

## EDITORIAL

### RESEARCH

Some people say that to copy from one book is plagiarism, but to copy from a few would be research! Whilst it is not true that research is pure plagiarism, it is inevitable that in attempting to add new ideas or modify the old, a greater part of the research activity must be spent in recapitulating hypotheses, repeating and verifying experiments, and rummaging in comparative solitude in order to formulate a new line of enquiry. In a practical society very much obsessed by ideas of investment and return, cost and benefit, it is evitable that from time to time questions will be asked about the state of research, and demands will be made to see results. Single-minded persistence in the approach of evaluation of research work has no doubt contributed to the exuberance of publications reckoned to be in the region of 5,000 medical journals in English alone each year. Successive critics have pointed out that there exists rehash, reduplication, and in many cases premature conclusions. Part of this unsatisfactory phenomenon in academic pursuit must surely be ascribed to the application of business standards to scholarship by the society.

Actually, research is dependent on three factors alone—intellectual curiosity and potential, facilities of accommodation and instrumentation, and the availability of leisure. It is no idle statement that research demands no more than an average intellect, and in fact many of the topmost scientists including Nobel Prize winners of the present day are not known to have extraordinary intellectual endowments in terms of assessable quanta like I.Q. or superior perceptive senses. However, without a burning curiosity which drives the researcher to probe, theorise and verify, and in fact to drive a pleasure in doing so, research of a serious kind is not possible. The man who works hard at his research, and goes away to relax and recuperate in his holidays is obvious no researcher, for a researcher is having the time of his life whilst researching and often finds in fact his holidays and leaves irksome, and a necessary imposition because of the limitation of his physique.

Once the man is there, if he is denied facilities, then academic research will likewise be hampered. It does not mean that a researcher

must be given every facility before he can start, for otherwise only well-endowed countries like U.S.A. can have worthwhile research activities. Nevertheless, certain basic requirement in terms of space, instrument, and time, must be available before research is possible. Judging by the fact that the greater part of new contributions to knowledge has not come out from the best-endowed countries such as U.S.A., it must be evident that whereas there is an absolute limit of requirement of facilities below which research is impossible, there is actually no close direct relationship between the quality of research and amount of facilities. Perhaps this is where the potential and curiosity of the individual compensate for the difference in the standard of facilities available.

Hence if there is no research, the reason may well be a lack of the right man, but may equally be a lack of the basic facilities. In Singapore, the University budget has shown an expenditure of more than 12 millions per year for some time, but the sum expended on research has never been clearly indicated and would appear to be well below 3%. The Health Department of the Government has shown no identifiable vote for research, and it is likely that the annual expenditure of more than 50 million dollars includes only a mere fraction of a per cent for research purposes. It seems more than apparent that locally the basic facilities are as yet to be provided, and hence if there is any shortcoming in local research, one does not have to go far to seek the answer.

Research in medicine may take three forms: basic studies where aetiologies are worked out and the *raison d'être* of illness is unravelled; clinical investigations where the actual practice of healing provided the key to the door of advancement of medical knowledge; and epidemiological surveys where the interaction of man and his environment in health and disease is shown in the proper perspective. For each of these, one requires different interest and different facilities and to have personnel, keen on epidemiological work, given hospital and treatment facilities would be as tragic as to put a clinical researcher in possession of an elaborate set up in basic experimental laboratories. Further, it will be difficult and in face

erroneous to think that any of these three approaches more important than the others, even though from time to time medical fashion and public thinking are apt to do so.

It should be realised that the ultimate goal of medical research is to improve the lot of man, and human health is ensured as much as by the knowledge we have gained from the basic researcher that have been going on, as by the effort of clinicians attending to their

individual patients, or the social worker surveying some particular aspects. Healthy research demands that there should be a balance amongst these three if not within an institution, at least within a nation, and for this balance to be achieved, it seems imperative that some coordination must exist so that wastage through overlapping of activities and unequal development can be avoided.

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