

Preventing and processing research misconduct: a new Australian code for responsible research

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It all depends on compliance

Earlier this year, public trust in research was dealt a severe blow when evidence emerged that a renowned Norwegian researcher, John Sudbo, had fabricated and falsified data in articles on oral cancer published in *The Lancet* and the *New England Journal of Medicine*.¹ This news followed hot on the heels of the exposure of fraudulent research by the Korean stem-cell researcher, Woo Suk Hwang, published in *Science* and *Nature*.² There is no doubt these events are but the tip of the iceberg, as research misconduct is endemic,³ and may well become more prominent as the competitiveness and commercialisation of research escalates.^{4,5}

Currently there is strong public support for research, but this is linked to notions of honesty and altruism, and the ability of researchers to regulate themselves. The public expects that a framework is in place to prevent misconduct and to investigate and punish the perpetrators should misconduct occur. These expectations were aired when the Hall affair was played out at the University of New South Wales in 2001–2003.⁶ Allegations of research misconduct were levelled at Bruce Hall, a professor of medicine at the university, and a renowned immunologist. The investigation was painfully drawn out, with a legal challenge and at least three inquiries. As it progressed, the media had many field days, the reputation of the university was compromised, and the medical faculty and the university's council were divided.

My editorial published in this Journal soon after the controversial ending of the Hall affair proffered a set of principles for managing allegations of research misconduct (Box).⁶ It now appears that these principles have been incorporated into policy. The National Health and Medical Research Council, the Australian Research Council, and the Australian Vice Chancellors Committee have recently released for public consultation the second draft of the *Australian code for the responsible conduct of research*.⁷ The code outlines comprehensive directives for issues such as research data and record management, the supervision of researchers in training, publication of research, authorship, peer review, conflict of interest and matters related to collaborative research. It stresses the need for research institutions to “establish a climate of open exchange of ideas with peers, mutual cooperation, and respect for academic freedom of expression, in which responsible and ethical behaviour in research is expected.” Furthermore, it requires research institutions to have in place active and formal programs for induction of trainee researchers along with continuous professional development of all researchers in the culture and performance of research, including mentorship and effective research supervision.

The more contentious aspects of the code are its details for managing research misconduct. Its definition of misconduct as “deviation from the *Australian code for the responsible conduct of research*”⁷ casts a wide net, and raises the possibility that institutions as well as individuals can be guilty of research misconduct. Furthermore, the code's criteria for misconduct, reflecting current

The six lessons from the Hall affair⁶

- Allegations of serious scientific misconduct should be dealt with from the start by an external and independent inquiry.
- The inquiry should have statutory power to investigate and inquire.
- The inquiry should have sufficient scientific expertise to ensure credibility.
- To preserve public confidence, the inquiry should aim for the highest degree of transparency and accessibility of the final report.
- There is a need for uniform processes and procedures for dealing with and adjudicating on scientific research and fraud.
- There is a need to shift the emphasis from managing misconduct and fraud to preventing them. ◆

patterns of researchers' misbehaviour,⁸ extend well beyond fabrication, falsification and plagiarism. It lists 17 examples of research misconduct, including abusive supervision; failure to declare, avoid or manage serious conflict of interest; and inaccuracy and carelessness in record keeping or in the preparation of grant applications or publications. This new and expanded perspective of research misconduct is welcome, but needs to be debated. When does misbehaviour become misconduct, and is the distinction between the two warranted at all? The code proposes two key players in managing misconduct: an institutional advisor on research integrity, and a designated person. The former is a counsellor on research integrity and a confidant to whom the aggrieved and those with complaints can turn for advice. The latter is the institutional inquisitor empowered to conduct a preliminary investigation as to whether allegations have substance and advise whether to pursue a formal inquiry.

And herein lies the rub. The principles previously espoused (Box) recommend this be an external and independent inquiry with statutory power. The draft code allows for this, but also allows an alternative option of an internal inquiry. Is an internal inquiry a good idea? Research institutions, including universities, live in fear of adverse publicity associated with misconduct,^{9,10} and have an inherent and glaring conflict of interest in pursuing an internal inquiry. The community expects that “justice must not only be done but should manifestly and undoubtedly be seen to be done”. The notion of an institution investigating itself will not go down well with a society afflicted by a mistrust of authority and institutions.¹¹

The code is silent on two requirements which will have to be in place if it is to work at all: compliance and accreditation of research institutions, and the establishment of a national body to oversee and evaluate the handling of research misconduct. The research community has long resisted any interference with its privileged

status, but the time for scrutiny of research institutions for compliance with the *Australian code for the responsible conduct of research* is long overdue. After all, research funding is public money, and the public has every right to expect that research institutions pursue “responsible and ethical behaviour in research”. One way to ensure this is through accreditation, with failure to be accredited placing institutions at risk of losing access to public funding.

Currently, the United States and Denmark, Finland and Norway have overarching bodies to oversee and evaluate instances of research misconduct.^{12,13} In the US, the Office of Research Integrity (ORI) has a mandate that for institutions to receive federal funding for biomedical research, they must investigate all instances of alleged research misconduct. Although the US system is far from perfect, the ORI has been active in helping research institutions to conduct their own investigations. If the institutional investigation is deemed inadequate, the ORI can intervene and initiate its own investigation. The ORI’s substantial power lies in the threat to institutions of the potential loss of federal funding.^{10,14} This power may sit uneasily with Australia’s broad anti-authoritarian culture and with university autonomy, but the competitive and commercial nature of today’s research, and its limited funding, dictate that such a national body should be explored and debated in the Australian context.

The creators of the *Australian code for the responsible conduct of research*⁷ are to be congratulated. The code represents the first milestone along the long and tortuous road towards maintaining the integrity of research.

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References

- 1 Eaton L. Norwegian researcher admits that his data were faked. *BMJ* 2006; 332: 193.
- 2 Writing a new ending for a story of scientific fraud [editorial]. *Lancet* 2006; 367: 1.
- 3 Wadman M. One in three scientists confesses to having sinned. *Nature* 2005; 435: 718-719.
- 4 Krinsky S. Science in the private interest. Has the lure of profits corrupted biomedical research? Lanham, Md: Rowan & Littlefield, 2003.
- 5 Bok D. Universities in the marketplace. The commercialisation of higher education. Princeton: Princeton University Press, 2003.
- 6 Van Der Weyden MB. Managing allegations of scientific misconduct and fraud: lessons from the “Hall affair” [editorial]. *Med J Aust* 2004; 180: 149-151.
- 7 Australian code for the responsible conduct of research. Second draft, February 2006. Available at: <http://www.nhmrc.gov.au/funding/policy/code.htm> (accessed March 2006).
- 8 Martinson BC, Anderson MS, de Vries R. Scientists behaving badly. *Nature* 2005; 435: 737-738.
- 9 Rennie D. Dealing with research in the United Kingdom. An American perspective on research integrity. *BMJ* 1998; 316: 1726-1728.
- 10 Policing integrity [editorial]. *Nature* 2005; 435: 248.
- 11 O’Neill O. A question of trust. The BBC Reith Lectures 2002. Cambridge: Cambridge University Press, 2002.
- 12 Rennie D, Gonsalvus CK. Scientific misconduct. New definitions, procedures and office — perhaps a new leaf [editorial]. *JAMA* 1993; 269: 915-917.
- 13 White C. Call for research misconduct agency. *BMJ* 1998; 316: 1695.
- 14 Sox HC, Rennie D. Research misconduct, retraction and cleaning the medical literature: lessons from the Poehlman case. *Ann Intern Med* 2006; 144: E7-E11. □