COMMENTARY

by Bernard Dixon

KUDOS AND CAVEATS FOR INDUSTRY-ACADEME TIES

Britain's academic scientists, biotechnologists included, are in a terrible bind just now. Starved financially by central government to a greater degree than ever before, they face a tantalising tactical dilemma. How best to respond to the grim deprivation that has been building up over the past decade?

Perhaps they should simply roar with all the force they can

muster, seeking to persuade the politicians of the long-term stupidity of curbing basic research. Perhaps, as the university bosses did recently, they should place their trust in publicising the fact that a 20-percent cut in finance since 1980 is turning many campuses into machines for the export of talent to overseas competitors. Perhaps. But there's no evidence whatsoever that such stratagems work. Two lobby groups which *have* tried them have been told either that they have not yet screamed loudly enough, or that they must be more plausible in promising "value for money" in the future. Despite the rare alliance ranged against Mrs. Thatcher's administration, from institutional right to radical left, the government displays limitless skill in ignoring the anguished yells from the torture chamber.

What, then, of the alternative approach? Why not face facts, forget about bygone years of lush public patronage for science, and go shopping elsewhere? Why not take a long, hard, realistic look at your academic resources; be ruthless about adapting them to the changed world; and hone your lobbying skills in seeking support instead from industrial companies and charitable foundations? A few of Britain's hardest-pressed institutions have done just that. Best known is the University of Salford which, under the inspired leadership of Professor John Ashworth, has pulled itself up by its bootstraps from near bankruptcy in 1981 to entrepreneurial dynamism today. With interesting aplomb, Ashworth has forgotten his laboratory and slime moulds in favour of business lunches and contract research deals.

But there is a snag here, too. Although the Salford strategy delights Thatcherites, it also plays into the government's hands. Why, ministers tend to ask, if one campus has been able to transform its fortunes in this way, cannot everyone else follow the same spirited pattern? Closer bonding between industry and academe is highly desirable. So, too, is an increasing flow of charitable money into research laboratories. That being so, why shouldn't central government take a declining role in backing science, perhaps withering away completely by early next century?

The dilemma of these alternative reactions to penury came vividly to mind recently when I attended the opening of new Biotechnology Laboratories at the University of Warwick. Here was an object lesson in self-help. Warwick's biological sciences department was at one time famed for the work of Derek Burke's group on interferon—but little else. It was a competent outfit, ticking along

like many others, but not, frankly, showing the sparkle one would look for in predicting triumph over adversity. Then came the financial calamities of the early 1980s, during which Professor Burke left Britain as one of the U.K.'s most illustrious brain-drainers. Warwick University, founded only in 1965 and thus lacking the finance, clout, or history of many other institutions, did not appear well-positioned to weather the storm.

Yet there we were, five years later, not only acknowledging a department's survival but admiring its growth and newly forged industrial links; hearing about a £1.3m project supported by the Wolfson Foundation and the City of Coventry; and watching Professor Sir David Phillips, chairman of the Advisory Board for the Research Councils, unveiling a plaque to mark the completion of a spanking new building. Even *before* those custom-built facilities were opened, Warwick's biotechnologists had attracted a higher per capita income from outside funding agencies for R&D cash than any other U.K. university over the previous three years. Their department's total operating budget is now close to £8m.

Grading campuses recently as a basis for allocating precious funds during uniquely hard times, the U.K. University Grants Committee gave biological sciences at Warwick a star rating as "outstanding by international comparisons". The magnetism clearly works. In addition to support from Biogen, Imperial Chemical Industries, and many other companies, Warwick enjoys a particularly close relationship with the bio-insecticide firm Microbial Resources Ltd., of which Professor Howard Dalton is director of science. The place also bristles with ideas for the future, ranging from "student entrepreneurs" to courses for patent agents. At the centre of this furious activity is the chairman, Professor Roger Whittenbury. He is not only the suitor who secured a £101,000 interest-free loan from a hard-pressed city council. He is also the politician who, when the Wolfson Foundation initially chose to give its money to the Leicester Biocentre, returned to the fray and eventually secured £300,000—almost every penny he wanted.

It's an inspiring story, and I join the applause. But let me enter two caveats. First, my concern for basic, curiosity-oriented science has not been stilled. Indeed, during the Warwick junketting both David Phillips and Howard Dalton emphasised that today's practical bio-achievements rest on a massive corpus of pure research over past decades in molecular biology and allied disciplines. What is going to happen to such disinterested work in the future if everyone follows the government-approved applied path? Second, if universities and industry come ever closer, where will society be able to find the independent criticism, traditionally vested in academe, on matters of public and political contention? It would be a tragedy for biotechnology if such debate were to be impoverished by the absence of respected critics—leaving the field vacant for others of less rigorous disposition.

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