



CIHR IRSC

Canadian Institutes of Health Research
Instituts de recherche en santé du Canada



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of Health Research

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en santé du Canada

Canada



"CIHR-funded research will likely hatch the next wave of biotech companies and help commercialize university research."

Globe and Mail editorial, November 2005

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CIHR - Catalyst for Commercialization

Canada faces tough questions about its role in the changing global economy. In this new economy, competitiveness and productivity are determined by how effectively and how rapidly nations can translate emerging knowledge into new and innovative products, policies and services.

Health-care innovations, fuelled by research, have significant economic potential for Canada.

The Canadian Institutes of Health Research (CIHR) is creating the tools and programs that will help build successful commercialization activities within Canada's health research community. Our goal is to help create the environment, the talent and the programs necessary for Canada to reap the economic benefits of health research: high-quality jobs; internationally-competitive biotechnology firms; increased direct foreign investment and increased productivity.

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.

CIHR at a glance

- Provides support to more than **9,000 researchers** across Canada annually
- **\$705 million** in research funding, 2004-2005
- **249 research institutions** supported in Canada
- Rigorous peer-review system - more than **2,300 expert reviewers** participate each year
- **13 research institutes**, each led by a Scientific Director, networked with colleagues across Canada and around the world.
- **160 partnerships** - includes industry, voluntary sector, other levels of government and international partners
- Since 2000, CIHR has contributed **\$35 million** to over **\$55 million** in commercialization activities

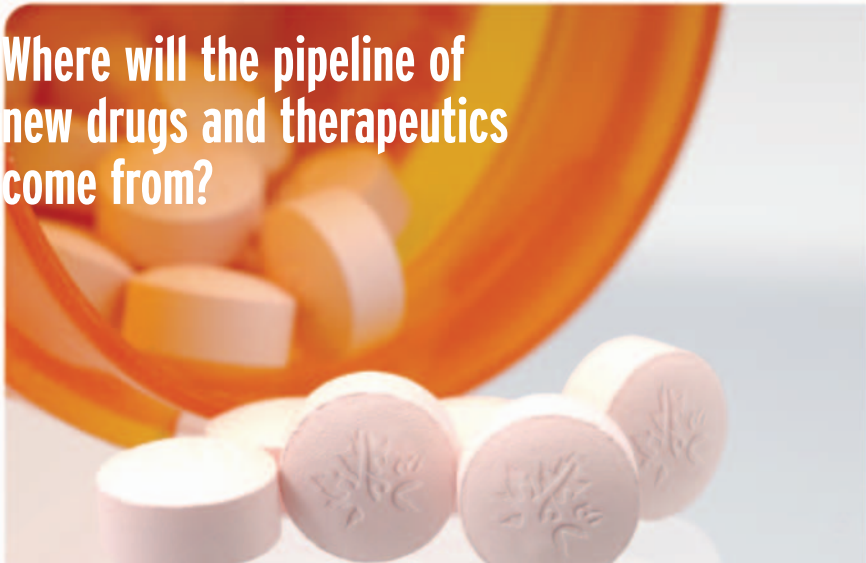
RESEARCH - Moving from “LOOKS PROMISING” to “IT WORKS”

Case Study - Drug Development Network for Chemical Biology

Where will the pipeline of new drugs and therapeutics come from? What niche will Canada fill in the field of drug development? Canada's chances for success depend on making the best possible use of key infrastructure required for drug discovery, such as chemical libraries and high-throughput screening facilities. In 2004-2005 CIHR invested in a new Network for Chemical Biology. This Network will help increase the size of these libraries and make them available to researchers across the country and around the world.

“CIHR is putting significant resources into helping catalyze commercialization in the field of health research. A key component of this strategy involves building the research capacity necessary to quantify, test and explore the potential market applications of discoveries reached through basic research.”

Dr. Alan Bernstein, CIHR President



Where will the pipeline of new drugs and therapeutics come from?

Why is it that despite hearing about these great breakthroughs we can't seem to get the same number of effective treatments? What we lack are the means to ensure that what we learn from research is developed into marketable products.

Research is the foundation of every innovative and high-growth economy in today's world. Countries that invest in R&D are more prosperous and more innovative. The key is investing wisely in strategic research areas with commercial potential.

Canada also needs an expanded interdisciplinary research community to seize opportunities arising from the rapidly converging nature of health research. Programs such as the Collaborative Health Research Projects program, a partnership between CIHR and the Natural Sciences and Engineering Research Council of Canada (NSERC), encourage novel research relationships that combine the strengths of different disciplines and help build this community.

Boosting SME Research Capacity

Research is critical in improving productivity and staying ahead of the competition. As part of the CIHR/SME Research program, Montreal-based Alethia BioTherapeutics has partnered with a research team at the Centre hospitalier de l'Université de Montréal to develop new treatments for ovarian cancer.

TALENT - Investing in Intelligence



CIHR programs are providing a comprehensive training environment

Researchers need to understand the market potential of their discoveries as well as the challenges of building and launching a successful product or service.

We need more leaders who grasp the commercial opportunities through health research and understand the realities of the boardroom.

CIHR programs are providing a comprehensive training environment for the next generation of

researchers and business development professionals involved with health research.

New programs will stimulate a more entrepreneurial culture within the research community and will assist researchers interested in developing their discoveries. These programs are also helping build management skills and expertise necessary for improved technology transfer. Initiatives such as the Commercialization Management Grants and the tri-agency Intellectual Property Mobilization programs are focused on supporting the needs of technology transfer offices of universities and hospitals.

Not Your Ordinary Poster Session

CIHR is using its partnerships with organizations such as BioContact to reach promising young researchers interested in exploring the commercial potential of their ideas. But it takes more than just good science to win an award at the CIHR-sponsored poster session. Winners must effectively demonstrate how the underlying science of their discoveries translates into commercial benefits.

Case Study - Addressing the Business of Science

CIHR's Science to Business (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. "Science is transforming the way we think about what is possible in health care. To truly take advantage of the commercial potential of this transformation, we need people with strong skills in business and science," says Carol Stephenson, Dean, Ivey School of Business, University of Western Ontario.

"There is an incredible lack of understanding of commercialization in the life sciences. Requirements are different in our sector, including the need for a high level of capital and the long product development cycle. CIHR's S²B program will develop a pool of leaders who are better equipped to contribute to the entrepreneurship process."

Bertrand Bolduc, Mistral Pharma,
President and CEO, BIOQuébec President

CAPITAL – Maximizing the Opportunity

Case Study - Proof of Principle (POP)

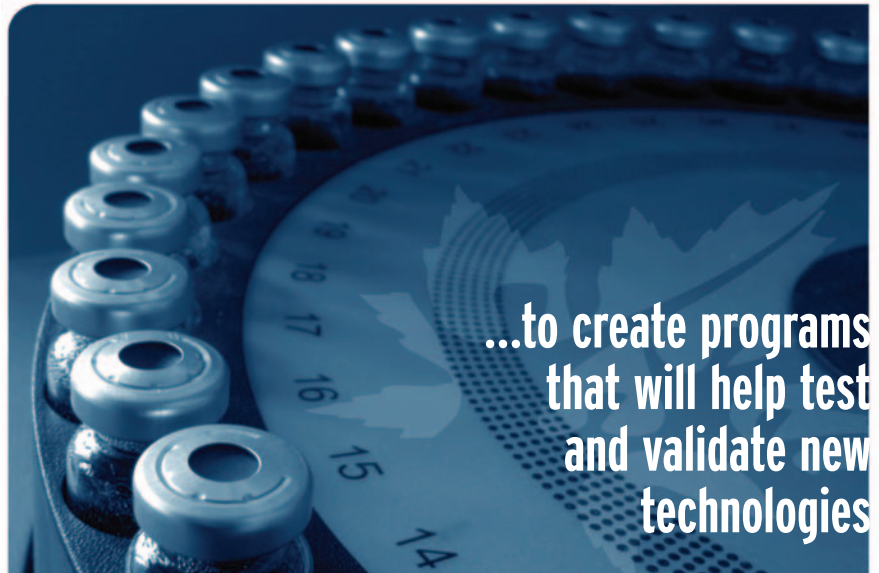
Toronto-based Amorfix Life Sciences Ltd. (listed on TSE) is working on an assay kit to screen human blood supplies to detect prion-based diseases, such as variant Creutzfeldt-Jakob Disease. "Funding from the POP program helped demonstrate this technology could be put into practice and had commercial potential," says Amorfix's Chief Scientific Officer and co-founder Dr. Neil Cashman.

"To the venture capital community, CIHR Proof of Principle funding is a major endorsement and a sign that investors should pay attention. POP projects have gone through substantial scrutiny and the technologies are much the better for it."

Kelly Holman, Managing Director,
Genesys Capital Partners Inc.

POP by the Numbers

- 164 projects funded through Proof of Principle program since 2001 - \$18.4 million
- In first three years of Proof of Principle funding: 11 companies created



Is capital invested in areas of highest impact? Do we really understand the potential for this technology? What is the market need and receptor capacity?

In recent years, hundreds of small biotech companies have been created in Canada, many built on narrow technology platforms. This is partly the product of a system which encouraged the premature entry of technologies into the market.

Too often, there is only a limited amount of capital available for such early-stage firms. CIHR, by facilitating partnerships and networks and exploring new models for commercialization will encourage greater investment activity in health research.

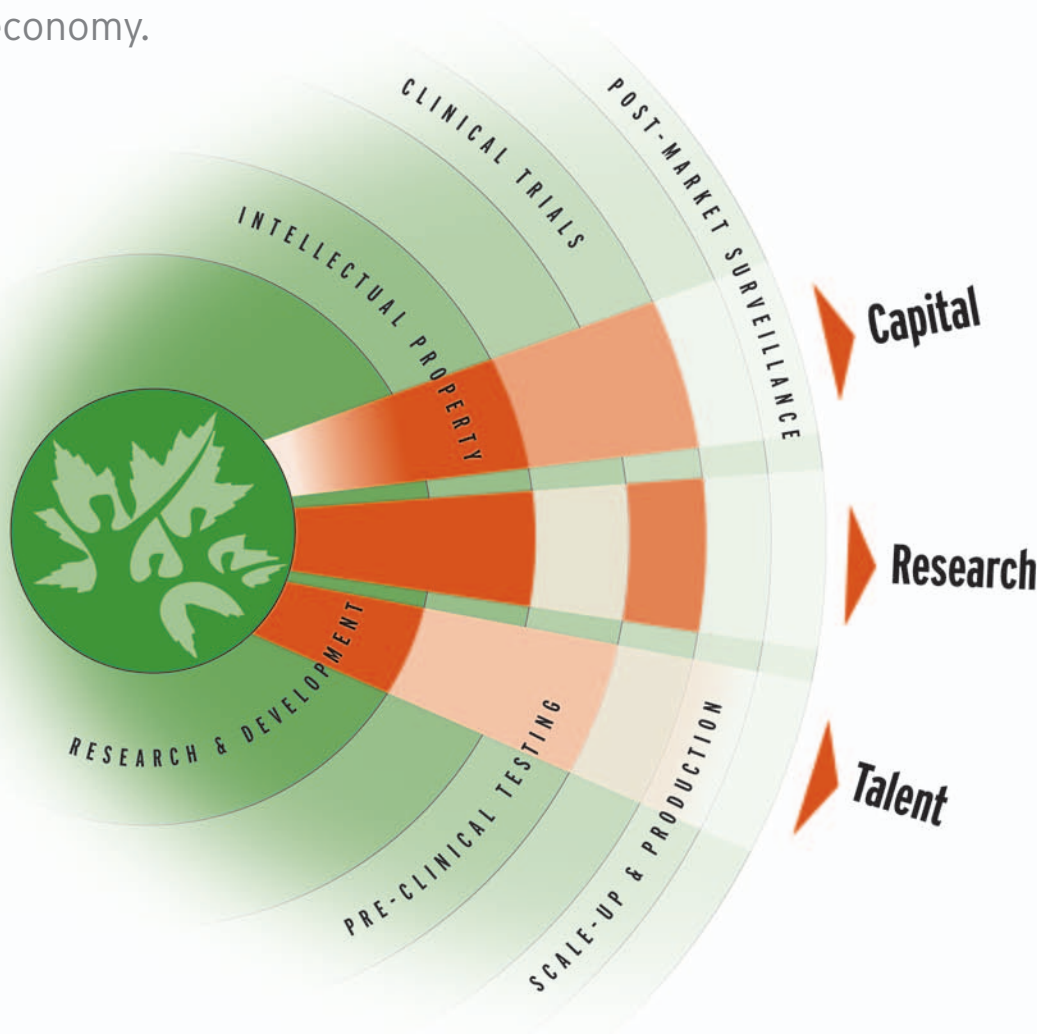
CIHR is working in consultation with investment community leaders to create programs such as the Proof of Principle program that will help test and validate new technologies prior to launching a new venture.

Building Bridges in the Life Science Sector

CIHR is an active member of Canada's life sciences sector and a participant at investment-related events held within the sector. Activities such as these are critical in helping bridge interests from the research and investment communities.

Participation of **CIHR** in Commercial Health Discoveries

CIHR's programs transform today's discoveries into tomorrow's health-care solutions. They encourage the development of new therapies that save lives, reduce the economic burden of disease and contribute to Canada's health economy.



CIHR PROGRAMS

- Collaborative Health Research Projects (CHRP) Program
- Commercialization Management Grants (CMG) Program
- Drug Development Initiatives
- Intellectual Property Mobilization (IPM) Program
- Proof of Principle (POP) Program
- Randomized Controlled Trials Mentoring Program
- Science to Business (S²B) Program

CIHR Involvement





CIHR - Where Innovation Takes Flight

In the 21st century, health research and innovation will be central to Canada's future. Optimizing investments in health research is key to improving the health of Canadians, building sustainable, evidence-based, leading-edge health care and public health systems, and developing the transformative new technologies of tomorrow.

Commercialization and innovation have a major role to play in making Canada a leader in health research and its translation, and to be the 'partner of choice' for others looking to establish and/or expand their R&D programs.