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Opinion Leader: Dr Yves Gingras

Pork barreling is no substitute for peer review

By Yves Gingras

The recent (and defeated) federal Budget announced a series of reinvestments in the Canadian research system, including funding for the three granting councils (CIHR, NSERC, SSHRC), the Canada Research Chairs and Genome Canada. These are the usual organizations that, year in and year out, receive federal money to distribute to Canadian researchers through a system of scientific peer review.

Whether it's a project from an academic researcher or a team applying to NSERC, SSHRC or CIHR, or an infrastructure project coming from a university or a college applying for Canada Foundation for Innovation (CFI) money, all decisions from these arm's length organizations pass through scientific committees that comprehensively review each project to choose the best ones in an open competition based on scientific quality and originality. In all cases, external reviewers from across the world write (gratis!) evaluation reports to help these committees in their decisions.

Involving hundreds of scientists is what gives the whole system its credibility: even ‘losing' scientists accept the often painful verdict since they know the adjudication committee — on which they themselves have been or will be serving at some point — had to make difficult choices among many worthwhile ideas and not enough funding to support them all.

In addition to these standard and recurrent investment decisions that assure the long-term stability of the Canadian research system, we now see emerging a more worrying trend.

Though many have applauded news that the federal Budget included $50 million for the Perimeter Institute, which presents itself as a "public-private partnership", one should pause here to measure the real significance of these choices. Though this amount is of the same order of magnitude as those reserved for the creation of 10 new Canada Excellence

Research Chairs ($53.5 million), it is crucial to understand that these two organizations are very different beasts.

While the Chairs will be adjudicated through an open competition throughout the country, the former organization is directly receiving the grant in its coffers without any open competition or formal scientific evaluation. Perimeter received an initial $50 million in the 2007 federal budget. Their success in securing another $50 million in Budget 2011 suggests that directly lobbying politicians and their assistants — and bypassing peer-reviewed competitions based on detailed analysis of scientific quality — can result in bigger payoffs with less paperwork.

Do Canadian scientists really want federal investments following the route of earmarking and pork barrelling so prevalent in the United States and often denounced there by scientists as an arbitrary manner for selecting scientific projects? Also, should government priorities follow the choices made by philanthropists who decide to invest in their pet interest, whether it's theoretical physics, complementary medicine or even, as the Templeton Foundation does in US, on the "relations between science and religion"?

Some academic decision-makers seem to think that matching such private choices with public money is a way to stimulate scientific philanthropy. But they forget that such an approach is obviously subject to the changing whims of a few and random millionaires searching for ways to ‘invest' (or burn) their money. And what happens when the philanthropist changes his or her mind for some sexier topic or goes bankrupt? Should public policy in general, and science policy in particular, be based on such haphazard public-private partnerships?

More importantly, such an opportunistic approach to science funding goes against the good governance of a national science policy based on broadly discussed mid- and long-term priorities. Though it made sense to create Genome Canada and CFI, for example, to manage broad fields, it should remain the central role of the scientific community (first of all represented by the three granting councils and composed of Canadian as well as international scholars) to ensure that public money is invested in the best research projects, programs and institutions. It should not be given directly and without scientific evaluation to organizations or programs that happen to have the right social relations and contacts within the small world of government decision-making. Such social capital is certainly useful in the political field but this currency should not replace bona fide scientific capital won within the scientific field through an open competition based on scientific merit.

Going the political route may lead to short-term gains for some but there is little doubt that in the long term it can only be deleterious for all. Government sensibilities and ideologies easily change, whereas good science needs long-term investment and solid decision-making based on sound public policies.

Once governments legitimately decide the broad scientific priorities, it should not intervene in the micromanagement of the very content of science or choose who should

get a specific chunk of that money. Those reviews and decisions should be left to the experts, namely existing agencies like CFI and the three granting councils.

Despite its limitations, peer review by scientific expert committees is still the best way to prevent politics from influencing what science gets funded. Arm's length organizations like Genome Canada, CFI, NSERC, CHIR and SSHRC are the embodiment of these principles of excellence that have always put scientific credibility well above political acquaintances.

One should think twice before applauding any kind of investment simply because money has no odor and is always welcome, thus letting the "Republic of Science" lose even more of its limited autonomy to embrace the risky and destructive game of pork barrel politics and hand-shaking in the corridors of power.

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