Enhancing research integrity

Wayne Kondro and Paul Hébert advocate establishing a central agency in Canada to deal with scientific misconduct.[1] We propose a set of preventive procedures to enhance research integrity. Researchers should consider the US Sarbanes–Oxley Act of 2002,[2] which was enacted following several corporate accounting scandals. Although some claim that the Sarbanes–Oxley Act is intrusive, expensive and heavy-handed, it has proven useful for preventing accounting fraud.[3] We believe that its provisions can also be applied to scientific research in 4 ways.

First, the legislation requires companies to have a complete set of internal controls. Research organizations should develop internal depositories for all data and should document the processes, analytic procedures and research methodologies their researchers use; all of the resulting material should be audited by external bodies.

Second, companies are required to have corporate officers who are personally responsible for the accuracy of financial statements. In a similar way, each research organization should have a designated "accountable scientist" responsible for research integrity.

Third, generally accepted auditing standards specify the requirements for assessing a company's financial statements.[4] Similar standards are needed for the peer review process, which currently varies widely. Furthermore, the peer review process should be accredited. This would include assessing the performance of peer reviewers with blinded reviews of specially prepared articles. For instance, the Proficiency Testing Program for Mineral Analysis Laboratories offers a means by which laboratories can assess their performance independently of internal quality control.[5]

Finally, the requirement for internal financial controls prevents fraudulent transactions. Plagiarism is a related issue. International systems to detect scientific plagiarism could be rapidly implemented by using as a template the automated systems presently used by colleges and universities to detect plagiarism in student assignments.

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Ethical funds for physicians

CMA Holdings Inc. has a policy of not investing in the tobacco industry. This is admirable and to be expected from a physician-owned corporation. I also believe that, as a matter of policy, CMA Holdings and its subsidiary MD Management Ltd. should not invest in companies that manufacture weapons.

Physicians busy with medical practice and family usually do not take the time required to learn in detail what corporations they are investing in. A physician's first responsibility is to do no harm. Investing in companies whose products' only purpose is to kill and injure people would seem to be a conflict of interest for physicians. I recently wrote to the CMA President, Colin McMillan, suggesting that it was time for MD Management to develop and promote an ethical fund for physician investment; the Saskatchewan Medical Association has made a similar request.[1] I hope that my medical colleagues who agree that MD Management should not be investing in arms manufacturers will let their MD Management financial advisors, Brian Peters (President and Chief Executive Officer of CMA Holdings) and McMillan know their position on this matter.

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Canada's approach to conflict-of-interest oversight

In his *CMAJ* news piece on the proposed US Food and Drug Administration conflict-of-interest rules that would limit the ability of experts with financial interests in the pharmaceutical industry to sit on the agency's advisory committees, Wayne Kondro highlighted the lack of similar rules in Canada.[1] However, recent policy trends