

**EXTERNAL ADVISORY PANEL ON
PEER REVIEW ISSUES**

To: MSFHR

From: International External Advisory Panel

Date: October 2004

Peer Review at MSFHR

In the course of only three and half years MSFHR has already earned the respect and support of the health research community in BC and the rest of Canada. MSFHR staff are to be commended for providing relevant advice and direction to applicants. The panel found the organization to be deserving of its strong national reputation.

It is clear that high quality peer review is one of the organization's key priorities, and MSFHR has made strides implementing quality peer review processes in its programs. The panel commended MSFHR for setting up PROC, and for working to define clearly the meaning of the set of ratings it uses as quality indicators in its various competitions. Thoughtful analysis has been given to the weighting for various criteria, although the panel expressed some reservations about fixing the weighting percentages without defining thresholds for critical criteria in the infrastructure competitions. MSFHR was commended for its efficiency, as it accomplishes a great deal with available resources. MSFHR has earned the respect of applicants for the high quality and helpfulness of its staff.

MSFHR is seen a national leader in addressing concerns related to peer review. Organizing this meeting to consult a panel of national and international peer review experts illustrates this leadership role. MSFHR is the centre for peer review expertise in health research in BC, and the panel praised MSFHR's capacity to be the conduit for addressing peer review issues related to this sector of activity in the province.

Universal Peer Review Issues

Peer review is of ever greater significance in the health research environment, due to increasing opportunities for funding health research and researchers. While MSFHR has had the foresight to review its practices, improving these practices is not just relevant to the agency, but also to health research organizations across the country and internationally. Improvements require that several issues be addressed, including the following:

- The proliferation of funding agencies and applications place increasing demands on applicants and reviewers, causing reviewer, applicant and agency "fatigue". This issue frames the entire discussion of peer review. In addition, the types of funding opportunities have increased significantly in the past few years, including an increasing emphasis on community engagement and participation in research. This latter issue in particular creates a demand on funding organizations to be more responsive to ensure non-academics, including stakeholders in community-based organizations and the business sector, can participate as "full" partners in the research process. It is important, therefore, that research partners not feel demeaned by the traditional academic CV format which fails to capture the range of competencies and contributions made by those affiliated with non-academic organizations. MSFHR has an opportunity to play a leadership role in crafting more effective ways for non-academic participants to see their expertise reflected more appropriately in the peer review process, by addressing the questions of who peers are and how non-academic work is recognized.
- Reviewer criteria for assessing applications can conflict with the outcomes that health research organizations are trying to achieve. For example, reviewers may not give adequate recognition in their evaluation process for collaborative contributions when the aim is to support multidisciplinary research. Funding organizations need to

educate reviewers to ensure that all applications in a given competition are assessed in as fair, consistent and unbiased manner as possible.

- The extent of agency staff intervention in the peer review process, including the degree of engagement with applicants is an issue, as is the possibility of peer review beyond the standard competitive process, such as formative reviews.
- Exponential growth in the number of programs puts a strain on resources, both financial and human; more opportunities to apply for research create increased resource implications, as each program requires the development of appropriate guidelines and the creation of a fair and transparent review process.
- Proposed assessment criteria, procedures and scales are proliferating with little assessment of their fairness, efficiency or merit.
- Privacy legislation, confidentiality and conflict of interest are linked issues with which all organizations struggle. For example, it may be necessary to use confidentiality agreements when conducting a peer review of applications involving the evaluation of potentially commercializable processes and products. Conflict becomes more salient when a small research community is applying to programs and is also asked to contribute to their assessments; this situation has implications for MSFHR in considering an increase in using reviewers from outside British Columbia.
- Peer review is only the first stage in the overall evaluation of research. Criteria used to assess an application for funding need to be linked with the criteria used for evaluating the outcomes of projects and people that receive funding. This is an issue faced by all granting organizations.
- Harness technological enablers to streamline peer review processes.

Panel Recommendations for MSFHR

Illustrating that many of these larger issues confront most funding organizations, the panel did observe some of these issues at MSFHR, and made the following recommendations:

- Consider using more reviewers external to BC in all competitions including for training awards, while ensuring the role of PROC is maintained.
- Try to assess and improve the usefulness of feedback to applicants. The panel recommended to MSFHR that their reviewers should be trained to emphasize constructive, useful feedback and avoid inappropriate, personal, negative or belittling comments. In addition, there were questions about the transparency of the evaluation processes. Communications and stakeholder education should be improved so that applicants have a better understanding of the program guidelines, criteria to be used in the peer review and in the decision making process.
- MSFHR could improve the coordination and timing of deadlines and feedback with the timing of the academic hiring cycle.
- The adoption of review methods should be linked to ongoing evaluations of the methods. This should be seen as a priority of the organization with appropriate resources dedicated to this effort.
- Peer review is the first part of the evaluation of a research project; the second part is a performance or outcome review. MSFHR should invest, as most other agencies are doing now, in developing (or using) the appropriate metrics to assess the outcomes of its funding programs.
- MSFHR should participate in efforts to coordinate activities across health research organizations in Canada to reduce duplication of effort, share best practices, increase organizational efficiency and contain costs.

Recommendations for the Health Research Community in Canada

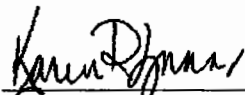
- Peer review issues should be of interest to universities, as many faculty participate in peer review processes, and quality peer review ensures that their most talented researchers receive adequate funding. Consequently, peer review should be acknowledged as a valuable service and recognized in the promotion and tenure processes. Greater reviewer recognition might also help address the issue of reviewer fatigue. It is important for MSFHR to be involved with other agencies such as AUCC, the Canadian Association of Graduate Studies and other organizations in addressing these issues.
- The evaluation and improvement of peer review criteria, procedures and scales should be an integral part of all funding organizations such as MSFHR.

REPORT SUBMITTED BY:

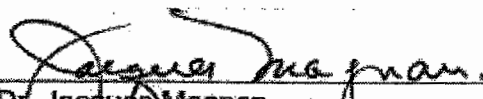
The External Panel on Peer Review Issues submits this report to the Michael Smith Foundation for Health Research:



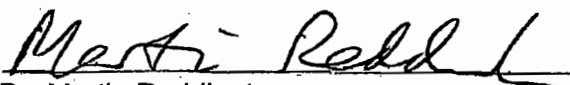
Dr. Mark Bisby
Vice-President, Research Portfolio
Canadian Institutes of Health Research



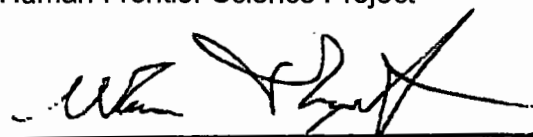
Dr. Karen Grant
Vice-Provost, Academic Affairs
University of Manitoba



Dr. Jacques Magnan
Vice-President, Programs
Alberta Heritage Foundation for Medical Research



Dr. Martin Reddington
Director of Scientific Affairs and Communications
Human Frontier Science Project



Dr. Warren Thorngate
Graduate Chair, Department of Psychology
Carleton University

Panelists



Dr. Mark A. Bisby

Dr. Mark Bisby attended Oxford University as an undergraduate from 1965-68, and as a graduate student from 1968-71, receiving his D. Phil. and M.A. degrees in 1972. In 1971, he emigrated to Canada and worked with Dr. Jack Diamond at McMaster University as a postdoctoral fellow. His first faculty appointment was in the Department of Medical Physiology, University of Calgary in 1973, and he remained at Calgary until 1989, becoming Full Professor in 1983. During this time, he served as Assistant Dean, Medical Education and Assistant Dean, Medical Sciences and was also Chair of the Neuroscience Research Group.

In 1989, he became Head of the Department of Physiology at Queen's University, Kingston, and in November 1997, left to become the Director of the Programs Branch of the Medical Research Council (MRC) of Canada. From 1989-90, he was President of the Canadian Federation of Biological Societies, and in 1992-93, President of the Canadian Physiological Society.

Dr. Bisby's research interests evolved from studies of protein and lipid transport within nerve cells and their processes, to investigations on the mechanisms involved in nerve regeneration. Most recently, he explored the inappropriate regenerative events which follow nerve injury and lead to chronic pain. He has published over 100 scientific articles, thanks to the support his research received from the MRC, the Networks of Centres of Excellence Program, and several voluntary health agencies. He also has a strong commitment to education, and to the synergism which results when research and teaching are combined.

In his capacity of Director of Programs at MRC, and subsequently CIHR, Dr. Bisby played an important role in the smooth transition between MRC and CIHR, and in implementing the broadened mandate of CIHR.

As Vice-President, Research Portfolio, Dr. Bisby works with CIHR's Institutes, the research community, and other stakeholders to set the research agenda for CIHR, and to maintain and improve the environment for excellence in health research in Canada.



Dr. Karen R. Grant

Dr. Karen R. Grant is a sociologist at the University of Manitoba, and is currently Vice-Provost (Academic Affairs). Her current research concerns the impact of health care reform on women careers and the relationship between evidence and policy. Over the last several years, Dr. Grant has focused a great deal of her attention (in teaching, research, and analysis) on the question of methodological pluralism and measurement, and interdisciplinarity in health research. In addition to several articles and book chapters, she is co-editor of *Exposing Privatization: Women and Health Care*

Reform in Canada (Garamond, 2002) and *Caring For/Caring About: Women, Home Care and Unpaid Caregiving* (Garamond, forthcoming 2004). Through her work with The National Coordinating Group on Health Care Reform and Women, she has sought to disseminate research to audiences beyond the academy. Much of this research group's work has been widely distributed throughout the world in print and electronic format (<http://www.cewh-cesf.ca/healthreform/index.html>).

In addition to her studies on health care, Dr. Grant has a long-standing interest in post-secondary education. She co-edited a special issue of *The Canadian Review of Sociology and Anthropology* in 2002 on "The University in the 21st Century." She is currently studying how the Canada Research Chairs program is contributing to the restructuring of the academy.

Since 2000, Dr. Grant has served as a member of Health Canada's Science Advisory Board, and earlier this year, she was appointed to the Social Sciences and Humanities Research Council. Dr. Grant has been invited to speak at national and international conferences, and has been recognized with both merit and outreach awards for her service.



Dr. Jacques Magnan

- Obtained both a Bachelor of Sciences (Chemistry, 1974) and a Ph.D. (Pharmacology, 1979) from the Université de Sherbrooke, Québec.
- 4 years of post-doctoral training in Aberdeen (Scotland), Toronto and Montréal.
- Faculty appointment in the Department of Pharmacology at the Université de Montréal from 1984 to 1990.
- Research interests were in the area of the pharmacology of peptides, notably the different group of opioids, in the Central Nervous System.
- Moved to Ottawa in 1990 and worked as a Scientific Officer for the Medical Research Council of Canada. Main area of responsibility was the management of the peer-review process for the Groups and Program grants.
- Has been with the Alberta Heritage Foundation for Medical Research since 1994, initially as Director, Grants and Awards and currently in the position of Vice President, Programs where he is responsible for Grants and Awards, Health Technology Assessment and the Applied Health Research Programs. Also manages the Foundation's Impact Analysis and Information Services Units.



Dr. Martin Reddington

Dr. Martin Reddington obtained a B.Sc. degree in biochemistry at the University of Liverpool (1968) and a Ph.D. in biochemistry at the University of London (1974). After a brief postdoctoral period at the University of London he moved in 1975 to the Max Planck Institute of Psychiatry in Munich on a postdoctoral fellowship. He remained there on the scientific staff until 1996 as a group leader and later as Deputy Head of the Department of Neuromorphology. He also acted as Administrative Assistant to the Managing Director from 1990 onwards. His research interests were in inter- and intracellular signaling mechanisms in synaptic transmission and in neuron-glia interactions.

In 1996 he moved to the Human Frontier Science Program in Strasbourg, France, first as Director of Fellowships, then as Director of Research Grants. In 2002 he was appointed Director of Scientific Affairs and Communications, with overall responsibility for the scientific programs and special responsibility for promotion of the Program and development of the HFSP internet presence. During this time he has been especially interested in developing the scientific programs of HFSP to bring in scientists from the physical sciences into life science research.



Dr. Warren Thorngate

Dr. Warren Thorngate received his MA and PhD in social and mathematical psychology from the University of British Columbia in 1968/71, and taught at the University of Alberta until 1979 when he accepted his present position at Carleton University. He has published research on the psychology of human judgment and decision making for 35 years, and has written numerous articles on statistics, computer simulation, and the social psychology of Third World development. Professor Thorngate has served as a visiting professor at the University of California (Berkeley and Santa Barbara),

Carnegie Mellon University, LaTrobe University (Australia), the University of St. Petersburg, Warsaw University, and Tehran University. He is a founding member of the Human Oriented Technology lab at Carleton University, past President of the International Society for Theoretical Psychology, and currently a member of the board and newsletter editor of the Society for Judgment and Decision Making.