is not surprising that they all follow the Ayurvedic tradition recommended by their mothers and mothers-in-law when they become mothers themselves. It is necessary to do further documentation of the maternity practices of lady doctors when they become mothers themselves in order to introduce these practices in our hospitals and medical institutions. The health minister of Himachal Pradesh wanted to know from us as to how to mainstream the local ayurvedic traditions followed in the homes. In a mega tribal project in Maharashtra covering all the tribal areas, lactating women were given 'Sattu' fortified with Shatavari, Ashwagandha, Jyestamadh and Pipli as advised by the Late Dr. Vilas Nanal, with wonderful results in improving lactation. Recently a draft integrated National Health Policy 2015 has been circulated to elicit public opinion. Like NRHM document, AYUSH is presented in separate paragraphs,easy to ignore during the process of implementation.

Public Health :

Public Health is a term which is totally unknown in the Ayush sector. As a result, the term Epidemiology is also unknown to Ayush graduates and Faculty. One of the greatest problems that our Centre: AYUSH in Public Health had, was to develop the vision of AYUSH administrators and doctors and college faculty about the concept of Public Health and importance of Epidemiology. While the people's sector is practicing AYUSH as home remedies and have cultural practices about nutrition and health, this knowledge is not getting into the IEC material of AYUSH. We are aware that the health care on the ground is actually provided by the paramedics and para-professionals like ANM, MPW, ASHA, AWW and traditional Dai and Herbalists like – Vaidu, Baiga, Gunia, Bhagat, Devarshi, etc. In the training material of paramedics, there is no AYUSH component. In Chhattisgarh, the State Government has developed a concept of Ayurved Gram, thereby Ayurved Health Centre is expected to do networking with the local community and provide Ayush services to the people including the plantation of medicinal

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herbs. Some of these issues have now been recommended by the Steering Committee on AYUSH in the XII Five Year Plan. Concept of AYUSH gram is a good subject matter for anthropological concept of holism with the micro planning possible by PRI and CBO, like Mahila Mandals and SHGs under the leadership of an AYUSH doctor.

I was taken to a meeting of Pharma industry with the Secretaries of Environment and Forest, and Tribal Affairs, at Delhi by Dr. K. M.Parikh to discuss the medicinal plantation on tribal lands. Instead of giving tribal lands to industry for plantation which the law of lienation of tribal lands did not permit, I suggested to involve the tribal people in plantation since they already possessed indigenous knowledge about medicinal herbs which they used for treatment. I was a witness to a discussion of three vaidus in Nasik tribal area.Where they identified about 600 medicinal plants in that area andtheir specific locations. Concept of AYUSH gram expects community involvement in medical plantation under the supervision of AYUSH health centres wherever they are located. AYUSH, particularly Ayurved,Unani, Yoga or Siddha, except homeopathy are culture friendly. The language of Ayurved and that of the lay people in terms of panchamahabhootas, doshas and about food prescriptions in terms of dincharya and ritucharya, hot and cold, light and heavy are same.Health being an aspect of culture is manageable at the individual,familial and national level as a control mechanism.

Chemotherapy is not an answer to disease control programs at national level. It would only enrich the multinational pharmaceutical industry. If consumption of drugs is taken as an indicator of utilization of a system, AYUSH would lose to modern medicine, in terms of attracting funds from the Planning Commission, linked to utilization. We have to devise other methods to measure the utilization of AYUSH in the homes, not merely in the clinics and hospitals, as in allopathy. Allopathic drugs have essentially to be purchased, thus providing documentation unlike AYUSH products which could be made by respective practitioners, and made in the homes.

Medical Anthropology being culture friendly and people friendly has a great scope in all aspects of training, IEC, Ayush Gram and in epidemiology and public health research. Although, the bureaucrats demand and need statistical data, Anthropological qualitative methods such as ethnography, case studies, informal and key informant interviews, observation, genealogy, group discussions and life history, are very important to document the processes about the use of plural systems of medicine by the people. Anthropological knowledge about the hard and soft aspects of culture provide the insights about non-rational variance in behavior and attitudes, about the causation of disease and treatment seeking behavior. Medical Anthropologists should not be satisfied only with fault finding assessments and evaluations misconstrued as audit, but should provide recommendations for better health care. Mere ethnographic descriptions of traditions do not impress the planners unless it shows measurements of reducing national burden of morbidity and mortality.

AYUSH is very strong in maternal and child health, in non-communicable, life style disorders. We have to document these strengths through epidemiological research. AYUSH medical institutions must concentrate on epidemiological research methods to mainstream their systems in national health care. All systems of medicine have their own strengths and citizens have a right to get the benefits of these strengths. We know very little about the body-mind interaction and immunity. One of our senior Psychiatric friend has been saying that he has been practicing about abnormal behaviorwithout knowing what was normal behavior.

Studying normal behavior is the agenda of Anthropology, since we know the acceptable limits of normality and deviance, as patterns of behavior. Let AYUSH people realize that medical anthropology is their allay which could help them deal with people's health in a scientific manner, along the line of culture and life style.

IV

IASTAM is an academic body with an objective to study Traditional Medicine from multidisciplinary perspectives. The knowledge so generated could be used by the people, by the industry, by the governments. Interdisciplinary studies in preference to multidisciplinary studies aim at asking concrete research questions which may not be addressed by one discipline with its theoretical perspectives or methodological tools. Western scholars study for its own sake.

IASTAM-India has to widen the scope of its studies, since the people use plural systems for their health or illness issues. They decide in their own genius, in their experience, as per the professional advice, or advice by kin, friends, neighbourhood, peers etc. as to how to handle preventive, promotive and curative issues. We have to study these processes on the ground. We have to understand the stakeholder interests, government policies and vested interests of competitive pharmaceutical industry, in the interest of the people and the nation.

Health and disease cure used to be private issues. Health is now regarded as a human right. Living and that too with dignity is a fundamental right. The disciplines of economics, political science and public administration, sociology,anthropology, psychology among the social science have to study the reality as is practiced in the people's sector, government sector and private sector. Helping people to remain productive healthy is a non-negotiable value. IASTAM can be objective but not value-neutral. We are also citizens of the world, of our own country with a respect for universal values enunciated by UN bodies and by our own

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Constitution. The international body also has to abide by universal values of humanity. Traditional medicine department was started at WHO quite late after Alma Ata. AYUSH department was also started in India only fifteen years ago with very low budget allocation. Recently there have been attempts at Government level to integrate the parallel systems n plural medical pattern. IASTAM can study these public health issues from the perspectives of traditional systems,which are a part of Indian culture. If people follow plural systems at home, if people follow AYUSH as the first line of defence in their homes, why cannot the government reorient its health infrastructure accordingly ?

Health is not a subject of ignorance for the people like manufactured engineering technology. There is no vacuum at the level of people. According to the folk tale, on being asked about the largest number of professionals in the empire by Akbar, Birbal said 'Hakim'.

In order to prove, Akbar was requested to pretend sickness. While the citizens paid courtesy visit to inquire of Akbar's health, each one gave him a piece of advice about cure,prevention and promotion of health. So every individual is a 'Hakim' in his own estimation. But if a stream has to be crossed, the villagers in the absence of knowledge of bridge construction would put a log of wood across the stream or use a raft or small boat. We import technology but not maternity or child rearing practices which are part of our cultural practices.

We have our own concepts of body –mind-soul-intellect interaction classified in Prakriti, or Satva-Raj-Tama, classification of foods to nurture these, linked with social organization of Varna or caste, gender, age etc. Common people cannot articulate all these but try to translate these ideal norms in their daily life. Causation of disease is linked to values which are hard aspects of culture, while result oriented technology of cure is in the realm of soft aspects like other material aspects, which could be used for a purpose without changing the basic values and attitudes. What combination of therapy including visits to Balaji or Sai Baba would be followed would depend upon the faith, experience and accessibility. The essence of all pilgrimages end up in seeking two boons, to have prosperity and good health.

We may be importing sonography machines and misuse them for female foeticide. Without machine, it was female infanticide. Sugar-cane rich Kolhapur district in Maharashtra has tried to compete with Haryana in attaining adverse sex ratio with the use of sonography. Are these not public health issues? Epidemiology of farmer suicides has yet to be researched on scientific lines.

A tribal herbalist prescribes Shatavari root for improving lactation but he can be trained to process it to make Shatavari Kalpa or Choorna. Dr. Bhat was present at the conclusion of such a workshop at Pune. People have simple questions in their minds, as to why somebody gets afflicted and not others, even in communicable afflictions. Plural systems have plural answers, of cause-effect relationship.

While I was at the Pontifical Academy of Sciences, Vatican in 1984 to discuss leprosy amongst twelve international scientists,I being the only social scientist, it was said that science was only 30% while 70% was commerce. At the Pennsylvania Medical School with Dr. BhushanPatwardhan to discuss collaboration, a scientistwho was working to produce a wonder gel toprevent HIV and also act as a contraceptive,ended his presentation by saying that there was lot of money in it.

One of the severest allegations made against AYUSH is that claims are made without documented evidence. 'What is not documented has not happened' is a dictum in science. We have tried to orient AYUSH faculty and medical officers in four States about epidemiology and public health, not with good success. Efficacy of kshar sutra chikista, or Panchkarma therapy for preventing knee replacement could be assessed by standardizing instruments for evidence based research. MRI may not help wholely since it could not assess levels of pain. In the Preamble of IASTAM, an objective to develop standard Research Methodology for AYUSH, distinct from what was followed in allopathy was mentioned.

What are the areas in which IASTAM-India could make a distinctive policy contribution ? What would make AYUSH meaningful for people's health since it is already an aspect of Indian culture ? Women and children from the majority of population. We address issues of disease, not of their preventive and promotive health. There are AYUSH Health Centres only run as OPD clinics. In Himachal Pradesh, the AHCs are three times more in number than PHCs. Eyebrows were raised as to why high salaries be paid to AHC doctor for running an OPD with very few patients, since there were too many AHC and PHC in vicinity of each other. I raised the issue while I was asked to make a presentation with the Chief Minster on the dias. The pare-medics such as ANM, ASHA, Anganwadi workers were attached to subcentres of PHC, not to AHC, who entered houses to visit families. Why cannot AHC doctor have the responsibility of community health including medicinal plantation in the village of AHC? Only patients visit OPD. What about pregnant women, children, elderly persons who many not be patients to visit OPD, but who need attention not to become patients and remain healthy ? The concept of AYUSH gram accepted in 12th Plan, borrowed from the concept of Ayurved gram from Chhattisgarh is expected to operationalise health issues with community

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involvement. These processes have to be studied in depth to identify micro-level gaps in implementation. There are several issues of this kind which need to be studied. IASTAM-India could identify research priorities which require multi-disciplinary and interdisciplinary attention. Area of education, medical schools, pare-medical courses, health education of the people require equal attention.The reality of life is integrative and holistic while education aims at vertical specialization. Smita Patil died maternal death in a high profile hospital while the organ super-specialists vouchsafed that the respective organs were functioning normal while she was examined few day earlier. So, holistic AYUSH has to be an integral part of pare-medical curriculum. We are shown statistics of the number of AYUSH colleges in the country and the manpower coming out of it.The human resources are adding numbers and doing nothing for what they were trained for, due to various reasons.What exactly are these reasons and what concrete steps are required to correct the gaps between human resources and supply of medicines in the public sector?

IASTAM-India will have to address these issues pro-actively for which funding could be available, now that a separate ministry of AYUSH has been created. Charles Leslie felt quite depressed about the future of IASTAM since it was difficult to make it truly multidisciplinary forum. With vertical higher education, including super-specialty professional education it does create problems for lay people. But if the issues of public and national interests are addressed, if people's needs and concerns are addressed, the inter-disciplinary teams for research could be formed. We might have to reach out to discipline based organizations. By themselves, they are wedded to academic groves protecting their interests, in the trade union format.

For developing Medical Anthropology, we had to do gate crashing, to reach out to medical institutions. They did not need us in the beginning. The holistic disciplines have to be jack of all trades' and do multi-tasking. Opportunities are abounding. Let us catch them for the use of our knowledge for People's good. We have got a rich legacy of objectivityand multidisciplinary platform. It is for us to enrich it.

Event based activities are a show case providing identity which has to be used for engaging inter-disciplinary,multi-centric, community based intervention research. Western scholars cannot undertake intervention research in the Asian countries which they study. For us, the study is a matter of public responsibility, not only publications in peer reviewed journals for enhancing careers.

People do not wait for so-called validation according to modern, laboratory based science for getting cured. Western people have turned to AYUSH systems as an alternative to validated drugs with iatrogenic side-effects.

The health systems in developed countries are dominated by insurance companies, not by professionals. Here, AYUSH does not get insurance cover or credit from Nationalized banks. This was discussed at ICTAM at Halle, with the then Health Minister of India by IASTAM-India delegates. IASTAM as an academic voluntary organization now termed as NGO, on lines of conventional fiat for the voluntary sector, has to create and test the models in AYUSH Public Health to be handed over to the governments for wider implementation.

IASTAM-India has to be the Preceptor of the Concept of Interdisciplinary Study for formulating and implementing people-centric national health policy, rooted in history and culture.

AYUSH systems have strengths in preventive and promotive health care. AYUSH addresses the body-mind system, not only to symptoms, thus dealing with systemic causes of disease.

Attention! Attention!! Attention !!!

You are all requested to update your email id and mobile number on iastam.india@gmail.com for alerts from IASTAM, India

Please note, you might receive this issue of *Communiqué*. - Newsletter as a complimentary copy you may not be a member of IASTAM, India. Kindly enquire with our office about your membership status.

Asian Medicine, Alliance Need

Dr. Narendra Bhatt,
President, IASTAM India

Historically and etymologically, the oriental (eastern oriented) and the occidental (the western) streams of the theories have always been distinguished by their distinct forms of logical understanding and applicability. Eastern studies in the last few decades have taken the form of Asian studies. Interestingly the term 'Asian' has always been perceived to be traditional while the other, being western is considered 'modern'. In reality, modernity generally associated with time, affects both streams of thinking which have consequentially undergone natural and dynamic under currents of societal and cultural change. These dynamics of change provide interesting areas for the study of principles, their contextual relevance and their applicability.

Medicine is no exception to this development. Most Asian countries have presence of a traditional health care heritage that has with stood the test of time and these have collectively been referred to as 'Asian Medicines'.

These systems are widely accepted and practiced in Asian cultures either as traditional practices or as integrated ones with the use of conventional medicine or as an independent parallel regulated system. Conventional medicine with its origin in the west is broadly practiced as scientific medicine and has influenced medical care the world over. Most Asian medicine has been considered 'complementary medicine' or ' alternative medicine' (CAM) by western medical establishments. Asian medicine at times has been derided due to its ethnic legacy and has often been dismissed as being unscientific, there by ignoring the rationale and logic it possesses, as a body of knowledge based on a set of principles. Asian medicine thus faces challenges in the acceptance of both, its identity and acceptability.

Asian Medicine has a long history. The sum total of the knowledge, skill, and practices based on the theories, beliefs, and experiences indigenous to varied cultures, whether explicable or not, has been applied in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses. These practices vary widely from country to country with certain practices gaining acceptability on the basis of the local cultures, understanding, socio economic priorities, accessibility and reach of conventional medicine.

A serious negative impact is that today Asian Medicine considered 'Alternative' by legacy of western institutional medicine at times does not receive the believed and desirable respect and support even in the country of its origin.

> **Asian medicine has tremendous potential to contribute to the delivery of health and medical services the world over.**

Fortunately for Asian medicine the conventional or scientific medicine as practiced today has come under watchful scrutiny due to reasons of suspect efficacy, concerns of safety and costs involved. 'Health Economics', an issue of concerns is the most important point for which we should come together. Today every individual wants to be in control of his health care. Dependency on institutional medicine is needed to be reduced.

Asian medicine has tremendous potential to contribute to the delivery of health and medical services the world over. It also has the potential to play a significant role in the economic development of number of countries. There is need to promote the safe effective use of Asian medicine by learning, training, researching, integrating products, practitioners, practice and regulating all of this into health systems.

Asian Medicine could be cost effective and has the potential to contribute to prevention and cure. We should promote it and help build confidence in people to use them.

There is a an urgent need for scholars and other experts not only from Asian countries but from the world over and not only from professionals of Asian medicine but from experts of biomedicine and allied sciences as well to come together to mandate relevant activities that will assist the use of these systems to contribute to medical care. There exists a number of opportunities and challenges in relation to national policies, law and regulation, quality, safety and effectiveness of Asian Medicine, universal health coverage and the integration of Asian Medicine for effective health delivery systems.

IASTAM is committed to the Asian Medicine, the indigenous systems as practiced in their country of origin. India has pluralistic approach with recognized systems of Ayurveda, Yoga, Unani, Siddha and Soya Rigpa. IASTAM approach since 1981 stands vindicated with Prime Minister Modi who has mooted the idea of bringing the varied Asian countries together for a more coherent understanding and use of indigenous systems of medicine. This is what Prof. A. L. Basham and Pandit Shiv Sharma had thought of in 1980 at the moment of constituting IASTAM in India.

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Challenges emerging from a globalized context are the most important issues we need to address. Ageing populations, iatrogenic diseases and metabolic and life style related disorders are global concerns.

Acceptability by people and society is vital. Interesting issues of identity, integration, validation, acceptance and bio resources are common to all these systems. We need to address issues for its acceptability and help develop pragmatic attitudes.

There are areas that need attention and improvement in the following parameters while rooting strongly for Asian Medicine. The issues related to efficacy, quality, safety, wider reach, acceptance by the people and its modern development require deliberations and productive conclusions.

Asian Medical systems as represented by Ayurveda or Unani in India have definitive roles to play. Though we have the knowledge and the advantages accruing from our cultural base science is an approach that will bring objectivity for its universal acceptance.

This is an intellectual process that demands creating objectivity within 'Knowledge Systems'. Asian Medicines like Ayurveda provide a functional balance to health in a contextual manner. Managing this huge, complex and yet intense knowledge base is a challenge. We have advances of biomedicine and biotechnology. We have IT tools that could help analyses and synthesize to provide output to applicable measures. Such tools could be used from our clinics to industries and even to tackle environmental balance.

A common strategy for Asian Medicine' should be aimed at the following.

Policy - To integrate Asian Medicine within national health care systems, wherever feasible, by developing and implementing national policies and programs.

Quality, Safety and Efficacy -To promote the safety, efficacy and quality of Asian medicine by expanding the knowledge base, and providing guidance on regulatory and quality assurance standards.

Accessibility - To increase the availability and affordability of Asian Medicine so that people from economically deprived classes can easily have access to them.

Rational Use - To promote therapeutically sound use of appropriate Asian Medicine by practitioners and consumers.

Asian Medicine needs to create its own framework for all these purposes conducive to its cultures, practices and needs.

Knowledge management, integration, competitive ness and acceptability are the areas we need to concentrate on and back every move to bring Asian countries together. Asian Medicine needs to create its own framework for all these purposes conducive to its cultures, practices and needs.

It needs to strengthen its base within Asia with universally acceptable tools so as to reach out globally.

Concept of 'Asian Medicine for Global Health' needs to be promoted not only for Asian countries but for the mankind. There is need to form a people oriented growth alliance for Asian countries to evolve common strategies for acceptance and applicability within the countries. These are issues where Asian medicines can come together to address it jointly.

The ***1st INTERNATIONAL CONFERENCE ON ASIAN MEDICINE, [ICAAM]*** be held in ***Pune*** from ***January 3 to 7, 2016*** aims to initiate a strategic process to identify issues of Asian Medicine and work for solutions for its global reach.

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Meeting Ground

Do you need some help?
At times we do.
We will be happy to identify a collaborator or an institute by publishing your specific need in brief.

IASTAM ORATION & AWARDS FUNCTION 2015 at Gujarat Ayurveda University, Jamnagar (13-14 February 2015).

IASTAM India as an Association

IASTAM is established to provide an interdisciplinary platform to encourage interdisciplinary multidimensional studies in the field of indigenous systems of medicine and bring together scholars, scientists and experts from different faculties and fields to have their guidance for the development of these systems.

Significance of IASTAM Oration and Awards

Respect for true knowledge and recognition of achievement in the field of traditional medicine has always been a commitment at IASTAM - India. It has also been IASTAM – India's endeavor to provide a bridge between different streams of knowledge & faculties involved in the development of the Traditional Systems of Medicine. IASTAM strives to encourage and recognize commitment and achievements in the field of indigenous systems of medicine.

IASTAM India is fully committed to its cause and with continued efforts over last few years IASTAM has succeeded to the next level to institute 2 'IASTAM Orations' and 8 IASTAM Awards'. IASTAM desires to constitute such more awards which would recognise excellence and encourage cross faculty activity. All our awardees are inspirational icons of today & their feats have taken the science to newer heights. IASTAM India honours the extraordinary intellectual talent and inspires the many new...

The IASTAM Orations & Awards function 2015 was held at Gujarat Ayurved Univeristy a pioneering Ayurved University in India at Jamnagar with support lead by Vice Chancellor Vaidya Rajesh Kotecha, and his colleagues Dr. Prajapati, Dr. Dhiman, Dr. Joban Modha and others with resourceful and committed members of IASTAM under leadership of Dr. Narendra Bhatt.

Why Jamnagar?

IASTAM had grown under the aegis of Zandu till 2008. This award function with its First 'Zandu International Award', along with all other awards being organized at Jamnagar turned out to be an event of significance as

- Jamnagar is Zandu Bhattji's birth place and first time in the history of India he initiated a collective manufacturing of Ayurvedic products in this city 150 years back.
- Gujarat Ayurved University being the pioneering Ayurvedic University in India with Dr. P. M. Mehta who initiated the institute.
- Vaidya Yadhavji Trikamji Acharya a scholar par excellence who has worked in Jamnagar and excelled in practice following Kathiawar Parampara, the products that were largely initiated by stalwarts like Zandu Bhattji

> ...function 2015 was held at Gujarat Ayurved Univeristy a pioneering Ayurved University in India at Jamnagar

Significance of 2015 IASTAM Oration & Awards

- An international award sponsored by M/s EMAMI Ltd. i.e. **"Zandu International Award"** for Excellence in Research Contribution to Ayurvedic and / or Natural Products was given to Dr. Ikhlas Khan from USA. We hope to receive continued support from M/s EMAMI Ltd. in future.
- An IASTAM Special award to one of our stalwart Prof. R. K. Mutatkar for his life time contribution to our association who has been a guideline figure for us while walking on his footsteps.
- Pandit Shiv Sharma oration was awarded to internationally renowned Ayurveda proponent Prof. Subhash Ranade, Pune.
- Interesting orations were delivered by Prof. R. K. Mutatkar, Dr. Subhash Ranade and Dr. Ikhlas Khan that proved to be beneficial to the audience. All Oration and Awards have left a significant mark at the event.
- The quotes and guidance of all Awardees as Dr. H. R Nagendra, Dr. G. Gangadharan, Dr. P. K. Debnath, Dr. Bhushan Patwardhan, Dr. Varshney, Dr. Maltiben Chauhan, and Dr. Y. K. Gupta were inspiring and fruitful.
- The Chief Guest of the function Smt. Vasuben Narendrabhai Trivedi, Minister of State Education, Women and Child Welfare (Independent Charge), Higher and Technical Education - could not come for the function but had sent a letter with her message and greetings.
- Dr. Anil Patel Chairman, Gujarat Building construction worker welfare board, Government of Gujarat & Prabhari, Pradesh Vividh Cells, BJP was the Guest of Honour at the function. He expressed his pleasure and assured to work for bringing Asian medicine in the mainstream as a league between the state Government and Central Government. He opined that meeting and knowing the awardees present at the function had brought in a new dimension and a new confidence about promising future of indigenous systems.
- Dr. Bhatt informed that IASTAM is being recognized to conduct several seminars and conclaves which are recorded and contents have been documented, edited and published.

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Many times, some of the publications have become landmark guidelines to the people to follow as the proceedings of the 2005 Silver Jubilee conclave was appreciated by Shri. Shiv Basantji, former joint secretary in Ayush saying he referred to it whenever there was need to take policy decisions in related subjects. Several of these publications have inspired academics and scientists to work in the areas and publish useful research papers. This has been the contribution of IASTAM. Our next approach is to have international reach for the healthcare for Asian medicine.

- Vd.Rajesh Kotecha quoted in his speech that knowledge received from the awardees by the students, the faculty and all present will prove to be an important milestone. He appreciated the role played by IASTAM for a chair for development of 'Pharmaceutical sciences' from GAAMA is the start of the partnership between Industry and Academic.Vd. Kotecha referred to the function as positive entrepreneurship of IASTAM and we are happy to be a part of it and extend our help and cooperation.

- A great surprise came from Vd. Punarvasu Agnihotri, General Secretary of GAAMA in the form of a new IASTAM Award to be instituted with financial support from members of GAAMA.

- The Awardees were felicitated in a traditional way in Gujarat by Sutramala (handwoven cotton), then IASTAM Citation and the coveted IASTAM Trophy.

BVU - IASTAM National Ayurved Scholar Awards

After 2008 IASTAM has been fortunate to get shelter under the roof Bharati Vidyapeeth University [BVU] with kind support of Vice Chancellor Dr. Shivajirao Kadam. IASTAM and BVU We have jointly commenced'National Scholar Awards' for the best theses in three different categories.

Dr. Sreekumar K. received best thesis for Ph.D. in Ayurveda for his work *'A clinical Study On Shushkaak shipaaka W.S.R. to dry eye syndrome and its management with mrid weekaadi eye drops and nayana mitra eye ointment'* undertaken at Department of Shalakyatantra, I.P.G.T. & R Jamnagar, Gujarat Ayurved University, Jamnagar. He is currently working as Assistant professor in the Salakyatantra department in Govt. Ayurveda College, Tripunithura, Dept. of Ayurveda Medical Education, Govt. of Kerala.

Dr. Sarang Lakhmale received the best dissertation (MD /MS) in Ayurveda for his work *'A Pharmacognostical & Pharmacological Evaluation of Badichang W.S.R. to Vishaghna karma naja naja venom poisoning'*, also done at Department of Dravyaguna Vigyan, I.P.G.T. & R Jamnagar, Gujarat Ayurved University. He is currently working as Assistant Professor in Dravyaguna at Govt. Ayurved College Nanded, Maharashtra.

Dr. Sarita Bhutada received the best thesis for Ph.D within Faculty of Bharati Vidyapeeth University for her work on *'A study on co-relation between Dosaja prakruti of persons and their marital life'*, at Department - KriyaSharir, College Of Ayurved, Bharati Vidyapeeth University, Pune. She is currently working as Professor and Head Of Dept. of SharirKriya, G. J. Patel Institute of Ayurvedic Studies & Research.

Dr. Ashwinikumar Raut, in his vote of thanks, expressed that as 14th February is a 'day of love', the cordial relationship which is established today between Gujarat Ayurved University and IASTAM will help us to take Ayurved to the new heights.

Best Thesis for Ph.D. in Ayurveda.

Dr. Sreekumar K

Best Dissertation (MD/MS) in Ayurveda

Dr. Sarang Lakhmale

Best Thesis for Ph.D within Faculty of Bharati Vidyapeeth University

Dr. Sarita Bhutada

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IASTAM ORATION & AWARDS FUNCTION 2015

Dr. Narendra S. Bhatt

Conclave - Inauguration

Dignitaries

Vd. Rajesh Kotecha

Dr. Anil Patel

Dr. H R. Nagendra

IASTAM ORATION & AWARDS FUNCTION - 2015

Dignitaries and IASTAM Office bearers

IASTAM Awardees

Yoga Forum Munchen Patanjali IASTAM Award For Contributions to Yoga

Dr. H. R. Nagendra, Bangalore

Prof. K.N. Udupa IASTAM Award For Biomedical Research

Prof. Dr. Y.K. Gupta, Delhi

Life Time Contribution to IASTAM India

Prof. R. K. Mutatkar, Pune

IASTAM Zandu International Award For Excellence in Research Contributions for Ayurvedic or Natural Products

Dr. Ikhlas Khan, USA

IASTAM ORATION & AWARDS FUNCTION - 2015

IASTAM Pandit Shiv Sharma Oration For Promotion of Ayurveda

Prof. Dr. Subhash Ranade, Pune

Dr. C. Dwarkanath IASTAM Award For Contemporary Interpretation

Dr. Pratipkumar Debnath, Kolkatta

Dr. K.M. Parikh IASTAM Award For Pharmaceutical Sciences

Dr. Maltiben G. Chauhan, Ahmedabad

Shri Mathuradas B. Parikh IASTAM Award For Excellence in Profession

Dr. G. G. Gangadharan, Bangalore

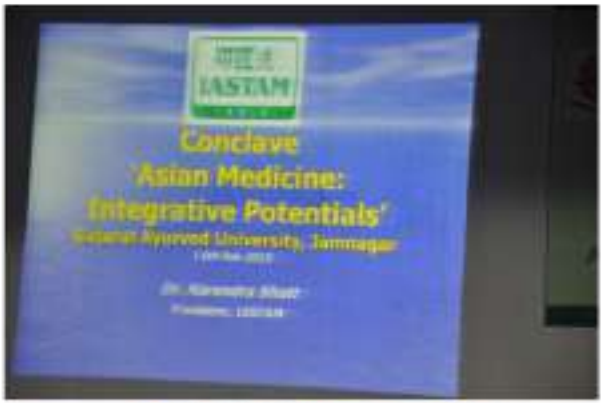
Vaidya Haribhau Paranjape IASTAM Award For Excellence in Shalya Tantra

Dr. Subhashchandra Varshney, Amravati

Shri Gopaldas Parikh IASTAM Award For Drug Development

Prof. Dr. Bhushan Patwardhan, Pune

Conclave on Asian Medicine: Integrative Potentials



Conclave on Asian Medicine : Integrative Potentials

Panel Discussion - Session I

Agenda For Asian Medicine : Potentials For Effective & Economic Health & Medical Care

Panel Discussion - Session II

Agenda For Asian Medicine : Potentials For Learning & Knowledge Sharing

Panel Discussion - Session III

Agenda For Asian Medicine : Potentials For Research & Technology Development

Panel Discussion - Session IV

Agenda For Asian Medicine : Potentials For Industrial & Regulatory Alliance

Outcome

ASIAN MEDICINE : INTEGRETIVE POTENTIALS

To be continued on page 15 >>>

Conclave on Asian Medicine: Integrative Potentials

Announcement

International Conference On Asian Medicine, January 2016

Action Plan

Asian Medicine :integretive Potentials

Dr. K. Dhiman

Dr. Manasi Deshpande

participants.....

Dr. Ashwinikumar Raut

Memorable Moments...

Dr. Narendra Bhatt, Vd. Rajesh Kotecha, Dr. H. R. Nagendra

Dr. Maltiben Chauhan, Vd. Rajesh Kotecha,

Special Invities For The Function

Dr. Anup Thakur, Dr. Joban Modha

Dr. P. K. Debnath, Dr. Maltiben Chauhan, Dr. Naredra Bhatt, Shri Prabodhbhai Shah

Vd. Punarvasu Agnihotri,Shri Prabodhbhai Shah

Conclave on Asian Medicine:Integrative Potentials

Conclave on 'Asian Medicine: Integrative Potentials' was held on 13th and 14th February, 2015, at **Gujarat Ayurved University** in association with **IASTAM Oration** and Award Function.

Vd. Rajesh Kotecha inaugurated the conclave and assured that we have a highly qualified and efficient team to guide us. He assured of good brainstorming sessions, which always help us to come up with practical, innovative ideas.

DrAshwinikumar Raut shared the structure of conclave and provided a view on expected outcome of the conclave.

Dr. Narendra Bhatt in his introductory speech directed the conclave with a power packed Agenda for *'Asian Medicine: Global Reach'* with a definite focus. He helped understand the tradition of *IASTAM* Conclave on the subjects of significance. He explained the approach where IASTAM plays role of as a catalyst; once the subject of discussion is decided, concerned experts are called for the discussion. With their in depth knowledge of the subject, they are expected to come up with new ideas and view points for valuable outcomes. And thus, it is called a ***conclave***. IASTAM was the first institute to start Conclave. In 1990, during the Third International Conference IASTAM was the first organization to organize it with 900 delegates in the field of Ayurveda. Dr. Bhatt explained the main aim of this conclave was to focus to prepare an agenda for the international conferenceto be held in Pune in between 3 - 7 January 2016.

The aim of the conclave was to develop the Asian Medicine through an integrative approach to explore the potentials of its basic principles, fundamentals, drug products and health delivery system. IASTAM is a platform for intellectual discussions. We act as a catalyst for various disciplines to come together for growth of Asian medicines. Asian Medicine is **cost effective.** Health Economics is the most important factor of today's era, for which we should come together. Asian Medicine has all potential to provide us with the same and thus we should try our best to promote it.

Structure of Conclave

- Conclave was divided into four sessions.
- Each session had a chairperson, a lead speaker and a panel of experts in the field.
- Each session was aimed at evolving agenda of activities that shall provide a basic platform for all genius practitioners, experts, researchers and policy makers of different countries to put forth their valuable guidelines on the given topic.
- After the comprehensive discussion in four sessions, an action plan was evolved for the benefit of the stake holders from different countries for further discussions on specific issues.
- The Conclave was deliberately kept interactive. The aim of this each session was to evolve some basic strategies. There were useful discussions with guidelines from stalwarts, experts that included our awardees.

Health Economics is the most important factor of today's era, for which we should come together.

Session I - Agenda For Asian Medicine: Potentials For Effective & Economic Health & Medical Care

Chairperson - Prof. R. K. Mutatkar
Lead - Prof. Manasi Deshpande;
Panel -Dr. H.R Nagendra, Dr. Abhijit Patil, Prof. K. Dhiman, Dr Anup Thakar

Outcome of the session:

- Asian medicine has the potential that can be contributed to health and medical services delivered all over the world. Now, it has the potential to play a significant role in the economic development of number of countries. (Dr. Manasi Deshpande)
- Cultural values have great impact on Asian Medicine. Till date, countries have taken happiness index in account but now they are considering economical index too. This system of preserving cultural values should be revived in Asian Countries. We can then reflect a good economic system of health. (Prof.Dr. Dhiman)
- To be effective, we have to be experimental with the mainstream sciences. Unless we enter into the primary health care we won't be able to get the justified importance and will not be able to explore the potential of Asian medicine. (Dr. Abhijit Patil)
- The way population is increasing plants are not increasing. We need to develop a system that will bring **green revolution** so that we can get the herbs required for medicine in ample and on economical pricing too. (Dr.Anup Thakkar)
- We can see the great escalation in the cost of the medical services. We should concentrate to spend our money on prevention, with the aim of bringing down the cost, so as to make it more cost effective.

Yoga is based on moderation and does all things for prevention by lifestyle changes, maintaining good health, promoting health and moving towards higher and higher blissfulness and happiness, This is what Ayurveda, yoga teaches us. (Dr. Nagendra)

* We use the environmental resources according to our requirements and thus health care has become uneconomical. In past days, we have seen cultures and Lifestyles were co terminus but now they are not, So they are creating problems. We are looking at health care as platform where people can perform their social roles with optimal efficiency with or without medicine. (Prof. R. K. Mutatkar)

Session II - Agenda For Asian Medicine: Potentials For Learning & Knowledge Sharing

Chair - Dr. Gangadharan
Lead -Prof. Yashashree Joshi
Panel - Prof. Subhash Ranade, Dr. Deepa A.

Outcome of the session:

* Knowledge is information which should not be given in isolation. Knowledge has to be shared, We have to develop a model of knowledge sharing technology, accepting and up grading it based on needs and culture of the country. Indigenous system does not mean few plants, it is a package developed from cultural milieu of this country. (Vd. Gangadharan)

* There is need of knowledge sharing. Asian Medicines are effectively administering this in their respective countries. Foundation should be same for all. Thus to add or clarify their own fundamentals by learning each -other's Medical System or techniques in clinical examination or treatments is important. (Dr.Yashshree Joshi)

* Asian Medical Systems complement each other. To understand the interrelation among all Asian medicine system, the acquaintance of fundamentals is essential. Focusing on similarities and learning can provide better practices. (Dr. Deepa A.)

* If you want to be a good physician you should learn all sciences around you. Right from practices to learning there is lot of similarities in the system. The ultimate aim of all practitioner is to give relief to the patient. So we have to learn different sciences as they are complementary to each other. (Prof. Subhash Ranade)

Session III - Agenda For Asian Medicine: Potential For Research & Technology Development

Chair-Prof.Dr.Bhushan Patwardhan
Lead - Dr Galib
Panel - Prof. Y. K. Gupta, Prof. P. K.Debnath, Dr. Narendra Bhatt, Dr. Asmita Wele

Outcome of the session:

* To reach the goal in time, we need to integrate. Blend the biosciences, Utilize the parameters the protocols used in modern scenario to re-establish the classical guidelines. (Dr. Galib)

* We cannot work in isolation, academician and practitioners have to come together. Technology for manufacturing of ayurvedic medicine has to follow a modern standardization procedure, keeping the spirit of traditional pattern alive. (Dr. Y. K. Gupta)

* We should not miss on the strategy and methodological part. We are only working on illness research; IASTAM is a platform where the issue of methodology, collaborative research in Asian regions can come together. Today people have multi syndrome diseases and management of the same only through drugs is difficult and so the whole system management is needed and that is the speciality of Ayurved. (Dr.Bhushan Patwardhan)

* We have stopped the process of creating curiosity in our process of learning, teaching and training. Concentrating on in depth study of one area and research by going vertical in one particular area is important. Research communication language is necessary. Research methodology is not the tool to be achieved, as approach changes, interpretation is different, we should be able to translate the interpretation in to objective modalities. (Dr. Bhatt)

* Dialogue between two systems has to increase, Refinement of dosage forms and its acceptance is necessary. We can observe some gaps in knowledge of Ayurved, on one hand it is knowledge of life and on other hand there are gaps to be filled with proper science. (Dr. Asmita Wele)

Session IV - Agenda For Asian Medicine: Potentials For Industrial & Regulatory Alliance

Chair – Prof. P. K Prajapati
Lead - Dr Joban Modha
Panel -Dr. C. K. Katiyar, Dr.Ikhlas Khan
Vd. Punarvasu Agnihotri, Dr. Narendra Bhatt

Knowledge is information which should not to be given in isolation.

Outcome of the session:

- International investment requires better standards for ensuring safety, efficacy and quality control, rules and regulations have to be followed by Asian medicine to work together with more efficiency.(Dr. Joban Modha)
- There is huge requirement of alliances, Pharmacopeia, registered products, harmonization, efficacy, standards and regulatory systems need to be set. Alliances should be in terms of both safety efficacy and exchange of views. (Dr. C. K. Katiyar)
- When it comes to Industry, economy is a major issue. Development, growth, potentiality, all differs with economy. For better progressiveness of the industry, we should continuously concentrate on skill and technical research. (Vd. Punarvasu Agnihotri)
- Industry needs to be in continuous touch with academic institutions. Research and Integration are the basic proprietary things which any industry will require. Basic information has to be generalized in institutions so as to benefit the basic industry equally. (Dr.Ikhlas Khan)

Summary

- Learning and knowledge sharing is of great importance as isolation will not deliver any results. Integration of medical systems needs to be saluted.
- Academicians, practitioners and experts from Ayurvedic and Asian medicine should work hand in hand so as to develop confidence towards these systems.
- To bring Ayurveda in mainstream, communication and dialogue skills are one of the main the key factors.
- Emphasis on prevention is important.
- All Asian Medical Systems are facing problem of being treated as 'Alternative Medicine System' at Global Level especially by Developed Countries though they are effectively administered in their countries of origin.
- Establishment of international Academic forum for Asian Medicine should be considered.
- We should be ready to face global challenges and be ready to modify accordingly.
- Asian medicine can play a huge role in safety, toxicity and non-communicable diseases. Multifaceted optimized study to evaluate actual efficacy of traditional practices shall be undertaken.
- Potential for research is important, There is a huge requirement of academic institutes to come ahead and work together
- Ayurved should identify its weakness and work on it with help of technology and modern contemporary evidence.
- Change in the strategy and methodology will be an important pathway.
- Instead of research being a growth approach we are using it as a defence tool.
- Change is required in system, education, safety and communication.
- For Industry economy is a major issue and without skill and technical research, industry will not progress.

The sessions turned out to be very deliberate and it came up with a fruitful outcome. As the main focus was on agenda for international conference.The panel come up with intellectual topics. Each one at the end had the urge to bring Ayurved (Asian Medicine) system of medicine in the mainstream and concluded that if everyone comes together the goal is easily achievable

Action Plan as derived by Dr. Narendra Bhatt and Dr. K. Dhiman

Action plan for the coming 12 months is Asian alliance for global acceptance.

- It has to be Alliance for growth which will be people oriented and complementary in nature.
- Focus is deliberation on issues of concern, where there will be similarities
- Target should be the global acceptance and outcome is to have Asian approach to indigenous medicine.
- Challenges will have to be identified by experts and institutes for collaborating and networking and there after developing network not only in the Governing Bodies of India but also from Asian countries and its representatives.
- 3-12 months action plan with the Basic concepts, approach and endpoints
- Prepare road map,procedures and mechanism.
- Approach Group of Delegates, Institutes and Bodies, and create internal follow up and monitoring with the project management approach.
- Publications, regional meetings to be arranged.
- Urgent need to create alliance in the area of Asian indigenous medicine in context of knowledge to identify and create a role in health care delivery and benefit the community, Objective will be an 'Asian Approach for Global acceptance'.
- We should take initiative by sensitizing the local governments of Asian countries in economic health

Pandit Shiv Sharma Oration

Prof. Emeritus Dr. Subhash Ranade
Chairman of International Academy of Ayurved
Prof. Emeritus for the University of Bremen
(Germany) And University of Tel Aviv (Israel)

Prof. Emeritus Dr. Subhash Ranade

Propagation of Ayurveda

Propagation of Ayurveda Abroad - From 1982 me and my wife Dr. Sunanda we have done Non-stop service of 32 years. Probably unique in this country. We both have visited 67 Countries in all 5 continents. Total journey - Distance covered by Air is approximately 21,25,000 Miles

Ayurveda Propagation in European Countries – We have visited Germany, Italy, Holland, Swiss,Hungary, Austria, Romania, Portugal, Poland, Scandinavian countries, Spain and UK many times. We both have given conferences in these countries and many – TV interviews, the prominent ones are – Italy- Italia sera; Poland –Polsat II, Romania.

Our visits Abroad started with German delegation visit to Tilak Ayurveda College, where I was teaching in 1980. There were delegates from Sterimed GMBH – company manufacturing sterilized medical equipments and members of Health Ministry. They wanted to understand the effects of Narayan oil - 1980. German Language. Two medical systems.

We both taught at Seva Akademie, Munich, Germany from 1982 onwards and have trained over 2000 German physicians in this Institute. Also we have given consultations to hundreds of patients.

Ayurvedic Medicines - Germany has very strict FDA rules. Initially only herbal teas containing spices were available. Later on only single herbal powders of Ayurvedic herbs were allowed. No compound herbal and herbo - mineral preparations were initially allowed.

When you are in foreign country to teach Ayurveda, it is better to study local herbs available. In Germany for liver disorders – Alterative and Pitta pacifying herbs like Milk thistle - Cardus marianus, Mariendistel - Silybum marianum are being used. For Virechana, rhubarb and gentian root are used.

For heart - Crataegus -Hawthorn berries and Garlic have been proved very effective against High cholesterol and protects heart also. Both are pungent, pungent and hot and reduce Kapha. German Medical Association has introduced amny courses on alternative medicine which are mandatory

From 1982 me and my wife Dr. Sunanda we have done Non-stop service of 32 years.

When you are in foreign country to teach Ayurveda, it is better to study local herbs available.

for Medical practitioners there if they want to prescribe or give advice Ayurvedic. Out of four books published two books – Ayurveda wessen und Methodik and Ayurveda Basislehrebuch are more popular.

In Swiss- Ayurveda Research Company's Ayurveda Clinic was established in Walzenhausen by Prof. Hans Rhyner. This was first Indoor Ayurveda Hospital in Europe in 1991. In this Ayurvedic hospital 1100 patients were treated in the first year. I have seen anaphylactic reaction like penicillin to Guggulu. In Walzenhausen we had to admit this patient who was given 250 mgm. of Triphala guggulu and had to be treated in ICU.

In Italy- Giorgio Barabino established International Association for Ayurveda and Naturopathy (IAAN). Between 1981 to 1998 we both conducted several Ayurveda courses, and treated more than 4000 patients. Two International Conferences - San Marino 1985 and Villa Era 1989 were also organized at this center. We also contributed several articles in the magazine published by IAAN.

Chernobyl Disaster - April 1986, in Ukraine and the radioactive fallout affected Italy. Highly radioactive fission products that accumulated in food like isotopes of iodine, cesium and strontium. We received many patients of skin diseases, Hashimoto's thyroiditis, liver problems.

Treatment of Skin Diseases – Psoriasis -PK procedures like Vamana were done in Kapha-Vata Kushtha –Kitibha, Sidhma and in Visphot –Pitta-Raktaja type- blood letting, Virechana were done.

Liver disorders -Tikta ghrita prepared from local tikta herbs – tarasco (dandelion), rucola (Eruca sativa) and cassia surattensis was used for poorvakarma. The leaves were used for lepana also. Medicated wine of tarasco was prepared and was used to treat various rakta-Pitta disorders.

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Treatment of Thyroiditis – Most of the patients were young girls 15 to 25. Whenever possible, suitable PK procedures were done. Bugleweed (Lycopus virginica). Eluthero root these local herbs were used for treatment. Out of 3 books in Italian language –Tratato di Medicina Ayurvedica is very popular.

We established ***International Academy of Ayurved*** at Pune in 1996. In the last 8 years we have trained more than 800 foreigners. We have deputed our Faculty members 153 times to propagate Ayurveda Abroad. This figure beat any NGO working in the field of Ayurveda in India. This year IAA received Large group of 26 students from Brazil and 11 USA students, in January.

Conferences – IAA Organized many National and Six International conferences. World AYU in 2012 for Ayurveda, Unani, Yoga and Naturopathy was organized in which 1100 Indian delegates and 108 foreigners took part.

Foundation for Health in Warszawa, Osrodec Pomocy Zwodoriu," Poland- MOU between this Institute and IAA was signed between IAA in 1996. Between 1996 to 2002, IAA deputed 32 physicians for academic and clinical work. I gave Radio talk on Warszawa Radio. I also treated many patients of Viral Hepatitisby using Potentized single herbal tablets of bhumyamalaki. We got remarkable results. These were discussed on Television Interview on Polsat II –National Polish Television channel. The book written by me and Prof. Norbert Lotz has been published in Polish language.

Ayurveda in SAARC countries- More popular in Sri Lanka. Ministry of Indigenous Medicine. Visited Sri Lanka twice Ayurveda education is free. National System of Medicine.

Japan- Prof. Ben Hatal –RSAJ. Kampo system – many local herbs. Center in Hiroshima –AIDA. High level of stress in Corporate level. Sumo wrestlers – No use. Panchakarma book in Japanese has been published

Ayurveda in USA, Canada - First AMA accredited course in Santa Fe 1992. From this course many trained allopathic and Ayurvedic physicians started Ayurvedic teaching Institutes. Subtle healing modalities are more popular - Music, Mantra, Massage, Marma, Gem, Aroma and color.

Herbs in USA -Many Ayurvedic herbs are available. Some local herbs have similar action to Ayurvedic herbs – Gotu kola (Brahmi), Myrrh (Guggulu), Galangal (Ginger), Spikenard root –American valerian (Jatamansi), Skull cap.

Effects of local herbs – In the treatment of Alzheimer's and Multiple Sclerosis - Ginseng, Rehmania and Fo ti for Brimhana have been found useful. In ADDH – study ashwagandha was found to be better than ginseng. For treating prostate – Saw palmetto and Pygeum Africana are very effective. Similarly Witch hazel leaves are useful for treating piles.

Quality control and contamination of herbal products with heavy metals and pesticides.

South American Countries- Visiting Argentina, Brazil, Chile, Colombia and Mexico since last 11 years. It is fertile ground for Ayurveda. No legal hassles. All Ayurvedic herbs are available. More and more people are opting for Ayurvedic treatment. Rain Forest in Amazon has all healing herbs.

Changes on International Arena - About 20 years back Ayurveda was practiced in most foreign countries by unqualified or allopathic practitioners that have legal status. Now the situation is slowly changing. However most countries do not recognize Ayurveda as health care system. Hence status of Ayurvedic graduates is not clear. Reimbursement for Ayurvedic consultation and medicines is not available in majority of these countries.

Export of Ayurvedic Medicines- Indian contribution is very small against total global market. Export of Ayurvedic medicines is difficult as each country has different rules. THMPD. In most countries Ayurvedic medicines are imported as food substitute.

Major Obstacles - Legal registration for practice. In few countries there are restrictions for some PK procedures. Re-imbursement for medicines and consulting charges by Insurance companies is a dream.

Hurdles in Ayurveda Propagation - Export of Ayurvedic medicines is difficult as each country has different rules. Quality control and contamination of herbal products with heavy metals and pesticides. Newly imposed European Directive on Traditional Herbal Medicinal Products (THMPD) is big obstacle. Total Global herbal market is the size of 62 billion Dollars. Out of which the Indian contribution is only 1 M.

Suggestions for Ayurvedic fraternity to propagate Ayurved - Learning any foreign language will be helpful. Mastery on Ayurveda and Yoga – theory and practical. Good knowledge of computer, good manners and social etiquettes are essential. Keen observation of surrounding nature, qualities of food and local herbs.

Current Trends in Education - Most people in the Ayurvedic fraternity are not happy with the changes made by CCIM in the staff pattern of Ayurvedic Colleges. Reducing the number of teachers in colleges is harmful for PG graduates. Drastic changes in the examination pattern and syllabus of the UG course in Ayurveda by CCIM is not congenial for proper understanding of Ayurveda.

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Zandu International Award Oration

Dr. IKHLAS A. KHAN Ph.D.

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Traditional medicine: Challenges and opportunities

Introduction

From time immemorial plants and natural products have provided solutions to many difficult questions the human race has faced. Nature has provided prescriptions for various diseases. These treatments, which were developed hundreds of generations ago and then passed on to today's generation, have become known as traditional medicine (TRM). The human race is greatly indebted to the countless anonymous authors who compiled the treatises of the Ayurvedic, Chinese and other systems of traditional medicine, as well as the untold scribes and knowledgeable shamans who passed on their locally valued information in a more personal manner. According to a World Health Organization (WHO) estimate, as high as 80% of the population in developing countries depend on traditional and herbal medicines as their primary source of health care (WHO, 2002). Over the past decade, there has been an increased global interest in traditional systems of medicine and herbal medicinal products. In part, this surge has been due to the rare or nonexistent access to modern medicine in developing countries as well as the acceptance of herbal medicines by large populations of people in affluent nations. In developed countries non- conventional medical modalities, also designated as complementary and alternative medicine (CAM), are often used concomitantly with conventional medicine.

Integration of herbal medicine can only be accomplished through scientific research, which must take into account the interrelated issues of **quality, efficacy and safety.** Quality is a paramount and complex issue when dealing with botanicals. One of the most difficult challenges for any company in the herbal industry is being able to consistently formulate a product, which will deliver the promised physiological effect and it has been complicated with the surge of Dietary supplement in USA.

UNITED STATES REGULATORY ASPECTS

While this review is not intended to summarize the entire U.S. regulatory procedures associated with dietary supplements, it is proposed that a synopsis of the current regulatory policies is outlined to provide a perspective of what is anticipated, from a legal standpoint, for dietary supplements marketed in the United States.

> ...must take into account the interrelated issues of quality, efficacy and safety.

New pharmaceutical drugs are required to have FDA approval before being marketed; however, DSHEA stipulates that dietary ingredients legally on the market prior to October 1994 are be generally regarded as safe (GRAS). The assumption made is that if these ingredients were not safe, then the FDA would have already removed these ingredients from the market prior to that date. After 1994, the FDA requires manufacturers to submit a "new dietary ingredient" (NDI) notification with complete safety information to the agency 75 days prior to the date of first marketing.

FDA has the authority to deny permission for the new ingredient to enter the marketplace based on safety concerns. Products in the marketplace that contain NDIs for which NDI applications were rejected by FDA, or for which no NDI notification was filed previously, are considered "adulterated" under the Food, Drug, and Cosmetic Act. In July of 2011, the FDA released a "Draft Guidance for Industry: Dietary Supplements: New Dietary Ingredient Notifications and Related Issues" document to aid dietary supplement manufacturers in determining whether or not a NDI is required for proposed dietary supplement ingredients. Even though there are many new dietary ingredients in the marketplace, to date the FDA has received very few NDI notifications and has approved only a few of these. Additionally, there is a concern from the botanical dietary supplement industry regarding what the FDA considers as "chemically altered" ingredients. Similar constituents or processing techniques have been deemed safe with regard to items in the current food supply chain, but these appear to be scrutinized more intensely when applied to botanical dietary supplements. Therefore, the FDA faces a daunting task in ensuring the safety and quality of an ever -increasing number of botanical products while not stifling activities of the current botanical dietary supplement industry.

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The current GMP regulations of the FDA stipulate that manufacturers have to provide full verification that "specifications are met for the identity, purity, strength, and composition of the dietary supplements." On the other hand, the regulations do not instruct manufacturers about particular analytical methods required in order to meet these stipulations.

The preamble to regulation 21 CFR §111 does provide the reasoning behind why the FDA did not specify a particular "scientifically valid method." This is because the selected method "... could become obsolete if we (FDA) based it on specific sources such as INA (Institute for Nutraceutical Advancement), AHP (American Herbal Pharmacopoeia), or USP (United States Pharmacopoeia)". This "identity" criterion as stipulated by the FDA implies that each botanical component will require a specific, scientifically valid authentication method in order provide the necessary proof to comply with this regulation. A main purpose of this review is to outline some specific techniques and methodologies that, in combination with a quality by design approach, can aid investigators in the authentication of botanical ingredients and dietary supplement products.

Authentication Of Botanicals

One of the most critical issues involved in developing botanical products is the process for assessing the authenticity and quality of the individual raw ingredients. Since these ingredients are produced naturally, there is a possibility for the misidentification of the collected plant, potential adulteration with other related species, or contamination with extraneous ingredients during processing. From the perspective of a safety concern, these issues may range from simple misleading labeling to potential poisoning due to toxic contaminants. A considerable amount of research in this area has been applied to the use of a "standardized" botanical material, which usually implies a chemical standardization based on the quantification of one or more selected marker compound(s). However, while chemical standardization can provide a useful technique for authentication purposes, such standardization is of limited utility when the starting raw material is not authentically characterized botanically. Many of the cutting-edge botanical authentication techniques used today stem from traditional pharmacognostic research methods. Each identification technique requires significant levels of prior information, infrastructure and skill sets in order to achieve a full-spectrum approach for the authentication of botanical samples. Many botanical dietary supplement manufacturers currently utilize chemical "fingerprinting" techniques for identity purposes. However, there are in addition several other methods that can be effectively employed to properly authenticate a botanical sample.

Macroscopic and Microscopic Authentication

Both macroscopic and microscopic investigations constitute the mainstay of classical botanical authentication and characterization techniques for whole plants, plant parts, and, in some cases, the plant material that has been dried and processed. Macroscopic characteristics that may be examined to aid in this technique include traits such as: woody/suffruticose/herbaceous; leaf shape, size, and morphology.

While micro/macroscopic techniques can provide a classical botanical-/pharmacognostic-based authentication method for many herbal samples, or these techniques lose their effectiveness when dealing with complicated multi-component powdered samples, when there is little to no cellular distinction between closely related genera; or where material is processed or formulated beyond the ability to provide distinct morphological characterization. When these circumstances occur it is necessary to utilize alternative techniques in order to effectively identify and authenticate botanical samples.

Genetic Fingerprinting Techniques

One burgeoning area of botanical authentication research is the field of genetic fingerprinting and profiling. Ideally, botanical genetic profiling methods should be cost-effective, adaptable to efficient high -throughput analysis, and utilize technology that can be easily transferred and validated.

It is necessary to utilize alternative techniques in order to effectively identify and authenticate botanical samples.

Additionally, it is important that one develops efficient and easily reproducible genetic extraction procedures that can yield sufficient quantities of high quality DNA. Typically, the best quality DNA is obtained from freshly harvested, young, fast-growing tissues. Unfortunately, many botanical samples consist of dried powdered plant parts made up of highly differentiated tissues of various ages that contain DNA of relatively poor quality, so the extraction and manipulation steps are technically much more difficult. The harvesting, drying, storing, and processing of plants used in many dietary supplements, tends to result in the degradation of the genetic material of the plant. In addition, inherent phytochemicals often occur within the plant and these can hinder DNA manipulation and analysis using polymerase chain reaction (PCR)-based technologies.

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Analytical Chemical Fingerprinting Techniques

Analytical separation techniques (e.g., HPTLC, HPLC, UPLC, CE or GC with a suitable detection mode) currently provide the most reliable and applicable authentication methods for botanicals. Acquiring and analyzing a statistically significant representative collection of authentic plant specimens from multiple collection sources can develop a valid analytical "fingerprint" method for authentication purposes. However, in order to accomplish this, it is necessary to isolate and identify selected "marker" compounds that make up an analytical fingerprint that is distinct for the selected species. These makers should ideally be diagnostic for the selected species and preferably represent the health-relevant principal component(s) for the species in question. The more key identifying markers one utilizes in developing an analytical fingerprint, the higher the resultant level of confidence that can be achieved for the identification and authentication of "unknown" samples. Additionally, the use of multiple (and preferably highly diagnostic) marker compounds dissuades dishonest bulk material distributors and manufacturers from "spiking" cheap botanical samples, since each additional constituent required to meet a stringent authentication level adds another layer of complexity and cost to the unsavory practice known as "economic adulteration". However, in order for any analytical fingerprint method to be widely adopted and validated, this requires that sufficient quantities of the selected markers are readily available. While some phytochemical markers can be synthesized, this is often not a cost-effective solution. Therefore, many of the constituents are only attainable utilizing classical pharmacognosy techniques (extraction, isolation, and spectroscopic identification). The lack of relevant marker compounds is the major limiting factor hindering the widespread adoption of quality control approaches for botanicals. The interest in finding suitable markers has waned significantly because this area of research has been relegated to being considered as "basic" in need and not seen as a valuable asset that can provide not only a quality control measure for botanicals but also as a cornerstone for the understanding of the phytochemical complexity of these widely used products.

A longstanding research effort at the National Center for Natural Products Research (NCNPR) has included the investigation of hundreds of common botanicals and products, resulting in the isolation and characterization of thousands of both known and new compounds that have been utilized for the development of authentication methods as well as biological evaluation. Once the indicative markers are obtained and fully characterized, then the task of method development must be undertaken. Selected experimental parameters, such as mobile phases

many of the constituents are only attainable utilizing classical pharmacognosy techniques

stationary phases, and operating conditions need to be taken into account along with the particular chemical characteristics of the identified markers. Additionally, in order for an analytical method to be considered "validated" it also needs to be evaluated for the following criteria; precision, accuracy, specificity, robustness, ruggedness, and repeatability. The proposed method will need to be selective and linear for the range in question and provide a reasonably low limit of detection (LOD) and limit of quantitation (LOQ).While development of an analytical fingerprint profile requires a significant investment in effort, the resultant methods provide an invaluable tool for the identification and authentication of botanical samples as well as providing the capability to utilize the developed method(s) for potential subsequent clinical sample evaluation.

One of the more "classical" analytical techniques that are still quite practical in modern identification applications is high-performance thin-layer chromatography (HPTLC). HPTLC is an advance over standard TLC in utilizing smaller silica gel particles (5-7 m vs. 10-15 m, respectively), thereby providing more theoretical plates for greater resolution of the constituent(s) of interest. Additionally, there are robotic applicator systems and development chambers along with digital imagery and densitometry capabilities that can be used for the development of qualitative and quantitative analysis of HPTLC data. HPTLC also allows the rapid evaluation of multiple samples side by side in identical conditions thereby affording additional cost savings for comparative analyses. The evolution of LC technologies has resulted in significant advances in the design of column packing materials. High-performance, high-pressure LC systems have made it possible to compress existing fingerprinting profiles while simultaneously increasing resolution and sensitivity. Combining these advances with increased sensitivity for a variety of detection options (e.g., UV, ELS, MS, HRMS, MS/MS) has revolutionized the ability to quickly develop applicable analytical methods for authentication purposes. Fingerprinting methods and phytochemical identity techniques have been developed for a myriad of authenticated botanicals that aid significantly in the analysis of dietary supplement products as well as safety evaluations.

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As mentioned earlier, a major limitation of analytical fingerprinting techniques is the requirement to have an established set of marker compounds that are unique to a given botanical specimen. Additionally, the reality is that one has to develop a method that often has to accommodate a potentially broad range of phytochemical analytes. Unfortunately, most developed analytical methods are quite often myopically restricted in their capability to recognize the broader chemical profile of the plant in question and often researchers need to use multiple analytical methods in order to evaluate disparate sets of analytes. To address this issue, many researchers have turned to utilizing broad range spectroscopic based analysis techniques in combination with chemometric analysis.

Chemometric Techniques (MS, NMR, IR)

An extension of phytochemical fingerprinting would be the utilization of statistical evaluation tools such as Hierarchical Cluster Analysis (HCA) or Principal Component Analysis (PCA) to evaluate either a broad range spectroscopic scan of a given botanical or a representative chromatographic segment of a given sample as compared to a compiled population of authenticated reference samples.[10,11] One of the advantages of this type of statistical approach is that it utilizes pattern recognition parameters to evaluate peaks/components within the data clusters in order to see if the "test" sample correlates to the population of authenticated samples.

Since phytochemical chemometric techniques utilize a broad-spectrum evaluation of the chemical profile of the botanical in question, the material analyzed can be a crude whole extract with very little pre-fractionation. The advantage of this type of methodology is that it is non selective and can provide a more "holistic" phytochemical snapshot of the sample in question there by eliminating some of the bias or myopathy that can be inherent in classical fingerprinting techniques.

In comparison to pharmaceuticals, the quality and safety of botanical products are more complicated in their evaluation.

One of the initial authentication techniques to use this type of statistical analysis was GC-MS, where the volatile components of a complex plant extract are injected and the resultant peaks are identified by their specific mass that then provide the basis for statistical analyses, which clusters the "like" samples in to grouped populations.[7] Similar statistical methods (PCA, HCA, LDA, etc.) have since evolved and been coupled with other chromatographic systems such as HPLC-UV and HPLC-MS to provide new toolsets for population analysis.[8] Recently, the inclusion ^{1}H-NMR chemometric profiling has emerged as yet another methodology for the evaluation of botanical extracts.[9] Broad spectrum ^{1}H NMR evaluation of crude botanical extracts provides researchers with the capability to understand of the full chemical profile and offers additional information regarding potential phytochemical structural characteristics that give rise to the profile in question. All of the afore mentioned chemometric methods require that investigators have a significant population of authenticated specimens for spectroscopic measurement in order to construct a foundational spectral library. Post analysis of the compiled library typically consists of; alignment, regional exclusion, binning, normalization and scaling then, through the use of statistical analysis packages such as HCA, PCA or LDA, investigators can then begin to cluster like populations of samples based on recognized similarities within the populations. While much of the analysis can be undertaken automatically with the requisite software packages, it should be stressed that the analyst must have an in-depth understanding as to what each set of signals in the given spectra represent, pytochemically, so that the identification of key constituents within a material can be logically assigned. It is also important to note that these methods are better suited for single constituent (one plant sample) analysis and do not lend them selves to multicomponent "finished" products.

Discussion

In comparison to pharmaceuticals, the quality and safety of botanical products are more complicated in their evaluation. In the case of pharmaceuticals, the physiochemical properties of the lead compound must be fully characterized before it is even considered for clinical development or marketing. After characterization, the drug is then developed under strict GLP/GMP guidelines. On the other hand, for botanicals, the raw materials are often grown in disparate conditions and geographic locations, harvested at various times, and processed differently, with often different species or varieties used interchangeably due to simple misidentification or as the result of the use of common names or synonyms. Therefore, the first step towards assuring the quality and safety of botanicals should be to inherently incorporate these attributes, through attaining a comprehensive knowledge of which phytochemical constituents make up a "quality" botanical product. The "Quality by Design" (QbD) concept was coined by Joseph M. Juran in 1992 to address the quality control issues involved in the manufacturing process. The premise behind the QbD philosophy is the idea that

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quality should be built into the product from the onset. Each step of the production process should be focused on avoiding potential risks if strict standards are not met. Immediate measures should be taken to correct any quality discrepancies in order to ensure that the end consumer is provided with a product that is safe and of superior quality. The U.S. FDA recently has adopted the QbD model for the process validation procedure of the pharmaceutical industry and has observed a significant improvement in product quality from companies following these guidelines. As an additional benefit, industries that undertake a QbD model typically experience an increase in efficiency, productivity, and cost savings because each step of the process provides a superior intermediate item. In this manner, production does not have to be impeded in order to correct flaws that occurred in the manufacturing process.

It is important that a QbD model should be implemented for botanicals as well as pharmaceuticals, since plants have an inherent variation in consistency and possess a potential risk for adulteration. Such adulteration represents a major impediment in the control of product quality and potentially can adversely impact public health. For botanicals, quality by design should start with the knowledge of the seed/genetic source of the plant material; the identity of the specific species grown; information on the climate or environment of plant growth; the date of harvest; how the harvested material was stored; and details of the processing, extraction and overall phytochemical composition for each sample in question. Unfortunately, the current U.S. market regulations do not yet stipulate a "quality standard" for commercial botanical products. While it is admittedly difficult to undertake, a quality by design approach can provide the best suitable solution for the long-standing problems associated with botanical authenticity. Taking this type of methodical approach to understanding the inherent attributes of a given botanical from seed to shelf is probably the most logical way to approach the problems associated with this issue. Unfortunately, even the essential requirement of an authenticated reference plant sample that is properly vouchered and taxonomically identified by a qualified botanist is often overlooked. Additionally, one needs to understand the potential botanical product that is being analyzed such as what plant part will be utilized or what type of final preparation will be evaluated.

Establishing a QbD model to evaluate as many of the key aspects that identify each botanical is imperative since there is no single method that can authenticate every plant sample or characterize every dietary supplement. For each botanical, there needs to be a full understanding of the constituents being considered and what techniques are specifically suited for authentication purposes. While a significant amount of research has been published to aid in the authentication of botanicals, it is abundantly clear that more work needs to be done in order to fill in the substantial gaps that still exist, such as evaluating possible adulterants that can be associated with the botanical of interest like; spiked pharmaceutical additives, economic adulterants and accidental substitution with commonly misidentified or improperly characterized material. Additionally, safety concerns surrounding botanicals do not end with the "authentication" of the plant material but must also include analyses for potential microbe, pesticide and heavy metal contaminations. It is clear that only a systematic designed approach can provide the required solution for complete botanical characterization (genetic, morphological, phytochemical etc), authentication and safety evaluation. In order to fully undertake this approach, a continued research effort in the related fields of authentication is required [20]. This, in turn, demands that more individuals will need to be trained in the performance of these techniques as well as the provision of a committed level of support for the basic sciences that promote this type of research.

References

1. http://www.fda.gov/food/guidancecomplianceregulatoryinformation/guidancedocuments/dietarysupplements/ucm257563.htm#app-a
2. Current Good Manufacturing Practices in Manufacturing, Packaging, Labeling, or Holding Operations for Dietary Supplements. Federal Register, 2007, 72(121), 34805.
3. **Betz, J.M., Garland, T., Page S.W. Safety of Botanical Dietary Supplements. In** Functional Foods-Biochemical and Processing Aspects (eds. Shi, J., Mazza, G., Maguer, M.L.), 367-394 Vol. 2. (CRC press, Boca Raton, Florida, 2002).
4. Evans, W.C. Trease and Evans' Pharmacognosy 16th edn. (Saunders Elsevier Limited, Oxford, UK, 2009).
5. Brunton, J. Pharmacognosy, Phytochemistry, Medicinal Plants 2nd edn, (Intercept, London, Paris and New York, 1999).
6. Hänsel R., Sticher O., Alban S., Franz G., Spiell E. Pharmakognosie - Phytopharmazie 7th edn. (Springer- Verlag Heidelberg, 2004).
7. Betz, J. M.; Fisher, K. D.; Saldahna, L. G.; Coates, P. M. Anal. Bioanal. Chem. 2007, 389, 19-25.
8. Betz, J. M.; Brown P. N.; Roman, M. C. Fitoterapia 2011, 82, 44–52.
9. Rambla-Alegre, M.; Esteve-Romero, J.; Carda-Broch, S. J. Chromatography, A, 2012, 1232, 101-109.
10. Reich, E.; Schibli, A.; High-performance thin-layer chromatography for the analysis of medicinal plants. (Thieme Medical Publishers, Inc, New York, 2007).
11. Rocha, S.; Maestu, L.; Barros, A.; Cid, C.; Coimbra, M. A. J. Sci. Food Agric. 2004, **84, 43-51.**
12. Rubiolo, P.; Bellardo, F.; Cordero, C.; Liberto, E.; Sgorbini, B.; Bicchi, C. Phytochem Anal 2006, 17, 217-25.
13. Rocha, S.; Maestu, L.; Barros, A.; Cid, C.; Coimbra, M. A. J. Sci. Food Agric. 2004, 84, 43-51.
14. Sim, C. O.; Ahmad, M. N.; Ismail, Z.; Othman, A. R.; Noor, N. A. M.; Zaihidee, E. M. Sensors 2003, 3, 458-471.
15. Wang, L.; Wang, X.; Kong, L. Biochem. Syst. Ecol. 2012, 40, 138-145.
16. Zhao, Y.; Chen, P.; Lin, L.; Harnly, J. M.; Yu, L.; Li, Z. Food Chem. 2011, 126, 1269-1277.
17. Sun, J.; Chen, P.; Lin, L.-Z.; Harnly, J. M. J. AOAC Int. 2011, 94, 487-497.
18. Chen, P.; Lin, L.-Z.; Harnly, J. M. J. AOAC Int. 2010, 93, 1148-1154.
19. Sun, X.; Chen, P.; Cook, S. L.; Jackson, G. P.; Harnly, J. M.; Harrington, P. B. Anal. Chem. 2012, 84, 3628-3634.
20. Dong, W.-W.; Au, D.; Cao, X.-W.; Li, X.-B.; Yang, D.-J. J. Food Drug Anal. 2011, 19, 495-501.
21. Cheng, X.-M.; Zhao, T.; Yang, T.; Wang, C.-H.; Bligh, S. W. A.; Wang, Z.-T. Phytochem. Anal. 2010, 21, 279-289.
22. Garza-Juarez, A.; Waksman-De-Torres, N.; Ramirez-Duron, R.; Cavazos, M. L. S. Acta Chromatogr. 2009, 21, 217-235.
23. Ma, H.-L.; Qin, M.-J.; Qi, L.-W.; Wu, G.; Shu, P. Biomed. Chromatogr. 2007, 21, 931-939.
24. Zhao, J.; Avula, B.; Chen, M.; Clement, C.; Kreuzer, M.; Khan, I. A. Planta Med. 2012, 78, 90-101.
25. Zhao, J.; Avula, B.; Joshi, V. C.; Techen, N.; Wang, Y.-H.; Smillie, T. J.; Khan, I. A. Planta Medica 2011, 77, (8), 851-7.
26. Frédérich, M.; Jansen, C.; de Tullio, P.; Tits, M.; Demoulin, V.; Angenot, L. Phytochem. Anal., 2010, 21, 61–65.
27. Juran, J. M; Juran on Quality by Design: The new Steps for Planning Quality into Goods and Services; The Free Press: New York, NY, 1992.
28. Ikhlas A Khan; Troy Smillie; J. Nat. Prod. 2012, 75(9), 1665–1673.

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