NIH Developing Policy on Misconduct

A dispute at UCLA highlights the difficulty of deciding when NIH should be notified of potential problems

Prodded by recent incidents of scientific misconduct, the National Institutes of Health (NIH) is taking an official look at the delicate question of when a university should inform the government that one of its federally funded researchers is suspected of wrongdoing. An ad hoc committee of NIH officials has been appointed to provide answers to a riddle that has vexed an increasing number of academic administrators.

The topic arose recently at a meeting of the NIH directors' advisory board, where reference was made to instances in which Harvard and other schools have been criticized for failing to inform NIH promptly of problems with researchers. "At what point should the university talk to NIH?" asked Stuart Bondurant, dean of the University of North Carolina School of Medicine. Should NIH be notified at the first suspicion of trouble? After an in-house investigation? What if a researcher is cleared by such an investigation? What if irregularities are found that fall short of outright fraud and deception?

William Raub, NIH associate director for extramural research and training and a coordinator of academic misconduct investigations, replied that "there are no satisfactory answers now." He said that NIH wished to encourage institutions to conduct their own investigations, but that at some point, the funder of the research in question may need to be notified. He reported that a committee, chaired by Richard Christiansen, an associate director for extramural programs at the National Institute of Dental Research, will attempt to determine the appropriate point of notification. A draft of the committee's conclusions should be available by midsummer.

The problems that universities face in this area are illustrated by a recent case at the University of California at Los Angeles (UCLA), which NIH is now investigating. During the summer of 1980, a biochemist there, Padma Arunachalam, experienced difficulty in replicating the research results produced by a senior colleague in her laboratory, Pieter Kark. Kark's research involved the metabolism of individuals with Friedrich's ataxia, a rare disorder which impairs coordination and balance.

When Kark, 41, came to UCLA he worked as a postdoctorate under a respected biochemist, John P. Blass. Previously, he had trained at Harvard Medical School and had been a research fellow at NIH. According to a theory developed by Kark and Blass, Friedrich's ataxia may be associated with an enzyme deficiency which, if true, could permit a determination of its cause or aid in its treatment. The theory is controversial, as researchers at several other universities have been unable to find evidence linking the disease and the enzyme deficiency. Kark has been able to attract financial support for his work from NIH and the Muscular Dystrophy Association.

> "We're still feeling our way through this issue," says Miers of NIH.

The research in question was performed with the help of a 3-year $362,000 federal grant. Kark said his research showed that several ataxic subjects had abnormally low levels of the enzyme, pyruvate dehydrogenase complex. Several NIH researchers, however, examined two of the same subjects by chance in a subsequent study and found, using the same methodology as Kark, that the subjects were not enzyme-deficient. This discovery prompted Kark to reexamine the two patients in question, which he did with the help of Arunachalam and another biochemist in the laboratory, Howard Sachs.

On the basis of new assays, Arunachalam and Sachs both agreed that the patients were not enzyme-deficient, just as the NIH researchers reported. They told Kark of their conclusions during a staff meeting held in preparation for a presentation of the data at a scientific conference. Kark persisted, however, and claimed a different interpretation—one that was in line with his original findings. He reported his interpretation at the scientific conference and in an article in the *Annals of Neurology*, published in September 1980.

At this point, Arunachalam and Sachs registered a complaint with Richard Walter, the UCLA Neurology Department chairman. Walter, in turn, sought the advice of two scientists in the department: Frederick Wolfgram, a neurochemist, and Mark Goldberg, a neurologist. The report stemming from their investigation remains confidential, but Wolfgram told *Science* that certain of Kark's calculations were "grossly wrong."

However, after reviewing the situation, Wolfgram and Goldberg decided that Kark's data, though incorrect, were not willfully misrepresented. Walter and Frederick Rasmussen, the associate dean of UCLA's School of Medicine, also reached this conclusion. Kark received a letter of admonishment and was advised to consult with statisticians and other biochemists in future research on ataxia. He also was asked to submit an appropriate retraction of the article in *Annals of Neurology* and to send a notice of the retraction to the study section at NIH that reviews his federal grant, which he has done. Neither the study section, the school, nor Kark informed Raub, whose office investigates alleged cases of scientific misconduct. As Mary Miers, an assistant to Raub, notes, the retraction of a paper does not by itself raise suspicions of wrongdoing.

Subsequently, however, Raub's office was informed by an official at NIH who heard about it from a friend of Sachs. Ten months later, after an NIH auditor paid an informal visit to UCLA, Raub's office opened a full investigation, as yet uncompleted. Miers says that "at this point, we are unable to conclude on the basis of the university's investigation and from our own inquiries whether he [Kark] did or did not misrepresent his data." Kark himself told *Science* that he "categorically denies any cheating, fraud, deceit, or intentional wrongdoing," and added, "I welcome the NIH inquiry and expect that they will exonerate me."

It is difficult to determine the correct position for the university in a case such as this. Rasmussen says that "in retrospect, we should have advised NIH of our concern earlier." But Walter maintains that Raub's office did not have to be informed because there is no evidence of fraud. "We're still feeling our way

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through this issue," Miers of NIH says.

Special difficulties might be created when a department or university appoints an internal panel—rather than an outside group—to examine a suspected incident of misconduct. If the accused is exonerated, should the investigation stop there, with NIH left permanently out of the picture? Rasmussen says, "I regret that we didn't expand the [investigating] committee to have included more scientists, including several outside the department." But even now he is unsure whether scientists from outside UCLA should have been asked to investigate.

Rasmussen says that UCLA officials have begun to discuss the issue of notification and may soon form a policy providing guidance for the faculty on the issue. The problem does not lie at a single campus, however, and the results of the work by the NIH ad hoc committee will be eagerly awaited at many universities.—MARJORIE SUN

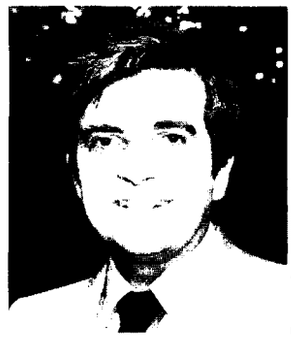
France Readies New Research Law

Plan is to increase government funds, involvement in R & D; Japan is model, immediate problem is assuring resources

Paris. President François Mitterrand is counting on an impressive commitment of resources to science and technology to help propel France out of the economic doldrums and to give his country's high technology industry a competitive future in world markets. Politically, the strategy is vital to his socialist party's bid to establish itself as a solid alternative to the parties of the Center and Right that have dominated French politics.

The most obvious threat to the strategy is the growing budget deficit that is raising doubts that the government will be able to muster the resources to carry through its R & D program. Some French scientists are also concerned that expectations raised by the government program may be unrealistically high and that projected reforms may prove to be a source of serious conflict.

The major aims of the government's plan for science and technology are embodied in a new research law which was given the crucial go-ahead by the council of ministers at the end of March and is expected to be passed by parliament by this summer. The law commits the government to a 5-year program of increases in the science budget including a pledge to raise R & D expenditures from less than 2 percent of the gross national product last year to 2.5 percent of the GNP by 1985. In the same period, spending on civil research is to expand at the rate of 17.8 percent a year in constant francs (the rate of increase for basic research would be 13 percent). The number of government science and technology posts would be augmented at the rate of 4.5 percent a year. The government has much less direct control of industry R & D, but a goal of increasing investment in such R & D would be set at 10 percent a year.



French Government Press Service

M. Chevènement

In addition to these specific targets the law sets out a number of more general objectives aimed at creating a new national framework for research by promoting improved interactions among industry, government laboratories, and universities. Strong efforts will also be made to make the French more conscious of the importance of science and technology in their lives and to involve them in decisions on science and technology.

Prospects for full funding of the R & D program hinge on difficult budget decisions. Because of lagging revenues and high social service costs caused by the recession, the government has imposed an across-the-board "freeze" of 20 to 25 percent on departmental spending for the current year. The freeze will be reviewed this summer, but if the cutback is allowed to stand for the science budget, the R & D initiative will obviously suffer.

The odds for favorable treatment of science and technology appear good, however. Mitterrand himself has given the R & D plan a high priority and the post of minister of research and technology is occupied by perhaps the most influential younger politician in the socialist ranks, Jean Pierre Chevènement. The leader of the left wing of the socialist party, he is close to Mitterrand and is viewed as a possible future prime minister or president. Chevènement's credentials for the science post are strengthened by his experience in parliament as rapporteur for the research committee.

Chevènement has the advantage over recent predecessors in the science post of enjoying full ministerial rank. Probably more important, he gained budget authority over research agencies previously administered by other departments. He has direct control over CNRS (Centre Nationale de la Recherche Scientifique), which resembles the U.S. National Science Foundation in being the chief sponsor of basic research but also operates a network of major laboratories of its own. The research minister now also has authority over the research budget of the atomic energy commission (CEA) and oversees the medical, space, and oceans research budgets.

If Chevènement's position is stronger, the policies he oversees are not entirely novel. The Mitterrand government's measures for galvanizing French science and technology bear marked resemblances to those of the de Gaulle government of the middle 1960's which reorganized French science with the aim, in part, of narrowing the so-called technology gap with the United States. Chevènement, in fact, stresses the theme of "independence" familiar in the Gaullist era, although the overtones of de Gaullian *gloire* have been replaced by a socialist stress on modernization of French industry and society. Another seeming echo of de Gaulle is Chevènement's directive that scientists publish their results in French and show greater fidelity to French as a scientific language at technical meetings in France and elsewhere. The minister's argument is that the use of French is essential to diffuse

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