

Managerial inadequacies

SIR — Howard Morris is certainly not alone in his perception of the 'managerial inadequacies' of those who are entrusted with running Britain's universities (*Nature* 356, 10; 1992). It is nonetheless disappointing that his complaint should focus so heavily on salaries. To the extent that Morris's case applies to the research function of universities, there is in fact good reason to believe that the present difficulties are not primarily related to the level of remuneration. We would suggest that the primary failure of the universities lies in their unwillingness to restructure, in order to face the demands of modern research and postgraduate education. Like much of our formerly world class industrial base, the universities seem to believe that more of the same will do. Well, it will not. However important it may be that this country should spend more of its gross national product on research, the necessity of increasing the undergraduate population substantially, while maintaining a first-class research and postgraduate training programme, deserves to be met with more imagination and realism than a simple demand for

Japanese success

SIR — One reason not advanced by Alexander Kennaway (*Nature* 355, 198; 1992) for the success of the Japanese science and technology effort is that, in Japan, science and technology have fully proved their benefits to the public, in stark contrast to the situation in the Western world. This is the result of several decades of outstanding applied research and development by Japanese companies. The Japanese government then encouraged companies to undertake more and more basic research, the potential commercial results from which were quickly and efficiently realized. By this process, the Japanese 'person in the street' received a clear demonstration of the benefits of basic research. Only then did Japanese universities begin to receive research grants in similar amounts to those with which the Western world has been familiar for some time. It seems unlikely that Western governments will release more funds for university research until the average citizen is convinced that the expenditure of his/her tax dollars will provide more personal benefits than is now the case.

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more cash.

The universities must also begin to take a proper interest in the training, development, assessment and career progression of its research staff (a point touched on by Morris and another recent correspondent, *Nature* 355, 292; 1992). These people are after all its main asset. Recent proposals from the Association of Researchers in Medicine and Science (*Careers in Research*) call for a much greater role for management of the research enterprise and the employment of research staff. The proposals may not provide a complete answer to the problems, but they do suggest some solutions to important issues that the universities have so far failed to address.

When faced with administrative and management problems, the conservatism and lack of imagination displayed by academic staff, whose education and training one would think encouraged imaginative and radical thinking, remains one of the paradoxes of university life. Comfortably tenured academics may not feel that the incentive to divert their attention towards these managerial concerns is particularly overwhelming. However, those who are interested in maintaining or encouraging the flourishing of research and higher education might do well to ensure that serious attention is paid to such matters before expecting largesse to be poured upon them.

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Are we grown up?

SIR — As always when the issue of extraterrestrial intelligence is raised in your columns (*Nature* 355, 581; 1992), it is implicitly assumed that 'they' are as eager to contact 'us' as 'we' are to contact 'them'. In other words, mankind (at least the (small?) part of it advocating the SETI projects) considers itself sufficiently grown up and evolved to apply for galactic community membership (supposing the latter exists). Are we?

Supposing that extraterrestrial intelligence exists, it is probably intelligent enough to hide itself from us, at least for the time being. Understanding that their superior technology would probably cause mankind to be even more destruc-

tive of itself and its planet (or, if not, to bring about unbearable suffering to the countless number that already suffer), galactic community members would refuse to take the responsibility of manifesting themselves.

On this view, managing to bring about equal life standards for all of mankind and to halt environmental disaster would be a far more effective means in the search for extraterrestrial intelligence than merely listening or sending messages to the voids.

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Insecticide death

SIR — It is true that aluminium phosphide (ALP) is being misused in northern India (see *Nature* 353, 377; 1991) for both suicide and homicide. ALP tablets look like a medicinal preparation, and the victims are often ignorant rural brides. But K. S. Jayaraman's statistics for "all pesticide poisoning" fall far short of the reality. The numbers of deaths cited, 192 in 1988–89 and 664 in 1989–90, represent a very small fraction of the toll from insecticide poisoning in India. In the state of Maharashtra alone, which represents about 9 per cent of the population of India, the figures for detected pesticide poisoning in the most recent three years for which records exist are shown in the table.

	1990	1989	1988
Organophosphate compounds	1,387	1,208	1,061
Organochloro compounds	1,239	1,105	786
Carbamate	424	390	308
Total	3,050	2,703	2,155

Common pesticides misused in 1990 (more than 50 fatal suicide/homicide cases) are: Organochloro compounds: endosulfan (1,029); organophosphate compounds: dimethoate (309), Thimet (183), monocrotophos (179), fenthion (153), Dimecron (125), Nuvan (100), malathion (98), fenitrothion (74), methyl parathion (67), Metafastox (51); carbamates: Baygon (406).

Some of these insecticides have very low LD₅₀ values, such as approximately 1 mg/kg for thimet (phorate), others in the range 15–250 mg/kg; barring malathion which by itself is comparatively less toxic. ALP is not yet a problem in Western India.

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