



UNIVERSITY  
OF MANITOBA

# **University of Manitoba: Contributing to Canada's Future**

**Pre- budget submission to the House of Commons Standing Committee  
on Finance by the University of Manitoba  
August 12, 2011**

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Budget 2012 should continue to stimulate economic productivity and prosperity at home and to enhance Canada's international competitiveness. The government has recognized in recent budgets, including in Budget 2011, that investments in universities – in research and innovation, in renewal of infrastructure, and in support of students - are key factors in developing and maintaining Canada's global economic position. Additional investments in our universities are critical if we are to ensure Canada remains a global research leader and that we continue to develop and train the highly-qualified people necessary for today's and tomorrow's economy.

Established as Western Canada's first university in 1877, the University of Manitoba has a 135 year history of producing leaders and conducting world class research. The University has 27,500 students enrolled in 22 faculties and schools, and is one of Canada's leading research/doctoral universities with sponsored research income in excess of \$164 million and one of the country's most successful commercialization programs. The University is a member of the U15 group of Canada's top research universities and is internationally renowned for its work in Arctic climate science, water quality and management, innovative biofuels processes and technologies, generation of feedstock for the bio economy and public health and immunology, including a number of "firsts" in the fight against HIV/AIDS. As an indicator of academic strength, the University of Manitoba has produced more Rhodes Scholars (95) than any other university in Western Canada.

As a recipient of one of the initial Canada Excellence Research Chair positions awarded in 2010, the University of Manitoba was pleased to see the creation of 10 new Canada Excellence Research Chairs in Budget 2011. The University of Manitoba also holds 45 Canada Research Chair positions and 17 Endowed and Sponsored Research Chairs. The government is also to be commended for the highly competitive Vanier Canada Graduate Scholarship program, which has awarded funding to nine University of Manitoba students over the past three years.

The Knowledge Infrastructure Program (KIP), a component of the Economic Action Plan of 2009, provided needed capital funding to upgrade research and teaching spaces and to develop new facilities. The KIP projects provide not only the short-term benefit of immediate economic stimulus, but also improved learning and research infrastructure for students and scientists. KIP enhances our ability to grow research activity and to attract and retain the best staff and students from Canada and abroad. The most significant return of these investments will be over the longer term as their on-going impact on research productivity and training of HQP's is realized. Continued federal investments in updating and expanding universities' capacity to teach and conduct research are critical to Canada's economic future. The majority of these capital projects are now complete and the University of Manitoba is very excited to be officially opening all seven of our KIP funded projects this fall.

The University of Manitoba acknowledges and thanks the Federal government for its commitment to supporting Canada's universities.

### **Three main priorities for the University of Manitoba in Budget 2012**

Looking ahead, the University of Manitoba has three funding recommendations in this submission.

1. Establishment of the Canadian Cereal Research Innovation Lab.
2. Strengthen investment in Canada's research granting agencies.
3. Create a new funding program to support international research collaborations for Canadian students and faculty.

### **Establishment of the Canadian Cereal Research Innovation Lab (CCRIL)**

As the world's population grows, so does the need to create more efficient and healthier ways to satisfy the global food demand. Canada has the opportunity to enhance its global leadership in grain crops research by establishing the Canadian Cereal Research Innovation Lab at the University of Manitoba.

For well over 100 years, Manitoba has been the centre and heart of the growth and development of the Canadian grain industry. Many of Canada's grain companies have their head offices in Winnipeg, employing thousands of people. University of Manitoba grain researchers have worked for many years in close collaboration with industry and producers, federal and provincial government agencies and departments, and other universities to develop better crops and production methods. The University is a global leader at the centre of research into new strains and cultivars, grain storage and innovative methods to improve the production of cereal grains in Canada. Further strengths include the University's Richardson Centre for Functional Foods, dedicated to the discovery and development of functional foods and nutraceuticals to improve Canadians' health and nutrition and to support the development of an economically viable functional food and nutraceuticals industry in Canada. In addition, the National Centre for Livestock and the Environment (NACLE) is a University of Manitoba based research facility that engages in research partnerships to further the long term economic and environmental sustainability of integrated livestock and crop production systems.

Agriculture and Agri-Food Canada's (AAFC) existing Cereal Research Centre at the University of Manitoba and other Winnipeg based federal grain laboratories are in need of replacement. Rather than sink scarce resources into renewing inadequate space and perpetuating inefficiencies, the University of Manitoba proposes the creation of CCRIL. Located at the University of Manitoba, CCRIL would consolidate old federal lab facilities into a new operational model that integrates university and government scientists, together with industry partners and producers. Such a partnership between governments, universities and the private sector would strengthen and secure Canada's position as the leading nation in cereals research, able to compete directly with efforts in the US, Australia, and Europe.

There is a clear and identified need, as well as broad support, for such a centre. CCRIL will reduce duplication of federal operations and create a state-of-the-art facility, leading to enhanced and accelerated research, new product development and significant investment from industry in research

and development and job creation. Specifically, the Centre would create the opportunity for government and university scientists to work more effectively with industry in the development of new strains and cultivars as well as addressing other industry challenges and realizing new market opportunities. The result would be new partnerships, greater efficiencies and maximized scientific discoveries and commercialization.

In 2007, an Independent Panel of Experts was appointed by the President of the Treasury Board to explore opportunities to transfer non-regulatory federal laboratories to universities. In its report, the Panel identified five non-regulatory laboratories it felt would be good candidates for inter-sectoral arrangements. Subsequently, in June 2008, the Panel shortlisted the early candidates down to just two facilities for further development. One of which was the transformation of AAFC's Cereals Research Centre into the new CCRIL, to be located at the University of Manitoba. Following the release of the report, Minister Gerry Ritz said in a Treasury Board news release, "AAFC has worked closely with the Panel and is committed to exploring the merits of the recommendation for the Canadian Cereal Research and Innovation Laboratory in Winnipeg. This is an opportunity to look at how this laboratory can best contribute to ensuring that Canada continues to be a world leader in grain science."

The Independent Panel of Experts has clearly endorsed the strengths of the proposed CCRIL, notably the development of new partnerships, increased efficiencies, enhanced scientific discoveries and commercialization, and value-add to producers and industry. Unfortunately, funding has not yet materialized to allow CCRIL to proceed. Despite the tight fiscal challenges faced by government, this project should be viewed as an important investment to secure Canada's place as the global leader in grain crops research, product development, and commercialization.

**The University of Manitoba recommends that the Federal government include in Budget 2012 a commitment to provide funding to establish the Canadian Cereal Research Innovation Lab.**

### **Strengthen investment in Canada's federal research granting agencies**

The granting councils and other federal sources of direct research funding, like the Canada Foundation for Innovation (CFI) and Genome Canada, are the building blocks of the university research endeavour. To its credit, the federal government recognizes this and has continued to make modest investments in recent budgets, despite fiscally challenging times. The three granting councils – The Natural Sciences and Engineering Research Council (NSERC), the Social Sciences and Humanities Research Council (SSHRC) and the Canadian Institutes of Health Research (CIHR), as well as CFI and Genome Canada, have all experienced modest budgetary growth over the last few years.

These investments in the direct costs of university research have a significant impact on the economy and our quality of life. They enable universities to create and transfer new knowledge to Canadians, industry and internationally. University based research leads to a healthier and more engaged society, an enhanced culture and stronger, more sustainable economic growth. Federal investments in the direct costs of research support graduate scholarships and facilitate student participation in all areas of research. The funding brings together researchers, students, industry and the private sector in meeting the needs of society. Furthermore, the peer review process employed in the awarding of these funds is

recognized internationally as a means of encouraging and rewarding research excellence. Research funding provided by the granting councils and other federal agencies is improving the lives of Canadians.

With the support of these programs, researchers at the University of Manitoba are making a difference.

- Dr. Eric Bibeau, the NSERC/Manitoba Hydro Industrial Research Chair in Alternative Energy focuses on the development of alternative energy systems that can lead to new technology applications. He investigates new cost effective methods to harness renewable energy resources. The research develops the tools needed to develop innovative technologies and to enable the production of environmentally and affordable alternative energy.
- Dr. Patricia Martens, Director of the Manitoba Centre for Health Policy is supported through CIHR to conduct research into population-based health services and provide recommendations to help influence more positive outcomes and greater efficiencies in health care policy and systems.
- Dr. Paul Larson, Professor in Supply Chain Management and Director of the Transport Institute, and Dr. Ron McLachlin of the Asper School of Business, University of Manitoba, are funded through SSHRC to research logistics, purchasing, transportation and supply chain management systems to improve business efficiencies and maximize the competitiveness of Canadian companies.
- Dr. Lotfollah Shafai, this year's recipient of the prestigious Killam Prize, is a Canada Research Chair who, with the assistance of CFI, has become the international expert in the development of more powerful and compact antenna and satellite communications technologies.
- Dr. Geoff Hicks, Canada Research Chair in Functional Genomics heads the Regenerative Medicine program at the University of Manitoba and is also funded through Genome Canada to lead Canada's contribution to the international mouse mutagenesis project investigating mouse models of disease which will lead to new medical discoveries and improved human health worldwide.

***The University of Manitoba recommends that the government of Canada strengthen its investments in university research through enhancing the core budgets and programs of Canada's three federal granting agencies and the Canada Foundation for Innovation.***

### **Create a new funding program to support international research collaborations for Canadians**

The internationalization of our university campuses will have a long-term impact on Canada's economic competitiveness. This means attracting more international students to Canada, providing opportunities for Canadian students to study abroad and enhancing international research collaborations.

At the University of Manitoba, international students number 2,200 and comprise 8 percent of the student body. These students bring their culture and perspectives to the classroom and enrich the learning experience for all students. They also contribute significantly in terms of their economic impact. In fact, a recent study done for the University of Manitoba found that our international students alone have an estimated \$30 million impact on GDP. Canada is well positioned as a destination for international students and has an opportunity to significantly increase its market share of students looking to study abroad. Through the *Imagine Education in Canada* brand, the government is on the right track in promoting the quality of the Canadian education experience. Canada is already viewed as

a preferred choice for Chinese students and there are opportunities for further growth there and for growth in India and Brazil. Brazil for example, has recently announced scholarships for 75,000 Brazilian students to study abroad. The most recent effort by the university community to strengthen academic collaboration and attract international students to Canada took place November 2010 when a delegation of 15 university presidents, including David Barnard, President of the University of Manitoba, travelled to India. This largest-ever delegation of university presidents succeeded in positioning Canada as a partner of choice for Indian students, faculty, researchers and institutions.

It is anticipated that Prime Minister Harper's recent visit to Brazil, together with a planned mission by Canadian university Presidents to that country in the New Year, will lead to greater collaboration and research opportunities between both countries, and attract additional Brazilian students to Canada. The University of Manitoba welcomes the announcements of the International Science and Technology Partnership Program, the new bilateral Science and Technology Action Plan, and the Canada-Brazil Scholarship program.

It is equally important that Canadian students be given the opportunity to study and work abroad in order to expand their experience and acquire a more global perspective. The government should review Australia's Endeavour Research Fellowship program which provides financial support for postgraduate students and postdoctoral fellows from participating countries to undertake short-term research projects (4-6 months). The Endeavour Research Fellowships aim to enable high achieving scholars from participating countries to undertake research in Australia and for Australians to do the same abroad. A similar program would strengthen links between Canada and participating countries, showcase Canada's university sector, and build international networks that lead to stronger collaboration and sharing of knowledge.

University of Manitoba researchers participate in collaborative research partnerships around the world. Many of these collaborations are supported through funding envelopes within the granting councils. Unfortunately, available funding is insufficient to meet both demand and existing opportunities. Canada needs to be flexible and innovative in its approach to developing international research collaborations.

***The University of Manitoba recommends that the government of Canada, as part of its international education strategy, create a global research fund that would support student and faculty in international research collaboration.***

## **Conclusion**

The University of Manitoba appreciates the government's on-going investments in university infrastructure and research. It is clear that the government understands the critical role that university education and research play in the enrichment and growth of our nation and its economy. These efforts must not only be sustained, but must also be enhanced if Canada is to improve its long-term global competitiveness.

We thank the Committee for considering our recommendation for the 2012 federal budget.