



CIHR IRSC

Commercialization

CIHR Commercialization Strategy

CIHR's strategy for commercialization and innovation rests on the following principles:

Research – Make strategic investments in targeted research to realize the promise of discoveries reached through basic research.

Talent – Build a talented pool of commercialization professionals, people with a combination of entrepreneurial drive, research know-how and management expertise.

Capital – Stimulate investment in this high-risk sector by helping clarify the commercial potential of early stage technologies.

Linkages – Facilitate interactions and partnerships with the private sector, finance and health research communities at all stages of the innovation pipeline.

The Canadian Institutes of Health Research (CIHR) is the Government of Canada's agency for health research. The Government of Canada, through CIHR's dynamic and innovative commercialization strategy, invested \$12.6 million in 2006-07 in helping researchers take their discoveries a step closer to market.

The Innovation Index

- In 2005, there were 532 biotechnology companies in Canada.
- Revenues in the biotechnology sector for 2005 accounted for \$4.2 billion.
- Canada's biotech industry accounted for over \$800 million in exports in 2005 and employed 75,488 people in 2003.
- In 2006, there were almost 500 biopharmaceutical products in the pipeline, the majority at the research and pre-clinical phase.
- Venture capitalists invested \$493 million in the life sciences sector in 2006.
- The average size of investment deal increased slightly to \$6.3 million in 2006.

Investing in Success

A better sense of sole and balance in later life

Falls are the most common cause of injuries among seniors. CIHR-supported researcher Dr. Stephen Perry of Wilfred Laurier University has developed The Sole Sensor insole, an inexpensive but highly effective tool for increasing balance. Thousands of pressure sensors on the soles of our feet provide information that helps us to balance our body weight. But as we age, we lose sole sensitivity. The Sole Sensor is like eye glasses for the feet, it improves the sole's sensory perception. Dr. Perry licensed the product to Mississauga-based Hart Mobility which is expected to be available for sale in 2007.



About CIHR

The Canadian Institutes of Health Research (CIHR) is the Government of Canada's agency for health research. CIHR's mission is to create new scientific knowledge and to catalyze its translation into improved health, more effective health services and products, and a strengthened Canadian health-care system.

Composed of 13 Institutes, CIHR provides leadership and support to more than 11,000 health researchers and trainees across Canada.

Canadian company – Best of class

Toronto-based **Amorfix Life Sciences Ltd.** was nominated as a *Technology Pioneer 2007* by the World Economic Forum, the only Canadian company, of a total of 47 nominees, selected for this year's award. The company also cracked the Top 50 list of companies on the TSX Venture Exchange for 2006. Amorfix builds on the CIHR-funded discoveries of Dr. Neil Cashman of the University of British Columbia and Dr. Marty Lehto of the University of Toronto that will help to diagnose and treat neurodegenerative diseases such as Alzheimer's.

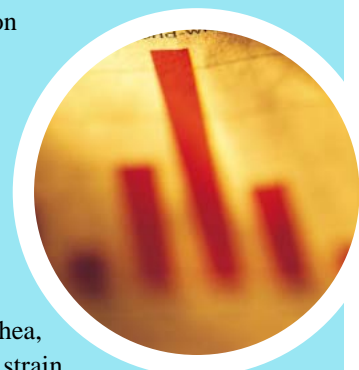
And nothing but the beef

A vaccine that fights *E. coli* in cattle has been authorized for use in Canada by the Canadian Food Inspection Agency. The vaccine was developed by Dr. Brett Finlay of the University of British Columbia and Dr. Andy Potter of the University of Saskatchewan and commercialized by **Bioniche Life Science, Inc.** of London, Ontario. By preventing *E. coli* in cattle, the vaccine will also prevent its transmission to humans through meat products.

Investing in New Companies

The Proof of Principle (POP) program provides funding to help bridge the growing gap between academic research and the point where seed investors enter the picture. Funding is available in two phases, POP I for early-stage projects and POP II for more advanced projects. Since 2001, more than 200 projects have been funded. Of the projects that have matured sufficiently to be evaluated, approximately 100 projects, 69 resulted in new patents being funded, 29 had intellectual property licensed to a company and 17 had intellectual property that was licensed to Canadian spin-off companies. In several cases, POP recipients have founded more than one company. Some current and recent projects are listed below.

- Dr. Andrew Macnab of the University of British Columbia, received POP funding to test a pain-free and non-invasive approach for diagnosing urinary problems, using near-infrared light instead of catheterization. Success in these early tests helped pave the way for more extensive clinical testing in Canada and the U.S. Vancouver-based Urodynamix has licensed the technology. The company is also exploring new applications for the technology, such as monitoring for excessive pressure on organs among patients in hospital intensive care units, a condition known as Abdominal Compartment Syndrome.
- Dr. David Heinrichs of the University of Western Ontario, is using POP funding to meet the urgent demand for new antibiotics that can combat powerful new hospital superbugs such as *Staphylococcus aureus*. Through previous research, Dr. Heinrichs' lab has identified how this bacterium collects iron, a nutrient critical for its survival. The team is now working on finding the best way to disrupt this process and, eventually, plans to work with an industry partner to evaluate the approach in clinical trials.
- Reoviruses can cause a wide range of respiratory and gastrointestinal problems, everything from diarrhea, to colds and pneumonia. Dr. Randal Johnston of the University of Calgary has developed a weakened strain of the virus which has shown potential for fighting cancer. Using POP funding, Dr. Johnston will be able to further test this virus and generate the type of data necessary to be able to evaluate the commercial potential of developing the virus into a new anti-cancer drug.



Investing in Capacity

CIHR is creating the tools and programs that will help build successful commercialization and knowledge translation activities within Canada's health research community.

CIHR's Commercialization Management Grants (CMG) program helps address the need for talented business professionals among university and hospital technology transfer offices. Through two CMG competitions, 11 candidates were hired within a one year period. Six of the seven Masters of Business Administration graduates who completed their one-year placements in 2006-07 were retained by university and hospital technology transfer offices.

CIHR's Science to Business (S²B) program is now into its third round of funding. The S²B program provides grants to help business schools recruit talented PhD graduates with training in health research into health-oriented Masters of Business Administration (MBA) programs. Currently, the program is in effect in business schools in B.C., Ontario and Saskatchewan.

