

US research grants

NSF takes a back seat*Washington*

FROM 1 March, US universities will be granted significantly greater responsibility for the administration of research grants from the National Science Foundation (NSF). Current procedures which require that researchers obtain approval directly from NSF for such expenditures as foreign travel and purchase of permanent equipment will be replaced by a system of local review by university officials.

The new system takes a step away from efforts of past years to require more detailed cost accounting by universities and their researchers. A particular bone of contention between universities and federal funding agencies has been the widespread, but technically illegal, practice of "borrowing" funds from one grant to help pay for a second project which, for example, might be awaiting approval. Government auditors have often disallowed such charges and, more generally, have disapproved the combining of funds that one researcher may have from two or more different grants.

NSF will now, however, allow the universities to grant early starts — of up to 90 days — on projects awaiting approval (although the universities will be responsible for expenses during that period if approval is not given) and to allow the combining of separate grants to a single principal investigator if the universities determine that the projects are sufficiently related. The universities may also grant six-month no-cost extensions to NSF-supported projects.

Although the privilege of combining grants will for now be limited to those from NSF, the foundation hopes that other agencies will follow suit. But NSF says that it still wants to review requests for merging grants when two different principal investigators are involved.

NSF is dropping a proposal that all grants to a single department be combined into one master grant. According to Gaylord Ellis, director of NSF's division of grants and contracts, this scheme — which was tried out in the chemistry departments of nine universities — proved to carry too much of a bookkeeping burden for the universities.

The universities will have considerable leeway in the administrative details of the new system; NSF requires only that records be kept of all actions and that the budget decisions be passed on by at least one finan-

NSF departures

In the news item "Carter appointees leave NSF" in Nature of 16 December 1982 (300, 567), Dr Eloise Clark, deputy director of NSF for biological, behavioural and social sciences, was incorrectly referred to as a Carter appointee. In fact Dr Clark was appointed by former President Ford.

cially-responsible university officer and one department chairman or the university's director of research (who could be the same person).

Ellis pointed out that the change is in keeping with the current Administration's thinking on reducing federal interference, and, since "most of the requests had been approved anyway", NSF is actually giving up relatively little in way of control over its funds.

Stephen Budiansky

US university re-equipment

Long queue for DoD cash*Washington*

THE US Department of Defense (DoD), which had allocated \$30 million a year for five years to help US universities to re-equip themselves, has been flooded with requests totalling an estimated \$640 million for the first year alone.

Research managers at the Office of Naval Research, which is coordinating the programme for DoD, are shaking their heads about the inadequacy of the funds available. "We will be able to fund only one proposal out of every 21 or 22", says Robert Ryan, a staff assistant there.

By Ryan's count, 2,465 proposals were received. They had to state why the university needed the equipment and how the equipment could be used in defence-related research. Ryan gave up counting at proposal number 987, but the requests averaged \$267,000 apiece.

The \$670 million figure is significant, for it represents only instrumentation that the universities feel relates to their present or prospective defence work. Thus the real estimate of overall university equipment needs may be at least double that figure.

Universities and scientific leaders have complained for years that their equipment is becoming obsolete and that constrained federal budgets are not allowing them to replace the expensive items. This year's "DoD-University Research Instrumentation Program" is one of the very few government efforts to remedy the problem. But even Reagan's defence budgeteers — normally generous — seem to have underestimated the need.

For example, last summer a group convened by the National Research Council concluded that as long ago as 1970 there was a need for an investment of \$200 million to re-equip US laboratories. "The accumulated need is now at least \$1,000 million", it said. An earlier \$75 million once earmarked in the budget was eliminated by budget cutters. So DoD's paltry \$30 million may not be enough, but it seems the only hope in sight.

Deborah Shapley

Lead in petrol

EEC moves for complete ban

THE large group of British Conservatives (European Democrats) in the European Parliament are now putting forward a resolution for an EEC directive banning lead in petrol altogether. In this they draw considerable support from an EEC research project which has just published its interim report.

The experiment, whose sponsors include Agip, the Italian petrochemical company, and two of the major producers of lead additives, the Societa Italiana Additivi Carburanti and the Ethyl Corporation, was carried out in Turin by the Joint Research Centre at Ispra in Italy, and sought to establish just how much lead found in the blood of people living in urban areas originated in the lead anti-knocking additives used in petrol.

Between 1977 and 1979, 90 per cent of the petrol sold in Turin was mixed with lead containing lead isotopes 206 and 207. Cross-sections of the population were then sampled at regular intervals and their blood was analysed at Ispra using mass spectroscopic techniques. An interim report of the analysis has just revealed that more than 29 per cent of the lead found in the samples came directly from inhaled petrol exhaust fumes.

The experiment has yet to reveal how much lead that finds its way by other routes, such as in food and water, can eventually contribute to the total. Another EEC-sponsored experiment, undertaken in Belgium by Professor Picciotto of the Université Libre de Bruxelles, suggests that this could be as much as 50 per cent. Using a much smaller sample but also employing mass spectroscopy for tracing the origin of the lead, he concluded that petrol was responsible for between 45 and 55 per cent.

Some doubt has been cast on the value of the Turin experiment's results, however. It appears that people living in the countryside outside Turin, where there is considerably less lead in the air, were found to have just as much lead in their blood, although less of it came from petrol. One possible explanation is that the lead comes from wine, either from lead arsenate used as a fungicide in the local vineyards or from lead caps on wine bottles. For this to hold true, though, the farmers of Piedmont must be assumed to be drinking three times as much wine as the Fiat factory workers in Turin.

Also unexplained is the finding that the lead was more readily absorbed by smokers and drinkers and that towards the end of the experiment the proportion of "labelled" lead began to decrease. This may have been related to the fact that lead accumulated in the bone naturally exchanges with lead in the blood.

Jasper Becker