

Atlantic Canada at a Glance

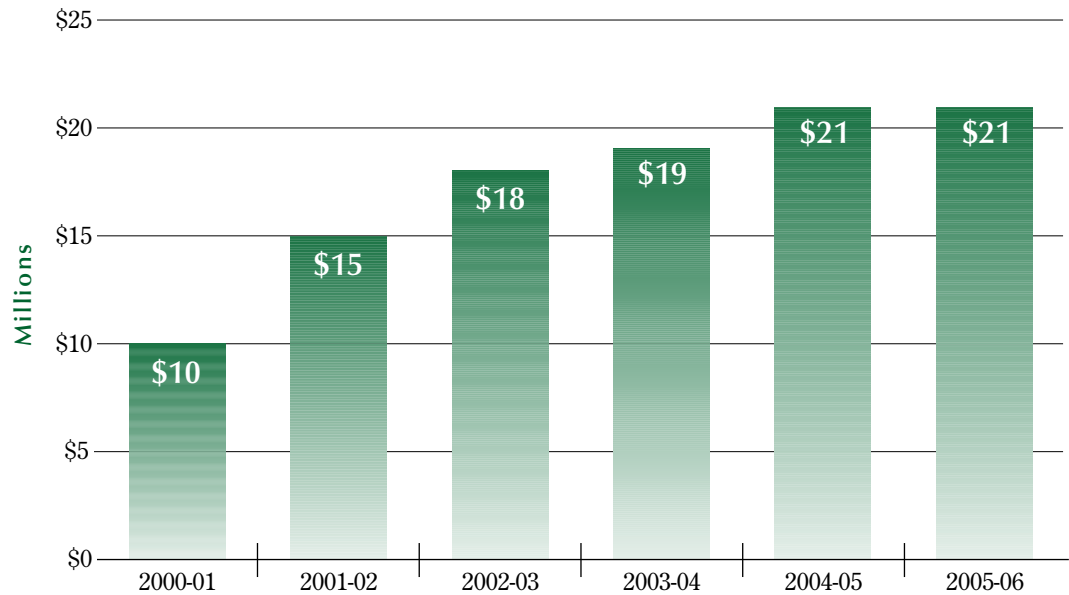
Some of Canada's most innovative and relevant health research happens in the provinces of New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador. In 2005-06, CIHR awarded approximately \$21 million to health research in Atlantic Canada, an increase of more than 110% from 2000-01. This funding supports more than 320 projects by principal investigators in 13 funded institutions.

About CIHR

The Canadian Institutes of Health Research (CIHR) is the Government of Canada's agency for health research. CIHR's mission is to create new scientific knowledge and to catalyze its translation into improved health, more effective health services and products, and a strengthened Canadian healthcare system. Composed of 13 Institutes, CIHR provides leadership and support to more than 10,000 health researchers and trainees across Canada.

The Canadian Institutes of Health Research (CIHR) Supports Health Research in New Brunswick, Newfoundland and Labrador, Nova Scotia and Prince Edward Island

CIHR Investment in Atlantic Canada



Includes Clinical Research Centres and Networks of Centres of Excellence

Funding Excellence CIHR-Funded Health Research in Atlantic Canada

Universities in Atlantic Canada are known for their expertise and research achievements in a variety of areas. Here are some examples:

What Makes a Health Emergency?

Dr. Marilyn Hodgins, University of New Brunswick, Fredericton

According to a CIHR-supported study led by Dr. Marilyn Hodgins of the University of New Brunswick, patients in the province do not automatically head to the emergency room when they have a non-life-threatening illness. The survey of close to 2,000 New Brunswickers found that 74% tried to treat themselves first. Why do they go to the emergency department at all? Respondents cited fear that the condition might get worse; advice from others; and the lack of other options for dealing with the problem. Information such as this about New Brunswickers' use of healthcare services will help develop cost-effective and quality services that respond to people's healthcare needs.

Building Capacity for Commercialization

University of Prince Edward Island

CIHR funding is helping the University of Prince Edward Island increase its capacity to identify and commercialize promising research discoveries. In the past year, the university has received funding as part of CIHR's Commercialization Management Grants program, funding that will allow UPEI to increase staffing in its technology transfer office.

Working Towards a New Antibiotic

Dr. David Byers, Dalhousie University, Halifax

Dr. David Byers of the IWK Health Centre, Dalhousie University in Halifax received CIHR commercialization funding to create a novel antibiotic to treat conditions such as pneumonia, gastrointestinal disease and meningitis. To do it, he's focusing on interfering with one of the key enzymes needed by bacteria to create endotoxin, which is found in the outer membrane of certain types of bacteria. Using computer modelling, Dr. Byers has already designed and synthesized a molecule that can inhibit a key player in endotoxin synthesis. Funding to develop a proof of principle is an important step to help commercialize this work into a pre-clinical drug candidate.

A New Approach for Studying Asthma

Dr. Geoffrey Maksym, Dalhousie University, Halifax

CIHR-funded researcher Dr. Geoffrey Maksym of Dalhousie University is pursuing a new approach to the study of asthma. Most research in this area focuses on the immune response in asthma. But Dr. Maksym, a biomedical engineer, is studying how and why the smooth muscle that surrounds the airways muscles contracts, causing shortness of breath. This is accomplished, down to the level of an individual cell, through an innovative method of seeding cell cultures with tiny ferromagnetic beads to which the cells bind and which can be magnetically manipulated to move. When a person inhales, especially in response to an asthma attack, these smooth muscle cells pull. The beads can be used to understand how repeated pulling leads to stronger cells and worsening asthma. Research, which is ongoing, suggests that the use of long-acting bronchodilators with cortisol steroids by asthma sufferers is a good thing, since it allows the muscles time to relax and possibly even reverses changes in the airway smooth muscle.

New Risk Factor Discovered for Diabetes

Dr. Guang Sun, Memorial University of Newfoundland, St. John's

CIHR-supported researcher Dr. Guang Sun has discovered a new risk factor for type 2 diabetes. In a study of blood samples from more than 1,000 human volunteers in Newfoundland and Labrador, Dr. Sun determined that an increase in serum calcium levels causes an increase in insulin resistance, contributing to the development of type 2 diabetes. An increase in serum calcium was also correlated with a decrease in beta cell (the cells that produce insulin) function. This research not only adds to the known list of risk factors for the disease, but, because the study subjects were not diabetic, it reveals a molecular change that occurs before clinical diagnosis is possible.

The Power of Volunteers – Atlantic Canada Researchers Helping to Build CIHR

CIHR volunteers, drawn from Canada's research community, form the backbone of the organization. They ensure that only the best proposals receive funding, help set priorities and ensure CIHR meets its mandate.

Dr. Daryl Pullman, CIHR Standing Committee on Ethics

Dr. Pullman is Associate Professor of Medical Ethics in the Faculty of Medicine at Memorial University of Newfoundland. His current research interests include research ethics, ethics and aging and issues related to genetic research and therapy. He has a continuing philosophical interest in the concept of human dignity and its foundational role in moral epistemology. His wide-ranging expertise enables him to make a significant contribution to CIHR's research on ethics.

Dr. Janice Keefe, CIHR's Institute of Aging Advisory Board

Dr. Keefe is currently an Associate Professor in the Department of Family Studies and Gerontology and a Canada Research Chair in Aging and Caregiving Policy at Mount St. Vincent University in Halifax. Dr. Keefe's research areas include informal caregiving, specifically work and elder care, financial compensation and assessment, human resource issues, rural aging and continuing care policy. As a member of the Institute's Advisory Board, Dr. Keefe helps to ensure that aging research funded by CIHR responds to real needs.

Dr. Judee Onyskiw, CIHR Oversight of Grants and Awards Committee

Dr. Judee Onyskiw is an Associate Professor at the University of New Brunswick. An estimated one-to-two million children in Canada witness violence at home. Dr. Onyskiw is examining how children cope in these situations and the long-term effects that witnessing violence have on their health and development. The goal of her research is to make the invisible victims of violence more visible. Through her membership on the CIHR Oversight of Grants and Awards Committee, Dr. Onyskiw helps advise the CIHR Governing Council about the outcomes of CIHR's competitions for research funding as well as monitor performance of CIHR's peer review process.