

A view from the Academy of Medical Sciences

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This year, the Academy is 5 years old. It may come as a surprise, but one of the Academy's very first tasks was to manage a working party looking into research fraud and misconduct.

The working party included representatives from three other national academies: the Royal Society, the Royal Academy of Engineering, and the British Academy.

The project, was inspired by the then president, Professor Sir Peter Lachman, who had a strong interest in the subject, and felt there was no time to waste in addressing the issue.

The key role of employers

The working party's preliminary deliberations were discussed at the COPE seminar last year. The group concluded that research fraud and misconduct were perceived to be problems of scientific research, and within science, a particular problem of the medical sciences.

This was not necessarily the outcome the Academy had been looking for, but that conclusion shaped the consultation process over the next 18 months. In hindsight the Academy might have been able to move matters forward much more quickly if the other academies had recognised that it was the reputation of scholarship across all disciplines that was at stake, not just medicine.

During 2001 and 2002, the Academy consulted widely with the Department of Health, the MRC, the Royal College of Physicians, the Office of Science and Technology, the Council of Heads of Medical Schools, Higher Education Funding Council of England, the Association of Medical Charities, the GMC and Universities UK.

The Academy also had exploratory talks with Professor Sir Ian Kennedy and with Guy Dehn of Public Concern at Work, who gave legal advice on data protection and the professional liability for offering services to employers.

A proposal for a scientific fraud *advisory* panel was drawn up, together with mechanisms for sharing best practice in research governance guidelines. And the offer of expert scientists to assist employers with individual cases of misconduct was mooted.

The Academy's central thesis, supported by a strong and vocal body of opinion, and reflected in the views of many of the Academy's fellows, was that while the present uncoordinated arrangements for dealing with these issues must be improved, the obligation for maintaining high standards of research and for dealing with these allegations should remain with employers.

Employers mean the universities, national research institutes and research intensive NHS trusts.

Finding common ground

COPE greeted these proposals with dismay on the grounds that they lacked legal teeth. But the Academy was not enthusiastic about the establishment of a centralised policing role.

There seemed, therefore, to be an irreconcilable difference of opinion. At an Academy meeting in 2001, the disparity of views was once again rehearsed.

On the one hand, editors claimed they regularly saw cases of research fraud; on the other, the research community felt that this was a much rarer event. These different perspectives inevitably led to different conclusions.

But the ground has shifted since then, and the research community has come to recognise the role employers must take. The Academy is no longer actively involved in the establishment of a council for research integrity, but that does not mean it feels it has no contribution to make.

The Academy will encourage research institutions to take an active role in promoting an environment in which it is difficult for research misconduct to occur. Research ethics should be an integral part of course content, for example.

We know very little about the institutional characteristics and culture that might influence research integrity. The US Institute of Medicine highlighted this as a potential area of research.

What the Academy can offer

There will always be a role for the Academy in the promotion of high research standards by teaching by example.

The Academy could assist with the training of young scientists, and currently runs a professional mentoring service for bright young clinician scientists, funded by the Department of Health. The mentors are drawn from among the Academy's professional membership.

To date, there have been 73 participants. They are keen, enthusiastic, and highly motivated, and the Academy could run workshops for them, focusing on research skills and integrity.

They will, after all, one day be the leaders in their field, and they are important role models for the next generation. And while the Academy strongly recommends that research fraud problems should be managed by employers—vice chancellors and deans—

who have a basic duty to protect the integrity of scientific and academic work, they could be assisted by the Academy and other bodies represented at this meeting, speaking up for integrity and providing independent assessors, when appropriate.

When something goes wrong and a case needs investigation: what then? Employers will need help. This could take many forms: scientific expertise, external panel members; and the sharing of good practice and experience.

Effective guidelines and practical help should be available, all of which would need to be constantly updated and revised in the light of experience, to ensure they are robust and enforceable.

Many institutions have codes of practice, but because their use is likely to be rare, they have not usually been tested by experience, and are often inadequate for the task in hand.

Many of these guidelines are unenforceable because they are not written into contracts of employment. Ultimately, we have to be realistic about how effective guidelines can ever be. Ultimately, there can be no guarantees that good policy will be used appropriately.

The Academy might be willing to nominate independent expert assessors from among their fellowship, to advise employers in the early stages of an investigation. The medical royal colleges already perform this function, which employers have found helpful.

Advice for employers

Investigations are time consuming and painful. This does not mean they should not be undertaken, but employers and panel members need to be aware of this. In appointing panels, employers should consider:

- the status of the panel
- the process for taking evidence
- problems in identifying and declaring conflicts of interests
- the need to ensure that members are indemnified against personal liability

Panels will need to be expert, authoritative, self contained and able to command respect. Ideally they

should be able to evaluate scientific data without recourse to additional help. This will ensure that there is informed discussion at meetings, rapid interpretation of the evidence, and a speedier process, overall.

Panels will need to be aware of influential factors:

- Personality clashes
- The role and motivation of whistle blowers
- The distortion or aggravation caused by media interest
- The problem of institutional cover ups.

And they must be able to distinguish research misconduct problems from those that more properly belong to the personnel or human resources function.

Employers may wish to consider the time lag to investigation, which can severely hamper the ability of the employer or the panel to gather evidence.

New imperatives

All these issues need to be addressed, but on the basis of a clear understanding of the scale of the problem, for which there is, as yet, a high degree of uncertainty. There have long been two very different perspectives on this, but perhaps at last the gap is narrowing.

There is also a new imperative for tackling this problem. Current government policy, to encourage industry and academe to work more closely together, will rely on high standards of personal integrity and research governance.

Through the work of its industry and academe forum, the Academy is actively engaged in supporting and encouraging that partnership so that first class scientific discovery can be more swiftly translated into benefits for patients.

A high profile case of fraud or misconduct could seriously damage this process. And there is a range of conflicts of interest that needs to be explored, but in a balanced and appropriate manner.

The time is right, therefore, to demonstrate that the UK is taking steps to keep its house in order, and I hope the Academy will play its part in that process.