

Problems of postgraduates and PhDs

Sir — The lack of jobs that Alan Hale bemoans (*Nature* 386, 530; 1997) should interest all of us. The problem, I suspect, is that there are too many postdocs, while academic institutions scramble for yet more postgraduates to sustain their research output cheaply. The supply of PhDs, therefore, is decoupled from the demand for postdocs. As with theatres that sell more tickets than there are seats available, the crowd of dissatisfied customers who cannot secure a position becomes a growing embarrassment. The solution (and I use the term loosely) that most universities opt for is to encourage graduates into alternative careers and quell the crowd each year by blaming market forces or governments. But injecting more money into science, while welcome, will bring only temporary relief. The problem will persist until universities take responsible action and base their postgraduate intake for a given field of research on the employment of their previous year's PhD graduates in that field. This will go some way to restore the balance between supply and demand.

In present circumstances one might expect a vigorous and beneficial competition whereby the best get best-placed. But a consequence of any glut is

devaluation, and in the case of postdocs this has meant a loss of academic independence. So the research performance of young scientists depends as much on their laboratory and group leader as on their own potential. If we are to equate the performance of young scientists with their abilities, postdocs should have more opportunities to work and publish as independent scientists.

To implement these changes, there must be a profound shift in attitude, with scientists, research institutes, granting bodies and governments unilaterally taking responsible action. The alternative is a deterioration of the current situation from which we all stand to lose.

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Sir — Postgraduate students in the United Kingdom are shackled to a feudal system. The supervisor has total responsibility and control over research training. Regardless of contribution, the supervisor has the right to

claim one's work for him or herself, as is manifest in any patents and publications resulting from the student's efforts. How many professors with a DSc can claim that it is due to their efforts alone rather than to the exploitation of student vassalage?

I am awaiting the results of the umpteenth round of the grievance procedure at an English university (initiated in December 1995). My complaints range from financial duplicity to the deliberate withholding of materials, equipment and data required to complete a PhD. My problems have arisen through conflict with a supervisor, which is not uncommon. The problems could be more easily dealt with if research students were registered directly with the research institute and not with a particular individual, whereupon the term 'supervisor' becomes merely titular. And it would be less tempting to any mercenary supervisors if all the 'intellectual property' used and developed by the student was the property of the student and the institute alone.

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Compatibility of Islam and science

Sir — The surprise that greeted the survey of religious belief in the scientific community (*Nature* 386, 435; 1997) makes me wonder whether more scientists would believe in God if the predominant religious tradition of their upbringing had been not Judaeo-Christian but Islamic. While Western science developed in antagonism to the Church, Islam's scientific tradition, recognized as initiating Europe's scientific renaissance, grew not in conflict to the religion but within it.

The absence of a dichotomy between science and religion in Islam stems, I believe, from the Koran's active encouragement of scientific enquiry. This scriptural endorsement of science is supported by the complete lack of statements in the Koran that need to be explained away because they contradict established facts about nature. In fact, Koranic descriptions, often surprisingly detailed, of the origin of the Universe, the motion of the planets, the developmental progression of the human embryo, the existence of sexual dimorphism in plants

and the structure of mountains have been confirmed by scientific discovery centuries later.

To the Muslim scientist, the surprise is not that so many scientists believe in God but that so many do not. The Koran states (21:30): "I have created from water every living thing. Will they not believe?"

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Sir — Assuming that the forthcoming test of the efficacy of prayer in the treatment of heart-surgery patients (*Nature* 386, 639; 1997) will be done with proper double-blind protocols, there remains the question of whether the experimenters are willing to accept results that are not in line with their faith.

What if the test shows no effect of prayer, or that the prayed-for people actually do a little worse? Will they still publicize the results, and without excuses?

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No PICES advice

Sir — There are some factual errors in the Briefing on fishery science (*Nature* 386, 106; 1997). It is said that PICES (the North Pacific Marine Science Organization) is one of two bodies that exist to provide governments with advice on fisheries science (the other being ICES, the International Council for the Exploration of the Sea).

PICES, which held its first meetings in 1992 (not 1994), was set up to promote and coordinate marine scientific research in the northern North Pacific. Until now, its members (Canada, China, Japan, Korea, Russia and the United States) have not agreed to a PICES role in providing advice on fishery questions.

Elsewhere in the article, it is said that ICES and PICES have long recognized that there are alternatives to giving advice on catch limits. However reasonable that position may be, it is not one that PICES has addressed.

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