

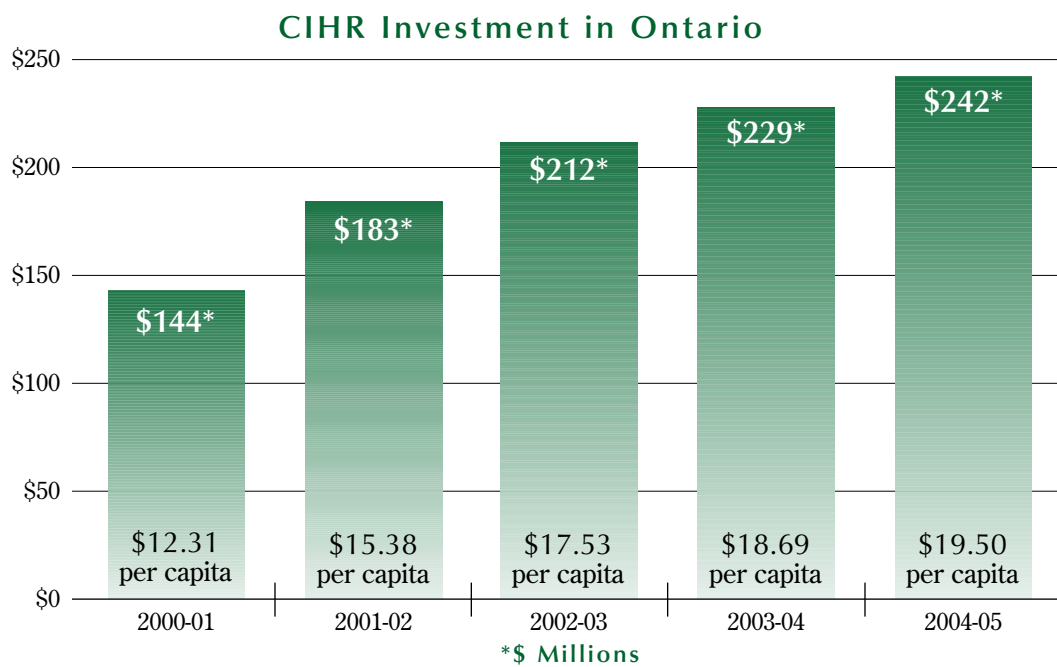
## Ontario at a glance

Ontario receives the largest share of CIHR funding — approximately \$242 million in 2004-05, an increase of more than 68% from 2000-01. This funding supports more than 2,730 projects by principal investigators in 37 funded institutions.

## About the Canadian Institutes of Health Research

The Canadian Institutes of Health Research is the Government of Canada's agency for health research. Its objective is to excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products and a strengthened Canadian health care system. Composed of 13 Institutes, CIHR provides leadership and support to close to 10,000 researchers and trainees in every province of Canada. For more information visit [www.cihr-irsc.gc.ca](http://www.cihr-irsc.gc.ca)

Canadian Institutes of Health Research (CIHR) supports health research in Ontario



## Funding excellence CIHR-funded health research in Ontario universities

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

### **New Insights in Mental Health and Neuroscience**

*Carleton University, Ottawa*

How do the everyday experiences of discrimination affect Canadians who belong to a stigmatized or socially devalued group, for example, women, African-Canadians or First Nations people? How do Aboriginal women in trouble with the law reconstruct their self-identity while undergoing treatment for illicit drug use? What mechanisms account for the dramatic changes in gene expression in the brains of people who have committed suicide? Which genetic and behavioural factors make people more or less prone to seizures? These are just four of the questions that will be addressed by researchers at Carleton University in the Neuroscience Institute and the Departments of Health Psychology and Sociology and Anthropology. Chief investigators include Drs. Hymie Anisman, Colleen Dell, Kim Matheson, Dan McIntyre and Michael Poulter.

### **A Focus on Children's Health**

*Queen's University, Kingston*

Researchers at Queen's University are addressing autism, fetal alcohol syndrome (FAS) and pre-eclampsia — some of the most disturbing disorders affecting children and families today. Dr. Jeanette Holden is leading a team that will link mentors from 17 institutions in North America with trainees investigating autism spectrum disorders. Dr. James F. Brien is leading a comprehensive examination of FAS, ranging from causation and prevalence to innovative treatment strategies and

their cost-effectiveness. Pre-eclampsia is characterized by high blood pressure in pregnant women and is one of the leading causes of infant and maternal deaths in developing countries. This debilitating condition is the focus of a team of researchers, led by Dr. Graeme Smith, an expert in high-risk obstetrics. The development of new treatments for pre-eclampsia, and the early identification and management of this risk may prevent unnecessary deaths and the onset of long-term health problems in both mothers and babies.

### **Outsmarting Infectious Diseases**

*University of Toronto*

Researchers at the University of Toronto are answering important questions about infectious diseases such as: “Are our bodies equipped with a secret weapon to fight AIDS?” Dr. Kelly MacDonald, director of the HIV Research Program at the University of Toronto’s Faculty of Medicine, believes that the answer may be “yes.” Dr. MacDonald has spent 10 years studying the virus and developing a novel vaccine target that originates in our cells. Investigations by Dr. Kevin Kain, professor of medicine and a Canada Research Chair in Molecular Parasitology, focus on examining how we can beat malaria, the most common cause of death in children globally. Dr. Kain and his team are about to launch clinical trials using a common diabetes drug that controls malaria in mice. Examining why bacterial infections are increasingly hard to battle, Dr. Jun Liu, professor of medical genetics and microbiology, believes our weapons — antibiotics — are overused. Dr. Liu is searching for new ways to battle the dramatic increase in antibiotic-resistant strains of tuberculosis and is developing a new vaccine to halt its spread.

### **Medical Imaging Sheds Light on Cancer, Stroke and Other Diseases**

*University of Western Ontario, London*

Led by the city’s premier research facilities — the University of Western Ontario, Lawson Health Research Institute and Robarts Research Institute — London, Ontario has earned a global reputation for its expertise in medical imaging research, thanks to housing Canada’s most powerful full-body MRI scanner. Under the direction of Dr. Ravi Menon, a world leader in brain function research, the MRI offers scientists a new way of understanding the pathways of human thought. Researchers from the University of Western Ontario are using the MRI and other imaging technologies to shed light on treatments for such illnesses as breast and prostate cancer, stroke, Alzheimer’s disease, schizophrenia and other diseases of the heart and brain.

### **Informing Clinical Decisions**

*The University of Ottawa*

Doctors across the country make decisions about how to test for or treat specific problems informed by some innovative work at the University of Ottawa. Research programs in the Department of Epidemiology and Community Medicine include the Canadian Study of Health and Aging, the Community Health Research Unit and the Clinical Epidemiology Program. Clinical epidemiology evaluates the determinants and consequences of clinical decisions. Some of the many studies underway are investigating physicians’ attitudes toward decision aids, transfusion practices, decision-making at the end of life, and clinical decision rules for the use of computed tomography in minor head injury. Dr. George Wells, department chair, and director Dr. Jeremy Grimshaw lead the program. The team includes accomplished researchers Drs. Julian Little, who specializes in human genome epidemiology; Brenda Wilson, who is investigating relationships between genetics and disease in populations; and Carol Amaratunga, who engages in worldwide research and scholarship focusing on women’s health needs.

## **Celebrating excellence: CIHR award winners in Ontario**

Some of Canada’s finest health researchers are in Ontario. CIHR has been proud to recognize their achievements.

### **Dr. Jeremy Grimshaw**

*University of Ottawa*

Dr. Jeremy Grimshaw, director of the Clinical Epidemiology Program at the University of Ottawa and the Centre for Best Practice, Institute of Population Health, is known for his work on how health research discoveries are translated into practice. In 2003 he received the CIHR Knowledge Translation Award, which recognizes an exceptional individual or team involved in a collaborative health research project that aims to advance the understanding of knowledge translation. Dr. Grimshaw holds a Canada Research Chair in Health Knowledge Transfer and Uptake.

### **Dr. Anthony Pawson**

*Mount Sinai Hospital, Toronto*

Dr. Anthony Pawson, director of research at the Samuel Lunenfeld Research Institute at Toronto’s Mount Sinai Hospital, is the recipient of two CIHR awards — the Michael Smith Prize in 2002 and the Distinguished Investigator Award in 2003, which acknowledge the outstanding work of Canada’s pre-eminent health researchers. Dr. Pawson is an international leader in the field of cell signaling whose colleagues call him an enthusiastic, brilliant, “big-picture” thinker. By understanding the protein-based wiring of cells in normal and disease states, Dr. Pawson is developing new strategies to treat diseases such as cancer and diabetes.