

AYUSH research

This is with reference to the opinion article titled 'AYUSH advisory presents ominous outlook for research in traditional Indian healthcare systems' by Lakhotia *et al.*¹.

The Ministry of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) is a governmental body in India purposed with developing, education and research in the field of alternative medicine, including ayurveda, yoga, unani, naturopathy, siddha and homoeopathy. AYUSH is one of the multiple regulators of higher education in the country. The unacceptable and inappropriate advisory released by AYUSH is a reflection of how our higher education regulators are functioning in the country. The classification of AYUSH researchers and non-AYUSH researchers is indeed absurd. The wisdom pertaining to ayurveda, etc. of our ancestors needs to be validated and also must be taken to the next level of knowledge base through appropriate and relevant interdisciplinary as well as contemporary research avenues. However, these kinds of shortsighted policies will never make any ayurvedic drug a global brand. There-

fore, AYUSH must be on par with other branches of science, with all the stringent guidelines and methodologies. Instead of a blame game, it is better to design protocols/guidelines to be adopted by all those who are practising teaching, learning, evaluation and research related to AYUSH. Different higher education regulators as well as funding agencies need to interact and evolve a system for further progress.

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1. Lakhotia, S. C., Patwardhan, K. and Rastogi, S., *Curr. Sci.*, 2019, **116**(9), 1459–1460.
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Response:

We appreciate the assertive comments of Ranganath. We agree with his observation that the proposed division of science as 'AYUSH' and 'non-AYUSH' is not

only arbitrary and unnatural, but also unproductive, detrimental and regressive to the growth of knowledge as a whole. Research gets biased if one decides to disrespect, disregard and discard ideas that differ but accept only those that appreciate perception of the AYUSH ministry. This is unacceptable in any research. Any system of health-care has its own advantages and limitations. Denying these limitations on the pretext of incompetency is undesirable. Adopting a policy of inclusivity is obviously more productive for the growth of AYUSH.

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MEETING REPORT

Science of the earth system*

A workshop on 'Advances in Earth System Science' was held last year at the Banaras Hindu University (BHU), Varanasi. An editorial board meeting of the *Journal of Earth System Science* (published by the Indian Academy of Sciences (IASc), Bengaluru) was also held during that time. About 50 delegates belonging to various domains of earth system science, viz. earth, planetary, atmosphere and oceans, gathered on a

common platform to deliberate on different contemporary topics. Five technical sessions were convened and 21 talks were delivered during the workshop.

The inaugural lecture was delivered by Vinod Gaur (CSIR-Fourth Paradigm Institute, Bengaluru), who emphasized the importance of first principles approach to address fundamental problems in planetary sciences research and education. New views on the origin of the solar system were updated by J. N. Goswami (Physical Research Laboratory (PRL)). The Himalaya is one of the regions where seismicity is a grave concern. V. C. Thakur and B. R. Arora (Wadia Institute of Himalayan Geology) provided an overview of seismotectonics of the domain and stressed on the role of plate

boundary and wedge-thrust earthquakes. The evolution of various branches of earth sciences and their culmination into earth system science was traced by R. N. Singh (Indian Institute of Technology-Gandhinagar). Crustal architecture and Moho topography beneath the eastern Indian and Bangladesh margins from latest marine datasets were presented by K. S. Krishna (University of Hyderabad). Based on the diffusion chronometry of garnet grains, S. K. Bhowmick (Indian Institute of Technology-Kharagpur (IIT-KGP)) highlighted pulsed tectonic patterns in the evolution of early earth hot orogens. Based on the presence of Martian rare mineral jarosite, Saibal Gupta (IIT-KGP) postulated that analogous environment can be found in the Rann of

*A report on the workshop on 'Advances in Earth System Science' organized by the Department of Geology, Banaras Hindu University, Varanasi and the Indian Academy of Sciences (IASc), Bengaluru during 31 October–1 November 2018 at Varanasi as a part of the 84th Annual Meeting of IASc.