

Review of NSERC's and SSHRC's Policy Framework for Research Integrity

*Prepared by the Natural Sciences and Engineering Research Council (NSERC), the
Social Sciences and Humanities Research Council (SSHRC) and the Association of
Universities and Colleges of Canada (AUCC)*

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Table of Contents

Introduction	1
Background	2
Research and Scholarly Integrity Policy: Is it adequate?	
Overview	5
Issues and Planned Actions	5
Implementation: Does it work?	
Overview	7
Issues and Planned Actions	8
Transparency: Can it be improved?	
Overview	11
Issues and Planned Actions	12
Financial Accountability	
Overview	14
Issues and Planned Actions	16
Conclusion	16
Summary of Planned Actions	17
Appendix 1 – Terms of Reference, Working Group on the Review of the NSERC and SSHRC’s Policy Framework for Research Integrity	
Appendix 2 – Key documents in the policy framework	
Appendix 3 – Memorandum of Understanding (MOU) on the Roles and Responsibilities in the Management of Federal Grants and Awards	
Appendix 4 – Tri-Council Policy Statement: Integrity in Research and Scholarship	
Appendix 5 – Framework for Tri-Council Review of Institutional Policies Dealing with Integrity in Research	
Appendix 6 – Tri-Agency Financial Administration Guide	
Appendix 7 – Statistics on allegations of misconduct	
Appendix 8 – List of acronyms	

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Introduction

Several news articles appeared in May 2008 citing two NSERC-supported researchers alleged to have falsified and plagiarized data, and a third who was accused of spending NSERC grant funds on ineligible personal items. All three cases were investigated by the respective universities and reported to NSERC before being mentioned in the media¹.

These articles raised questions about NSERC's and the universities' handling of these cases, and underscored the importance of ensuring that Canada's federal research funding agencies have effective policies and procedures in place to combat misconduct. Even a very small number of incidents could have a disproportionate impact on public trust in publicly funded research. These cases also hinder the progress of research and scholarship in general.

Accordingly, the Minister of Industry asked the two funding agencies included in his portfolio (NSERC and SSHRC – the “agencies”) and the AUCC to review the existing policy framework surrounding scholarly, research and financial misconduct. A working group conducted this review from June to September, 2008 (see Appendix 1 for this group's full Terms of Reference and membership) and identified areas where policies and procedures could be strengthened. This exercise focused specifically on **policy** (is it adequate?), **implementation** (does it work?) and **transparency** (can it be improved?). For research and scholarly integrity, each of these areas is addressed in an individual section of this report, and a further section is devoted to the issue of financial accountability.

The term misconduct includes a number of different types of behaviour, each dealt with under different agency policies. This report focuses on what are generally considered the most serious kinds of research and scholarly misconduct (falsification or fabrication of data and plagiarism – “FFP”) and on the misuse of agency funds by researchers. Policies on the ethical treatment of human research participants and animals² fall outside the scope of this report.

NSERC, SSHRC and the Canadian Institutes of Health Research (CIHR) have parallel mandates and share the same policy framework for research integrity and financial accountability. This framework ensures harmonized and consistent agency policies and procedures for researchers and institutions. However, CIHR reports to Parliament through

¹ The third case cited above remains under investigation by the RCMP and under review by NSERC.

² NSERC, SSHRC and the Canadian Institutes of Health Research (CIHR) are engaged in a separate process through their Interagency Panel on Research Ethics to review policies and procedures related to research ethics involving human subjects. NSERC, SSHRC, CIHR and AUCC are also part of an initiative studying the governance of human research ethics, this one conducted under the auspices of the Sponsors' Table, a group of organizations that share an interest in promoting the highest standards of excellence and ethics in research involving humans. See <http://www.hrppc-pphrc.ca/english/sponsors.html> for more information.

the Minister of Health, and, therefore, was not directly involved with preparing this report. CIHR was consulted and given an opportunity to review and comment on it. NSERC, SSHRC and AUCC are committed to all the actions identified in the report, and will seek CIHR's commitment and participation, which are essential in order to make changes to the framework.

Given that this review was done in response to a request for advice to the Minister and is therefore confidential, NSERC, SSHRC and AUCC could not consult with institutions³ and other stakeholders. However, effective implementation of many actions in this report will depend on the full participation and long-term commitment of these stakeholders, particularly the institutions that receive grants and awards. The report's conclusions must also be considered along with the Canadian Research Integrity Committee (CRIC) process, which is described in greater detail below. The CRIC report is only expected in early 2009.

It is important to note that NSERC's and SSHRC's role and authority in the area of misconduct is currently limited by the agencies' own legislation, the federal *Privacy Act* and provincial legislation related to the institutions' governance and privacy. NSERC and SSHRC do not have regulatory or investigative authority on cases of misconduct.

Background

The institutions and the agencies are committed to the highest standards of integrity in research and scholarship and financial accountability. The agencies assumed the responsibility of developing and implementing a policy framework and ensuring that institutions adhere to it. This framework has evolved over the years and currently includes a number of key documents, including the *Memorandum of Understanding: Roles and Responsibilities in the Management of Federal Grants and Awards* (MOU), the *Tri-Council Policy Statement: Integrity in Research and Scholarship* (TCPS-I), the *Framework for Tri-Council Review of University Policies Dealing with Integrity in Research*, and the *Tri-Agency Financial Administration Guide*. The purpose of each of these documents is described in greater detail in Appendix 2, while the full text of the documents appears in Appendices 3, 4, 5 and 6 respectively.

Under the framework, the agencies promote integrity and ensure that all allegations of scientific and scholarly misconduct that they receive are referred to the institutions. The agencies also review all allegations of misuse of grant and award funds. The institutions promote integrity and investigate all possible instances of misconduct in research and scholarship. They must also advise the agencies if any funds are used in an inappropriate manner and provide the agencies with access to all accounts, records and other grant or award information in response to agency requests. Both the agencies and institutions may implement sanctions in cases where misconduct is confirmed.

³ the universities, hospitals, colleges, research institutes, centres and other organizations eligible to receive and manage grant funds on behalf of the Agencies and Grant Holders.

While the institutions and the agencies play a role in providing an environment that is conducive to promoting integrity and accountability, the researchers bear the primary responsibility for their behavior. When researchers submit applications for funding to the agencies, they agree to adhere to agency policies on research integrity and financial management, and are aware that breaches of policy could result in loss of funding and/or other sanctions.

NSERC, SSHRC and CIHR had already identified the need to improve certain aspects of the existing research integrity and financial accountability framework as part of ongoing efforts to strengthen their shared policies. While these gaps and inconsistencies have not led to significant difficulties in handling cases of misconduct to date, the agencies agree that updating, harmonizing and clarifying their policies and procedures would reduce the risk of problems occurring.

The agencies are currently involved with research and scholarly integrity policy initiatives in Canada and internationally. These initiatives have been launched in part due to concerns and questions expressed by the research and scholarly community and others about the prevalence of research and scholarly misconduct and about the need for more rigorous and consistent measures to address it.⁴

NSERC, SSHRC, CIHR and AUCC are actively engaged as members of the Canadian Research Integrity Committee (CRIC), a national committee established in 2006 and led by Health Canada to examine research integrity in Canada. Other partners constitute a diverse group of government and non-government organizations. With funding from these participating organizations, CRIC recently commissioned an in-depth study of research integrity policies and practices in a wide variety of research-related organizations in Canada and eight other countries. This will include an assessment of institutional policies and the implementation of the TCPS-I. A report is expected in the spring of 2009, which should help identify strengths and weaknesses in the Canadian system, best practices and opportunities for improvement.

Internationally, organizations such as the OECD, the European Science Foundation and the US Office for Research Integrity have recently held workshops and conferences related to research integrity. The OECD is currently examining how best to address misconduct in international research collaborations. NSERC, SSHRC, CIHR and AUCC are kept informed of these activities through NSERC's Executive Vice-President, who has been closely involved with these international activities.

Estimates for rates of research and scholarly misconduct vary widely, with a number of studies calculating rates ranging from one case per thousand researchers to one case per hundred researchers.⁵ In Canada, no similar studies have been conducted and there are no consolidated statistics at the national level on the incidence of misconduct. Based on statistics of cases involving NSERC and SSHRC, serious cases of misconduct that

⁴ SL Titus, JA Wells, LJ Rhoades, *Nature*, 453, 980-982; A Gillis, *University Affairs*, January 2008; .

⁵ JM Ranstam, 2000, *Control Clinical Trials* 21, 5:415-27; Geggie, 2001 *J Medical Ethics* 27, 5:344-6; Gardner, 2005, *Contemp Clin Trials* 26, 2:244-51; Pryor, 2007, *J Med Ethics* 33, 6:365-9; Martinson, Anderson, DeVries, 2005, *Nature* 435, 737-38.

require an investigation and sanctions appear to be rare in the Canadian academic community (see Appendix 7). However, it is likely that not all cases of misconduct are reported.

A number of countries have either set up or are considering national agencies or committees that would assume the role of developing policy and investigating allegations of misconduct in publicly funded research. For example, a central body was established by the Danish government, consisting of six committees, each chaired by a judge, to consider allegations of scientific misconduct and to initiate investigations (although some cases are handled independently by universities). Such agencies or committees offer the advantage of providing national oversight and operating at arms length from institutions. There is not enough information currently available to determine whether this is a suitable model for Canada to adopt. The CRIC report will examine the different models used in other countries.

For financial accountability, the agencies must comply with various pieces of federal legislation, as well as Treasury Board policies and guidelines. These cover requirements that range from providing appropriate oversight on the use of federal funds, to referring suspected criminal activity to the appropriate authorities. In a 2006 report to the President of the Treasury Board by the Independent Blue Ribbon Panel on Grant and Contribution Programs, the agencies' MOU and financial monitoring visits were recognized as providing a "rigorous system of oversight" for financial management and the agencies' record of performance was found "high by international standards."⁶

The Auditor General of Canada is NSERC's and SSHRC's external auditor and is responsible for the annual audit of the agencies' financial statements. For at least the last ten years, the Auditor General has rendered an unqualified opinion regarding the agencies' financial statements.

⁶ *From Red Tape to Clear Results, The Report of the Independent Blue Ribbon Panel on Grant and Contribution Programs*, December 2006.

Research and Scholarly Integrity Policy: Is it adequate?

Overview

As noted earlier, the agencies' integrity framework includes a number of documents, collectively referred to here as "the Policy" (see Appendices 2-5). The Policy is the agencies' primary tool for ensuring that institutions promote integrity, properly investigate allegations, impose sanctions and inform the agencies of findings of misconduct when agency funding is involved. Research integrity policies adopted by institutions have been, and are, reviewed and approved by the agencies prior to the institution becoming eligible to receive funding. Many institutions choose to incorporate additional elements into their policies, combining academic misconduct, financial mismanagement and violation of ethics for research involving humans or animals in the same policy. It is important to note that the institution's own policies must apply to all research and scholarly activity conducted under the auspices or jurisdiction of the institution, regardless of the source of funding for these activities. However, NSERC and SSHRC are only informed of, and involved with, those cases of misconduct involving their grant and award funds.

Issues and Planned Actions

NSERC, SSHRC and CIHR demonstrated leadership in 1994 by establishing the first federal research and scholarly integrity policy in Canada. To the best of our knowledge, this policy continues to be the only one of its kind within the federal government. For example, there is no similar policy that applies to federal employees working in government laboratories, departments and agencies, or to non-academic researchers receiving contracts or grants through other federal departments or agencies. In part, CRIC was established to examine ways in which this gap can best be addressed.

The agencies' framework for research and scholarly integrity reflects the legal authority and mandates of the agencies and is consistent with international practices. For example, European funding agencies or national bodies will normally set the policy frameworks and guidelines for integrity, with institutions being responsible for implementing the policies and establishing mechanisms to deal with allegations.⁷

The basic principles in the Policy are sound, but some gaps need to be addressed. For example, it does not specify that individuals have a "duty to report" suspected misconduct, nor does it provide for the protection of whistleblowers or innocent parties (such as students working on a research project) and the rectification of the research record. It is not clear in the Policy how cases that involve integrity issues that are not strictly FFP (such as misrepresenting information in grant applications), should be addressed. Nonetheless, the policy has been effectively implemented by institutions and by NSERC, SSHRC and CIHR, and few serious problems have been encountered with the treatment of cases. The cases identified in media coverage involved problems related to procedures and legal issues and not to the substance of the policy.

⁷ European Science Foundation, *Stewards of Integrity – Institutional Approaches to Promote and Safeguard Good Research Practice in Europe* (April 2008)

Other areas identified for improvement in this review are related to ambiguities and inconsistencies in the text of the Policy documents. There is a need to develop standard definitions for concepts such as plagiarism, and for consistent language, greater clarity and precision in the Policy. Also, the existence of multiple documents could lead to misinterpretation or confusion, and has the potential to undermine certain investigations if due process is not strictly followed.

The agencies agree that the comprehensive review and revision of the Policy documents is a high priority, to ensure that they reflect the highest standards of integrity and the changing research and scholarly environment. This review has been an important step in this process. The revision of the Policy will need to carefully consider the following: a detailed assessment of international norms and standards (with input from the CRIC process), consultation with each institution, and the legal implications of any changes. Each institution will then be required to ensure that its own policy is consistent with the revised agency Policy. The revised Policy will also be a useful starting point for implementing other actions that may come from the work being done by CRIC.

A number of requirements for institutions are specified in the Policy. As a result, there is some degree of commonality between institutional policies, and most institutions adopt similar mechanisms to address allegations of misconduct. However, institutions also have some flexibility to develop procedures that reflect their unique governance structures and requirements, but these procedures must be reviewed and approved by the agencies. More consistency in definitions and processes across institutions would help strengthen the overall system and would make adherence to the Policy, and the tracking of statistics and education easier. The Policy also needs to clarify the agencies' role and responsibilities in reviewing cases of misconduct, and the institutions' specific obligations and timelines for reporting.

(NOTE: Since NSERC, SSHRC and AUCC cannot make binding commitments on behalf of individual institutions and CIHR, actions in this report that require the commitment of other stakeholders have been noted as such. NSERC, SSHRC and AUCC are committed to all the actions identified in the report, and will seek CIHR's commitment and participation in order to undertake them.)

Actions

- *NSERC and SSHRC are committed to revising and consolidating the Policy documents, in consultation with institutions and other stakeholders, to include consensus definitions of misconduct and all related concepts, a more complete set of consistent elements for institutional policies, and greater clarity of roles and responsibilities. In order to do so, the agencies will seek CIHR's commitment and participation.*
- *AUCC will work with the agencies to initiate the consultation with institutions.*

Many institutional policies have been in place for more than 10 years without change and may require updating in addition to changes that take into account the revisions to the agency Policy. Institutions should review their research and scholarly integrity policies periodically (e.g. every five years), and, if necessary, update them.

Action

- *NSERC and SSHRC are committed to requiring that institutions review and, if necessary, update their policies on a regular basis, and adhere to the revised Policy when it is released. In order to do so, the agencies will seek CIHR's commitment and participation. The agencies will review institutional policies when substantive changes have been made.*

Implementation: Does it work?

Overview

Perceptions exist that the agencies have more authority than is actually the case. In fact, the authority and power of the agencies with respect to allegations of misconduct are limited by their respective Acts (the *NSERC Act* and the *SSHRC Act*). Specifically, as was confirmed in a recent Federal Court case involving NSERC and the Canadian Federation of Students,⁸ NSERC has no duty or mandate to further pursue a case that the institution had investigated and dismissed. The responsibility for investigating alleged misconduct, therefore, falls to the institutions, as is the case in many other countries.

Allegations of misconduct can come from a variety of sources. Those who work most closely with a researcher (often students or support staff) are well placed to identify and report possible cases of misconduct. Other researchers with expertise in the same field also play a role. For example, peer reviewers who evaluate research proposals or editors who review articles submitted to journals have an intimate knowledge of the current state of research, and can spot signs of potential data falsification or plagiarism.

The agencies are responsible for ensuring that any allegations they receive are appropriately investigated by the institutions. The agencies review institutional reports on investigations to ensure that the institutions have followed appropriate procedures in arriving at their findings. When an agency receives an allegation of scholarly or research misconduct, it follows procedures that adhere to the principles of the Policy and the *Privacy Act*. The specific procedures followed by each agency are slightly different, and each agency is responsible for ensuring that these are fair and sound.

NSERC reviewed its internal procedures in 2006 and developed a list of detailed procedures that apply to various types of cases. SSHRC is in the process of revising its internal procedures in light of recent changes to its governance structure. CIHR has comprehensive procedures (*CIHR Procedure for Addressing Allegations of Non-*

⁸ Canadian Federation of Students v NSERC, Federal Court Citation 2008 FC 493, April 18, 2008

compliance with Research Policies) for addressing all types of policy breaches. These were last updated in 2006, with another update scheduled for 2009.

The Policy lays out the principles and requirements for conducting investigations. The current system, under which institutions conduct investigations involving their own faculty, can lead to real or perceived conflicts of interest. For this reason, the institutions must prevent conflicts of interest, real or apparent, on an investigative committee. Institutions must submit reports of their investigations if the case involved agency funds and misconduct is found, or if it involved allegations that were forwarded to the institution by an agency even if there was no finding of misconduct. Reports must be submitted to the appropriate agency within 30 days of completion of the investigation.

If an institutional investigation confirms that misconduct occurred, and the agency accepts that the institution followed the appropriate procedures in its investigation, then the agency may impose financial and administrative sanctions on the individual, in addition to any sanctions imposed by the institution. Committees of NSERC's and SSHRC's Councils are mandated to receive the investigation reports and make recommendations to their respective Presidents on actions, including sanctions, that the agencies should take or impose in cases where misconduct has been confirmed. Actions and sanctions can include a letter of reprimand, prohibiting the researcher from re-applying to the agency, and suspending grants payments. If criminal acts are suspected, matters are referred to the appropriate legal authorities. To date, NSERC and SSHRC have not referred any research and scholarly misconduct cases to legal authorities.

If an agency believes that an institution is in breach of the Policy (for example, if an agency believes that an institution's integrity policy does not meet agency requirements) certain steps must be followed by the institution and the agency. The scope of the investigation of an institutional breach of agency policy depends on the seriousness of the allegation. Actions range from an informal inquiry to a formal process involving senior officials, mediation and corrective measures (which can include suspension of funding). In one of the cases described in the recent media reports, NSERC successfully invoked the Policy to obtain a report that the institution had initially withheld based on a confidentiality agreement it had made with the researcher.

Issues and Planned Actions

Dealing with research and scholarly misconduct is a complex and challenging process, as illustrated by the cases presented in recent media reports. Implementation of policies must allow for the possibility that apparent misconduct is actually the result of an innocent misunderstanding, or that an allegation stems from malicious intentions. In our experience, each case has unique circumstances that preclude a "one size fits all" approach. Additional complexity comes from the variation in perspectives found in the research community and elsewhere on the seriousness of certain actions and the appropriate consequences for misconduct. Given that agencies and institutions each deal with a very small number of cases, increased sharing of information between organizations (with appropriate safeguards for privacy and confidentiality) would help

ensure that cases are dealt with more effectively and efficiently, regardless of their complexity and uniqueness. Key officials responsible for reviewing misconduct cases at each agency would broaden their knowledge and learn from the cases handled by the other agencies.

NSERC, SSHRC and CIHR do not currently have a completely harmonized process for dealing with allegations of misconduct. Developing such a process would lead to a more consistent approach. The current CIHR and NSERC procedure documents provide an appropriate starting point.

Actions

- *NSERC, SSHRC and AUCC will regularly remind institutions of their responsibilities under the Policy, and share with them best practices and lessons learned, and will invite CIHR to do this jointly with them.*
- *NSERC and SSHRC will establish a staff committee to develop harmonized procedures and review cases in order to ensure a consistent approach, identify best practices and appropriate sanctions, and track and consolidate data. Any sharing of information will comply with the Privacy Act. CIHR will be invited to participate in this initiative.*

The provisions of the *Privacy Act* and the *Access to Information Act* have a significant influence on implementation of the Policy. The *Privacy Act* defines personal information in very broad terms, and limits its disclosure. On a practical level, the *Act* requires that the agencies obtain a person's permission to forward his/her concern to an institution and/or redact personal information from a document prior to sending it to the institution. If the complainant is not willing to give permission, the agencies' ability to communicate the allegation to the institution is restricted. If information needs to be redacted from the document, a full and fair review of the case is not always possible. The agencies currently approach this challenge in different ways.

Action

- *NSERC and SSHRC will develop a common approach for receiving and transmitting allegations, respecting the provisions of the Privacy Act and the Access to Information Act, and will invite CIHR to do this jointly with them.*

Any investigation process has multiple stages, and in order to ensure due process, each of them must allow all parties sufficient time to share information, prepare a response and complete their work. The current framework allows institutions and agencies to establish most of their own time frames. This may lead to unnecessary delays.

Action

- *NSERC and SSHRC are committed to establishing, in consultation with the institutions, realistic, standard time frames to be followed by agencies and institutions. In order to do so, the agencies will seek CIHR's commitment and participation.*

Institutional reporting requirements are not fully explained in the Policy. It would be beneficial for institutions to report on the treatment of all investigations⁹ of misconduct involving agency funded research (even when the complaint was internal and there was no finding of misconduct). This would allow the agencies to determine if the appropriate process was followed and to have complete knowledge of all cases relevant to the agencies. All reports are currently, and would continue to be, treated with strict confidentiality, subject to the provisions of the *Privacy Act*.

Action

- *NSERC and SSHRC are committed to requiring institutions to report all investigations (as opposed to initial inquiries that find no basis for the allegations and do not proceed to full investigations) involving agency funded research, even when there is no finding of misconduct. The agencies, in consultation with the institutions, should specify requirements for the content of institutions' investigation reports of misconduct cases. In order to do so, the agencies will seek CIHR's commitment and participation.*

If an institution's investigative report is lacking in some respect, the agency may request more information. Given the scope and limits of their existing legislated roles, responsibilities and accountabilities, agencies cannot override the institution's findings. The agencies must accept the results of an institution's investigation, after verifying that the institution followed appropriate procedures in arriving at its conclusion. Also, the agencies are not informed of misconduct cases involving research that is supported by other funding organizations. The researcher involved could otherwise be eligible to apply to the agencies and could do so if his/her institution and the agency are unaware of the previous finding of misconduct.

Action

- *NSERC and SSHRC will review the scope and limits of their legislated role, responsibilities and authority, and the implications of other pertinent legislation (Privacy Act, provincial legislation), and will make recommendations about legislative changes to the Minister of Industry, if appropriate. NSERC and SSHRC are committed to ensuring that, within those limits, the Policy is*

⁹ Note: All allegations are subject to an initial inquiry phase, after which some are dismissed as unfounded. Reporting requirements are intended to apply only to those allegations that trigger an investigation on the part of the institution.

strengthened to ensure full accountability of researchers, agencies and institutions. In order to do so, the agencies will seek CIHR's commitment and participation.

In cases where there are findings of misconduct, sanctions can be imposed by institutions and agencies. If any evidence of possible criminal misconduct is found, the agencies immediately refer the matter to the appropriate legal authorities. However, it is currently unclear which types of scholarly and research misconduct should be treated this way. In the U.S., misrepresenting information on an application for research funding is a federal offence, an attempt to misappropriate federal funds.

Action

- *NSERC and SSHRC will determine which types of integrity cases should be referred to legal authorities, and will invite CIHR to do so jointly with them.*

Transparency: Can it be improved?

Overview

The agencies strive for a maximum degree of transparency in implementing the Policy. This goal must be balanced, however, with several other factors.

The agencies must comply with the federal *Privacy Act*, and the institutions are also subject to provincial legislation on privacy. Given that the investigations of allegations of misconduct are administrative, and not criminal, most information related to these cases, including the name of the individual and his/her institution, cannot be made public or shared between the agencies and with institutions.

In addition, allegations of misconduct can have a major negative impact on a researcher's career, personal life and well-being, as well as on the institution's reputation and the larger research enterprise. Those who bring forward information about possible misconduct are also at risk, as are those who work with the subject of the allegation or who rely on the results of his/her work. Such problems are compounded by a tendency for the public and the media to equate an allegation with a confirmed finding of misconduct. Finally, disclosure of allegations could jeopardize the investigation itself. In light of all these factors, extreme care must be taken to ensure that allegations are not broadcast prematurely or beyond those who are directly involved with an investigation.

The Policy documents are available on the agencies' Web sites, along with information on the agencies' committees that review findings of misconduct and make recommendations on sanctions. In addition, procedures for handling integrity cases and a statistical report for 2000-2008 on allegations of non-compliance with CIHR policies are available on CIHR's Web site. NSERC periodically publishes articles on integrity in its newsletter *Contact*.

The agencies and the institutions have a joint responsibility to promote integrity. Most institutions offer courses and workshops on integrity, and institutional policies are also posted on their Web sites. The agencies have organized and participated in conferences and workshops on promoting integrity in research and scholarship. For example, the same year the TCPS-I was released, the three federal funding agencies, in cooperation with the AUCC, organized a conference for researchers and administrators from academia and government to discuss the challenges of research integrity. The goal of the conference was to reach a common understanding of the nature and challenges of integrity issues, including financial accountability, and to identify appropriate solutions. The background discussion document and the conference report are provided on the agencies' Web sites.

Issues and Planned Actions

The institutions are required to provide a central contact at the vice-presidential or equivalent level to receive allegations of misconduct. It is vital for this contact point to be well known and to be seen as safe and unbiased. Those who make allegations include students or support staff, individuals who may be in very vulnerable positions. Since the research community in some disciplines is quite small, providing sufficient “whistleblower” protection involves very careful consideration of which details of a case can be made public. Another group at risk consists of innocent parties – people such as graduate students or fellow researchers who are not involved with misconduct but whose research careers or reputations may be damaged. A formal process to rectify the research record following findings of research and scholarly misconduct could mitigate this harm.

Actions

- *NSERC and SSHRC are committed to ensuring that any policy or procedural changes that strengthen the requirements for individuals to report suspicions of misconduct are accompanied by commensurate requirements for whistleblower protection. In order to do so, the agencies will seek CIHR's commitment and participation.*
- *NSERC, SSHRC and AUCC are committed to exploring with institutions the feasibility of developing a formal process to rectify the research record following findings of misconduct. In order to do so, the agencies will seek the commitment and participation of CIHR.*

It has been proposed that names of individuals found to have committed misconduct, and/or the names of their institutions, could be revealed if the individuals and their host institutions gave prior consent. While transparency is an important goal, its pursuit must be carefully assessed by the agencies, with input from institutions and other stakeholders, and must take into account applicable federal and provincial laws. It must be kept in mind that some research communities are sufficiently small that simply releasing the name of an institution and the discipline involved could help identify an individual person (or risk identifying the wrong person).

Some members of the research community and the general public have called for increased access to information about founded cases of misconduct. Among other benefits, institutions would know if potential new faculty members had previously committed misconduct. Public disclosure is currently permitted in some countries, but not in a systematic way. In the United States, the Office of Research Integrity (ORI) oversees and directs Public Health Service (PHS) research integrity. A special exemption to U.S. privacy legislation allows the ORI to make public the names of researchers supported by PHS who have been found to have committed scientific misconduct. In Canada, there is currently no legislative or regulatory framework that would override the *Privacy Act* or existing provincial legislation on privacy and permit or require public disclosure. It is not clear whether the agencies could make the provision of an award contingent upon researchers giving their permission to have their names released in the event of a finding of misconduct.

Action

- *NSERC and SSHRC will identify measures that could be taken to share more information on specific cases among themselves and/or to provide the public with increased information about proven cases of misconduct, taking into account applicable federal and provincial laws, and will invite CIHR to participate in this initiative.*

Institutions must submit summary reports to the agencies on findings of misconduct involving agency funded research, but there is no requirement for these reports or statistics on the number of cases of proven misconduct to be made public. A similar requirement for agencies to prepare public annual reports is not currently in place, and is needed for transparency and accountability.

Actions

- *NSERC and SSHRC will prepare a publicly available, statistical annual report on findings of misconduct involving agency funded research, and will compile statistics in a consistent manner. CIHR will be invited to participate. The institutions should individually publish annually the number of investigations resulting in a finding of misconduct involving agency funded research.*
- *AUCC will pursue discussions with institutions on ways to increase the transparency of research and scholarly integrity policies, and on the investigation process and its outcomes.*

The agencies' procedures for handling allegations and reviewing cases are also not public.

- *NSERC and SSHRC will make their harmonized procedures publicly available.*

More could be done to enhance educational and promotional activities of the institutions and agencies. Information and resources need to be well publicized and easily available to the research community to help prevent misconduct and ensure that it is reported and dealt with effectively when it occurs. Increased harmonization and consistency within the current framework, including institutional policies and processes, will make education easier. Providing training for agency staff, institution staff and committee members would raise the overall capacity to effectively investigate misconduct and to take appropriate action. Sharing best practices would help ensure that members of investigation committees have the appropriate expertise and use of the most effective tools. Partner organizations such as the Canadian Association of University Research Administrators (CAURA), the Canadian Association of University Business Officers (CAUBO), l'Association des administratrices et administrateurs de recherche universitaire du Québec (ADARUQ), AUCC and other national and provincial organizations can help with these efforts, which could include dissemination of information through web sites, newsletters and presentations at institutions, conferences, etc.

Action

- *NSERC, SSHRC and AUCC will work with the institutions and partner organizations to enhance education and promotion of the highest standards of integrity in research and scholarship. CIHR will be invited to participate in these initiatives.*

Financial Accountability

Overview

NSERC and SSHRC receive their funding through parliamentary appropriations, and therefore have a responsibility to Parliament and to Canadians to ensure that the funds entrusted to them are well managed and used effectively, economically and in the best interest of the research supported by the grants and awards. The agencies must adhere to federal laws and policies which dictate financial and other management practices and set accountability standards, and they must account for the resources entrusted to them.

As noted earlier, the agencies' framework for financial accountability involves a number of policy documents, namely the MOU (Appendix 3) and the *Tri-Agency Financial Administration Guide* (Appendix 6). A summary of the documents included in the agencies' framework for financial accountability is provided in Appendix 2. These documents are collectively referred to in this report as "the Financial Policy."

Under the Financial Policy, the agencies and institutions agree to have clear accountabilities, effective control over resources, sound risk management and performance assessments, and open reporting of results in relation to the expenditure of public funds. Institutions must establish and maintain policies, systems, procedures and controls to ensure that grant and award holders comply with agency and institutional

policies. Grant holders must receive appropriate administrative support from their institutions to help them manage funds properly. Institutions are required to withhold funds from researchers who violate policies, and must advise the agencies without delay of such occurrences. If the agencies find that an institution's systems and controls are inadequate, grant accounts may be frozen until problems are rectified.

As grantees and award holders, individual researchers have a number of financial responsibilities, which are outlined in the Financial Policy. Grant funds must contribute towards the direct costs of the research program or project for which the funds were awarded. The funds must be used effectively and economically, and the expenses must be essential for the research supported by the grant. Grantees are responsible for authorizing expenditures from their grant accounts in accordance with the agency's requirements and conditions of grants and with the institution's policies. Grantees certify that all expenditures are for the purpose for which the grant was awarded. If a grantee disregards the requirements outlined in the agency's guides, institutional policies or principles of sound financial management, he/she risks losing the funding and may be subject to agency sanctions.

The agencies maintain a strong and active interest in the financial management of grant and award funds. There are rigorous mechanisms to review accounts and to follow up on allegations of financial irregularities. The NSERC-SSHRC-CIHR financial monitoring team regularly visits Canadian universities and/or research centres, institutes, colleges and hospitals to ensure that appropriate and sound financial practices are in place at these institutions and that agency requirements are followed. These visits also help to maintain good communication between the agency staff and their institution counterparts and provide an opportunity for feedback on their policies and procedures. Agency staff also regularly make presentations on financial accountability at CAURA and CAUBO meetings, as well as during financial monitoring visits. As previously noted, the monitoring visits and the MOU were cited as a best practice by the Blue Ribbon Panel⁶.

All allegations of misuse of agency funds, including anonymous allegations, begin with an initial assessment that draws on documentation available at the agencies and the institution. If this review indicates potential problems, a more in-depth review of the grantee's accounts will be undertaken. The results of this in-depth review may lead to one or more of the following conclusions: no problems exist, and the account will remain active; ineligible items have been charged to grants and are to be refunded to the grant account; financial misconduct is confirmed and the findings are referred to the relevant NSERC and SSHRC committees, which may recommend sanctions to their Presidents; and if criminal activity is suspected and the case is reported to legal authorities for further investigation. Two cases of alleged fraud involving NSERC grant accounts are currently under investigation by provincial police and the RCMP.

Issues and Planned Actions

A review of the agencies' framework for dealing with allegations of misuse of grant funds draws similar conclusions to those arrived at for research and scholarly misconduct. Essentially, the framework is sound, but some improvements may be needed in terms of policy development, implementation and transparency. The review and revision of the Policy on research and scholarship integrity can serve as a model for the development of a similar, comprehensive framework for financial misconduct.

The main gaps in the Financial Policy are the lack of details and harmonized procedures that address non-compliance by individual grant and award holders. Gaps include a lack of a clear description of the roles and responsibilities of agencies and institutions, a definition of financial misconduct and an understanding of the type of cases that must be referred to the relevant NSERC and SSHRC committees for review. CIHR has written publicly available procedures for dealing with non-compliance by individual grant and award holders. This could be used by the agencies to develop a harmonized process for dealing with allegations of misuse of grant funds.

Actions

- *NSERC and SSHRC are committed to updating and strengthening the Financial Policy so that it is similar in approach and detail to the research and scholarly integrity Policy. In order to do so, the agencies will seek CIHR's commitment and participation. AUCC will work with the agencies to initiate consultations with the institutions.*
- *NSERC and SSHRC will harmonize procedures for dealing with allegations of misuse of grant funds and make these publicly available, and CIHR will be invited to do this jointly with them.*
- *NSERC and SSHRC will clarify which types of cases involving misuse of agency funds must be investigated and referred to their respective committees for consideration, and what sanctions they will impose when there is a finding of financial misconduct. CIHR will be invited to do this jointly with them.*
- *NSERC, SSHRC and AUCC will work with the institutions and partner organizations such as CAUBO to enhance education and promotion of the highest standards of financial accountability, and CIHR will be invited to participate in this initiative.*

Conclusion

The review of the agencies' policies and procedures that ensure integrity in research and in the management of grant and award funds has shown that the framework is essentially sound and is designed to address a wide range of possible acts of misconduct. The framework offers an inexpensive, flexible and self-regulating way to hold the agencies, researchers and institutions responsible to promote integrity, prevent misconduct and address misconduct when it occurs. The various policies, their implementation and their level of transparency are generally appropriate and sufficient, and the structure of the

framework is comparable to international norms. However, changes are needed to strengthen the framework. NSERC and SSHRC are committed to taking the appropriate actions to ensure that the highest standards of integrity and accountability are reflected in the policies and procedures and are rigorously implemented.

Prior to this review, some steps were initiated to strengthen the integrity framework, notably the agencies' and AUCC's participation in the CRIC process. This report recommends a number of additional actions that can be taken in the short- and long-term (see Summary of Actions below). Certain of these can be initiated by SSHRC and NSERC, independently of CIHR, although this would not be the ideal approach, given that NSERC, SSHRC and CIHR are jointly responsible for the policies related to research and scholarly integrity and financial management. Most actions can only be effectively implemented with the full commitment of CIHR and the institutions. AUCC will work with the agencies to initiate consultations with the institutions regarding changes to the framework. AUCC will also play an important role in communicating with institutions regarding a number of other issues discussed in this report (i.e., education and promotion, institutions' responsibilities, ways to increase transparency of institutional policies, etc.).

Allegations and findings of misconduct have been rare in the Canadian research community, although it is likely that not all cases are reported. Regardless of their incidence, misconduct, or allegations of misconduct, can cause disproportionate harm to the public's trust, members of the research community and the research enterprise. As such, all necessary steps should be taken to ensure that the agencies' integrity framework helps reduce and discourage misconduct, and enables the effective and efficient investigation of allegations.

By updating, harmonizing and filling gaps, the framework used by the agencies and institutions will continue to provide effective oversight of the public funds invested in the Canadian research community, and to ensure the highest standards of research and scholarly integrity and financial accountability.

Summary of Planned Actions

This report recommends a number of actions that can be grouped under four key areas:

1. Clarify the Agencies' role regarding integrity in order to determine a) whether the Agencies are fulfilling all their responsibilities and exercising all their authorities, including holding the institutions and researchers fully accountable, and b) whether their current legislated roles, responsibilities and authorities are appropriate and sufficient for the level of oversight and accountability required.

- *NSERC and SSHRC will review the scope and limits of their legislated role, responsibilities and authority, and the implications of other pertinent legislation (Privacy Act and provincial legislation) and will make recommendations about legislative changes to the Minister of Industry, if appropriate.*

The outcome of this review could potentially have a significant impact on the other actions, including those related to financial accountability. This review could take six months or more to complete.

- *NSERC and SSHRC are committed to ensuring that, within those limits, the Policy is strengthened to ensure full accountability of researchers, agencies and institutions. In order to do so, the agencies will seek CIHR's commitment and participation.*

This action is longer-term (see below).

2. Update and strengthen the current research and scholarly integrity Policy in order to ensure that it reflects the highest standards of integrity and provides increased clarity of terms, roles and responsibilities.

Many actions included in this report require revisions to, and consolidation of, the Policy documents. This is a long-term project that would likely take up to three years to complete, and would require the commitment and participation of CIHR, the institutions and other stakeholders. The findings of the CRIC process will need to be considered. The specific actions that would be part of this undertaking are:

- *NSERC and SSHRC are committed to revising and consolidating the Policy documents in consultation with institutions and other stakeholders, to include:*
 - *consensus definitions of misconduct and all related concepts*
 - *a more complete set of consistent elements for institutional policies*
 - *greater clarity of roles and responsibilities*
 - *realistic, standard time frames to be followed by both agencies and institutions*
 - *requirement for institutions to report all investigations involving agency funded research, even when there is no finding of misconduct*
 - *specific requirements for the content of institutions' investigation reports of misconduct cases*
 - *requirement for individuals to report suspicions of misconduct, accompanied by commensurate requirements for whistleblower protection*
 - *requirement for agencies to prepare a publicly available, statistical annual report on findings of misconduct, involving agency-funded research, and for institutions individually to publish annually the number of investigations resulting in a finding of misconduct involving agency-funded research.*
 - *requirement for institutions to review and, if necessary, update their policies on a regular basis and adhere to the revised Policy, and for the*

agencies to review those policies when substantive changes have been made.

In order to do so, the agencies will seek CIHR's commitment and participation. The AUCC will work with the agencies to initiate the consultation with institutions on the revision of the Policy.

3. Improve the effectiveness of the implementation of the Policy and increase its transparency, in order to ensure that all cases are dealt with effectively and that all stakeholders are well informed.

These actions are for the agencies to:

- *With AUCC, regularly remind institutions of their responsibilities under the Policy, and share with them best practices and lessons learned .*
- *Establish a staff committee to develop harmonized procedures and review cases in order to ensure a consistent approach, identify best practices and appropriate sanctions, and track and consolidate data.*
- *Make their harmonized procedures publicly available. This will include a common approach for receiving and transmitting allegations.*
- *Determine which types of integrity cases should be referred to legal authorities.*
- *Identify measures that could be taken to share more information on specific cases among themselves and/or to provide the public with increased information about proven cases of misconduct, taking into account applicable federal and provincial laws.*
- *With AUCC, institutions and partner organizations, enhance the education and promotion of the highest standards of integrity in research and scholarship.*

In addition,

- *AUCC will pursue discussions with institutions on ways to increase the transparency of research and scholarly integrity policies, and on the investigation process and its outcomes.*

These actions can be initiated within the next six months and completed within a year. CIHR will be invited to participate or to do these jointly with NSERC and SSHRC.

An additional action that would require a long-term undertaking with CIHR's commitment and participation is for the agencies and AUCC to:

- *Explore with institutions the feasibility of developing a formal process to rectify the research record following findings of misconduct.*

4. Update and strengthen the current Financial Policy in order to ensure that it reflects the highest standards of accountability and provides increased clarity of terms, roles and responsibilities.

- *NSERC and SSHRC are committed to updating and strengthening the Financial Policy so that it is similar in approach and detail to the research and scholarly integrity Policy. In order to do so, the agencies will seek CIHR's commitment and participation. AUCC will work with the agencies to initiate consultations.*

Updating and consolidating the Financial Policy documents is a long-term project that would likely take up to three years to complete, and would require the commitment and participation of CIHR, the institutions and other stakeholders.

The following actions can be initiated within the next six months and completed within a year, and are for NSERC and SSHRC to:

- *Harmonize procedures for dealing with allegations of misuse of grant funds and make these publicly available.*
- *Clarify what types of cases involving misuse of agency funds must be investigated and referred to their respective committees for consideration, and what sanctions they will impose when there is a finding of financial misconduct.*
- *With AUCC institutions and partner organizations such as CAUBO, enhance the education and promotion of the highest standards of financial accountability.*

CIHR will be invited to participate, or to do these jointly with NSERC and SSHRC.