

Germany tightens grip on misconduct...

[MUNICH] Germany's Max Planck Society (MPS), which runs 73 basic research institutes, has approved a new set of internal regulations on the way in which cases of suspected scientific misconduct should be handled. And its senate has agreed that an educational programme in scientific ethics should be set up for young researchers.

According to the MPS president, Hubert Markl, this programme, to be set up through its Wissenschaftliche Rat (scientific council), reflects a belief that preventing misconduct is more fundamental than catching the relatively few scientists who go off the rails. Young scientists must be instilled with "a wide and deepened consciousness of the importance of being responsible members of the scientific community," he says.

Scientific ethics courses are likely to include such issues as correct ways of keeping scientific notebooks, criteria for deciding the authorship of a paper, and criteria for acknowledging technical contributions to papers. Issues relating to the social impact of research would also be discussed.

Parallel ideas about how to address scientific misconduct are emerging from the Deutsche Forschungsgemeinschaft (DFG), the major grant-giving organization for universities, which earlier this year found itself unprepared to deal with the most spectacular case of systematic scientific fraud to come to light in Europe.

In this case, two medical researchers, Friedhelm Herrmann of the University of Ulm and his former colleague Marion Brach of the University of Lübeck, have been accused of fabricating data in more than 40

publications (see *Nature* 387, 750 & 389, 105; 1997). Brach has admitted fraud, and says that Herrmann put her under pressure to cheat. Herrmann blames Brach, and claims he was unaware that papers he co-authored included data from experiments that were never carried out.

The case shocked Germany's scientific establishment, partly because of the extent of the deceit and partly because it took so long to come to light. Young researchers in Herrmann and Brach's laboratory had been aware for some time that publications from the laboratory included false data, but were afraid to make a complaint for fear of jeopardizing their careers.

The DFG, which had awarded substantial grants to the two researchers, then set up an international committee to study the issue of scientific misconduct, and will draw up a report based on its recommendations.

Smaller cases of fraud that previously came to light in Germany have been handled in an *ad hoc* way, and most members of the scientific community appeared content with this arrangement. One exception was Albin Eser, director of the Max Planck Institute for International Criminal Law in Freiburg. Until the Herrmann and Brach affair, Eser had been a relatively lone voice calling for standard procedures for such cases.

The recommendations of a committee set

up by the MPS in 1996 and headed by Eser have now been enthusiastically adopted by a newly sensitized Max Planck Society. The new procedures are designed to ensure that cases of scientific misconduct are dealt with rapidly, and that both whistleblowers and those innocently accused are protected.

Eser's committee has defined about 15 types of scientific misconduct, ranging from deliberate data manipulation and infringement of intellectual property rights to compromising the research of colleagues.

According to the new rules, when suspicion of misconduct is raised in a Max Planck research institute, the director should carry out an immediate informal inquiry within the institute, protecting the name of the whistleblower, and informing in confidence the MPS vice-president responsible for the research area. Anyone accused of misconduct will have two weeks to respond, and will be told within a further two weeks whether a formal investigation will be launched.

Formal investigations will be carried out by a new standing committee, whose chairman, elected by the senate, will have no connection with the MPS or its institutes. The committee will include the relevant MPS vice-president and three members of the society's existing arbitration committee.

The investigations committee will decide if misconduct has occurred and may make recommendations about sanctions. Alternatives would include a simple warning, a demand for return of grant money, dismissal or—in extreme cases—calling in the public prosecutor. The MPS president will decide which sanction to apply.

The report of the new DFG committee is likely to focus mainly on ways of ensuring that good scientific practice is followed. And, like the MPS, it is expected to emphasize the importance of attempting to solve problems at local level.

The DFG has advised universities to appoint independent counsellors to whom young scientists can turn when they suspect malpractice. The DFG president, Wolfgang Frühwald, has suggested that the DFG appoint an ombudsman to act as final arbitrator of unresolved cases.

Frühwald also suggested that scientific societies and universities draw up their own codes of practices. The German Physical Society has responded by setting up a committee to draw up a 'code of honour'.

Frühwald is concerned that political overreaction to the Herrmann and Brach case could lead to strong central controls on research. He is worried that such a move could stifle scientific creativity. But Eser believes that a national committee should eventually be set up "to streamline things" for all research institutions. **Alison Abbott**



Frühwald: 'fraud ombudsman needed'.

FOTOSTUDIO QUERBACH

...while US students own up to cheating

[LONDON] Despite a steadily increasing emphasis on the need for scientists to act ethically (see above), cheating remains widespread among students at US universities, according to a survey of 4,000 students at 31 institutions.

The survey found that incidents of serious malpractice have increased significantly over the past three decades and, although highest among students on vocational courses such as business studies and engineering, they are also significant in the natural sciences.

The survey report, by Donald McCabe, professor of

management at Rutgers University in New Jersey, appears in the current issue of the journal *Science and Engineering Ethics* (4, 433-445; 1997). Based on the experience of university departments, McCabe concludes that strict penalties are a more effective deterrent than exhortations to behave morally.

Cheating is more common at universities without an 'honour code'—a binding code of conduct for students, with penalties for violation. More than half of science students at universities with no honour code admitted falsifying data in laboratory experiments.

More than two-thirds of all students polled said they had cheated in some way. Seventy-three per cent of science students from universities without an honour code admitted "serious cheating". The figure for those from universities with a code was 49 per cent. "Serious cheating" includes copying from someone during an examination, and using crib notes.

Cheating at honour-code universities was acknowledged by 73 per cent of students on business courses, 56 per cent of engineering students and 53 per cent of social science students. **Ehsan Masood**