

Editorial

Ayurveda and eCAM: A Closer Connection

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We are now well into Volume 5, of *eCAM*, special for a couple of reasons. First it is a joy to have reached 5 years for a young journal. In Issue 1 there was my editorial that has sparked interest from diverse sectors including increased numbers of manuscripts from India. In this second issue, there is a continued focus on ayurveda beginning with the lecture by Prof. Mashelkar that opened the 2nd Ayurvedic Congress in Pune, where I presented an invited Writer's Workshop (1). The engaging new cover draws attention to ayurvedic practices in India (2).

For an historical and international comparison, Patwardhan *et al.* (3), remind us that ayurveda, the traditional Indian medicine (TIM) and the traditional Chinese medicine (TCM) remain the most ancient yet living traditions. Along with increased global interest in traditional medicine, there are efforts to monitor and regulate herbal drugs and traditional medicine. China has been successful in promoting its therapies with more research and science-based approaches, while ayurveda still needs more extensive scientific research and a solid evidence base. In another consideration of ayurveda, Hankey (4) offers a contrast in depth analyses and long-range predictions linking complementary and alternative medicine (CAM) with theoretical biology. More expansively, Hankey asserts that the new biophysics can be integrated to yield a single consistent theory, which may well underlie much of CAM—a true 'physics of physick'. The resulting theory seems to be a new, fundamental theory of health and etiology. Many CAM approaches to health care are scientifically in advance of those based on

current Western biology. Such theories may well constitute the next steps in our scientific understanding of biology itself. If successfully developed, these ideas could result in a major paradigm shift in both biology and medicine; this will benefit consumers, health professionals, scientists, institutions and governments.

Basic science and clinical analyses are broad areas of *eCAM* emphasis including ayurvedic approaches using plants. Rastogi *et al.* (5), used *Streblus asper* Lour a small tree found in tropical countries, (India, Sri Lanka, Malaysia, the Philippines and Thailand). Various plant parts are used for treating filariasis, leprosy, toothache, diarrhea, dysentery and cancer. Their different *in vitro* and *in vivo* techniques using biological evaluations support most of these claims. Essa and Subramanian (6) examined *Hibiscus sabdariffa* (HS) an edible medicinal plant, also indigenous to India, China and Thailand significantly increased levels of anti-oxidants such as catalase (CAT), superoxide dismutase (SOD), glutathione peroxidase (GPx) and reduced glutathione (GSH) in brain tissues, suggesting significant anti-hyperammonemic and anti-oxidant activity. Oxidative stress and free radicals have been implicated in impaired wound healing. Shetty *et al.* (7) tested *Ocimum sanctum*, a plant widely used in ayurveda that possesses anti-inflammatory and anti-oxidant properties, the potential source of alcoholic and aqueous extracts for wound healing in Wistar albino rats. In extract-treated rats and controls, doses significantly increased wound breaking strength, hydroxyproline, hexuronic acid, hexosamines, SOD, CAT, GSH but significantly decreased percentage of wound contraction and lipid peroxidation.

Mushrooms are low calorie food with minimal fat and highly suitable for obese persons. With no starch and low sugars, mushrooms might be considered the 'delight of diabetics'. Combination of herbal drugs (or isolated phytochemicals) is beneficial in certain diseases when

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given along with conventional drugs. Badole *et al.* (8) evaluated the effects of aqueous extracts of *Pleurotus pulmonarius* (Lentinaceae) (called PP-aqu) and its interaction with glyburide in alloxan induced diabetic mice. Administration of PP-aqu (500 mg kg⁻¹) and its combination with glyburide (10 mg kg⁻¹) significantly decreased serum glucose levels in diabetic mice. This is an example of using an animal model with applications to diabetes, a disease of epidemic proportions. According to Kantamreddi and Wright (9), despite decades of intense research, malaria remains a deadly disease worldwide and new anti-malarials are urgently needed due to increasing drug resistance of *Plasmodium falciparum* to existing drugs. In their analyses, the evaluation of four Indian *Diospyros* species namely, *D. melanoxylon*, *D. peregrina*, *D. sylvatica* and *D. tomentosa* for anti-plasmodial activities against chloroquine-sensitive (3D7) and chloroquine-resistant (K1) strains of *P. falciparum*. Six of eight methanolic extracts exerted significant activity against strain 3D7 and five of these showed similar activities against strain K1. *D. sylvatica* had the most active species making it surely worthy of further investigation.

India now has the largest number of human immunodeficiency virus (HIV) infected persons, with an estimated cumulative 5.1 million infections. Homeopathy is the dominant system among the nationally recognized alternative or complementary systems of medicine, which collectively provide health care to ~600 million people in India. Homeopathy, with its holistic and patient-centered approach, has a wide reach to people at risk of contracting HIV. Nyamathi *et al.* (10) designed a unique study to assess AIDS knowledge among homeopathy educators and physicians in India. Participants were 68 homeopathy physicians (34 educators and 34 practitioners) who completed a CDC questionnaire measuring HIV/AIDS knowledge regarding AIDS. This study reports the current level of knowledge of, and attitudes about, HIV/AIDS among homeopathy educators and practitioners. Their findings will assist in developing an education module to equip homeopathic health care personnel as they impart AIDS information accurately and efficiently.

Leaving the more challenging concerns of disease and possible CAM intervention, I would like to end on a very

upbeat subject. We recently received the eCAM Editorial Office report from our Editorial Assistant, Sophie Gilmour. She writes encouraging news. In the first quarter of 2008 the average time from submission to final acceptance has decreased by a month. To maintain high standards and ensure space for the best manuscripts (we are allotted 400 pages per annum), we reject more manuscripts; only 25% were accepted during this quarter. Overall, we are turning around manuscripts quicker than last year, despite increased submissions. For the thrust and future impact of volume 5, it is interesting that the highest number of new submissions received by country and type was from India and the United States. As we are aware, these numbers are important in helping to determine an impact factor (IF) that I continue to emphasize. IF is especially vital to the careers of many authors especially in Europe, Asia and the Middle East with respect to promotions, grant support and international recognition.

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