Credibility of accreditation by NAAC

Accreditation of educational institutions by NAAC (National Accreditation and Assessment Council) has become the keyword in educational business. Grading by NAAC is considered as the sign of quality. Most of the private institutions in the country have been provided with good grades by NAAC, and they make use of these gradings to extract money from students. It is an irony that most of the NAAC-accredited institutions do not have even moderate quality in higher education. Why does this happen? Is the method followed by NAAC for assessment correct?

Every institute is well-prepared for a visit by the NAAC peer team. Team members are 'looked after well' and are given a rousing reception at the campus.

What awaits the team are newly painted buildings, a list of cooked-up achievements, a list of non-existent facilities, and credentials of the institute that have been created specially for the purpose. For example, most of the college authorities in their record will state that their library functions from 8.30 am to 5.30 pm on all days and students can utilize internet and digital library facilities free of cost. But, in reality, the condition of the library itself will be poor compared to the overall status enjoyed by the institute and it is hardly open till 4 pm on normal working days. Even the attitude of the library staff towards students is not positive. But during the period of one week before the visit of the NAAC team, the library staff start working efficiently till the day the team returns.

The team is presented with a cultural programme by the students to show that the institution encourages extra-curricular activities. During such programmes, teachers give opportunities to only their favourite students. The NAAC team will appreciate the programme and announce that the institution is supporting creative minds!

Next, the team visits each department of the institute. The Head of each department will present a brief account about various activities. Most will present innovative methods adopted by their teachers, publications, the counselling given to students, and most importantly student assessment of teachers. Most of the institution do not adopt the assessment of teachers by students, as it is considered denigrating their profession.

The college authorities will present both past students and present students to interact with NAAC team. Most of them will praise the college in flamboyant words. How can the NAAC team then gather the right information?

Gone are the days when a student got excited being in the merit list during admission process. In these institutions, even if one is in the merit list, one has to pay thousands of rupees as donation to PTA (parent–teacher association) compulsorily. Those who are not willing are threatened privately by the institutional authorities. The private managements think that collecting donations is their fundamental right. How can a student be productive in such a system, where there is hardly any difference between a first-rank holder and a third-class holder? But during the visit of NAAC peer team, no student or student organization tries to present these facts.

The NAAC should change its method of assessing the quality of any institution. It should be done through continuous assessment throughout the year. It should include surprise visits by the NAAC team and interactions with the student community. If there are any complaints regarding the nature of admissions and facilities by the students, it should be taken up seriously. NAAC should also monitor the quality of teaching. If these are not taken into consideration, we will have five-star colleges sans quality bringing out students with no substance.

BIJU DHARMAPALAN

Asili, Church Road,
Vandithadam, Vellayani,
Thiruvananthapuram 695 522, India
e-mail: biju_dharma@yahoo.co.uk

Heavy metals and Ayurveda

A recent correspondence by Daniel[1] and subsequent response from Schmidt *et al.*[2] published in *Current Science* highlight concerns regarding the quality of traditional medicine, particularly issues related to accidental or deliberate adulteration that could be hazardous to health. Saper *et al.*[3] have reported the presence of toxic heavy metals in certain Ayurvedic herbal medicinal products. Certainly, presence of such toxic contaminants cannot be justified in any material intended for consumption as a drug.

Heavy-metal use in modern as well as traditional preparations is known. For instance, anticancer molecule Cisplatin contains platinum. A well-known Ayurvedic preparation, *Kajjali* contains mercury and sulphur. Several possibilities will have to be considered before reaching any conclusion regarding the presence of heavy metals in traditional medicines. Ayurveda uses many metals in therapeutics. It includes certain *Shodhan* (purification or detoxification) processes to take care of putative toxicity of such heavy metals. Such traditional metal preparations (generally called *Bhasma*) must have the following properties: they should be ultra-fine particles that float on water and one should be unable to recover the metal back from such preparations[4]. A traditional process called *Nirutha* indicates that there should be no elemental forms of metal in the final formulation. Such descriptions in traditional knowledge support the hypotheses that although heavy metals are used in *Bhasma* preparations, the known toxic forms may not remain in the final formulation that qualifies their use for therapeutic purposes. It should be noted that most of the traditional methods for preparation of *Bhasma* are tedious. Mass scale commercial production may compromise these processes that may adversely affect quality. Reports related to presence of toxic heavy metals in traditional preparations where metals are not part of official formula-

tion, are a matter of concern. This is mainly due to contamination during the bioprospecting or manufacturing processes. The herbal material might contain heavy metals when grown on polluted soil. Such incidences certainly reflect failure of good agricultural and manufacturing practices and quality assurance, but not necessarily of the traditional systems. This is equally a failure of the regulatory system, particularly the Indian, that is unable to evolve and enforce effective quality control norms for herbal medicines.

Presence of spurious substances in market samples is not new. However, it does not reflect adversely on the importance of modern medicine. For instance, cyanide-tainted Tylenol[5]. Therefore, conclusion of Saper *et al.* that 'users of Ayurvedic medicine may be at risk for heavy metal toxicity' is certainly not justified. It only relates to certain samples of Ayurvedic medicines from certain companies in certain locations. It is high time now that India should take a formal position on such issues by integrating views from scientific and regulatory agencies such as ICMR, AYUSH, CSIR, FDA and DCGI. While it will take a substantial effort to redress the damage to the Ayurvedic system due to such publications in international journals, we need to learn more from such lessons.

1. Daniel, M., *Curr. Sci.*, 2004, **87**, 275–276.
2. Schmidt, M., Betti, G. and Thomsen, M., *Curr. Sci.*, 2005, **88**, 336.
3. Saper, R. B., Kales, S. N., Paquin, J., Burns, M. J., Eisenberg, D. M., David, R. B. and Phillips, R. S., *JAMA*, 2004, **292**, 2867–2873.
4. *Charak Samhita* (eds Bhagavan Dash and Sharma, B. K.), Chaukhamba Sanskrit Series Office, Varanasi, 2001, 7th edn.
5. Infante, F., Dominguez, E., Trujillo, D. and Luna, A., *J. Forensic Sci.*, 1999, **44**, 110–113.

PATWARDHAN BHUSHAN*
WARUDE DNYANESHWAR
TILLU GIRISH

Interdisciplinary School of Health Sciences,
University of Pune,
Pune 411 007, India
**e-mail: bhushan@unipune.ernet.in*

NEWS

92nd Indian Science Congress*

The focal theme of the 92nd Indian Science Congress was 'Health technology as a fulcrum for development of the nation'. About 6000 delegates attended the Congress, including about 400 from abroad.

The Congress was inaugurated by the Honourable Prime Minister of India, Manmohan Singh on 3 January 2005. After releasing a souvenir, he addressed the gathering of scientists from all over the world and urged them to work for the upliftment of the society and mankind at large. According to Singh, apart from being an instrument of economic and social progress, science is also a means to acquire a more rational approach to life. Science and technology (S&T) must pervade our psyche, our way of thinking and our way of working. He referred to a vision of science that included:

- Devoting equal attention to the development of basic and applied sciences, both in teaching and research.
- Rebuilding the science base in the universities, including creation of synergy between new initiatives in S&T and the university system.
- Promoting public–private partnerships to increase funding for frontier areas of scientific research.
- Ensuring de-bureaucratization of S&T institutions and assuring their academic autonomy.
- Restructuring of S&T support systems.
- Creating career opportunities for scientists for retaining talent within the country and building more centres of excellence in science, like the Indian Institute of Science, Bangalore.

Manmohan Singh said that S&T must play a greater role in our strategy to address problems of mitigation and management of impact of natural disasters. Pre-disaster preparedness is also important and the Indian S&T community should rise to this challenge.

He expressed concern on the fact that our best minds are not turning to science and those who do so, do not remain in science. We have to improve the quality of teaching and increase the enrolment of students in science and mathematics at the school level. Secondly, the tyranny of bureaucracy and the quality of output in many of our scientific research establishments need attention. Questions like whether or not we are creating the required incentive mechanisms to reward creativity, are arising in the minds of Indians. He also added that apart from keeping our international commitments, an important objective of our Government is to bring in a balanced intellectual property regime, which on the one hand will give a full expression to the creative ability of India's intellectual prowess and on the other hand, protect interests of the society at large. Agriculture and energy are the two areas of great importance to our economic development where the nation can benefit from more research and innovation. A new technological revolution in the energy sector is required that would meet the growing demand for energy in more economical and sustainable ways.

Focusing on the theme of the Congress, the Prime Minister added that biotechnology, pharmaceuticals and health technology are priority areas for public policy. Alternative pathways for drug discovery, where India has a distinct comparative advantage and a chance to win, must be created. Singh informed the audience that his government is presently formulating programmes to launch a National Rural Healthcare Mission. Singh announced the constitution of a Scientific Advisory Council to Prime Minister with C. N. R. Rao as its chairman. The Council would guide in addressing the challenges facing Indian science that may be identified in the Congress.

*A report on the 92nd Indian Science Congress held during 3–7 January 2005 at Nirma University, Ahmedabad.