

## **ACTION items from UBC's Townhall meeting on CIHR funding and peer review**

### **Acknowledgement of progress to date:**

1. We would very much like to thank the Health Ministry for intervening on our behalf to bring CIHR together with Researchers to initiate improvements to the CIHR project funding system.
2. We also thank the Scientists who met with CIHR to develop some key constructive changes to the project grant process.
3. We also acknowledge the short timeline the newly formed working group committee have to instate changes to the application and peer review system for the next competition.
4. We thank CIHR for finally listening to our concerns and hope that this will be a change that continues.
5. At UBC, we thank the tireless efforts of our CIHR delegate, Dr. Lara Boyd, who works hard on our behalf and who participated in the recent CIHR summit meeting and is also on the University delegate executive council at CIHR. We also thank the VPs of Research who have lobbied CIHR on our behalf to try and improve the present funding system at CIHR.

Despite this initial progress on the project grant scheme, additional broader concerns need to be addressed and thoughtful solutions developed and instigated.

With constructive solutions in mind, Scientists at UBC recently met at a townhall meeting to discuss the key problems at CIHR and develop creative solutions. From this meeting, we developed a set of short term and long term goals that can provide the foundation for further Canada-wide discussion.

Given the short timeline before the next competition, short-term goals focus on the project grant and will be sent directly to the working group. Long-term goals highlight broader concerns and solutions for the CIHR funding process.

### **Short-term goals**

1. Provide feedback to the CIHR working committee for **reforms on the peer review process** (Dr. Paul Kubes is the Chair). This committee is working on improvement to the existing project grant scheme, and have a short timeline to achieve this. While the consensus view from the townhall meeting at UBC was that a temporary reversion back to the old system would be the simplest and most efficient, many of our key points can also be incorporated into the project grant review scheme.

Key suggested reviewer reforms to be forwarded to the working committee are:-

- There **MUST be scientific input into reviewer selection**. This is a critically important step. Relevant reviewers must be chosen for each grant. This did not happen often in the last competition. If the keyword system works at all, it could be used to generate suggestions for the Chair and SO to assess.
- Reviewer selection is critical. Grants should be self-selected for specific committees/institutes. The designated chair and SO for that committee should assemble a small group of scientists that cover the breath of the field (**a selection committee**) and these people should assign

reviewers to grants.

- Ideally, a core group of reviewers for each panel should be recruited early (database already exists from previous peer review committees), so they can rank the grants for their ability to review and thus provide feedback to the selection committee. Additional reviewers can then be sought for grants that only have low expertise indicated by reviewers already in place. This will allow better matching of reviewers to grants from applicants who slip between the expertise of two panels.
- Aligning with previous peer review committees will allow easier reviewer selection, an informed ability to triage grants if this is done at the meeting, and has a better chance to ensure that each grant gets reviewed by experts in the same field.

- **Recruiting reviewers.**

All grantees should be available as reviewers for the face-to face review. Chair, SO and reviewers do a lot of work and should be rewarded in some way. For eg, if there was money to extend their grants by 6 months, there would be a lot of volunteers. Conversely, if the present review process does not change substantially, it will again, be difficult to recruit reviewers.

Because most people will be putting in a grant again, most peer review panels may need two sections. This will enable reviewers to have a grant in the system AND be on a panel within their area of expertise.

- **Each grant MUST have the same number of reviewers.** If it is only virtual review for the first triage, there should be either 4 or 5 reviewers and IF the triage is based on percentage (hopefully it won't be) each reviewer has to be given the same number of grants. These were flaws in the last competition.
- **The scoring system must be numerically based** and not based on ranking from your pile. Since the number system has got compressed so many grants are all 4.0 and above, we suggest a broader scale for grant assessment of 1 to 10. Above 5 would be considered excellent and worthy of funding. Consistent 1-4 scores could be triaged. It shouldn't be a percentage ranking for your pile.
- A key reform would be for the reviewers and readers for a specific grant application to indicate their level of expertise for the application and that this be reported on the reviews sheets that go to the applicant. NSERC does this for their external reviewers.

**2. An immediate infusion of additional funds** is needed even to maintain the existing funding levels of the last competition. This is because this year there will be two project grant competitions and one foundation competition.

**3. Changes to the Application and Instructions**

(decisions on these aspects may already have been made by the working committee. Key points were forwarded.)

1. Make the application 8 or 10 pages of grant + 2 pages of figures and tables.

(This way applicants don't have to choose between more details OR preliminary data, as reviewers will no doubt ask for the one you don't put in.)

2. What does “translation” mean ? Especially for fundamental science. Provide a full, clear definition, including one for basic science. Should be defined for each pillar in the application and instructions AND the reviewers made aware of this.
3. Fundamental science should be valued by CIHR and appreciated by reviewers (without having to generate a new therapeutic/clinical application within a 5 yr time frame). If this doesn't change for the next competition, these grants will be triaged again and not get the needed F2F review. Make the criteria for evaluation and instructions clear to both applicants and reviewers. If needed, tailor applications (and instructions) for each pillar. (for eg does “AND/OR in the instructions really mean AND/OR or just AND? Are the reviewers aware of this? )
4. There should be no limit on references
5. More relevant information needs to be included in the project CV to aid the reviewers.
6. The quality and importance of the idea overlapped and accounted for 50%. Merge the two and reduce the weighting. Put more emphasis on the main body of the grant, the scientific rationale, aims and experimental plan.
7. Critical for instructions to be clear for BOTH applicants AND reviewers on what grants will be evaluated on.

## **Long-term goals**

### **1. Major issue is insufficient budget for funding operating (project) grants. There should be sufficient funds to allow 20% of the grants to be funded.**

This would fix a few things. It would result in more innovative high risk, high reward grants being funded as with limited funds, the “safe” projects get funded. Peer review is under less pressure when there is sufficient money to fund all outstanding grants.

This could be accomplished by:-

- a) an increase in the federal budget – specifically ear-marked for operating (project) grants.
- b) CIHR should re-evaluate its funding distributions to direct more money into the key project operating grants for research scientists. For eg. the utility of the CIHR institutes, advisory boards, council and committees should be evaluated against their costs and effectiveness.

### **2. Urgent need to re-evaluate and coordinate funds for fundamental science**

We appreciate the efforts of the present government in initiating the fundamental Science Review. Urgent re-evaluation of funds for other initiatives, for e.g. SPORS, CERC, CFI, CRC etc. is needed to determine if these schemes accomplish their goals and provide a proportional increase in research output for the money invested. There is a need to coordinate the funding for salary, equipment, and operations, as presently operating funds are a limiting factor. There is also an urgency to make these changes, in order to save the careers and innovative projects of many excellent scientists.

### **3. Eliminate the foundation grants and focus just on the project grants.**

Keep two project grant competitions per year and replace the foundation grant system with a merit

award system, similar to the one used by NIH. The merit awards are given to investigators that have the highest ranked project grants and have demonstrated an ability for outstanding research. The merit awards could be introduced when more money is available in the system. Present foundation grants could be reduced to 5 year terms. The goal should be to fund 20% of the project grants.

#### **4. Further improvements are required to the project grants**

The recent meeting of the CIHR with scientists focused only on changes to the peer review system and given the tight timeline before the next competition, only minor revisions can be made. Thus it is essential that an ongoing committee is tasked with providing a thorough and complete re-evaluation and optimization of the project grants, in terms of application forms, instructions and peer review. We have already provided suggestions in the short-term goals for further improvements, but this is not an exhaustive list.

#### **5. Funding continuity is essential for the survival of research labs and Canadian research.**

More thought needs to be put in to enable funding continuity. The government and Universities make an enormous investment in new excellent researchers who set up their laboratories and train students and post-docs. A temporary loss of funding can cause labs to shut down, resources, reagents and HQP are lost. Even with a return of funding it takes many years to get back to where you left off. Renewals of grants for excellent research to ensure continuity has to be considered.

#### **6. Ensure the process takes care of Early and Mid career investigators**

These are the next generation of teachers, scientists, entrepreneurs and innovators. Canada has to have a system that funds, nurtures and supports the entire pipeline of health research scientists. The present system focuses on the few, focus on established outstanding investigators to the detriment of upcoming new talent.

#### **7. Time is of the essence – required changes can be best achieved under new leadership**

Given the chronic underfunding of CIHR and low success rate over the last several years, together with the problems associated with the present pilot schemes where too many untested changes were approved and incorporated, there is a crisis and Canada's Health Science base is in danger of collapse. Canadian Health science has already slipped in the world ranking and with accordion funding and funds directed to a select few, the entire academic and scientific research structure, including the training of the next generation of scientists, is in jeopardy.

The solutions we have provided above will help reverse this concern, but only if it is acted upon urgently. Labs and careers will be lost if the government and CIHR take too long to approve and enact changes.

Given the inability of the present CIHR leadership to listen or act on the concerns of the scientists over this entire pilot process, the community has lost confidence in the CIHR leadership and VP. It took government intervention at the highest level to make them listen. Changes and re-evaluation of piloted programs need to occur quickly and we believe this can best occur under new leadership. The new leader must have the respect of the scientific community and believe that further changes are needed to fully restore the Canadian Science funding system to a place where it can fund 20% of the most excellent innovative grants. These would include fundamental innovative research as well as translational and clinical research, and support both early, mid and senior career investigators who can sustain a vibrant and active training program for students and post doctoral students, thereby ensuring the presence of Canada's innovative scientific program in health research for future generations.