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Get Research Right: It's your choice

By Larry Stewart, USFA Chair

As the federal election campaign draws to a close, we are bombarded with messaging about which party will prove to be the best governing party. I hope this will not be lost in the din because I feel strongly that research is an important matter for you to consider.

Let me begin with a quote from the 20th century American philosopher Yogi Berra: "When you come to a fork in the road, take it!"

On September 29 and again on October 2 the USFA hosted events to raise awareness with USFA members, and more broadly the general public in Saskatoon, of the need for research to be independent, peer reviewed, unmuzzled and appropriately funded.

The events we hosted were part of a national campaign spearheaded by the Canadian Association of University Teachers (CAUT) to highlight the repercussions of the federal government's approach to research. The *Get Science Right* campaign proposes steps to support science and research of all disciplines in the public interest, and encourages Canadians to take action to protect research integrity.

Raising awareness of these issues continues to be appropriate because we are in the midst of a federal election. While research and science policy and funding are directly impacted by the choices made by whichever party governs Canada, we, as voters, have the ability to make choices that can influence that impact.

The USFA Executive Committee wanted to create an opportunity for a candid discussion about party and candidate positions on research policy and funding so we could learn firsthand where parties stood and hear what others think about these issues. In attendance were candidates from four parties, USFA members and some former researchers from Environment Canada and the National Research Council.

Common sentiments were expressed at both events. The approach to funding research (NSERC, SSHRC and CIHR) and the short sighted policies of the current government are proving deeply damaging. Federal funding is going towards funding corporate research and development instead of discovery driven research. Change is needed before it's too late.

> *"Over the last decade, the public has lost access to key data and research findings, Canadian investment in R&D has lagged behind other countries, and ideology instead of evidence is driving policy."*
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> **- Robin Vose, President of CAUT and professor at St. Thomas University**

Speakers also outlined how subtle roadblocks established over the last decade have prevented the dissemination of research, openly prevented public engagement, and diminished Canada's position as a world leader of research in the public interest. Canada's reputation for research has already been damaged and remains threatened by such impediments to inquiry and dissemination.

We heard that some researchers have benefited greatly from the government's approach but it comes at the expense of others. The lack of success in grant competitions is not about technical issues or lack of experience. There is less funding available for the number of applicants than ever before and fewer small grants to individual researchers are being awarded. Excellent academics struggle and lose their grants in order that others see their grants grow in size.

More than once the point was made that it is misguided to believe that discovery driven research is not key to innovation and job growth and that business is keeping up investment in research and development. Misguided as well is the belief that social science and humanities research is not worth funding.

Change is needed before it's too late. Canadian researchers need to be unfettered and properly funded.

In my own experience, after decades studying the historical foundations of scientific practice, I was recently director of the Saskatchewan node of 'Situating Science' – a network featuring historians, sociologists, and philosophers concerned with the fundamentals of scientific method. Our concerns covered Historical Epistemologies, Material Culture and Technological Practises, Sites of Knowing, and significantly, my own long-time interest, Scientific Communication and its Publics, a matter clearly of some concern in this election.

My view is that research is not ultimately about researchers, whether in the experimental sciences, the social sciences, or even in the humanities. It is very much about the public. It is about what science has become (at least since the 17th century): the production of research as a topic of broad public debate and encouraged by the state.

History is replete with examples of government support, in western democracies at any rate, for research without undue interference. During the 20th century, successive German governments realized that science could create a substantial amount of credibility in the international community. Strikingly, Germany, as a leading western economy often proved willing to reinforce its goals by funding international and collaborative research that, in turn, allowed German science to receive much benefit and to export its own well-deserved reputation. Since the end of WWII, its agenda was uniformly international in scope and this has undoubtedly aided not only pure research but its vast industrial connections as well. Germany was, of course, not the only industrial nation to attempt to do this. A similar example may well be that of France, with its Centre Nationale de la Recherche Scientifique or even its Cité de l'Industrie in Paris. These are models worth considering, especially if globalism means anything.

I believe there is a fundamental reason why this strategy was adopted. Scientific research requires, at a minimum, the ability to have discoveries replicated or otherwise refuted. Without these, there is no conversation. This is critical. Historically, even where there has been government oversight, it has mostly been to encourage the production of observation and exchange. There are many examples, from France in the 17th century to America in the 20th.

We have had, in recent years, much evidence of the obstruction before the Harper government, not only of curtailing conversations but even of conflict over the sites of knowing. What of the failure to heed warnings about the declines of fish stocks on both the Pacific and Atlantic coasts even under Brian Mulroney? What of John Crosbie having to explain to a crowd of angry fisherman the consequence of the failure to pay attention to the data ? What of the destruction of the experimental lakes area, revealed recently by David Schindler, necessary to address the causes of acid rain, to the point of tearing down buildings with long-standing research projects still underway? What of research into the oil sands, apparently essential some believe for the economic health of both the industry and of us? What of the almost universally recognized issue of global warming, especially obvious in the Arctic, to the point where even politicians might have a photo-op on Arctic shores with little sea ice in sight? What are the geopolitical and economic consequences of that? Surely, in any of these matters, denial of scientific data cannot be a very credible posture.

Hiding from these issues is very expensive, not to mention misguided. It is also self-destructive , even to the point of alienating potential allies among those who prefer to think in the purely economic long-term. But the reasons for this go to the heart of a fundamental principle not very well articulated: **If science is funded by the public, it is in the public interest**.

Surely, the public should be interested. It is an historical axiom that science has always been a public matter. Since the 18th century, there was and is a great deal of evidence that the public has often been engaged in scientific matters. This is perhaps ironic. It may be the case that the modern Canadian public is less obviously engaged, when arguably science matters more than ever. This is what is so strange about the apparent, and well documented, efforts to muzzle science and to underfund research except in the expectation of immediate payoff. The transfer of information is inherent and critical to the practise of science--and, more significantly perhaps, to a broader democratic debate.

The corollary is that to inhibit the transfer and distribution of information is deeply anti-democratic. In the age of the so called Accountability Act, arguably, the silencing or compromising of discussion has undermined public engagement on matters of urgent public consequence. Whether sudden flood or widespread drought are the bitter harvest of climate change (whatever one's views is on that highly-charged problem), these occurrences are surely matters of consequence, economic or otherwise.

Science depends on data and debate; otherwise there could never be any confirmation or refutation of any apparent discoveries. This has been true since Galileo looked through a tube with two glass lenses. Where public engagement seems weak, even on contentious matters such as oil exploration or on issues like acid rain, then the entire enterprise -- in laboratory or in legislature--is sadly undermined. Of this, especially in the late 20th century, there have been examples. Do you remember those disputes over the effects of smoking studiously refuted by the tobacco industry and their Republican advisers in the US, or recall problems of the funding of pharmaceutical research, of drug patents, and the public consequences for both economic wealth and personal health.

Wherein lies the danger of dismissing questions or research that do not strictly adhere to short term government objectives? Profoundly important decisions, of economy as much as of environment, of evidentiary truth as much as of sentiment and belief, are less and less left to follow critical debate, but are left to ideological agents or even to the intimidated, like some of our MPs perhaps, even to the studiously ill-informed and shockingly sanctimonious. This threat to research, in many fields, must be challenged. The stakes are extremely high. The current juncture, I would argue, is the proverbial fork in the road staring us in the face. But it remains your choice.

Research policy and funding are federal election issues.

On October 19 choose a government that will Get Research Right.