CIHR Reforms
Discussion with Principal Fortier and Faculty of Medicine Researchers
March 31, 2016

Topics and Discussion

1. **There is under-funding of national granting councils, including CIHR**. Increasing CIHR budget is critical for the current Project competition and to maintain minimal success rates. Does CIHR spend current resources in an appropriate manner or is this part of the problem that also requires action?

   What are the long-term solutions? What is the most effective approach with the government?

   - An effective approach with the government would be to emphasize the critical importance of health research for Canada and the need for increased funding to CIHR. We should emphasize that CIHR-funded research is outstanding, but that additional outstanding research is not being funded given low success rates. Over the past 5 years, funding of CIHR has sagged and, in fact, has been eroded by inflation and a poor US exchange rate that have decreased researchers' ability to compete.

     There needs to be a better harmonization of major government investments in different funding initiatives, including CFI, GC, CFREF, CIHR/NSERC and others. A better coordination would maximize the global impact of these investments, and would ensure that adequate operating funds are available to take advantage of major parallel investments in infrastructure acquisition, which is sometimes not the case.

     The issue of co-funding to access certain funding programs is a growing problem for researchers and institutions. It may block access to potentially interesting programs for qualified researchers, who may not have access to co-funding. This is favouring wealthy institutions, not necessarily good research.

2. **How is CIHR spending its resources? Strategic (including institutes) vs. Open Envelopes.**

   2.1 What is "strategic" and how is it recognized?
   2.2 How many strategic streams should there be, and how finely should they be defined?

2.3 What is the optimal balance between “strategic” and “open”? Who decides and how?
2.4 What happens to “strategic” initiatives once they are no longer strategic? How is success measured, or is it?
2.5 Is the “open” competition strategic?

What should be the messaging to CIHR leadership? How can we influence the “strategic” vs “open” split for an immediate rescue package for the “open” programs under tremendous pressure?

- A more transparent process needs to be implemented to determine the right balance between “open” vs. “strategic” funding by CIHR, and how programs are assigned to each category.

  While the community recognizes the value of large “targeted” research programs (Genome Project, the Microbiome Project), it is concerned about the fact that there are too many strategic initiatives for them to be very effective. Outcomes of large strategic investments (including SPOR support units) need to be monitored and carefully analyzed for effectiveness, and require continued support after their proposed lifespan.

  The proposed review by the Canadian government should also include a review of the CIHR Institutes to determine if their current number and thematic nature still respond to current needs in health research. Likewise, the “equal funding formula” for each institute, despite vastly differently sized research communities, needs to be re-assessed.

3. Program reforms: Cancelation and creation of programs.

3.1 Several programs have been cancelled and/or have not been replaced: POP, MD-PhD (bursaries), open Team Grants and open Training Grants competitions and several others. There has also been reduction in other bursary programs. How do we replace these funds?
3.2 Other programs have been created (SPOR support units), but access to these programs by the research community at large, and overall impact, is difficult to establish.
3.3 Funding gaps created by the programs reform have created massive application pressure; low success rates, and/or severe cuts in budgets of approved grants are feared, with obvious consequences on research intensity and graduate student training.
3.4 New application bundles place much emphasis on new evaluation criteria, some of which appear subjective and lack quantitative evaluation metrics (“quality of the idea”). Evaluation metrics are not always understood by applicants and/or reviewers. Character limits in the review process are an issue.

3.5 Review process for the new Foundation Program is long (3 cycles), complex and lacks uniformity in scores given at each cycle.
3.6 Facing uncertainty, researchers have decreased long-term commitment to staff and/or have reduced graduate student enrolment with longer term consequences.
3.7 The combined effects on researchers and trainees are feared to have a very significant and negative impact on the future of health research at McGill and throughout Canada.

How can we influence decisions on elimination of programs and creation of new ones? Can CIHR engage research communities more directly to estimate needs and tailor programs as opposed to the reverse? What process can be put in place to achieve this?

- CIHR needs to communicate better with the community and stakeholders, explaining how and why certain programs have been cancelled while new ones have been rolled out. The lack of consultation with researchers and other stakeholders generates frustration. [Specifically, the open-ended nature of the SPOR program is mentioned as a significant problem.]

  Cancelled programs such as CIHR Teams and CIHR Training Grants should be re-instated as critical tools to stimulate inter-disciplinary research.

  Constant changes in programs and the tools required to access them (e.g., application forms and procedures) often occur between competitions, making it difficult for researchers to keep up. The Canadian Common CV (CCV) is repeatedly mentioned as a major issue, in particular the poorly designed user interface.

  On the issue of Knowledge Translation (KT), there are several government programs designed to do this, in particular for transfer to industry (e.g., R&D tax credits); this aspect of research should be de-emphasized by CIHR.

  The negative impact of reforms on trainees and on the future of health research needs to be carefully monitored, including enrolment, graduation rates and employment of graduate students.

4. Issues with peer-review reform.

4.1 Rank order-based review requires a minimum number of reviewers per grant and a minimum number of grants per reviewer; these standards are not currently met by CIHR.
4.2 Standard errors on the rank scores are very large, highlighting inconsistency in peer review.
4.3 Face-to-face meetings would help correct these problems.

4.4 Reviewers' expertise is self-declared and the electronic matching system is not optimal.
4.5 Individuals submitting grants are precluded from reviewing, creating a paucity of reviewers (big problem for the upcoming review of "Project" Scheme, with several thousand applicants).

Can more traditional peer review committees be included in the new system at CIHR?

- There are many complaints about the rank order system put in place by CIHR, in that many reviewers get only 5-6 grants vs. others who get 10-12, introducing important bias. Such bias can be corrected in part by face-to-face meetings of reviewers. Such face-to-face meetings also ensure reviewers' accountability and provide informed discussions of difficult applications. These panels should have strong inter-disciplinary content.

  It is suggested that we should evaluate the degree of satisfaction of PIs with the current peer-review system vs. the old system.
  The assignment of reviewers to grants is now done by BSc-level staff at CIHR. It should be done by PhD-level staff who would be better equipped to match specific researchers and projects with specific reviewers.

  It is also suggested that CIHR consider a NIH-type "program officer" who would make sure that feedback from the panel to the applicant is taken into account when preparing a revised submission. There should also be continuity in assignment of reviewers to revised applications to best evaluate revisions, and to make sure applications continue to improve, possibly leading to successful funding of improved projects (strategic input).

  The new evaluation criteria and review process do not sufficiently recognize early career investigators, and this has resulted in a dramatic reduction in success rates in that group. This needs urgent attention. The community welcomes the decision of CIHR to invest new resources ($30M) in the "Project" Scheme, with emphasized support to new investigators.

5. CIHR Leadership.

5.1 CIHR Leadership has been out of touch with the research community; there has not been any substantive action taken in response to issues raised repeatedly at Town Halls or at meetings of the University Delegates (UD) network.
5.2 The perceived absence of accountability of the CIHR leadership is exacerbating the problem.
5.3 Messaging from CIHR to the community has been extremely poor ("only submit your best grant applications"), giving the impression that CIHR is acting on its own, irrespective of stakeholders' input.

Should there be a call for an urgent international review of CIHR?

- There should be a review of the CIHR (including the performance and impact of the programs and peer review reforms). The Canadian government has announced a comprehensive review of all science funding in Canada, including CIHR; this is a welcomed opportunity to possibly review the leadership of the organization.

  The community should be engaged to provide input into what kind of funding agency it wants and believes will best address the needs of key stakeholders, as well as how comprehensive the changes should be to achieve these goals. For example, how much bottom-up vs. top-down management structure is desirable? How many strategic vs. open programs are needed to achieve optimum outputs, including productivity, training and advancing innovation? Such a review will take time (2-3 years); we need to devise mitigating strategies to decrease the negative impact of the current reforms. Such strategies should be at the local level.

6. The Case of New Investigators.

6.1 New investigators seem to fall between programs, and success rates have been very low.

How do we make sure there is sustained support for this critical group, and to ensure a sustainable research enterprise at McGill and throughout the country?

- There should be recognition that junior investigators within 5 years of starting their career are particularly vulnerable to the reforms and have not done well in the new system, with low success rates (from 87% success to ~50% success in operating grant support for CRC Tier II applicants). Program envelopes and peer review processes should be adjusted to take into account different stages of career.

  There is also a sense that mid-career investigators are also feeling vulnerable and exhausted.