Medicine would wish to do everything possible to make this idea a reality.—I am, etc.,

HEDLEY ATKINS
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SIR,—When the then relatively new Royal College of Obstetricians and Gynaecologists was obliged to move from its original home in Queen Anne Street there were members of the councils of the Royal College of Surgeons and the Royal College of Obstetricians and Gynaecologists who were anxious to make this the opportunity for creating an academy of medicine. The possibility of establishing this at Lincoln's Inn Fields was explored and had considerable support but did not materialize. The reasons for this disappointment are now irrelevant.

As one who welcomes the initiative of Sir Thomas Holmes Sellors and his colleagues (24 March, p. 737), may I suggest that while "such a body would require no substantial funds or physical premises" there is a case to be argued that it might be to its advantage if it had both of these. Many of the activities of the Royal Society of Medicine are planned to demonstrate that "what the existing disciplines have in common is infinitely greater than what differentiates them from each other." For this reason it is to be hoped not only that the conference of representatives of all the colleges and faculties will be convened as requested by Sir Thomas and his distinguished colleagues, but that representation may also be requested from the Royal Society of Medicine. An academy of medicine might one day be welcomed as an example to the English-speaking world and to the doctors of the European community.—I am, etc.,

JOHN STALLWORTHY

Oxford

SIR,—It is understandable that anyone who has been president of the B.M.A. or of a royal college recently should be advocating a new body that would give "a clear and united opinion on matters of major policy" (Sir Thomas Holmes Sellors and others, 24 March, p. 737). The authors refer to fragmentation of the profession as a "growing danger," though others will perhaps see this fragmentation more as a failure of the profession to throw up leaders and institutions capable of coping with, among other things, the inevitable and, in the main, proper development of specialization.

It cannot be a coincidence that this idea should come at a time when the B.M.A. is in disarray, the General Medical Council discredited, and the power and influence of the older royal colleges diluted and in some ways sadly declining. In the bureaucratic world in which your distinguished correspondents and the rest of us are now involved, with varying degrees of reluctance and eagerness, the conditioned response to a mess is to form another committee—or, at top level one supposes, an academy.

If such a new institution were to replace the G.M.C., there would be much to be said for it; and we could hope that there would be a concomitant emergence of the sort of vigorous leadership in all things which is what the profession needs above all else. But let us not merely add something that

would in no time at all become just one more centralized medical bureaucracy looking for funds. Whiffs of amateurism will have already been detected by the highly professional trunk of the elephant, which is by now well used to being importuned by those with "no substantial funds."

Indeed, when your correspondents mention postgraduate education and training they are on important ground, though they are perhaps too polite to show their awareness of what it is that is important. Again, it is money. It usually is. While it is undesirable that any one body should have too much control, there are at present rather too many independent groups vying with one another over postgraduate education. The result is altogether too complicated a balance of power, and it is financed largely by public money. It should, however, be stated emphatically that the Department of Health and Social Security's behaviour in the exercise of its financial power has, from the educators' standpoint, so far been impeccable, generous, and with a minimum of strings. Nevertheless, if in the future the Department were to see, say, training programmes to be conflicting with what its political masters wished to see in the way of hospital staffing, its clear duty would be to redirect its funds appropriately.

I am not happy that the employing authority of the profession should also have such direct financial control of its further education. But I would be less unhappy if government money (and what other money is there?) came from a source independent of the D.H.S.S. I would therefore support the idea of an academy, but only if: (1) It had the functions of a postgraduate medical grants committee, with the same independence as the University Grants Committee, its funds being largely those which would otherwise be dispensed by the D.H.S.S.; (2) it replaced and was given whatever are to be the new functions and financial resources of the reformed G.M.C.; and (3) it enjoyed the confidence as much of the younger doctors as of the senior members of the profession.

I attach as much importance to the last condition as to the other two. We shall need the younger G.P.s and consultants and the junior hospital doctors increasingly to help lead the profession in resisting the inhumane bureaucracy that will soon increase. The fight against disease will in many ways be less onerous—if we are allowed time for it. The seniors and the distinguished would do well to hand over more power to those who are younger and more vigorous and who have less deference towards non-clinical authority. It would be refreshing if this were seen to be done more often before the retiring age was reached.—I am, etc.,

JOHN POTTER

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Toxic Effects of Drugs on Bone Marrow Cultures

SIR,—The paper by Dr. D. E. Lind and others (24 February, p. 458) reporting the inhibition by amodiaquine of colony formation in vitro by bone marrow from a patient sensitive to the drug is of interest in relation to our own work on drug-induced neutropenia. We have studied the

effect of several potentially myelotoxic drugs on colony formation in agar by normal bone marrow, both murine¹ and human, using a modification of the technique described by Robinson *et al.*² Dose-related inhibition of colony formation is found with chloramphenicol and sodium aurothiomalate (Myocrisin) and occurs at concentrations reached in serum during therapy with these drugs. Depression of colony formation by chloramphenicol was not unexpected since dose-dependent reversible marrow depression caused by this drug is well documented.^{3,4} The effect of sodium aurothiomalate is more difficult to explain since marrow depression occurs in less than 5% of patients on long-term therapy.⁵

The toxic effect in vitro and relatively low toxicity in vivo may be explained by protein binding of the drug in vivo. The culture medium used in the above experiments contained 18% fetal bovine serum. If this was replaced by 18% pooled human AB serum inhibition of colony formation was reduced (see fig.). These experiments show

Effect of sodium aurothiomalate on human bone marrow cells grown in human AB serum (AB—) and fetal bovine serum (FBS.....).

* Numbers of colonies grown from 2×10^5 nucleated marrow cells. Bars represent range of results obtained from triplicate cultures.

that the serum used may influence the results of drug toxicity studies in this system, and suggest that human serum may be preferable to the bovine sera commonly employed because its growth-promoting and drug-protein-binding characteristics may be more closely related to the human situation in vivo.

The technique of bone marrow culture may find application not only in the field of leucocyte disorders but also in studies of drug toxicity and protein-binding.

A.H. is in receipt of an M.R.C. Junior Research Fellowship.

—We are, etc.,

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- Bradley, T. R., and Metcalf, D., *Australian Journal of Experimental Biology and Medical Science*, 1966, **44**, 287.
- Robinson, W. A., and Pike, B. L., in *Haemopoietic Cellular Proliferation*, ed. F. Stohman, jun., p. 249. New York, Grune and Stratton, 1970.
- Yunis, A. A., and Bloomberg, G. R., *Progress in Hematology*, 1964, **4**, 138.
- Best, W., *Journal of the American Medical Association*, 1967, **201**, 181.
- Research Sub-Committee of the Empire Rheumatism Council *Annals of Rheumatic Diseases*, 1961, **20**, 315.