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5th International Congress on
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Kurzfassungen / Abstracts

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In dieser Liste der Kurzfassungen sind alle Kurzfassungen aufgenommen, die bis zum 7. August 2002 angemeldet wurden. Nach diesem Datum eingehende Kurzfassungen werden getrennt mitgeteilt. Die einzelnen Kurzfassungen sind in der Regel unverändert übernommen worden, mit gelegentlichen editorischen Änderungen aus Gründen der Verständlichkeit. Es werden folgende Abkürzungen für Ländernamen verwendet:

This list of abstracts includes all abstracts which have been submitted until August 7, 2002. Abstracts received after this date will be announced separately. The individual abstracts have as a rule been taken over unchanged, with sporadic editorial changes for the purpose of intelligibility. The following abbreviations have been used for names of countries:

A	Österreich/Austria
AUS	Australien/Australia
BD	Bangladesch/Bangladesh
CDN	Kanada/Canada
CH	Schweiz/Switzerland
D	Deutschland/Germany
GB	Großbritannien/Great Britain
GR	Griechenland/Greece
IND	Indien/India
IR	Iran
J	Japan
MNG	Mongolei/Mongolia
NL	Niederlande/Netherlands
PAK	Pakistan
PL	Polen/Poland
PRC	Volksrepublik China/People's Republic of China
RI	Indonesia
RUS	Russische Föderation/Russian Federation
TR	Türkei/Turkey
USA	Vereinigte Staaten von Amerika/United States of America

Ali, Mohammad <IND> (Singh, Vijender <IND>)

Phytoconstituents and Hair Stimulant Formulation from Nardostachys jatamansi

Nardostachys jatamansi D.C. (Valerianaceae), commonly known as Indian Nard, spikenard or balchar, is a 10-60 cm high perennial herb found in alpine Himalayas. The rhizomes covered with fibres are considered bitter tonic, antispasmodic, emmenagogue and stomachic and prescribed in the treatment of hysteria, epilepsy, chest pain, convulsions and palpitation of the heart. It promotes the growth of hair and imparts blackness. A steam-distilled volatile oil obtained from the rhizomes contained 72 components. The oil is composed eight monoterpenes (2.0%) and 25 sesquiterpenes (66.0%). The predominant sesquiterpenes were nerolidol (10.1%), ledol (9.2%) and jatamansic acid (7.9%). The silica gel column chromatography of the alcoholic extract of rhizomes of *N. jatamansi* led to the isolation of aliphatic esters and sitosterol. Among the hair dye formulations prepared by combination of the aqueous extracts of *Hibiscus rosa sinensis*, *N. jatamansi*, *Sassurea lappa*, *Embllica officinalis*, powders of Henna, Coffee and Kattha, the formulation containing *H. rosa sinensis*, *N. jatamansi*, *S. lappa* and Henna (5g each) has the highest blackening of colourless wool fibers. The black colour of the fibers remained unaffected for 60 days at room temperature. In sunlight the colour fade gradually. Washing of the colour fibers with an aqueous extract of Reetha for 30 days did not affect the stain of the fibers. Clinical trial of this formulation along with other preparations applied to the scalp of the human volunteers for 30 days indicated that this formulation was acceptable to about 96% volunteers. Among herbal hair nourishing formulations prepared by treating *N. jatamansi*, *S. lappa*, *H. rosa sinensis*, volatile oils of lemon peel, *jatamansi*, orange peel and cymbopogon in coconut oil, a formulation composed of *N. jatamansi* (50 g) in the coconut oil (50 ml) exhibited maximum growth of the hair when applied to skin of rabbits, resulting in the enlargement of hair follicle with hyperplasia of cellular constituents which was proportional to hair length. The same formulation was also applied on human volunteers and the result obtained was similar to that of rabbits.

Antypa, Urania <GR>

Traditional Local Medicine and the Occidental Health System in Cambodia During the French Protectorate — The Motive of Choice

When in 1863 the French colonial system was established in Cambodia, the first concern of the authorities was to organize the economic exploitation of the country. The introduction of the occidental health system (hospitals ...) was necessary for the survival of Europeans. This kind of medicine did not interest the Cambodian people, as the Khmer medicine was linked with the supernatural world and specific ceremonies were also required in case of physical and/or psychological deficiency. The colonial authorities imposed an occidental way of hygiene on the big cities (occidental hydraulic system, sewers ...), in or-

der to protect themselves from disease. Progressively, the medical system became associated with economic development. Some foreign entrepreneurs were interested in investing in the country, but were delayed by the lack of infrastructure and the difficulty of finding workers. The low levels of the Khmer population and various epidemics were additional obstacles. The necessity to impose occidental medicine on the Cambodian people was obvious. As the governor of Indochina Albert Sarraut said, „We must ‘make yellow’ (‘faire du jaune’)“.

Apte, Bhalchandra <IND>

Analysis of Go-mutra and its Possible Therapeutic Implications

Right from Vedic period till today, „Panca Gavayah“ (Five Products from Cow) has a very important place in Vedic polity. It is no surprise that use of this has been woven into the very fabric of Vedic mind, and is employed right from birth rites to the funeral rites as a disease destroyer, as the ritual texts state. Serious studies and efforts are being made to revive it. Since cow-urine is a very important component of this Pancha-Gavya formulation, more detailed chemical studies are being conducted. This presentation is a summary of the same. Chemical studies of the ash from dried cow-writes are made, using advanced techniques, viz. a combination of Flame Photometry, and Atomic Absorption Spectrometry, and, Inductively Coupled Plasma - mass spectrometer. Quantitative and thin-layer chromatographic studies estrogens, Cortico-steroids, and, 17-keto steroids was conducted, as Folin-phenol reagent positives, Tetrazolium Blue positives, and, m-dinitro benzene positive substances. Cow's urine was found to contain various inorganics, including silver, traces of Gold, Na-K in ratio of 4:1 (36%: 9% in dried urine), apart from about 3% urea. Further important findings are, that fresh cow-urine contains 50-100 mg oestrogens/100ml; 20-200 mcg of cortico-steroids/100ml, and, 0.05-0.15mg of 17-keto-steroids/100ml. Therapeutic implications of these findings are obvious. Details of these findings will be presented. This work is a teamwork carried out at the analytical laboratory and Gow-shala at Keshav-Srushti, near Mumbai in India.

Apte, Bhalchandra <IND> (Kulkarni, Yogini R. <IND>)

Anti-nephrotoxic Effects of Mutra-virecaniya and Mutra-virecaniya Herbals using Gentamycin Induced Nephrotoxicity Model in Albino Rats

Aqueous decoction of herbal materials (Gokshura, Punarnava) was administered daily from 9th day for 21 days, by oral feeding, at a dose of extract equivalent to 4g of the herbal material per kg of body weight of rats, daily. One day after the last dose of the trial extract, animals were sacrificed by cervical dislocation. Blood was collected in oxalate and plain bulbs by severing jugulars, both the kidneys were dissected out and preserved in buffered formal-saline for histo-pathological examination.

on. Hemoglobin, urea, creatinin, Na, K, and Cl were quantitated using auto-analyzer, and, histopathology of the kidneys was also carried out. All parameters studied at on autopsy, and, records of body weights, food and water consumption, distinctively showed achievement of normalcy in biochemical parameters, and, trend to normalize histology. Work carried out at Postgraduate Department of Tilak Ayurveda Mahavidyalaya , Pune, India.

Apte, Saurabh B. <IND> (Apte, Bhalchandra <IND>)
Studies in Gandhaka Taila by Modern Methods of Preparation and Pharmacological Testing of Anti-inflammatory, Analgesic and Anti-microbial Activity

The combination of Sulfur-oil is classically prepared by heating at high temperature for a short time (what can be described as HT-ST i.e. High temperature short-time technique), described in detail in texts of Ayurveda. Longer and controlled heating conditions were worked out, to obtain pharmacologically effective products, sulfurated oils. These oils were studied for all possible physico-chemical methods, which showed that, additive compounds are formed, and, they are polymerized too. Pharmacological studies were carried out to assess anti-inflammatory, analgesic and anti-microbial effects, and, a number of modern molecules having these activities were also studied for comparison. It was observed that the oils do have all these good activities, are hold promises of being therapeutically useful. A very early clinical work is also being done. Data on the above aspects will be presented. This work was carried out at IDRAL, Pune, India.

Arora, Saroj <IND> (Kaur, Kamaljit <IND>)
Phytochemicals in Medicinal Plants as Natural Antimutagens

India, with a large reservoir of medicinal and aromatic plants, is a versatile herbarium of the world. Some of these plants have been in use for centuries for their medicinal properties. The medicinal value of plants is due to the presence of secondary metabolites such as phenols, polyphenols, triterpenoids, alkaloids, flavonoids and related compounds. Many phenolic compounds in plants are good sources of novel biologically active natural antimutagens which can eventually be used as chemopreventive/ chemotherapeutic agents. In the present investigation, bark powder of *A. auriculiformis* and *Acacia nilotica* (Leguminosae) were sequentially extracted with benzene, chloroform and acetone and then tested for antimutagenic activities against direct acting (NPD and sodium azide) and indirect acting (2-Aminofluorene) mutagens in Ames Salmonella histidine reversion assay. It was noticed that only acetone extract inhibited the mutagenicity induced by 2-Aminofluorene more significantly than induced by direct acting mutagens. Although studies are in progress to identify the antimutagenic factor(s) by various spectroscopic techniques viz. ¹H-NMR, ¹³C NMR, DEPT-90, DEPT-135, UV and IR, but it can be speculated that antimutagenic potentiality of the polypheno-

lic rich extracts may probably be due to the inhibition of metabolic activity of mitochondrial enzymes in rat liver homogenates.

Aschoff, Jürgen C. <D>
It Works! Tibetan Traditional Medicine for Migraine Prophylaxis

Prophylactic drug-treatment of migraine in Western Medicine (a well defined disorder in Neurology) is a modern achievement of the last 20 years, but has already been practised in some way for about 200 years in Tibetan Medicine. Migraine as an entity is known to Tibetan doctors, when the symptomatology is described to them. But there is no specific name for migraine; instead this kind of headache (mostly beginning in the morning, accompanied by nausea, affects rather younger persons, lasting for about one day) is attributed to a dysbalance of the three „principals of life“ wind, bile and phlegm (tib. Rlung, Mkris and Bad-Kan) and for „Migraineurs“ specially a dysfunction of Mkris with some underlying dysbalance of Bad-Kan is thought to be the cause. In general, each individual has to be checked by his Tibetan doctor in order to define which one or more of the three functions shows the most prominent dysfunction, and accordingly the medical treatment has then to be chosen individually. The most potent ingredient in Byu-Dmar 13 is Aconitine, an alkaloid extracted and purified from *Aconitum napellus*. It is traditionally processed in cow-urine for 7 days. Biochemically, it exerts high affinity to the fast sodium-channel in the open state of its function. As a consequence Aconitine inhibits neurotransmitter-release at low and stimulates neurotransmitter-release at high concentrations in glutamatergic neurons. It is, therefore, conceivable that Aconitine derivatives (Aconines) with less cardiotoxic potential exert a special anti-migrainic activity, and this is most probably the reason for the effectiveness of Byu Dmar 25 (-13) as a migraine prophylactic agent. No kind of modern medicine research equivalent to Western standards has so far been performed with Tibetan Medicine for the treatment of Western like diagnosed diseases. A legalized single patient documentation of 50 migraine patients, treated with Byu-dmar 13, was performed in the Outpatient Department of Neurology at the University of Ulm. In this open trial 42 out of 50 patients have experienced some reduction in migraine attacks after the second month of treatment (given 1 jewel-pill per day every morning).

Asshauer, Egbert <D>
The Historical Development of Tibetan Medicine — An Overview

This is a short sketch of how Tibetan medicine developed until modern times, to serve as an introduction to the plenary descriptions of its development and renaissance in Asia today.

Bagde, Uttamkumar S. <IND> (Lankeshwar, Nilima <IND>)

Mechanism of Zinc Resistance in Shigella dysenteriae

In traditional medicine, great emphasis is laid on the process of detoxification of metals and other inorganics. In the process of Shodhana, these purified metals are further processed in various herbal juices and incinerated 100 times to get the final product (www.ayurvedas.com). Chinese materia medica that was written 2735 B.C. contained many plant and metallic preparations and few animal products. Other studies by Chinese and Japanese investigators have shown a role between herbal preparations containing zinc and reduced symptoms of fatigue and related conditions. Tests done by Yu-Q and Zhan, Q (1990) demonstrated that the amount of available zinc was much higher in an herbal preparation than in an equal molar amount of zinc sulfate, and the clinical effects are noticeably greater. Zinc is found in herbs such as alfalfa, burdock root, chickweed and dandelion. Legumes, lima beans, mushrooms, pecans, pumpkin seeds, soybeans, sunflower seeds and whole grains are good sources of zinc. Zinc is a component of more than 300 enzymes needed to repair wounds, boost immunity and protect free radicals. It is remedy for immune related diseases (colds, infections, slow wound healing, cancer etc. (www.herbadvisor.com). Zinc supplementation in children in developing countries is associated with substantial reductions in rates of diarrhea and pneumonia, the two leading causes of death in these settings (Bhutta et al. 1999) Increasing environmental concentrations of heavy metals pose a challenge to bacteria. In present investigation possible mechanism of zinc (Zn) resistance in Shigella dysenteriae, was studied. While the growth of sensitive Shigella dysenteriae was completely inhibited at 1 mM/ml concentration of zinc, the resistant strain tolerated even 40 mM /ml concentration of zinc. Mechanism of resistance was found to be presence of plasmid. Plasmid was analyzed by agarose gel electrophoresis. Plasmid curing was successful with 2-10% Sodium dodecyl sulfate (SDS) treatment. All colonies on plate after SDS treatment were tested for zinc resistance on nutrient agar containing different concentrations of zinc.

Balzhirov, Bair G. <RUS> (Nikolayev, Serguey <RUS>)

Tibetan Medicine in Buryatia Today and Tomorrow

The success of Tibetan medicine in Buryatia was to a large extent due to Buryatian Lama physicians, the physician and scientist Pjotr A. Badmajew, and, after 1917, Buryatian physicians and scientists supported by the Ministry of Health. Practical Tibetan medicine was transformed in Buryatia. 85% of the medicinal plants are Siberian species; only a few drugs come from India, China, Nepal and Mongolia. New developments such as new biologically active points, and methods of diagnosis, prophylaxis and treatment, are based on the experiences of Buryatian Lama physicians. Newly developed modular technologies contain rational methods and means of Ti-

betan medicine. The following technologies are, inter alia, offered: desintoxication, desensibilising, optimising of adaptive reactions, strengthening of immunity, reestablishment of the microendoecological feeling of wellness, reduction of the side effects of cytostatic and TBC preparations. Research on traditional Tibetan medicine over many years, practical experience in diagnosis and treatment with local medicinal drugs, as well as the setting up of special departments in medicinal establishments of the Ministry of Health, led to successes such as a PC supported facility for pulse diagnosis of the state of health, or medicinal preparations and biologically active mixtures of substances for prophylaxis and the treatment of common ailments. A dynamically developing system of medicine was established in Buryatia, a system that is close to the traditions and culture of the peoples of Buryatia and is based on the Buryatian variant of Tibetan medicine. The Tibetan medicine of Buryatia, developing since the 16th century, takes local specifics into consideration: confessions, climatic and geographic circumstances, way of life, genetic memory of the population, food habits, traditions and culture of the ethnic groups inhabiting Buryatia. Determining the future of the Tibetan medicine of Buryatia is the combination of traditional and modern Western medicine: the development of scientific research, the demonstration of efficiency of offered products and methods, the increase of diagnostic, prophylactic and therapeutic potencies through the development and use of more cost effective, efficient and harmless products and methods.

Banerjee, Madhulika <IND>

Power, Culture, Medicine — Ayurvedic Pharmaceuticals in the Modern Market

The present paper tries to understand the encounter between Ayurveda and the modern market by drawing upon an analysis of the decisions regarding product profiling, positioning and packaging of Ayurvedic medicines by its leading manufacturer, Dabur. These seemingly mundane and economic decisions are seen here as expressions of a deep operation of power, mediated through culture. The analysis takes us beyond the simplified pictures of the rise of modern medicine as the inevitable and onward march of rationality or that of Ayurveda as the helpless victim of modernity. Ayurvedic pharmaceuticals adopted multiple strategies that varied in response to the changing conditions of what appeared as the market but what can be viewed in retrospect as the changing nature of the field of power. The analysis offered here bring out the 'moment of confrontation', the 'moment of withdrawal' and the 'moment of diversion' as some of the strategic responses. These strategies did succeed in creating and retaining a foothold for Ayurvedic medicines in the modern market. But this success came with a heavy price tag: Ayurvedic medicine had to be cast in the mould of modern medicine and disconnected from its relationship to the knowledge system. The analysis brings out some deep ironies and dilemmas inherent in such an encounter.

**Bhalerao, Supriya <IND> (Thatte, U.M. <IND>;
Rege, N.N. <IND>; Dahanukar, S.A. <IND>)**

Concept of Prakriti — A Novel Approach to Evaluate Disease Susceptibility and Drug Response

Introduction: According to Ayurvedic concepts, an individual's susceptibility to a particular disease condition, the disease prognosis and hence the selection of therapy for that particular individual can be determined on the basis of his or her prakriti. It has also been observed that certain diseases predominantly affect individuals belonging to a specific prakriti. Objective: To identify predisposition of individuals of certain prakriti to selected disease conditions viz. hypertension, obesity and epilepsy. Material and Methods: The Institutional Ethics Committee permission was taken prior to initiation of the study. An objective questionnaire has been specially designed for assessment of the prakriti, which has been standardised by correlating the assessment with that by ayurvedic physicians. Using this questionnaire, prakriti of 223 hypertensive patients attending hypertension OPD and 115 epileptic patients attending the Therapeutic Drug Monitoring OPD was assessed. The results obtained in this study were then analysed to correlate the different prakritis with the occurrence of that particular disease. Similar study has been also carried out in 50 obese patients, in which prakriti and its relation to drug response has been also studied. Results: It was observed that out of 223 hypertensive patients 132 patients and out of 115 epileptic patients 81 patients were of pitta predominant prakriti indicating predominance of pitta prakriti in these disease conditions. However, in obese patients it was observed that 26 patients belonged to the kapha prakriti group and the response to anti-obesity treatment, both ayurvedic and allopathy, was poor in these patients. We acknowledge all postgraduate students and research scholars who have worked for the project.

Bhatt, Narendra S. <IND> (Bögle, Reinhard <D>)

Ayurvedic and Yogic — Basic Markers for the Establishment and Maintenance of Your Health

In Ayurveda, healthiness is an attribute that is given to a stage of the living process which is defined by the sum of a number of parameters. The living process undergoes continuous changes from the inner world (the inner context, prakriti) and the outer world (the outer context universe, prakriti). Therefore, being healthy is an ongoing interactive process that progresses from one stage of health to the next and is set in motion by conscious and unconscious actions (vritta) in the sequential establishment of health (svasthavritta). The logic of this process starts with the nature (prakriti) of a single living being (a person, atman, purusa), which acts for and with each person in its own stable natural processes (sva) and which can be grounded therein (stha). It is a sequential regulation that occurs between the person and the (inner and outer) context. Two important criteria in the proper functioning of the biological and psychological processes are hita and sukha; in hita, the processes are stable and useful, while

sukha relates to their being more comfortable and easy to perform. These criteria are further differentiated into a number of markers and the actions that are related to them. Examples of such markers are: drinking water upon waking first thing in the morning, finding a time in the morning to think about one's own wishes and plans, e.g. dhyana (meditation) to follow one's own natural urges, etc.

Bhatt, Narendra S. <IND>

Myth and Matter in Traditional Medicine

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Bode, Maarten <NL>

Indian Medicine and Modern Science — Reworking Indian Medicines by Means of Modern Research Technology and Biomedical Notions

The paper describes and analyses the modern laboratory as a site for the construction of contemporary Ayurvedic medicine. Differences between modern and classical science are discussed. It is argued that though modern science is necessary to make Ayurvedic substances acceptable to authorities and consumers alike, no serious efforts have been made to 'translate' Ayurvedic knowledge into modern scientific parlance. Parallels between classical scholarly knowledge and modern analytical knowledge have been postulated, not argued.

Bögle, Reinhard <D> (Bhatt, Narendra S. <IND>)

Gesundheitsförderung durch Yoga

Gesundheitsförderung durch Yoga und Ayurveda ist ein Schwerpunkt der Gesundheitsförderung der Volkshochschulen. Die Yogalehrerausbildung, die das Yogaforum München e.V. und die Münchner Volkshochschule gemeinsam durchführen, werden auf dem Poster in ihrer Struktur dargestellt. Die in den beiden Abstracts von Bhatt und Bögle vorgestellten Grundlagen von „gesund“ aus der Sicht von Ayurveda und die in Yoga beachteten Eigenschaften an den Marmas als erweiterte Grundlagen von „gesund“ werden kurz abgebildet. Zwei empirische Untersuchungen zeigen die Effektivität auf. Mit Hilfe sportmotorischer Tests wurden die Lernerfolge, die über den Zeitraum einer viermonatigen Yoga-Praxis entstehen gemessen, u.a. der Zuwachs an Balance und die Steigerung der Beweglichkeit. In einer anderen Untersuchung wurde in einer Yogastunde das Kshipramarma aktiviert; die Footprints vorher und nachher zeigen signifikante Verbesserungen, eine Steigerung der Sprungkraft wurde gemessen.

Bögle, Reinhard <D> (Bhatt, Narendra S. <IND>)

The Yoga Attributes Recognized by Marmas as the Orientation for Health

A main goal of yoga is to be healthy, which means experiencing stable processes (culminating in citta vritti nirrodha, i.e. nothing must be set in motion at the moment). Marmas, as defined in Ayurveda, are the meeting points of the seven pranas, i.e. the three dosas, the three gunas and purusha. The primary question is whether a good combination of all these seven processes is possible at these meeting points, or whether improvement can be made at the combination or in one of the processes. A person can be seen as one Marma, while different actions, functions, reactions, etc. which a person can perform can be clearly seen in the seven processes. Similarly, each of the 107 Marmas offers different sensations, functions and possibilities of action. Do they show their functions and processes and can there be a good stable basis (sthira) in these actions which produce a good feeling (sukha)? A good basis in the three dosas consists of guided, controlled movement (vata), controlled intensity (pitta) and controlled, steady endurance (kapha), combined with the cord of the threefold process of attentive thoughtfulness (sattva), spontaneity (rajas) and routine (tamas). These processes, which are observable at the Marmas, are used more in yoga and are brought from an irregular state (ksipta) by changes in pattern, to a more united (ekagrata) and controlled, calm pattern process (niruddha). This can be experienced and demonstrated in an empirical experiment with Ksipramarma.

**Brauer-Gipp, Ingrid <D> (Bögle, Reinhard <D>;
Bhatt, Narendra S. <IND>)**

Demonstration — The Use of Marmas in the Yoga

The demonstration shows how the Marmas, which are explained in Ayurveda, can be used in the Yoga-Asanas. According to us, the Marmas can be understood as a concept which gives a general instrument to assure the quality of the Yoga-Asanas. This knowledge can be used as well for any other of the „techniques of the body“ (Mauss), whether they are Asian like Taekwon-Do, Karate, Kalaripayat, Indian Dance, or western sports, or movements and positions at work or at leisure-time or at home. In all these situations health can be created or disturbed and the quality of the performance can be evaluated. The Marmas are a tool for a movement and position-pattern analysis, but as Marmas are understood biopsychosocially, it is also an instrument of analysis and change of psychological and social pattern. The demonstration will give an idea how this can be done.

Cai, Jingfeng <PRC>

Different Versions of Tibetan Medical Paintings — Historical and Comparative Study

The studies on Tibetan medical paintings have been one of the focuses of research in Tibetology. So far, there are at least 7 different versions of sMan-thang (medical painting) published. More other versions might be published or under preparation worldwide. However, from a histori-

cal point of view, all versions with a complete series or nearly complete series of paintings are derived from a common source, the Lhasa sMan-thang series, 80 paintings in total, prepared under the auspices of the regent of Vth Dalai Lama (1617~1682), sDe-srid Sangs-rgyas rGya-mtsho (1653~1705) at the turn of 17th~18th centuries. Even so, currently, the available versions can be differentiated into only two lines or branches of development, the Lhasa line and the Buryat line of sMan-thang. The discrepancies between these two developmental lines are explored on the aspects of its origin, number of paintings, order and numbering of paintings in the whole series, the illustrations of icons of ancient medical lineage in the first 17 paintings, captions of painting in the series, and the 80th painting, with special reference to its time of drawing, and its real concrete contents of illustration. The significance of the missing paintings in the Buryat series is discussed with its causes of missing inferred. In addition to the above two main lines, there are also minor painting atlas of branched lines published worldwide. A brief introduction is given to the important ones.

Cai, Jingfeng <PRC>

Tibetan Medicine in China Today

Formerly, traditional Tibetan medicine was mainly in Tibet region where the most important medical institutions included the lCag-po-ri 'Gro-phan-gling (Iron Hill Altruistic Medical School) set up in 1696 and the sMan-rtsis-khang (The Medical and Mathematics-calendar Hall) in 1916 where the education training and clinical works were carried out in a rather simple scale. During 1959, these two institutions were merged to form the Lhasa Traditional Tibetan Hospital, which was still maintained in a similar small scale for decades. Since 1978, when China carried out the open-door policy and market-oriented economy, substantial changes have taken place for the last two decades. Still in the same Tibet, cultivation of medical professionals is carried out first by a Department of Tibetan Medicine in the Tibet University, which has been expanded to form an independent Tibet College of Traditional Tibetan Medicine in 1989. Over 500 students have graduated since then. There are also such Colleges in the Qinghai Province, and Department of Tibetan Medicine in the Gansu College of Traditional Chinese Medicine, etc. Besides, the traditional tutor-disciple mode of training also continued in the sMan-pa Grwa-tshang of many lamaseries, like the sKu-'bum lamasery in Qinghai, bLa-brang manastery in Gansu (Amdo), and many other regions with Tibetan people. Moreover, senior graduates majoring in Tibetan medicine and PhD degree and master degree on history of Tibetan medicine were also cultivated. Altogether there are over 30 traditional Tibetan Hospitals distributed nationwide. Even in the capital, Beijing, there is such a traditional Tibetan hospital open to the public, where unique traditional Tibetan therapeutic measures such as medicinal bathing, oil rubbing, bloodletting etc. were administered in addition to the conventional medications. Modern medical scientific techniques and approaches are encouraged to integrate

into the traditional methods, this being recognized as the right orientation for developing the traditional Tibetan medicine today. Regarding the traditional Tibetan pharmaceuticals, dramatic changes can be seen in the production scale and techniques. The traditional drugs are now produced in GMP workshops in modern drug forms. Many Tibetan pharmaceuticals are now distributed for national use as well as for exportation.. Among them, Ratna-sam'pel (Pearl Pills with Seventy ingredients), Mangsbyor, Chang-sbyor, and Pain-relieving Plaster, and many others are included in the 2000 edition of the Pharmacopoeia of People's Republic of China (including its English edition). Publications on Tibetan medicine are flourishing. Among them, the sMan-thang Atlas first published in Lhasa. is worthy of mentioning. International medical exchanges with all continents, including receiving visits from foreign distinguished guests, scholars, and dispatching of delegations of Traditional Tibetan Medicine abroad for delivering lectures and perform clinical treatments as well as involvement in international conferences are also frequent. Conditions in other provinces and regions inhabited with Tibetan people are basically the same.

Chantia, Alok <IND>

Traditional Knowledge of Ethnomedicine in North India

Indian peninsula is bound with peasant society (70%) and 467 tribal groups are living across the country. At least 2000 people get only one doctor; that is why modern medical facility is not common. So with this tradition, the countrymen are looking towards a healthy life by their traditional medical knowledge, which is present in the form of herbs, roots, plants, etc. In this paper, I have discussed many medicines, which are commonly used among Dhankut of Uttar Pradesh, Jaunsar-bawar of Uttaranchal, Santhal and Uranav of Bihar, Bhil of Madhya Pradesh. Polio, ricket, blood deficiency, cholera, T.B., snakebite, dog-bite, body-ache, swelling, fever, etc. are many spheres of diseases, which are cured by North-Indian tribal people try their traditional knowledge about medicine.

Cheturvedi, Suresh <IND>

Neem in Ayurveda for Holistic Health

Neem (*Azadirachta indica*) is one of the important medicinal plants. This is a tree indigenous to all the plains in the Indian subcontinent. It has been cultivated in Africa, Persia, Australia etc. Neem belongs to the family Meliaceae It is called as „nimba“ in Sanskrit language. The etymology of the name indicates the tree as a provider of good health, that without untoward reactions and useful in dermal infestations. The healing medicinal values of neem tree have been recognized for many centuries in Ayurveda. Interestingly each part of the neem is known to be useful. Its root, leaves, bark, flowers, fruits, seeds/ kernel, oil, gum and toddy have been used in Indian Systems of Medicines. The neem and its different dosage (local and systemic) forms have been used in wider clinical conditions. In malarial fevers, intestinal worm, hyper-

acidity, diabetes and skin diseases the neem is administered internally, whereas in ophthalmic diseases, measles and eczema, boils, psoriasis the neem is applied externally. It is also used in cosmetic industry such as in the form of soap, hair oil, talcum powder, facial creams, tooth paste and mouth wash. Thus, neem is a wonder tree, which helps us to deal with a variety of global problems. Today's need of the world is to solve the challenging problems like pollution, epidemics, infections, and population. The neem has become the nature's best source of bio-pesticides, potential contraceptive, immunomodulator. Neem is the ideal plant for environmental safety, the cultivation of which would help to derive every possible benefit from plant. Now it is the right time to create the global awareness of neem as holistic medicine to achieve the health for all. Therefore, the good health always contributes to productivity, economic prosperity and optimization of natural resource for better living.

Chopra, Ananda Samir <D>

Clinical Ayurveda in Germany — What We Do, What We Achieve

The Ayurveda-section at the Habichtswaldklinik AYURVEDA in Kassel, Germany was opened in 1995. A unique characteristic of this section is the fact that it is part of a larger German hospital and wherever necessary we can rely on the infrastructure of a modern hospital (laboratory, x-ray, ECG, endoscopy etc.). Our understanding of Ayurveda as a complementary and alternative mode of therapy is based on (i) constant reference to the ancient tradition (ii) clinical experience as is to be observed in the historical development of Ayurveda (iii) current practice of Ayurveda in India and (iv) critical consideration of modern medical methods as prevalent in Germany. Therapeutically we practice for the most part Pancakarma-therapy including internal and external therapeutic options. With the help of a few case-studies the results of this therapy in various diseases are presented for discussion.

Conrad, Lawrence I. <D>

Tradition and Innovation in Islamic Humoral Medicine

Over the years there have been many contributions to the debate over „tradition and innovation“ in the medical history of Islam. Some research stresses that this tradition is simply Greek medicine expressed in Islamic languages, while other discussions stress aspects of originality and innovation. Here an effort will be made to view the problem in its proper historical context. It cannot be doubted that in important ways Islamic humoral medicine was profoundly conservative. Intellectually it was based on Greek humoral theory as propounded in the works of Galen, the surviving texts of which were systematically sought out and translated into Arabic in the 9th-10th centuries. In some quarters it was also argued, in an interesting spin on Aristotelian epistemology with respect to potentiality and actuality, that the intellectual capacity of the ancients far exceeded that of contemporary times. Thus, even if

one fully exploited one's intellectual potential, one could never match what the ancients (i.e. the Greeks) had already achieved in practice. There are vivid examples showing that Muslim humoral physicians were generally reluctant to oppose Galenic theory. But such observations bear important qualifications. The first is that it can be shown that physicians whose reputations were sufficiently enough to shrug off attacks for diverging from Galen sometimes did so. The renowned doctor al-Razi is one example of this attitude, and it is noteworthy that his comments along these lines come from his case notes. Had we more examples of such literature, we might well discover that this attitude was widespread. The second qualification is that in the face of general conservatism much innovation did in fact occur. This is a difficult area to assess, since it is very easy to oversimplify and misrepresent this state of affairs. The comments of Ibn al-Nafis on the lesser circulation of the blood, for example, are often hailed as a modern scientific discovery, but in fact they were nothing of the sort and in their own time were of no impact whatever. On the other hand, it can be shown that in areas like pharmacology, contagion theory, and surgery, one can find extremely important advances that were of great importance for later medical theory and practice. Overall, the question of tradition and innovation must be viewed against the background of what physicians thought their craft could and should achieve. As opposed to the situation in modern times, when medicine is regarded as a field that has the potential to cure and defeat every malady, medieval practitioners were acutely aware of the practical limitations of their art. Their stress was on prevention of illness and maintenance of good health, not on cures, for the specific reason that in so many cases no available treatment would help.

Czaja, Olaf <D>

The Royal Treasury — Treatment of Combat Wounds in a Tibetan Medical Treatise of the 12/13th Century

The literature on Tibetan medicine of the last decades focuses mostly on the standard work on Tibetan medicine – the 'Four Treatises' (rGyud bzhi). One should mention, however, that the third one – the 'Treatise on Instructions' (Man ngag gi rGyud) – never gets the attention as it would justly deserve from the practitioner's point of view. According to current research this work was compiled in about 12th cent. About in this time the medical treatise that will be presented here was composed: the 'Medical Treatments, The Royal Treasury'. (gSo dpyad rGyal po'i dKon mdzod). Its author Grags pa rgyal mtshan (1147-1216) wrote a work that lives up to its title. He indeed created a handbook for doctors in attendance. Theoretical reflections are treated in passing only. Partly they are not in agreement with those of the rGyud bzhi. This highly interesting work should be shortly introduced in its entirety followed by more detailed presentation of the chapter on treatment of combat wounds. In it one finds instructions for instance on cleaning of wounds, some methods of surgery or 'sealing up' of wounds according to its kind and location. Moreover this method of treatment should

be put basically in relation to medical works of later date in order to show possible standardized kinds of treatment of combat wounds.

Dang, Raman <IND>

Formulation and Evaluation of Gels of Aqueous Extracts of Centella asiatica

Centella asiatica is a herb whose aqueous extract is very useful in the treatment of wounds. As per the literature survey, no topical preparations have been formulated so far in promoting wound healing. Hence in the present work, formulation and evaluation of gels of CAAE was taken up. The plant was collected and aqueous extract of Centella asiatica was prepared by maceration. The yield was found to be 1% from the dried and powdered herb. The estimation of the drug was carried out by ultra violet spectroscopy method at 220nm. Permeability studies of the drug were carried out across the rat skin using a diffusion cell. The cumulative percentage release of the aqueous extract at the end of 8 hours was found to be 21.15%. Acute toxicity studies of CAAE was carried out on albino mice and no mortality was observed up to a dose of 3 gm/kg body weight. Thus, LD 50 was found to be more than 3 gm/kg by oral route.

Dang, Raman <IND>

Tissue Culture of Ocimum basilicum

Few reports on tissue culture of Ocimum basilicum have been published and hence it was thought worthwhile to establish a suitable nutrient media for initiation and maintenance of static cultures of the species and also explore the possibility of production of biologically active constituents in the callus developed on chemically defined media. The sterilised seedlings were transferred to Murashige and Skoog medium with various concentrations of growth hormones for initiation of callus. In order to study the growth pattern of callus, the fresh weight of the calli were noted. To know the origin of callus at the cellular level, histological studies were carried out. The quantitative estimation of terpenes extracted with petroleum ether was carried out by GLC. The initiation of callus was obtained under optimum conditions. The rate of growth of callus was gradual, uniform and the calli were compact, dense and soft. Histological studies revealed the initiation of callus from the central cavity. Presence of linalool and eugenol were detected. An attempt has been made to develop the static culture of stem and root calli of Ocimum basilicum, which is the first report of this species on m.s. medium. — The results of this research will also be presented in a separate poster session.

De Michelis, Elizabeth <GB>

Modern Yoga and Medicine in Dialogue — Certainties and Ambiguities

Yoga, especially in its modernised forms, has become

quite popular in the West, especially from the 1960s onwards. While originally stemming from a speculative religio-philosophical background, it has been mainly seen as a 'tool for health' in the English-speaking countries in which it has evolved as Modern Yoga. But what is Modern Yoga exactly about? Is it a set of hygienic rules aimed at providing us with a sound daily regimen? Or is it about health in the more specific sense of a method for preventing, containing or treating disease? Or is it, as some claim, about healing, thus encompassing a wider range of phenomena than biomedical medicine? Or yet again shouldn't it be seen as aiming at a radical transformation of the practitioner, whether in this-worldly ways or in otherworldly ones as best exemplified by, respectively, Tantric and Vedantic traditions? In sum, is yoga about hygiene and health or about healing and/or transformation? These aims have all been held and propagated by Modern Yoga exponents, and have been occasionally supported, at times opposed and often ignored by modern mainstream medicine, while complementary and alternative medicine (CAM), by and large, has been much more sympathetic and supportive. All in all, however, the position of Modern Yoga within the medical field, and indeed within Western culture at large, is far from clear-cut: we see an alternation of alliances, controversies, dismissals or attempts at cooperation and adaptation. We hear contradictory statements. But far from being random, these shifting positions have a direct relation to specific historical and intellectual events, and indeed examining how medicine and Modern Yoga have interacted with each other over time can help us to understand important aspects of each. A brief survey of this type will be attempted in this paper, which will also provide a definition and contextualisation of what is meant by the expression 'Modern Yoga'.

Devanathan, Deva R. <IND> (Prema, S. <IND>; Saraswathy, Jayaendra <IND>)

Pharmacological Studies on Cyprae moneta

Shells of *Cyprae moneta* commonly known as cowries are called *chozhi* or *palakarai* in Tamil. It belongs to the phylum mollusca and the class gastropoda. Similar to the shells of oyster and chank, *palakarai* also is the shell for protecting the sea mollusk *cyprae moneta*. The shell, *palakarai* is obtained abundantly along the Indian coast. *Palakarai* in ancient days were valued as currency equal to gold. In Egypt, the queen and the rich used to wear it as pendant. In Africa and some other countries cowries are woman's symbol and they are strung together in dancing belts and anklets. In traditional system of medicine 'chozhi' or *palakarai*, the shells of *cyprae moneta*, have been used as medicine to cure various ailments. In no other medical system the use of 'palakarai' has been described as medicine. Even in Ayurveda a very few uses of *palakarai* has been indicated as medicine. Medicinal uses of *palakarai* as reported in Siddha literature's physicochemical studies and pharmacological activities are discussed in this paper. *Palakarai parpam* was found to be effective in anti-pyretic and anti-inflammatory in exper-

imentally induced albino rats. *Palakarai parpam* was also found to be anti-bacterial against *E.coli*, *proteius*, *klebsiella* and *pseudomonas*. In *palakarai parpam* calcium is found to be the major element present, Along with calcium, traces of magnesium, cobalt, manganese, copper, cadmium and lead were also present. The anti-bacterial, anti-pyretic, anti-inflammatory activities and other biological activities claimed, may be attributed to the presence of above elements and their specific ratio available in their complex form in *palakarai parpam*. Further studies on the complex cellular reactions of the traces of elements of *palakarai parpam* are essential to understand and establish the medicinal values and the side effects if any of the drug.

Dharmadhikari, Priya <IND>

A Study of Symptoms in HIV Seropositive Patients in Relation to Rasavaha Sroto Dushti

Introduction: AIDS has changed and challenged all the aspects of medicine for the last two decades. Medical fraternity world over is searching for effective remedy to conquer this disease. To study AIDS from the etiopathological viewpoint of traditional Indian system of medicine (Ayurveda) would help to evaluate its potential in the treatment of aids. This is the objective of present work. Disturbance in any one or more of Doshas Dhatus and Malas [basic constituents of body] causes a disease. An attempt has been made to know the derangement of Rasadhatu or Rasavaha Sroto Dushti in HIV seropositive patients by studying the symptoms and signs. Method: Randomly selected 100 HIV-seropositive patients, diagnosed by two separate 'HIV tridot ELISA' tests were studied. The detailed examination format for a case study was prepared according to Ayurvedic etio-pathological concepts. Various signs and symptoms of derangement in Doshas, Dushyas and Srotasah, especially Rasadhatu and Rasavaha Srotasah were focused. Patients were examined and interviewed according to this proforma. Results: In the observed sample of 100 patients, symptoms of Rasakshaya in the form of Shosha (dryness) and Trushna (Excessive/insatiable thirst); and symptoms of Rasavaha Sroto Dushti in the form of Jvara (fever) and Karshya (emaciation) were seen. In this study, some symptoms which do not belong to classical AIDS syndrome were also detected. Conclusions: The analysis of observations lead to a conclusion that HIV virus mainly affects Rasavaha Srotas along with other srotasah. It also focuses possibilities regarding interpretation and thereby theoretical foundation for treatment of AIDS by way of Ayurveda.

Erdemir, Aysegül Demirhan <TR>

A Study of Turkish Acupuncture Regulation and the Applications of Acupuncture in Turkey

Acupuncture is applied in some consulting rooms and health clinics in Turkey. So, acupuncture is accepted as the therapy of alternative medicine. The regulation of the therapy of acupuncture has come into force in 1991, 29

May. This regulation contains 11 articles. Some knowledge about the description of acupuncture, its kinds, the duties of high board of acupuncture are found in this regulation. This board is in Ministry of Health. It supports the courses, educational programmes with regard to acupuncture and tries to establish the units of acupuncture in the universities. According to this regulation, the doctors who obtain a certificate of acupuncture have the right to apply acupuncture in Turkey. The board of acupuncture studies acupuncturists' certificates. Turkish acupuncturists can obtain these certificates by participating in the courses of acupuncture. Faculties of medicine in Turkey have no departments of acupuncture. Some acupuncturists treat some chronic diseases such as rheumatism, headache, migraine etc. in Turkey. We can give the applications of four doctors from Turkey as an example. For example, Dr. Nimetullah Reshidi was born in Kashgar of Chinese Uighuristan in 1947. He graduated from Xinjiang Medical University of China in 1969. He worked as a translator in the Exhibition of Traditional Chinese Medicine, Acupuncture and Moxibation, organized by the Health Department of Xinjiang Uighur Autonomous Region in 1970. He learned acupuncture here. He studied in the fields of epidemiology and physiology. He came to Turkey in 1985. His physicianship was accepted with an exam. Now, he treats his patients with acupuncture in his own consulting room. Others of these samples are Prof. Dr. Abdülkadir Erengül, Dr. Erol Ünel and Dr. Abdürrahim Görür. Prof. Dr. Erengül was born in Ankara. He is now emeritus professor. He graduated from Istanbul Medical Faculty. He is an anesthetist. He got diploma of acupuncture from the school of Vienna. Now, he treats patients in a center of medicine in Istanbul, and bronchitis, allergy, constipation, cholitis, psychological disturbances, fatness, etc. This center is called Adatepe Health Center. 30-40 patients come to this center for the therapy of acupuncture every day. Dr. Erol Ünel and Dr. Abdürrahim Görür are the other samples from Turkey. Dr. Erol Ünel graduated from Uludag University, Faculty of Medicine. He is a specialist of Physical Therapy. He continued to the courses of Institution of Training Academy of Traditional Chinese Medicine in China and got a certificate from this institute. This certificate was accepted by the Turkish Health Ministry in Turkey. He treats his patients with acupuncture in his consulting room now. Another sample is Dr. Abdürrahim Görür. He continued to the courses of acupuncture. His consulting room is in Adana in Turkey. In this paper, the regulation of acupuncture in Turkey is stressed and some knowledge is given about the applications of acupuncture from Turkey, China.

Erdemir, Aysegül Demirhan <TR>

Use of Herb Teas in Turkey and Some Results

Herb Teas are highly used in Turkey. These are the teas of drugs such as fennel, ginger, camomille, sage, thyme etc. These drugs are also found in herbalists' shops. Kinds of teas are sold in markets. They are all natural products containing no artificial colorings or flavorings. The special aroma-protective sachet keeps this product fresh for

four years from the production date. These teas are produced with the permission of the Ministry of Agriculture. Moreover, they are also dosed according to the Turkish codex. They are the scientific preparations. We can give the tea of sage as an example. Each tea bag contains sage leaves to ensure consistently high levels of active compounds in the pharmacopeia. One tea bag is used per cup. Fresh boiling water is added to tea bag and it is allowed to infuse for 5-8 minutes to bring out the full flavor. Tea is mixed with a spoonful of honey and slice of lemon to taste. Herbalists advise primitive teas' prescriptions to people. These are traditional preparations. For example, ginger is boiled with water and is administered to patient with bronchitis. Herbalists who are found in Egyptian Bazaar in Istanbul sell many primitive prescriptions. Today, old beliefs and traditions also continue among herbalists in the Egyptian Bazaar in Istanbul, root sellers in the other cities of Turkey and old experienced people. Especially old and experienced men notify their knowledge to the new generations. On the one hand, people go to the physician for diagnosis and the treatment of disease, and on the other hand, they resort to the herbalist-shops. The various herb teas are really the safest, easiest and best ways of getting the benefit from aromatic leaves and flowers. The majority of these teas are also antiindigestive and relaxing-making them good to drink last thing at night. The herb teas are believed to have other more important medical properties, too. Eye bright and fennel, for example, are held to be good for the eyes. Lemon Balm Tea is said to prolong life. The medicinal properties of herbs were second in importance only to the culinary qualities. In this paper, the use of herb teas is stressed in Turkey and some samples from these teas are given and some scientific results are obtained.

Fazeli, Mohammad Reza <IR> (Farbod, E. <IR>; Mohammadi, M. <IR>; Samadi, N. <IR>)

Antibacterial Activity of Rosemary Oil Against Corynebacterium xerosis — A Potential Ingredient for Deodorant Production

There is a considerable interest in developing new deodorant products to mask or eliminate axillary odour. Since there is a highly significant association between the level of aerobic Coryneform bacteria, most notably *Corynebacterium xerosis* and underarm odour, the antibacterial activity of rosemary oil was examined against a concentration of 10⁶ cfu/ml of *Corynebacterium xerosis* isolated from axillary vault skin. In rosemary oil dilutions lower than 1%, the number of viable microorganism was increased, while in 1% dilution there was only no increase and in 1.5 or 2 percent dilutions there was more than 5 log reduction from the initial count after 24 h exposure at 37 °C. In 1.5% oil dilution the number of viable microorganism was reduced to 0.1% of the initial count after 30 min exposure. Based on these results, rosemary oil in a 1.5% concentration can be effectively used as an antibacterial deodorant even for high odour types with 6.3 log cfu/cm².

Gadgil, Dilip Prabhakar <IND>

Exploration of Ayurvedic Texts — A Triskandha-kosha Project by Tilak Maharashtra Vidyapeeth

The Ayurvedic texts provide elaborate information about the causative factors, the symptoms and treatment for diseases and health as well. But the information is scattered, intermixed and not easily accessible. The project aims at collecting each and every reference from Charaka-samhita, Sushrutasamhita, Ashtangasamgraha and Ashtangahridaya pertaining to causes to create Hetukosha, pertaining to symptoms to Lakshanakosha, pertaining to treatment to Aushadhakosha. The first two are already complete and printed version of Lakshanakosha (3200 pages of A4 size in three volumes) is available at US \$ 200/-. The work on Aushadhakosha is in progress and would require another five years. The three databases will be interlinked to produce Ayurvedic Diagnostic and Treatment software based on basic texts. The work is of immense importance to researchers to get a well organised information in an easily accessible form. Ayurvedic practitioners will use this as an important tool to treat common as well as uncommon cases. This will throw light on many diseases like Renal failure, Heart-diseases, Cancer etc. in Ayurvedic perspective to be beneficial to mankind. The teachers and students will find this as an exhaustive reference guide for their studies. This will help them to study basic texts in an easy way. The project will bring forth many unseen facets and open new avenues of research. The speaker will throw light on all these aspects.

Gahukar, Dhanraj <IND>

The Effect of Vamana and Virecana Therapies in the Management of Bronchial Asthma (Tamakashvasa)

Tamakshvasa is a most common disease presently reported all over the world. The present medicines like bronchodilator, steroids, antihistamins, etc. are only symptomatic remedies, as there has been no complete curable treatment for chronic Bronchial Asthma. Carakacharyas gave prime importance to Vamana and Virecana therapies against Bronchial Asthma. As stated in the Ayurveda: „Vatashleshmaharair yuktam tamake tu virecanam“ (C. Ch. 17/121). Hence the aim of this clinical study was to evaluate effect of vamana and virecana therapies in Bronchial Asthma on the basis of clinical, laboratory examination, lung function and other tests. In all 45 patients were selected and divided into equal three groups. The clinical study was conducted in three different lines of treatment in three groups as follows – 1. Snehapana, svedana, vamana, dhumapana, samsarjanakrama, samana cikitsa; 2. Snehapana, svedana, virecana, samsarjanakrama, samana cikitsa; 3. Snehapana, svedana, vamana, virecana, samsarjanakrama, samana cikitsa. In this clinical trial significantly better results were seen in group II compared to group I whereas excellent results were noted in group III in which both sodhana therapies were conducted. It can be concluded that virecana therapy is easy, harmless and effective treatment against this disease. If the patient has good strength, both sod-

hana processes can be conducted to achieve good results. This clinical study also supports the authentic statement of Carakacharyas as mentioned above.

Gerke, Barbara <IND>

Problems and Challenges of Traditional Tibetan Medicine Encountering the West

Over the past couple of decades, Tibetan medicine has carved for itself a unique position among 'alternative medicines' in the West. An appraisal of its performance so far abroad, by the way of discussing the variety of problems and challenges it faces, is opportune. The paper addresses areas that call for critical attention and 'innovation': Difficulties in translating Tibetan medical terms for Western patients and vice versa; differences in cultural backgrounds resulting in divergent medical beliefs between the physicians and the patients; expectations of Western patients that Tibetan physicians are unfamiliar with; exacting pre-consultations regime and the brief follow-up sessions by visiting Tibetan physicians; problems in prescriptions arising out of non-standardisation of drug quality; medical and environmental ethics underscoring the fast-degradation of the Himalayan ecosystem from where most of the raw ingredients are extracted. Against the backdrop of the aforementioned issues, the creation of a critical awareness on the adoption of the Tibetan medical tradition into Western health care systems is a necessity. What are the possibilities, as well as the pitfalls of Tibetan medical practice in the West? How can the Tibetan medical tradition survive within a Western medical framework? Does its practice in the West, with the inevitable innovations, harm or support the survival of this corpus of traditional knowledge? What can be done to protect patients' interest from commercial exploitation and to curb the indiscriminate harvest of the wild growing medicinal plants in the Himalayas?

Gerke, Barbara <IND>

Research and Preservation of Tibetan Medicine at the International Trust for Traditional Medicine (ITTM), Kalimpong, India

This presentation and slide show introduces the International Trust for Traditional Medicine, a public charitable Trust founded in 1995 by scholars and researchers of Indian, Mongolian and German origins, with its centre based in Kalimpong, North-Eastern Himalayas. ITTM promotes the study and research of traditional medical systems, with a special focus on Tibetan medicine. The Trust's centre „Vijnana Niwas“ in Kalimpong, provides opportunities for international exchange between students, scholars and researchers and traditional medical practitioners of the region trained in Tibetan medicine and allied medical cultures. This presentation introduces the Trust and its main activities and projects, like the data input of Tibetan medical texts, a glossary database of Sanskrit-Tibetan-English-German medical terms, an on-line bibliography of Tibetan medical literature and the biodyna-

mic cultivation of medicinal plants and their quality testing through chromatography.

Gerke, Barbara <IND>

Tradition and Innovation in Contemporary Mongolian Medicine — The Traditional Mongolian Centre for Liver Diseases in Ulaanbaatar

This slide show presents the approach of the Traditional Mongolian Centre for Liver Diseases in Ulaanbaatar towards an integration of modern and traditional medical practice. Qualified doctors (MDs) with a three-year additional training in traditional Mongolian medicine combine Western and traditional methods of diagnosis. The drug treatment comprises exclusively traditional Mongolian medicine, but is combined with additional therapies of bloodletting, cauterization, yoga, massage, electro-magnet therapy and Vipassana meditation.

Ghahremani, Mohammad H. <IR> (Shabani, M.G. <IR>; Monsef, H.R. <IR>; Iranshahi, M. <IR>; Ostad, S.N. <IR>)

The Effect of Essential Oils of Lavendula officinalis on Dopaminergic System Evaluated by Apomorphine Induced Licking Behavior in Rat

In Iranian traditional medicine, preparations of Lavendula Officinalis, a native plant of low mountains in the Mediterranean cultivated in Iran, have been used for variety of psychological disorders including psychoses and mania. In Europe, traditional preparation of this plant has been used as anxiolytic and sedative. In this study we have employed rat-licking behavior to evaluate the anti-psychotic effect of this plant. Apomorphine activation of dopaminergic system initiates licking behavior in rats. The activation of this dopaminergic system is known to correlate with psychoses and inhibition of licking has been accepted as blockage of dopaminergic system. The essential oil fragment (EOF) was prepared from flowered aerial part of the plant using steam distillation and determined as 1.8% of total extract. The EOF was emulsified by Tween 80 in saline for injection. The nonessential oil part, containing non-aromatic compounds, was extracted by percolation system and resuspended in saline using Tween 80. The male Wistar rats were injected with various doses of EOF (8.5 to 330 mg/kg) or vehicle intraperitoneally. The animals received 330mg/kg of EOF died of toxicity and the groups received 250 and 150 mg/kg were unconscious, retaining only their eye reflexes. An hour after EOF injection, the animals received subcutaneous injection of apomorphine (250ug/kg) and licking was recorded for one hour. Mean licking for apomorphine treated group (control) was 1745±6.5 (n=5) and it was completely blocked in animals received 45mg/kg of EOF (69.6±3.5, n=5). The IC₅₀ of this effect was 18.7±1.2mg/kg. On the other hand, the nonessential oil part of the plant had no effect on licking behavior even in very high doses. In control group mean licking was 1759.5±25 compare to 1758.0±4.5 in animals received

5765.5mg/kg of nonessential oil part. Our results demonstrate that EOF of Lavendula Officinalis blocks apomorphine induced licking behavior in a dose dependent manner. Furthermore, the active compound is only present in EOF of Lavendula Officinalis and the nonessential oil part has no effect on this behavior. To further analyze this effect, bio-guided isolation of active compound(s), using apomorphine induced licking behavior will be performed.

Glausch, Janet <D>

Tantra and Ayurveda — The Medical Chapters in the Kautilyatantra and the Haramekhala

The Kautilyatantra is a quite small, still unpublished Shaitantra text from Nepal; it deals with the traditional shatkarmani, or the „six acts [of magic]“, i.e. immobilization, subjugation, eradication etc. of hostile persons. In addition to this the last chapter lists seven recipes for removing and causing diseases (jaundice, consumption, leprosy etc.) A part of the authorities the Kautilyatantra refers to is handed down to us, thus also the most frequently quoted source: the Haramekhala. This extensive work, which dates back to the 10th century A.D., contains shatkarmani practices like those mentioned above, recipes to manufacture cosmetics, the essentials of inorganic substances etc., as well as dietetics, and – in more than 400 verses and based upon the division of Indian medicine into eight limbs (ashtanga) – the treatment of diseases. Accordingly this substantial source is quoted in tantric shatkarmani treatises, treatises on alchemy etc., as also in medical works. What attracts special attention to the Haramekhala is the amount of rare names of plants and animals in it, and a number of special medical terms, names, synonyms and descriptions of diseases and disorders.

Goble, Andrew Edmund <USA>

Arabic Medicine in Medieval Japan

This paper will discuss how medieval Japanese medicine and pharmacology was influenced by materia medica and formularies found in Arabic medicine. The paper is divided into two sections, with conclusion. Section One. Recent work by Nakamura, Matsuzaki and Endo has raised the issue of Arabic influence on post-Tang Chinese medicine. I will discuss this new insight, based on the Heijjufang, then examine the Japanese reception of the Heijjufang. My discussion is based on an examination of the 1327 Man'anpo of Kajiwara Shozen. I will demonstrate that the references to clinical experience, discussion of materia medica, and comments on new formulas by Shozen, all indicate that the Arabic influence identified for China was transmitted to Japan. Section Two will look at the pharmaceutical trade, and examine the access to non-indigenous materia medica which we can identify for the medieval period. We will note some items which are new (e.g. frankincense), note that new medicinal uses were found for items that had been imported for some time (e.g. cloves). The concluding comments will also address

the Arabic influence in the general context of extensive overseas contacts that occurred in Japan's medieval period.

Gondal, Khawar <PAK>

The Law of Cure, the Law of Dual Effect and the Law Of Crises

„Every acute disease is the result of a cleansing and healing effort of Nature.“ If a certain set of disease symptoms is the result of a healing effort of Nature, and if I give a remedy which produces the same or similar symptoms in the system, am I not aiding Nature in her attempt to overcome the abnormal conditions? In such a case, the indicated homeopathic remedy will not suppress the acute reaction, but it will help it along, thus accelerating and hastening the curative process. „Every agent affecting the human organism has two effects: a first, apparent, temporary one and a second, lasting one. The second effect is directly opposite to the first.“ In order to cure the man, we must free the cell of its encumbrances. Elimination must begin in the cell, not in the organs of depuration. Laxatives and cathartics, by irritating the digestive tract, may cause a forced evacuation of the contents of the intestinal canal, but they do not eliminate the poisons which clog cells and tissues. In stubborn chronic diseases, when the cells are too weak to throw off the latent encumbrances of their own accord, a well-chosen homeopathic remedy is often of great service in arousing them to acute reaction. For instance, if the system is heavily encumbered with scrofulous taints and if its vitality is lowered to such an extent that the individual cell cannot of itself throw off the morbid encumbrances by means of a vigorous, acute effort, sulphur, if administered in doses sufficiently triturated and refined to affect the minute cells composing the organism, will start disease vibrations similar to those of acute scrofulosis, and thus give the needed impetus to acute eliminative activity on the part of the individual cell. The acute reaction, once started, may develop into vigorous forms of scrofulous elimination, such as skin eruptions, glandular swellings, abscesses, catarrhal discharges, etc. The true Hahnemannian homeopath, who believes in his remedies as in his God, will concentrate his intellectual and spiritual forces on a certain remedy in order to accomplish certain well-defined results. — Further explanations and particulars will be furnished in a separate poster session.

Govindarajan, R. <IND>

Anti-oxidant Activity of Acorus calamus

Acorus calamus, commonly called as 'Bach' or sweet flag, is highly valued as herbal medicine in India and European countries. It is an ingredient of several traditional remedies of the Unani, Ayurvedic and modern system of medicine and also herbal insecticide. The alcoholic extract of *A. calamus* rhizomes has been shown to exhibit significant antibacterial and anti-inflammatory effects in experimental animals. The ethanolic extract of *A. cala-*

mus rhizome has been reported to inhibit gastric secretion and protected gastroduodenal mucosa against the injuries caused by pyloric ligation. Free radicals are known to be involved in a number of diseases including cancer, atherosclerosis, cataracts, inflammation, autoimmune disease, lung disease, neurologic disorders, aging and cell death. Antioxidants are substances which scavenge these free radicals and hence are associated in curing of these diseases. In the present paper DPPH (1,1-diphenyl picryl hydrazyl) scavenging activity of the alcoholic extract of *A. calamus* was estimated at 3 different concentrations at different time intervals. The percentage scavenging activity was observed for three concentrations (0.05 ml of different 0.2, 0.1 and 0.01 g/ml) of the extracts with respect to the control. Ascorbic acid was used as standard. Empirical analysis of the scatter plot of the percentage activity with respect to the time revealed a sigmoid curve that became asymptotic to the abscissa (X axis) as the activity peaked. A least square estimation showed that peaking of the activity happened earlier at higher concentration of the extract. A maximum activity of 87.8% was obtained for 0.2g/ml with the peaking of the activity at 227 sec whereas for the sample of conc. 0.01 g/ml the max. activity of 53.68043% was obtained with the peaking at higher time period. Thus as the concentration of the extract is increased the complete scavenging of the radicals or peaking of the activity is faster than at the lower concentration. Thus the dose of the extract must be time dependent.

Hiremath, Shobharani <IND>

Formulation and Study of Wound Healing Properties of Gels of Aqueous Extract of Centella asiatica

Centella asiatica is a herb belonging to the family Umbelliferae. The major chemical constituents of this are saponin glycosides such as asiaticosides, madecassoside and asiatic acid and madecassic acid, two glucose and one rhamnose unit. It also contains brahmoside and brahminoside. For a long time, the powder of this has been used by Indian physicians as a remedy for various skin diseases such as eczema, leprosy either as dusting powder or along with vaseline. Subsequently, the aqueous extract of the same has been found to be very useful in the treatment of wounds. As there were no topical preparations of the same formulated so far as per the literature survey and market survey, formulation of the gels and study of the wound healing properties of the gels was taken up in the present study. Initially, aqueous extract of the herb was prepared by maceration. The yield was found to be 1% from the dried and powdered herb. As no relevant data was available regarding the dose of the drug, wound healing studies were carried out on albino rats for dose fixation using different concentrations of the extract in propylene glycol ranging from 0.5% to 10% w/w. 5% was fixed as the dose of the drug as it showed maximum wound contraction. Gel formulations were prepared using carbopol 934, PEG 400, sodium CMC (high viscosity grade) and HPMC (10,000 cps) in varying proportions. The different formulations were evaluated for

visual appearance, pH, spreadability, homogeneity, extrudability and drug content. The in-vitro release studies were carried out across the rat skin using a diffusion cell. Carbopol 940 and HPMC gels were found to be satisfactory in all the above aspects. Wound healing studies of the formulations were carried out in rats by using the excised wound/open wound model. All the formulations showed good percentage of wound contraction with Carbopol 940 gels giving the best result of 99.7% at the end of 24th day. The gels were found to be stable both physically and chemically at room temperature, 37 degrees and 4 -5 degrees. Thus it can be concluded that the gel formulation with 1% Carbopol 940 was found to be the best with good physico-chemical properties, stability and wound healing properties.

Hougham, Paul <GB>

The Sculpting of Yi Shi (Sensory Intent) — Alchemical Acupuncture and the Imagination of Dragons

This article unfolds the nature of yi shi (sensory intent) from the anatomy and dynamics of yi intention and with reference to ganying (resonance). The context for both yi shi and ganying is cited as the constellation of the practitioner's qi field. With its various shapes, patterns and rhythms (unique to the individual practitioner), the qi field is proposed as the primary diagnostic instrument within Oriental Medicine. The development of the qi field is suggested as dependent on a reciprocal relationship with the elements of the natural world and, within an educational context, a respect for each student practitioner's unique constellation of qi. Qigong teachings are also referenced by way of reaching to the classical forms of acupuncture and cultivating its ongoing authenticity. „Alchemical Acupuncture“ is proposed as a possible focus during this time of acupuncture's development in the West in order to offset the analytical and mentalist tendencies of our native history, the increasingly legalist context within which we practice, and to cultivate the honouring of mystery at the heart of practice. The scope of the article is admittedly ambitious, but hopefully lies within the boundaries of acceptable clarity and relevance. It is intended, in part, as contribution to the antidoting of what Ted Kaptchuk has called being „seduced by reductionism“. Attempts are made at clarity whilst also honouring the mythopoetic and polysemous nature of alchemical language inherent in the material. A textual reference and glossary of terminology are provided to help navigate the discussion.

Hsu, Elisabeth <GB>

Medical Innovation and Tradition in China and Japan — Zhongyi and Kanpo in the 19th and 20th Century

This presentation compares the processes of suppression and revival of zhongyi in China and kanpo in Japan during the 19th and 20th century, processes that are closely linked to political events in the respective countries. For Japan, the Meiji restoration in 1868, after which the go-

vernment adopted German system of medical education, is of great significance for developments that concern kanpo in the early 20th century, and lastly also, for the position of kanpo practitioners in present-day Japanese health care system. For China, after various regional efforts of either innovating or eradicating Chinese medicine in the early 20th century, the Communist Revolution in 1949 which eventually led to the institutionalisation of Traditional Chinese Medicine (TCM) on a nation-wide scale is of great significance. Yet, although the political histories of the two countries vary, and the developments of innovating the traditional medicines vary accordingly, in both countries the hegemony of Western biomedicine is today undeniable.

Huang, Longxiang <PRC>

How to Fully Understand Ancient Chinese Acupuncture Literature?

The full understanding of traditional Chinese acupuncture literature is the premise of analyzing it correctly. Among all the known traditional Chinese medicine documents, from ancient to modern, how much of them and to what degree were fully understood then? What is the fundamental knowledge which may result in a good command of traditional Chinese acupuncture-moxibustion documents? In this paper, I am now ready to answer those questions by presenting a few typical examples while analyzing them.

Hukkeri, Vijayakumar <IND> (Tippimath, C.D. <IND>; Jaiprakash, B. <IND>)

Chemical Investigation and Wound Healing Activity of the Leaves of Acacia farnesiana Willd.

In traditional Ayurvedic medicine *Acacia farnesiana* (Mimosaceae) is known as Durgandakhair. It is quoted to be used for various ailments among which the tender leaves are boiled and applied as a cataplasm to treat wounds and ulcers. In this study the total ethanolic extract of the leaves was evaluated for the various phytoconstituents and screened for wound healing activity on excision, incision and dead space wounds in albino rats. Qualitative chemical investigation revealed the presence of carbohydrates, sterols, flavonoids, tannins, proteins and amino acids. The wound healing activity was found to be statistically significant in all the three wound models studied. Flavonoid and sterol fractions were separated from the total alcoholic extract by preparative TLC and studied for the preliminary spectral data. Three flavonoidal fractions and three sterols fractions were detected. In the excision wound studies, on 6th day the extract treated group has shown moderately significant ($p > 0.01$) activity when compared to the control group and on 9th and 14th day the extract has shown significant ($p < 0.001$) activity when compared to the control group. In the incision wound studies, the extract increased the wound breaking strength significantly ($p < 0.001$) when compared to the control group. In the dead space wound studies, granulation tis-

sue breaking strength was increased significantly ($p < 0.001$) in animals of extract treated group compared to control group.

Huparikar, Rajendra <IND>

Rasavaha Srotaso Dushti Leading to Vatika Hrudroga — Pathogenesis and Management

Concept of srotasah is a unique thought of Ayurveda. Rasadhātu is prime dhātu responsible for nourishment of the body tissues. Hrudaya – organ responsible for circulation of this dhātu throughout the body. Hence for proper functioning of the heart, production of good quality of rasadhātu is required. This quality in turn depends upon proper digestion – proper functioning of Agni – Jatharagni and Rasadhtvagni. Causative factors lead to Agni-vikruti thereby producing Sama Ahararasa. This in turn leads to production of Sama Rasadhātu. This Rasadhātu is not able to nourish Hrudaya. Due to malnourishment of Hrudaya, Hrudroga is manifested. Hence we have to consider Agni, Ama and Rasadhātu while thinking of treatment. The treatment administered accordingly gives us significant results. Full paper will comprise introduction, Samprapti (pathogenesis), methodology, statistical data, results, discussion and conclusion.

Ijaz, Shakeel Ahmed <PAK>

The Action of Centesimal Dilutions of Various Substances on White Blood Cells

The action of centesimal dilutions of various substances on several types of white blood cells has been under study since 1981. Polynuclear basophils are studied most often; they were given this name because their cytoplasm contains granules that present an affinity for basic dyes. These granules are composed largely of polymerized and sulfated sugars. The sulfate functions make the whole highly acidic and create an affinity for basic substances. In these granules, there are also particular proteins that form specific „markers“ for them. When the basophil is placed in the presence of an antigen to which it is sensitive, several enzymatic reactions occur that lead: (1) First, to an influx of calcium ions into the cytoplasm. These ions neutralize the acid functions, causing the cell to lose its affinity for basic dyes. (2) Then, to an extrusion of intracytoplasmic granules. This extrusion enables us to detect, from outside the cell membrane, the specific „markers“ for these granules. The whole phenomenon is known as „degranulation“ or „basophil activation“. It was shown, initially, that some centesimal dilutions of histamine had an inhibiting effect on basophil activation, while other histamine dilutions had no effect. The regularity in the distribution of the inhibiting activity enabled us to create a mathematical model of the phenomenon. After publication of an article on basophil activation with high dilutions of anti-IgE, then the resultant investigation, it became difficult to publish on the inhibition of basophil activation with high dilutions. The criticisms raised by the scientific

journals where these results were presented focused on: (1) The reproducibility of the phenomenon described (inhibiting activity of high dilutions of histamine). (2) The subjectivity and cell counts under the microscope. We responded to these criticisms point by point. (3) On the reproducibility of the phenomenon: a simple protocol permitted confirmation of the inhibiting activity of several dilutions of histamine, particularly 18 CH. (4) On the subjectivity of the method: an automated technique for measuring the activation of the basophils had been developed, based on the expression of a „marker“ for this activation, determined by a flux cytometer. It recorded the inhibiting activity of 17 and 18 CH of histamine. This technique also enables demonstration of the fact that the phenomena described are constantly inhibited by the presence of cimetidine, a specific inhibitor of the given type of histamine receptors. Finally, a study has been conducted involving several laboratories in various countries. It details the reliability of the results and concludes the biological activity of high dilutions of histamine.

Ishtiaq, Muhammad <PAK>

Diet and Lifestyle

The diet should be low in saturated fats and high in fibre. Avoid refined carbohydrates (white bread, sugar), dairy foods and fried foods, keep animal fats to a minimum. Increase soluble fibre especially fruits and vegetables. Cleanse face thoroughly with sulphur based soap. Ensure individual receives plenty of rest and regular exercise. Allow 3 months before expecting any improvement. Useful supplements to promote wound healing, reduce inflammation and infection: 1. High potency Multi containing Selenium, Zinc and Chromium. 2. Vitamin A – 7,500iu daily – boosts the immune system. 3. Silymarin – for its detoxifying properties. 4. Vitamin E – 400iu daily – Helps reduce scarring. 5. Selenium – 200lig daily – for pustules. 6. Vitamin C – 1 gram daily. 7. Echinacea purpurea – 1000mg to 2000mg for 3 weeks. 8. Fructo-oligosaccharides – 2-5 grams daily.

Islam, Nurul <BD>

Three Systems Together

Alternative medicine in Bangladesh context means Unani/Ayurvedic and Homeopathic medicine. Govt. recognizes and patronizes Allopathic medicine. This system through Govt. institutions viz. hospitals and health care centres can offer service to 30% people. The other two systems can serve 50-60% people. Limited health manpower, financial resource and low per capita income all contribute to the poor health condition in the people. Alternative medicines are cheap, easily available locally and popular among the poor. USTC therefore introduces these three systems of medicine through TST (Three Systems Together) programme under the same roof for out-patient treatment. This will facilitate treatment as well as research apart from establishing mutual relationship and cooperation.

Ismail, Khalid <PAK>

Evaluation of Homoeo-Medicine in Cases of Unexplained Infertility

Since time immemorial scientists have been trying to solve the unexplained riddle of infertility. Even with rapid strides in the field of reproduction it is not uncommon to find the cases of unexplained infertility having no obvious organic and physical defects. 20 infertile couples in whom no cause was detected to explain infertility by detailed semen analysis in males and tubal testing hysterosalpingography and endometrial biopsy in females, were selected for study. Most of these cases have already gone through these investigations prior to my consultation, if not then they have been advised to come with the results of these investigations. In these 20 couples micro agglutination test for detecting sperm agglutinins in the sera of husbands and wives was further advised. Couples (10%) out of them were reported positive for autoantibodies as well as isoantibodies against sperms. 3 couples (15%) were shown positive for auto antibodies only. In all these 5 couples (25%) sperm agglutinating antibody titre has been advised. They showed increased titre of 1gA 1gM and serum and raised titre of 1 gG and 1gA in semen.

Jeevan, Ellil Parambath <D>

Ayurveda — My Experiences in Germany

My experiences in Germany. The last 5 years I was working with German patients with the traditional ways of ayurveda. The herbal decoctions, medicated ghees, medicated oils, fermented preparations, Rasayanas etc are directly imported from India and I am practising with oil treatments and Panchakarma treatments. The difficulties in the practise what I am facing here like importing herbal preparations, health insurance policies etc. are mentioned in the presented paper. How we can standardise the treatments in ayurveda, how we can keep the same values of ayurveda without changing the principles, how to know the false practises in ayurveda in Germany etc. can be discussed.

Kang, Han-Rog <GB>

Neo-Confucianism and Traditional Korean Medicine — The Sasang (Four Types) Constitutional Medicine

With a growing interest from the public in the use of complementary and alternative medicine for keeping health, and preventing disease, and treating illness, Traditional Korean Medicine is now playing an important role with Western medicine within the Korean health care system. Especially, the Sasang Constitutional Medicine (SCM) initiated by Yi Chema (1836-1900), a Confucian doctor, is now stirring up public interest and controversies in Korea. Under the outbreaks of unremitting epidemics, he argued that doctors have to respect the diversity of individual for treating patients' illness. He classified men into four constitutional types according to deep structure of four organs formed by the dynamic process of the T'ien

(Heaven) and Ti (Earth). He named those who have a large Lung and a small Liver as the Taiyang person, those who have a large Spleen and a small Kidney as the Shaoyang person, those who have a large Liver and a small Lung as the Taiyan person, and those who have a large Kidney and a small Spleen as the Shaoyin person. He linked four constitutional types with the manifestations of the individual's nature and emotions that stimulate the ascending and descending of Qi in the body. This dynamics of the Qi's ascent and descent makes the different physiological effects. The ideas of SCM are closely related with that of Traditional Chinese Medicine. However, SCM focuses on the critical role of the mind-and-heart to control physical and mental conditions. Yi Chema's theory was strongly influenced by the philosophical debate among Korean Neo-Confucians over human nature and emotions. Compared with China and Japan, the Neo-Confucianism of pre-modern Korea enjoyed an exclusive position as official learning. The paper will examine Yi Chema's original works, such as Tongui suse bowon (Longevity and Life Preservation in Oriental Medicine), Kyokch'igo (Draft on the Inquiring the Properties of Things), and Tongmu yugo (Yi Chema's Posthumous Manuscripts), and show that SCM is a new medical theory established in the context of Korean Neo-Confucian tradition. In the course of examining Yi Chema's theory, the paper will also deal with some contrasting aspects between SCM and Traditional Chinese Medicine, and modern interpretations of SCM.

Kitada, Makoto <D>

Embryology Mentioned in an Indian Classical Musicological Text

Text analysis of the Pindotpattiprakarana (chapter on embryology and anatomy) in the Sangitaratnakara and a comparison with two parallels, namely the Sivagita and the Yogayajnavalkya. This leads on to a short discussion on the influence of acoustic perceptions by the pregnant woman on the embryo, as explained in Ayurvedic texts.

Kletter, Christa <A>

Aiming at a Modern Pharmacopoeia of Tibetan Medicine

Traditional Asian medical systems have become very popular in Western countries and new treatments and herbal products have been introduced to the West. Due to the strict sanitary rules in European countries the traditional preparations have to fulfil the same requirements as other medicinal herbal products. Therefore, Tibetan medicines which are administered to patients in European countries will have to pass certain examinations in respect to identity and purity of the used ingredients. The Tibetan materia medica encompasses plants, minerals and animal parts, although plants represent the majority of the used medicinal ingredients. When dealing with the botanical determination of Tibetan plants or the identification of the respective plant parts the natural scientist faces various problems. The traditional Tibetan plant de-

scriptions cited in the traditional texts do not contain those details which are necessary for the scientific identification of the plant species. The identity of medicinal plants collected at present may differ from those plants referred to in traditional texts. This may be due to other collecting regions in the past, to the existence of numerous synonyms and local names and to different local traditions that Tibetan doctors follow. Until now scientific publications on Tibetan plant drugs are rare, at least in the West. Besides, no modern pharmacopoeia of Tibetan medicine, which could provide guidelines for checking Tibetan drugs, exists. However, in an earlier interdisciplinary project on Tibetan medicinal plants the author contributed to the research of Tibetan plants by giving particulars for the examination of 100 selected plants (vide Ch. Kletter, M. Kriechbaum [2001], *Tibetan Medicinal Plants*, medpharm Scientific Publishers, Stuttgart; CRC Press, Boca Raton, London, New York, Washington, D.C.). The first edition of a Tibetan pharmacopoeia should include a selection of the most frequently used Tibetan plant drugs, especially those which may be found in preparations distributed in the West. Such a pharmacopoeia should contain monographs headed by a Tibetan plant name, define the botanical identity of each drug-furnishing plant, include microscopic descriptions of the used plant part(s), refer to other plants which may be traded under a specific Tibetan name, comment on the plant's use in Tibetan medicine and inform about its toxicity. The first step in achieving this goal is establishing an interdisciplinary and intercultural network of skilled persons and institutions who are willing to participate in such an ambitious undertaking.

Kondrashov, Alexej N. <MNG>

Manuscripts on Mongolian Traditional Medicine

The study of Mongolian traditional medicine manuscripts provides access to a rich medical heritage of nomadic tribes of Central Asia. Medical manuscripts contain valuable information about medicines and raw materials used in traditional medicine. Most of them have been written in old Mongolian and Tibetan languages. The paper provides detailed information about authors and manuscripts of Mongolian traditional medicine. Mongolian medicine has accumulated the rich tradition of Tibetan medicine which came to Mongolia via Buddhism in 14th-17th centuries. Since that period major Tibetan medical manuscripts became popular among Mongolian doctors, some of them have been translated into Mongolian language. The first school of Tibetan medicine was opened in Mongolia in 1685 by Luvsandan (1636-1704), famous Mongolian doctor. He wrote many valuable manuscripts which are important even now: „Teaching about different diseases“ (Nad zhi dvi vi rnam vshad), Recipe Collections (Man rag vdu za seg szhor) etc. There is a growing tendency in many countries to combine modern Western Diagnostic and Treatment methods with traditional medicine. Mongolian medicine is no exception, however very little material has been translated so far. The history of Mongolian traditional medicine is not studied very much.

Therefore one of the first tasks is an analysis of written sources of Mongolian traditional medicine.

Kuczkiwicz-Fras, Agnieszka <PL>

Medical Terminology of Perso-Arabic Origin in Hindi

In my paper I want to present and analyse Perso-Arabic vocabulary connected with medicine, which has been adopted by Hindi during the long period when this language co-existed in India with Persian. I will try to settle the probable ways of borrowings and their chronology. The role played in this process by Unani medical system, that appeared in India simultaneously with other aspects of Perso-Arabic culture, will also be discussed. The analysed material will be divided into four main semantic groups: 1. names of diseases; 2. names of parts of human body; 3. names of medical plants and substances used for preparing medicines; 4. other words, referring to the medical and philosophical background of Unani.

Kulkarni, Bhagyashree <IND> (Bhalerao, Supriya

<IND>; Kulkarni, B.A. <IND>; Ravishankar, B.

<IND>; De, Subrata <IND>; Dwivedi, R.B. <IND>)

Development of Objective Parameters for Snigdha and Ruksha Gunas

The word Guna literally means property of a given substance. Ayurveda has described guna of all the medicines used, however, the body elements are also described to have certain gunas. Though gunas are conceptualised as a basic property, it is not clear whether the properties are physico-chemical or based on the pharmacological effects. Disease is considered as an imbalance in the Gunas of body elements and treatment is nothing but administration of medicines providing the gunas necessary to restore the equilibrium. Ayurveda has listed 20 therapeutically important gunas, which are described in pairs with antagonistic action with each other e.g. Guru, which means heavy, and Laghu, which means light, form one pair. A thorough study of this concept can prove useful for development of Ayurvedic pathological investigations as well as tools for quality control of various Ayurvedic formulations, for which the basic need is to objectivize the Gunas. The present study was conducted to develop some objective parameters for the quantification of Gunas for which one of the pairs, Snigdha and Ruksha was selected. Four drugs representing Snigdha guna and four drugs representing Ruksha guna were selected for the study. These drugs were evaluated for physico-chemical and pharmacological properties. 12 physico-chemical and 3 pharmacological parameters were selected on the basis of the literature found in Ayurvedic texts. Out of the selected parameters, 3/12 physico-chemical and 2/3 pharmacological parameters were found to be significantly correlated to the expected quantification of gunas and therefore supported the hypothesis of the study.

Kulkarni, Pramod <IND>

Rasavaha Srotas — Pathogenesis and Treatment

Importance of srotas is a specialty of Ayurved while diagnosing and treating any disease. Concept of 'srotas' and its role in manifestation of a disease is different from a system concept of modern medicine. Points to ponder: – 1) Causative factors vitiating 'Rasavaha srotas'. These include dietary as well as behavioral causes. 2) Symptoms of increase (vriddhi) in Rasa dhatu. 3) Symptoms of decrease (kshaya) in Rasa dhatu. 4) Symptoms caused by trauma (viddha) to Rasavaha srotas. 5) Symptoms of vitiation (pradoshaja) Rasavaha srotas. 6) Important diseases of Rasavaha srotas (1) Jvara (2) Pandu (3) Amavata. 7) Guideline for treatment of 'Rasavaha srotas' diseases (1) General (2) Particular.

Latif, Abdul <IND> (Saleem, A. <IND>; Rahman, S.Z. <IND>; Tahseen, M. <IND>)

Double Blind Controlled Clinical Studies of Unani Herbo-mineral Cream on the Cases of Psoriasis

The Unani system of medicine is one of the renowned systems in the world, recognized by World Health Organization. Psoriasis is a dramatic skin disorder, creating a problem as social stigma, which focuses the attention of the physicians and researchers towards this disease. Keeping this in view we have formulated a unani-herbo-mineral cream that comprises of calomel, camphor, litharge and Psoralea corylifolia Linn.oil, prepared in cream base. The study is divided into two parts: (a): General physical and chemical studies i.e; smooth test, pH measurement, melting point, solubility test and General clinical pharmacokinetic studies. (b): The double blind clinical controlled studies of Herbo-mineral cream were done topically on the 75 cases of Psoriasis of different age and sex, to validate the safety and efficacy of topical application of this cream, was carried out in three groups. The result has been evaluated. Total therapeutic response (TTR) was 92% in which 68%cases were cured, while 88% TTR in which 60% were cured; with the standard (Dithranol ointment) group and control (Placebo) group was shown 32% TTR. The side effects were observed and study of relapse of cases was also done. However, this cream has less toxicity and relapse was also less as compared to the Ditharnol. So, this cream is significantly potent topically and of value in the treatment of Psoriasis.

Lo, Vivienne <GB>

The Dunhuang Medical Manuscripts

Until recently Western historians of Chinese medical manuscripts have neglected mediaeval China in favour of researching recently excavated, tomb manuscript finds from the late Warring States and early imperial period. But the mediaeval period was an important time in the formation of many aspects of Chinese Medicine and the Dunhuang Manuscripts offer us a unique window of opportunity for research. The British Library and the Biblio-

theque Nationale in Paris are home to the major part of this unparalleled collection of scrolls brought to Europe by archaeologists at the beginning of the last century. The larger part of the collection are Buddhist texts, but over one hundred are of medical interest. In the last two years there has been an increasing fascination with the stories that the manuscript tell us about medicine in the mediaeval period. This paper will give a general introduction to recent scholarship before giving a detailed analysis of two of the manuscripts which constitute the earliest extant images of acumoxa points.

Mahmood, Sajid <PAK>

Homoeopathy in Coronary Artery Disease

Coronary Artery Disease is becoming a more common disease in today's world. Management of anginal pain with drugs like Aconite, Arnica, Cactus, Crataegus and so on are well known to homoeopathy over the last two centuries. Whereas quite a few cases have shown objective improvement in the blocks of coronary circulation., the drugs noteworthy of mention are Baryta Mur, Naja, and Secale Cor. We are able to obviate bypass surgeries, angioplasties and so on. The quality of life is vastly improved. I shall discuss here with a few case reports.

Manohar, P. Ram <IND>

Discovering Tradition in Heterogeneous Expressions of Ayurvedic Medical Practice

A variety of Ayurvedic medical practices are in vogue in the Indian sub-continent today. Advocation of a three tier system for transmission and application of Ayurvedic knowledge at three graded levels of expertise seems to have traditionally facilitated the growth of heterogenous medical practices. This trend was further enhanced by religious, social, economic and medical factors that operated in exemplary manner to create diversity in Ayurvedic practice in geographical regions like Kerala. Interaction with Western Medicine in the colonial period gave a new dimension to the heterogeneity of Ayurvedic practice. Even as the traditional diversity began to dissolve in the backdrop of commercialization and globalization, Ayurvedic practice also diversified on the basis of differences in diagnostic, therapeutic and pharmaceutical approaches triggered by the impact of Western medicine. Innovation, adaptation, distortion and imitation are attitudes that underpin the metamorphosis of Ayurveda in contemporary India. Visible on this mosaic of changing practices to the discerning eye, is a tradition of Ayurveda that has resisted distortion and has adapted with ingenuity to effectively survive in adverse circumstances. By carrying forward many practices that were lost in the process of modernization, the Ayurvedic tradition of Swami Dattatreya still lives through disciplic succession and is available for examination to the sincere aspirant seeking out the soul of Ayurvedic knowledge in the modern world. An attempt is being made to profile a representation of the Dattatreya tradition in Kerala, characterized by the completely personali-

zed approach to diagnosis, treatment and pharmacy, based on pulse lore. The emerging diversification of medical practice in Ayurveda is being classified in the process to develop a perspective for understanding Ayurveda in the status quo.

Manohar, P. Ram <IND>

The Meaning of Tradition and Innovation in the Contemporary Practice of Ayurveda

Tradition represents knowledge transmitted from one generation to another generation. What is currently discovered constitutes what is not traditional because it has not been transmitted across generations. A body of knowledge is traditional only in degrees and has both traditional and non-traditional components at any given point in its evolutionary history. Ayurveda is no exception to this rule. Much of what is known today in the name of Ayurveda is traditional and has been transmitted across generations over a period of more than two thousand years. However, in the wake of colonialism and the advent of the scientific method, Ayurveda has been challenged to adapt itself to changing socio-cultural conditions in an unprecedented manner. Has this trend made Ayurveda more modern than traditional? This question can be satisfactorily addressed with reference to the three tier structure of traditional Ayurvedic knowledge viz., Principle (tattva), Theory (sastra) and Practice (vyavahara). It has been traditionally accepted that the level of practice is the most unstable with the maximum scope for innovation. The level of theory is relatively stable with limited scope for innovation. And the level of principle is considered to be most stable with literally no scope for innovation. From this viewpoint, Ayurveda would continue to be a living tradition in the strict sense of the word as long as changes are reasonably restricted to the realms of theory and practice. On the other hand, major changes at the level of principle would indicate a dying tradition. This paper is an attempt to understand the meaning of tradition and innovation in the field of Ayurveda in the contemporary world. It looks at the prospects of Ayurveda continuing to flourish as a living tradition even as it makes innovative changes to adapt itself to changing conditions in a technologically advancing world.

Manyam, Bala V. <USA>

Tradition and Innovation of an Ayurvedic Drug for Parkinson's Disease

Parkinson's disease was described under the name Kam-pavata in Ayurveda. Herbal preparations made from the seed powder of *Mucuna pruriens* (Atmagupta, Sanskrit), which contained levodopa, were used as a treatment. Currently, levodopa is the major drug for the treatment of Parkinson's disease. We report an innovative approach to reevaluate the efficacy and safety of this traditional remedy applying modern techniques. The various components of the seeds were subjected to HPLC analysis to

identify and quantify the „lead“ compound. Using a 6-Hydroxydopamine rat model and rotameter, *Mucuna pruriens* seed powder was compared to synthetic levodopa. Dose for dose, *Mucuna pruriens* was twice as effective compared with synthetic levodopa. Using albino rats, attempts were made to determine LD50. The maximum drug dose that could be administered as a single bolus by an oral route was 10 g/kg body wt. with no mortality or morbidity. Translated to humans, this dosage is 14 g/kg body wt., which is not possible in a single dose. Thus, the drug can be considered literally free of any acute toxic effects. Using a commercially developed product from *Mucuna pruriens*, HP-200 a dose-response evaluation of 2-week and 52-week toxicity studies in rabbits and rats were performed. Complete blood count, blood chemistry, and urine analysis and tissue examination at necropsy (gross and histological) failed to reveal any adverse effects, establishing the safety of the drug. Absorption of HP-200 in rats was confirmed by plasma measurement of levodopa. Stability studies of exposing the drug to 37°C showed the drug was stable for the duration tested (2 years). In a multi-center clinical trial of HP-200, in 60 patients with Parkinson's disease, revealed the mean dose was 6ñ3 sachets (7.5 g each) per patient per day. The drug was well tolerated. To our knowledge, *Mucuna pruriens* was the first Ayurvedic drug subjected to „modern“ methods of drug development such as biochemistry, nutrition analysis, animal model, pesticide and microbiological analysis, and toxicological testing. It is approved as Investigational New Drug by the United States Food and Drug Administration. These studies show that the cost-effective pre-clinical and simultaneous clinical data collection can be undertaken in Ayurvedic drugs and HP-200 developed from the seed powder of *Mucuna pruriens* appears to be safe and effective in the treatment of Parkinson's disease. Further, drug development from Ayurvedic sources is highly cost effective compared with that of synthetic sources with a high degree of success. [Supported by grants from the National Institutes of Health and Program for Advancement of Commercial Technology.]

Maric, Sonja <D>

Tibetan Medicine — 10 Years Experience in Education of Western Medical Doctors

The development of an education in TM for medical doctors originates from the collaboration of the Yuthok Institute for Tibetan Medicine Milano/Italy with its German section and the Institute for East West Medicine in Bad Homburg v.d.H./Germany under the roof of the German Medical Acupuncture Association/DÄGfA. For the last 10 years medical doctors have been studying TM in a 20 course programme in Bad Homburg v.d.H. In 2001 the first group passed the exams which led to a diploma of basic education in TM. The aim of developing an education in TM for medical doctors is the integration of TM into the western health care system and especially to elaborate a medical standard for the practice of TM. This educational curriculum for medical doctors is unique in

Europe.

Maric-Oehler, Walburg <D>

Integration of Asian Medical Systems into Modern Western Medicine

The historical and theoretical background of the main Asian medical systems is demonstrated in a transcultural setting. Main focus is on Chinese, Tibetan and Indian medicine, especially their respective meaning and expansion in the West. The experiences with theory and practical application have already a significant role in the Western medicine. Due to acupuncture's general acceptance and being widely spread it plays a key role among doctors and patients. Germany can claim over 50 years of experience with acupuncture as part of a 'foreign' medical system. Through discussions about the importance of Asian medical systems in our western medicine and healthcare, its practice, teaching, and research three possibilities appear: alternative, complementary, integrative. Integration models for acupuncture are already in place and partially tested. The inclusion of other paradigms in our medical system through a pluralistic and interdisciplinary approach develops the expansion of the knowledge framework.

Matin, Md. Abdul <BD>

The Innovative Role of Homeopathy in the Field of Traditional Medicine in Bangladesh

In the Asian countries, the alternative traditional medicine plays a role of major therapeutic system from the early period of history. With the passage of time, the ancient systems of traditional medicine (like Ayurveda and Yuni systems) fell behind in the race and Homeopathy took the place of popular therapy among the 85% of the population in the rural areas of Bangladesh. Presently this popularity of Homeopathy exists in the whole of the subcontinent due to its similarity with and also its superiority over the other traditional systems of medicine, and consequently it has taken the place of traditional medicine in the whole region. To-day, the Homeopathy of this subcontinent plays a leading role in its development in the whole world.

Mayanagi, Makoto <J>

Research on Recently Discovered Medieval Chinese Medical Manuscripts

Much valuable information on ancient Chinese medicine can be obtained from research on recently discovered manuscripts, including the Xiaopin Fang preserved in Japan and fragments found in Dunhuang and Turfan. For example, a comparison of the Xinxiu Bencao manuscript kept in the Nin-naji temple in Japan and of the Zhenglei Bencao with the Dunhuang manuscript Stein 9434v reveals some interesting writing errors in the former.

Minaii Zangii, Bagher <IR> (Aminii, Mohammad Abdollahi <IR>)

Teratogenic Effect Study „Trigonella foenum graecum“ on Embryonic Rat Liver

„Trigonella foenum graecum L“ (fenugreek) is a dietary vegetable which has been employed as an herbal medicine. Its seeds are known for their carminative, tonic and antidiabetic effect. In addition, the seeds' extract has been used as an antineoplastic agent. The purpose of study is to investigate possibility of teratogenic effect of fenugreek aqueous extract on embryonic liver. The pregnant rats (weight 190-210g) were divided into 4 groups and treated with 3 doses of Trigonella extract (0.8, 1.6, 3.2g/Kg) on their tenth day of pregnancy. The control group received distilled water. The animals were examined for the extract LD50 and the embryos were studied for mortality rate as well as morphological and histological observations. The result of this study showed that hepatocytes had lost their radiate and consecutive forms and sinusoids were dilated and blood cell classes decreased in a dose-dependent manner. Therefore (fenugreek) aqueous extract could show teratogenic effects in liver at the examined doses.

Mir, Abdul Latif <PAK>

Role of Asian Medicine in Emergency Cases

In this lecture I am going to demonstrate two cases. A. Case of sub-arachnoids hemorrhage. B. A case of ruptured spleen. In both the cases investigations were performed pre and post Asian Medicine treatment, viz. C.T. scan, sonography, MIR Lunkar puncture etc. Asian Medicine approach to the above cases is explained including scope and limitations for the same.

Monsef, Hamid Reza <IR> (Amin, Gh. <IR>; Aboutorabi, H. <IR>; Faramarzi, M.A. <IR>)

Ethnobotany and Phytochemical Data of Medicinal Plants in Rouin Region

An ethnobotanical study about the native medicinal plants of Rouin region has been undertaken to record their traditional indications and to evaluate their phytochemical constituents. The collecting of the ethnobotanical information was carried out by presenting the herbarium samples to the healers, and the collected data has been compared to the traditional and scientific resources. Among the collected plants, 35 specimens have valuable indications in the treatment of various ailments such as Achillea for gastrointestinal disorders, Biebersteinia for analgesic and antispasmodic, Fumaria for dermatitis, Malva for cold and respiratory disorders, Scrophularia for antibacterial effect. In the phytochemical part, four major constituents of plants have been investigated: alkaloids, flavonoids, tannins and saponins. The complementary study on the selected plants regarding pharmacological effects are in process.

Mutatkar, R. K. <IND>

Community Health — Reproductive Health

Traditional Medicine has to become a part of National Health Care system to play its rightful role. Ayurveda as a traditional medical system can contribute more in preventive and promotive aspects in community health. In a priority area of Reproductive Child Health, cosmopolitan or modern medicine does not have much to contribute to improve lactation or mitigate anaemia. Great and little traditions interact closely in the area of RCH. Not only the traditional practices are followed in the homes of village people and poor people, they are practised even by lady gynaecologists and lady paediatricians in regard to their personal lives. There is need to document these practices and weave them into national and international RCH programmes.

Nadkarni, Shailesh <IND>

Bhasma — Speciality of Ayurveda

Ayurveda, the science of life, is based on principles that clearly enshrine the use of natural substances for maintaining of health as well as setting of disease process right, „Lokapurusha Samya Siddhanta“, that talks about the similarities in the nature and the human body, clearly explains the rationale behind the usage of the substances available in the nature for the purpose of health of human body and mind. The natural substances can be divided into three major categories: 1. Plant kingdom, 2. Animal kingdom, 3. Khanija Dravyas, i.e. the minerals and metals. Ayurveda advocates conversion of the minerals and metals into a form that can get assimilated in the body and is known as „Bhasma“. It is important to know that Bhasma does not mean only an oxide or a sulphide of a substance. It means the conversion of minerals and metals into form that is made bio-available to the body and hence, can impart its properties to the body tissue cells. The Alchemists of the yesteryears, starting from Nagarjuna, have described the processing of the minerals and metals to convert it into such bio-available form. The Seers of Ayurveda have prescribed specific tests such as Rekhapooratva, Varitaratva and so on that can ensure the micro-fined quality of Bhasma, but it is essential in today's world to fix more objective parameters which will be universally accepted and are acceptable to today's scientific community. Hence, we feel that it is important that universal parameters not only for the usefulness of the time tested Bhasma but also for batch to batch consistency of the quality of the Bhasma have to be adhered to. The elaborate process of Shodhana i.e. purification and Bhameekarana to convert the metals or minerals in their Bhasmas not only renders otherwise toxic substances into non-toxic ones but also renders them bioavailable for the tissue cells of the body. The paper proper will discuss the toxicity studies of the Bhasma of objectionable metal according to the modern science – lead.

Nadkarni, Shailesh <IND>

Need to Recognize Ayurveda as Complete Science

„Science covers a broad field of knowledge that deals with observed facts and relationships amongst those facts“ states the World Encyclopedia while explaining the meaning of the word ‘science’. The above description fits the science of life Ayurveda perfectly. Ayurveda not only deals with corrective measures referred today as ‘treatment’ of various diseases but also explains the causes of the disease, the etiopathology as it takes place in the body and does and don'ts for individuals as per their body needs and physiological set up. The age old science, Ayurveda also explains the specialty fields known as the eight branches of Ayurveda and explains in detail the usage of natural substances, be they from Vegetative Kingdom, Animal Kingdom or Metals or minerals, for the maintenance of health as well as curing of a disease. Explaining the treatment methodology in absolute clarity, Ayurveda explains when and what to be used to expect results. It also deals with prognosis of the disease, the methodical conclusion about the cure that can be expected and the limitations of the treatment. Looking into these aspects from the correct perspective, it clearly implies that Ayurved is not only a complete science, but, perhaps THE solution for today's health problems, be they of mental or physical origin. Ayurveda is not just a corrective science but is a much more comprehensive Complete Science. It is imperative for the world scientific community as well as administrative machinery across the globe to take cognizance of this fact and instead of dealing in Ayurveda in piecemeal manner, accept it as a complete science for perfect Health Care of the entire Human race.

Namboodiri, K. Krishnan <IND>

Management of Diabetes mellitus — An Ayurvedic Approach

Ayurvedic System of Medicine clearly defines this disease and its line of treatment. Diabetes mellitus is known to Indians from Vedic period onwards by the name Asrava (Prameha). They were treating this problem very effectively at that also. Diabetes is also known as Madhumeha in Ayurveda. According to Ayurveda, prameha is divided in 4 major types (and total 21 types): 1. Kapha type (again divided into 10 types), 2. Pitta type (again divided into 6 types), 3. Vata type (divided into 4 types), 4. Juvenile diabetes for children (for unhealthy practices of parents and/or due to the sins of past-birth) This study evaluates the efficacy of Classical and Traditional Ayurvedic line of treatment in above different Diabetes types.

Nanal, Vilas Madhusudan <IND>

Evaluation of Manasa Prakruti — Its Relevance in Selection of Career Option

Introduction: Ayurveda the indigenous health care delivery system has a clear three tier structure: Tattwa, Shashtra and Vyavahara. This is a living tradition. The thrust

being on prevention failing that cure. In both states the role of Prakruti is an important consideration. Method: Evaluation of Sharira Prakruti done before then the candidates fill a questionnaire of open ended questions, as per their answers and a personal interview the final Manas Prakruti (Sattvika, Rajasika or Tamasika) is estimated and advise on his/her future career option rendered. Result: periodic follow up at the end of semester for the duration of course helps confirm the estimated Prakruti and final placement in industry proves the validity of the finding. Similar work is in process for the students admitted to the Ayurvedic colleges. Conclusion: the initial results are encouraging and further work in various fields to be done. We have undertaken the same for a group of engineers of railways and armed forces. This helps in revealing the psychological profile of the individual and helps the management to assign proper work to him and prevent potential loss of time, money and resources.

Neumann, Josef N. <D>

Tamil Medicine in the Perception of the Pietist Missionaries of the Danish-Halle Tranquebar Mission in the First Half of the Eighteenth Century

It is no longer possible to ignore the question of encounter and cooperation between persons from different cultures in the nations of the Third World in connection with the establishment and development of a system of effective public medical care since the first confrontation between indigenous and Western medical systems and forms of therapy during colonialism. This is not merely a theoretical question. Medicine, oriented basically to practice, can only give due justice to the question of how people from different cultures can effectively communicate about their differing interpretations of sickness and healing in the concrete situation of medical action. Medically oriented research on enculturation has the task here, by analysis of historical and contemporary situations, to explore and discuss the ways in which individuals from different cultures perceive the health behavior and forms of therapy of the respective Others and what repercussions these experiences have in turn on their own understanding of disease and healing. In the search for ethnomedical-historical models of enculturation, a significant possibility for investigation arises from the fact that Pietism in Halle in the eighteenth century generated a manifold array of cultural contacts. The missionaries of the Danish-Halle Tranquebar Mission (1706) who departed together with Bartholomäus Ziegenbalg (1683-1719) did not only seek encounter with the Tamils in the domain of religion but also perceived their culture and lifeworld in its multiple diversity. It was only in this framework that they confronted the conceptions of sickness and healing common to their South Indian interlocutors. Using the example of the Danish-Halle Tranquebar Mission, the lecture attempts to describe the European view of the medicine of a non-European society in a particular temporal and cultural space. On the basis of the mission reports sent back to Halle in the period 1710-1769, it explores (1) how the Pietist missionaries perceived Tamil

traditional medicine against the background of their own enculturation, (2) what interests guided them, and (3) their behavior toward South Indian forms of therapy in their everyday contacts.

Nouri Mugahii, Hossein <IR> (Behnam, B. <IR>); Minaee, B. <IR>

Comparative Study of Malva sylvestris (M.S.) and Bromhexine HCl (B.H.) Consumption on Intraepithelial Mucous Glands (IMG) of Chicken

The advantages of herbal products are at the viewpoint of modern medicine. To identify the effects of (M.S) extract on (IMG), this study was planned. It was administered to chicken orally and nebulizing, and were compared to oral (B.H) and nebulizing normal saline. We studied 5 groups of animals (six in each). In oral route, 5 ml of the extract (10%) and 5 ml of (B.H) were used every 12 hours. In nebulizing route, 1 ml of the extract (5%) and 1 ml of normal saline was used. A group received no drugs as control. After a period of 12 days, all of the animals were sacrificed to search for (IMG) part of trachea in 4 sections. After staining by H and E and PAS methods, 20 slides were prepared for each chicken and studied by LM. The number of (IMG) was counted in each sample. Also, the size of mucosal glands and cilia in each group were measured (based on 1 to 4 plus) to compare. The results indicated that nebulizing of (M.S) increases the number and the size of (IMG), also the size of cilia, compared to other 3 groups, significantly ($P < 0.05$). In addition, the oral (M.S) extract use resulted in an increment in number of mucous glands but not in size, significantly ($P < 0.05$). So we concluded that (M.S) extract, in particular its nebulizing administration, has the best mucociliary function activating role in this study.

Ortlieb, David <CDN>

The Intradermal Healing Needle and the Technique Eliminating Pain in One Treatment

The Intradermal Healing Needle is a new and revolutionary addition to healing science. This new form of therapy is based on the ancient theories of the Nei Jing and Ashi points of Traditional Chinese Medicine with integration from some of the needling techniques applied in Wrist/Ankle Acupuncture and cat gut therapy. Along with the ancient theories the Intradermal Healing Needle also incorporates the modern sciences of neurology, dermatomes and piezoelectrics. The Intradermal Healing Technique has proven especially effective for localized pain (one treatment for mostly all types) as well as in treating ailments such as organ disorders. Revolutionary also is the design and application of the Intradermal Healing Needle. Doctor Zhounghua Fu invented the Intradermal Healing Needle and technique. Dr. Fu, armed with ancient text and modern science, felt that there had to be a more effective way of eliminating pain. So beginning six years ago he began the development of the needle and the technique. This current developed method involves a single needle placed intradermally and left in position(s) for

twenty-four hours. With this needle and technique all the pain could be eliminated with no further treatment. Also this technique has no side effect and a patient can continue with normal daily activities. From a modern perspective the Intradermal Healing Needle stimulates the bodies immune system for a longer period of time and directly addresses the A Delta fibers which send nerve impulses the quickest and circumvent the other nerves messages. This is accomplished by inserting the needle into the soft connective tissue layer. The Intradermal Healing Needle also takes advantage of the nerve columns, which rise to the surface, by directing electrical impulses towards the column and down into the deeper fascia balancing the ionic flow. With no previous experience a practitioner can learn and master the technique in a day. To date the application of the Intradermal Healing Needle has many clinical trails and was applied to over forty thousand patients. Compared to current methods of reducing pain, the Intradermal Healing Needle treatment has the potential to promote speedy healing and lessen discomfort. As well, patient visit times can be reduced and unnecessary surgery can be prevented. This results in much saving on healthcare costs.

Ostad, Seyed Nasser <IR> (Khakinegad, B. <IR>; Sabzevari, O. <IR>)

In Vitro Study of Fennel Essential Oil Teratogenicity on the Rat Embryo Limb Buds

Fennel, *Foeniculum vulgare*, has been used as estrogenic agents for millennia. Specifically, they have been reputed to increase milk secretion, promote menstruation, facilitate birth, alleviate the symptoms of the male climacteric, and increase libido. Fennel essential oil (FEO) also possesses emmenagogue and galactagogue properties. Seeds of fennel are used in folk remedies for treatment of dysmenorrhea. This traditional usage might be related to antispasmodic effects of FEO. Our previous experiment confirmed this hypothesis and showed that FEO has significant effect in dysmenorrhea (Ostad et al, 2001). The use of FEO is now increasing in Iran rapidly in these patients, however it is great concern about its potential teratogenicity due to estrogen like activity. Limb bud mesenchymal cells, when grown in high-density cultures, can be differentiate into a number of cell types, including cartilage and muscle, and have been used extensively for studies of in vitro chondrogenesis. The limb buds of day 13 of rat embryo were dissociated to separate cells by mechanical and enzymatical methods. A 20 ml of high density of cells (2×10^7 cells ml⁻¹) were cultivated in the DMEM+F12 medium contains FBS and antibiotics. The cells were treated by different concentration of FEO for 5 days in 37°C and 5% CO₂. Retinoic acid and highest volume of vehicle was used as positive and negative control, respectively. Using alcian blue, a stain specific for cartilage proteoglycan, teratogenic effect of different concentrations of FEO was evaluated by this method. 50% inhibition of differentiation was considered as indicative of teratogenicity (Flint, 1993). Furthermore limb bud micromass cultures were evaluated for differen-

tiation by immunocytochemical techniques using the BMP4 antibody labeling kit. Results indicate by increasing doses the number of differentiated foci decreased but when these results normalized by viability of the cells, the number of differentiated foci did not alter significantly compare to control. These results indicate that FEO is not potentially teratogenic and may be of use in the dysmenorrhea. (Ostad et al [2001]. *J. Ethnopharmacology*, 76: 299-304.)

Pal, Madhabendra Nath <IND>

Health Through Self-regulation — An Insight from Ayurveda

Viewed in the light of modern science, the Tridosha theory of Ayurveda relates to Bioequilibrium among physical, physiological and psychological functions when they operate in Harmony with one another; that leads to Health. Intrinsically, „Hurry, Worry and Fury“, the three major Killers, affect Bioequilibrium and Health adversely. So one should behave and conduct oneself neither too fast nor too slow, but at Optimum speed, through Reasoned Thinking, with Calm and Restraint, so as to contribute to the emergence of Bioequilibrium and Health. This is an in-depth study revealing Consciousness to be the Prime Operator of Life (POL), that through application of Mind, regulates such Conduct, and this is what is Self-regulation, that ensures Health, denoting a state of life, where the Ability to Heal, that is, Ability to Ensure Harmony among Functions, remains Active and Operational.

Pari, L. <IND> (Venkateswaran, S. <IND>)

Antidiabetic and Antioxidant Effect of Phaseolus vulgaris in Experimental Diabetes

Phaseolus vulgaris L (Leguminosae), commonly known as 'kidney bean', is a food item of mass consumption in Asian and Eastern countries. The antidiabetic, antioxidant effect of an aqueous extract of *Phaseolus vulgaris* pods, an indigenous plant used in Ayurvedic medicine in India, was studied in streptozotocin-diabetic rats. Antidiabetic effect: Oral administration of the extract of *Phaseolus vulgaris* pods (PPEt) (200 mg/kg body weight) for 45 days resulted in a significant reduction in blood glucose, glycosylated haemoglobin, with an increase in total haemoglobin and plasma insulin. The activities of glucose-6-phosphate dehydrogenase and hexokinase were significantly decreased, where as the activities of gluconeogenic enzymes such as fructose-1, 6-bisphosphatase and glucose-6-phosphatase were significantly increased in the diabetic liver. Antioxidant effect: The extract also caused a significant reduction in thiobarbituric acid reactive substances and hydroperoxides with an increase in reduced glutathione, superoxide dismutase, catalase, glutathione peroxidase and glutathione-S-transferase in the liver of streptozotocin diabetic rats, which clearly shows the antidiabetic and antioxidant property of PPEt. The effect of PPEt at 200 mg/kg body weight was more effective than glibenclamide

Penkala-Gawecka, Danuta <PL>

Restoring Tradition — Recruitment of Spiritual Healers in Kazakhstan

The first decade of the new independent Republic of Kazakhstan brought about enormous popularity of complementary medicine in its various forms. The official politics favours national Kazakh culture, including what is understood as the heritage of the local traditional medicine. However, also other forms of complementary medicine are accepted or at least tolerated. This attitude stands in striking contrast to previous attempts of the Soviet regime to destroy the so-called „superstitions“. In today's Kazakhstan the practices of spiritual healers, including shamans, are generally based on tradition. However, during the period of persecutions the continuity of tradition was partly interrupted. Its revival is connected with the special strategies for recruitment of healers from patients, chosen by an experienced shaman or other healer who knows the meaning of some symptoms and can make them meaningful for the others. Key figure in this analysis is an Uighur woman-shaman and her clients. The main purpose of the paper is to examine the role of this way of recruitment as the means to restore the broken continuity of tradition. On the other hand, the situation of medical pluralism offers multiplicity of concepts and practices from which even spiritual healers, seen as „keepers of tradition“, draw. Globalization of various medical (and religious) ideas of different origins lies here in using them in healers' strategies adopted in order to broaden the social and ethnic basis of their clientele.

Prasanth, Raghavan <IND>

The Technique of Pulse Examination in Ayurveda

Literature and living traditions: Pulse examination is the most important of the eight locations of investigation (aS-TasthaanapariikSaa) to be examined for diagnosing a disease in Ayurveda. Explicit reference to pulse examination is seen only after the 13th century in Ayurvedic literature. It appears that the technique of pulse examination has been transmitted through the living traditions rather than literature of Ayurveda. The art of pulse diagnosis was mastered by rigorous training under a master and not by study of literature. Concept and practice: The pulse is not merely an index of cardiovascular function. It reflects the condition of the nervous system and extends even beyond into the realm of praaNa. Thus, it is an index to the psycho-physical constitution of the individual and its variable states in health and disease. Even subtle changes in the mind and body are reflected in the pulse. Like the fingerprint, each person's pulse is unique. In the first stage of training, the student develops the ability to recognize the characteristic variations in his/her own pulse in different conditions. In the next stage, the ability to recognize an individual by pulse examination is developed. Then the observations are extended to varying conditions in health and disease till the student develops the tactile sensibility and mental sharpness to recognize the subtle variations in the pulse. The accuracy of pulse examination

is dependent on the state of both the observer and the observed. The early morning hours before the sun becomes warm is considered ideal for examining the pulse. This paper is an attempt to profile the salient features of pulse examination in Ayurveda and point out its various applications in diagnosis, prognosis and management of diseases.

Prema, S. <IND> (Elango, V. <IND>. ; Kannan, N. <D>)

Hypoglycemic Activity of Abrahaparpam in Epinephrine Induced Hyperglycemia in Male Albino Rats

Abrahaparpam is a herbo-mineral drug used by Siddha system of medicine for curing diabetes. It is a compound drug preparation containing mica (muscovite), purified and processed in various herbal extracts and then calcinated. To find out the hypoglycemic effect of Abrahaparpam, epinephrine induced hypoglycemic rats were subjected to treatment. Epinephrine produces hyperglycemia by stimulating hepatic glycogen degradation. It is likely that sub groups among diabetics will emerge in which the catabolic hormones (like catecholamines) will have a differing significance with respect to their role in hepatic glycogenolysis and subsequent hyperglycemia. Anti diabetic drugs were found to enhance liver glycogen contents of normal and in treated animals. It is well established that insulin can suppress hepatic glycogenolytic effect in diabetics. In the present study, it is seen that the drug Abrahaparpam is able to inhibit the hyperglycemia produced by the glycogenolytic effect of epinephrine in experimental animals. This may be due to the effect of the drug on the glycogen metabolism in liver or by promoting the secretion of insulin, thereby suppressing the hepatic glycogenolysis, caused by the catabolic effect of epinephrine, in experimental rats.

Prets, Ernst <A>

The Carakasamhita — An Examination of Selected Editions and Manuscripts

The aim of this paper is to present the ongoing project of a text-critical edition of the eighth chapter of the Carakasamhita's Vimanasthana. All available manuscripts and editions, as well as the preserved commentaries will be taken into account to provide a basis that is philologically sound. The eighth chapter of Vimanasthana has been chosen primarily to facilitate a better understanding of the tradition of debate in the early period of Indian philosophy as this chapter contains an important and well-known passage regarding debate. Moreover, the critical examination of this passage's manuscripts and editions as well as their reciprocal relationship should provide a significant impulse for the future examination of the entire text. Even though the Carakasamhita has been published more than 40 times in the last 150 years, the occurrence of more than 500 variants in this chapter alone, and the existence of two versions of the dialectical proof both in the editions and various manuscripts consulted

so far, necessitate a critical stemmatological and palaeographic examination of the manuscripts and a careful consideration of the material upon which the available editions are based. The project will also shed light on various aspects of Indian medical didactics as well as the history of medical science and its sociology.

Raghavan, R. <IND>

Application of Ayurveda in the 21st Century

As we step into the 21st century, Ayurveda is gaining global prominence in the wake of renewed interest in natural approaches to healing, collectively referred to as Traditional Medicine (TM) or Complementary and Alternative Medicine (CAM), albeit they are not legally recognized as medical systems in most parts of the world. Much ground has to be made in understanding what contributions Ayurveda can make to provide health care to people who have access to sophisticated and technologically advanced medical care. It is pertinent to recognize the limitations acquired by the practitioners of Ayurveda due to loss of tradition and changing socio-cultural conditions. Indeed, there is great disparity in the expertise of Ayurvedic physicians who are moulded by age old traditions and formal institutions. The fuller potential of Ayurveda unfolds in an environment where both the physician and the patient co-operate without compromising the basic principles of Ayurvedic healing for petty commercial gains in the guise of convenience. This paper is an attempt to point out areas of strength in Ayurvedic practice that can significantly and positively impact the health of humanity at large in the contemporary world. From primary care to critical care, the potential of Ayurveda is fascinatingly wide both as frontline treatment and as a complement to modern medicine. The conceptual framework of Ayurveda gives ample scope for innovation and novel approaches to tackle new medical problems. The principles of Ayurvedic medicine can be creatively applied to manage diseases that were not mentioned in the traditional nosology. A successful outcome depends on patient compliance and the physician's ability to individualize the formulation and treatment method.

Raghava Varier, Ramesh <IND>

Scope for Innovation in Ayurvedic Pharmacy

The avenues for innovation in Ayurvedic pharmacy are twofold. One is the combination of herbs for therapeutic purposes. The other is innovation in dosage form and presentation. The foundational concepts of therapeutic combinations are: 1. Every substance in this universe has a potential medicinal value. 2. The natural resources in a given locality are best suited for the people living there. 3. A drug is the right formulation of raw materials that correlates with a specific condition of an individual. 4. The scope of formulation is unlimited as every patient creates the opportunity to discover a new formulation. The ability to use formulated drugs distinguishes a physician from one who has only the knowledge of raw mate-

rials. The ability to appropriately modify formulations makes one a skilled physician. The ability to formulate specific drugs for each individual distinguishes the expert from the mediocre who can only use drugs formulated by others. An expanding knowledge of raw materials must go hand in hand with accentuation of the ability to formulate them into drugs. In Ayurveda, herbs are contrived into formulae using different rationale in each situation for achieving different purposes. They can be classified into major drug, supportive drug, synergizer, detoxifiers, additives and so on. Innovative application of the concepts of Ayurvedic pharmacy can go a long way in developing new formulations using new raw materials in different geographical locations for managing unique health problems that are manifesting in a fast changing world.

Rahmani, Seyed Ali <IR>

Familial Marriage and its Connection with Congenital Anomalies

Because there is a high rate of familial marriage (F.M) in Iran, we decide to study about it and its effect in congenital disorders such as blindness (B), deafness (D) and Congenital heart diseases (CHD). Work began with providing a special questionnaire for B and F, and research began in B and D schools; for the CHD patients that have had a open heart surgery, data was extracted from hospital records of them. In control group from 416 families that was selected randomized., 91 families, about 21.87 percent, had F.M.; from 424 patient about 58 percent resulted from F.M, and about 16.5 percent had positive family histories. In blindnees patients, from 93 B, about 54 percent of patients had F.M and 44 percent had positive family histories. In CHD, from 75 patients about 30 percent had F.M. Finally the X 2 test and odds ratio was done, in comparison of D and B with F.M and positive history and control group, result was significance ($P < 0.001$) and odds ratio for B = 4/22 and D = 4/93. In CHD, the X 2 test was done and F.M effect in CHD was positive ($P < 0.001$) and also odds ratio for this study was 1.6.

Ramashekar, Tiruvur <IND>

Unique Research Methods of Traditional Systems of Medicine are the Need of the Day

Ayurveda, the traditional system of India is based on sound observation, scientific analysis, critical appraisal of facts collected, intuition and wisdom. The medical principles are a result of the above on the foundation of research conducted for many years on thousands of patients irrespective of religion, region, sex, age etc. After careful considerations of principles, practices, seers who were not bound by time or space decided that „One man's food is another man's poison so how can medicine which is more potent than food be the same for all?“ When no two individuals (genetic dissimilarity), siblings, show equal appetite, likes, dislikes, physical features, emotional reac-

tions how can same medication suit all? Individual is to be treated, not a disease as done in the conventional system of medicine. The paper highlights the following aspects in detail: 1) The fallacy of Placebo, concepts of this in Ayurveda; a person's thoughts are more important, his faith in his doctor is a major step in correction of imbalances, leading towards perfect health. 2) Medicine as per body weight seems illogical if adopted by Ayurvedic doctors; surgical instruments, medications in Ayurveda were tailor made for each patient. Gene therapy, genetic transformation not new to Ayurveda. 3) Controlled randomized study-publication bias, usually sponsored by pharmaceutical companies which have vested interest in the outcome of the research; biased researchers may highlight only benefits, iatrogenic effects shown minimal, but in ancient days Ayurvedic seers were true scientists who put service to mankind above all. Doctors were thought incarnations of God in India. 4) Illogical study pattern. Study conducted in one part of the world may be unsuitable for the patients living in other parts. Medical statistics based on thousands of patients for a decade or so may still be insufficient to draw conclusions, which could be applied universally. 5) Psychological factor is more important. Mice are not miniature men. Animal experiments may lead research into blind alleys. Ayurveda has studied many animals, birds, insects in depth. 6) Iatrogenic issue. Any drug released after extensive study may show many iatrogenic effects, as one single drug is not a panacea for all. The paper looks at: fallacies of the prevalent research methods, why they are illogical and unscientific. The second aspect is what methods could be more suitable applicable scientific to be adopted in research of traditional systems of medicine in general and Ayurveda in particular.

Ramaswamy, N.M. <IND>

Traditional Medicines and Medicinal Plants Research and Development in India

All systems of medicine in India function through two social streams, viz. Folk stream and Classical stream. Folk stream comprising mostly the oral traditions is practiced by the rural villages and based on inherited traditions known as Local Health Traditions. The classical system comprises of the modified and organized medicinal wisdom with sophisticated theoretical foundations and philosophical explanations expressed in classical texts. Medicinal plants are used at the household level in a self-help mode. Practitioners of Indian System of Medicine and Health use medicinal plants in preventive, promotive and curative applications. The Indian Systems of Medicine, viz. Ayurveda, Siddha, Unani and Homeopathic system, predominantly use plant-based raw materials in most of their preparations and formulations. At present collection of medicinal plant is from the wild, and collections involve destructive harvesting. India is rich in medicinal plants diversity. In-situ and ex-situ conservation practices are in vogue. Systematic cultivation of many medicinal plants needs specific cultural practices and agronomical requirements. These are species-specific and are depen-

dent on soil, water and climatic conditions. Hence intensive research and development work has to be undertaken to formulate good agricultural practices which will include appropriate selection and identification, propagation methods, cultivation techniques, harvesting, post-harvest treatments, storage, quality control and marketing. At present, national organizations, CSIR, DBT, ICAR, ICFRE and State Agricultural Universities, State Forest Departments and NGOs are working on medicinal plants improvement and development programmes. National and State Medicinal Plant Boards are being established. More details on these and the research work being done at our centre will be presented.

Rane, Sulabha <IND>

To Prepare Gandhakadruti and Study the Characteristics of its Values

A Gandhakadruti is a medicine, which is in a very small dose of 2 or 3 drops per day. It is mentioned in a very old and ancient book Rasaratnasamuccaya. It has got a more important role in the Ayurvedic cikitsa. It is like a Sukshma aushadhi. It is a kalpa. The procedure of preparation is a Taila Prakriya but it is not a taila/oil. It's a kalpa and it contains not only Gandhaka, but other Ayurvedic herbs too. I choose this medicine because it is in a small dose. It shows great effect in many diseases and is taking a very important role in Ayurvedic cikitsa. This is proved in an ancient book also. I prepared Gandhakadruti according to the mention in the ancient book only. Then I have taken it for investigation of its values. 1. Acute toxicity of Gandhakadruti on various organs of white mouse. 2. Preliminary toxicity. 3. LD50 value of Gandhakadruti according to the Gaytonde committee guideline in albino mice by the oral route following the method of Litchfield and Wilcoxon (1949). 4. Chemical analysis of Gandhakadruti for findings of sulphur contents, ash value, acid soluble ash, solubility. 5. The work in evaluation of Gandhakadruti against M. Lepae and M. Tuberculosis is still under experimentation.

Raphals, Lisa <USA>

The Baoshan Medical Divinations

This paper explores the logic of the iatromantic records excavated at Baoshan, which throw increasing light on the role of divination in the development of medicine in early China. Inscribed bamboo strips from the tomb of a high Chu official include a series of medical divinations on his behalf during the last two years of his life (Strips 197-276). The divinations span a three-year period, and include records of multiple sacrifices to Chu gods and ancestors. The paper provides a detailed analysis of the divination sequence, including the interactions of „crack-making“ (bu) and „stalk-casting“ (shi) methods and the interactions of multiple diviners (all named in the text). It also comments on the affinities of the Baoshan divinations to Shang and Chu divination and Han case histories, and on the implications for the development of wuxing

and yinyang theory in a medical context.

Rasekh, Hamid R. <IR>

Cytotoxic Effect of Trachyspermum copticum Extract on Four Human Cancer Cell Lines

Trachyspermum copticum extract has been used for treatment of inflammation and other medical conditions in Iranian folk medicine. Since there are suggestions for its possible cytotoxic activities, the following study was designed to assess such activity. Aqueous and ethanolic extracts of the plant were used for their cytotoxic effect in four different human cancer cell lines (A-375, A-549, A-2780, and HeLa) using neutral red assay. The cells were placed in 96-well plates at final concentration of 25,000 cell/well and were placed in cell incubator overnight after which they were exposed to various concentrations of both extract types. Twenty four hours after exposure, the medium was aspirated and cells were incubated with neutral red solution. Three hours later absorbance was determined at 540 nm. The IC₅₀ values of ethanolic extract for A-375, A-549, A-2780, and HeLa were 199, 355, 156, and >1000 µg/ml, respectively. The values for the aqueous extract were >1000, 560, 688, and 149 µg/ml, respectively. The results indicate that A-2780 is the most sensitive to the aqueous extract and HeLa is the most sensitive cell line to the ethanolic extract of Trachyspermum copticum. It is suggested that the difference of activities is due to the presence of various active substances present in the two extracts. More studies are underway to further determine the possible mechanisms of action and potential anti-tumor activities of the plant.

Rasekh, Hamid R. <IR>

Sub-chronic Toxicity of Teucrium polium in Rats

Teucrium Polium L. (TP) is widely used in traditional medicine of many countries including Iran. There are various reports about pharmacological properties of TP such as calcium antagonism, anti-ulcer, anti-diabetic, and etc. There are few reports about possible toxicological effects of this plant. The present study was designed to evaluate the subchronic toxicity of TP total extract in rats. Sprague-Dawley rats (40 males, 40 females) were divided into four dose groups (10 animals/dose/sex) and was gavage daily with either 100, 300, or 600 mg/kg of total extract for 45 days. Control group was given normal saline. Body weight and food consumption was monitored daily. After 45 days, the animals were sacrificed and hematological and biochemical parameters as well as weights of left kidney and liver were measured. There was no significant difference in hematological parameters in both sexes as compared with their respective controls. In biochemical parameters, a significant increase ($p < 0.05$) was seen in both ALT and AST enzyme activities in female rats receiving 300 mg/kg of TP. There was also a significant increase in liver weight of females rats receiving 600 mg/kg. No other significant change in any other parameter was observed ($p > 0.05$). Present data suggests that

female rats are more sensitive to higher doses of TP and that liver could serve as a target organ in oral toxicity of this extract.

Rashid, Saifur <AUS>

Traditional Medicine and Medical Practices in Bangladesh — An Anthropological Overview

In the recent years, interest in herbal/plant medicine and indigenous medical practices have been getting importance worldwide. The role of traditional healers and the use of local plants, herbs and roots in curing diseases have been getting importance worldwide. As a country of rural societies, in Bangladesh, a large portion of the population still relies mainly on traditional practitioners and local medicinal plants to satisfy their primary health care needs. Practices involving use of traditional medicines vary greatly from place to place, region to region and community to community as they are influenced by factors such as economy, culture, mentality, philosophy and environment. Studies reflect that the history of using plants against various diseases can be traced to the long past in Bangladesh. Herbal drugs are being used as cure various illnesses in Ayurvedic, Unani, Kobiraji and other traditional health practices from time immemorial. Despite the existence and expansive use of traditional/herbal medicine, it has yet not been officially well recognized and established and is facing the questions of validation and standardization of phytomedicines and safety aspects of the preparation of medicines and efficacy of healing practices. Thus the present paper, based on an anthropological study conducted in three villages in different locations, focuses on the socio-economic background of the traditional medical practitioners and the people who are using traditional medicines, cultural and religious aspects related to health seeking behaviour, efficacy and safety aspects of the preparation and the use of medicine, the process of treatment and the interrelationship of patient and the practitioners. The specific objective of the study was to examine whether non-availability of modern health facilities, or the higher cost involved with modern health system are responsible for not seeking health support from the modern practitioners or not. The study findings reveal that education, communication, economy, availability of modern doctor and health services and religious beliefs are the major factors for using traditional medicine in these three selected areas. The study areas include: one tribal community from a coastal location, one community from a peri-urban location which is very close to modern health facilities. The other one is a rural community from very remote areas, where modern medical facilities are not available. Interviewing, informal discussion, case study and observation were the main techniques of data collection.

Rengasamy, Palaniappan <IND> (Williams, Prakash G. <IND>; Gowrisankar, R. <IND>)

Antibacterial Activities and Preliminary Phytochemical Analyses of the Medicinal Plant Solanum trilobatum

Antimicrobial properties of the different parts (leaves, fruits, and flowers) of the medicinal plant *Solanum trilobatum* were investigated using disc diffusion method. Both cold and soxlet extractions were performed to extract antimicrobial compounds employing different organic solvents such as ethanol, methanol, chloroform, Chloroform:methanol (2:1), methanol:chloroform (3:1). The antimicrobial potential of various extracts were tested against fifteen pathogenic microbial strains which include nine gram negative and five gram positive bacteria and one fungal strain. The present investigation revealed that generally all the extracts of the herbal plant showed significant antimicrobial properties against the various microbial strains tested. The chloroform and methanol extracts of fresh leaves showed higher inhibitory action and it was less in the ethanolic extract. The antimicrobial activity of soxlet extracts of fresh leaves was found to be higher than that of crude extracts. In contrast the antimicrobial activity of the soxlet extract of fresh fruits showed a slight decrease in their degree of inhibition, when compared with crude extract. Higher inhibitory action was noticed in fresh fruits than that of dried one. The flowers of *S. trilobatum* showed significant antimicrobial property in Chloroform:methanol (2:1) combination rather than in chloroform and methanolic extracts. The saponified lipid fraction of the leaves of the herbal plant exhibited higher inhibitory activity, when compared with unsaponified fraction. Preliminary phytochemical analysis of the leaves of the medicinal plant was also investigated.

Roushan Zamir, Farshad <IR> (Kamalinezhad, M. <IR>; Rezaee, S. <IR>)

Hepatoprotective Effect of Vitis vinifera L.

Experiments show that most synthetic drugs, although effective against disease, have undesired side effects. On the other hand, experiments show that herbal medicines can be used to treat disease without any specific side effects. That's why there is a tendency today to use herbal medicines instead of Synthetic drugs whenever possible. One of the plants with different variety in Iran is *Vitis Vinifera*. The importance of this plant lies in the fact that the dried juice of it's fruit is used extensively as hepatoprotective agent in folk medicine. This prompted us to study the hepatoprotective effects of Black currants. To this end a sample of grape juice was concentrated by using steam. The concentrated was then used in 5gr/kg, 2.5gr/kg, 1.25gr/kg, 0.5gr/kg, 0.25gr/kg, 0.1gr/kg, 0.075gr/kg, 0.05gr/kg and 0.01gr/kg. Concentrations in vivo on male SD Rats and then their liver damaged with CCl₄ and liver enzymes SGOT and SGPT were subsequently measured. Obtained results showed decrease in increased enzyme with CCl₄ after treating with concentration and this result shows that the total extract of *Vitis Vinifera*'s dried fruits can protect hepatocytes from CCl₄/induced hepatotoxicity, and this effect maybe from scavenge free radicals effects on hepatocytes and with this mechanism inhibits liver damage.

Rüdinger, Helmut <D>

Acupuncture and Traditional Chinese Medicine in Europe, particularly Germany

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Sabzevari, Omid <IR> (O'Brien, Peter J. <CDN>)

Study of Phloretin Cytotoxic Mechanisms

Phloretin, a major apple flavonoid, is a dihydrochalcone. Chalcones are flavonoids with two aromatic rings and an unsaturated side chain, which are abundantly distributed throughout the plant kingdom. They have recently provoked more attention because of their interesting biological activities including fungicidal, antiinflammatory, antibacterial, antimalarial, antileishmania, antimutagenic and chemoprevention activity. Phloretin has also induced apoptosis in B16 melanoma cells. We have investigated phloretin and 7 other chalcones for their cytotoxic mechanisms towards isolated rat hepatocytes. Phloretin and other chalcones induced cytotoxicity in the range of 100-400uM towards hepatocytes. The cytotoxic effectiveness of chalcones in order of increasing LD₅₀ (2 hrs) were as follows: 2',2'-dihydroxychalcone (2',2'-DHC) > 2',4'-dihydroxychalcone (2',4'-DHC) > 2',3'-dihydroxychalcone (2',3'-DHC) > 2'-hydroxychalcone (2'-HC) > 2',5'-dihydroxychalcone (2',5'-DHC) > 2',4'-dihydroxychalcone (2',4'-DHC) > 2',3',4'-trihydroxychalcone (2',3',4'-THC) > phloretin. All chalcones depleted hepatocyte GSH either by GSH oxidation to GSSG or by conjugate formation with GSH. GSH was also depleted by chalcones in vitro during their metabolism by liver microsomes and NADPH. 3-Methylcholanthrene induced microsomes were also much more effective than uninduced microsomes at catalyzing GSH depletion by 2',5'-DHC, 2',4'-DHC, 2',3'-DHC, 2'-HC and phloretin, but not 2',3',4'-THC. The GSH depletion was prevented by isosafrole, which suggests that CYP1A2 may catalyze the metabolism of the chalcones to a reactive GSH intermediate. The microsomal catalyzed GSH depletion by chalcones in order of decreasing effectiveness were as follows: 2',3',4'-THC > 2',5'-DHC > 2',4'-DHC > 2',3'-DHC > 2'-HC > phloretin. All chalcones also resulted in a collapse of mitochondrial membrane potential (MMP). The chalcones that formed GSSG caused a greater collapse in MMP and were more cytotoxic. Our findings suggest that phenoxyl radicals caused the GSH oxidation and may contribute to the uncoupling and collapse of the MMP.

Sadeghipour Roodsari, Hamid Reza <IR>

Using Demecolcin, an Iranian Plant Extract, Vincristin and Vitamin B15 in Order to Treat Leukemia

Using Demecolcin, an Iranian plant extract, Vincristin and vitamin B15, an experiment was done in order to treat leukemia, with following results. 1 – Abortion was induced in healthy NMRI/Ra mice by Demecolcin and Vincristin. Demecolcin had a teratogenic effect when the first injection was given to the mice on 7th day of pregnancy.

This indicates that the drug was able to pass through the placental barrier. These drugs injected after weaning in immature male mice, affect the sexual glands: because histological sections after maturity demonstrate inhibition of spermatogenesis. In spite of reduction of Leydig cells number, X zone of the adrenal gland nevertheless underwent involution, because of the presence of sufficient androgen secretion. Vitamin B15 as tubage has apparently no appreciable teratogenic effect on sexual glands of the mice. These mice had similar results by comparison to those of controls. 2 – Leukemic A.K.R mice with gradual and appreciable increase of Lymphocytes were treated with Demecolcin for one month. This resulted in reduction of the number of the Lymphocytes, with significant statistic difference by comparison to those of either controls or before the experiment. When treatment was stopped, the number of Lymphocytes was gradually increased but it was considerably inferior in comparison with those of other mice. As far as A.K.R mice are concerned Vincristin had similar effect with Demecolcin, in reduction of the number of lymphocytes in AKR mice; although vitamin B15 had similar, but less effect compared with the above mentioned drugs, but it has a significant difference with the control group. Result: Demecolcin and Vincristin could cause reduction of the number of lymphocytes in the leukemic mice during period of treatment. Vitamin B15 showed a minor effect under these experiments. As has been shown with known drugs there is no effective treatment against leukemia in AKR mice.

Sarashetti, Rewanasiddappa <IND>

Effect of a Herbomineral Product in Antitubercular Drugs-induced Hepatotoxicity

Introduction: A wide spectrum of hepatotoxicity due to numerous modern drugs is noticed in clinical practice. An attempt is made to find an effective medicine to counteract antitubercular drugs (ATD) induced hepatotoxicity. A herbomineral product (Arogyavardhini vati) (AV) is considered to be a potent hepatoprotective composition mentioned in traditional Indian system of medicine (Ayurveda). Method: experimental study was carried out on 32 wistar strain albino rats divided into 4 groups of 8 each. Isoniazide (INH), rifampicin (RMP) and pyrazinamide (PZA) were administered in group I, and formulation-AV with INH, RMP and PZA in Group II. Administration of INH (ATD) served control for curative study Group III. AV was administered to albino rats in Group IV, which had ATD induced hepatotoxicity for a period of 45 days. Results: Weight gains (34.1 g) and activeness, appetite, intake, hair growth improvements in Group II and IV but weight loss (38.3 g), no symptomatic improvement in Group I and III were noted. SGOT 26+22 (163+94), SGPT 37+2 (48+5) in Group II and SGOT 22+5.9 (150+31.6), SGPT 11.7+2.1 (83+1.7) in Group IV were noted after 45 days. But there was increase in SGOT, SGPT in Group I and III. The increased ALP in Group II and IV, might be due to the presence of calcium in AV. Histopathologically degenerative and a beginning of necrotic changes, derangement of hepatocytes, absence of nuclei in some cells

were noted in Group I and III. But normal hepatocytes and cord like arrangements and regenerative changes were noted in Group II and IV after 45 days. Conclusions: Administration of formulation-AV with ATD demonstrated a significant hepatoprotective effect, and a curative effect in ATD-induced hepatotoxicity without any untoward effect either on liver or kidney. Thus it proved to be a prophylactic as well as a curative formulation.

Sarma, Bishnu Prasad <IND>

Diabetes mellitus and its Management by Herbomineral Agents (Amrycard) in N.E. Region of India

Diabetes mellitus was known to ancient Indian physicians as „Madhumeha“. Many herbal and mineral products (incorporated with herbs) have been described for the cure of diabetes in the ancient literature. A clinical trial was done with the herbomineral preparations (Amrycard) on NIDDM at Govt. Ayurvedic College and Hospital, Guwahati. Amrycard capsules were given in the dose of 2 capsules thrice daily for a period of six months. The treatment with Amrycard showed a significant improvement in decreasing fasting and PP blood sugar level. The patient felt a sense of wellbeing. Mean fasting blood sugar level before treatment was 174.66 mg% and after treatment mean blood sugar was 82.17 mg%. Mean PP blood sugar treatment was 222.26 mg% and after treatment 143.83 mg%. Glycosylated hemoglobin was 11.94 %, after 6 months of treatment a significant reduction from 11.94 % to 6.78 % was observed. Indigenous drug combinations may render encouraging results in case of diabetes mellitus.

Scheid, Volker <GB>

Chinese Medicine — Stream, Paradigm or Movement

Ever since Thomas Kuhn published his influential work on the structure of scientific revolutions it has become common place to speak of human practices that might be thought of as sciences through the language of paradigms. Kuhn's own use of the term is far from consistent and debates continue to this date as to its utility for science studies. Nevertheless, the intuitive appeal of „paradigms“, „paradigm shifts“ and „incommensurability between paradigms“ to researchers interested in describing scientific traditions and the relation between them has ensured an ever widening popularity of Kuhn's concepts. They are cited today not merely in scientific papers but can be found in leaflets distributed by acupuncture practitioners to their patients in which the difference between Chinese and Western medicine is explained as one between incommensurable paradigms: equally valid but not translatable into each other. My paper explores the utility of the paradigm concept for the history and ethnography of Chinese medicine. I argue that the concept imports problematic background assumptions about the nature of knowledge into any analysis. For this purpose I compare the notion of paradigm with two possible alternatives: the notion of „movement“ indigenous to cer-

tain Western sociological research traditions and the notion of „scholarly streams“ indigenous to Chinese discourse on Chinese medicine. My goal is to encourage reflection among researchers as well as practitioners of medical traditions about the relation between medical practice and the social structures in which they are embedded and about the effect of meta-theoretical labeling on identity, practice and the relation between medical traditions.

Schwabl, Herbert <CH>

An Evidence Based Approach Towards Tibetan Herbal Formulas

In order to use a Tibetan herbal formula in scientific research settings, the formula has to be presented as standardized composition, the ingredients have to be described according to western pharmacopoeia standards (Latin binomials), and the quality of the mixture has to be confirmed according to the principles of GMP (good manufacturing practice for pharmaceuticals). Clinical research with traditional botanicals can only be performed in a controlled setup (double blind, placebo controlled randomized trials as the „gold standard“). The crucial question is: will a Tibetan formula work in such a double blind, randomized, controlled setup? To answer this question an example is presented. According to traditional knowledge the Tibetan formula Padma 28 „increases wind, is cooling.“ How can such a benefit be measured? The first scientific evidence usually comprises case histories (retrospective or prospective). Then pilot studies with western doctors add further evidence, e.g. Padma 28 was used in chronic hepatitis, chronic respiratory diseases, circulatory problems, angina pectoris. For further clinical research from the so far collected evidence one prominent indication has to be chosen. For example for peripheral circulatory problems the measurement of the walking distance is a good indicator. Performing several clinical trials it was possible to accumulate clinical evidence for the activity of the formula [Sallon 1998, Smulski 1995, Drabaek 1993]. In vitro research reveals the activity of Padma 28 on cell protection, the prohibition of lipid oxidation, the inhibition of the oxidative stress reaction, and the inhibition of inflammatory processes [Moeslinger 2000, Suter 2000, Ginsburg 1999]. Conclusion: Tibetan formulas are efficient in a controlled scientific environment on a clinical and experimental level. Standardized quality and further research on the different Tibetan formulas are crucial to improve the status of Tibetan medicine in Europe.

Selby, Martha Ann <USA>

Feminine Desire, Sexual Pleasure, and Bodily Comportment in the Caraka- and Sushruta-Samhitas

This paper will explore various aspects of feminine desire and pleasure as they are formulated in the two earliest extant medical manuals written in Sanskrit, the Caraka-samhita (circa first century C.E.) and the Sushruta-samhi-

ta (circa second century C.E.). I will analyze in detail the Sanskrit medical writers' ideas about feminine desire, sexual behavior, and sexual response as they relate to womanly comportment in the larger early classical context, but I will especially explore those factors as they come into play during a woman's attempts to conceive a child. I will pay particular attention to the conflicts between a woman's „desire“ and her „desirability“ as they are delineated throughout both texts.

Shahzad, Khurram <PAK>

Viscum album — The Diversified Approaches

Viscum album discussed as symptomatology, also ancient remedy for epilepsy, clinical symptoms as given by different authorities. Detailed consideration as emphasized by Steiner's anthroposophical approach. Different products and their use in cancer; various host trees preparations have diversified usage.

Sharifzadeh, Mohammad <IR> (HadjiaKhoondi, A. <IR>; Gohari, A. <IR>; Jeddi, A. <IR>; Shirali, F. <IR>)

Inhibition of Morphine Dependence by Withania somnifera and Withania coagulans in Mice

In the present study, the effects of root extract of Withania somnifera and Withania coagulans on dependence to morphine have been investigated. Animals were treated subcutaneously with morphine (50,50 and 75 mg/kg, first day), (75,75 and 100 mg/kg, second day), (100,100 and 125 mg/kg, third day) and a last dose of morphine (50 mg/kg) was administered on the fourth day. Withdrawal syndrome (jumps) precipitated by naloxone (5 mg/kg) which was administered intraperitoneally 2 hours after the last dose of morphine, was evaluated. To study the effects of root extracts of Withania somnifera and Withania coagulans on morphine dependence, 10 injections of morphine for dependence and a dose of 5 mg/kg of naloxone for withdrawal induction were employed. Intraperitoneal injections of different doses of Withania somnifera and Withania coagulans (5,25,50,100 and 200 mg/kg) decreased number of jumps induced by naloxone in morphine dependent animals. The maximum responses obtained by 200 mg/kg of either Withania somnifera or Withania coagulans. Pretreatment of animals with 100 mg/kg of root extracts 30 minutes before each injections of morphine (10 injections of each root extracts in four days) also were able to prevent withdrawal signs precipitated by naloxone significantly. It is concluded that the root extracts of Withania somnifera and Withania coagulans can probably decrease withdrawal signs in morphine dependent animals via interaction with post receptor mechanism.

Shirazi, Farshad H. <IR>

Evaluation of the Cytotoxicity of Mentha pulegium (Khalvash) Aerial Parts and Leaves on Human Ovarian Carcinoma

One of the most frequently used traditional, as well as modern, medicinal herbs is *Mentha pulegium* from Labiatae Family. There are reports on the cytotoxicity of this plant. The degree of cytotoxicity of the essential oil of this plant was examined on human malignant melanoma A375, and human renal adenocarcinoma ACHN cell lines. Neutral red assay and clonogenic assay were used in this investigation. Above cell lines in logarithmic growth phase were exposed to different concentrations of the essential oil for 24 hours. Percentage of colonies in each concentration group compared to control has been used for clonogenic assay. In neutral red (N.R.) assay health of cell membrane and lysosomes was investigated. Unfortunately, NR did not present a good dose-response curve for the essential oil of this plant on any of above cell lines. According to clonogenic assay results, IC50s were 49.6 µg/mL and 59.1 µg/mL, for ACHN and A375 cell lines, respectively. More detail of mechanism of action investigation and statistical analysis will be presented at the meeting. Our results showed the possibility of applying the ingredients of *Mentha pulegium* essential oil for treatment of human cancer. More specialized experiments for assessment of exact cytotoxic effect of essential oil, as well as, clinical and animal trials for the treatment of cancer are suggested.

Singh, Tarun <IND>

Formulation and Evaluation of Aloe vera Gel using Various Polymers

Aloe vera has a great scope in cosmetic and pharmaceutical industry because of its use in treating skin rashes, acne, burns, cuts, diabetic wounds and chronic external ulcers. So because of such a wide scope there is a need to make a stable formulation for external application. Formulation of Aloe vera gel was done using the polymers carbopol, H.P.M.C., guar gum, and gelatin. The different formulations are evaluated by solubility test, viscosity studies, extrudability, spreadability, homogeneity and primary skin care tests on human volunteers. The other chemical analyses performed were drug content analysis, release studies and the effect of pH on the formulation. Under the biological evaluation preservative challenge test was performed. After doing a comparative study of all the physico-chemical properties of the gels, carbopol was found to be the best gelling agent.

Sinha, Malti S. <IND>

The Status of Traditional Medical Systems in India and Government Policy Towards These

Srivastava, Sharad <IND>

Quality Control of Herbal Drugs — A Present Day Need

Commercial production of medicines and other products based on Ayurvedic, Unani and other systems of medicine not only increased manyfold in our country but the world over. Increase in urbanization and large population has not only created a shortage of authentic raw materials but also increased the tendency of profiteering. A large number of manufacturing units, some with multicrore investment, and some multinationals have entered in the area of herbal drugs and pharmaceuticals. A majority of raw materials employed by these industries are of plant origin, the bulk of which comes from forest areas or other wild sources. The supplies are usually obtained through various trade channels and are generally lacking in uniform quality. This has created serious problems with regard to the quality of the raw materials and their desired therapeutic effects. In addition to these, the Ayurvedic and Unani nomenclature of drugs has been an important factor for a creating lot of adulteration and/or substitution, thus further aggravating the problem in herbal drug markets. The herbal drug markets are also full of adulterants and substitutes of genuine drugs, which may be due to similar vernacular names of entirely different plant taxa. The rhizomes of *Curcuma amada* are considered as genuine 'Amraharidra' but other *Curcuma* sp viz. *C. zedoaria* and *C. aromatica* are being sold in the same name. On the basis of floral morphology, viz. hairs on ovary and geneculate/clavate style, etc. different market samples of 'Banafsha' can be identified. HPTLC also play a key role in drug standardization, for instance, the drug 'Mamira', botanically equated to the roots of *Coptis teeta* (genuine) and *Thalictrum foliolosum* (Substitute), can be differentiated by the same in having fluorescent spot at Rf 0.14 of canary yellow in *C. teeta* and blue at Rf 0.08 in *Thalictrum foliolosum* at 366nm. Similarly different botanical taxa used as 'Ratanjot' and 'Daruharidra' can be identified on the basis of different arnebines and berberine content respectively. In the present communication different parameters used in quality assurance of herbal drugs would be discussed.

Stollberg, Gunnar <D>

Asian Medicine in Germany Today — A Sociological Approach

Not a clash of civilisations, but a silent revolution has taken place in the German and in West European health systems: Asian medical concepts have settled in the heterodox/complementary sectors of these systems, and have often surpassed traditionally established conceptions like homoeopathy, or naturopathy. This is especially true for acupuncture, and to a much lesser degree for Ayurveda. From a sociological point of view, these developments firstly form part of developing world society, and secondly form a hybridisation of knowledge. Globalisation has often been conceptualised as a global expansion of US economy, and of Western products like Coca Cola and

McDonald's burgers. In the field of medicine, the Western biomedicine expanded to become a global knowledge since the 1850's, indeed. But Asian medical systems left their native lands for the West in several waves since the same time. Biomedicine became dominant in most areas of the third world, while Asian practices remained margined in the West. World society consists of processes of going East, and of going West. In these latter processes new hybrid forms of Eastern medicine emerge in the West. Acupuncture and Ayurveda are interpreted from biomedical perspectives. They are taught by and for physicians who have been educated in biomedicine. As complementary forms of therapeutics they become coordinated with biomedical diagnoses, and practices. Parallel, complementary and alternative forms of application can be observed. Hybrid forms of medical knowledge and practices arise. I will outline first results of a research project observing these processes in Germany.

Sundar, Geetha <IND>

Critical Care in Ayurveda

Contrary to popular belief, Ayurveda has a major role to play in management of emergency conditions that pose an immediate threat to life. This includes instances where Ayurveda can play a frontline role and also complement modern medicine to maximize the outcome of therapeutic intervention. While it is true that Ayurvedic approach to healing is generally slow and gentle, it does not mean that Ayurveda cannot handle emergency conditions at all. Trauma care, neurological and cardiovascular emergencies, pre-surgical preparation, management of post-surgical complications, respiratory failure and hepatic come are some of the areas where judicious application of Ayurveda can prove to be advantageous. Ayurveda can maximize the chances of recovery and rehabilitation in many life threatening situations if it is complemented with emergency management techniques of modern medicine. This paper attempts to elucidate the role of Ayurveda in critical care with the help of selected case records. In the process, the areas where Ayurveda can complement or be complemented by modern medicine will be pointed out and the areas where Ayurveda can independently manage the situation will be highlighted.

Suru, Prashant Anant <IND>

Srotas — Unique, Innovative Concept of Ayurveda and its Application in Practice, with Special Reference to Rasavaha Srotas

Introduction: Ayurveda, the science of life, has its own theory about human body. „Man is a miniature of nature“. They both are formed due to „Pancamahabhutas“. [Pancabhautik] „srotas“ is a unique Ayurvedic concept about human body, which really differs a lot from concept of different systems in the body. Discussion: Srotas play an important role in physiological metabolism of the body. 'Srotas' is one of the responsible factors in pathogenesis. „Examination of these thirteen srotasas“ may lead to 'di-

agnosis' and 'prognosis', too. Causative factors for vitiation of srotasas – (srotodushti) – and their relation between signs and symptoms can put us to make proper diagnosis. With special reference to 'rasavaha srotas', we will elaborate the importance of „srotasas and their examination“ in case of routine practice.

Sutarjadi, H. <RI>

Tradition and Innovation of Traditional Medicine in Indonesia

The Indonesian traditional medicines are used by the Indonesian people since centuries ago. According to Boelman (Boelman HAC [1936]. *Bijdrage tot de Geschiedenis der Geneeskruidcultuur in Nederlandsch Oost Indie*. Dissertation. Utrecht.), there can be seen pictures of about 50 species of plants carved on the walls of the old temples Borobudur, Penataran, Sukuh and Tegawang, which are used traditionally as materials for preparing medicinal herbs by the Indonesian people until this time. Research and development of traditional medicine have been supported by the Indonesian Government by making health regulations supporting the study and utilization of traditional medicines. The first Indonesian Act on Principles of Health (valid from 1961) and the Act on Pharmacy (valid from 1963) call for the study and proper use of Indonesian indigenous (traditional) medicines by doing research on the methods of preparations, standardization, looking for new resources and establishing collaborations with other nations (Undang-undang no.9 tahun 1961 tentang Pokok-pokok Kesehatan; Undang-undang no.7 tahun 1963 tentang Farmasi). With the Decree of the Indonesian People's Congress in 1993, in which it was declared that the research, development and utilization of Indonesian traditional medicine had to be done (Ketetapan Majelis Permusyawaratan Rakyat II tentang Garis-garis Besar Haluan Negara tahun 1993), the research and development of the Indonesian traditional medicine have been accelerated. Since 1995 the Department of Health has established Centres for Development and Application of Traditional Medicine in 12 provinces in Indonesia which have to study and utilize traditional medicine for health services (Surat Keputusan Menteri Kesehatan RI No.0584/MENKES/SK/V/1995 tentang Sentra Pengembangan dan Penerapan Pengobatan Tradisional tahun 1995). Within these last years the development of the production and utilization of the Indonesian traditional medicines have been increased significantly. In 2002 there are 79 factories and 612 small industries producing Indonesian traditional medicines in the forms of packed tea-preparations, instant health drinks and also as modern drug preparations as tablets, caplets and capsules produced from extracts of Indonesian traditional herbs (Lukman Hakim [2002]. National Seminar on Indonesian Medicinal Plants XXI. Surabaya University, Surabaya.).

Suvorov, Mikhail <RUS>

Traditional Medicine in Yemen Today

The lack of modern health care facilities in Yemen, especially in its rural areas, and rather high level of poverty maintain permanent demand for popular medicine, which is much cheaper and available on the spot. This includes a wide range of means. The most common is dietetic therapy, which has always associated with seasonal health regimes. Still of great importance are hygienic means like traditional cosmetics, incense, tooth-cleaning sticks, etc. Various diseases are treated with the methods of herbal therapy, almost every local plant being considered here to have certain medicinal properties. Also widely are practiced blood-letting and cauterization, applied to cure a variety of serious diseases. Many Yemeni bone-setters possess tremendous skills in their profession, which fact has been repeatedly reported by visiting specialists. Some methods of popular medicine, though, stand closer to sorcery than to real medicine. The majority of today's popular physicians in Yemen have inherited medical skills from their ancestors and adhere to old methods, relying upon locally available medicinal materials. Some others, representatives of a new stage in development of traditional medicine, hold degrees from renowned universities, use reference books on world medical practice, purchase necessary materials from abroad, acquire certificates from the Ministry of Public Health, and open well-equipped clinics.

Tajuddin <IND>

Evaluation of a Polyherbal Preparation for Learning, Memory and Behavioural Effects in Rats

Majoon Falasafa, a unani compound formulation, contains 13 herbal ingredients, reputed in the traditional system of Graeco-Arab (Unani) Medicine to be of value in the management of neurological disorders particularly in age-related cognitive deficits. As no scientific data is available to substantiate the claim, an experimental study is conducted for scientific validation of its clinical use. The Extract of the test drug is administered to the animals per oral in the dose of 50mg/100gm b.w. corresponding to prescribed human dose in the system and for investigations currently available many experimental paradigms that affect learning and memory processes were used. All the results were analysed and compared with plain control statistically whereas, piracetam and diazepam were also administered as a standard nootropic and amnesic agents for comparative study. In the Elevated plus-maze test the test drug showed marked decrease in transfer latency ($P < 0.05$) and also protected the rats against amnesic effect of diazepam considerably. In Radial arm-maze test the percentage of successful rats was as high as 83.33% in the MF treated group and running line was also significantly decreased ($P < 0.05$) as compared to control. In Y-maze test, the drug treated animals were able to make 72% of alterations in the maze exploration which was significant ($P < 0.05$). In the present study the experiments revealed that Majoon Falasafa significantly enhanced all

the aspects of memory (short term, working, spatial working and long term) which corroborates well with the rationale of using it in memory impairment as suggested by Unani physicians.

Tamdin, Tsewang <IND>

Tibetan Medicine in Asia Today — The Renaissance it is Undergoing

Tibetan medicine is a unique holistic system of healing. This is a system of psycho-cosmo-physical healing whose philosophy and healing technique have much to offer towards the worldwide campaign against disease. The impact of spiritual practice in Tibetan medicine and the bifocal attitude of looking at different facets of ailments not only through symptoms but also keeping in consideration the causal factor, call attention to its profoundness as a panacea against the common enemy of all human beings. Since the unlawful invasion of Tibet by the Chinese Red Army in the year 1959, Tibet has had to suffer genocide, irreparable disturbance of the flora and fauna as well as immeasurable destruction of its culture and tradition which dates back more than three thousand years. But despite large scale destruction and efforts to purge the trace of Tibet from the face of the earth, the Tibetan people under the guidance of H.H. The Dalai Lama have emerged unscathed in the exile land to face the whole world with its unique culture and tradition as its only possession. The Tibetan Government in Exile has a well structured juristic hierarchy with the elected Cabinet at its apex. The Tibetan Medical and Astro Institute, which is under the Exile Tibetan Government, has 43 branch clinics all over India and Nepal with more than 5 lakhs of patients visiting our clinics in a year. Out of these, only 20% constitute Tibetan patients whereas 80% of patients benefiting from Tibetan medicine are Tibetans and Westerners. The basic philosophy of Tibetan medicine in counseling how to stay in harmony with the external elements and seasonal changes, and how one has to adhere to certain diet and behavioral patterns in accordance with individual constitution, is a universal language, comprehensible to all the human beings in this whole wide world.

Unschuld, Paul U. <D>

Knowing Practice? The Value of Chinese Physicians' Private Manuscripts

For a long time historians of Chinese medicine have based their research on printed sources. Chinese medical literature of the past two millennia provided ample data for studying issues such as the development of theories, of therapeutic practices, and of pharmaceutical knowledge. Non-medical printed texts, novels, dramas, legal case histories, and others have proven most helpful in accessing the social context of Chinese traditional medicine, including its ethical foundations. More recently, medical anthropologists have approached contemporary Chinese medical settings through participant observation and have added further insights to generated a more encom-

passing understanding of the practice of medicine in China. And yet, the picture emerging from these approaches is far from complete. We have drawn attention to the value of historical objects and images as indispensable sources of data not found in printed texts, and we should like to draw attention to Chinese medical manuscripts of the 19th and early 20th centuries held in libraries in and outside of China as documents reflecting a reality of Chinese medical practice not recorded in any other known type of sources. The present paper introduces one such manuscript as a most telling example. Apparently it was compiled within a family by members of three consecutive generations beginning in the 19th century and ending in the 20th century. It offers a wealth of information on physician-patient relationships, implicit ethics, and the modernization of Chinese medicine in the final decades of the Qing dynasty and the republican period.

Wele, Asmita <IND> (Kamat, S.S. <IND>)

Effect of Aloe vera Juice Treatment (Bhavana) on Toxicity of Calcinated Cypraea moneta (Kapardika Bhasma)

Introduction: Ayurvedic pharmaceutics elaborates the importance of intermittent trituration of calcinated products (bhasma) with herbal juice or decoction (bhavana) in preparation of any bhasma. Rasashastra texts do not refer any bhavana to calcinated cowry shell product (kapardika bhasma) yet it is practiced traditionally using Aloe vera juice. An attempt has been made to reveal the role of this treatment in terms of toxicity of the final product. Method: Purification (shodhana) of Cypraea moneta (cowry shell) was carried out by boiling the shells in lemon juice (svedana) to remove surface dirt and to bring about brittleness as per the traditional method. Then the purified shells were calcinated in the modified heating arrangement using muffle furnace. These were then divided in two batches and calcinated again with and without the treatment of Aloe vera juice. Acute oral toxicity studies were then carried out on albino mice. Histopathological changes (HPE) in liver, kidney and intestine for the two groups were compared. Results: Both the samples complied with the Ayurvedic quality control parameters. HPE findings in the first group (Aloe vera treated) revealed no change in the morphology of the tested vital organs. In the second group (without Aloe vera treatment) mild type of degenerative change in the liver cells was observed. Congestion in the kidney, mainly due to increased blood flow through glomerular apparatus, was also observed. Conclusions: Traditional practice of Bhavana (trituration) of kapardika bhasma with Aloe vera juice plays an important role in the efficacy of the product as it prevents toxic damage of liver. Aloe vera juice might be helping to prevent formation of CaO in kapardika bhasma, which is responsible for liver toxicity. Further detailed studies coupled with analytical findings in these aspects will help to elucidate the exact mechanism.

Yamashita, Tsutomu <J> (Manohar, P. Ram <IND>)

A Step Towards a Proper Understanding of Ayurveda as a

Living Tradition

Public interest in traditional medical systems in Asia has been developing in recent years especially in the western world. Extensive research by international scholars has thrown new light on traditional medical systems. Indian medical tradition is also one of the prominent subjects of appeal not only to scholars but also to western people who pursue humane therapies. The word 'Ayurveda' is gradually gaining wide recognition even outside the boundaries of India. A pluralistic medical culture is very likely to get established and accepted around the world. However, these trends sometimes form over- or underestimation of traditional medicine due to crosscultural misunderstandings. It goes without saying that a proper understanding of traditional medicine is a necessary prerequisite for its evaluation and application. One who is interested in traditional medicine should acquire a sufficient grasp of the real image of therapies and the logic behind them. For this reason, we have drawn up a project to make records of genuine Ayurveda as a living tradition. The title of our project is 'Program for Archiving and Documenting Ayurvedic Medicine' (PADAM). The acronym 'PADAM' means 'step' in Sanskrit. It also means the endpoint. By this word, we express our intention to make a crucial first 'step' for a proper understanding of Ayurveda and the other medical traditions of India. The purpose of our program is to collect relevant and authentic materials of Indian traditional medical systems and to provide them to the public for research and education. We started on our research project PADAM from investigation into the medical cultures in Kerala in August 2001. This poster offers an overview of our project in Kerala with some photographs.

Yimit, Askar <PRC> (Upur, H. <PRC>; Sabit, I <PRC>)

Munziq and Mushil of Abnormal Savda Regulating Apoptotic Gene Expression in Hela Cells

To research expression of p53, Fas and bcl-2 gene in Hela cells treated with Munziq and Mushil (Uighur Medicine) of abnormal Savda expression of three genes above and their relationship were analyzed by cell culture technique and RT-PCR. Results show Munziq and Mushil of abnormal Savda could induce high levels of p53 gene and low levels of bcl-2 gene expression, suggesting different expression of the two genes may be a mechanism by which they resist disease.

Zhen, Yan <PRC> (Cai, Jingfeng <PRC>)

Location for Pulse-taking in Tibetan and Han (Chinese) Medical Systems

As one of the important measures for diagnosing diseases, pulse-taking in Tibetan medical system is closely related to that of its Han (Chinese) counterpart from a medical historical point of view. The opportune, approach, requirements, location and its corresponding relations with

internal viscera, sense organs and phenological phenomena are basically identical with those of its counterparts in Han medicine. This viewpoint has been universally recognized by medical historians. Based on their wisdom, Tibetan ancestors did make some minor changes and modifications so as to fit the needs of the Tibetan cultural background, this being the natural outcome of transcultural communication. Medical exchanges between Tibetan and Chinese medical systems also reveals the same phenomena, evidenced by the basically identical approaches and nomenclature between the two systems. Of late, there are new ideas put forward by some scholars, reiterating some idea different from those of the majority. Among them, the problem of the location of pulse-taking „Tshon-kan-chag“ is especially prominent. By denying „Tshon-kan-chag“ being the trans-pronunciation of position in Han medicine, „cun (inch)-guan (bar)-chi (cubit)“, they, instead, claim that „Tshon-kan-chag“ in ancient Tibetan language are the three words for index, middle and ring fingers, which are seen in the language before the Tubo dynasty. Elaborated discussion and comparison are made between the two systems in terms of the location for pulse-taking. In Han (Chinese) traditional medicine, as early as Wang Shuhe's *Mai jing* (Classic of Pulsology) in the 3rd century, the title of „cun-guan-chi“ had been fixed at the „cun-kou“ (cubit gate) at the radial artery. Viewing the location of „Tshon-kan-chag“ of Tibetan medicine from a historical, phonological point of view, the latter should doubtlessly be the trans-pronunciation of „cun-guan-chi“. What's more, even if „Tshon-kan-chag“ is the term for the three fingers in ancient Tibet, this term in the field of pulsology is also derived from the Han „cun-guan-chi“, otherwise, when one uses the three fingers to take the pulse of other locations, there should be also „Tshon-kan-chag“ at the neck, groin, foot and elsewhere, because pulsating arteries, as indicated by the ancient Tibetan medical classics, rGyud-bzhi, sMan-dpyad Zla-ba'i rGyal-po etc., are scattered elsewhere over the whole body. Unfortunately, this doesn't happen in Tibetan medicine in any case, indicating that the argument is impractical, illogical, unreasonable, and is, therefore, unacceptable.

Zheng, Jinsheng <PRC>

The Colored Illustrations of the Shiwu Bencao, a Ming-era Materia Medica Manuscript .

In this paper, the colored illustrations in the Ming-era materia medica manuscripts *Shiwu Bencao* are compared with those found in an earlier Ming-era materia medica, the *Bencao Pinhui Jingyao*. Obviously, the illustrations in the *Shiwu Bencao*, drawn during the Jiajing reign period (1522-1566), were influenced by the illustrations in the *Bencao Pinhui Jingyao*. Although the illustrations of both books were generated by artists working for the imperial court, different artists appear to have been preoccupied with the two books. The artists responsible for the illustrations in the *Shiwu Bencao* were much less versed in pharmaceutical knowledge, a fact seriously downgrading the value of their work.

Zhu, Jianping <PRC>

Textual Research and Explanation of Qi-Huang

Huang Di is the legendary common ancestor of the nations in the central plains of China, who lived in the period of „Yang Shao Culture“ (about 5000 years ago). It is not only the name of a person, but also the general designation of a great clan or a period. And the title „Hang Di“ first appeared in the inscription of Dun (a receptacle) of Marquis Yin Qi of Chen Kingdom (reign 378-343BC). After the Warring States, Huang Di became the top authority of the ancient sages. Since the main contents of The Yellow Emperor's Canon of Internal Medicine, completed in the Warring States, was in the form of questions and answers between Huang Di and Qi Bo, Qi-Huang is used as the appellation for Yellow Emperor's Canon of Internal Medicine in later generations. As the Yellow Emperor's Canon of Internal Medicine laid the foundation for the development of TCM, in the Song Dynasty, Qi Bo and Huang Di were combinedly called Qi-Huang for the first time in *Bian Que Xin Shu* by Dou Cai. And they were also worshipped as the orthodox ancestors of medicine, in the shrine with new implication. Since then, Qi-Huang had extended meanings for orthodox TCM or TCM science. For example, *Bian Que Xin Shu* had an account of Qi-Huang Orthodox School of Thoughts. And Yi Deng Xu Yan (1652 AD) by Pan Ji in the Qing Dynasty recorded „Physicians regard Qi-Huang as their ancestors“. However, in more cases, Qi-Huang was the appellation of TCM and TCM science. Meanwhile, new words derived from Qi-Huang have their respective meanings, such as „the art of Qi-Huang“ and „the theoretical principles of Qi-Huang“ standing for the science of TCM or the art of healing, the theoretical principles. For instance, in *Yi Xue Zhen Zhuan* (1699 AD) by Gao Shizong in the Qing Dynasty, there is „studying the art of Qi-Huang“. *Thorough Knowledge of Medicine* (1617 AD) by Zhao Xianke in the Ming Dynasty mentions „the theoretical principles of Qi-Huang“. As for the „Qi-Huang physicians“, it represents the TCM doctors and specialists. *Dan Xi Shou Jing* (1535 AD) by Wu Shangmo in the Ming Dynasty says that „meeting Qi-Huang specialists“. „Qi-Huang books“ means TCM books. It was said in *Yi Xue Xin Wu* (1732AD) by Cheng Guopeng of the Qing Dynasty „reading Qi-Huang books“. And Qi-Huang profession refers to TCM profession. *Zhong Guo Yi Ji Kao* (1819 AD), written by the Japanese author Tanba Motochugu, records „give up the official career and engage in Qi-Huang profession“, etc. In view of what has been mentioned above, the term Qi-Huang contains an abundant content of Chinese traditional culture.

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