



university of saskatchewan  
faculty association

## Collectively Speaking

September 22, 2015

### Get Research Right

by Anas El-Aneed with input from Randy Purves

Traveling across the Rockies is nothing but a pleasure. Our aim was a scientific meeting that is held within the snow-covered mountains. I took a break from the long drive while one of the two graduate students traveling with me became the pilot of our rented car. It was a chance to check my e-mail, and among the various e-messages was a message from a collaborator. His message was very simple: he was being “let go” by his government employer and he had only 3 months to pack and leave. I have been collaborating with this inventor and scientist for almost five years; we supervised students together, published together and taught in the same courses, both at the graduate and undergraduate levels. This “no longer useful” scientist was one of two key scientists who a decade ago invented and commercialized a technology that has become a corner-stone within many analytical applications across the globe. Their Canadian-based business lasted for 5 years before being sold to a multinational corporation and made the government money in the process. But, he is no longer needed as his government lab [in Saskatoon] can “magically” be managed from Halifax, which was the logic for letting him go.

My collaborator not only collaborated with me, he worked with a wide array of scientists and businesses from both the public and private sectors. His frustration in recent years in trying to work within the system was obvious, as a result of the government employer now looking for a quick buck instead of nurturing collaborations such as those that had led to his business years earli-

er. For me as a university professor, the message has become as clear as it can be: we are no longer welcome to use the science infrastructures within government buildings. The rules and regulations have become so rigid that it is almost impossible to routinely use government labs as we did only a few years earlier. A wall has been under construction over the past 9 years and it is now close to completion. In my area of research, we rely on advanced technologies and instrumentation. Many such infrastructures have been housed within government buildings and have supported the research of multiple users. I no longer can practically use these instruments, and neither can my students. By letting scientists go and by closing the doors to those interested in pure scientific curiosity, the infrastructures are simply collecting dust and our innovation suffers. Academics like me are no longer welcome and scientists like my collaborator are being kicked out. Long-term investments are no longer being made and the main losers are our students, our scientists, and of course those who paid for such investment, our tax payers.

Science’s output is new knowledge, skilled workers, and of course products and services. The latter, however, may take decades to materialize into new products or services that did not exist before. The outcomes of science cannot be harvested overnight and killing basic research will have profoundly negative effects in the years to come. Blue sky discoveries, where the impossible is made possible, are not linked to a strategist in an office in Ottawa, to an elected MP, or even the PM himself. They are linked to freedom of thought while explor-

ing pure scientific curiosity. Should all our scientific work be linked to a “strategic direction” and a tangible output that should materialize within a year or 2? Should it be linked only to the private sector and its needs? I am in no way undermining the importance and the value of translational research but it cannot replace basic science – the pure scientific inquiry that is the cornerstone of innovation. Only through basic scientific inquiries is the pipeline for novel discoveries and future prosperity possible. Breakthrough discoveries, which can take many years, will eventually lead to what our society needs, new products and services.

In addition to the success of the aforementioned scientist, our Canadian scientists have a long history of bringing new inventions to mankind. Grant Banting (along with Charles Best) discovered insulin and Michel Smith discovered how to make a mutation in a specific location within DNA. Were Banting and Best aware when they designed their experiments that the discovery of insulin down the road would save millions of lives and become a major pharmaceutical product sold at every corner on earth? Did Smith foresee that endless applications of his discovery would allow for the development of plants and animals with favorable characteristics? Both Smith and Banting were Nobel prize recipients for their discoveries. Unfortunately, blue sky discoveries at the basic levels are no longer welcomed by our political machine because government bureaucrats simply do not understand how science works. It is time for a change in attitude and it is time for better understanding of what it takes to do science. It is simply time for a positive change.



**On October 19**

**choose a government that will**

**get research right**

**Canadian research policy and funding is a federal election issue.**

## **Join the conversation**

**Louis' Loft (on campus): September 29, 3:00–6:00 pm**

**Station 20 West: October 2, 3:00–5:00 pm**

### **Cutting research support and closing facilities**

The federal government has cut libraries, research facilities, and research programs. Library materials have been dumped, burned, and scavenged by private consultants.

### **Muzzling federal researchers**

The government has tightened media protocols for federal scientists. It has blocked researchers from discussing published, peer-reviewed literature, and even novels, with the media.

### **Dictating the research agenda**

When CEOs and politicians decide what research projects are worth funding, awards for industry-related research increase, and funding to granting councils and basic research decreases.

### **We need to talk**

Ask your local candidates where their party stands on research policy and funding. And please join the conversations at Louis' Loft and Station 20 West.



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