

## Genetic basis to concept of *prakriti*

We agree with the views expressed by Valiathan in his guest editorial<sup>1</sup>. He has rightly advocated a need for more focus and research on valuable traditional knowledge and basic principles of *ayurveda*, and not just on herbal drug development. Valiathan has also raised an important question as to whether *dosha prakriti* (phenotypes) mentioned in *ayurveda* have genomic counterparts? We have done some preliminary work to understand if there is any genetic basis to the *ayurvedic* concept of *prakriti*. We postulate that human phenome based on *prakriti*, namely *kapha*, *pitta* and *vata* have genetic connotation that could help classifying human population based on broad phenotype clusters. According to *ayurveda*, every individual is different from another and hence should be considered as a different entity<sup>2</sup>. *Ayurveda* generally categorizes individuals in one of the three broad classes of '*prakriti*' based on certain

physical, physiological and psychological characters<sup>3</sup>. This is independent of racial, ethnic or geographical considerations and may provide appropriate means of classifying phenotypes to be considered collectively for genotyping. To test our hypotheses, we analysed HLA DR alleles among various '*prakriti*' classes and demonstrated significant associations<sup>4</sup>.

The concept of constitutional uniqueness of human individuals leading to prescription of suitable drugs and specific diet is a remarkable feature of *ayurveda*. This has similarities with the pharmacogenomics and customized medicine<sup>5</sup>. If validated, our hypothesis would have far-reaching implications for pharmacogenomics, modern genetics and *ayurveda*. While use of ethnicity or race as a basis for phenotypic variation is still controversial<sup>6</sup>, we propose interdisciplinary approach of integrating genomics with traditional knowledge.

1. Valiathan, M. S., *Curr. Sci.*, 2006, **90**, 5–6.
2. Valiathan, M. S., *The Legacy of Caraka*, Orient Longman, Chennai, 2003.
3. Swoboda, R. E., *Prakriti: Ayurvedic Constitution*, Motilal Banarasidas Publishers, Varanasi, 1996.
4. Patwardhan, B., Joshi, K. and Chopra, A., *J. Altern. Complement. Med.*, 2005, **11**, 349–353.
5. Patwardhan, B., *Indian Drugs*, 2000, **37**, 213–227.
6. Mountain, J. L. and Risch, N., *Nature Genet.*, 2004, **36**, S48–S53.

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## National Science Communication Congress

The 5th National Science Communication Congress (NSCC-2005) was recently organized by the National Council for Science and Technology Communication (NCSTC), Basant Seva Sansthan (BSS) and Indian Science Writers' Association (ISWA) in Varanasi during 12–16 December 2005. The theme of the congress was 'Science Communication Strategies for a Developed India: Vision 2020'. This congress offered a forum for interaction among researchers, science communicators and young students. Science communicators include writers, journalists, TV and radio presenters, workers in science centres and museums, and communication officers for scientific, environmental and industrial establishments, professional associations and exhibition designers, etc. Anyone who has been writing for many years in science magazines should qualify

to participate and benefit from the deliberations of this national event.

'Space weather' is of global concern in today's technology in terrestrial, but more in extraterrestrial space platform. It can have serious consequences for modern support systems, including electrical power grids, communication networks, and satellite operations. Consequently, a discussion on the current scenario, and future trends of 'space weather' falls under a frontier area of science communication. When we are marching forward with the Chandrayaan Mission, scheduled for launch in 2007, we ought to monitor space weather as we do the terrestrial weather.

Science communication to the public is vital for various reasons that include economic, utilitarian, democratic, cultural and social needs. Science is often invisible until such time as people perceive a

need to use it. It is, therefore, the task of the science communicator to make the community aware that it has such a need. Such a congress on science communication is a welcome move. However, facts are not to be thrust into the minds of the recipients as it happens many a time; instead the events should be occasions to nourish them so imperceptibly, that people are able to incorporate new ideas into their own world views, make hitherto unnoticed associations and arrive at a new, personal revelation.

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