five years. It may be useful for such teachers to get a feedback from the students whom they teach, through an objective proforma to be filled by the students after the teaching session. This would enable the teachers to improve their performance. On this basis they could submit a yearly report of plans for the next academic year to the Head of the department for appraisal of a con-

sultative committee. The department/ university/college should subsidize the buying of books by the teachers to a limited extent it can afford, to encourage them. The practice of getting feedback from the students was started three decades ago in some of the departments of a university, but was given up because of certain difficulties. It is unfortunate that some teachers do not want to know about their weaknesses and shortcomings, which is so necessary for improvement of our institutions.

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Teamwork in science

The editorial in Current Science (2002, 82, 609-610) has raised very creditable ethical issues. Sharing credit within a team of scientists has not been fair as in any other professional activity. The quote by Max Perutz, 'I had my reward in their lasting respect and affection and it did not damage my scientific career' is very pertinent. The matter hinges critically on the transparency of personality and behaviour of the group leader. In the context of our country, the following considerations may help raise the ethical standards besides help encourage bright young students to opt for research in basic sciences, an issue that has already assumed serious proportions.

(a) Over-ambitious leaders have unduly boosted egos. As most scientific endeavours today require good team work, it may be wise to implement schemes of rewards/incentives for a team's achievement in projects, rather than try awarding individuals. Such encouragements may be instituted right from the school stage in order to curtail harmful effects of individual egos that start building from the formative years.

- (b) The administration of science and educational institutions needs to curb arbitrariness/adhocism in decision-making. Mandatory provisions to ensure such governance may have to be considered. The functioning has to become transparent to any scrutiny by a concerned individual and/or authoritative professional bodies.
- (c) There is a lot of talk about achieving excellence in science in our country. It is necessary to note that freedom and expansiveness of the

thought process only can result in excellence. It requires a high degree of self-discipline, self-critical capacity, humility and the ability to discriminate relevant material out of a sea of information available. One also needs to train to grasp inspirational ideas as and when these come and then give the same a practical shape, free from preconceived bias. There is thus a need to identify peers/experts who can rise above self-projection. Usually such persons are not easily visible during a casual search.

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Sterile intellectuals

Intellectuals, being the conscience keepers of the society, it is essential that they must express their opinion candidly with honesty to defend truth without any fear or fervour to authority in power. Today, in India, we have a large pool of intellectuals. Unfortunately, only a microscopic minority have the courage to stand up to the authorities to speak their mind, even if the truth is harsh and bitter. Most others, however, prefer to be obedient, subservient and behave like chameleons, which is in sharp contrast to the expectation of the Nobel Laureate C. V. Raman who has said: 'Even a man of sensitivity and imagination can become bound and unfree when he has to falsify his feelings. If he forces him to say that he likes what he dislikes and that he believes what he does not believe, then he will have to pay the price in that his spontaneous and his creative faculties will dry up.'

It is an irony that in the postindependence period, only mass production of such sterile intellectuals has been entertained. This is amply evident from the fact that even though we have celebrated the golden jubilee of our independence, we in India have not produced a single Nobel Laureate in the post-independence period. What is still more shocking is that the research papers with thousand citation counts are either rare or nonexistent, in spite of fabulous funding on national research institutes. Further, such deplorable decline of quality has also percolated to other fields of human activities like politics, administration, administration of justice which consume enormous amount of public time and money. As a result, the institutions that have produced them and the institutions that have sustained them are cracking under their weight and are heading towards redundancy. Since these sterile intellectuals have lost their ability to speak the truth, there is a strong decline, not only in the quality of education and research,

but also in administration, administration of justice and politics, as well as other human activities. 'Merit' is being replaced by 'mediocrity', and 'rule of law' by the 'law of the jungle'. Why did it happen?

Being dazzled by the morbid materialism, short-sighted utilatarianism and hyper-individualism, the intellectuals of the post-independence period have aped the western culture with adulation, have preferred to be in that soil by any

means, and in the process acquired the virtues of a slave, which have contributed to the creation of low self-image. Because of the 'captive mind' imagination has been blunted, visions have been constricted, creativity has been eroded. This has resulted in the breeding of intellectually barren, dishonest operators and manipulators as intellectuals who have exhibited politeness as 'a dressing gown for dishonesty'. In order to save India from such a looming disas-

ter, conditions must be created to breed excellence and fearlessness. Only when men of excellence without fear stand up to the authorities to speak the truth, will our country have a bright future.

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Are seminars/symposia simply 'academic melas' or are they worth something?

India has entered the 21st century, but the vision of the basic structure of education is still not clear. Academicians and well wishers of this country have pointed out several gaps in education and research through this journal from time to time. The level and condition of primary education is far from satisfactory. The Government proposes that each village should have a school, since it is as essential as drinking water. The location of a school is never taken as a parameter before registration. Drinking water, classrooms and toilet facilities are never monitored. Almost a similar situation exists in private and government colleges. Leaving aside exceptions, almost all colleges suffer from poor grants, despite pressure of increasing number of students due to population explosion. Misappropriation is common in the absence of proper moni-

It is a known fact that education is the first step in modelling a society for the future. Research should be on top priority, looking to the future needs and to keep pace with contemporary developments and growth of science and technology. But we see just the opposite trend. We are nurturing our present generation of student scholars out of this, tempering the mass through a hot and cold system devised by our administrator-educationists, politicians/bureaucrats. An example of such a penchant is given below:

A recent issue of *Employment News* (26 January–1 February 2002) invited appli-

cations from Indian nationals in the prescribed form of the CSIR for Senior Research Fellowships (SRFs) and Research Associateships (RAs) to provide opportunities to bright young men and women for training in methods of research under expert guidance of faculty members/scientists working in universities, laboratories and institutes of the government in various fields of S&T. In this advertisement, in the item relating to 'research papers published and patents', it has been mentioned that 'non-refereed journals, in-house bulletins, university journals, papers presented in conferences, workshops, seminars and symposia are not be included'.

Here, I would like to submit that out of two in-house bulletins published recently from this laboratory, one is cited in *Dictionary of Fungi* (CAB, 1996, 8th edn) and the other as a CD-ROM document. There may be several other examples in other disciplines also. I have mentioned these examples from our discipline to state that in-house bulletins are not 'really in-house' as treated in the advertisement, leading to disqualification for the fellowship.

Further, I would like to mention that almost all funding agencies (ICAR, CSIR, DBT, UGC) are pouring money for organizing seminars, symposia, workshops, group meetings, etc. A lot of preparation is done for these meetings; research and teaching remain almost paralysed during conference days in the host institution. The young researchers present their work in a short span of time to let people know about

their work without waiting for regular publication and they also want some benefit out of this presentation. They receive criticism from the audience if the work is not worth presenting. If these presentations/papers are not worth considering, then why are agencies wasting hard-earned money of this poor country's people for organizing these 'academic melas'?

Moreover, for good publications in many branches it takes 1–2 years of hard work. By the time a researcher publishes 4–5 papers, he/she is not selected on the ground that he/she is overage (a candidate is overage at the age of 35). If not supported by a fellowship the researcher leaves the research project. He/she becomes unemployed with all his/her qualifications, research, training and publications, as most state governments have imposed a ban on new appointments.

It is high time that academicians evolved a uniform national policy looking to the young teacher and the researcher. Such a policy should be beyond the jurisdiction of the state government. We cannot leave the future of this nation with the fragile state leaders.

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