on the meeting, published by NATO last month, described the difficulties created by a "gray zone" on the boundary of military and nonmilitary research, and pointed out that the expansion of the gray zone was "raising certain questions about the ancestral traditions of freedom of expression and scientific exchange in the heart of the academic world."

The committee is not expected to make any judgments on the current situation. However, according to NATO's deputy assistant secretary general for scientific affairs, John Walker, it will discuss at a meeting in Washington at the end of May whether to publish a full account of its debate. This will include, in particular, a list of the type of questions it feels governments should consider before imposing or tightening any controls over the dissemination of scientific information.

Another body keeping a close eye on current developments in Washington is the Royal Society in London, alerted by various restrictions encountered by British scientists either attending conferences in the United States or visiting the laboratories of American colleagues. "We are keeping a careful watching brief on this whole area, since we believe that if the controls are extended much further than they are at present, it could create substantial damage to fundamental science, as well as to the relationship between British and American scientists," says a senior official of the Society who recently visited Washington for discussions with the staff of the National Academy of Sciences. "Indeed, one cannot deny that some of the actions taken so far are deleterious to international science."

For the time being, however, the Royal Society is, like its counterparts in other European countries, adopting a relatively low profile in what it sees as primarily a domestic debate in the United States. It is supporting the activities of the U.S. Academy rather than taking more direct action, such as registering a protest with the American government. Trade and Industry minister Tebbit is said to have raised the issue of access to scientific conferences in his discussion with Brock and other U.S. officials, but without achieving any significant shift in their position.

One person who is apparently convinced that things are going to get worse before they get better is Étienne Davignon, the EEC's commissioner for industry and the guiding light for its recently announced $1.3-billion research program in information technology, ESPRIT (*Science*, 16 March, p. 1159).

Speaking recently at a conference in Belgium, Davignon warned that Europe was "going into a major fight with the U.S." over controls on the international transfer of high-technology products "which will make chicken feed of our agriculture dispute" and could seriously affect cooperative arrangements at all levels between American and European companies.

Not everyone in Europe is as gloomy as Davignon. Many appear to accept growing controls on scientific knowledge as a new fact of life to which Europe's scientific institutions will, like their American counterparts, have to learn to adapt. Others, perhaps naïvely, are convinced that the United States will soften its position as soon as it realizes that its actions are as damaging as its own scientific and technological activities as to those of other nations.—**DAVID DICKSON**

# Reduce Fraud in Seven Easy Steps

John R. Darsee's apparently prolific data fabrication at Emory University and Harvard continues to spawn reports and investigations. The latest is an inquiry by the National Institutes of Health (NIH) into Darsee's use of the NIH-funded General Clinical Research Center at Emory, where he was in training between 1974 and 1979. It found that Darsee's research activities "had not been adequately supervised by senior faculty," and recommended seven steps that should be taken to guard against similar occurrences in the 75 clinical centers NIH supports around the country.

NIH decided to look into the institutional processes at Emory after the university itself had conducted an internal investigation that found Darsee had apparently falsified data in some eight papers and 43 abstracts coauthored with prominent Emory faculty members (*Science*, 27 May 1983, p. 936). The Emory investigation in turn followed revelations that Darsee had fabricated data in experiments at Harvard, where he was a fellow in Eugene Braunwald's cardiology laboratory at Brigham and Women's Hospital between 1979 and 1981. Until then, nobody suspected there was anything wrong with Darsee's work at Emory.

The NIH inquiry, which was conducted by a three-member panel of consultants chaired by Evelyn V. Hess of the University of Cincinnati, found a pattern of lax supervision of Darsee's research, including the preparation of manuscripts. Darsee "appears to have conveyed the impression to the faculty that he was working closely with other [faculty members] when in fact he was operating independently," the panel says.

The panel found that Darsee's coauthors did not always review the raw data. In some cases their names were added to publications without their knowledge or consent. The failure to detect problems, "along with a lack of proper supervision, were compounded by the fact that several of the Darsee papers covering work [at Emory] were submitted for publication only after Dr. Darsee had moved to Harvard," the report says.

The panel noted that Emory has taken steps to tighten up its procedures, and the report thus does not prescribe actions specifically for Emory. Instead, it lists seven recommendations for adoption at all NIH-supported clinical research centers:

- Each trainee at a center should have a clearly designated sponsor, and the center's program director should be responsible for ensuring that this is the case.
- Publications and abstracts acknowledging the center should be approved in writing by all coauthors.
- Patient admission forms should be accompanied by a checklist to verify that clinical studies have been approved by relevant committees.
- Clinical studies performed by young investigators should be reviewed at regular intervals by the supervising physician, including raw data.
- The trainee should be encouraged to present findings at review sessions and seminars.
- Regular rounds should be conducted on a daily basis on all patients.
- Data for a given study should be retrievable 5 years after the work is completed.

These recommendations are being reviewed by NIH.—**COLIN NORMAN**