

Scientists resolve to crack down on fraud

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Public confidence in the honesty of scientists is being harmed by a small minority of researchers who behave badly, a conference heard last week. European research organisations agreed to work more closely to tackle the problem of fraud and other misconduct in science.

The meeting in Madrid on 17-18 November was organised by the newly formed Research Integrity Forum of the European Science Foundation (ESF) in collaboration with the Spanish National Research Council (CSIC). It continued work set in motion by the first world conference on research integrity held in Lisbon in September 2007.

Fraud in science includes inventing data (fabrication), manipulating data to produce an unjustified result (falsification) or presenting the work of other researchers as one's own (plagiarism).

There is little hard evidence of the extent of the problem but various estimates suggest that between 0.1% and 1% of researchers commit fraud and perhaps as many as 10% to 50% engage in questionable practices. Most of these are relatively minor, said Dr John Marks, Director of Science and Strategy at ESF, "but if people get away with it and if no-one says anything about it, it might invite bigger issues of misconduct." He said that opinion polls showed that trust in scientists is still high "but that trust is easily lost by high profile cases of misconduct and that is why we are so concerned."

A survey by ESF earlier this identified 18 European countries that had put in place codes of conduct for good practice in research but they

varied greatly in how they dealt with suspected cases. Many have set up research integrity offices to promote good practice and discourage misconduct.

No European country has yet followed the lead of the US National Science Foundation which, along with other federal agencies, has statutory powers to investigate allegations of fraud including power to subpoena evidence. Dr Peggy Fischer, of the NSF's Office of Inspector General, described how offenders can be required to take a course in scientific ethics or, in the most serious cases, banned from receiving any federal research funding for up to five years.

Systems in Europe tend to be more consensual and rely more on the self-governance of the scientific community. Professor Eero Vuorio, chair of the National Advisory Board on Research Ethics, said that all of Finland's universities and polytechnics and most research funding bodies had signed up to a national code of good scientific practice. Allegations of misconduct are investigated by individual institutions to an agreed procedure with the help of outside experts. Sanctions are in the hands of employers.

Although most countries agree on the core definition of what constitutes misconduct, they differ in how they regard other unethical behaviour and how they deal with it. The meeting heard reports on the situation in the United Kingdom, Portugal, the Czech Republic and France.

With much research now being done in international collaborations, problems can arise when fraud is committed within a cross-border partnership and there are no agreed rules on how cases are to be investigated and how sanctions can be imposed.

A move towards a common approach has been proposed by the Global Science Forum of the OECD, which would require potential

collaborators to agree on what to do in cases of suspected misconduct. "When you're doing your collaborative planning you need to recognise that things can go wrong," said co-chair of the forum, Christine Boesz of NSF. She acknowledged that such an idea was new and was meeting resistance from some researchers.

The meeting also discussed the role of universities, national academies, international scientific bodies and scientific journals in promoting research integrity and heard of a project to compile a database of research papers known to be tainted by fraud. A proposal for a global clearinghouse to promote research integrity was also presented.

Members of the forum agreed to exchange information and good practice, to develop a code of conduct that could be used as a template for national codes, to develop a checklist to assist ESF members in setting up national and institutional structures to promote good practice and deal with misconduct, and to promote further research on the extent of misconduct.

Co-organiser Professor Juan José de Damborenea of CSIC told the meeting: "Society requires science and researchers to solve the problems that concern all of us. In general, public opinion has a good image of the honesty of scientists. We cannot allow it to be lost."

Source: European Science Foundation

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