

Nobel mission

The Nobel Prize symbolizes the acme of recognition for original contribution in science. A search of the website nobelprize.org reveals that India has had a distinct drought for the last 76 years. Only one Indian university stands listed amongst those which have had the honour of producing Nobel Laureates in science (http://nobelprize.org/nobel_prizes/lists/universities.html). That is, the University of Calcutta. Similarly, C. V. Raman has been the only scientist who won the coveted Prize in science while working in India. This point has been talked about umpteen times, more specifically, on National Science Day, which has become a ritual like many others, with more emphasis on fanfare than on development of an algorithm for achieving excellence in science¹⁻³. We do have oases of excellence, but the finishing line for winning the Prize is still elusive. However, a silver lining could be seen in the form of two recent lectures or write-ups^{4,5}, which have catalysed the quest for the Prize. S. P. Thyagarajan, Vice-Chancellor, University of Madras, while delivering the 70th Founder's Day commemoration address (in memory of the Founder Pro-Chancellor Rajah Sir Annamalai Chettiar) in Annamalai University said: Educational institutions such as the University of Madras and Annamalai University ought to aim at bringing out Nobel Laureates, and accordingly tune up their programmes. He went on to say that these institutions could treat Chicago University as their role model and emulate it. Thyagarajan further said: 'Chicago University, established in 1892, celebrated its centenary in 1992. During the centenary celebrations, the achievements of the university were summed up succinctly in a single sentence – In its 100 years of existence the university has produced 100 Nobel Laureates⁴'. The second was an article in *Businessworld* by P. Hari: 'Nobel endeavour will revive science. An Indian scientist winning a Nobel will inspire researchers and bring back students to science'⁵. Hari has also emphasized the importance of role models in science like in any other profession.

One point which warrants special mention is the mentorship crisis in our country.

Here, I would refer to another interesting statistics of Nobel Prize winners, i.e. students/postdocs of Prize winners who also won the Prize. Seven students of Enrico Fermi won the Nobel Prize⁶. Close on the heels, six students of Ernest Rutherford won the Prize. The situation boils down to like in any other profession. The master would fire the imagination of the disciples, and make them pick up the right problem, the solution of which would lead to the Prize^{7,8}. This is amply evident from the way Watson and Crick made a hot chase for deciphering the DNA structure⁹. Similarly, Sydney Brenner¹⁰ did a careful search about the research problem he should work on, where he would have the international edge. So, the Nobel mission is not only about more of funding and more of institutions, but to set up higher benchmarks for our research and sieving out mediocre mentors. Many institutions still allot guides on the basis of seniority only and the student has no say in the process. Thus, it is not rare that many bright students, develop aversion for science. We have a huge pool of talented young students who can do wonders and win the Nobel Prize year after year. For this, the following are required:

(a) Entry into science faculty must be governed by the same procedures and standards as by the institutions like Cambridge, Harvard, Chicago or Stanford, which are in the forefront of winning the Prize. Anything less would allow the drought to continue. The Nobel Prize has an aura and provides international honour, visibility and sanctity unlike a host of national or local awards. The beginning for the Nobel mission has to be made by science managers and mentors by living and guiding by example and not by administrative fiat. In this context it is germane to recall that 'A scientific leader is at most like a conductor of an orchestra, or even less, like a movie director. Success depends on the talent of the performers or of the actors. The role of the scientific director is to coordinate research, but at the same time the director has to perform research and to read the literature along with the team. The mediocre persons in research must not outnumber the creative people,

and the mediocre persons must not reach leading positions. In the former case, the creative people would be stifled because they work alone whereas mediocrity is quickly gregarious and powerfully efficient against the better ones. In the latter case, creative elements would be eliminated from the outset because a mediocre leader will choose to become surrounded by similar or inferior associates'¹¹.

(b) Norms for accreditation of research supervisors even for Master's programmes should be based on strong peer-reviewed publications of the prospective mentors and not just by the length of stay in the campus, as is in vogue in many universities and research institutions.

Once we have a threshold level of creative people on the campuses, the rest would follow.

1. Sharma, O. P., *Curr. Sci.*, 1998, **74**, 97–98.
2. Sharma, O. P., *Curr. Sci.*, 2004, **87**, 1641.
3. Nathan, V. D. R., *Curr. Sci.*, 1998, **75**, 1287.
4. *The Hindu*, 2004, www.hinduonnet.com/2004/10/01/stories/2004100103870300.htm.
5. Hari, P., *Businessworld*, 2004, http://www.businessworld.in/oct2504/web_exclusive01.asp.
6. Andraos, J., 2002, <http://www.careerchem.com/NAMED/NobelAnecdotes1.pdf>.
7. Doherty, P., *A Beginner's Guide to Winning the Nobel Prize*, Melbourne University Press, 2004.
8. <http://www.studentbmj.com/search/pdf/04/02/sbmj76.pdf>.
9. Watson, J. D., *Double Helix, A Personal Account of the Discovery of the Structure of DNA*, Penguin Books Ltd, New York, 1982.
10. Brenner, S., 1987, <http://elegans.swmed.edu/Sydney.html>
11. Andraos, J., 2002, <http://www.careerchem.com/NAMED/NobelAnecdotes2.pdf>.

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