



# ANNUAL REPORT

## 2004-2005



*INSTITUTE OF NEUROSCIENCES, MENTAL HEALTH AND ADDICTION*  
*ONE OF THE CANADIAN INSTITUTES OF HEALTH RESEARCH*







**Rémi Quirion**  
Scientific Director



**Richard Brière**  
Assistant Director



**Astrid Eberhart**  
Assistant Director,  
International Relations



**Barbara Beckett**  
Assistant Director,  
Ottawa



**Ramia Jabr**  
Executive Manager



**Rocio Benalcazar**  
Administrative Assistant



**Asimina Xidou**  
Project Officer

**CONTACT US:**

**Institute of Neurosciences, Mental Health and Addiction**

Douglas Hospital  
Research Centre  
McGill University  
6875 LaSalle Blvd.,  
Dobell B2131  
Verdun, Qc H4H 1R3

Tel: (514) 761-6131,  
Ext. 3932  
Fax: (514) 888-4060  
[www.cihr.irsc.gc.ca](http://www.cihr.irsc.gc.ca)

**Rémi Quirion, PhD, FRSC, CQ**  
Scientific Director  
Tel: (514) 761-6131, Ext. 3932  
Fax: (514) 888-4060  
[remi.quirion@douglas.mcgill.ca](mailto:remi.quirion@douglas.mcgill.ca)

**Richard Brière, PhD**  
Assistant Director  
Tel: (514) 761-6131, Ext. 3830  
Fax: (514) 888-4060  
[richard.briere@douglas.mcgill.ca](mailto:richard.briere@douglas.mcgill.ca)

**Astrid Eberhart**  
Assistant Director,  
International Relations  
Tel (Sweden): 46 (0)8 759 0232  
[AEberhart@cihr-irsc.gc.ca](mailto:AEberhart@cihr-irsc.gc.ca)

**Ramia Jabr**  
Executive Manager  
Tel: (514) 761-6131, Ext. 3932  
Fax: (514) 888-4060  
[ramia.jabr@douglas.mcgill.ca](mailto:ramia.jabr@douglas.mcgill.ca)

**Rocio Benalcazar**  
Administrative Assistant  
Tel: (514) 761-6131, Ext. 2760  
Fax: (514) 888-4060  
[rocio.benalcazar@douglas.mcgill.ca](mailto:rocio.benalcazar@douglas.mcgill.ca)

**CIHR Corporate Headquarters**  
Room 97, 160 Elgin Street  
Address Locator 4809A  
Ottawa, ON K1A 0W9

**Barbara Beckett, PhD**  
Assistant Director, Ottawa  
Tel: (613) 948-4877  
Fax: (613) 954-1800  
[BBeckett@cihr-irsc.gc.ca](mailto:BBeckett@cihr-irsc.gc.ca)

**Asimina Xidou**  
Project Officer  
Tel: (613) 941-0874  
Fax: (613) 941-1040  
[AXidou@cihr-irsc.gc.ca](mailto:AXidou@cihr-irsc.gc.ca)

**Eric Marcotte, PhD**  
Team Lead, Regenerative  
Medicine and Nanomedicine  
Tel: (905) 464-1859  
[eric.marcotte@regenerativemedicine.ca](mailto:eric.marcotte@regenerativemedicine.ca)

## MESSAGE FROM THE PRESIDENT OF CIHR

In 2000, the CIHR Governing Council created 13 Institutes spanning the spectrum of health research. With the Institute of Neurosciences, Mental Health and Addiction (INMHA), it enacted a daring vision of bringing together three very distinct and challenging fields of research. Nobody was more aware of the difficult task of moving this vision to action than Rémi Quirion, who was appointed Scientific Director at the end of that same year.

Five years later, INMHA is nationally and internationally accepted as the representative voice for all areas covered by the Institute within Canada. Likewise, Rémi Quirion is recognized and respected as the Institute's leader. INMHA has effectively broken down barriers by promoting interaction among the different fields of research and various disciplines. The Institute is supporting many novel collaborations among health researchers and experts from engineering, physical and natural sciences, law, ethics and the social sciences.

Collaboration is the foundation on which INMHA has built its reputation. The scientific community and many partner organizations can all share in the credit for the Institute's success. INMHA's partnership approach has been an example within CIHR. INMHA has led interactions with the US National Institutes of Health and other countries such as Japan and China. INMHA has also provided leadership for two large multi-institute initiatives - Regenerative Medicine and Nanomedicine; and Tobacco Abuse and Nicotine Addiction - both of which have evolved into major partnership programs.

Exploration of the brain has been hailed as the greatest intellectual adventure of modern history. New research areas are emerging, such as neuroethics, the study of the ethical implications of rapidly advancing brain research. Another major challenge is the social burden associated with disorders of the brain and the mind, an important area where INMHA and its partners have worked together in a campaign against stigma and discrimination. Finally, understanding the relationship between the molecular basis of how our brain works, and human psychology represents one of the most important scientific challenges of the 21st century.

On behalf of the Governing Council, I would like to thank Rémi Quirion and the dedicated and energetic members of his Institute Advisory Board and staff. Together they have made history and transformed a daring vision into a unique model for the future of science.



Dr. Alan Bernstein, O.C., FRSC  
President  
Canadian Institutes of Health Research

## MESSAGE FROM THE SCIENTIFIC DIRECTOR

The 2004-05 fiscal year has been one of milestones for INMHA. I completed my first term as Scientific Director. We moved toward the end of our first Strategic Plan and began thinking about crafting the next version. We also entered our first phase of evaluation, which made us take stock of how our strategic funds have been invested and to assess the overall effectiveness of the Institute. It has been a great challenge to build INMHA and I feel privileged to be able to lead the Institute for another term. This Annual Report outlines our efforts over the past year and highlights some of the exciting advances by a few from our very large pool of talented scientists. So rather than to elaborate here I would like simply to say thank you to all those who have contributed to the success of this Institute.

First and foremost, we thank our investigators and young researchers for their imagination and ceaseless efforts. The strength of INMHA's scientific community is our greatest asset and source of pride. This pool of excellence greatly facilitates the development of partnerships with other funding organizations in Canada and internationally. Partnerships and joint programs are key to the success of the Institute and the fulfillment of our mandate by leveraging the efforts and resources of organizations who share our mission. We have been fortunate to interact with a large number of like-minded organizations, including other federal and provincial government agencies, non-governmental organizations (NGOs), professional organizations, and the private sector. We thank the individuals we work closely with for their vision and collaboration.

The Institute Advisory Board (IAB) is another of INMHA's great assets. Throughout the past four years, IAB members have been unstinting in sharing their time and expertise with us. Four exceptional individuals completed their term in 2004-05: Drs. Gordon DuVal, Stanley Kutcher, Michel Maziade and Peter Scholefield. While it is difficult to say good-bye to those who have been part of the INMHA team from the beginning, we are fortunate to be able to draw from a large number of talented members of the scientific community and the voluntary sector who are eager to make a contribution. We warmly welcomed Dr. Judy Illes, Ms. Mary Jardine, Dr. Ravi Menon and Dr. Donald Weaver. I would like to thank all past and current IAB members for their contributions and friendship. Our Chair, Dr. Anthony Phillips, deserves a special mention for his most excellent leadership and continued support.

Last but certainly not least, there are the members of the small INMHA staff, who play a significant role in our accomplishments. I thank you for your continued commitment and assistance and I want you to take pride in the Institute's success. I would also like to express my appreciation to the CIHR Governing Council, Alan Bernstein and my Scientific Director colleagues. The CIHR journey has been challenging, exciting and fun and I look forward to continuing the ride with you.



Dr. Rémi Quirion, Ph.D., FRSC, CQ  
Scientific Director  
Institute of Neurosciences, Mental Health and Addiction

**Institute Advisory Board Members**



Anthony G. Phillips, Chair  
University of British Columbia



Kathryn Jane Bennett  
McMaster University



Judy Illes  
Stanford University



Mary Jardine  
Canadian National  
Institute of the Blind



Alain D. Lesage  
Louis-H. Lafontaine  
Hospital



Lisa McKerracher  
University of Montreal



Ravi Menon  
University of Western Ontario  
Robarts Research Institute



Roberta M. Palmour  
McGill University



Marlene A. Reimer  
University of Calgary



Patrice Roy  
Pfizer Canada



Michael W. Salter  
The Hospital  
for Sick Children



Eric W. Single  
University of Toronto



Martin J. Steinbach  
University of Toronto



Jane Stewart  
Concordia University



Philip C. Upshall  
Canadian Alliance for  
Mental Illness and  
Mental Health



Donald Weaver  
Dalhousie University



Douglas W. Zochodne  
University of Calgary

**Outgoing Members:**

Gordon DuVal, Stanley Kutcher, Michel Maziade, Peter Scholefield



## OUTSTANDING RESEARCH

This exciting time of discovery offers many opportunities to increase scientific knowledge about the brain and the central nervous system. Corresponding to its large mandate, INMHA currently supports a broad portfolio of research. Some initiatives are deliberately broad in scope while others target more specific research areas where a particular need or a unique opportunity exists. All are based on our first Strategic Plan and extensive collaboration with our constituency and are grounded in partnership with other CIHR institutes and/or external funding organizations. Funding initiatives are aimed to increase capacity and encourage collaboration among researchers and between researchers and community. Canada's strength in neuroscience is internationally recognized. Research in mental health, mental illness and addiction is rapidly gaining ground. INMHA is uniquely positioned to bridge these previously distinct areas and to stimulate novel partnerships in both research and funding.

### Regenerative Medicine and Nanomedicine

This initiative, co-led with the Institute of Genetics, encompasses several key elements of INMHA's Strategic Plan and goals.

Both Regenerative Medicine and Nanomedicine are emerging fields – regenerative medicine seeks to repair or replace injured tissues and organs through natural or bioengineered means; nanomedicine is the specialized measurement or intervention at a molecular or cellular scale for treating diseases or repairing damaged tissues.

The integration of research in these fields is an alliance for progress. By encouraging the development of truly multidisciplinary research approaches and by incorporating disciplines such as social, cultural and ethical perspectives on human health, the initiative offers tremendous opportunity for effective translation and application of research findings.

Finally, the initiative is an excellent example of successful partnership and collaboration. The June 2004 Request for Applications (RFA) pooled resources from 8 of the 13 CIHR institutes and an impressive list of external partners: ALS Society of Canada, Canadian Space Agency, Canadian Stroke Network, Heart and Stroke Foundation, Jacob's Ladder, Juvenile Diabetes Research Foundation International, National Research Council Canada, Natural Sciences and Engineering Research Council of Canada, Neuroscience Canada, Ontario Neurotrauma Foundation; and the Stem Cell Network.

Regenerative Medicine and Nanomedicine has evolved into one of INMHA's flagship programs and one of CIHR's large initiatives. It also encompasses a large training component and seeks to encourage young researchers to enter these exciting fields and to develop a multidisciplinary perspective.

The first competition launched in 2003 resulted in the funding of five Pilot Projects and eight New Emerging Teams (NET), with a total commitment of \$12.3 million. The following four projects will be directly supported by INMHA:

- Femtosecond laser-assisted corneal posterior lamellar transplantation with endothelial enhancement: technological development and socioeconomic impact (Isabelle Brunette and team, Université de Montréal): Endothelial dysfunction, which leads to blindness and severe pain, is the leading indication for corneal transplantation, being responsible for >40% of all grafts in Canada and the United States. By combining the technological advances of femtosecond laser and tissue engineering, this project aims to improve patient vision, quality of life, and speed of surgery, as well as lower the risk of rejection and increase the availability of corneas due to lower exclusion criteria.

- Nanotools for neuropharmacology (Yves De Koninck and team, Laval University): The field of neuropharmacology is reaching a point where further advances in understanding synaptic communication critically depends on the availability of tools to manipulate and measure dynamic molecular events in live conditions at previously unachieved levels of resolution. Advances in the fields of material sciences and nanotechnology will be adapted to improve existing tools and develop new tools for the study of neural disorders and for the development of new drugs.
- Regenerative medicine strategies for spinal cord injury repair: integration of stem cell biology, nanotechnology, bioengineering approaches and neurosurgical application (Michael Fehlings and team, University of Toronto): Spinal cord injury is a devastating event with major social and economic implications. This multi-disciplinary team aims to translate the promising technologies of stem cell biology, tissue engineering, nanotechnology and imaging to functionally significant repair and regeneration after trauma to the central nervous system.
- Engineered bone marrow stem cells for treatment of CNS injuries and diseases (Serge Rivest and team, Laval University): This team plans to genetically engineer blood stem cells that have the ability to penetrate the brain and differentiate into different subsets of cerebral macrophages. These cells have the ability to improve recovery and neuronal survival after central nervous system damage, and will be applied to the treatment of stroke, spinal cord injuries, Alzheimer's and motor neuron diseases.



Other NETs funded are:

- Quantum dot-based biomolecular imaging (Warren Chan and team, University of Toronto)
- Regenerative medicine: ethical, environmental, economic, legal and social issues network (Abdallah Daar and team, University of Toronto)
- Cardiovascular and respiratory stem cell plasticity – CARE project (Jacques Galipeau and team, McGill University)
- Stem cell fate analysis and manipulation (William Stanford and team, University of Toronto)

The Regenerative Medicine and Nanomedicine Initiative is also formally linked to the NeuroScience Canada Brain Repair Program, which supports fast-track “transformative” research that will translate to discovery and to the development of new treatments and therapies for neurological and psychiatric diseases and disorders. Through its partnership with CIHR, NeuroScience Canada was able to commit a total of \$4.5 million to the following 3 teams:

- Novel approaches to central nervous system white matter repair (Freda Miller and team, University of Toronto)
- Transforming research on chronic pain in Canada (Michael Salter and team, University of Toronto)
- Novel therapeutic strategies to repair brain abnormalities in psychiatric disorders (Yu Tian Wang and team, University of British Columbia)

## Research in Addictions: Innovative Approaches in Health Research

INMHA's focus in the field of addictions was initially on nicotine addiction and tobacco abuse. Responding to the priorities and goals set out in the Strategic Plan, INMHA teamed up with the most appropriate partners and organized the 2002 Canadian Tobacco Control Research Summit. The meeting resulted in a major CIHR cross-cutting initiative and another example of successful partnership and pooling of resources. Coordinated by the Canadian Tobacco Control Research Initiative (CTCRI), the coalition of funding partners announced the results of the first RFA in April 2004, with total funding of \$5 million over five years to 18 successful teams, including the following two INMHA-supported Interdisciplinary Capacity Enhancement (ICE) Team Grants:

- Nicotine addiction: Behavioural and brain mechanisms from rodents to humans (Paul Clarke and team, McGill University)
- A Pan-Canadian Resource Network for Tobacco Control Research, Policy and Practice (Paul McDonald, University of Waterloo)

Expanding on its efforts in the area of addictions, INMHA co-organized two major workshops in 2003, the first on alcohol and illicit drugs and the second on problem gambling. Rather than developing separate funding initiatives, INMHA promoted a linking of these areas and achieved agreement with all relevant partners for a unique RFA entitled “Research in Addictions: Innovative Approaches in Health Research”, announced in December 2004. The initiative offers several funding tools and includes a theme on co-occurring addictions or cross-addictions that is challenging researchers to undertake a more integrative approach and to investigate the interrelationships and implications of concurrent alcohol use, tobacco and gambling.

Led by INMHA, the list of funding partners includes three other CIHR Institutes, the Canadian Tobacco Control Research Initiative, the Canadian Centre on Substance Abuse, the Ontario Problem Gambling Research Centre, Health Canada, the First Nations and Inuit Health Branch and the Aboriginal Healing Foundation.

### Early Life Events and First Episodes of Brain Disorders

Early life events have a profound influence on the development of the nervous system and may manifest themselves over the long term as neurological disorders, mental illness and addictive behaviors. This is, therefore, viewed as an extremely important theme for INMHA and was one of the four large initiatives described in the INMHA Strategic Plan.

In February 2004, the Institute hosted a priority setting workshop that formed the basis for a RFA announced in December later that year in partnership with the Institute of Human Development, Child and Youth Health. The initiative offers NET Grants and High-Risk Seed Grants for one of the five eligible research areas – Stigma and Discrimination, another area of priority to INMHA.

### Suicide Prevention Targeted to Aboriginal Peoples

Suicide is one of the leading causes of death for young Canadians and is a particular problem among First Nations. In 2003, INMHA and Health Canada organized a workshop on suicide-related research that provided important background for the development of a joint initiative led by the Institute of Aboriginal Peoples' Health. The RFA was launched that same year and re-issued in December 2004.

The first competition led to the funding of two NET Grants in 2004, in partnership with the Institute of Aboriginal Peoples' Health, Health Canada and the First Nations and Inuit Health Branch:

- Aboriginal Community Youth Resilience Network (ACYRN): Community-led research and resources to prevent youth suicide (Neil Anderson and team, University of Ottawa)
- Understanding and acting on Aboriginal suicide: A new multidisciplinary research team (Gustavo Turecki and team, McGill University)

### Neuroethics

Neuroethics is a new field addressing the ethical and social questions raised by progress in brain research. Taking a leadership role, INMHA launched a Request for Applications in 2003 and in 2004 funded one NET grant:

- Neuroimaging Ethics: From Theory to Practice (Jocelyn Downie and team, Dalhousie University)

INMHA announced another NET grant competition in December 2004. As well, "Ethical, Philosophical and Socio-Cultural Aspects in Neuroscience" is one of the themes within a new partnership program with Finland (see "International Partnerships" section).

The Institute has also begun working on the development of an international network on neuroethics.

## CIHR Operating Grant Competition – INMHA Priority Announcements

To demonstrate its commitment to the CIHR investigator-initiated operating grant program, INMHA supports highly rated proposals related to its mandate in each of the March and September competitions. Twenty-six grants have been awarded by INMHA since 2002 and the majority of grantees have subsequently been successful in obtaining CIHR or external grants. The following grants were funded from the March 2004 and September 2004 competitions and announced during 2004-05:

- The brain bases of speech perception: Imaging studies of normal adults and developmentally impaired children (Marc Joanisse, University of Western Ontario)
- Towards an understanding of reconsolidation (Karim Nader, McGill University)
- Régulation des récepteurs de la neurotensine: Implication dans le contrôle de la douleur (Phillip Sarret, Sherbrooke University)
- Combining axonal growth-promoting treatments with rehabilitation training (Karim Fouad, University of Alberta)
- The role of a cation channel in controlling neuronal excitability (Neil Magoski, Queen's University)
- Examining the function and regulation of adult mammalian neural stem cells (Cinci Morshead, University of Toronto)
- State-dependent control of spinal interneurons (Peter Soja, University of British Columbia)
- Precipitating factors and psychophysiological correlates of adult somnambulism (Antonio Zadra, University of Montreal)

## Vascular Health and Dementia Initiative

The following grants were supported in the first competition under this partnership with the Heart and Stroke Foundation of Canada, the Alzheimer Society of Canada, Pfizer Canada Inc., the CIHR Rx&D Research Program and the Institute of Aging:

- Intracellular calcium signaling and vascular dementia (Guylain Boulay, Sherbrooke University)
- Alzheimer's disease, aging and the ischemic synapse (Peter Carlen, University of Toronto)
- Exercise, aging and cognitive impairment (Dale Corbett, Memorial University of Newfoundland)
- Neurovascular Unit in Alzheimer's disease and cerebral amyloid angiopathy (Wangdong Zhang, National Research Council of Canada)

## Neurobiology of Psychiatric Disorders and Addictions Program

The following grants were supported in the first competition under this partnership program with the Canadian Psychiatric Research Foundation, AstraZeneca Canada Inc. and the CIHR-Rx&D Research Program:

- Maternal infection during pregnancy as a risk factor for schizophrenia (Patricia Boksa, McGill University)
- A neuroprotective mechanism of atypical antipsychotics in haloperidol-induced neurotoxicity (Xin-Min Li, University of Saskatchewan)
- Biochemical & behavioural characterization of an animal model of schizophrenia induced by sensitization to amphetamine (Anthony Phillips, University of British Columbia)
- Identification of psychosis molecular neurogenetics (Hubert Van Tol, University of Toronto)

## Japan-Canada Joint Health Research Program

In 2004-2005, the following grants were supported by INMHA in the second competition under the partnership program with the Japan Society for the Promotion of Science:

- fMRI-compatible robotic interface for neuroscience and rehabilitation applications (Theodore Milner, Simon Fraser University)
- Collaborative studies on genomics-based approaches toward understanding the molecular basis of the human central nervous system diseases (Ekaterina Rogava, University of Toronto)
- *In vivo* electroporation of genes for studies of drug addiction and dopamine functions (John Yeomans, University of Toronto)

## NARSAD Young Investigator Awards

In 2004-05, INMHA co-funded the following five grants to young investigators with the National Alliance for Research on Schizophrenia and Depression (NARSAD):

- Neurocognitive mechanisms underlying the maintenance of delusions: A longitudinal study in 1<sup>st</sup> psychotic episode patients (Bruno Debruille, McGill University)
- Information processing and cognitive organization in major depression: The cognitive impact of cognitive behavioral therapy (David Dozois, University of Western Ontario)
- Investigation of inflammatory response system genes as risk factors for childhood-onset depression (Virginia Misener, University of Toronto)
- The role of hormone therapy and testosterone deficiency in the development of depression in men with prostate cancer (Josée Savard, Laval University)
- Where do stress, testosterone, and depression intersect in the brain? (Victor Viau, University of British Columbia)



## OUTSTANDING RESEARCHERS IN INNOVATIVE ENVIRONMENTS

In the highly competitive world of science, there are noteworthy accomplishments and individuals. INMHA aims to establish imaginative programs that recognize excellence in research related to its mandate. The Institute also supports innovative training programs to ensure a future generation of excellent scientists. It is the young investigators who are the stars of the future and INMHA aims to encourage and support them in their early career efforts. Young scientists are included in many activities of the Institute, such as priority-setting workshops and the INMHA Annual Meeting. The Institute also supports a wide variety of events that bring together some of the best scientific minds and organizational leaders.

### Strategic Training Program Grants

Training the future generation of researchers and developing capacity in all areas of neurosciences, mental health and addiction are extremely important to INMHA. More than 30% of INMHA's strategic budget is committed to training. One of the key programs that INMHA has participated in is the CIHR Strategic Training Initiative in Health Research (STIHR). Grants are provided for six years at up to \$300,000 per year. INMHA is currently funding, or participating in the funding of, a total of 18 teams. Several funding partnerships have been established with external organizations through this program. The Institute has an ongoing dialogue with its partners about this important program and is planning a joint workshop with the team leaders of all INMHA-supported STIHR grants.

### Barbara Turnbull Award for Spinal Cord Research

The winner of the 2004 Barbara Turnbull Award is Dr. David Bennett of the University of Alberta. The award recognizes an outstanding researcher who has contributed to the advancement of world-leading spinal cord research conducted in Canada. Dr. Bennett's award was based on his project entitled, "Neuronal mechanisms of spasticity after spinal cord injury: Animal studies". He joins ranks with 2002 award winner Dr. David Kaplan of the Hospital for Sick Children in Toronto and 2003 award winner Dr. Mohamad Sawan of the École Polytechnique de Montréal/ Université de Montréal.

### Eric Single Addiction Studentship Award

Steven Skitch of McGill University was named as the inaugural recipient of the Eric Single Addiction Studentship Award, a joint program with the Ontario Problem Gambling Research Centre and the Canadian Centre for Substance Abuse. Steven Skitch was judged to be among Canada's most promising young researchers in the field of addictions. His dissertation research will test an integrative developmental model of the etiology of gambling and substance abuse problems among adolescents. Eric Single, after whom the award is named, is one of Canada's foremost addictions researchers and is a member of the INMHA Institute Advisory Board. Dr. Single has agreed to provide direct support to Steven Skitch throughout the course of his doctoral studies.

### The Brain Star Program

One of INMHA's first and most successful initiatives, the Brain Star Program recognizes excellent young scientists, our "stars of the future". The award goes to emerging researchers still enrolled in their studies who have published their findings in prominent scientific journals. Topics cover the entire spectrum of INMHA's mandate. Because there is no shortage of excellent candidates, a new award is given every two weeks. Winners are showcased in a booklet published by INMHA every year, which is a proud display of scientific knowledge. The following are two examples of the winners in 2004-05 and their published work:

– **Frank MacMaster** at Dalhousie University (Brain Star Award - December 2004) used brain imagery techniques to measure hippocampal volume in early-onset depression. He found that the hippocampus was smaller in adolescents with major depressive disorder as compared to healthy adolescents of the same age and gender. The significance of this finding is threefold. First, basic studies of the neurobiology of psychiatric illnesses are critical in advancing our understanding of these disorders. Second, considering the critical role of the hippocampus in memory, the finding may help explain some of the difficulties experienced by children and adolescents who suffer from mood disorders. Finally, the broad implication of this finding is that pediatric depression is a *bona fide* medical illness with biological correlates and not a character flaw or the result of bad parenting. This study provides fresh evidence of a biological component to depression and helps combat the stigma that can accompany the disease.

*MacMaster and Kusumakar (2004) BMC Medicine 2: 1-6.*

- **Tonia Nicholls** of the University of British Columbia received her second (December 2004) and third Brain Star Award (March 2005). In the first article, she demonstrates clinicians are less likely to evaluate violent risk when admitting female patients than male patients at the time of hospitalization. In fact, there are no violence assessment tools with sufficient standardization data to warrant anything more than cautious use with women. Her studies provide preliminary validation for two tests with strong predictive validity with women with serious mental illness. In the second article, she published the Jail Screening Assessment Tool (JSAT) to provide evidence-based guidelines for mental health screening with detainees. The results suggest the JSAT is a potentially effective tool for identifying female inmates in need of mental health services and specialized placement. This is an important research area as it serves to protect the rights of individual patients and the safety of the community. *Nicholls, Ogloff and Douglas (2004) Behavioral Sciences and the Law 22: 127-158. Nicholls, Lee, Corrado and Ogloff (2004) International Association of Forensic Mental Health 3: 167-184.*

## Brain Star of the Year

In 2003, INMHA announced the Brain Star of the Year Award in an effort to highlight the achievements of young researchers recognized by the popular Brain Star Program even further. The second winner of this special award is Jeffrey Coull of McGill University. He accepted the award at the 2004 INMHA Annual Meeting. His prize-winning article on the mechanism of neuropathic pain was published in *Nature* in 2003 (424: 938-942).



*Jeffrey Coull, Brain Star of the Year receiving his award from the hands of The Honourable Robert G. Thibault, Parliamentary Secretary to the Minister of Health*

## INMHA-Sponsored Workshops, Conferences and Symposia in 2004-2005

Each year, INMHA supports a variety of events, from priority-setting workshops to scientific, educational and organizational gatherings. These widely divergent activities all have one thing in common – they relate to the Institute’s mandate, vision and goals. They may contribute to INMHA’s strategic planning process, foster collaboration, educate or enable knowledge exchange and communication of research results. The following are just a few examples of the events and activities supported by INMHA in 2004-05:

---

SIG Conference: Nerve Damage and Neuropathic Trigeminal Pain, Vancouver, May 2004

---

Canadian College of Neuropharmacology (CCNP) Annual Meeting, Kingston, May 2004

---

Second Annual Symposium on Alzheimer’s Disease and Related Disorders, Canmore, May 2004

---

Research Priorities Related to Seniors’ Mental Health in Canada, Toronto, September 2004.

---

ALS Society of Canada Policy Forum, Toronto, October 2004

---



---

Maintaining Momentum in Canadian Suicide Research: CASP Pre-Conference Research Workshop, Edmonton, October 2004

---

Mental Illness Awareness Week, October 2004

---

Intractable Epilepsy Workshop, London, October 2004.

---

Journée de la douleur de Montréal, October 2004

---

First Pain Awareness Week and National Summit, November 2004.

---



---

Canadian Association for Neuroscience Annual Meeting, Toronto, November 2004

---

The Kirby Report & Beyond: Issues in Canadian Mental Health, Kingston, December 2004

---

Building Bridges for Neuromuscular Diseases Workshop, London, February 2005

---

Canadian Physiological Society Annual Meeting, Mont Ste-Anne, February 2005

---



## Events Organized by INMHA

In addition to sponsoring external events, INMHA also proactively organizes meetings and workshops and, in most cases, does so in collaboration with other organizations. These meetings bring together the leaders in a specific field, young promising scientists and key individuals from our partner organizations. The following events were held in 2004-05:

### Mental Health in the Workplace

Toronto, April 2004

In 2003, INMHA together with CIHR's Institutes of Population and Public Health and Gender and Health, established a working group to develop a long-term research agenda on mental health in the workplace. Early stakeholder involvement was viewed as essential to achieve the early buy-in that would be necessary to develop "made-in-the-workplace" strategies to reduce the burden of disease, productivity losses and disability costs related to mental illness. With this in mind, the working group convened a workshop attended by more than 100 invited participants, representing a broad range of expertise or direct professional interest in workplace mental health issues. About 40% of the participants were researchers; the remainder were representatives of employers, unions, insurers, health providers, professional organizations, national and provincial granting agencies and planners, community organizations, consumer groups and politicians. The working group issued a report setting out key mental health research priorities that will lead to a RFA in June 2005.

### Third Annual Nanomedicine Workshop: What's Nano about Bio?

Edmonton, March 2005

Building on the wide success of the previous two meetings, INMHA teamed up with key partners to host the third Annual Nanomedicine Workshop: NSERC's Nano Innovation Platform (NanoIP), NRC's National Institute for Nanotechnology (NINT), the Alberta Heritage Foundation for Medical Research and the University of Alberta. The theme of this scientific workshop was the role nanoscale phenomena play in our understanding of or ability to manipulate biological processes, with a special focus on the interface between living tissues and materials. The meeting explored biomedical and biological issues that need a nanoscience or nanotechnology approach and presented the current state of knowledge on that interface as well as work in the materials sciences arena that purports to meet some of the biomedical or biological challenges. Participants came from a wide array of disciplines and fields. They shared in common, however, an interest in this groundbreaking area. Speakers included Dr. Alan Bernstein, CIHR President, and Dr. Bruce McManus, Scientific Director of CIHR's Institute of Circulatory and Respiratory Health.



## TRANSLATING HEALTH RESEARCH INTO ACTION

INMHA is uniquely positioned to translate scientific achievements into relevant actions. In order to be most effective in this area, the Institute enlists its stakeholders and partners to create the novel collaborations and research paths necessary to effective knowledge translation and the communication of research results. The following initiatives encourage stakeholder engagement and enable information dissemination.

### Third INMHA Annual Meeting, Ottawa, November 2004

More than 90 participants attended INMHA's Third Annual Meeting, "A Feast of Science and Partnership". This increasingly important event brings together the Institute's various stakeholders, bridging science and the community. Participants included scientists from all four CIHR pillars, trainees and Brain Star recipients, as well as representatives from professional organizations and voluntary health organizations. Following the successful format of its Second Annual Meeting, INMHA enlisted individuals from different disciplines to engage in dialogue on three major research topics: Epilepsy, Vision Health and Schizophrenia. To demonstrate

the challenges faced by patients and their families, each of the three panel discussions began with a personal account of what it is like to live with the disease or condition in question. These courageous presentations emphasized the importance of one of the Institute's research priorities – discrimination and stigma. The panel discussions included excellent scientific presentations as well as the perspective of the voluntary health sector. The meeting also featured several INMHA-supported research teams, with themes including computational neuroscience, suicide and post-traumatic stress disorder and included presentations from Brain Star recipients.

One of the most important parts of the Annual Meeting is the stakeholder session. It is intended to give participants the opportunity to comment on INMHA's activities and to provide input to the Institute's future planning. The session featured some of the Institute's partnership activities and included presentations from several partners. The main goal is to encourage interaction among the various participants and the meeting was structured to maximize communication. Breakfast, coffee breaks and lunch sessions allowed ample time for mingling and a poster session was combined with a



*Cheryl Robertson, Chair, receiving the 2004 Partnership Award granted to CTCRI.*

reception for an informal showcase of science. The meeting also included a dinner and award presentations, including the Brain Star of the Year Award. The 2004 Partnership Award went to the Canadian Tobacco Control Research Initiative. Members of the Institute Advisory Board who had completed their mandates were also recognized.

To continually improve on the format of the Annual Meeting, participants were invited to complete a survey and provide input into future events. It is essential that the meeting is of value to all those who attend. In the two years since the inaugural event, the Annual Meeting has become the Institute's most important venue to communicate challenges, priorities and initiatives; to get feedback on these and to learn about the needs of its stakeholders; and, most importantly, to foster collaboration and team spirit.

### **CIHR Outreach Initiative**

This unique initiative was developed by INMHA to enlist NGOs in partnerships to help bridge the communications gap between science and the general public. The program

offers awards of up to \$10,000 for innovative promotional ideas that take a message to the public or targeted organizations. Four awards were made in the first competition in 2003, which was co-sponsored with CIHR's Institute of Gender and Health and its Communications Branch. Encouraged by the popularity of this program, the Institute again teamed up with the Communications Branch at CIHR and announced a second competition in 2005.

### **The Brain from Top to Bottom**

This unique INMHA-supported initiative is a website encyclopedia that popularizes scientific information about the brain and human behaviors. It is aimed at various audiences and is simple and fun to use. Search engines such as Google show that this site ranks among the most popular ones in both French (le cerveau) and English (the brain). To stay current, the site remains a work in progress and is updated on a regular basis with the newest information: [www.the-brain.mcgill.ca](http://www.the-brain.mcgill.ca).

### **Brain Awareness Week**

The "brain child" of the Dana Alliance for Brain Initiatives, Brain Awareness Week is coordinated around the globe one week in March every year. Widely divergent events are organized by individuals, groups or organizations, who are casting a wide net to communicate the progress and promise of neuroscience research to a worldwide audience. INMHA supports several of these events in Canada every year; in March 2005, they were held in Toronto, Montreal and Saskatoon. INMHA shares the Dana Alliance's desire to advance public awareness about the critical importance of brain research.



## EFFECTIVE PARTNERSHIPS AND PUBLIC ENGAGEMENT

Partnerships are essential to INMHA's function and fulfillment of its broad mission. Hardly any of the activities of the Institute are done without some form of partnership. Stakeholders participate in the strategic planning process, the development of priorities and strategic initiatives and, most recently, the evaluation of the Institute. Partnership is particularly important in the area of research funding. Joint funding initiatives pool expertise, maximize available resources and help to avoid unnecessary duplication. The collaborations with other funding bodies result in unique programs that, in turn, encourage and facilitate unique collaborations among researchers, both nationally and internationally. Several models have emerged over the past four years, with programs administered by CIHR, a partner organization or through joint coordination. The key is flexibility and INMHA is open to continuously exploring new ideas and challenging existing barriers. The Institute also encourages networking among its various partners and the linking of Canadian and international organizations. The list of current initiatives below is a sample of INMHA's extensive efforts in this area:

### NATIONAL PARTNERSHIPS

#### Barbara Turnbull Award for Spinal Cord Research

This annual award to recognize excellence in spinal cord research is a partnership with the Barbara Turnbull Foundation for Spinal Cord Research and NeuroScience Canada. The award goes to the top-ranked spinal cord researcher identified through CIHR's open grant competition and consists of a top-up to the grant in the amount of \$50,000. Information on the 2004 awardee is provided in the previous section.

### Eric Single Addiction Studentship Award

Announced at the 2003 INMHA Annual Meeting, this program is a partnership with the Ontario Problem Gambling Research Centre (OPGRC) and the Canadian Centre for Substance Abuse. The partnership will fund two consecutive studentship awards administered by OPGRC. The first award made in 2004 is shown in the previous section.



*CPRF and AstraZeneca receive the CIHR Partnership Award in the presence of Rémi Quirion, Scientific Director, INMHA, and Astrid Eberhart, Assistant Director, International Relations, INMHA*

### Neurobiology of Psychiatric Disorders and Addictions Program

This joint grant program is led by the Canadian Psychiatric Research Foundation (CPRF) and includes Astra-Zeneca and the CIHR/Rx&D Research Program. The first competition, announced in 2003, offered four grants of up to \$100,000 per year for two-year terms. The results of this competition are shown in the section on "Outstanding Research". This partnership received the 2004 CIHR Partnership Award.

### Vascular Health and Dementia Research Grant Program

This joint grant program is led by the Heart and Stroke Foundation of Canada, in collaboration with the Alzheimer Society of Canada, the Institute of Aging, INMHA, Pfizer Canada Inc. and the CIHR Rx&D Research Program. The program offers four grants of up to \$120,000 each for three years. The results of the first competition announced in 2003 are shown in the "Outstanding Research" section.

### NeuroScience Canada Brain Repair Program

Neuroscience Canada, the recipient of the 2003 INMHA Partnership Award, established this major funding program to fast-track "transformative" research that will translate to discovery and to the development of new treatments and therapies for neurological and psychiatric diseases and disorders. The program is aligned with the CIHR Regenerative Medicine and Nanomedicine Initiative and the recipients of the three winning Brain Repair Program projects are listed under this program in the "Outstanding Research" section.

## INTERNATIONAL PARTNERSHIPS

One of the priorities outlined in the INMHA Strategic Plan is to ensure the Institute's presence on the international stage. Our extensive efforts in this area have resulted in close links with non-governmental funding bodies, international organizations and other federal funding agencies such as the NIH. The Institute encourages international networking and mobility of researchers. The joint funding programs established to date enable collaboration between Canadian scientists and their colleagues in other countries. Training features prominently in our efforts and we also focus on developing countries. INMHA remains firmly committed to promoting international cooperation for all research areas covered by the Institute and to being an ambassador for Canadian science.

### NIH International RFA on “Identifying Autism Susceptibility Genes”

This major international public-private partnership is led by the National Institute of Mental Health (NIMH) and includes four other NIH Institutes, two other CIHR Institutes, the Health Research Board of Ireland and three private foundations: the Southwest Autism Research & Resource Centre, Cure Autism Now and the National Alliance for Autism Research (a partner on two INMHA Training Grants). The RFA was announced in December 2004 with total commitments reaching more than \$20 million for a five-year period. INMHA is the lead for interactions with NIMH on this initiative and coordinates participation from the other two participating CIHR Institutes: Genetics; and Human Development, Child and Youth Health.

### Developing Partnerships with NIH

INMHA regularly interacts with many of the NIH Institutes and Centers and several joint funding initiatives were under development in 2004-05. We were close to finalizing another major international public-private partnership led by NIMH for a Program Announcement entitled “Shared Neurobiology of Fragile X Syndrome and Autism”. Building on the original RFA in 2003, INMHA will participate in the 2005 Program Announcement on “Brain Disorders in the Developing World”, led by the Fogarty International Centre (FIC). We have also had discussions with FIC concerning plans for a re-launch of the 2002 joint initiative on “Stigma and Global Health”. Finally, we have worked closely with the National Centre for Complementary and Alternative Medicine (NCCAM) on the organization of a joint “Conference on the Biology of Manual Therapies” to take place in June 2005. This first major CIHR-NIH conference is the direct outcome of discussions between INMHA and NCCAM and includes several other NIH and CIHR partners.

### Canada-Finland-China Collaborative Program in Neuroscience

In March 2005 and only a year following initial discussions, INMHA signed an agreement with the Academy of Finland for a partnership to support Canadian-Finnish collaborative research projects in neuroscience. The collaboration is part of the new Research Program in Neuroscience (NEURO), a major funding initiative of the Academy of Finland (AF). Another partner in the initiative is the National Natural Science Foundation of China (NSFC). Although the partnerships between AF and INMHA and AF and NSFC are separate, tri-lateral research collaborations may be supported through the program.

### Japan-Canada Joint Health Research Program

This grant program with the Japan Society for the Promotion of Science (JSPS) was announced in 2003 and supports collaborations between Canadian and Japanese investigators. The program is jointly coordinated by JSPS and CIHR and currently includes the participation of two other CIHR Institutes: Aging; and Human Development and Child and Youth Health. INMHA is credited for initiating the program and continues to lead coordination with JSPS. Six grants were approved by a Joint Selection Committee in February 2005 and the INMHA-supported grants are shown in the section on "Outstanding Research".

### INMHA-NARSAD Young Investigator Awards

The National Alliance for Research on Schizophrenia and Depression (NARSAD) is a US-based NGO and major funding agency for mental health research internationally. In 2004, INMHA and NARSAD formed a partnership to co-fund five young Canadian investigators selected through the annual NARSAD competition. The grants are listed in the "Outstanding Research" section.

### INMHA-IBRO Schools in Neuroscience

A formal member of the International Brain Research Organization (IBRO) since 2003, INMHA is a proud participant in the IBRO Neuroscience School Program, a series of advanced courses designed to encourage former graduates and others to take up careers in neuroscience. In September 2004, INMHA co-sponsored a School on Topics in Cellular and Molecular Neuroscience in Argentina and, in March 2005, the Africa Region Neuroscience School "Hormones and Brain" in Morocco. INMHA also assists with the recruitment of Canadian researchers who participate in the schools as part of the faculty.

### World Health Organization (WHO) and Pan American Health Organization (PAHO)

INMHA has collaborated with WHO and PAHO on a number of initiatives and INMHA representatives have participated in various meetings and networks. For example, INMHA participated in the Latin American and Caribbean Network on Mental Health Services Research. INMHA was also a sponsor of the WHO Assessment Instrument for Mental Health Systems (WHO-AIMS) which was published in February 2005. Representatives from both WHO and PAHO were invited to the May 2004 meeting of the Institute Advisory Board for a discussion of current WHO and PAHO priorities and potential areas for collaboration. One of the areas being explored, together with CIHR's Institute of Gender and Health, is the possible establishment of a Canada-based WHO Centre in Gender and Mental Health.

### Other International Activities

In addition to the aforementioned partnerships, INMHA collaborates with a number of international organizations and continuously initiates new interactions. For example, INMHA and the Canadian Association for Neuroscience are working with the Society for Neuroscience (SfN) on various initiatives aimed at benefiting Canadian neuroscientists and the general public. Rémi Quirion is a member of the SfN Governmental and Public Affairs Committee. He is also a member of the Dana Alliance for Brain Initiatives, a group of more than 200 distinguished neuroscientists, formed by the Dana Foundation to help provide information about the personal and public benefits of brain research. Finally, INMHA exhibits at the SfN Annual Meetings, as well as at other international conferences.

## PUBLIC ENGAGEMENT

### *MINDSCAPES* Art Exhibition

One of INMHA's most unique partnership initiatives to date was *Mindscales*, a collection of works of art by persons affected by mental illness, featured at the National Gallery of Canada in Ottawa during May 2004. The exhibition was organized by the Canadian Mental Health Association, in collaboration with the art workshop Les Impatients and INMHA, and with support from the National Gallery and CIBC as representing sponsor. Maurice Forget, O.C., a well-known art collector and Chairman of the Montreal Arts Council, generously provided his time and expertise as curator. He selected some fifty works of art by people from all over Canada who suffer from mental health problems, producing an outstanding display of human spirit, resilience and artistic talent. During May, the National Gallery attracted 42,000 visitors of which it is confident that a considerable proportion visited the *Mindscales* exhibition.



## ORGANIZATIONAL EXCELLENCE



*Rémi Quirion receiving the 2004 Prix du Québec, Wilder-Penfield*

In 2004, Rémi Quirion was recognized with several major awards: 1) the Prix du Québec Wilder-Penfield, the highest recognition the government of Quebec bestows on people who have contributed towards social advancement and science; 2) the Heinz Lehmann Prize, presented by the Douglas Hospital Foundation in partnership with Pfizer Canada Inc., for his excellent contribution to the Douglas Hospital Research Centre and to the advancement of knowledge in the area of mental health; and 3) the Mary V. Seeman Award from the Canadian Psychiatric Research Foundation. These recognitions follow a long list of prior awards and sum up the respected leadership provided to INMHA by its Scientific Director. Energetic leadership is vital in order to manage the extremely large mandate of this Institute with the assistance of only a very small staff team. However, Dr. Quirion's leadership is truly inspirational and translates into dedicated service by all those who work alongside him.

Leadership is also provided by the members of the INMHA Institute Advisory Board (IAB). They actively participate in priority-setting exercises, represent INMHA at a variety of events and lend their expertise to various areas of the Institute. Each member participates in at least one of the INMHA Focus Groups, including NGOs & Partnership, Government Affairs & Networking, International Relations, Industry, Training & Education and Ethics & Law. Another Focus Group on "Performance and Evaluation" was added in 2004 to assist staff with the evaluation of the Institute and the important task of documenting INMHA's activities and achievements to date. The Focus Groups provide reports at every meeting of the IAB. Summaries of all meetings are provided on the INMHA website.



*Stanley Kutcher, outgoing IAB member, giving a speech at the annual meeting.*

Four IAB members reached the end of their term in 2004: Drs. Gordon DuVal, Stanley Kutcher, Michel Maziade and Peter Scholefield. Four new members were appointed through the annual CIHR IAB renewal process: Dr. Judy Illes at Stanford University, an internationally recognized expert in the area of neuroethics; Ms. Mary Jardine from the Canadian National Institute for the Blind,

bringing her extensive experience in the voluntary sector; Dr. Ravi Menon at the University of Western Ontario, an expert in neuroimaging techniques and medical biophysics; and Dr. Donald Weaver at Dalhousie University, Canada Research Chair in Clinical Neuroscience and an expert in medicinal/pharmaceutical chemistry.

True to the virtual nature of CIHR, the INMHA staff team is based in several locations that extend beyond Canada. Four members are working at the Institute's office in Montreal (including the Scientific Director), two members at the CIHR central office in Ottawa, one member in Toronto and one in Stockholm, Sweden. While team spirit and flexibility are key to the successful functioning of this small team, most responsibilities are clearly divided. The Montreal team is responsible for the overall management of the Institute. The Ottawa team members provide a vital link to CIHR central office and also hold responsibility for national partnerships. Our Toronto staff member is the lead on the Regenerative Medicine and Nanomedicine Initiative, with additional part-time support from Ottawa. Our one-person "Sweden" office is responsible for international relations, as well as the INMHA newsletter (Brain Brief) and other writing assignments such as the Annual Report.

Indirect support is also provided by the various departments at CIHR in Ottawa, most importantly within the Research Portfolio, which is responsible for INMHA-led funding programs, including competition management, peer review and grant administration. In turn, INMHA staff members also participate in CIHR corporate activities, committees and special working groups. For example, the Institute is collaborating on the development of an international strategy for CIHR. INMHA is also leading several multi-institute international partnership programs as described in the previous section. Other activities include evaluation of the CIHR peer review process and the CIHR website.

This annual report of INMHA activities is a tribute to the collective effort of all the members of the extended INMHA team and our valued partners.



# INSTITUTE PROFILE

## Mandate

CIHR's Institute of Neurosciences, Mental Health and Addiction supports research to enhance mental health, neurological health, vision, hearing, and cognitive functioning and to reduce the burden of related disorders through prevention strategies, screening, diagnosis, treatment, support systems, and palliation. Associated research will advance our understanding of human thought, emotion, behaviour, sensation (sight, hearing, touch, taste, smell,) perception, learning and memory.

## Mission

To foster excellence in research aimed at increasing knowledge of brain and spinal cord disorders, mental illnesses, and addictions.

To translate this new knowledge into improved prevention, health outcomes, and quality of life for all Canadians.

## Vision

Innovative research will provide new knowledge of the biological and socio-cultural processes underlying neurological, mental and addictive disorders.

Such a comprehensive approach to research will improve prevention, diagnosis and treatments, and will enhance the quality of life of Canadians suffering from illnesses covered under the broad mandate of the Institute.

## Strategic goals

**PROMOTE** and **SUPPORT** excellence in peer-reviewed, internationally recognized and ethically responsible research in the domains of the Institute, including co-occurrence with other health problems.

**ENCOURAGE** trans-disciplinary research in order to facilitate knowledge transfer aimed at developing and improving health care treatments and services.

**ENSURE** the training and support of the next generation of Canadian scientists in all aspects of neurosciences, mental health and addiction by promoting and sustaining the development of trans-disciplinary programs of research and training.

**WORK** with non-governmental and volunteer health organizations, municipal governments and other interested stakeholders to reduce the discrimination and prejudices associated with neurological and sensory disorders, mental illnesses and addictions.

**PROMOTE** the mandate of INMHA and its contribution through effective communication with all sectors of civil society.

**WORK** with the Government of Canada, municipal, provincial and territorial governments, members of the scientific community, non-governmental and volunteer health organizations, foundations and all Canadians to ensure that sufficient human and financial resources, consistent with the burden of disease of the disorders covered by the INMHA, are made available to the Institute in order to enable it to achieve its goals.

**INTERACT** with all stakeholders to identify research priorities, establish partnerships and undertake collaborative activities.

## Values

In pursuing its strategic goals, INMHA has adopted the following guiding principles as values. INMHA:

- is committed to the support of excellence, scientific integrity and ethics in research that meet the highest international standards;
- cultivates an understanding of the diversity of the multiple disciplines covered by the INMHA mandate in order to expand beyond traditional approaches to research;
- affirms the importance of research and knowledge translation as a means of making a difference in the lives of people who are experiencing or who are at risk from the disorders and illnesses of concern to INMHA;
- takes advantage of the latest advances in research methodology and information technology;
- recognizes that the development of indicators of research outcome is important in determining the impact of research upon the health of Canadians;
- promotes frank and rigorous scientific and public debate on issues and ideas emanating from all of INMHA's domains;
- fosters collaborations with its stakeholders to create a common commitment to the goals of INMHA;
- adopts ethical, transparent and effective governance and management processes that establish INMHA's credibility and strengthen its organizational capacity;
- acknowledges its accountability to the Governing Council of the CIHR, the Government of Canada, and Canadians for the funding received and the accomplishment of its goals.

## INSTITUTE OF NEUROSCIENCES, MENTAL HEALTH AND ADDICTION INVESTMENTS IN STRATEGIC INITIATIVES

For the year ended March 31, 2005

## Contributions through Grants and Awards

STRATEGIC INITIATIVES	Number	2004-05	2005-06	2006-07	2007 and beyond	Total
Unallocated	1	\$ 150,000				\$ 150,000
Healthy Pregnancy	1	100,000	100,000	100,000	200,000	500,000
Invention – Tools, Techniques and Devices	3	229,227	238,730	123,925		591,882
New Discoveries	1	29,813	29,813			59,626
Ice Teams	1	56,800	114,400	114,400	89,400	375,000
Understanding the Placebo Effect	1	240,000	240,000	240,000	240,000	960,000
Regenerative Medicine-Neuroscience	1	146,220	146,220	146,220	146,220	584,880
Post-Traumatic Stress Disorder	2	432,546	442,246	442,246	442,246	1,759,284
Operating Grants	6	399,907	129,098			529,005
Knowledge Translation Applications	5	73,334	10,000	83,334		
New Emerging Team Grant Program (NET Program)	8	848,551	1,137,750	1,072,244		3,058,545
Access for Marginalized Groups	1	13,340				13,340
Training Awards	15	436,741	169,500	110,000	27,500	743,741
National Network for Aboriginal Mental Health Research & Training	1	87,133	58,427			145,560
Health Research Partnership Program	1	3,167				3,167
Gene Therapy-Neuroscience Diseases	1	100,000	100,000			200,000
Strategic Training Initiative in Health Research Rx&D	15	1,785,057	2,193,899	2,453,116	3,771,728	10,203,800
Palliative End of Life Care	4	75,000	100,000	25,000		200,000
Stigma Global Health	2	131,149	100,000	100,000	230,000	561,149
Stigma Global Health	1	100,000	100,000	41,667		241,667
NeuroEthics	1	227,954	294,010	299,439	663,465	1,484,868
Healthy Development Trajectories of Infants, Children & Youth	1	100,000	100,000	100,000	200,000	500,000
Tobacco	1	499,769	499,769	499,769	999,538	2,498,845
Regenerative Medicine & Nanomedicine	5	270,000	300,000	300,000	1,250,000	2,120,000
JSPS-CIHR Joint Health Research Program	1	25,000	184,200	154,200	363,400	
EJLB Foundation Chairs	1	50,000	50,000	50,000	50,000	200,000
Suicide Prevention Targeting Aboriginal People			297,366	294,866	829,454	1,421,686
Vascular Dementia	4	8,499	8,790	8,897		26,186
Eric Single Studentship	1	3,667	7,000	7,000	3,334	21,001
Physician Health & Well-Being	1	50,000				50,000
Young Investigator Awards	5	94,241				94,241
	<b>92</b>	<b>\$ 6,767,115</b>	<b>\$ 7,151,218</b>	<b>\$ 6,682,989</b>	<b>\$ 9,142,885</b>	<b>\$ 29,744,207</b>

\* Note: Grants and awards in respect to these programs are approved for 1 to 6 years. Figures displayed represent CIHR financial commitments for these programs in 2004-05 and subsequent years. Availability of these funds in future years are subject to funding appropriations by Parliament. For some initiatives, partners also contributed to the funding of grants and awards.

**INSTITUTE SUPPORT GRANT**

For the year ending March 31, 2005

Total funds available		A	\$ 691,199
EXPENDITURES			
Institute Development			
Conference, symposia and workshops	\$ 426,990		
Institute Advisory Board expenditures	77,254		
Professional Services	56,670		
Travel Expenditures	57,817		
Other costs	27,000		
		Subtotal	\$ 645,731
Institute Operations			
Salaries and benefits	\$ 395,617		
Telephone and communication services	7,881		
Supplies, material and other services	15,140		
Computer equipment and IT support	501		
Professional Services	11,752		
Travel expenditures	31,823		
		Subtotal	\$ 462,714
Total expenditures		B	\$ 1,108,445
UNSPENT BALANCE		A - B	\$ - 417,246