Brinkley. "It deserves a careful look." He hopes that FASEB's new Committee on Science Policy will be able to review such issues. The committee's chairman, David Brautigan, agrees. Due process may be abused, he says. "Litigation has become the defence."

Europe looks for a better way

The European research community has so far avoided committing itself to such lengthy procedures — and hopes to keep things that way. In drawing up rules and procedures for handling scientific misconduct, European research organizations have tried to ensure that investigations are concluded rapidly.

In principle, the procedures, based on 'peer' investigation committees and a commitment to protect both the whistle-blower and the accused, are not radically different from those in the United States. But most European organizations try to ensure speedy resolution of investigations by limiting the number of procedural stages.

Rules introduced last year at the University of Freiburg, Germany, for example, require an informal investigation into the validity of a suspicion of dishonesty, followed, if necessary, by a formal investigation. The findings of the formal committee are passed on, with appropriate recommendations for sanctions, to the university president, who then decides on sanctions.

Albin Eser, a professor of law at the university and a director of the Max Planck Institute for Foreign and International Criminal Law, helped draw up these rules and those of the Max Planck Society, which are similarly succinct. "We deliberately avoid an appeal stage, because it would extend the time needed to reach a resolution," he says. "In any case, a sanctioned scientist can always appeal through the courts."

Scandinavian countries also leave appeals to the law courts. In contrast, the UK Medical Research Council, whose procedures are otherwise similar to those in Germany, insists on

incorporating its own appeals procedure, on the grounds of fairness.

National versus local

The issues of whether countries should set up national committees to investigate allegations of scientific misconduct, and whether such bodies, rather than local institutions, should be the first line for investigations, are very sensitive in Europe.

Denmark is the only country that entrusts the investigation of all allegations of scientific misconduct in the first instance to a national body, the Committee on Scientific Dishonesty, which is chaired by a high court judge. Daniel Andersen, its vice-chairman, strongly defends the centralization of investigations: "We discourage cases from being handled locally as there is a natural reluctance on the part of a university to label one of its scientists — particularly a prominent faculty member -as a cheat."

Claude Griscelli, director general of the

Editors debate whether to blow the whistle on suspect papers

Many journal editors believe that breaches of the traditional ethics of scientific publication are increasing. But few are confident of how they should react. Should they retract a paper which only some of its authors, or a committee investigating alleged misconduct, say includes fraudulent data? Should they 'blow the whistle' on the authors of suspect submissions that they intend to reject?

There has recently been some movement on these issues. In Britain, for example, a group of particularly frustrated medical journal editors recently created the Committee on Publication Ethics (COPE) as a sort of informal self-help group. Separately, some individual journal editors are starting to develop their own policies.

Many journals, including all those published by the US National Institutes of Health, now require each author to sign a statement accepting responsibility for the whole content of a paper bearing his or her name — a move intended to avoid the perils of honorary authorship.

One significant practical test of the willingness of journals to help contain the impact of fraudulent publication is a project set up last year by the Deutsche Forschungsgemeinschaft and the Mildred Scheel Foundation, and headed by Ulf Rapp, professor of molecular and cell biology at the University of Würzburg.

The project will systematically determine how many of the 550 journal papers and 80odd book chapters written by two German cancer researchers, Friedhelm Herrmann and Marion Brach, and some of their former colleagues, included apparently fabricated data. Local investigation committees had already identified 47 papers which appeared

to include fraudulent data. The task force, now one-fifth of the way through its stack, has identified a further 11.

Last June, Rapp approached 120 editors and publishers to request copies of relevant articles, copyright assignments and reviewers' comments. His experience, he says, was "rather depressing". Out of 70 replies, 40 sent copies of the articles, but only four provided copyright assignments, and only five reviewers' comments.

Some editors, although keen to help, did not hold files for long after publication, he said. But most refused to provide reviewers' reports, even anonymously, on the grounds of confidentiality. "Some seemed to consider us impertinent disturbers of the peace."

More than half of the 18 journals identified by the original investigation committees as likely to have published papers including fabricated data have not issued retractions. One is Blood, which published seven of the papers. Its editor, Kenneth Kaushansky, professor of haematology at the University of Washington School of Medicine in Seattle, says he is "uncomfortable" with this, but had been advised against retraction by Blood's new advisory committee on scientific integrity, on the grounds that "definitive" proof of fabrication had not been provided.

The issue raises a general dilemma for editors: if authors themselves are not willing or available to retract a paper, whose judgement that a paper includes fraudulent data should a journal accept in order to make the decision itself?

Of those editors who published retractions of the data involved in the Herrmann and Brach affair, some acted on

the requests of co-authors, others on information from one of the local investigation committees. But others remain uncertain how to react. "We need a European conference of editors to help us define exactly how, and on what basis, to retract," says Nicole Muller-Bérat, the Paris-based editor-in-chief of Leukemia.

Nature's policy is to publish whatever information it can about published papers that have proved suspect or false, says editor Philip Campbell, "although only after due consultation. Where appropriate we try to persuade the authors to issue a formal retraction, as promptly as possible. But there are times when authors will not agree among themselves. We cannot act as a judge or jury, but we can alert the community to the situation, and publish a statement by some of the authors while also making it clear where there is a disagreement."

But defining policies on retracting published papers is a relatively simple task for journal editors, compared to that of defining policies on what to do when suspicions of misconduct are raised in the minds of reviewers before publication.

Some journals, such as the Journal of Immunology, are willing to inform institutions of suspicions raised by papers if the authors do not give an acceptable explanation. But many editors are not convinced that their role should stretch so far.

"Iournals should not act like secret police," says Magne Nylenna, editor of the Journal of the Norwegian Medical Association. "We consider submissions with the utmost confidentiality, and it is not clear that we should go so far as to inform institutes of [suspected] wrongdoing."