The sickening of medical research: multiple diagnoses and two remedies

Britain's research effort in science and medicine is ailing. Sir George Porter, president of the Royal Society, lectured passionately on the subject last Sunday evening on prime time television when delivering the Richard Dimbleby lecture. Objective measures—for example, numbers of published papers and their impact, of Nobel prize winners, and of patents—show the decline,^{1,3} and the subjective impression of most researchers is that these measures underestimate it. But why this failure? Is it underfunding, as Save British Science tends to argue? Or is it a deeper problem to do with cultural attitudes to science, the organisation and management of the research effort, and unwillingness to change, as the government argues? The House of Lords Select Committee on Science and Technology delivered its judgment on medical research earlier this week (its recommendations are summarised on p 1109),⁴ and I feel licensed to give my views after researching and writing a series of articles on research policy.

My diagnosis is that underfunding is by no means the only problem. The decline in British medical research, and particularly in clinical research, does, as the government argues, have much to do with attitudes and with how the enterprise is organised. The lack of enthusiasm for research begins, however, with governments having shown little sign that they care for or value research, but the government's scientific philistinism grows out of a people who support research enough to put pennies into collecting boxes but who often are too poorly educated to understand the process or the results.

More worrying still is the feeling I have developed that doctors themselves do not care much for research. They are for research in the generality, but they are reluctant to organise their profession so that those who want to devote the large amount of time necessary to be internationally competitive researchers can do so without suffering loss of status, career opportunities, and income. The manpower proposals of *Achieving a Balance* illustrate this indifference in the way they make it more difficult for young doctors to spend substantial periods in research,⁵ and a still sadder example is the story I heard recently of a professor of surgery who told a registrar that he had "wasted his time" by doing

top quality cancer research. Many doctors are unwilling to make the effort necessary to understand what is happening in science (in, for example, molecular biology, statistics, or medical sociology), and many are actually hostile to basic science, believing (wrongly, I am sure) that it is in conflict with the fashion to be holistic. For too many doctors research is a gentle exercise designed to ward off "burnout" and decorate curricula vitae.

These attitudes underlie the more readily defined (and actually more acceptable) problems of medical research: the underfunding; poor training facilities and career prospects; and the unwillingness to set priorities, plan together, accept concentration of resources, and change tack. Symptomatic of the insularity of Britain's research effort is the widespread ignorance of science policy and studies of the sources of innovation, mechanisms for setting priorities and forecasting developments, the best ways to organise research, and measures of output.⁶⁻⁸

The efforts of science policy researchers seem, for instance, hardly to have touched the thinking of the report from the House of Lords.⁴ This is in many ways an admirable report, but it should surely have had an adviser who was familiar with science policy. The report is long on opinion and the wisdom of eminent men and women who have been presented with a mountain of often contradictory evidence (most of it also opinion) but is short on data and references to the studies that have been done of scientific research. The seminal work of Comroe and Dripps,⁹ which seemed to prove the case for supporting lots of basic research in biomedical science, is at least mentioned in passing, but its many deficiencies are not mentioned let alone explored.¹⁰

Unsurprisingly, the committee met despondency among medical researchers, and it identified the main cause as a government that either "considers that medical research does not matter" or else has simply failed to convey that it does think that it matters. "It is not only," says the committee, "that funding is so inadequate that good research proposals are not supported; it is not only that career prospects in research are often dismal; it is not only that patient care frequently inhibits research activity, important as all these factors are. The overriding cause of the collapse of morale is

the impression, right or wrong, that neither the NHS nor the DHSS demonstrates any awareness of the importance of research nor is prepared to devote time, effort and resources to promote it."

The committee does not indict doctors themselves as much as I have done, is essentially happy with the dual support system, and rejects (specifically for medical research) the proposal by the Advisory Board for the Research Councils that research should be concentrated in particular universities.¹¹ The committee ignores the evidence that medical research is already concentrated to a fair degree,¹² and, although in other places it accepts the notion of needing a critical mass for research, it does not follow through the logic of this concept—that is, that without a considerable increase in funds concentration of resources will be inevitable. The committee agrees with "the accepted wisdom" that for "biomedical research the science led approach should be dominant" and is happy to leave basic science much as it is. But it thinks that a wholly science led approach will not be enough, wants more direction of applied research, and finds it remarkable that "there appears to be no coherent means of setting priorities beyond that which is provided by the MRC in discussions with the DHSS."

From this analysis the committee is brought to its main answer for the ills of British medical research—a National Health Research Authority, a special health authority that will be a sort of Rothschild mark two. Lord Rothschild proposed in 1971 the customer-contractor principle, whereby research funds were taken away from the MRC and given to the customer (the DHSS) to commission the research it wanted.¹³ This policy failed because the DHSS was neither good at knowing what it wanted nor good at commissioning the research, and the money was returned to the MRC in 1981. The new arrangement would be different in two ways: the MRC would keep the money, and the responsibility for commissioning research would rest with the NHS not with the DHSS.

Superficially this is an attractive rabbit to have pulled out of the hat: it seems to provide an answer to many difficulties. The authority will identify priorities (which the committee recognises to be far from easy); cooperate with the MRC to make sure that they are acted on; commission research for the NHS; make sure that the NHS is aware of the training and career needs of medical researchers; provide a meeting point between the statutory sector, the charities, and the drug industry; and ensure that the results of research are disseminated. But would such a scheme be acceptable and would it work? I suspect not.

The key questions seem to be funding and relations with other bodies. The House of Lords committee imagines that the new authority will get its money from the DHSS and in particular will take the £8m currently spent by the DHSS on health services research. But will the DHSS give up this money, calmly recognising, as the House of Lords Committee recognises, that DHSS priorities are not those of the NHS? I doubt it, particularly as the office of the chief scientist (which spends the DHSS research funds) is currently trying to turn itself from a "bottom up" to a "top down" organisation in order to implement "ministers' priorities." But even if the DHSS were to give up the funds the new authority would quickly find that most of those funds are already tied up supporting the 40 or so units funded by the DHSS. The House of Lords committee also recommends that the new authority should be funded out of the allocations to regional health authorities. Again hard

pressed regions may be unwilling to give up some of their limited research funds, particularly as they may not be convinced that the new authority will represent the priorities of the NHS any better than does the DHSS. Has the House of Lords not noticed the shortcomings of the NHS management board?

So here we have a new authority that will be short on money even if it is able to wrest from the DHSS and the regions money that is currently theirs. In modern Britain money talks, so the whisper of the new authority may well not be heard. And who would want to hear it? The new authority is not replacing anything: it is being added to the galaxy of the MRC, the DHSS, the Scottish Home and Health Department, the locally organised research schemes, miscellaneous other quangos, the charities, and the drug industry. The problem is too many rather than too few organisations, and these organisations have often not cooperated effectively in the past; why should they listen to an impecunious body that may be no more representative than the DHSS? Most of these bodies are jealous of their independence, some almost to the point of paranoia. It would require a fearless and powerful operator to make this new authority work. He or she would almost certainly need to be medically qualified, yet it was not even possible to find such a person to be secretary of the MRC, a body that has money, clout, and prestige.

But who has anything better to suggest? The government might be attracted by the idea of a medical priorities board along the lines of that operating effectively in agricultural research, but the jokers in the pack of medical research are the charities, who cannot be told what to do and do not even have to spend their ample funds on research. Ironically, the "privatising" of medical research has reduced the government's ability to set priorities. Most researchers I met would agree that something needs to be done to galvanise medical research, but few have much to suggest. Money alone will not be enough. Perhaps therefore the National Health Research Authority should be given a go, although I would be tempted to gather together the research funds of the health departments, the regions, and even the University Grants Committee and give them all to the MRC on the conditions that it develop a system of setting priorities (which it is doing), develop its clinical research (especially in Cinderella subjects), extend its educational activities, increase lay representation on its committees, develop a science policy unit, and cooperate more closely with the charities and industry. At least the MRC has a good track record and international respect.

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