

ferent cells along the antero-posterior and dorso-ventral axes.

Ever since Thomas Hunt Morgan introduced the fruit fly or *Drosophila* to genetics early in this century, this small insect has been central to the growth of the subject of genetics and thereby to many fundamental concepts in biology. It is interesting to note that Morgan himself was an embryologist who turned to genetics with a view to understanding the central issues of development and differentiation. Although by 1913 Morgan gave up 'efforts to deal simultaneously

with genetics as transmission and genetics as development'⁷, it is interesting to note that Morgan's objective of understanding development in terms of genetics has finally been achieved and the power of this approach been duly recognized by this year's Nobel prize in Medicine.

1. Lewis, E. B., *Nature*, 1978, 276, 565-570.
2. Nüsslein-Volhard, C. and Wieschaus, E., *Nature*, 1980, 287, 795-801.
3. Bateson, W., *Materials of the Study of Variations Treated with a Special Re-*

gard to Discontinuity in the Origin of Species, Macmillan, London, 1894, p. 85.

4. Lawrence, P. A., *The Making of a Fly*, Blackwell, London, 1992.
5. Lawrence, P. A., in *Outstanding Papers in Biology*, Current Biol. Ltd., London, 1993, p. 93.
6. McGinnis, W. A., *Genetics*, 1994, 137, 607-611.
7. Falk, R. and Schwartz, S., *Genetics*, 1993, 134, 671-674.

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CORRESPONDENCE

If education is important, so must be the teachers!

I applaud the Indian Academy of Sciences' effort of exercising themselves on an important aspect of education in our country. In fact it is basically the stony silence of the 'intelligentsia' of our country that has left most of the matters that concern our lives in the hands of politicians, bureaucrats and judiciary. The result is there for all of us to see. The Academy's effort is thus very welcome.

I believe, however, there is need to look at another essential, complementary question, *i.e.* what sort of facilities should be provided to the teaching profession so that teachers become effective instruments in translating good ideas into reality.

Two major causes of the progressive deterioration of education in universities in our country are:

(i) teaching has never been given a place of pride in hierarchy of jobs in terms of salary and service benefits,

(ii) there is rampant corruption in educational institutions in matters of selection and promotion of teachers, organization of research, etc.

The following suggestions are worth considering:

(1) An Indian Educational Service (IES) for college and university teachers and equivalent state-level educational

cadres for school teachers be created, making it the BEST public sector job in terms of salary and service benefits. The necessity of making such jobs the best in the country can hardly be overemphasized if the nation really feels that imparting education and science education in particular is of utmost importance for its growth—more important than handling bureaucratic and law-and-order problems.

2. The pay-scales of teachers at all levels be time scales whereas promotion to higher cadres be made on periodic evaluation of their work by the peers drawn from as distant quarters as possible. Simultaneously, new posts be created for fusing young talented people from outside. This is, in fact, the procedure followed in research institutes and to some extent in colleges but not in the Universities! The present practice of putting people into available posts in the Universities has led to immense intra- and inter-departmental anomalies and only encourages servitude, favouritism and corruption at the cost of sound work-culture.

A minimum set of criteria, generally agreed upon, be insisted as requisite for promotion to various cadres. This should also include the students' evaluation of the teachers to be sent directly and confidentially to the evaluating authorities, say Vice-Chancellors in

case of the Universities and inspectors in case of schools.

The whole point is that a teacher should be assured of his growth in the cadre only through his positive contributions to the system like teaching, research, commitment towards social issues, taking care of the overall growth of student life in the institutions, etc.

We should all accept that despite the likes of Raman, Ramanujam, Bose, Saha and Bhabha or various science institutions of repute, science has not really become a part of our culture. Our culture still continues to be dominantly feudal and colonial, denying all that science in spirit and form stands for. Resurrection is only possible through a sound educational system and that in turn requires a competent class of teachers at all levels taking pride in their profession. This requires a system that we lack so far. This is where Governments and intellectuals can come in to help erect it. Good players in good playing conditions will, by definition, make a good game. Can we ensure it?

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