

But what is the problem?

Washington

If there was a consensus at last week's National Institutes of Health (NIH) conference on data ownership, it was that such meetings are a waste of time. One scientist after another declared that there was no serious problem with the way they now keep, share or record their data. "Why are we here?" one asked.

Why indeed? For most researchers, the *status quo* works well. Although federal regulations assign academic research grants to universities rather than to individual researchers, it is generally understood that principal investigators can do with their data what they will (patent issues excepted).

Most scientists say they have no problem getting data from other researchers on request, and the right of a scientist to be first to analyse and publish his or her data is widely respected.

But recent cases when the system has broken down (see accompanying story) have attracted public and Congressional attention, which has put pressure on the federal science agencies, especially NIH, to set matters straight.

Scientists have found fraud and misconduct becoming hot issues despite their professed belief that nothing is seriously wrong. The reasons for this outbreak of concern remain obscure: it may be, as a study from the NIH Office of Scientific Review suggests, that science is now big money, and the profit motive has become impossible to ignore. Or it could be increasing competition for funding. Collaboration of increasingly large numbers of scientists in research projects is another trend that can lead to disputes.

The main worry among those at the NIH meeting was that the government (in this case, the Public Health Service, PHS) would overreact to congressional pressure and impose draconian regulations on data management. At present, PHS requires recipients of grants to retain data for three years after the conclusion of the grant. The intention seems to be to preserve financial records in case of an audit, but the rules can be interpreted to include all scientific data, even laboratory notes or intermediate results.

PHS is now in the process of "clarifying" the rules. But with Congress breathing down its neck, it may choose to go for the broad interpretation. If that requires scientists to keep every scrap of paper and computer file generated by an experiment, data management could become burdensome indeed.

Nevertheless, the need to keep some data, even in a preliminary state, is generally accepted. There was little disagreement at the NIH meeting that it should be possible to double-check a scientist's

work. Who should double-check is a different question: universities say they do not want the responsibility, and few researchers want government intervention.

For lack of a better alternative, the scientific journals have become a favoured candidate. Drummond Rennie, deputy editor of the *Journal of the American Medical Association*, left the door open to the possibility. "Data should be retained so that journal editors might, if they wish, examine it", he said at the NIH meeting. But he was the only editor invited. Other journals (including this one) have resisted pressure to become data police. The peer-review process is already onerous enough, those journals say, and asking reviewers to inspect reams of raw data could overload the system to breaking point.

Data sharing is another battle in the making. Enormous computer-generated data sets are beginning to stretch storage and distribution resources. Several speakers at the NIH meeting said that "peer pressure" will remain a sufficient incentive to keep the data flowing between scientists, but in certain fields, such as gene sequencing, crystallography and epidemiology, access to data is already a problem.

Biomedical data in particular are of growing commercial value, and sharing them with other researchers carries risks.

Yet most of those at the NIH conference said they would rather work out the problems themselves than have regulations setting rules for data sharing. Non-binding "principles", determined by the professional societies or journals of each discipline, should set the norms of scientific behaviour, they said. But for how long will such measures keep the regulatory wolf at bay? **G. Christopher Anderson**

ICI's perishing plastic



LAST week chemicals company ICI launched what is claimed to be the first truly biodegradable plastic made from renewable resources. 'Biopol' is a form of the energy-storage molecule of the bacterium *Alcaligenes eutrophus*, poly(hydroxybutyrate-co-hydroxyvalerate), and has been chosen by Wella for one of its Sanara shampoos. Bottles, shaped like those shown above in an advanced stage of degradation, should appear in West German shops in May. □

Data case turns ugly

Washington

STILL lurking behind the debate on data ownership is the convoluted case of Erdem Cantekin, a University of Pittsburgh researcher whose public disagreement with his boss could cost him his job.

Four years ago, Cantekin was director of research for otolaryngology at the Children's Hospital. He had been hired by Charles Bluestone, director of the hospital's Otitis Media Research Center. But the two fell out when Cantekin disputed the results of clinical trial, for which Bluestone was principal investigator, of an antibiotic used to treat ear infections in children (*Nature* **340**, 668; 1989).

When Bluestone and Cantekin sent contradictory analyses of the data to the *New England Journal of Medicine*, editor Arnold Relman asked the university which was the "authorized" paper. The university said, in effect, that Bluestone owned the data and held sole right to publish. The university found Cantekin guilty of unethical behaviour for submitting an unauthorized analysis, stripped him of his duties and moved him to a remote office.

In August 1989 Cantekin appealed directly to the president of the university, but last month the president's five-person advisory panel found Cantekin guilty again. By submitting the dissenting manuscript without clearly marking it a dissent (although a cover letter did explain as much), Cantekin had committed a "serious violation of scientific and academic integrity", the panel decided.

The university informed Cantekin in a letter last week that it had begun the formal process of removing his tenure. Cantekin says he will ask the university president to follow due process and convene a formal hearing board on the issue. He is also considering initiating a lawsuit. One charge he expects to level is that the university last month moved him to an office above a grocery store six blocks from the hospital. Security guards video-taped his reaction to the move, Cantekin says.

University officials say that the move was necessary to permit renovations, and that other scientists will have to move too. The move was videotaped, they say, so that Cantekin could not claim that his belongings were damaged or stolen.

A congressional report due out next month from Representative Ted Weiss (Democrat, NY) will feature the case, among others, to illustrate the scope of the data-ownership dispute and scientific misconduct. The NIH Office of Scientific Integrity is also reviewing the case.

G. Christopher Anderson