

RESULTS

The Canada Foundation for Innovation (CFI) is an independent corporation created by the Government of Canada to fund research infrastructure. The CFI's mandate is to strengthen the capacity of Canadian universities, colleges, research hospitals, and non-profit research institutions to carry out world-class research and technology development that benefits Canadians.

THROUGH INNOVATION



Canada Foundation for Innovation
Fondation canadienne pour l'innovation

2004 – 2005 ANNUAL REPORT

THE WINDSOR STAR

Scientists find lily plant compound kills cancer cells, spare healthy tissue

By Elisabeth Johns

WINDSOR – A University of Windsor biochemistry professor has found that a compound discovered two decades ago has an unexpected ability to kill cancer cells while sparing healthy tissue.

Siyaram Pandey's research that pancratistatin (PST) – a compound found in a spider lily plant native to Hawaii – could be effective in the treatment of cancer has been hailed as an "exciting and important finding" by medical reviewers. ...

They're trying to figure out why PST kills only cancer cells.

Researchers speculate cancer cells "might be making a protein very specific in the mitochondria, which is targeted by PST," Mr. Pandey said. ...

"Very few people have looked at the mitochondria to kill the cancer cells. Everything else targets the DNA of the cells. Chemo kills the skin cells, which is why (patients) lose their hair. It also kills blood cells, which is why cancer patients are very susceptible to illness. We hope all those things will be eliminated."

Excerpt from an article published on December 21, 2004.

LEADER-POST

Urban aboriginal atlas to aid planners

REGINA — Community and First Nations agencies have a new resource at their fingertips that will enable them to plan service delivery in the future.

University of Saskatchewan geography professor Evelyn Peters, with the assistance of doctoral student Oksana Starchenko, has designed a new online Atlas of Urban Aboriginal Peoples.

"More aboriginal people are moving into the middle class," said Peters, noting that while many aboriginal people continue to live in poor areas of major cities, as their income rises they spread out into more affluent areas.

As of the 2001 national census, about half of Canada's native population were urban dwellers. About one in 10 citizens in Regina and Saskatoon are aboriginal.

"If we think of aboriginal people living everywhere, we don't think of

social challenges as 'aboriginal issues,'" she said. ...

Areas of poverty and areas where aboriginal people live in Saskatoon are not like the large American ghettos, and it isn't helpful to use language that suggests they are, Peters said in a prepared statement. ...

"... the real challenge is to find out what is going on with aboriginal people in Canadian cities, and not assume that we know by analogy with the U.S. situation. We need a made-in-Saskatchewan, made-on-the-Prairies perspective."

The development of the online atlas, which was funded by the Canada Foundation for Innovation and the provincial innovation and science fund, is the culmination of three years of crunching numbers from the 1971, 1981 and 2001 Statistics Canada Census. ...

Excerpt from an article published on January 5, 2005.

La Tribune

L'U de S et Bishop's innovent encore; le premier bac au Canada en imagerie et médias numériques répond aux exigences du marché

Par Gilles Fiset

Depuis le mois de septembre, l'Université de Sherbrooke et l'Université Bishop's forment des étudiants qui deviendront les premiers diplômés au Canada en imagerie et médias numériques.

Ces jeunes n'auront aucune misère à se trouver un emploi dans cette industrie en pleine expansion, n'importe où dans le monde, pouvaient même témoigner deux représentants de la compagnie Softimage, tant la formation reçue, ont-ils ajouté, correspond aux besoins des entreprises. [...]

Pour la première fois au Canada, a expliqué à cette occasion le doyen de la faculté, Jean Goulet, un tel baccalauréat est offert et, qui mieux est, il l'est par les deux universités de Sherbrooke. [...]

Après leur bac, les étudiants auront le loisir d'entrer sur le marché du travail ou de poursuivre des études aux cycles supérieurs afin de se spécialiser en vision artificielle, en infographie, en synthèse et traitement d'images, en recherche d'informations pour le contenu, en reconnaissance de formes, en télédétection, etc.

Comme l'a expliqué le recteur Bruno-Marie Béchar, « la Fondation canadienne pour l'innovation avait identifié en 2001 l'imagerie comme l'un des huit domaines les plus prometteurs en vue d'accroître la capacité d'innovation au Canada. L'Université de Sherbrooke a donc innové une fois de plus en mettant au point une formation originale adaptée à la demande de la recherche et du marché du travail ». [...]

Extrait d'un article paru le 26 novembre 2004.

LA PRESSE

Bateau-Labo

Par Lilianne Lacroix

[...] En septembre 2003, après une grande cure de rajeunissement et après qu'on l'eut équipé d'appareils sophistiqués lui permettant de devenir un des instruments les plus modernes de la recherche océanographique internationale, le brise-glace, immense canard boiteux devenu cygne et maintenant rebaptisé NGCC Amundsen, partait glorieusement pour sa première mission dans le Grand Nord [...].

Sa première mission: CASES dans l'Arctique de l'Ouest, sorte d'examen général de l'état

de cet écosystème encore méconnu. Le but : découvrir notamment à quel rythme se produit le réchauffement, quels sont ses impacts, comment les anticiper...

Le professeur et biologiste Louis Fortier, de l'Université Laval, est directeur scientifique d'ArticNet, qui regroupe les meilleures équipes de recherche universitaire arctique non seulement du Canada mais des États-Unis, du Japon, du Danemark, de la Pologne, de la Suède, de la Norvège, du Royaume-Uni, de l'Espagne et de la Belgique. L'Amundsen constitue pour lui la concrétisation d'un rêve. « On fait de la géologie, un peu de sismique, des opérations océanographiques dans la colonne d'eau et du carottage de fonds marins pour prélever les sédiments. L'Amundsen constitue la plateforme de recherche océanographique la plus

polyvalente et la mieux équipée au monde », explique Louis Fortier. [...]

Déjà les chercheurs ont su arracher quelques secrets précieux de cette mare incognita : « On pensait que la banquise hivernale était tout à fait étanche aux gaz à effet de serre, mais elle en absorbe beaucoup, ce qui lui permet de ralentir un peu le processus de réchauffement et de contribuer au nettoyage de l'atmosphère, explique le professeur Fortier. On croyait aussi que, durant les longs mois d'hiver, la vie était figée, en hibernation. Mais malgré la froidure et la noirceur, le zooplancton est extrêmement actif et la morue arctique continue non seulement à manger, mais elle en profite pour se reproduire. » [...]

Extrait d'un article paru le 25 novembre 2004.

The Chronicle Herald

LIDAR to be tested in Valley; Multiple applications possible with new laser technology

By Gordon Delaney

MIDDLETON — The Annapolis Valley will become a living laboratory for scientists using new laser technology from aircraft. Scientists at the Nova Scotia Community College's applied geomatics research group will be able to map flood areas, monitor climate changes, measure forest growth, help farmers pinpoint the best areas to plant crops and assist planners in finding the best locations for development.

They will be able to examine the undergrowth in forests and even measure the size and shape of power lines.

With a \$2-million grant from the Canada Foundation for Innovation, the applied geomatics research group, located at the Lawrencetown and Middleton campuses, has bought a light detection and ranging system, known by scientists as LIDAR.

The \$1.3-million system is the latest in high-resolution technology for measuring and mapping the Earth's surface. The system is one of only a handful in the world: there are two at universities in the U.S. and two in Europe. ...

From the plane, the laser sends out a continuous beam of light that is chopped into smaller pulses. It can take up to 100,000 measurements per second of positions on the ground.

It can generate extremely high-resolution topical maps and penetrate the forests and trees to actually measure the growth underneath. ...

Excerpt from an article published on April 4, 2005.

EDMONTON JOURNAL

Edmonton building permits soar 28 per cent in record Canadian year: Residential, University of Alberta activity lead the way

By Irwin Block

EDMONTON—Edmonton building permits rose 28.4 per cent to \$1.38 billion in 2004—a year that set records across Canada.

“It exceeded all expectations, especially in residential,” said Jong Huang, the city's chief economist.

Residential permits were up 20.3 per cent to \$834 million.

Industrial permits rose 55.9 per cent, to \$78 million while commercial permits rose 45.6 per cent to \$364 million. Institutional permits were up 27.4 per cent to \$96 million.

The reason is obvious: “Energy prices, activity in the north, and the economy,” says architect Donna Clare, of the busy Cohos Evamy partnership.

She also credits funding from the Canada Foundation for Innovation, which has stimulated activity at the University of Alberta.

Projects on the crane-cluttered campus add to the total numbers because they don't require city building permits.

The \$65 million Natural Resources Engineering Facility recently opened. The \$165 million Health Research Innovation Facility and the \$52 million National Institute for Nanotechnology both are under construction. So are three smaller U of A projects, totaling \$40 million. A \$450 million Health Sciences Learning Centre still is being planned. ...

Excerpt from an article published on February 8, 2005.

CFI OVERVIEW



MISSION AND MANDATE

The Canada Foundation for Innovation (CFI) is an independent corporation created by the Government of Canada to fund research infrastructure. The CFI's mandate is to strengthen the capacity of Canadian universities, colleges, research hospitals, and non-profit research institutions to carry out world-class research and technology development that benefits Canadians.

WHAT IS RESEARCH INFRASTRUCTURE?

Research infrastructure consists of the state-of-the-art equipment, buildings, laboratories, and databases required to conduct research.

BUDGET AND FUNDING FORMULA

Since it was created in 1997, the CFI has been entrusted with \$3.65 billion by the Government of Canada. The CFI funds up to 40 percent of a project's infrastructure costs. These funds are invested in partnership with eligible institutions and their funding partners from the public, private, and voluntary sectors who provide the remainder. Based on this formula, the total capital investment by the CFI, the research institutions, and their partners will exceed \$11 billion by 2010.

BENEFITS OF SUPPORTING RESEARCH

Support from the CFI enables institutions to set their own research priorities in response to areas of importance to Canada. This allows researchers to compete with the best from around the world, and helps to position Canada in the global, knowledge-based economy. CFI support is intended to:

- strengthen Canada's capacity for innovation;
- attract and retain highly skilled research personnel in Canada;
- stimulate the training of young Canadians through research;
- promote networking, collaboration, and multidisciplinary among researchers;
- ensure the optimal use of research infrastructure within and among Canadian institutions.

The research enabled by CFI support is also creating the necessary conditions for sustainable, long-term economic growth—including the creation of spin-off ventures and the commercialization of discoveries.



Canada Foundation for Innovation
Fondation canadienne pour l'innovation

230 Queen Street, Suite 450, Ottawa ON K1P 5E4

☎ 613.947.6496

☎ 613.943.0923

Corporate Website:

www.Innovation.ca

Online Magazine:

www.InnovationCanada.ca

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MESSAGE FROM THE CHAIR

“ We are creating an environment in which innovation can flourish, ensuring that ingenuity and talent result in tangible benefits in areas that matter to Canadians.”



We are living in times of unprecedented change—re inventing institutions, revolutionizing ideas, and creating innovation that improves our quality of life.

As Canadians boldly embrace the rewards and challenges of the global knowledge society, we agree on the importance of science and university research to ensure our prosperity and enviable quality of life in the 21st century. In fact, a 2004 EKOS research poll shows that nine out of 10 Canadians recognize the power of science and research to improve economic prospects, retain talented people in Canada, and develop a skilled and adaptable workforce. It also reveals that Canadians strongly believe in science and research to ensure a better health care system, the safety of our food supply, and protection of the environment.

Renewed public interest in science follows the transformation that swept research institutions across the country in the eight years since the federal government created the Canada Foundation for Innovation (CFI). Along with the federal funding agencies, provincial and municipal governments, and the private and volunteer sectors, we are creating an environment in which innovation can flourish, ensuring that ingenuity and talent result in tangible benefits in areas that matter to Canadians. We have also nurtured a national culture of openness, transparency, and recognition of the tremendous contribution of research to society.

The positive response of the public to the investment in research underscores the importance of sustaining the national effort that has empowered our universities and research institutions to attract and retain the best researchers, and to provide a world-class training environment for young Canadians. More than 3,000 new faculty members recruited at universities in 2003–2004 credited the availability of state-of-the-art research infrastructure as a major factor in their decision to accept the position. In the last year alone, 29,000 graduate students and trainees made use of CFI-funded infrastructure to enhance their training for research and other careers.

Advancing Canada’s research and innovation agenda is the result of the hard work and dedication of many people. I would like to take this opportunity to thank the Board of Directors and Members whose experience and wisdom guides the CFI through these exciting times.

Finally, I want to express my sincere thanks to Dr. Eliot Phillipson, who joined the CFI as President and CEO in July 2004, and to our superb staff whose commitment and professionalism are essential to the CFI’s continued success in empowering our country’s research institutions to create a more innovative society.

A handwritten signature in black ink that reads "John R. Evans". The signature is written in a cursive, flowing style.

John R. Evans

MESSAGE FROM THE PRESIDENT AND CEO

“The full creative potential of research institutions, as well as that of their faculty and students, has been unleashed to undertake research programs that they could only dream about previously.”



The Canada Foundation for Innovation (CFI) continues to represent one of Canada's great success stories in terms of public investment in research and technology development.

In July 2004, it was my privilege to join the CFI as President and CEO and to witness the profound impact of these investments. Since then, the CFI has been engaged in a wide-ranging consultation process with research institutions, academic and research funding organizations, governments, and industry. The intent of this process was to evaluate priorities in the context of today's evolving research and innovation environment, and to plan funding directions for the next three to five years.

The consultation process has been exhilarating, to say the least. It has provided a unique opportunity to see firsthand the transformative impact on Canada's research landscape exerted by the CFI's investments in state-of-the-art infrastructure. In particular, the full creative potential of research institutions, as well as that of their faculty and students, has been unleashed to undertake research programs that they could only dream about previously. The "brain drain" of the 1980s and early 1990s has been reversed, as Canadian institutions have been provided with the capacity to compete at the international level for the most gifted and promising investigators. CFI-funded infrastructure projects in 62 municipalities across Canada have contributed to the development of community-based technology clusters, and to the transfer of new knowledge and ideas to industry. Finally, the CFI's investments in research infrastructure have initiated a process that is bringing economic and social benefits to Canadians, the full impact of which will be felt in the next five to 10 years.

The consultation process has also identified a number of challenges for Canada's research and development enterprise that are relevant to the mandate of the CFI. Two themes are of immediate concern: first, the sustainability of research infrastructure, and second, the retention of world-class researchers. These two challenges have been addressed by recent changes to the CFI's suite of funding programs.

Beyond these immediate challenges, during the coming months the CFI will turn its attention to the longer-term issues in which it has an important role to play. Foremost among these is how we build on our strengths to ensure our international competitiveness in those domains in which Canada is, or has the potential to be, the world leader. Closely related is the challenge of commercialization—translating the knowledge and ideas being generated by the research enterprise into new products and services that will enhance prosperity and our quality of life.

These challenges are not unique to Canada. But given Canada's highly productive research enterprise, the enthusiasm and creativity of its research community, and the commitment of governments to the research and innovation agenda, I am confident that a uniquely Canadian solution to these challenges will be forthcoming. It is my intention that the CFI plays an appropriate role in this endeavour, and, in this context, I look forward to reporting on our progress during the coming years.

A handwritten signature in black ink, reading "Eliot A. Phillipson". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Eliot A. Phillipson



Not Skipping a Beat

THE HEART IS A TRICKY ORGAN TO OPERATE ON because surgeons must time delicate incisions between heartbeats. Usually, they must stop the heart, and put patients on life support.

But in a London, Ontario, operating room, that's not the case. The Canadian Surgical Technologies & Advanced Robotics (CSTAR) operating centre uses robotic surgical tools to make beating-heart operations possible. In 1999, CSTAR surgeons pioneered the world's first robotic, closed-chested, coronary artery bypass on a beating heart. The robotic tools anticipate the heart's movements so that surgeons don't have to.

Robot-assisted operations are less invasive, faster, and safer. CSTAR is also pioneering research into new robotic technologies including in-utero fetal surgery applications. CSTAR technology could allow surgeons to operate on patients in remote areas, even in outer space.

In 2004, CSTAR surgeons performed the first North American robotic cardiac bypass surgery combined with angioplasty and stenting. CSTAR technology allowed the procedures to be performed back to back, rather than days apart. This means less risk to the patient, less time in the hospital, and potentially shorter waiting lists.

And not only patients are benefiting. Medical students and surgeons from around the world can learn from CSTAR's live 3D broadcasts and videos of these ground-breaking surgeries.

IMPACT 
& **EFFECT**

Read more about innovative research at www.InnovationCanada.ca

YEAR IN REVIEW



A 2004 international poll conducted by the UK-based magazine, *The Scientist*, confirmed the critical role of research infrastructure to attract and retain the best talent. Published in November 2004, the poll ranked five Canadian universities among the world's most sought-after workplaces for researchers.

The success of the Canadian institutions is linked to the renewed funding by the federal government, the availability of world-class infrastructure, and the overall quality of life in Canadian cities. Researchers from all over the world consistently identified modern laboratory and research facilities for themselves and their co-workers as a determining factor in selecting the best places to work.

These results are significant, especially considering the consultation and planning that took place to determine how to best deliver the CFI mandate for the 2006–2010 period. There is a clear consensus among all players: access to state-of-the-art infrastructure has transformed the landscape for research and technology development in

Canada, and brought new possibilities and opportunities for researchers and students at institutions in every province. But a successful investment strategy in research infrastructure involves more than funding capital costs—it also includes the highly qualified personnel required to operate sophisticated equipment and manage facilities. And as technology evolves very quickly, it requires renewal or enhancement to maintain the sustainability of installations. Our ongoing challenge related to Canada's need for new and innovative research facilities is to sustain and enhance the CFI's existing investments in research infrastructure.

This was further validated in discussions with institutions and their partners, government officials, and funding agencies. These discussions focused on the needs, gaps, and challenges that should be addressed to ensure that researchers in every province have—and continue to have—access to the facilities they need to undertake leading-edge research and to train young Canadians for research and other careers in the knowledge economy.



The Best Places to Work in Academia

In a survey conducted by *The Scientist*, five Canadian universities topped the 2004 list of the best places to work in Canada and Europe. The University of Toronto was in first place, followed by the University of Alberta in second, Dalhousie University in fourth, McMaster University in seventh, and the University of British Columbia in ninth.

The survey was aimed at determining what scientists think about their universities and organizations. More than 1,450 scientists in the United States, Canada, and Europe took part in the web-based questionnaire. They were asked to rank their working conditions and environments by weighing 39 factors in eight different areas, and to indicate which factors were the most important to them.

“ We are reversing the brain drain. In years to come, the biographies of the Nobel laureates and other leading thinkers of our time will tell the stories of women and men from around the world who made Canada their home. They will tell the stories of brilliant young Canadians who stayed in Canada, or who returned to Canada, because Canada was a centre of intellectual ferment in the 21st century.”



The Right Honourable Paul Martin
Prime Minister of Canada

A NEW FUNDING STRUCTURE

In March 2005, the CFI Board of Directors adopted a new funding structure to respond to the evolving needs of Canada’s universities and research institutions, and to strengthen their positions as centres of research excellence and technology development. Sustainability, performance, merit, partnerships, benefits, and planning are the pillars of the new funding program. The new family of funds builds on what was accomplished in the first eight years through the previous funding structure. It also strengthens the ability of the CFI to target its remaining \$750 million investment budget in areas that offer the highest return and optimize existing infrastructure.

The new CFI program architecture, planned for 2006–2010, is the result of extensive discussions with the various stakeholders over the last year and is meant to address the changing environment as it relates to research infrastructure over the short to medium terms:

- With its focus on planning, the **Leaders Opportunity Fund** builds on the New Opportunities Fund, Canada Research Chairs Infrastructure Fund, and the Career Awards. It is designed to assist universities to attract excellent faculty to Canadian universities as well as retain the very best of today and tomorrow’s leading researchers for Canada.
- The **Leading Edge Fund** enables institutions to capitalize on already successful and productive activities supported by past CFI investments (through the Innovation Fund, the University Research Development Fund, the College Research Development Fund, and the International Funds) by

securing and enhancing further world-class research or technology development efforts, particularly in select areas of strategic priority where institutions have a competitive advantage.

- Adding value and promoting planning at the institutional level are essential components of the CFI funding strategy. The **New Initiatives Fund** supports new infrastructure initiatives in which the CFI has not previously invested and that enable institutions and their partners to develop and enhance their capacity in promising areas of research and technology development, as well as to improve their research competitiveness and international leadership.
- The **National Platforms Fund** provides generic research infrastructure, resources, services, and facilities that serve the needs of many research subjects and disciplines, and that require periodic reinvestments because of the nature of the technologies. The fund is established to deal first with high performance computing, and will consider other areas in the future.
- Ensuring the sustainability of existing infrastructure is a key objective of the CFI’s revamped funding program. The **Infrastructure Operating Fund** assists with the incremental operating and maintenance costs associated with projects funded by the CFI to maximize the efficient utilization of research infrastructure.
- We will continue to invest in research infrastructure through the **Research Hospital Fund** and the **International Joint Ventures Fund**.

2006–2010 Investments



“The lure of the Canada Research Chairs Program and CFI funding has facilitated the relocation of an entire research team from the UK to the University of Alberta.”

Dr. Gary Kachanoski
Vice-President (Research)
University of Alberta



COMMITTED AND PROJECTED AMOUNTS (\$M) 1998–2010

	1998–99	1999–00	2000–01	2001–02	2002–03	2003–04	
New Opportunities Fund	38	24	37	38	53	75	
University Research Development Fund	19	10	3	2	1	–	
Innovation Fund	143	225	356	590	–	453	
College Research Development Fund	–	7	9	–	–	–	
Canada Research Chairs Infrastructure Fund	–	–	5	54	35	43	
International Funds	–	–	–	–	165	–	
Career Awards	–	–	–	–	2	2	
Research Hospital Fund	–	–	–	–	–	–	
Exceptional Opportunities	–	–	–	–	–	7	
Infrastructure Operating Fund	–	–	–	182	16	158	
Allocated funds for 2006–2010 activities (Leading Edge Fund, New Initiatives Fund, National Platforms Fund, Leaders Opportunity Fund, and Infrastructure Operating Fund)	–	–	–	–	–	–	
Total (\$M)	200	266	410	866	272	738	

2004 ANALYSIS OF IMPACTS OF FUNDED PROJECTS

Important to the CFI is the gathering of data about its investments and reporting that information to Canadians. Institutions receiving CFI investments are required to submit an Annual Progress Report for all projects funded at their institution. The review and analysis of these reports confirm that the CFI programs have had a marked impact, and are meeting the objective to increase the capacity of Canada's universities and research institutions to undertake world-class research.

Among the highlights

- Almost 40 percent of the project leaders considered their infrastructure to be comparable to the best in the world, and an additional 50 percent considered it to be among the best in Canada.
- 56 percent said that CFI-funded infrastructure is enabling Canadian researchers to compete internationally.
- More than 20,000 researchers from academic institutions benefited from CFI projects, with an average of 22 academic users for each Innovation Fund project.

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	Total per fund (\$M)
	55	88	156				564
	–						35
	4						1,771
	–						16
	36	77	No additional funds				250
	–		35	No additional funds			200
	1	2					7
	67	433					500
	–						7
	17	27	No additional funds				400
	–	750					750
	180		1,568				4,500

- More than 80 percent of the project leaders were involved in international collaborations and felt that the infrastructure had helped foster 90 percent of these collaborations.
- CFI-supported infrastructure played a role in retaining more than 4,000 faculty members. The projects attracted more than 3,800 postdoctoral fellows, including almost 2,000 from other countries.
- More than 160 projects produced intellectual property with more than 270 instances of invention disclosures, patent applications, provisional patents, patents issued, licenses, and software copyrights.
- More than 40 project leaders credit their infrastructure with a significant role in launching a new spin-off company.



Canadians Support Research

In 2004, an EKOS Research national survey measured public views on science and research, and provided insight into how Canadians link scientific discoveries with overall quality of life.

The findings reveal that 86 percent of Canadians believe in the important role of science and research in areas such as health, food safety, and environmental protection. About 80 percent of Canadians recognize the significant contribution of science to improving Canada's economic prospects, keeping talented people in Canada, training a qualified and adaptable workforce, and improving business innovation and competitiveness. In fact, the majority of Canadians believe strongly in the advantages of an education and a career in science, with 77 percent who would recommend a career in science or a related field to their own child.

When it comes to supporting science and research, Canadians believe in sharing the costs among players. Results showed almost 90 percent of Canadians think that the federal government should be an equal partner

or play a lead role, and share the costs with other players like the provinces, the private sector, and universities. These results reinforce the CFI's strategy to fund up to 40 percent of the eligible project costs. By using this funding formula, the CFI's \$2.93 billion investment to date has generated almost \$7 billion for new research infrastructure and world-class facilities at 127 universities, research hospitals, colleges, and research institutions across Canada.

Canadians also want to know how science and research are changing their lives. According to the survey, 93 percent of Canadians are interested in hearing about new scientific discoveries, and more than 75 percent believe that investing in university research facilities is an effective way to advance Canada's research capacity. The CFI is providing Canadians with regular updates on how research improves their quality of life, through popular initiatives such as InnovationCanada.ca—the CFI's bi-monthly online magazine, with more than 400,000 hits to the website every month.

Research Benefits Canadians

Source: Association of Universities and Colleges of Canada



SIGNIFICANT BENEFITS FOR CANADIANS

- A highly qualified and adaptable workforce
- A competitive and innovative economy
- A healthy population and a sustainable health system
- A sustainable environment
- Thriving and safe communities
- A cohesive, diverse and inclusive society
- A vibrant culture and preserved heritage
- An informed and engaged citizenry
- Responsive and responsible government
- International influence and leadership

PROSPERITY & QUALITY OF LIFE



Logging On!

CANADA'S FOREST INDUSTRY DIRECTLY EMPLOYS 360,000 people in more than 300 communities across the country. The industry produces about \$66 billion of products annually and is the largest single contributor to Canada's international balance of trade.

Forintek Canada Corp. is Canada's national institute for solid wood products research. The organization supports industry and government through technical support and research directed at improving the global competitiveness of Canada's most important export industry.

The CT Imaging Centre has a unique industrial Computed Tomography scanner designed to non-destructively look inside logs. This facility, along with the new Sawmill Scanning Laboratory, is providing scientists and engineers with the tools required to develop

advanced industrial scanning systems that identify internal defects before logs are processed. This allows sawmills to produce the best possible quality lumber from every log and ensures that Canadian mills remain competitive in today's world of increased raw material costs and growing social and environmental pressures.

IMPACT 
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SHARING SUCCESSES WITH CANADIANS



With an overwhelming majority of Canadians interested in learning more about scientific discoveries, communications activities and active media relations are crucial to demonstrate to a wide public the relevance and tangible benefits of the research enabled by the CFI.

Initiatives such as InnovationCanada.ca—the CFI’s online magazine—help share the story of innovation with Canadians of all ages. Launched in 2002, it showcases Canadian research excellence and the creative minds that are at the forefront of today’s science. New features introduced in April 2004, including articles from popular guest writers such as Margaret Atwood, helped to significantly increase readership, with almost five million hits to the site in the 2004–2005 fiscal year.

Canada’s research achievements take root in institutions everywhere across the country. The CFI partnered with 55 institutions and 20 agencies from the public, private, and voluntary sectors to publish a 24-page insert in the *Maclean’s* magazine special *Leaders and Dreamers* issue on innovation. Entitled *Empowering Innovation*, the insert highlighted the achievements of Canadian innovators and the impact of their work and determination. The insert was also widely disseminated through a wide range of other communications products and channels. In total, *Empowering Innovation* reached an audience of approximately five million readers.

A half-hour television program featuring CFI-funded researchers was also an effective way to reach out to Canadians and bring the innovation story into their own home. The program aired several times across Canada as part of a series showcasing people and organizations

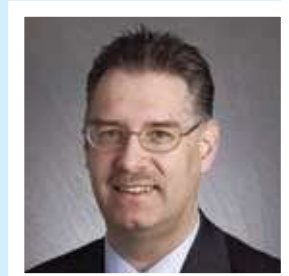
that contribute to the building of a stronger Canadian society. More than 300,000 people viewed this program.

With a particular strategic focus on communicating the benefits of research to youth and teachers, the CFI supported several initiatives in this regard, including the Aventis Biotech Challenge and the Youth Science Foundation Canada. The CFI continued to help disseminate the positive message of innovation, participating in the Euroscience Conference in Stockholm, and in the World Conference of Science Journalists in Montreal—two unique opportunities to promote Canadian ingenuity and achievement to influential policy makers and science writers from around the globe. The CFI was involved in 116 events at institutions across the country to celebrate research successes, and 346 stories related to CFI funding appeared in key print and broadcast media from coast to coast.

As part of its commitment to the highest standards of public accountability and transparency, the CFI provides government officials with regular updates about its activities and investments. Briefings to provincial and federal government officials, reports to the Minister of Industry, and submissions to various parliamentary committees help maintain an ongoing dialogue and demonstrate the openness of the CFI’s operations.

“The CFI is supporting and nurturing the scientific impulse in Canada’s youth. These initiatives are essential for our future and for the economic well-being of our country.”

Reni Barlow
Executive Director
Youth Science Foundation Canada





Eye on the Big Leagues

THE SCHOOL OF OPTOMETRY AT THE UNIVERSITY of Montreal is now playing in the big leagues. With its new private-sector partner Essilor, the world's largest manufacturer of corrective lenses, the University is looking at innovative ways of treating the 70,000 new cases of presbyopia that are diagnosed each year in Canada. Presbyopia causes difficulties in focusing on near objects.

How is the partnership making a difference? Using the Cave Automatic Virtual Environment, researchers are reconstructing reality as viewed through progressive lenses. As a result, it's now possible for them to recreate situations that are problematic for patients suffering from visual disorders in ways never before possible. Wearing interactive glasses and gloves, researchers perceive changes in the environment resulting from different lens designs and then determine how these might impact a person's ability to perform routine activities, such as getting on an escalator and maintaining one's balance. Researchers then study the behaviour in a danger-free

virtual environment and come up with the best possible remedy—without endangering the patients' lives.

So far, the foray into the big leagues is paying off—big time. The University has attracted researchers and investments from all over the world. More than a dozen research positions have been created since the beginning of the unique collaboration. And the research already shows results. Essilor launched a new line of corrective lenses which were tested by the School of Optometry. Researchers also captured the attention of other big players in the field. The University and a major U.S. firm are putting the final touches on a deal worth more than \$1 million. The collaboration will look at research on contact and intraocular lenses.

IMPACT 
&EFFECT

Read more about innovative research at www.InnovationCanada.ca

PRESERVING PUBLIC TRUST



ACCOUNTABILITY

Why the foundation model?

Operating as a foundation enables the CFI to carefully plan its investment with a medium- and long-term perspective, and ensures the timely implementation of research infrastructure projects. It also makes possible the design of innovative and flexible programs by encouraging universities and research institutions to identify their own research priorities and develop strategic plans.

A key feature of the CFI model is its built-in mechanism to ensure that funds are spent wisely and on projects that offer the highest return on investment. As an independent organization operating at arm's length from government, the CFI relies on experts in various fields to guide the funding process. Its independent merit review process, which involves world-class researchers, research administrators, and users of research results from Canada and abroad, ensures that only the very best projects get funded.

The CFI review process involves a rigorous and independent evaluation of each project's strengths and weaknesses against three criteria:

- Quality of research and need for infrastructure.
- Contribution to strengthening the capacity for innovation.
- Potential benefits of the research for Canada.

Investing wisely

To date, the CFI has committed \$2.93 billion in more than 4,000 innovative projects in 62 municipalities in all 10 provinces. Through its unique funding partnership, the CFI generally funds up to 40 percent of a project's infrastructure costs. These funds are invested in partnership with eligible institutions and their funding partners from the public, private, and voluntary sectors who provide the remainder. As a result, the combined investment in new state-of-the-art research infrastructure in Canada will exceed \$11 billion by 2010.

The CFI places paramount importance on operating in an economical, effective, and transparent manner. It has set in place an accountability structure that includes annual reporting to Parliament, accountability to the Minister of Industry, internal accountability mechanisms, accountability of award recipients, and accountability to the public.

In 2004, the CFI introduced another tool aimed at further assessing the results and impacts of infrastructure projects through site visits by experts. Piloted in the past year, these scientific audits assess whether projects are meeting their objectives in terms of research, training, and innovation capacity, and document outcomes in terms of social and economic benefits to Canada.

“The funds are and will be wisely invested, to benefit research, the health care system and Canadian students. The selection process for projects supported by the Canada Foundation for Innovation seems very rigorous, and taps into the expertise of many international experts.”

André Pratte
Editor-in-Chief, *La Presse*

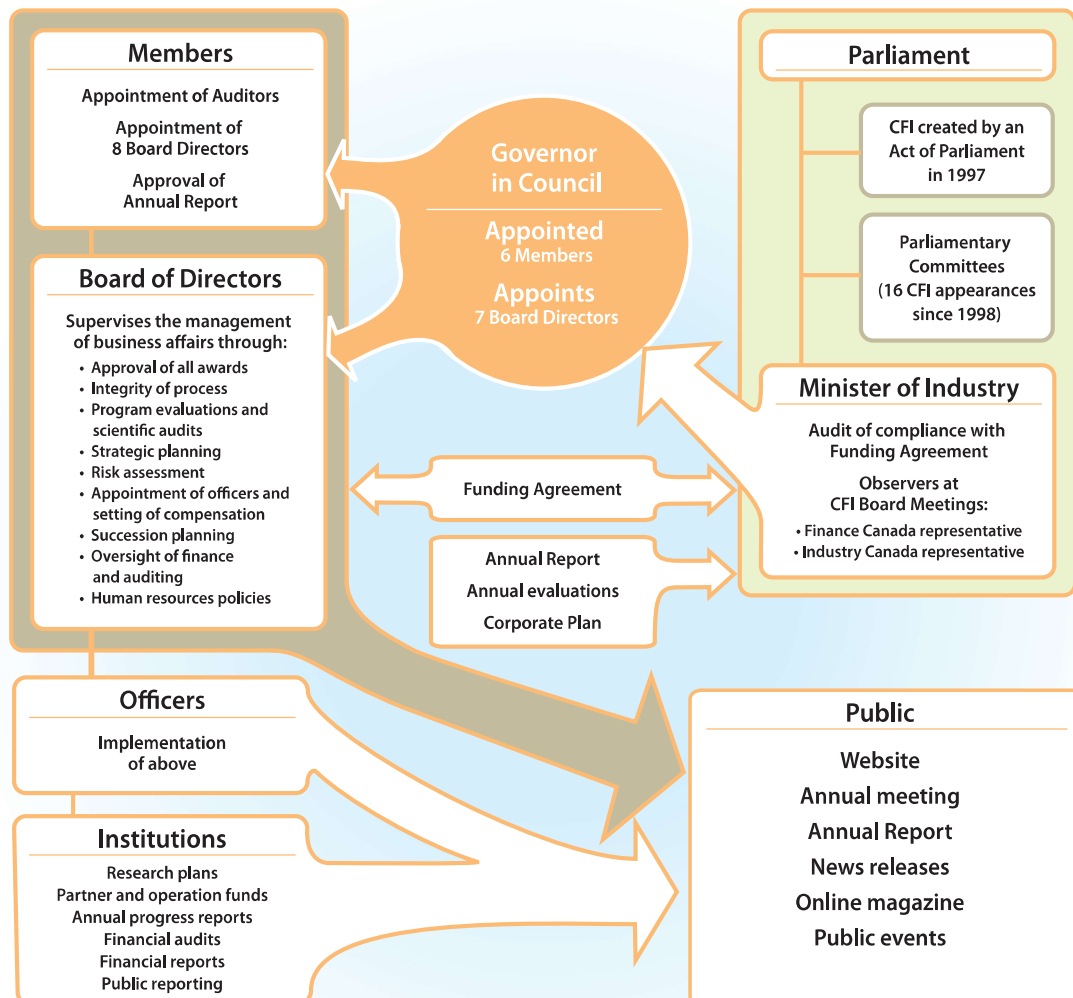
GOVERNANCE

The CFI was established as an independent, non-governmental organization with a Board of Directors that meets up to four times per year. An annual public meeting is also held each year and is widely publicized in newspapers across Canada.

Directors and Members are nominated, and then appointed for a three-year term for Directors, and for a five-year term for Members. To determine remuneration, the Board uses the guidelines established by the Government of Canada entitled, *Remuneration Guidelines for Part-Time Governor in Council Appointees*

in Crown Corporations. Directors who opt to receive remuneration from the CFI are entitled to an annual retainer of \$5,000, while committee chairs receive \$7,500. They are also entitled to receive a per-diem fee of \$750 for attending Board or committee meetings, and a \$500 fee for attending a committee meeting associated with a Board meeting. Members are not entitled to any remuneration. However, they may be reimbursed for any reasonable out-of-pocket expenses they incur while performing their duties or attending CFI meetings.

Governance and Accountability



Members

The Board of Directors reports to Members—a higher governing body similar to a company's shareholders, but representing the Canadian public. Members are responsible for the appointment of eight of the 15 Board Directors. They receive audited financial statements, appoint auditors, and approve the Annual Report at the annual meeting.

Angus A. Bruneau**

Chairman of the Board, Fortis Inc.; Chairman, Air Nova

Jim Friesen**

Professor, Banting and Best Chair, Department of Medical Research, University of Toronto

Gail Gabel*

President and CEO, Chairman of the Board, E.S.I. Environmental Sensors Inc.

Robert J. Giroux**

Past President and CEO, Association of Universities and Colleges of Canada

Jean-Paul Gourdeau*

(term began June 2003)
Past Chairman, École Polytechnique de Montréal

Arthur Hanson**

Distinguished Fellow and Senior Scientist, International Institute for Sustainable Development

Monique Lefebvre**

Corporate Director and Private Consultant

Judith Maxwell**

President, Canadian Policy Research Networks

Dee Parkinson-Marcoux**

Consultant and Strategic Advisor, Ensyn Petroleum Inc.

Martha Piper**

President and Vice-Chancellor, University of British Columbia

Donald J. Savoie*

Clément-Cormier Chair in Economic Development, Université de Moncton

Matt Spence**

Past President and CEO, Alberta Heritage Foundation for Medical Research

Ron Steer**

Professor and Head of Chemistry, Department of Chemistry, University of Saskatchewan

William G. Tholl*

Secretary General and CEO, Canadian Medical Association

* Serving first five-year term.

** Serving second five-year term.

“The Maritime Data Centre for Aging and Policy Research is well established now. Results of the research are informing policy development related to caregiving for the aging population at many levels.”

Dr. Anthony Davis
Associate Vice-President (Research)
Mount Saint Vincent University



Board of Directors

The Board of Directors is made up of 15 individuals—seven of whom are appointed by the Government of Canada—from a variety of backgrounds. Each Director has a unique perspective and understanding of the research world, and brings expertise from the private, institutional, academic, research, and government sectors. One Director is a representative from one of the federal funding agencies, on a rotational basis.

The Board of Directors makes final decisions on projects to be funded and sets strategic objectives in the context of the funding agreement with the federal government. It approves annual plans and objectives, and reviews the outcomes of these objectives each year. It regularly reviews issues from a risk-assessment perspective—determining what risks are acceptable and ensuring that appropriate mitigation steps are in place. As well, the Board sets the CFI's overall compensation policy, and specifically sets compensation for management.

John R. Evans, Chair***

Chair, Torstar Corporation

Michel Gervais, Vice-Chair**

Director General, Centre Hospitalier Robert-Giffard

Lorne A. Babiuk**

Director, Vaccine and Infectious Disease Organization, University of Saskatchewan

Alan Bernstein*

President, Canadian Institutes of Health Research

Aldée Cabana*

Corporate Board Director; Former Rector, University of Sherbrooke

Dian Cohen**

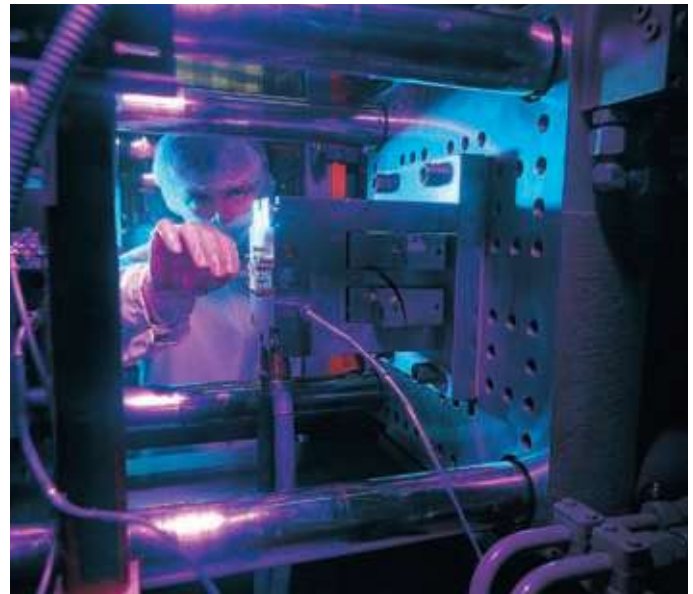
President, DC Productions Limited

Bernard Coupal**

President, Gestion T2C2/BIO Inc. and Gestion T2C2/INFO Inc.
(Transfert Technologies Commercialisation Capital)

David Dolphin*

Vice-President, Technology Development, QLT Inc.



Kevin O'Brien Fehr*

Director, R&D Alliances, GlaxoSmithKline Inc.

Monique Frize**

Professor, Faculty of Engineering, Carleton University/University of Ottawa

Robert A. Phillips**

President and CEO, Ontario Cancer Research Network

David Pink**

Professor, Physics Department, St. Francis Xavier University

Gerri Sinclair**

Chair, Telecom Review Panel, Government of Canada

Stella Thompson**

Principal, Governance West Inc.

Ronald Whelan*

Chairman, Archive Committee, Canadian Medical Association

** Serving first three-year term.*

*** Serving second three-year term.*

**** Serving third three-year term.*

Audit and Finance Committee

Robert A. Phillips, Chair
Lorne A. Babiuk
Aldée Cabana
John R. Evans
Kevin O'Brien Fehr

Governance and Nominating Committee

Dian Cohen, Chair
David Dolphin
John R. Evans
Michel Gervais
Gerri Sinclair
Stella Thompson

Compensation of Management

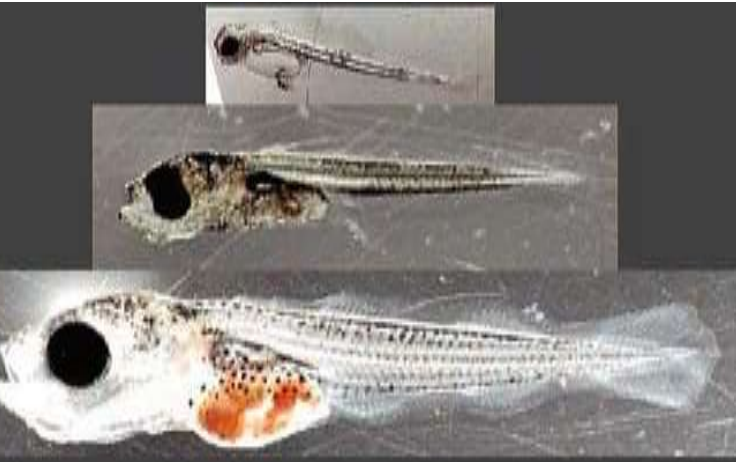
Compensation of CFI Management for the fiscal year ending March 31, 2005, was within the annual salary ranges listed below.

Eliot A. Phillipson
President and CEO \$180,000 to \$225,000
Carmen Charette
Senior Vice-President \$128,300 to \$175,200
Suzanne Corbeil
Vice-President, External Relations ... \$111,700 to \$146,700
Manon Harvey
Vice-President, Corporate Services .. \$111,700 to \$146,700

“Infrastructure awarded to Steven Jones and Marco Marra has allowed for the sequencing of the SARS Genome, which has garnered international attention. This has leveraged support for continuing this kind of research to several isolates of the Avian influenza virus, for example.”



Dr. Don Brooks
Associate Vice-President (Research)
University of British Columbia



Coddling a New Industry in Newfoundland

TRIPPLING PRODUCTION IN ONE YEAR WOULD BE A huge achievement for any industry. But it is especially important for the burgeoning cod farming industry in Newfoundland, where wild cod stocks have been decimated.

Joe Brown, a professor at Memorial University, is running the cod farming project at the Aquaculture Research and Development Facility near St. John's.

"Cod typically spawn once a year in nature," he says. "Now at our facility, we've got three spawning times." They have also improved survival for the hatchery phase from about 10 percent, to close to 30 percent by collaborating with a fish nutrition company.

These achievements have generated a lot of attention, especially among funding partners.

The project was initially funded by the Canada Foundation for Innovation, Memorial University, and federal and provincial governments. That funding has now been used to leverage an additional \$9 million.

Brown says commercial aquaculture requires a highly skilled workforce, and the facility has provided a "beautiful platform" to train graduate students, researchers, and technicians. So far, this platform has encouraged at least half a dozen scientists from outside the province and country to stay in Newfoundland after their training.

As worldwide cod farming approaches large-scale commercialization, Canada is well positioned to play a leading role. And as the industry develops, researchers expect pressure on wild cod stocks will ease.

IMPACT 
&EFFECT

Read more about innovative research at www.InnovationCanada.ca

LOOKING BACK AND AHEAD



OBJECTIVES AND RESULTS FOR 2004–2005

Key objectives in 2004–2005 were aimed at building on the momentum created by the significant investments made since 1997 in state-of-the-art infrastructure.

In a rapidly evolving research environment, the CFI found itself at a crossroads. It needed to examine its role to further enhance Canada's capacity in the broader context of the research enterprise while continuing to deliver its mandate, keeping in mind its organizational values: service-oriented, transformative, flexible, consultative, and accountable.

Objective: Provide state-of-the-art infrastructure in a changing environment

Results:

- Consulted extensively with stakeholders about how to address the changing environment as it relates to research infrastructure over the short to medium terms.
- Designed a new program architecture for the 2006–2010 period that recognizes the changing needs for research infrastructure.
- Held the first competition under the Research Hospital Fund and committed \$66.7 million for 13 large-scale projects at eight research hospitals across Canada in September 2004.
- With the three federal funding agencies and Genome Canada, designed a Call for Proposals for an International Joint Venture Project of up to \$35 million.
- With other Canadian organizations, secured initial approval on a proposal to the European Commission. Called "ERA-Can," the initiative enhances cross-Atlantic R&D collaboration between researchers, institutions, governments, and industry.

Objective: Enable research that benefits Canada

Results:

- Supported research infrastructure projects that encouraged collaborative linkages between institutions and other partners in Canadian society, and translation of research into benefits. According to CFI's 2004 Analysis of Impacts report:
 - more than 2,200 researchers from outside academia, in the private and public sectors, used CFI-funded infrastructure;
 - more than 40 project leaders credit the availability of infrastructure as having a significant role in the launch of their companies;
 - more than 270 instances of intellectual property production depended to some extent on CFI-supported infrastructure;
 - hundreds of examples demonstrate the role of research infrastructure in collaborative research projects contributing to policies and programs in environment, health, education, social development, and more.
- Brought together a *Working Group on Commercialization of Research Results* to identify possible approaches and activities for the CFI. Key proposals are being implemented in the context of the new funding programs.
- Collaborated with the Canadian Institutes of Health Research on the design of a joint approach for the support of a National/Regional Clinical Research Initiatives through the Research Hospital Fund to further support the translation of research into advances in clinical care, better health systems, and improved health for Canadians.
- To optimize the impact of research investments, the CFI—in designing the new funding structure—incorporated opportunities for joint application and review with other funding agencies, and also held discussions with provincial governments.

Objective: Attract and retain the very best

Results:

- Supported research infrastructure projects that attracted new researchers to Canadian institutions. More than 3,000 new faculty members joined a Canadian university in 2003–2004. Of these, 700 were from the U.S. and more than 500 were from other countries.
- 453 new researchers in 378 projects were awarded \$55.3 million to set up new facilities and equipment at 54 universities under the New Opportunities Fund.
- 243 Canada Research Chairs projects were awarded \$35.9 million for state-of-the-art infrastructure.
- Career Awards were made to six researchers for a total amount of \$1 million.
- Designed the Leaders Opportunity Fund to enable universities to continue to attract and retain excellent faculty in the face of intense international competition.
- With the funding agencies, evaluated the Canada Research Chairs Infrastructure Fund, in conjunction with the Canada Research Chairs Program. The evaluation concluded that infrastructure is critical to the success of the Canada Research Chairs Program.

Objective: Maximize infrastructure investment

Results:

- Committed \$17 million under the Infrastructure Operating Fund to assist with the operating and maintenance costs of projects funded under the New Opportunities Fund.
- Recognized the need to sustain and enhance past investments in the new program architecture.
- Interacted with key stakeholders including the Office of the National Science Advisor, the federal funding agencies, the provinces, and others on the research and innovation agenda and in particular on the opportunities for collaboration.

“When the private and public sectors get together, great things can happen. With the Jean-Coutu Pavilion, the University of Montreal now has one of the most modern pharmacy faculties in North America. With the Marcelle-Coutu Pavilion, they have a state-of-the-art biomedical centre. Together, these facilities will ensure top-notch training of students, many of whom will go on to become world-leaders in health research.”

Jean Coutu,
Chairman of the Board
The Jean-Coutu Group Inc.



Marcelle and Jean Coutu

Objective: Share results with Canadians

Results:

- Collaborated with funded institutions, the federal government, provinces, and other funders for:
 - 116 events;
 - the publication of a 24-page supplement in *Maclean's* magazine about innovation, reaching an audience of more than five million readers;
 - six issues of the CFI's online magazine *InnovationCanada.ca* featuring Canadian guest writers such as author Margaret Atwood, His Excellency John Ralston Saul, and Nobel prize-winner John Polanyi. *InnovationCanada.ca* generated more than 400,000 hits per month in 2004–2005.
- At the CFI's 2004 Annual Public Meeting held in Regina, CBC Radio's Bob MacDonald (host of *Quirks and Quarks*) made a special presentation on some of the most innovative science projects underway in this country.
- Reached out to educators and youth through support of the Aventis Biotech Challenge and the Youth Science Foundation Canada. Winners of these competitions also had the opportunity to address the CFI Board of Directors and their guests at the Board receptions.
- Produced and distributed approximately 3,000 printed copies of the 2003–2004 Annual Report, and hundreds of downloads of this document were recorded from the CFI website.

Objective: Promote accountability and corporate responsibility

Results:

- Completed an analysis of more than 2,300 progress reports from CFI projects, and 86 institutional reports. The analysis and institutional reports were posted on the CFI website.
- Implemented a pilot process on Scientific Audits to three institutions in Quebec, Ontario, and Alberta that included expert reviewers and a consultant. The pilot is to be implemented as a project in evaluation and outcome assessment.
- Examined the composition of the Board of Directors to ensure optimal representation and expertise.
- With an independent audit firm, reviewed CFI monitoring and audit practices for research infrastructure awards provided to institutions, which were assessed as adequate, and strengthened the CFI's risk-based audit approach.
- Completed a compensation review by an independent human resources firm.
- To better serve our institutional clients and increase productivity, began a corporate-wide update to the CFI's information and communication technology, including a major redevelopment of our electronic proposal and report submission as well as expert review processes.
- Fostered an environment and attitude of excellence within the organization and in serving our clients. In 2004, the CFI was voted among the top 10 best small and medium employers in Canada by Queen's University and Hewitt Associates.

“ We are using the synchrotron's analytical capabilities to ensure that the residues extracted from our mining activities are not having adverse impacts on the environment. There is really no other technique available in the world that allows us to do that. ”

John Rowson
Director of McClean Regulatory Affairs
Cogema



OBJECTIVES FOR 2005–2006

With the infusion of resources from the CFI and other funding partners, Canadian institutions want to maintain the momentum and provide leadership in strategic research areas of importance to Canada. However, on the basis of its consultations and assessments, the CFI sees three key challenges: sustainability of facilities and equipment, and investment in new opportunities; international competition for the best researchers; and limits to public funding.

Around the world, research environments and technologies are changing. To remain at the scientific frontiers, researchers must rely on increasingly sophisticated infrastructure. Facilities and equipment must keep pace with the times to enable research to progress along new lines. New technology makes this possible. There is a need to both sustain our previous investments, and to invest in new opportunities. The ongoing operations and maintenance are key to maximizing the return on this sophisticated infrastructure.

There is also intense international competition for the best researchers, who inevitably go where the facilities and environment hold the most promise for their investigations and their careers. With a massive demographic shift underway at Canada's institutions, with large numbers of faculty retiring, we face a daunting challenge.

Add to that the fact that public funding for research and technology development is not limitless. Canada, like many countries, must become strategic in its approach, and determine how to move forward in the bid for a competitive, sustainable public investment in research infrastructure.

How should the CFI approach these challenges and best deliver on its mandate?

Objective: Maintain momentum and stay at the crest

- Implement the new program architecture for the remaining funds for 2006–2010 that will:
 - promote the acquisition of new, leading-edge research infrastructure under the New Initiatives Fund;
 - enhance and build on successful prior CFI investments under the Leading Edge Fund;
 - attract and retain high-quality research personnel at Canadian research institutions under the Leaders Opportunity Fund;
 - establish national platform research infrastructure, resources, services, and facilities that serve the needs of a variety of research disciplines (such as high performance computing, under the National Platform Fund);
 - contribute towards the incremental operating and maintenance costs associated with projects funded by the CFI under the Infrastructure Operating Fund.
- Launch a Call for Proposals under the Research Hospital Fund.
- Launch a Call for Proposals for an International Joint Ventures Project.
- Continue to interact with the various stakeholders including institutions, provinces, federal granting agencies, and others to ensure the best investments and collaborations.

“The National Microelectronics and Photonics Testing Collaboratory helps students gain an understanding of the complete R&D life cycle involved in creating microsystems, while speeding up the time to graduate. It also helps accelerate research results, and ultimately, the commercialization of new technologies and products.”

Brian Barge
President, CMC Microsystems



Objective: Encourage benefits to Canada

- Challenge institutions and their partners to be strategic in their choices and priorities.
- Help create the best training environment for the knowledge society.
- Promote networking, collaboration, and multidisciplinary approaches.
- Embrace the innovation spectrum with the inclusion of research and technology development in its new funding architecture.
- Fine-tune the “benefits to Canada” selection criteria to make it more useful to the review process.
- Ensure expertise is included on review committees to assess benefits to Canada.
- Collaborate with other funding agencies and provincial governments to optimize the impact of research investments, and identify longer-term needs such as Regional/National Clinical Research Initiatives.

Objective: Demonstrate the value of investments

- Complete year six of analysis of more than 2,900 progress reports from CFI-funded projects and institutions.
- Undertake a program evaluation of the New Opportunities Fund.
- Launch a series of *Outcome Assessment* visits that will examine the impacts of CFI-funded projects in different parts of Canada, using well-balanced review committees that assess projects against all of the CFI’s criteria.
- Undertake a pilot survey of users of research and research infrastructure enabled by CFI investments.
- Partner with other funding agencies within the federal and provincial governments to ensure that good and relevant information is being collected in evaluation and outcome assessment of CFI-funded projects.
- Update the evaluation framework.

Objective: Engage Canadians

- Work collaboratively with the funding agencies to convey to research institutions the importance of communicating the impacts of research investments.
- Explore new ways to communicate the benefits and outcomes of the investments in research to Canadians.
- Expand the CFI’s corporate outreach to youth and educators to foster excitement for research, science, and technology.
- Foster an environment that will engage institutions to communicate impacts that will have relevance to their own communities.
- Continue to provide timely and relevant information to CFI stakeholders and funders.

Objective: Remain both innovative and responsible

- Engage stakeholders and the Board in planning future directions.
- Continue working towards the redevelopment of our electronic proposal, report submission, and expert review processes, thereby providing better service to our institutional clientele.
- Assist our stakeholders by sharing good practices on the administration of CFI awards.
- Revisit our reporting requirements in light of the increasing demands on institutions by various funding agencies and the growing number of funded projects. Ensure that adequate, but not excessive, information is collected in terms of quantity and frequency.
- Continue to be financially responsible.
- Maintain a challenging and rewarding environment for our employees.



Source: Health Canada website and Media Photo Gallery, Health Canada, <http://www.hc-sc.gc.ca>
© Reproduced with the permission of the Minister of Public Works and Government Services Canada, 2005.

Ab-original Research

IN THE LOGO OF THE MANITOBA FIRST NATIONS Centre for Aboriginal Health Research (CAHR), inward-pointing arrows symbolize Aboriginal communities contributing to research. Outward-pointing arrows symbolize the fruits of that research given back to Aboriginal communities.

Now, after almost five years of operation, the CAHR is giving back in a big way.

Along with the University of Manitoba and the Assembly of Manitoba Chiefs, the CAHR has completed two comprehensive First Nations health surveys. Director John O'Neil says the surveys are providing First Nations leaders with information they can't get anywhere else—because many federal surveys don't cover First Nations reserves.

Other clinical studies supported by the CAHR have found that Aboriginal people tend to be more susceptible to diabetes and osteoporosis than other Canadians, but less susceptible to allergies and asthma. First Nations leaders can now use this information to develop custom-made health programs. But the research is also benefiting Canadians as a whole. One project found that stress may

predispose Aboriginal people to diabetes, but the link likely exists in all Canadians.

The CAHR has accomplished a major goal by recruiting three Aboriginal principal investigators. Half the research staff members are also Aboriginal. "In this field, communities and organizations are obviously a lot more comfortable when investigators are from their own communities," says O'Neil.

The CAHR is a unique partnership with great potential. It has now trained more than 50 students, generated \$12 million in funding, and provided a model for First Nations health research across the country.

IMPACT 
& EFFECT

Read more about innovative research at www.InnovationCanada.ca

FINANCIAL YEAR IN REVIEW



HIGHLIGHTS

The CFI maintains proper financial controls and continues to apply sound financial management to ensure the best use of public funds. External auditors issued an unqualified audit opinion about the CFI financial statements, which appear in the subsequent pages of this report.

As of March 31, 2005, the CFI had received from the Government of Canada a total of \$3.65 billion, as well as \$964,384 in accrued interest. The following are highlights of the CFI's audited financial statements:

- The total investments (per the balance sheet) as of March 31, 2005, was \$2.97 billion.
- Since 1997, the rate of return on the invested amount has averaged 5.71 percent per annum.
- CFI investments are subject to strict guidelines. To ensure diversification, the funds have been placed in a variety of secure investment vehicles:
 - Money market funds: \$168 million
 - Mortgage-backed securities: \$451 million
 - Bonds: \$2.211 billion
 - Amortizing bonds: \$139 million
- Projects begin receiving funds only when all conditions are met and partner funds are confirmed. As of March 31, 2005, \$1.493 billion had been disbursed for infrastructure funding. This reflects the proportional share of the CFI contribution and the level of completion of the project (i.e., most construction projects span many months or years).

RESPONSIBILITY FOR FINANCIAL REPORTING

The financial statements of the CFI were prepared by CFI management, which is responsible for the integrity and fairness of the data presented. In certain cases, the data may include amounts that are based on best estimates and judgement. The financial statements were prepared in accordance with generally accepted accounting principles, including the accounting recommendations for non-profit organizations in Canada. Financial information appearing throughout this Annual Report is consistent with the financial statements.

In discharging its responsibility for the integrity and fairness of the financial statements, and for the accounting systems from which they are derived, management maintains the necessary system of internal controls. This system is designed to provide assurance that transactions are authorized, assets are safeguarded, and proper records are maintained. The CFI's external auditors, who periodically review and evaluate the accounting records and related internal controls, and who report any findings to management, further validate the system. The external auditors' findings and recommendations are reported to the CFI's Audit and Finance Committee and the Board of Directors.

The Board of Directors oversees management's responsibilities for financial reporting through the Audit and Finance Committee. The committee reviews the financial statements and recommends them to the Board for approval and submission to the Members. The committee's other key responsibilities include reviewing the budgets, internal control procedures, investments, and advising the Directors on auditing matters and financial reporting issues.

Ernst & Young LLP, independent auditors appointed by the CFI Members on the recommendation of the Audit and Finance Committee, have examined the financial statements and their report follows. The independent auditors have full and unrestricted access to both the Audit and Finance Committee and the Board of Directors to discuss their audit and the related findings about the integrity of the financial reporting, and the adequacy of the system of internal controls.

Robert A. Phillips
Chair, Audit and
Finance Committee

Manon Harvey, CA
Vice-President,
Corporate Services



A Blazing Success

THE UNIVERSITY OF WATERLOO'S FIRE RESEARCH LAB is literally burning down the house, but in a good way.

Opened in 2003, the Fire Research Lab is the first in the world that can burn huge structures like houses in controlled wind conditions. By doing so, researchers can observe fires in an experimental setting.

Elizabeth Weckman, an engineering professor, has burned mock airplane bodies in the lab and, in collaboration with Sandia National Laboratories in the U.S., is now using these valuable observations to help make airplanes safer. "We've found some interesting things that I'm not sure people realize," Weckman says. "At some wind speeds, the fire attaches to the front and then the back of the airplane. It flips back and forth."

Weckman has also used the facility to test new high-tech materials, like a carbon-fibre epoxy gasoline tank built for student Formula One race cars.

Some of the greatest benefits have come from the collaboration between fire researchers and firefighters. One project has changed the way local fire departments measure fitness, meaning that more people are eligible to join the fire service. A federal government project also took advantage of this unique collaboration to gather researchers and emergency workers to help design a new bioterrorism risk-management tool.

Weckman says the lab is also "a huge selling feature" for the university. It's already attracted a dozen new research students.

Managed pyromania—who wouldn't be attracted?

IMPACT 
& EFFECT

Read more about innovative research at www.InnovationCanada.ca

FINANCIAL STATEMENTS



AUDITOR'S REPORT

To the Members of the **Canada Foundation for Innovation**

We have audited the balance sheet of the **Canada Foundation for Innovation** as at March 31, 2005 and the statements of operations and cash flows for the year then ended. These financial statements are the responsibility of the Foundation's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Foundation as at March 31, 2005 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Ernst & Young LLP

Chartered Accountants

Ottawa, Canada
May 13, 2005

BALANCE SHEET

AS AT MARCH 31	2005	2004
ASSETS	\$	\$
Cash	2,295,385	5,755,587
Interest and other receivables	31,514,400	40,477,885
Investments [note 3]	2,969,686,756	3,074,718,482
Prepaid expenses	181,980	188,550
Capital assets [note 4]	1,821,543	1,466,460
	3,005,500,064	3,122,606,964
LIABILITIES AND NET ASSETS		
Accounts payable and accrued charges	503,593	439,106
Deferred contributions: [note 5]		
Expenses of future periods	3,003,174,928	3,120,701,398
Capital assets	1,821,543	1,466,460
	3,004,996,471	3,122,167,858
Commitments [note 7]		
Net assets [note 6]	–	–
	3,005,500,064	3,122,606,964

See accompanying notes

STATEMENT OF OPERATIONS

YEAR ENDED MARCH 31	2005	2004
REVENUES	\$	\$
Recognition of deferred contributions relating to amounts granted to eligible recipients	262,967,601	349,100,520
Recognition of deferred contributions relating to current year operations	7,947,013	9,450,021
Amortization of deferred contributions relating to capital assets	362,268	316,536
	271,276,882	358,867,077
EXPENSES		
Grants to eligible recipients	262,967,601	349,100,520
General and administration	7,947,013	9,450,021
Amortization of capital assets	362,268	316,536
	271,276,882	358,867,077
Excess of revenues over expenses	—	—

See accompanying notes

STATEMENT OF CASH FLOWS

YEAR ENDED MARCH 31	2005	2004
OPERATING ACTIVITIES	\$	\$
Excess of revenues over expenses	–	–
Items not involving cash:		
Amortization of capital assets	362,268	316,536
Amortization of deferred contributions related to capital assets	(362,268)	(316,536)
Net (decrease) increase in deferred contributions related to expenses of future periods	(117,526,470)	321,717,656
Change in non-cash operating working capital	9,034,542	5,395,661
Cash (used in) provided by operating activities	(108,491,928)	327,113,317
FINANCING AND INVESTING ACTIVITIES		
Purchase of capital assets	(717,351)	(52,295)
Increase in deferred contributions related to capital assets	717,351	52,295
Net sale (purchase) of investments	105,031,726	(337,477,036)
Cash provided by (used in) financing and investing activities	105,031,726	(337,477,036)
Net decrease in cash	(3,460,202)	(10,363,719)
Cash, beginning of year	5,755,587	16,119,306
Cash, end of year	2,295,385	5,755,587

See accompanying notes

1. GENERAL

The Canada Foundation for Innovation [“the Foundation”] was incorporated under Part 1 of the Budget Implementation Act, 1997 on April 25, 1997 for the purpose of making research infrastructure grants to Canadian universities, colleges, hospitals, and other not-for-profit research institutions to increase the capability of carrying on high quality research.

2. SIGNIFICANT ACCOUNTING POLICIES

The financial statements have been prepared by management in accordance with Canadian generally accepted accounting principles. The following are the significant accounting policies:

Revenue recognition

The Foundation follows the deferral method of accounting for contributions which include government grants and, potentially, donations from other sources.

Under the Budget Implementation Act, 1997 [“the Act”], the Foundation has, since inception, received grants from the Government of Canada totaling \$3.65 billion plus accrued interest of \$964,384 on the initial contribution to be held, invested, administered and disbursed in accordance with the Act and the related Funding Agreement between the Foundation and the Government of Canada. All grants and related interest have been received and recorded in prior fiscal years.

Grants received, together with future investment revenue, are directed to the granting of amounts to eligible recipients and the payment of the Foundation’s operating expenses and acquisition of capital assets in accordance with the requirements of the Act and the terms of the Funding Agreement. Grants received and future restricted interest earned on the invested amounts will be deferred and recognized as income as expenditures are incurred by the Foundation.

Contributions applied toward the purchase of capital assets are deferred and amortized to revenue on a straight-line basis, at a rate corresponding with the amortization rate for the related capital assets.

Grants to eligible recipients

Grants to eligible recipients are recognized as expenses as the awarded funds are disbursed.

Investments

Investments are recorded at cost. Premiums or discounts are amortized over the remaining term of the investments. If the market value of investments becomes lower than cost and this decline in value is considered to be other than temporary, the investments are written down to market value.

Capital assets

Purchased capital assets are recorded at cost. Contributed capital assets, if any, are recorded at fair value at the date of contribution. Repairs and maintenance costs are charged to expense. When a capital asset no longer contributes to the Foundation’s ability to provide services, its carrying amount is written down to its residual value.

Capital assets are amortized on a straight-line basis using the following annual rates:

Leasehold improvements	Over the term of the lease
Furniture and other equipment	20%
Computers and software	3–5 years

Use of estimates

The preparation of financial statements requires management to make estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities in the financial statements and accompanying notes. These have been made using careful judgment.

3. INVESTMENTS

Investments comprise the following financial instruments:

	2005		2004	
	COST \$	MARKET VALUE \$	COST \$	MARKET VALUE \$
Money-market funds	168,119,240	168,113,943	160,652,678	160,657,389
Bonds	2,211,431,885	2,310,767,339	2,385,507,027	2,532,792,063
NHA Mortgage backed securities	451,267,273	455,066,040	380,846,087	392,495,007
Amortizing bonds	138,868,358	137,021,787	147,712,690	147,241,162
	2,969,686,756	3,070,969,109	3,074,718,482	3,233,185,621

4. CAPITAL ASSETS

Capital assets consist of the following:

	2005		2004	
	COST \$	ACCUMULATED AMORTIZATION \$	COST \$	ACCUMULATED AMORTIZATION \$
Leasehold improvements	1,845,825	508,360	1,405,068	336,150
Furniture and other equipment	1,387,756	903,678	1,111,162	713,620
	3,233,581	1,412,038	2,516,230	1,049,770
Accumulated amortization	(1,412,038)		(1,049,770)	
Net book value	1,821,543		1,466,460	

5. DEFERRED CONTRIBUTIONS

Expenses of future periods

Deferred contributions related to expenses of future periods represent unspent externally restricted grants, together with investment revenue earned, for the purpose of providing grants to eligible recipients and the payment of operating and capital expenditures in future periods.

	2005 \$	2004 \$
Balance, beginning of year	3,120,701,398	2,798,983,742
Add grants received [note 2]	—	500,000,000
Add restricted investment revenue earned	154,105,495	180,320,492
Less amount recognized as revenue	(270,914,614)	(358,550,541)
Less amount applied toward capital assets acquired	(717,351)	(52,295)
Balance, end of year	3,003,174,928	3,120,701,398

Capital Assets

Deferred contributions related to capital assets represent the unamortized amount of restricted grants received and applied toward the purchase of capital assets. The amortization of capital contributions is recorded as revenue in the statement of operations on the same basis as the amortization of the related capital assets.

	2005 \$	2004 \$
Balance, beginning of year	1,466,460	1,730,701
Restricted grants applied toward the purchase of capital assets	717,351	52,295
Less amount amortized to revenue	(362,268)	(316,536)
Balance, end of year	1,821,543	1,466,460

6. RESTRICTED CONTRIBUTIONS AND NET ASSETS

All of the net assets of the Foundation are subject to externally imposed restrictions as per the requirements of the Budget Implementation Act, 1997 which governs the Foundation and the terms of the related Funding Agreement between the Foundation and the Government of Canada. Investment revenue to be earned on the grants received from the Government of Canada is also restricted. Accordingly, the entire net assets of the Foundation are deferred and taken into revenue as expenditures are made with no net asset balance outstanding at any time. A statement of changes in net assets has therefore not been prepared since it would not provide additional useful information.

7. COMMITMENTS

During the year, the Foundation awarded grants for a maximum amount of \$179.7 million [2004 – \$737.6 million]. Total disbursements to eligible recipients during the fiscal year were \$263.0 million [2004 – \$349.1 million]. To date, the Foundation has awarded grants for a maximum amount of \$2,932.2 million, of which \$1,493.4 million has been disbursed as of the end of the fiscal year. The balance of the awarded grants will be recorded as expenses in subsequent years as funds are disbursed.

The Foundation entered into a lease agreement in 2001 for its premises at 230 Queen Street [Ottawa, Ontario] for a ten-year period starting August 2001. The minimum annual lease payments related to these premises are approximately \$1,081,000. The Foundation sublets part of its current premises for an annual amount of approximately \$234,000.

8. PENSION PLAN

The employees of the Foundation may elect to become members of the Association of Universities and Colleges of Canada [AUCC] Pension Plan, a defined contribution plan managed by Sun Life Financial Inc. The employer contributions made to the Plan during the year ended March 31, 2005 amounted to \$246,949 [2004 – \$190,162].

9. FAIR VALUE OF FINANCIAL INSTRUMENTS

The carrying value of amounts receivable and payable approximate their fair value given the relatively short period to maturity of the instruments. The fair values of the investments, which are based on the year-end quoted market prices, are disclosed in note 3.

10. TAX STATUS

The Foundation is a non-taxable entity under paragraph 149(1)(1) of the Income Tax Act.