

**Environmental Scan of the Existing National and International Practices for
Establishing a College of Reviewers at CIHR**

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Table of Content

I. Introduction

1. Objectives of the Environmental Scan
2. Its Scope and Limitations
3. How the Study was Conducted
4. Main Findings of the Scan and Its Deliverables

II. Description of the Reviewed Colleges at the

- a) Canadian Foundation for Innovation (CFI)
- b) Canada Research Chairs (CRC)
- c) Social Science and Humanities Research Council (SSHRC)
- d) National Health and Medical Research Council (NHMRC) Australia
- e) National Institute of Health (NIH) USA
- f) Arts and Humanities Research Council (AHRC) UK
- g) Engineering and Physical Sciences Research Council (EPSRC) UK
- h) Natural Environment Research Council (NERC) UK

III. Identified Examples of Existing Practices in

- a) Recruitment and Conditions of Membership in the College
- b) Incentives for and Recognition of College Members
- c) Training and Communications
- d) Evaluation of the College and its Individual Members

Appendixes

Table of the Scan (Appendix 1)

Identified Practices for Establishing a College of Reviewers at CIHR (Appendix 2)

List of Contacts in the Reviewed Organizations (Appendix 3)

List of Relevant Internal and External Documents (Appendix 4)

Report to SSHRC of the International Blue Ribbon Panel “*Promoting Excellence in Research*” (2008) (*excerpt with relevant recommendations*) (Appendix 5)

I. INTRODUCTION

1. Objectives of the Environmental Scan

The present Environmental Scan (Scan) was initiated by the Peer Review Management Unit (PRM Unit) to inform the development of the concept of the College of Reviewers (CoR). The establishment of COR is considered to be the foundation of the Peer Review Enhancement Reform (PRER) currently undertaken by CIHR.

The purpose of the study was to review the peer review practices of the national and international research funding organizations with the existing Colleges of Reviewers in order to get an understanding of the various models of the Colleges and to identify practices that could inform and substantiate the decision-making at the various levels in the process of developing a concept of the College and in its subsequent implementation. As such, this report is a result of a fact-finding exercise and does not contain any direct recommendations on the subject. Its prime audience is the management and the team of the PRM Unit.

2. The Scope of the Scan

This study is not meant to be a comprehensive description or analysis of the surveyed peer review systems; it rather focuses specifically on the areas outlined as priority ones for the development of the College in the PRER documents. They include:

- recruitment and conditions of membership in the College
- incentives for and recognition of College members
- training and communications
- evaluation of the College and its individual members.

The above areas were the key points in the review of all Colleges.

In order to select a sample of seven Colleges for this Scan, the Web-sites of the greater number of organizations has been reviewed, including for example, those of Medical Research Council (UK),¹ Economic and Social Research Council (UK),² Danish Agency for Science Technology & Innovation, Natural Science & Engineering Research Council, as well as the major research funding agencies in Japan and European Union. These organizations were not included into the

¹ It has to be mentioned that MRC had established a College in 2004-05, but four years later decided to abandon it. A brief account of its experience is described in the response that the PRM Unit received from one of the MRC officials [MRC UK College Experience.doc](#). (W:\PPP\PRM\Peer Review Enhancements (CoR)\Natalia's Project\Scan Research & Outcomes)

² ESRC (UK) has not been included into the present Scan, but some of its College practices deserve attention. Thus, e.g. along with the newly created Peer Review College, there are already several other referee colleges: (i.e. Virtual College, Post-Doctoral Fellowships College or Follow on Fund Assessor Pool) http://www.esrcsocietytoday.ac.uk/ESRCInfoCentre/PO/fast_facts_link/index.aspx.

report because they either did not have a College established or the practices of their Colleges were substantially similar to those already included.

To provide the context for comparing the practices of various Colleges, the Scan contains some basic information about their respective organizations, such as the number of research applications they receive annually, the budget they commit for grants and awards and a brief description of the PR systems their Colleges operate in.

In order to further inform the study, the peer review systems of the four scientific journals (The Nature, The Science, The Scientist and British Medical Journal) were also studied. This was complemented by a telephone interview of the Unit members with the Chief Editor of the Nature Medicine. The summary of the findings (*W:\PPP\PRM\Peer Review Enhancements (CoR)\Natalia's Project*) was reported to the Management of the PRM Unit.

3. How the Scan was Conducted

This Scan was conducted in close and continuous consultation with the management and the team of the PRM Unit; initially – to determine the goals and the scope of the study, and subsequently – to track its progress and to discuss its results and their application.

Since in the recent couple of years CIHR and the PRM Unit have already been doing a considerable amount of research, analysis and discussions around the various issues of PR system improvement, the present study is informed by the documents produced to date, and developed with the view of not duplicating, but rather capitalizing and building on them. The list of the related documents can be found in the **Appendix 4**.

The material for the Scan was collected primarily through the Internet-based research and telephone interviews with the officials at the relevant national and international organizations (their list and contact information can be found in the **Appendix 2**). A number of documents, including reports produced for and by the reviewed research funding agencies were also reviewed.

4. Outcomes of the Scan and Its Deliverables

The Report of the *Environmental Scan* contains a brief description of the Colleges in seven research funding organizations in Canada and abroad³, and of their practices in a number of defined areas (the Table of the Scan (**Appendix 1**) represents the Scan's graphic and condensed version). Those organizations include:

³ In order to select a sample of seven Colleges for this Scan, the Web-sites of the greater number of organizations have been reviewed, including for example, those of Medical Research Council (UK),³ Danish Agency for Science Technology & Innovation, Natural Science & Engineering Research Council, as well as of the leading research funding agencies in Japan and European Union. These organizations were not included into the report because they either did not have an established College or the practices of their Colleges were substantially similar to those already included.

Canadian Foundation for Innovation (CFI)

Canada Research Chairs (CRC)

Social Science and Humanities Research Council (SSHRC)

National Health and Medical Research Council (NHMRC) Australia

National Institute of Health (NIH) USA

Arts and Humanities Research Council (AHRC) UK

Engineering and Physical Sciences Research Council (EPSRC) UK

Natural Environment Research Council (NERC) UK

As it can be seen from the Table, the concept of College of Reviewers (CoR) is relatively new, the oldest College being established by the Canadian Research Chairs in 2000, and the rest in the last 2-6 years. The reviewed organizations use their Colleges for a number of different purposes: as a database of expert reviewers for the first and second levels of peer review (e.g., CRC, British Research Councils), as a source of an editorial review for complex/multidisciplinary applications (e.g., NIH), or as an advisory group to a CEO, as in the case of the Australian Council.⁴ Unfortunately, the novelty of the concept of CoR, and therefore, a lack of evidence regarding its performance, as well as a relatively small size of the sample used in this Scan did not allow to credibly determine any clear trends or “best practices” on the subject. However, it was possible to identify a number of practices adopted by one or several organizations in the identified four common areas (**Appendix 2** contains their summary). The results of our study suggest that there are no other Colleges that follow the model which is presently considered by CIHR.

A finding which could be of particular interest to CIHR is the Report of the International Blue Ribbon Panel entitled “Promoting Excellence in Research” (2008). It contains recommendations to SSHRC’s Council regarding the improvement of its peer review system, and more precisely the establishment of the “SSHRC International College of Expert Reviewers”. SSHRC has not yet established its College. However, given the high international profile of that Panel, as well as the organizational similarities between SSHRC and CIHR, the recommendations of this report could serve as the guidelines and an invaluable source of “best practices” for establishing the College of Reviewers at CIHR. For details, please see recommendations 1 to 39 at http://www.sshrc.ca/about-au_sujet/publications/peer-pairs_e.pdf or **Appendix 4**.

II. Description of the Reviewed Colleges

Canada Foundation for Innovation (CFI)

⁴ The College at NERC (UK) also occasionally performs an advisory and representation roles.

The description of the CFI College of Reviewers is based on the review of its web-site and telephone conversations with Mireille Labrie (Program Officer) (mireille.labrie@innovation.ca; Tel: 613-943-0302)

The Canada Foundation for Innovation (CFI) is an independent corporation created by the Government of Canada to fund research infrastructure. The CFI's mandate is to strengthen the capacity of Canadian universities, colleges, research hospitals and nonprofit research institutions to carry out cutting-edge research and technology development that benefits Canadians
<http://www.innovation.ca/en>.

College of Reviewers

CFI College of Reviewers was established around 2005 specifically for the *Leaders Opportunities Fund (LOF)*, an allocation-based fund that assists Canadian universities in attracting and retaining outstanding faculty members and researchers in priority areas identified in an institution's strategic research plan <http://www.innovation.ca/en/programs/funds/leaders-opportunity-fund>. The College used only for the research infrastructure LOF proposals requesting less than 1million (total project costs), which are referred to as "stream 1" proposals.

The CFI Board makes LOF funding decisions three times a year. Each year CFI receives approximately 460 LOF proposals requesting research infrastructure under the LOF-stream 1. In 2008-09, the CFI committed \$69.6 million to LOF projects
http://www.innovation.ca/docs/annualreport/annual_09_e.pdf.

Peer Review Process (http://www.innovation.ca/docs/guide/2009_nov_cfi_guide_e.pdf)

- It is a web-based "mail-in" review process.
Applicants are asked to suggest 6 reviewers in their applications. Proposals are reviewed by at least two experts chosen among suggested reviewers, college members and external reviewers. Since it is an allocation based fund, the review process determines the degree to which a request satisfies the criteria relative to CFI standards of excellence (http://www.innovation.ca/docs/guide/2009_nov_cfi_guide_e.pdf).
- Subsequently, each proposal also receives a "global" review by the program officers. When the proposed research spans diverse disciplines, the proposal is otherwise highly complex or when the comments received from the reviewers differ significantly, the CFI may seek advice from additional expert reviewers and/or the LOFAC in making its funding recommendations. A funding recommendation is then sent for a formal approval to the Board of Directors.
- The insuring of the appropriate expertise for each application is done by using (1) key-words provided by the candidate in the application form, (2) reviewers' self-assessment of their scope of expertise, as well as (3) by the Program officers' verification of the of the reviewers' expertise by using on-line tools.
- Normally, a program office sends an e-mail message to a pre-selected candidate with an offer to review a proposal. If the latter accepts the offer, he/she receives a password to a secure site containing confidentiality agreement and other documents to be signed, as well as instructions on how to review proposals.

Recruitment

- Presently, the College consists of 344 members selected and invited by the program officers from among the fund recipients, external reviewers, faculties and private sector.
- There are terms of reference; its members seem to be engaged in the College on a permanent basis.

Training & Communications

CFI provides reviewers with written instructions.

Performance evaluation

The CFI has recently started a review process of its College of Reviewers, which is currently on-going. In cases where the review of a proposal is perceived to be insufficient, Program Officers seek another review.

Canada Research Chairs (CRC)

The description of the CRC College of Reviewers is based on the review of its web-site and a telephone interview with Robert Courchaine, Acting Senior Program Officer robert.courchaine@chairs-chaire.gc.ca, Tel:613-943-7989.

In 2000, the Government of Canada created a permanent program to establish 2000 research professorships—Canada Research Chairs (CRC)—in eligible degree-granting institutions across the country. CRC program invests \$300 million a year to attract and retain some of the world's most accomplished and promising minds http://www.chairs-chaire.gc.ca/about_us-a_notre_sujet/index-eng.aspx.

College of Reviewers

The CRC College of Reviewers was established in 2000, the first year of CRC, and included all 700 or 800 Research Chairs awarded in that year. Its composition was subsequently complemented by the names of the reviewers suggested by the applicants in their proposals, as well as by the individuals selected by the CRC Program Officers from the databases of the three federal granting agencies and presently includes 2000 members. The membership of the present College is considered to be indefinite.

Peer Review Process

- CRC holds two competitions a year, each receiving 200 proposals. Each proposal is evaluated by three College reviewers who make funding recommendations http://www.chairs-chaire.gc.ca/program-programme/nomination-mise_en_candidature-eng.aspx#review
- It is a structured review against 2 main criteria: (1) *Quality of the nominee and quality of the proposed program of research*, and (2) *Quality of the institutional environment, institutional commitment and fit of the proposed Chair with the university's strategic research plan*. The first criterion is interpreted differently in the review of the proposals of

the new and established researchers: http://www.chairs-chaire.gc.ca/program-programme/nomination-mise_en_candidature-eng.aspx#selection.

- If all three of the reviewers give positive reviews, the application is recommended to the program's Steering Committee for funding. If not, it goes for a review by the Interdisciplinary Adjudication Committee (IAC) selected from the College, and consisting of five representatives from each of the three federal granting agencies, plus a non-reviewing President. Approximately 1/4 of the Committee members are non-Chair-holders; and at least 3 of its members (one from each agency) are international researchers. Both of these factors in the composition of the Committee are, according to the CRC staff, supposed to bring a fresh perspective to its functioning and deliberations.
- Each College member is asked to review only two proposals a year. By doing so, CRC tries to respect the time of its College members, who are being Heads of Departments and leading researchers, often invited to conduct review for other funding organizations.

Training & Communications

All forms and instructions for the peer reviewers are quite detailed and available in electronic form. Most of the College members are also very experienced reviewers. At this point, therefore, the staff does not perceive a need for training of its peer reviewers.

Performance Evaluation and Member Recognition

- The staff assesses the quality of proposal reviews as being consistently very high.
- The Program itself is evaluated every five years.
- The staff admits that not much has been done in the past ten years to recognize the efforts and the contribution of the College members to the peer review. However, CRC is now considering establishing a "Hall of Fame" on its WEB-site to recognize those College members who have conducted a significant number of reviews for the Program.

National Health and Medical Research Council - NHMRC (Australia) to coordinate with the Table based on the doc in the binder (Description of the PR process)

The National Health and Medical Research Council (NHMRC) is Australia's peak body for supporting health and medical research, for developing health advice for the Australian community, health professionals and governments, and for providing advice on ethical behavior in health care and in the conduct of health and medical research

<http://www.nhmrc.gov.au/about/index.htm>.

Peer Review Process

With the creation of its Academy, NHMRC has introduced a practice of assigning external assessors (at least 2) to an application, and assigning each application to one of approximately 45 Grant Review Panels. Within a Grant Review Panel, each application is assigned to two Spokespersons who lead the Panel's discussion on the application.

Based on the assessors' comments and rebuttals, the Panel first decides which applications are deemed non-competitive, and therefore, will not be discussed. It assesses applications on a 7-category scale against three main criteria: *scientific quality, significance & innovation, and track record* (for further details on the scoring categories, please see Attachment 1 at the link below). The Panel rates and ranks applications, as well as advises on an appropriate budget for each of them (for a complete description and a useful flow diagram of the Project Grant Peer Review Assessment please see: http://www.nhmrc.gov.au/files_nhmrc/file/about/senior_staff/articles/peer-review-project-grants.pdf).

Funding is approved by the Research Committee based strictly on the scores and ranking of the GRPs.

NHMRC Academy

Established in 2009, the NHMRC Academy is a prestigious body of eminent researchers that enhances NHMRC's peer review processes by giving independent expert advice to NHMRC's CEO. In 2009 NHMRC's CEO has appointed 30 members to the NHMRC Academy.

The role of the Academy members is defined as follows:

- Provide NHMRC with expertise in establishing the 2009 funding round peer review panels, including their disciplinary make-up and their membership (in accordance with NHMRC policy).
- Provide advice and refine the allocation of grant applications to appropriate peer review panels and spokespersons.
- Assist in nomination and allocation of appropriate external assessors for a number of funding schemes.
- Provide support when needed to the other members of the Academy in areas in which they have expertise

Recruitment and Recognition of the Peer Reviewers

It is a condition of holding an NHMRC grant that all grant holders participate in NHMRC peer review. This participation is also a requirement through the *Australian Code for the Responsible Conduct of Research*.

The Council also invites researchers who are not existing NHMRC grant holders to register as potential assessors and to be considered for membership of one of its peer review panels for the following year by completing the Peer Review Participation Form <https://www.nhmrc.gov.au/node/add/assessor>. Additionally, it invites researchers to nominate their colleagues, both in Australia and abroad, as potential assessors.

In 2009, 714 Peer Reviewers reviewed almost 4000 research proposals.

Every year, NHMRC acknowledges and thanks all those involved in reviewing grant applications by placing their names on its web-site, as well as encourages institutions to take a note of those of their researchers who contribute to the support of the health and medical research system.

NHMRC also pays all committee members (including Grant Review Panels) sitting fees for their attendance at committee meetings, in line with the Commonwealth Remuneration Tribunal determinations for Part Time Office Holders (<http://www.remtribunal.gov.au/>).

Training and Communications

To assist external reviewers, step by step instructions are provided upon receipt of request to undertake review. The Research Help Centre is also available to external assessors to use Research Grant Management System (RGMS) by phone or e-mail.

Technology Used

NHMRC is currently developing a new Research Grant Management System which will enable users to: (1) maintain a CV; (2) make grant applications and manage awarded grants on-line; (3) provide electronic entry and submissions of expressions of interest, applications, assessments, questions, responses and milestones for all NHMRC grant schemes

<http://www.nhmrc.gov.au/grants/rgms/index.htm>.

National Institute of Health (USA)

NIH — the Nation's Medical Research Agency — includes 27 Institutes and Centers and is a component of the U.S. Department of Health and Human Services. It is the primary federal agency for conducting and supporting basic, clinical and translational medical research, and it investigates the causes, treatments, and cures for both common and rare diseases. For more information about NIH and its programs, visit www.nih.gov.

Peer Review System

The NIH two-tiered peer review system is mandated by legislation.

I level of review: is carried out by a *Scientific Review Group (SRG)*, *study section IC* or by the *Centre for Scientific Review (SCR)*.

SRGs are composed of non-federal scientists with relevant expertise. Each meeting is overseen and chaired by a Scientific Review Officer (SRO), an extramural staff scientist and the Designated Federal Official responsible for ensuring an objective and fair initial peer review in accordance with all applicable laws and regulations. SRO identifies and recruits appropriate reviewers (usually three) (<http://cms.csr.nih.gov/PeerReviewMeetings/StudySectionReviewers/HowScientistsareSelected+orStudySectionService.htm>).

There are two types of Review Groups: (1) “*Chartered*”- formally appointed for the multiyear (4-year) terms involving three meetings per year; and (2) *Special Emphasis Panels* – with ad-hoc membership.

- Most SRGs convene for one-two days.

- Applications are reviewed based on established review criteria (*Significance, Investigator(s), Innovation, Approach, and Environment*)
http://grants.nih.gov/grants/peer/guidelines_general/Review_Criteria_at_a_glance.pdf
- Assigned reviewers summarize their prepared critiques for the group.
- An open discussion follows.
- Final scoring is conducted by private ballot.

Chair is a moderator and a reviewer (for more on Chair's role please see:
http://grants.nih.gov/grants/peer/guidelines_general/Chair_orientation.pdf)

For complex and multidisciplinary applications NIH is increasingly using an editorial board mode of review, where reviewers are drawn from its College of Reviewers:
<http://cms.csr.nih.gov/nr/rdonlyres/28c73298-6090-4272-a4c3-099432058f7e/22199/reviewcollege.pdf>.

II level of review: performed by the *National Advisory Council or Board* of the potential awarding IC (Institute or Centre) which are composed of both scientific and lay members with necessary expertise, interest or activity chosen by the respective IC and approved by the Department of Health and Human Services, or, in some cases, appointed by the US President. Only applications that are favorably recommended by both the SRG and the Advisory Council may be recommended for funding. The recommendation process is the following:

- NIH program staff members examine applications, their overall impact/priority scores, percentile rankings and their summary statements and consider these against the IC's needs;
- Program staff provides a grant-funding plan to the Advisory Board/Council;
- The Advisory Board/Council also considers the IC's goals and needs and advises the IC Director;
- The IC Director makes final funding decisions based on staff and Advisory Council/Board advice.

Enhancing PR

The increasing breadth, complexity, and interdisciplinary nature of modern research necessitated a more formal review of the NIH peer review system (2008) which led to a report containing recommendations for the system's enhancement in a number of ways:

- Shortened/restructured applications: http://enhancing-peer-review.nih.gov/restructured_applications.html
- New scoring system that scores each of the five core criteria (significance, investigator(s), innovation, approach, and environment) to increase reliability and clarity:
<http://grants.nih.gov/grants/guide/notice-files/not-od-09-025.html>.
- Only one application resubmission.

The ultimate goal of this reform is to “fund the best science, by the best scientists, with the least amount of administrative burden”. (For an overview of this reform, please go to: <http://enhancing-peer-review.nih.gov>.)

College of CSR Reviewers

At NIH, the College of CSR Reviewers is a resource for editorial board review for complex and multidisciplinary applications. College members submit their written assessments of applications online (Level I). They commit to providing up to a maximum of 12 per year for two years and typically will be asked to review one grant application in their area of expertise within two weeks. They may also be called to participate in the second level of peer review as members of review boards or panels.

Recruitment and Recognition of Peer Reviewers:

<http://cms.csr.nih.gov/PeerReviewMeetings/StudySectionReviewers/>

CSR is developing a registry of experienced senior scientists who would make good reviewers based on recommendations from scientific societies and institutions. To date, 155 scientific organizations have identified over 5,000 volunteer reviewers.

<http://cms.csr.nih.gov/PeerReviewMeetings/StudySectionReviewers/SocietyReviewers.htm>.

Principal Investigators who receive research grant support from the NIH are called upon by NIH to serve on its study sections and advisory groups when invited to do so. NIH specifies that this expectation for service is entirely voluntary and an inability to serve has no impact on an investigator's ability to compete for grant support.

NIH employs the following strategies for engaging and retaining the best reviewers

(http://enhancing-peer-review.nih.gov/engage_the_bestreviewers.html):

- **Benefits for Reviewers:** (1) new reviewers are now given an additional flexibility of serving a four-year (three meetings a year) or six-year (two meetings a year) term. Standing members or chairs of an NIH IRG (study section or subcommittee) may be appointed to a six-year term.
- (2) "Continuous submission" policy allows certain reviewers to submit their own application at any time:
<http://nexus.od.nih.gov/nexus/nexus.aspx?ID=453&Month=05&Year=2010>
- **Recruiting the Best Reviewers.** A best practices document for recruiting reviewers was made available to all Scientific Review Officers in 2009 via the Review Policy Committee.
- **Continuous Training** for Reviewer and SROs related to the upcoming changes in peer review
- **Allowing Flexibility through Virtual Reviews**

To recognize outstanding contributions to its peer review system, NIH has established the *Marcy Speer Award*: <http://cms.csr.nih.gov/AboutCSR/SpeerAward.htm>.

Anyone from the scientific or review communities, as well as CSR and NIH staff can nominate a candidate by submitting the one-page nomination form based on the following criteria:

- Going above and beyond the call of duty to ensure that NIH grant applications receive fair and expert reviews.

- Having a significant impact on the quality of the peer review process through an abiding commitment to peer review.
- Educating and inspiring colleagues in the scientific community to do their part in serving on CSR review groups.
- Greatly enhancing peer review by setting an example of excellence, inspiring fellow reviewers, or nurturing new reviewers.

Profile of the award winner is published in SCR publication *Peer Review Notes*.

Training and Communication Resources

NIH uses a wide range of training and communication resources for various audiences, including its reviewers: http://enhancing-peer-review.nih.gov/training_communication.html

- Outreach and Education
- One-Page Updates
- Videos and Supporting Materials (e.g., mock study section video)
- PowerPoint Presentations
- Resources for Reviewers
- NIH Extramural Nexus
- CSR Peer Review Notes
- Press Releases
- Senior SCR staff is also present at the first two meetings using the new peer review system.

An example of a communication letter for peer reviewers, *Peer Review Notes*:

<http://cms.csr.nih.gov/NR/rdonlyres/51747BCD-B6FB-44D9-8B3C-CF2FA2D2A3AC/22383/Jan2010PRN.pdf>

NIH has conducted several face-to-face training sessions for the CSR and NIH review staff, supplemented by continuous updating. It also gave 27 half a day training sessions for 400 Chairs in 11 cities.

Technology Used in the Peer Review Process

Since 2005, NIH introduced an *electronic application review* as an addition and an alternative to a face-to-face meeting. Presently, about 20% of CSR (Centre for Scientific Review) meetings are electronic. The majority of electronic meetings are *Internet Assisted Meetings* that occur in secure virtual chat rooms and permit the discussion and final scoring of applications over 1-3 days. This system requires faster network service. In *Video-Enhanced Meetings* (about 75 a year), reviewers log into a real-time meeting, where with the NIH-supplied video cameras, they can see each other as they discuss applications online. These meetings work best with small groups.⁵ Among the

⁵ The benefits of this platform are limited due to issues with Internet bandwidth. NIH is now piloting the use of dedicated videoconference sites strategically located in different parts of the country.

benefits are: *increased* (1) ability to engage reviewers unwilling /unable to travel; (2) flexibility in scheduling meetings; (3) ease in managing COI; (2) time to consider critical aspects of an application; and *reduced* costs: NIH spends \$ 867 for an face-to-face meeting, comparing \$107 for an Internet Assisted one.

Continuous Review of PR

http://enhancing-peer-review.nih.gov/continuous_review.html

The NIH has established a Peer Review Evaluation Group to conduct a continuous review of peer review and to assess the outcomes of the peer review enhancements based on the opinions of the NIH applicants, reviewers and other stakeholders. The group's efforts include:

- On-line surveys of multiple audiences.
- Data-driven mechanisms to evaluate review outcomes.
- Peer review pilots and assessment of those pilots.

Arts and Humanities Research Council - AHRC (UK)⁶

The Arts and Humanities Research Council supports world-class research that furthers our understanding of human culture and creativity: from ancient history and heritage science to modern dance and digital content.⁷

A Peer Review College at AHRC was created in 2004 with an initial membership of 460. It is presently comprised of about 1250 members with expertise in subject areas across the AHRC's remit.⁸

<http://www.ahrc.ac.uk/About/PeerReview/Documents/prc%20background.pdf>.

<http://www.ahrc.ac.uk/about/PeerReview/Pages/default.aspx>

Peer Review Process

<http://www.ahrc.ac.uk/About/PeerReview/Pages/PeerReviewCollegee-Handbook.aspx>

Every year, AHRC on average receives 3700 research applications.

All proposals are now considered by three independent/College reviewers who provide the AHRC with graded reviews.

The AHRC reserves the right to seek reviews from specialists who are not current members of the Peer Review College from within the UK or abroad (off-College assessors).

Assessment criteria for the research proposals are outlined in detail (see at p.57 in the Research Funding Guide)

<http://www.ahrc.ac.uk/FundingOpportunities/Documents/Research%20Funding%20Guide.pdf>

⁶The review of this College was conducted based on the information found on the AHRC WEB-site and verified and supplemented with the information and insight received from Paul McWhirter, Peer Review College Coordinator, AHRC, in a telephone interview.

⁷ Budget: £102 million for 600 research & 1,000 post-grad. awards.

⁸ The high-level strategic advice regarding the peer review and the College at AHRC are provided by the Advisory Board (similar to the 30 members of the Australian PR Academy) which does not form part of the College itself.

AHRC employs a two-stage system of further sifting of the reviewed proposals that is somewhat similar to the CIHR's idea of streamlining (see graphic image of the process at p.64 of the Funding Guide).

Generally, where the peer reviewers' grades agree, as long as their comments are consistent with the grade given, the AHRC will allocate this as the final grade for the proposal. Where the grades differ, or the comments are inconsistent with the grade, the proposal and peer reviews will be moderated by members selected from the Peer Review College. They consider proposals and allocate final grades. They then rank all applications in order of priority for funding. Final funding decisions are made by the AHRC. There are some variations for the PR of the different programs.

All Peer Review Panels at AHRC are non-standing, they cover a broad range of subjects and are convened on an *ad hoc* basis from the College membership.

The proposal, peer reviews, technical review (where applicable) and the PI's response to these reviews are considered individually by members of the peer review panel and then discussed at the panel meeting.

The peer review panel determines a final grade for each application and ranks proposals in order of priority for funding.

Recruitment and recognition of the PR College members

AHRC periodically seeks nominations for the new College members in a number of categories: (academic reviewers, international reviewers, large collaboration reviewers, knowledge transfer reviewers, reviewers providing a perspective from outside the academic community, as well as technical reviewers). PR College Coordinators⁹ regularly review the College capacity by crosschecking the number and themes of the received applications with the current composition of the College. Based on this analysis, Coordinators then invite the necessary number of the off-College review assessors with the most appropriate expertise.¹⁰

Candidates must be nominated by senior staff or representatives within Higher Education Institutions or other organizations, learned societies or professional associations based on a number of specific eligibility criteria

(<http://www.ahrc.ac.uk/About/PeerReview/Pages/PeerReviewCriteria.aspx>).

College members are normally appointed for a term of 4 years. Each of them is expected to review around 8 proposals during each 12-month period. Their workload is reduced, or they are not called for reviews during their time on a Review Panel. Members, when requested, should provide AHRC

⁹ Presently the AHRC staff responsible for the College operations includes 3 senior officers: one is the Head of the team and two others are responsible for the membership issues in the College (e.g., recruitment, periods of leave/unavailability for the members, etc.) and for the formation and development (Induction Day, other training and communication (e-bulletin)).

¹⁰ In a telephone conversation, the AHRC Coordinator commented on the fact that the flexibility to quickly find and invite off-College assessors with the most appropriate expertise, to call ad hoc the meetings of Panels can easier be afforded by a smaller research council, like AHRC; while the operations of a college in a bigger council may have to be more strictly regulated and therefore, less flexible.

with a review which accords with the reviewer guidance and by the due date specified, thus adhering to the College's Standards of Service.¹¹

To recognize the contribution of the College members to its peer review system, AHRC regularly sends letters containing their names to the Vice-Chancellors of their respective institutions. It also directs personal letters to those College members who served the College “beyond the call of their duty”, by reviewing more than 8 applications a year, or by making some other significant contribution. In both cases, letters are signed by a high-level official at AHRC.¹²

Training and Communications

The section of the AHRC’s web-site entitled “Peer Review College” <http://www.ahrc.ac.uk/About/PeerReview/Pages/PeerReviewCollege.aspx> is specifically created to assist College members during their term. It provides information essential to their role and also serves as a means by which AHRC staff can disseminate information of interest to them.

The e-handbook (<http://www.ahrc.ac.uk/About/PeerReview/Pages/PeerReviewCollegee-Handbook.aspx>) is a collection of electronic documents dedicated to explaining to the College members their role in the overall peer review assessment process, including FAQ's; information about how panels operate and main stages of peer assessment; checklist for an effective review; standards of service and Code of Practice for Panel and college members; instructions on how to use the Joint Electronic Submission (J-eS) System and other.

All new members are expected to attend an *Induction Day*, preferably right after being nominated by the peers and approved by the AHRC for the College membership, or sometime during the first year in the College. The event provides members with the opportunity to learn about the AHRC peer review process through sharing of the best practices, and by participating in a mock Panel session - thus gaining experience by reviewing proposals previously considered by the AHRC¹³. Only having attended an Induction Day, College members can be invited to sit on the Review Panels.

As a means of ongoing support for the College members, AHRC issues a quarterly newsletter – an *e-bulletin*. Apart from providing the College members with some points of guidance in it, e-bulletin also has an “open space” where College members can write to the College with their opinions, questions and request for clarification. After each Panel meeting, AHRC collects a feedback on the quality of the reviews discussed at the meeting, which also feeds information into the next issue of the e-bulletin.

¹¹ AHRC PR Coordinator confirmed that, while peer reviewers are generally viewed as volunteers who gratuitously offer their high-level expertise for the peer review, the terms of their engagement in the College expressed mostly in the Standards of Service, imply an agreement akin to a social contract, according to which for the privilege of receiving public funds researchers are obligated to give back to the research community their service of the high-quality peer review.

¹² It is worth noticing that there is no hierarchy, seniority or titles associated with the membership in the College. There is only one recognition based on the expertise and peer review skills.

¹³ For that purpose, the applicants and reviewers are asked for the permission to use their documents for training purposes. Both AHRC and College members consider this to be one of the most effective ways of delivering training as well as raising awareness of the importance of the high quality peer review among new reviewers.

Evaluation

All peer reviews are subject to a quality check. Reviews deemed by the AHRC to be of insufficient quality will either be sent back to the reviewer for revision, or rejected from the assessment process. (see p.60 of the Funding Guide)

Engineering and Physical Sciences Research Council (EPSRC), UK

EPSRC College

EPSRC has a £ 3,7 billion portfolio of grants and awards, and receives 5,500 research proposals every year. The College of Reviewers was established in 2005 and presently includes 4000 members.¹⁴

Peer Review Process

Each proposal is assessed by at least 3-4 reviewers, two of whom are usually chosen from the College and 1 - nominated by the applicant. Reviewers are given three weeks to conduct a review against a set of predetermined criteria

<http://www.epsrc.ac.uk/funding/apprev/review/Pages/default.aspx>.

Based solely on the reviewers' comments, the Staff decides whether a proposal should be funded at that stage, be referred to a prioritization panel or be rejected. The majority of proposals are considered by prioritization panels.

Panel members are usually chosen from the College based on their expertise in a general field; they come from both universities and industry. The panel does not re-review proposals, nor does it make detailed study of proposed budget. Instead, it orders the proposals based on a relative assessment of their quality.¹⁵

A chair, an academic or industrialist with experience of EPSRC prioritization panels, is appointed to lead the panel's work, and the meeting itself is overseen by an EPSRC official (usually a University Interface Manager). The work of the panel is covered by the code of practice adopted by EPSRC to embrace the *Seven Principles of Public Life*.

Recruitment and Recognition

In 2009, when the 4-year term of the first College has expired, EPSRC has invited the existing members with a "good record" to stay, and supplemented their numbers with the individuals put forward by the strategic partners. The remaining gaps in the expertise of the College were filled by means of a nomination exercise.

¹⁴ Although, only about 600 of them are involved in the peer review process each year.

¹⁵ For the role of Prioritization Panels in the peer review, Panel proceedings, the role of speakers, please see: <http://www.epsrc.ac.uk/funding/apprev/panels/Pages/default.aspx>

Recipients of the certain types of grants (e.g., *Leadership and Career Acceleration Fellows*) automatically receive an invitation to be College members. There is also a growing emphasis in recent years placed on recruiting members from overseas organizations.

In addition to satisfying the need in expertise in each discipline, the Council gives a particular consideration to balancing the College by gender, age, ethnic origin, geographic location, background (academic/non-academic) and breadth of knowledge. It also takes account of poor responses to past reviewing requests.

College members agree to abide by certain standards of service such as, for example, to “provide an informed, objective and timely contribution to the peer review process as and when requested”; to complete and return a review in 15 working days; to notify the staff of any prolong period of absence <http://www.epsrc.ac.uk/funding/apprev/college/Pages/duties.aspx>.

EPSRC normally asks college members to review not more than 12 research proposals a year.

Reviewers' Incentive Scheme

<http://www.epsrc.ac.uk/funding/apprev/review/Pages/incentivescheme.aspx>

Normally, Panel members are paid an attendance fee, except for those working for a government agency or receiving a grant in aid. Through this scheme, however, EPSRC gives additional research funds to UK university departments based on the reviewing carried out by their academic researchers. It uses a point system to distribute an annual fund: one point for each usable review received, and another - if the review is received on time.

The scheme was first implemented in 2001 and received a very positive review in 2004. As of January 2008, EPSRC have distributed £4.5 million of additional research funding through this scheme. Since reviewers at EPSRC come from the industry as well, it is presently looking at the appropriate ways of recognizing their contribution as well.

Training and Communications

The Web-site of the College does not contain any reference to the training programs for the College reviewers. It does, however, have a set of clear instructions and advice on how to review proposals www.epsrc.ac.uk/funding/apprev/review/Pages/default.aspx.

As a good means of communication, EPSRC publishes an on-line version of the Newsletter for its College of Peer Reviewers:

<http://www.epsrc.ac.uk/SiteCollectionDocuments/Publications/Other/CollegeNewsletterJan2010.pdf>.

Evaluation

In 2008-09, EPSRC conducted a survey to gather opinions from stakeholders in academia and industry on the suitability of the current peer review process and suggestions for improving the process.

<http://www.epsrc.ac.uk/pubs/reports/Documents/PeerReviewSurveyReport.doc/>

Natural Environment Research Council - NERC (UK)¹⁶

NERC is the UK's main agency for funding and managing research, training and knowledge exchange in the environmental sciences.

Budget <http://www.nerc.ac.uk/publications/annualreport/2009/annualreport.pdf>

Peer Review College

The NERC Peer Review College was set up in July 2003 and currently has over 440 members. The main role of its members is assessment of Responsive Mode grant program, fellowship and studentship, as well as Knowledge Exchange proposals. The College provides initial reviews and membership of the moderating panels responsible for the funding recommendations.

Peer Review Process

<http://www.nerc.ac.uk/funding/assessment/> OR

<http://www.nerc.ac.uk/funding/application/referee/documents/refereeguidance.pdf>

1. Initial Review

College members selected by the program officers review and grade all applications with a view of eliminating the weaker ones (about 50%).

2. External Review

External/non-College reviewers assess and grade proposals according to a set of 5 criteria: *scientific excellence, fit to NERC priorities, risk-reward, cost effectiveness, and partner involvement.*

3. Moderating Panel, consisting of College members, provides a final grading and comments, as well as the recommendations for funding.¹⁷

Recruitment & Terms of Membership

NERC annually issues a call for the College membership inviting self-nominations and nomination of colleagues. Self-nominations have to be supported by the nominee's Head of department/organization. In 2010, it explicitly extended its invitation too the public and private sector user communities.¹⁸

¹⁶ Web-site of this Council contains a rather comprehensive and detailed information about the organization and operations/functioning of its College of Peer reviewers and therefore, can serve as a good source of examples and templates for the development of the College at CIHR.

¹⁷ Where NERC needs to encourage multidisciplinary research and new collaborations in an area where novel and truly adventurous research is required, it uses an idea of *Sandpits* – an intensive and interactive 3 – 5 day event which culminates in the presentation of proposals, with a funding decision being made using the process of real time peer review.

¹⁸ NERC offers a detailed guidelines on the attributes it looks for in potential College members, including essential and desirable criteria <http://www.nerc.ac.uk/funding/assessment/peerreview/members-guidelines.asp>.

Members are recruited for three years, with a possible 1-year extension by mutual agreement ; they sign NERC’s terms and conditions for membership.

2 types of membership: Full College members – typically academically active; and **affiliated members** – from the user community.

“Full” College members are asked to review 15 standard grant proposals and attend up to 3 panel meetings a year. In recognition of the time and responsibility – an honorarium of £1000 a year is paid.

“Half” and affiliated membership requires a review of 8 grant proposals and an attendance of 2-3 panel meetings. An honorarium offered is £500.

Additionally, all members may claim reasonable travel and subsistence costs for meeting attendance.

NERC also provides its prospective College members with a rough estimate of the time commitment required of them.

Pool of College Chairs

Chairs are recruited for a three year term (with a possibility of extension), with a review after the first year and expected to chair two to four panels a year. Usually, chairs would not be asked to review proposals.

In preparation to the panel meetings, their role includes:

- approving the final allocation of proposals to moderating panels after the sift stage;
- “matching” Panel membership and introducers with the proposals to be assessed;
- occasionally advising on extra reviewers for proposals; and
- attending a pre-meeting briefing.

In addition, they:

- write a post-panel meeting report,
- attend an annual Pool of Chairs meeting,
- validate the list of new College members to be invited each year,
- advise on the funding policy and process development,
- give presentations at training events for new College members.

Chairs receive an honorarium of £1000 a year.

This is an evolving role, the terms and conditions of which will likely be revised.

Training & Communications

NERC provides clear and detailed instructions to its College and external reviewers in **Referee forms and Guidance**, including a graphic representation of the assessment process, and assessment criteria for different programs <http://www.nerc.ac.uk/funding/application/referee/>.

New reviewers and chairs are expected to attend a one-day training event offered at the NERC's head office on one of the offered dates.

Performance Evaluation

Among all Colleges reviewed in this Scan, this is the only one that has been formally evaluated in 2008. Its Final Report can be found at: <http://www.nerc.ac.uk/about/perform/documents/prc-evaluation-final-report.pdf>.

The Evaluation addressed four objectives:

- i. Consider the extent to which the College is fulfilling its original objectives.
- ii. Assess whether the College and associated review process are delivering the quality of peer review necessary to identify the best science.
- iii. Determine whether the College has the confidence of the environmental sciences community.
- iv. Recommend any changes necessary to improve the performance of the College and extend its use.

The consultation with current and former College members and the wider community (via an open web-based questionnaire) were key elements of this Evaluation. For the changes NERC implemented in response to the Report's recommendations, please go to: <http://www.nerc.ac.uk/funding/assessment/peerreview/review.asp>.

Appendix 1

SUMMARY TABLE OF THE ENVIRONMENTAL SCAN FINDINGS EXISTING PRACTICES FOR ESTABLISHING A COLLEGE OF REVIEWERS AT CIHR (attached separately)

Appendix 2

Identified Practices for Establishing a College of Reviewers at CIHR

Recruitment and Conditions of Membership in COR

Ways to recruit College members:

- ✓ Invitation to funded PIs/fund recipients
- ✓ Targeted and open/Web invitations to faculty members and private sector
- ✓ Nominations/recommendations from applicants, scientific societies, strategic partners and faculty
- ✓ Periodic calls for self-nomination and nomination of colleagues
- ✓ Calls for nomination published in scientific journals and magazines (rarely used)

The frequency of recruitment exercises and the choice of strategies is normally determined based on the reviews of the College capacity and on the identification of gaps in the expertise of the Colleges.

Examples of Conditions of College Membership:

- ✓ Signing “Standards of Service” or a similar document describing mutual undertakings (expected number of reviews a year; turn-around time, quality of review, availability for meetings, etc.)
- ✓ Accepting a request to review proposals
- ✓ As a condition of funding

Examples of Incentives for and Recognition of College Members

- ✓ Recognition of the College members on the funder’s Web-site
- ✓ Letters to the reviewers’ institutions and other ways to encourage institutions to take notice of researchers who contribute to the peer review
- ✓ Personal letters to the “outstanding” College reviewers
- ✓ An *award* for an outstanding reviewer of the year

- ✓ Benefit of “*continuous submission*”- the right granted to the College members to submit their own proposals at any time during the year
- ✓ Honorarium/remuneration/stipend, as well as the “sitting fees” for attending meetings
- ✓ “*Reviewers’ Incentive Scheme*”- funds directly to university departments of reviewers

Training and Communication

- ✓ A *Web-site* specifically for the College with a possibility for mutual communications (College members should be able to ask questions, send comments)
- ✓ “*e-handbook*” with all necessary info, instructions and guidance
- ✓ “*Induction Day*” for new members, including Chairs
- ✓ *Periodic newsletters, press releases*

This may also include:

- ✓ Training/information sessions at institutions throughout the country, as well as other outreach activities
- ✓ Videos of mock peer review sessions; Power Point Presentations
- ✓ Presence of senior staff at the initial panel meetings after introducing major changes to the peer review system

Evaluation of the College and its Individual Members

- ✓ Periodic formal College evaluation studies
- ✓ On-line surveys of multiple audiences;
- ✓ Data-driven mechanisms to evaluate review outcomes;
- ✓ Peer review pilots and their assessment.

This may also include:

- ✓ Feedback site for the research community comments
- ✓ Collecting feedback from panel/committee meetings
- ✓ Quality check of submitted reviews
- ✓ Overseeing of the panel/committee meetings by a program staff

Appendix 3**List of Contacts in the Reviewed Organizations****CFI (Canadian Foundation for Innovation)**

Mireille Labrie, Program Officer

Tel: 613-943-0302

mireille.labrie@innovation.ca

CRC (Canadian Research Chairs)

Robert Courchaine, Acting Senior Program Officer

Tel: 613-943-7989

robert.courchaine@chairs-chaire.gc.ca

NIH (USA)**National Institute of Health**

Don Lockett, Communications Director

Center for Scientific Review

Tel: 301-435-1111

lockettd@csr.nih.gov

AHRC (UK)**Arts & Humanities Research Council**

Paul McWhirter, Peer Review College Coordinator

Communications and Training

Tel: 01793 416047

paul.mcwhirter@ahrc.ac.uk

EPSRC (UK)**Engineering & Physical Research Council**

Stephen Powell, College Support Team Manager

Tel: 01793 44 4291

Stephen.Powell@epsrc.ac.uk

NERC (UK)**Natural Environment Research Council**

Andy Adams, Peer Review College Coordinator

Tel: 01793 442503

anad@nerc.ac.uk

Appendix 4

List of Relevant Documents Created To Date¹⁹**CIHR Externally and Internally Commissioned Studies, Reports and Reporting Documents Related to the State of the PR System and its Improvement**

1. *Profiling CIHR's Peer Reviewers: A Descriptive Study of Peer Reviewers for the Open Operating Grants Program*, Evaluation Unit, Updated for SC in January 2010
2. *A Report on the Analysis of Information Concerning Improvement of Peer Review*, Prepared by Mohammed Hannan, April 2008
3. *Mining the archives: Analyses of CIHR Research Grant Adjudication*, Thorngate, W. (2002) http://www.carleton.ca/~warrent/reports/mining_the_archives.pdf
4. *Final Report of Evaluative Study on Change in OGP Funding Allocation Method and Effects on Distribution of Funded Applications Across Peer Review Committees*, Evaluation and Analysis Branch, CIHR, September 2009
5. *International Review Panel Report, 2006* <http://www.cihr-irsc.gc.ca/e/31464.html>: "The panel system that is responsible for handling most of the research funding is currently under strain. It requires more academic leadership, and a review of process and structure for this system is necessary".
6. *CIHR College of Reviewers Model*, Report, prepared by J.Waring and F.Zegers, Analysts, PRM, January 2010
7. *A Review of International Peer Review Practices: Problems in Determining Excellence and Potential Solutions*, prepared by J.Waring and F.Zegers, Analysts, PRM Unit, January 23, 2009
8. *International Peer Review Process Table*, J.Waring and F.Zegers, PRM Analysts, updated August 2009
9. *Differences Found Between Various Colleges of Reviewers*, Results of Web Environmental Scan (Table)
10. *Simulation of Application Grouping Process*, prepared by J.Waring and F.Zegers, PRM Analysts, Feb 19, 2010
11. *Gender of Peer Review Committee Members, 2008-2009 OOGP Competition Year*, Graf

¹⁹ Please note that this list may differ slightly from other similar compilations of documents subsequently created by the PRM Unit .

12. Peer Review Management – Status Report to the *Subcommittee on Programs and Peer Review (SPPR)*, June 16, 2009, prepared by G.Huyer, PRM Manager
13. College of Reviewers “As-Is” Model, based on the March 2009 OOGP, prepared by J.Waring and F.Zegers
14. *Peer Review Enhancements (PRE)*, Power Point Presentations for the Forum of Health Research Funders, May 18, 2010; Voluntary Health Organizations, June 3, 2010; Tri-Agency, June 15, 2010; Scientific Council, September 28-29, 2010; Chair/SO Meeting, October 7, 2010.
15. *A Restructuring of the Peer Review Process, Discussion C*, Presentation to GC, August 20, 2009
16. 62nd Meeting of Governing Council – Retreat, August 20th, 2009, Introductory Remarks by Dr. Alain Beaudet, President
17. *Strategy for Peer Review Improvement* – Draft Implementation Plan, a briefing note to the 64th Meeting of the Governing Council, November 18-19, 2009
18. Peer Review Pooling System, draft-briefing note to the Vice President Research Portfolio, prepared by Stéphane Cyr, KCP Director, June 2009
19. Status Report on College of Reviewers, Briefing Note for the 40th Meeting of the Scientific Council (SC), January 20-21, 2010

Unless otherwise indicated, all above-mentioned documents can be found at W:\PPP\PRM\Peer Review Enhancements (CoR)\Natalia's Project/Background docs Oct 10

Reports and Other Documents Related to other Reviewed Organizations

Promoting Excellence in Research, an International Blue Ribbon Panel Assessment of Peer Review Practices at the Social Sciences and Humanities Research Council of Canada, Report to the Council, December 2008 http://www.sshrc-crsh.gc.ca/about-au_sujet/publications/peer-pairs_e.pdf

Peer Review Best Practices, Emerging Technologies, Matt Vincelli, NSERC, Power Point Presentation at the Tri-Agency Workshop, June 22, 2010

Results of Engineering and Physical Science Research Council (EPSRC) Peer Review Survey, Report, February 2009
<http://www.epsrc.ac.uk/newsevents/news/2009/Pages/peerreviewsurvey.aspx>

Evaluation of the Peer Review College, Final Report, Natural Environment Research Council, UK, September 2008, <http://www.nerc.ac.uk/funding/assessment/peerreview/review.asp>

2007-2008 Peer Review Self-Study, National Institute of Health, Final Draft <http://enhancing-peer-review.nih.gov/meetings/NIHPeerReviewReportFINALDRAFT.pdf>

RCUK Response to the Project Report & Consultation on the Efficiency and Effectiveness of Peer Review, June 2007 <http://www.mrc.ac.uk/Utilities/Documentrecord/index.htm?d=MRC003952>

Appendix 5

Excerpt from the Report of the International Blue Ribbon Panel entitled “Promoting Excellence in Research” (2008)

RECOMMENDATION 1. Broaden and enrich the pool of expert external assessors.

- Periodically mobilize universities (vice-presidents of research and deans), learned societies and professional organizations to submit names for service as external assessors.
- Establish contacts, and share with foreign funding agencies, research tools for identifying assessors and explore willingness to share lists of willing and seasoned expert assessors.

RECOMMENDATION 2. Maintain and enhance the quality of external assessments.

- Invite adjudication committees to bring to the program officers’ attention the external assessors to be excluded because of poor quality of reviews.
- Provide online model assessments to external assessors.

RECOMMENDATION 3. Lighten and facilitate the work of external assessors.

- Generalize the use of electronic tools for performing the assessments.
- Continue to use standardized forms for external assessment.

RECOMMENDATION 4. Retain and reward external assessors.

- Acknowledge annually by letter, and identify personally to universities, the contributions of their faculty in external assessments, and engage universities in better assuming active institutional responsibility and recognition of this function.
- Invite excellent external assessors, after two or three years of service, to formally become members of a “SSHRC International College of Expert Reviewers” and to continue to serve as reviewers.
- Improve the feedback to external assessors through automated electronic sharing of other assessors’ anonymized reviews and forwarding of information on the fate of the proposal(s) they reviewed.

RECOMMENDATION 5. Make more transparent the selection and role of external assessors.

- Make public, on the SSHRC website, the criteria for selecting external assessors, their responsibilities and duties.
- Publish, on the SSHRC website, every year the list of external assessors who have served in the previous competitions.

- Publicize, on the SSHRC website, the membership of the “SSHRC International College of Expert Reviewers.”

RECOMMENDATION 6. To increase rates of acceptance to serve on adjudication committees and to reduce turnover, cut the workload for members, reduce the number of days spent in committee work in Ottawa, and revise rules on conflict of interest. For ways of implementation, see Recommendations 17, 20, 21, 22, 24 and 28 below.

RECOMMENDATION 7. Extend to five years, not necessarily consecutively, the normal tenure on adjudication committees.

RECOMMENDATION 8. Reward and retain committee members.

- Engage universities to accept service on SSHRC adjudication committees as a form of administrative duty and to release, accordingly, from administrative tasks their faculty members serving on these committees.
- Invite committee members, after a second year of excellent service, to formally become members of the new “SSHRC International College of Expert Reviewers” and to continue to act as adjudicators.

RECOMMENDATION 9. Make more public and transparent the selection and role of adjudication committee members.

- Make public, on the SSHRC website, the criteria for selecting committee members, their responsibilities and duties.
- Publicize, on the SSHRC website, the membership of the “SSHRC International College of Expert Reviewers.”

RECOMMENDATION 10. Make the criteria and process for selecting Chairs more explicit, transparent and public.

RECOMMENDATION 11. Put on the SSHRC website, for each program, examples of outstanding and successful fellowship and grant proposals.

RECOMMENDATION 12. Make public, on the SSHRC website, the instructions to external assessors and extend the use of standardized forms to all programs involving external assessors.

RECOMMENDATION 13. For easier consultation, complement the reference manuals for committee members with a two-pager schematically summarizing responsibilities, steps to be taken and rules to follow.

RECOMMENDATION 14. Develop, with seasoned Chairs, a handbook for Chairs based on best practices in chairing adjudication meetings.

RECOMMENDATION 15. Continue to use the annual meetings for Chairs to explain policies and regulations, but also emphasize what is expected specifically from Chairs and the best practices in conducting adjudication committee meetings.

RECOMMENDATION 16. Extend to all programs the practice of holding an instruction and score calibration teleconference with all members prior to the committee meeting.

RECOMMENDATION 17. Make more precise and clear in manuals, and other instructions, the obligations of adjudication committee members and Chairs regarding the reading and analysis of proposals.

- Members, when acting as designated readers of a set of proposals, will read these files thoroughly and rate them according to their detailed analytical findings.
- Members are also expected to closely read the summary of all the other proposals submitted to their committee.
- Chairs are expected to read the summary of all the proposals submitted to their committee. They are also expected to read the complete files positioned in the midrange (so-called 4-A) by the scores given to them by the designated readers and that, therefore, call for thorough discussion by the full committee.

RECOMMENDATION 18. Make clear and public, on the SSHRC website and in documentation to committee members, guidelines applying to the disclosure and discussion of information not included in proposals.

RECOMMENDATION 19. Remain vigilant regarding conflicts of interest, but review relevant regulations to ensure an efficient peer-review process.

RECOMMENDATION 20. Introduce, as quickly as feasible, electronic filing of proposals, external assessments and committee readers' reports and scoring, as well as web and networked handling of files in committee meetings.

RECOMMENDATION 21. Introduce, as soon as possible, for committee readers standardized electronic forms, similar to those for external assessors, permitting detailed scoring according to criteria and open boxes for comments.

RECOMMENDATION 22. Provide uniform guidelines to committees on procedures for discussion and decision-making on proposals, including:

- ranking of all proposals according to preliminary scores provided by assigned readers; and
- for Standard Research Grants, discussion of only those proposals:
 - o getting from readers a score that puts them in mid-range (that is, among the 50 per cent of proposals scoring below the 15 per cent top scores which ought to be funded, and over the 35 per cent bottom scores that should not be funded);
 - o about which readers' scores exhibit significant disagreement; or
 - o about which other committee members express disagreement regarding the scores provided by readers (so-called "flagged" files).

RECOMMENDATION 23. Increase the transparency and make public the preceding rules to be implemented by adjudication committees in the discussion and final decision on proposals.

RECOMMENDATION 24. Do away with the 60/40 percentage rules. Advise the adjudication committees that SSHRC aims to support unquestionably excellent proposals and therefore that the quality of the research proposal, its originality and potential significance should always be the primary focus of attention in decision making. Track record should, on its own, entitle no one to receive another research grant.

RECOMMENDATION 25. Review SSHRC policies on the role of adjudication committees in budgetary matters and implement new practices calling for expert staff decision in these matters, and apply a clear distinction between peer-review competencies and policy decisions.

RECOMMENDATION 26. Abolish Standard Research Grant (SRG) Committee 15, and make all committees, including all SRG committees, able and responsible to assess proposals extending beyond disciplinary boundaries.

RECOMMENDATION 27. In collaboration with other Canadian granting agencies, explore policies conducive to encouraging research and to facilitating peer review of proposals at the interfaces of the respective responsibilities of the agencies. Implement, at first, through pilot program(s).

RECOMMENDATION 28. To reduce workload of adjudication committees and program officers, maintain and simplify reporting to all grant applicants.

- Forward to applicants the standardized forms filled by external assessors, as well as those filled by adjudication committee readers (see Recommendation 21 above).
- Communicate to applicants on a standardized form the summary position of the adjudication committee, when different from that of the readers and the decision is negative.
- In all cases, transmit these forms with a cover standardized letter:
 - a) explaining the general peer-review process;
 - b) emphasizing that it is the adjudication committee only that is fully responsible for final decision, not the external assessors, nor the committee readers alone; and
 - c) reminding the applicant that the committee decision on his/her proposal is the result of a competition.

RECOMMENDATION 29. Eliminate the university screening stage for the Doctoral Fellowships program.

RECOMMENDATION 30. State clear policy goals regarding younger researchers, eventually setting target success rate and defining mechanisms to fund new scholar applications following positive merit evaluation by the relevant adjudication committee.

RECOMMENDATION 31. Treat issues related to proposals from smaller university researchers as an area of policy responsibility, shared with institutions, and eventually adopt and implement complementary decision-making rules and mechanisms.

RECOMMENDATION 32. Notwithstanding SSHRC's investment in supporting high-risk research through the Research Development Initiative Program and other pilot programs such as Aboriginal Research and Research/Creation, explore new

mechanisms dedicated exclusively to the support of high-risk, path-breaking and transformative research, open to all domains of the humanities and social sciences. Set specific peer-review rules and adjudication mechanisms accordingly.

RECOMMENDATION 33. Improve feedback and timely reaction to reports on adjudication committee “policy” discussion.

RECOMMENDATION 34. Examine the possibility of extending the presence of observers to other programs.

RECOMMENDATION 35. Invite diligent observers to formally become members of a “SSHRC International College of Expert Reviewers” and to continue to serve as observers.

RECOMMENDATION 36. Keep the appeal process as transparent as possible, make public, each year in advance, the membership of the appeal committee and ensure fast decision on all appeals.

RECOMMENDATION 37. Recruit permanent program officers and minimize the number of temporary ones.

- Advertise job openings more broadly, beyond government circles, in scholarly publications and in graduate departments.
- Comply with evolving international standards and recruit professionals with Ph.D.
- Aim to recruit professionals with a proper combination of high-level formal university training, understanding of research activities, and organizational and managerial abilities and skills.
- Keep the salary structure for program officers competitive for attracting and retaining quality staff.

RECOMMENDATION 38. Define for program officers a career structure in which they can grow.

- Pursue the development of a training program for incoming program officers.
- Maintain and support the extension of scholarly and scientific competences of program officers.
- Encourage program officers that already work in the system to acquire and develop personal managerial and other new skill sets.
- Reward and celebrate publicly exceptional performance.

RECOMMENDATION 39. Make more public and transparent the role and responsibilities of program officers at SSHRC, and encourage and support their interactions with the research community.