

Purchasing research from or for the NHS?

The ethos of the competitive internal market in the NHS threatens to squeeze out research. There has therefore been a cautious welcome for the recently published recommendation [1] that a central fund should be available explicitly for research and development for the NHS. The size of this fund will depend not only on priorities set by the central R & D committee, but also, as John James indicated in his editorial in the last issue of the *Journal* [2], on convincing the Treasury that clinical and basic medical research carried out in the UK will bring benefits for the NHS that are greater than purchasing the results of such research carried out in other countries.

We hope that the arguments set out in the letters from an international galaxy of medical scientists responding to John James' challenge will help purchasing executives in health authorities to secure adequate central funding.

References

- 1 NHS Research & Development Task Force. *Supporting research and development in the NHS*. London: HMSO, 1994.
- 2 James JH. Purchasing research in the NHS. *J R Coll Physicians Lond* 1994;28:390-1.

Sir—In his editorial Mr John James asks 'Does it matter whether clinical research continues in the UK? Would it be cheaper simply to buy it from abroad?'

If we take a short-term, economically-driven view of things, the answers are: no, it does not matter, yes, it would be cheaper. If we can import cars, stereo sets and washing machines, why not research? Indeed, cost is a major factor in competitive marketing, and a large proportion of the products of research are freely available in the form of published papers. Thus, at first sight there seems to be a good case for allowing *other countries'* private or public enterprise to provide the funds (of course, if other countries were to develop the same theory, clinical research would come to a standstill worldwide).

But the situation is more complex, because research is not an isolated activity in any community; indeed, for clinical research specifically, we must consider at least three different interfaces.

1. *Clinical research and bedside medicine*. The tradition of clinical research has been to fund research on good patient care, and to improve patient care through the results of research. Thus, to sell the best patient care to purchasers, as the new NHS wants us to do, we must keep that two-way traffic alive.
2. *Clinical research and basic biological research*. In the past, advances in fundamental biology were largely

driven by the desire to discover the molecular and cellular basis of how the body operates. But we are now witnessing almost a reversal: the potential for clinical applications, both for understanding diseases and for treating them, has been one of the strongest and most consistent movers of basic biology, as witnessed by the award of the Nobel prize to Goldstein and Brown for helping to understand heart disease, and to Varmus and others for helping to understand cancer. If we cannot provide the facilities for clinical research, basic biological research too will have to be subcontracted to foreigners.

3. *Clinical research and industry*. This is probably the most important point with respect to the economy of the nation. Clinical trials have been a cornerstone of contemporary medicine. In order to document the efficacy of new medicines, drug companies have greatly benefited from the universal coverage offered by the NHS in the UK, which has therefore been a favoured country for such studies. This in turn has been a major factor in the growth of the pharmaceutical industry in the UK. But there is more to this than meets the eye. In the past the pharmaceutical industry did most of its own R & D; now some of the most spectacular money-spinner medicines—such as erythropoietin and G-CSF—have resulted from research carried out in collaboration with non-profit institutions. With the development of increasing numbers of diagnostic gene probes, and soon, probably, of agents for gene therapy, this type of collaboration will be indispensable for the pharmaceutical industry. If clinical and biological research languish, joint ventures and trials will go elsewhere and eventually the industry itself will go elsewhere.

Thus in the long-term it will *not* be economical to give up on clinical research, for at least the reasons I have given. I have refrained from dwelling on the more traditional arguments of academic medicine, namely the importance of a research-orientated environment for the teaching of students and the training of young doctors. I cannot help remembering, however, a notion arising from my experience some 20 years ago in a major teaching hospital in Nigeria. The pressing question was whether it was justified to devote time, effort and funds to clinical research in a country in need of primary health care and of preventive medicine. The answer given by my most respected Nigerian colleagues was—within limits—yes: because they felt that the continued passive 'import' of the product of research from abroad would be the surest way to perpetuate intellectual dependence after having abrogated colonial rule. Surely, Great Britain

would not wish to become intellectually dependent in an endeavour in which William Harvey, Charles Darwin and Archibald Garrod have led the world.

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Sir—Confining arguments to research that falls within the NHS R & D strategy (the 'national agenda'), ignores the vast amount of research backed by the MRC, Wellcome and other charitable bodies that also requires the use of NHS resources (beds, space, time). The government undertook to provide such resources when the NHS was established. It is their loss or erosion that so concerns the medical research community, for example the UKCCCR.

The benefits of such non-agenda research are not easy to quantify in financial terms, nor are they usually evident in the short-term, so they may not satisfy the demands of NHS purchasing executives. In brief:

- Good research produces more critical and more discerning doctors who tend to use resources more appropriately, perhaps even more frugally. They make better teachers because they question dogma and create the atmosphere of 'intellectual enquiry and innovation' that the finance committee [1] regarded as proper for medical education.
- Research can reduce suffering and saves lives: individual patients and communities benefit from new therapeutic, diagnostic or preventive advances.
- Research can save money: for instance, poliomyelitis vaccines eliminate the cost of long-term care of the virus's paralysed victims; early genetic diagnosis may reduce, possibly eliminate, some chronic disabling inherited disorders.
- Research can make money: examples are, drug development (penicillin, cephalosporin, H₂ receptor antagonists) or new diagnostic techniques (CT, MRI scanners).

Government itself recognises the value of un-directed, non-agenda research; why else would it fund the MRC? So also do the charities and the public who donate so freely to them. Why are our executives so narrowly focused? Perhaps they do not fully appreciate the nature of medical research. First, targeting research activity does not guarantee results. Second, major advances do not occur outright; they are usually the culmination of decades of basic 'blue sky' research. Good research is like planting trees for future generations to enjoy.

Finally, is it necessary to carry out R & D in the UK? Why not simply import the successful R & D of other countries? Leaving aside my horror of the wanton destruction of our carefully nurtured research base, I find this suggestion immoral. As a highly developed, comparatively wealthy, sophisticated society do we not owe something to the international community?

Should we not make some contribution to its welfare? If such a philosophy of parasitism at the Treasury were to force us to pull out of research, why should not other countries do so for the same selfish reasons? Perhaps all medical research will then stop and there will be no more medical advance. Since this would save us money there would be no immediate tangible adverse effects. As we used to say in the army, '...you, Jack, I'm alright'.

Reference

- 1 Steering Group on Undergraduate Medical and Dental Education, 2nd report, June 1990 (Chairman: Sir Christopher France).

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Sir—John James' editorial reflects similar political trends throughout the western world. Many administrators and politicians still need to learn that medical research, and especially clinical research, is too complex to be equated with some ready-made commodity that can be bought and sold on the open market.

There are many examples in medical research where observation of the unexpected has nourished creative investigations which have led to important practical applications; the development of monoclonal antibodies by Milstein and Kohler in Cambridge is one such example. Serendipity is certainly not the only ingredient of successful research but its mere existence emphasises the necessity to consider, in addition to goal oriented research, the continuing support for investigators who have a good track record in research overall.

A simplistic, economic approach to research ignores its educational benefits. Well conducted investigations sharpen the minds not only of the investigators but also of the trainees working with them. How can one quantify in economic terms the benefits of a critical, scientific upbringing of doctors who will subsequently spend the NHS resources in medical care? The educational milieu provided in good research oriented hospitals attracts good students and so maintains the quality of delivered medical care. Importing successful R & D from elsewhere will never achieve that. The feedback between research and medical education is one of the basic tenets of the 'centres of excellence', so popular now in the EU. The abundance of such centres in the UK is not so much a matter of national pride as a testimony to the farsightedness of the British health care system in the first three postwar decades. It stands as an incentive for continental colleagues.

Further, one should not forget that to make financial savings, to eliminate duplication, and conduct evaluation, etc, also entails a definite but usually little