

## SOLUBLE FIBER BENEFITS IRRITABLE BOWEL SYNDROME

In a randomized control trial (Birkerk C.J. *et al.* *BMJ* 2009;339:b3154.) a group of 275 patients with irritable bowel syndrome (IBS) received either psyllium husk (soluble fiber, 10 g daily), bran (insoluble fiber, 10 g daily), or the same weight of placebo (rice flour) daily. Psyllium is native to the region from the Mediterranean to North-West India, it has 13 Sanskrit names.

Chronic constipation is often the cause of IBS, so increasing fiber consumption to relieve constipation is generally thought to be an effective treatment. The research questions were whether soluble or insoluble fiber is more effective for treating IBS, and whether either or both are more effective than placebo. The study aimed to determine the effect of increasing dietary content of soluble or insoluble fiber in the diet of IBS patients. Ayurvedic texts extol the virtues of the softer, mucilaginous *Psyllium*, but its practitioners caution against its habit forming properties, and tendency to cause constipation.

In confirmation, the three-month intervention reduced symptom severity by 90 points in the *Psyllium* group ( $P = 0.03$  versus placebo); 58 points in the bran group ( $P = 0.61$  versus placebo) and 49 points in the placebo group. In the bran group, Irritable bowel syndrome symptoms tended to worsen to a greater extent in the first month, causing greater initial drop out. The investigators concluded that *Psyllium* is beneficial to IBS patients in primary care.

## CURCUMIN TREATMENT FOR ESOPHAGUS CANCERS?

Scientists at University College, Cork, recently found that 'Curcumin induces apoptosis-independent death in esophageal cancer cells'. (Brit J Cancer 2009 ;101(9):1585-95. Epub 2009 Oct 6). They examined curcumin's effects on esophageal cancer cell lines, concluding that it is a promising natural preventive agent. They found curcumin treatment to reduce viability of all cell lines within 24 h, deciding that the mechanism was non-apoptotic because, although minor caspase -3 activation was detected in two out of four cell lines, addition of a caspase inhibitor only had marginal or no effect on cell viability.

One of the body's natural defense against cancer is to induce cell death by apoptosis. To be successful, cancer cells must have this possible mechanism destroyed, either by genetic mutation or equivalent interference with function, usually at the genome / epigenome level. Identifying a natural, non-apoptotic means of killing cancer cells is therefore significant.

The study concluded that *curcumin* represents a promising anticancer agent for prevention and treatment of esophageal cancer. Rates of the cancer are increasing, and survival is poor, so the discovery could prove important. India is well known to be extremely low in the incidence of bowel and colon cancers. The reason is widely believed to be due to high national consumption of turmeric (Sanskrit: *Haridra*), though high levels of vegetarianism may also contribute. Epidemiological studies determining correlations between esophageal cancer incidence and turmeric consumption / curcumin uptake in India, and other populations where turmeric is regularly used would be worthwhile.



Professor Sir Leszek Borysiewicz, F.R.S.

## NEW VICE-CHANCELLOR FOR THE UNIVERSITY OF CAMBRIDGE

In December 2009, the University of Cambridge announced its next Vice Chancellor to be Professor Sir Leszek Borysiewicz F.R.S., currently Chief Executive of the UK's Medical Research Council (MRC), who will take up his new position on 1<sup>st</sup> October, 2010, as the University's 345th Vice Chancellor since the office originated in 1412.

Sir Leszek grew up in Wales and was educated at Cardiff High School. He was a Lecturer in Medicine at the University of Cambridge (1988–1991), and a member of Wolfson College, where he is still an Honorary Fellow. He then moved back to Wales as Professor of Medicine at the University of Wales in Cardiff, a post that he held for a decade.

In 2001, he became Principal of the Faculty of Medicine at Imperial College, London, going on to become the college's Deputy Rector, responsible for its overall academic and scientific direction, particularly for the development of interdisciplinary research between engineering, physical sciences and biomedicine. During his time at Imperial, Sir Leszek was also Governor of the Wellcome Trust

(2006–2007), and Chairman of the UKCRC Integrated Academic Training Awards Panel (2005–2007).

His Harveian Oration (20.10.2009), 'Prevention is better than cure',\* sets out a vision for necessary new thinking in preventive healthcare, not just in his own field of vaccine development and delivery, but particularly for non-communicable diseases. In the final sections, he highlights the problems of 'diseases of affluence' now being faced in developing countries, and expresses his "*continued commitment to basic science, in all its guises and disciplines, which provides the foundation and technology required to initiate and develop change central to successful prevention*".

He details the commitment to direct a coordinated and comprehensive global campaign to tackle the problems of chronic disease, by the 'Global Alliance for Non-Communicable Diseases', an international consortium of the world's leading medical research funding agencies, including the US N.I.H., his own MRC, and others, including the Chinese Academy of Medical Sciences and the Indian Council of Medical Research (ICMR).

*Prevention is better than cure*, he ends, *and we have the opportunity within our grasp to make a major difference in some of the scourges that afflict mankind today*. We find an echo between his thoughts and many concepts of Ayurveda where prevention of disease and promotion of health is given most importance. J-AIM wishes Professor Borysiewicz all the best and looks forward to many innovative research collaborations and projects to emerge in the area of integrative medicine.

### STUDY FINDS ASSOCIATION BETWEEN GENETIC GROUPS AND THE FOUR-CONSTITUTION TYPES OF SASANG MEDICINE

A new study (J. Altern Complement Med. 15(12):1327–33) (FCM), conducted at the Kyung Hee University, Seoul, Republic of Korea, highlights results of a 'Genome-Wide Association Study of the Four-Constitution Medicine', and discusses the association between Four-Constitution Types (FCT) and Genomic variations. Four-Constitution Medicine, also known as Sasang Constitutional Medicine, has a long history as individualized acupuncture medicine. It is a holistic and traditional system of medicine, categorizing individual differences into four major types: greater yin (GYN), lesser yin (LYN), greater yang (GYA) and lesser yang (LYA). In the FCM system, the constitution is the underlying determinant of both physicality and personality.

The study investigated 60 subjects (20 GYN, LYN, and LYA each, GYA being excluded due to its rarity) recruited from healthy individuals visiting the University Medical Center for checkups. Data analysis revealed about 16,000 single nucleotide polymorphisms (SNPs) that

were significantly differential in three pairs of one-to-one comparisons, and over 22,000 SNPs in three pairs of one-to-two comparison. In particular, 5 SNPs and 20 SNPs were commonly differential across the first three and the second three comparison groups. On the basis of these results, the authors suggested that FCM might be related to genetic factors. This study could form the starting point of further genome-based identification research into the four constitutions of FCM.

Readers are invited to look at Joshi's up-to-the-minute review of genomic bases for systems of individual differences in traditional medicine (see pages 26-32 of this issue). Also summarized are results from a number of papers investigating the probable genomic basis for individual differences proposed in Ayurveda's 'Prakriti' System of classification.

### 'AYURVEDA FOR ALL' – THE 4TH WORLD AYURVEDA CONGRESS SCHEDULED DURING DECEMBER 2010 IN BANGALORE, INDIA

The World Ayurveda Congress (WAC) is the largest event in the sector. The first WAC was held in 2002 at Kochi, Kerala, followed by the second at Pune, Maharashtra in 2006 and the third at Jaipur, Rajasthan, in 2008. After these three very successful events the 4<sup>th</sup> WAC will be held from 10<sup>th</sup> to 13<sup>th</sup> December 2010 at the Garden City of India, Bengaluru (erstwhile Bangalore). The Steering Committee is Chaired by Ms S. Jalaja IAS, Secretary of AYUSH, Government of India, along with many eminent scholars, scientists and practitioners of Ayurveda. The 4<sup>th</sup> WAC is expected to bring 4000 delegates including over 500 from different countries. The four day event will have nearly 14 plenary and 200 parallel scientific sessions distributed in six venues. The event will also have pre-congress workshops on five subjects including Mental Health, Agni / Kshara karmas, Panchakarma, International GMP and Scientific Writing. The focal theme of 4<sup>th</sup> WAC is "Ayurveda for All" and the plenary sessions will deal with several key areas such as Public Health, Resource Security, Integrative approaches, Research priorities and Education reforms.

The event will showcase six special sessions including the International Cooperation meet - the largest congregation of people who are stake holders and decision makers for Ayurveda, internationally, International Forestry Congress on Afforestation of Medicinal Trees, International Symposium on Textual Studies. Coinciding with 4<sup>th</sup> WAC, Department of AYUSH will also organize 'Arogya Expo' - a popular five day event showcasing strengths of the sector to people and to the international audience. Additionally, ten pre-WAC, satellite conferences are planned.

During last eight years WAC has emerged as a global forum where stakeholders congregate and network, an intellectual exchange broadens and deepens the science. The event

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provides a showcase for the advances made in Ayurveda; it is a forum for students; it is an opportunity to interact with consumers, positively influencing the commerce for Ayurveda. The Congress has emerged as a place where sense of purpose and direction evolve, providing a much needed guiding light for the ever-growing global Ayurveda community. WAC aims at creating interest groups in 30 countries including those in EU, ASEAN, UAE and US; creating international peer review panels in basic and medical sciences for credible guidance and validation of research; initiating the creation of a network of medical institutions, laboratories and Universities across the world for aiding joint research and creating a data base of management efficacy of Ayurveda in practice across the countries.

WAC is an effort of Vijnana Bharati, the DST National award winner for best NGO in the field of Science Technology Communication and has been equally fostered by the Department of AYUSH, Govt of India. The 4<sup>th</sup> WAC is also being co-organised by Arya Vaidya Sala, Kottakkal. The scientific committee invites Abstracts to reach before 30<sup>th</sup> June 2010 followed by full paper by 20<sup>th</sup> September 2010. Details of registration and brochure are available from the Secretariat of World Ayurveda Congress, Room No 52, 3<sup>rd</sup> Floor, New DPNR Building, NIMHANS, Wilson Garden, Bangalore - 560029, Karnataka, India. Telephone: +91-080-26995001/5002, Email: [info@ayurworld.org](mailto:info@ayurworld.org), URL: <http://www.ayurworld.org>.

### **COUNCIL FOR INTERNATIONAL COOPERATION PROPOSED BY THE DEPARTMENT OF AYUSH**

The Department of AYUSH, Ministry of Health and Family Welfare, Government of India, has taken the timely and forward-looking step of establishing an advisory committee for strengthening and streamlining the efforts for international cooperation, under the chairmanship of the eminent scientist and former Director General of the Council for Scientific and Industrial Research, Dr. RA Mashelkar, FRS.



R.A. Mashelkar, F.R.S.

This initiative has been taken by the Secretary Smt. Jalaja Sinha, and is being actively driven by Joint Secretary B Anand. The Advisory Committee includes senior bureaucrats, such as Shailaja Chandra, Swashpawan Singh, renowned scientists NK Ganguly, Samir Brahmachari, VM Katoch, and others.

Six sub-committees are already functional, and are preparing priorities and action agenda for Education and Training (RH Singh, Darshan Shankar), Trans-disciplinary Research (Ashok Vaidya, Bhushan Patwardhan), Clinical Services (G Gangadharan, Narayan Nambi), Policy and Regulatory issues of Trade and Industry (SK Sharma, Deepika Gunawant), ICT and Public Awareness (NS Bhatt, Khalid Siddiqui), and IPR initiatives (MD Nair, Meenakshi Negi).

With the growing global interest in Indian Systems of Medicine, the proposed Council expects to be fully operational by early 2010, and is expected to bring some game changing initiatives to promote and propel the Indian systems of medicine in the global space.

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