

## Making Research Pay?

In the May 6, 2013 issues of the *Calgary Herald* and the *Edmonton Journal*, a story appeared entitled “Making Research Pay”, sub-titled, “Institute will help start a ‘new economy’”. The story goes on to explain how the Government of Alberta Ministry of Enterprise and Advanced Education (EAE) plans to create a “new institute which will help colleges and universities to commercialize their research in partnership with private companies and other agencies.” In the same story, EAE Minister Thomas Lukaszuk goes on to explain how existing *Alberta Innovates* agencies (under the supervision of his Ministry) have “done a good job, but they haven’t been totally satisfying.” It is also noted that *Alberta Innovates – Health Solutions* (AIHS), one of the four *Alberta Innovates* agencies controlled by EAE, and with a \$79M annual research budget, was moved within Alberta Health Services (AHS) as a result of the recent Alberta budget, “to help fund research to deliver more efficient health care.”

Opposition parties, in response to the new institute initiative, are cautious about supporting it, observing that such an idea is perhaps of interest, but not if it occurs at the expense of budget cuts to other research and post-secondary education (PSE) areas, in order to provide the new institute’s funding. With \$147M already cut from the PSE sector in the Government’s March 7, 2013 budget, an almost 10% reduction from what had been promised last year, this is a legitimate concern.

As well as the notion that existing agencies’ operations “haven’t been totally satisfying”, it has also been claimed that inter-institutional research cooperation “is limited because campuses compete for research grants.” This last statement is very worrisome as part of a rationale for creation of the said institute, and what its mandate might be, since it displays a fundamental misunderstanding of how basic research is adjudicated for funding support, in a peer-review system.

Within Canada, basic research, which is mainly conducted at universities, is funded to the largest extent by three national granting councils which are at arms-length from the Government of Canada, and report to Parliament through the Minister of Industry: the Canadian Institutes for Health Research (CIHR), funding health-related research; the Natural Sciences and Engineering Research Council, funding scientific and engineering research; and the Social Sciences and Humanities Research Council (SSHRC), funding social science and humanities research. All of these bodies disburse funds annually to researchers at Canadian universities, who submit detailed applications, which are adjudicated by panels of experts. Research awards are then made based on the best ideas proposed, coupled with those researchers having the best track records of success, as viewed by experts in their fields. This kind of “competition” (peer-review adjudication of the best research projects) is what the Minister is referring to when he denigrates “campuses (competing) for research grants”. However, such a peer-review adjudication system existed in the Alberta research system, until very recently. Furthermore, such a peer-review adjudication system for the disbursement of research funds is standard not only at the national level within Canada, but also throughout the world, examples close to home being the National Science Foundation (NSF) and the National Institutes of Health (NIH) in the United States.

This kind of peer-review adjudication for the disbursement of research funds existed in Alberta until four years ago. The genesis of that system in Alberta began over thirty years ago, when the Government of Alberta, under Premier Peter Lougheed, created the Alberta Heritage Foundation for Medical Research (AHFMR). Some years later, the Alberta Heritage Foundation for Science and Engineering Research (AHFSEER) was also formed, along similar operational lines and principles. The former Foundation is more well-known to Albertans. It (and AHFSEER) was an arms-length from Government of Alberta, peer-review based research body, with its own independent Board of Trustees. At its peak in its last fiscal year of operation (2008/09), AHFMR disbursed \$85M in research funding to support basic medical research in Alberta, using revenue generated from the AHFMR endowment fund of \$1.5B.

AHFMR became world-renowned for the quality of the scientists which it supported, a large number of them funded through a “salary support” programme, by which these scientists won peer-review-adjudicated awards for the quality and impact of their research activities. These awards consisted of coverage to the awardees’ institution of most of the salary and non-salary benefit costs to the institution, a research prize incentive, paid to the researcher, and a research operating grant available to the awardee, to defray a portion of the costs of the scientists’ programmes of research. The majority of these scientists were attracted to Alberta from elsewhere, including from many other countries, and there were over two-hundred and fifty of these scientists funded through the salary support programme alone at Alberta universities, when the programme was discontinued, and AHFMR was “rolled into” AIHS in the 2009/10 fiscal year. Many of the funded scientists under the AHFMR programme held long-term positions at the research universities in Alberta, given the scientists’ success in securing renewed funding every five or seven years, to further support their activities.

When the AHFMR salary support programme was cancelled, with the creation of AIHS in 2009/10, universities were provided with “transitional funds” to “wean” themselves off of the former AHFMR funding. This transition is almost complete, having about two years to run. At that point, all of the \$42.6M in funding for salary support costs from the 2008/09 fiscal year, provided then by AHFMR, will have to be “picked up” by Alberta universities, to meet the costs of these tenured faculty members, the former AHFMR scholars, scientists and senior scientists. At the same time, of course, the total AHFMR budget of \$85M from 2008/09 has been transitioned into the AIHS budget, albeit at a reduced level, at \$79M for the 2013/14 fiscal year, according to the current provincial budget. This funding is now deployed towards Government-directed “applied research and research commercialization” initiatives, and is being re-directed further, with the movement of AIHS into AHS, as of the current fiscal year. This will give the Ministry greater control over what is funded from the research perspective, and will also serve to create Government flexibility in the overall budgetary framework to support the new institute being touted by the Minister.

The sequential developments of the Government of Alberta over the past four years, outlined above, have completely eviscerated the ability of Alberta to fund basic research, now and in the future. The creation of the new institute proposed by the Minister is about to make this environment even worse, since such an institute can only be funded through additional resource re-allocation from other parts of the PSE system. Furthermore, based on what has been seen over the past four years, the new institute will do little to support basic research, its focus being on commercialization of Government of Alberta directed research

initiatives, where that focus tends to be on a constrained spectrum of research interests, developed within the Ministry of EAE.

The many scientists who were attracted to Alberta under AHFMR and AHFSEER are now looking at their options elsewhere, since a premium, basic research environment has become a wasteland for basic research over the past four years. Many of these scientists built their careers here in Alberta, and not all were appointed to long-term positions at their universities, since they expected that the excellence of their work would ensure their continued support from AHFMR or AHFSEER. With these funding envelopes re-purposed to Government-directed objectives, we will see a mass exodus of researchers from Alberta over the next several years. Furthermore, since basic operating budgets of universities have also been cut by almost 10%, there is no room for academic staff renewal, as universities strive to operate within significantly reduced funding envelopes.

Premier Lougheed had the foresight to establish the Alberta Heritage Fund, and the AHFMR. This led to Alberta becoming a destination for researchers from around the world, and the creation of a vibrant research community of scholars in Alberta. We are about to lose this thirty year legacy, and it will not take very long to do so. Its re-creation would take at least a generation. If you care about Alberta's leadership position and reputation as a creative, research-intensive, knowledge economy, send Premier Redford and Minister Lukaszuk a strong message to change their reckless course of action, or see the long-term decline of our province as a place for the germination of creative ideas, and thereby a significant reduction in the diversity of opportunities for future generations of Albertans.

*Dr. Christopher J. Nicol,  
Professor of Economics, University of Lethbridge,  
May 10, 2013.*