



Canadian Institutes of Health Research (CIHR) Institute of Cancer Research (ICR)

Training a New Generation of Cancer Researchers

Strategic Training Initiative in Health Research (STIHR)

Health research is becoming increasingly multi-disciplinary with an emphasis on bringing together expertise from many different fields such as mathematics, biology, computational science, the humanities and social sciences, and the clinical sciences to tackle highly complex, systems-wide health issues. Thus a new generation of highly skilled and adaptable researchers are required if Canada is to remain internationally competitive.

In 2000, when the Canadian Institutes of Health Research (CIHR) was first created, a significant shortfall in the number of Canadian researchers was predicted by 2010. To address this impending crisis and to ensure that Canada attracted and retained future generations of innovative and creative health researchers, CIHR and partners launched the Strategic Training Initiative in Health Research (STIHR).

The STIHR program was first launched in 2001 with the goal of encouraging the next generation of researchers to become engaged in transdisciplinary, integrative health sciences research. The competition was subsequently re-launched in 2002 and most recently in 2008. As a result of the first two launches, 86 training programs were funded encompassing a broad spectrum of health research and engaging more than 2,400 STIHR-affiliated trainees. Programs are funded for six years at a maximum amount of \$325,000 per year and each consists of a group of outstanding mentors/educators, accomplished in health research, working collaboratively to offer a research training program of defined format and content to a group of trainees.

STIHR Objectives

- Support the development of training programs that improve the mentoring and training environment for health researchers.
- Support the development of collaborative team research by bringing researchers together from different disciplines to address major health issues and/or health research challenges.
- Support the development of well-rounded health researchers by integrating training on: the ethical conduct of research; knowledge translation; and professional skills such as communication, teamwork, project management, leadership, grant writing and peer review.

Canadian Institutes of Health Research (CIHR) Institute of Cancer Research (ICR)

Cancer-Related Strategic Programs

In its first year of operation, the CIHR Institute of Cancer Research (ICR), with input from the Institute Advisory Board (IAB) and the cancer research community at large, identified the training of the next generation of cancer researchers as an overarching priority of the Institute. ICR has since participated in several training initiatives including all three launches of the STIHR program, and focused training programs such as the James Fund-CIHR Neuroblastoma Fellowships and the Heart and Stroke Foundation of Canada-led Target Obesity personnel awards initiative.

Our Partners on the STIHR program

Alberta Cancer Board	CIHR Institute of Nutrition, Metabolism and Diabetes (INMD)
Cancer Care Nova Scotia	CIHR Institute of Neurosciences, Mental Health and Addiction (INMHA)
Cancer Care Ontario	CIHR Institute of Population and Public Health (IPPH)
Cancer Research Society Inc.	CIHR Knowledge Translation Branch
CIHR Institute of Aboriginal Peoples' Health (IAPH)	CURE Foundation
CIHR Institute of Circulator and Respiratory Health (ICRH)	Fonds de la recherche en santé (FRSQ)
CIHR Institute of Gender and Health (IGH)	Michael Smith Foundation for Health Research (MSFHR)
CIHR Institute of Health Services and Policy Research (IHSPR)	National Cancer Institute of Canada (NCIC)
CIHR Institute of Human Development, Child and Youth Health (IHDCYH)	Newton Foundation
CIHR Institute of Infection and Immunity (III)	

As a result of the 2001 and 2002 competitions, 22 cancer-related Strategic Training Programs are now supported by ICR and partners. ICR has committed \$13.3 million towards the support of these Strategic Training Programs, which by 2006 had engaged more than 500 affiliated trainees at the undergraduate, postgraduate and postdoctoral level. The research topics covered by the cancer-related Strategic Training Programs include tobacco control, therapeutics, molecular biology, bioinformatics, radiation oncology, palliative care and psychosocial oncology.

Canadian Institutes of Health Research (CIHR)

Institute of Cancer Research (ICR)

Cancer-related Strategic Training Programs

Principal Investigator	Research Institution	Title
Batist, Gerald	McGill University	Montreal centre for experimental therapeutics in cancer.
Cameron, Roy A	University of Waterloo	Tobacco research training program.
Cass, Carol E	Alberta Cancer Board	The Alberta Cancer Board Training Program in Translational Cancer Research in partnership with the University of Alberta and the University of Calgary.
Cohen, S. R	McGill University	Palliative Care Cancer Research.
Cote, Graham P	Queen's University	Proteomics and protein function discovery training program.
Coulombe, Benoît	Institut de recherches cliniques de Montréal	The IRCM training program in cancer research: from genomics to molecular therapy.
Dosman, James A	University of Saskatchewan	Public health and the agricultural rural ecosystem.
Johnston, Gerald C	Dalhousie University	An integrated cancer research training initiative in Nova Scotia.
Jones, Steven	BC Cancer Agency	Bioinformatics training for health research.
Koropatnick, Donald J	London Regional Cancer Centre	London Strategic Training Initiative in cancer research and technology transfer.
Labrie, Fernand	Centre hospitalier de l'Université Laval	Programme stratégique de formation en génomique fonctionnelle et bioinformatique.
Liu, Fei-Fei	Princess Margaret Hospital	Research Excellence in Radiation Medicine for the 21st Century.
Loiselle, Carmen G	McGill University	Comprehensive research training program in psychosocial oncology.
Lye, Stephen J	Mount Sinai Hospital	Samuel Lunenfeld Research Institute interface training program: Applying genomics to human health.
Mai, Sabine	University of Manitoba	Multidisciplinary training in health research.
McGrath, Patrick J	Dalhousie University	Pain in child health: An innovative, transdisciplinary, cross-Canada research training consortium.
Mulligan, Lois M	Queen's University	Queen's University transdisciplinary training program in cancer research.
Reithmeier, Reinhart A	Hospital for Sick Children	Training program in structural biology of membrane proteins linked to disease.
Salter, Michael W	Hospital for Sick Children	Pain research from molecules to community-collaborative national training program.
Thomas, David Y	McGill University	Strategic training program in chemical biology.
Tremblay, Michel L	McGill University	The McGill basic cancer consortium training grant in cancer research.
Tsao, Ming-Sound	University of Toronto	Clinician scientists in molecular oncologic pathology.

Canadian Institutes of Health Research (CIHR) Institute of Cancer Research (ICR)

In 2005, ICR, in collaboration with the Canadian Cancer Society (CCS) through the National Cancer Institute of Canada (NCIC), hosted a 3-day scientific meeting that brought together about 165 trainees and faculty members from the 22 cancer-related STIHRs, as well as NCIC studentship and fellowship awardees. The meeting, entitled “*Cancer Research Across the Spectrum: National Meeting for Trainees*”, enhanced the training experience of trainees by exposing them to a wide range of cancer research. It also provided them with a venue for scientific exchange and networking with peers and established researchers.



Next Steps

The STIHR program was recently re-launched in January 2008. ICR has committed an additional \$6 million over the next six years to support STIHR programs with a focus on cancer research. ICR and its partners encourage the submission of applications for training programs for all types of fundamental or applied cancer research including origins and mechanisms of oncogenesis, cancer prevention, diagnostics, treatment, care and palliation. Additional information on this latest launch is available on the CIHR website under “Funding Opportunities.”

ICR looks forward to supporting a new round of innovative cancer-focused Strategic Training Programs that promote excellence in research training and which employ multidisciplinary approaches to advancing cancer research.