accordingly suggest that funds should be established for making "book grants", that all our learned societies should allow "student members" or "associate members" at greatly reduced rates, and that these societies, helped by far-seeing philanthropists, and together with the Central and State Governments, should sponsor tours by juniors and students to various parts of India and abroad, sometimes to conferences but often for study and experience alone.

So much for facilities. There remains the associated question of "Rewards". The career of a junior in science (and, of course, in any branch of learning) must be secured as soon as he shows aptitude and positive intentions. He must be able to see in the Scientific Service, or in other opportunities for scientific employment, the fulfilment of his efforts and dreams.

But this is not enough. Before he begins his regular work he must be able to pursue and conclude some research of his own design at some centre of his own choosing, for a period which may vary from 1-3 years, according to his own purpose and performance. We know the usual way of providing such encouragements is to grant scholarships and fellowships through various agencies, and there is scarcely any need for me to say that they should be greatly increased in scope and quantity.

I come now to workers at the other end of their careers All my correspondents are agreed that an incalculable wastage of scientific experience is going on in India through the neglect of retired scientists; and that this wastage not only applies to the work they themselves could be producing, but also to wastage in the efforts and directions of the young men and women who were working under their guidance

Of these, some, no doubt, can still afford to continue their enquiries without payment; but they are not necessarily allowed to do so. There are gravely disturbing cases of gifted scientists, with records that would have brought them the highest honours elsewhere being refused "sitting accommodation" in the institutions they served for more than three decades. Their number is, however, far exceeded by the men who wish to continue their work; but cannot do so for financial reasons. They have to find other employment, sometimes in executive positions, sometimes in subordinate ones. In this connection, it is necessary to remember, as Dr. J. N. Ray has pointed out to me that "the expectation of life in India has now been increased by at least ten years".

There remains the question of rewards for those who are neither at the beginning nor near the end of their careers. Their rewards would lie largely in the satisfactions of work and social duty, and in the recognition which comes to them Apart from Departmental and official recognition, and tokens of appreciation from international sources, there are the recognitions expressed by one's colleagues through selection to the honours of learned societies. I do want to say, however, that, to the best of my knowledge, no society anywhere has solved the question of "fairness" to the satisfaction of all its members, since "fairness" is apt to be individually defined. At the same time, the position continuously improves in every reputable society everywhere, in response to progress in the sense of responsibility of its Fellows, in whom a high regard for a flexible and democratic election procedure, with provision for complaints and appeals, thereby becomes increasingly evident.

RESPONSIVENESS OF NERVE CELLS

THE means by which the human brain is modified by its own past activity were discussed by Dr. E. D Adrian, O.M., President of the Royal Society, in his address at the anniversary meeting of the Society held at Burlington House recently.

There were already some indications, Dr. Adrian stated, of the kind of alteration which may be produced in a nerve cell by repeated activity Repeated stimulation of the nerve cells of the brain produced an increased responsiveness which could last for a minute or so, and Professor J. C. Eccles of the Australian National University, Canberra, and his colleagues had shown lately that even in the spinal cord, whose function was purely executive, a long period of inactivity led to a loss of responsiveness which was restored by a short period of enforced activity and tended to persist for a matter of hours.

For the study of physical changes which accompany these alterations there was available an extension of a method, again introduced by Professor Eccles, by which the interior of a nerve cell could be examined by the use of a micro-electrode. It was naturally more difficult to study the biochemistry of the individual nerve cell, but the storage process might well involve a chemical as well as a physical reorganisation. If the cell chemistry of a grown man could bear the mark of an infection with measles in childhood, it was not unreasonable to suppose that the nerve cell constituents were plastic enough to be modified by past activity.