

Addiction-related research in Canada and CIHR-INMHA

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Leading causes of disability in established market economies

• 1990 (both sexes, all ages)	% of total YLDs*
• Unipolar depression	13.6%
• Alcohol use	9.1%
• Osteoarthritis	5.5%
• Dementia and neuro-degenerative disorders	4.9%
• Schizophrenia	4.5%
• Bipolar disorder	3.5%
• Cerebrovascular disorder	3.2%
• Diabetes	3.1%
• Obsessive-compulsive disorder	3.1%
• Drug Use	2.9%

*YLD, years of live with disabilities

Murray and Lopez, The Global Burden of Disease, 1996

Estimated costs of substance abuse

Billion of \$	Tobacco	Alcohol	Illicit Drugs
Lost of Productivity	6,8	4,14	0,823
Law Enforcement	n.a.	1,36	0,400
Direct Health Care	2,68	1,30	0.088
Total	9,48	6,80	1,311

Prioritizing process

- Potential reduction in “burden of suffering” and/or “burden of health care system inefficiency”
- Unlikely to be investigator-initiated
- Partner/stakeholder support or enthusiasm
- Capacity building contribution
- Potential for significant scientific advance (creativity/innovation/promise)
- National competitive advantage/niche
- Potential impact for international partnerships/leverage
- Emergent nature – new problems/knowledge/methods

Canada's special assets

- Good and well cumulated health and social records
- existence of single payer provincial health systems
- provincial alcohol control and management systems

*Cross-cutter
Strategic Initiative for
Advancing the Science to
Reduce Tobacco Abuse and
Nicotine Addiction*

Major Strategic Initiatives

- Nicotine addiction and tobacco abuse
 - National Summit, Ottawa, April 2002
 - Report on CTCRI Web site (www.ctcri.ca)
 - RFA “Advancing the science to reduce tobacco abuse and nicotine addiction”
June 2003
 - Partners
 - CIHR: INMHA, ICR, IAPH, ICRH, IGH, IHDCYH
 - National Cancer Institute, Canadian Cancer Society, Heart and Stroke Foundation, Health Canada, Canadian Lung Association, Association pulmonaire du Québec
 - To be relaunched in December 2004



Research Topic Areas

- Aboriginal Peoples
- Determinants of Tobacco Use
- Economics of Tobacco Control
- Harm Reduction
- Industry Practices
- Integrated Interventions
- Nicotine Addiction
- Sex and Gender

Funding Opportunities

- ICE Teams
- Policy Research Grants
- Knowledge Synthesis Grants
- Idea Grants
- Research Planning Grants
- Student Research Grants
- Researcher Travel Grants

ICE Teams supported by INMHA

P. Clarke (McGill U.)

Nicotine addiction: Behavioral and brain mechanisms from rodents to humans

P.W. McDonald (U. of Waterloo)

A Pan-canadian Resource Network for Tobacco Control Research, Policy and Practice

Other initiatives related to tobacco use and nicotine addiction

Strategic Training Initiative in Health Research

- **Cameron** (Waterloo) Tobacco Research
- **Selby** (Toronto) Tobacco use in special populations

New Emerging Team

- **Paus** (McGill) Long-term consequences prenatal exposure to maternal cigarette smoking on brain structure, function and mental health in adolescence: Role of genes and environment in brain development

Forum on Alcohol and Illicit Drugs in Canada

Kanata, October 2-4, 2003

organized by

INMHA, CCSA, Health Canada, IAPH, IGH

Participants

- Researchers
- Non governmental organizations
- Federal agencies
 - Health Canada, CCSA, RCMP
- Provincial agencies (NS, AB, SK, BC)
- Aboriginal people's representatives

Nine research themes

- Aboriginal Peoples
- Biology of Substance Use and Addiction
- Epidemiology
- Health Promotion, Prevention and Healthy Public Policy
- Populations/Resiliency
- Research into Knowledge Exchange and Dissemination
- Sex Differences and Gender Influences
- System Design and Evaluation, and Public Policy
- Treatment and Relapse Prevention.

Inter-Provincial Forum on Gambling Research Priorities

Toronto, September 22-23, 2004

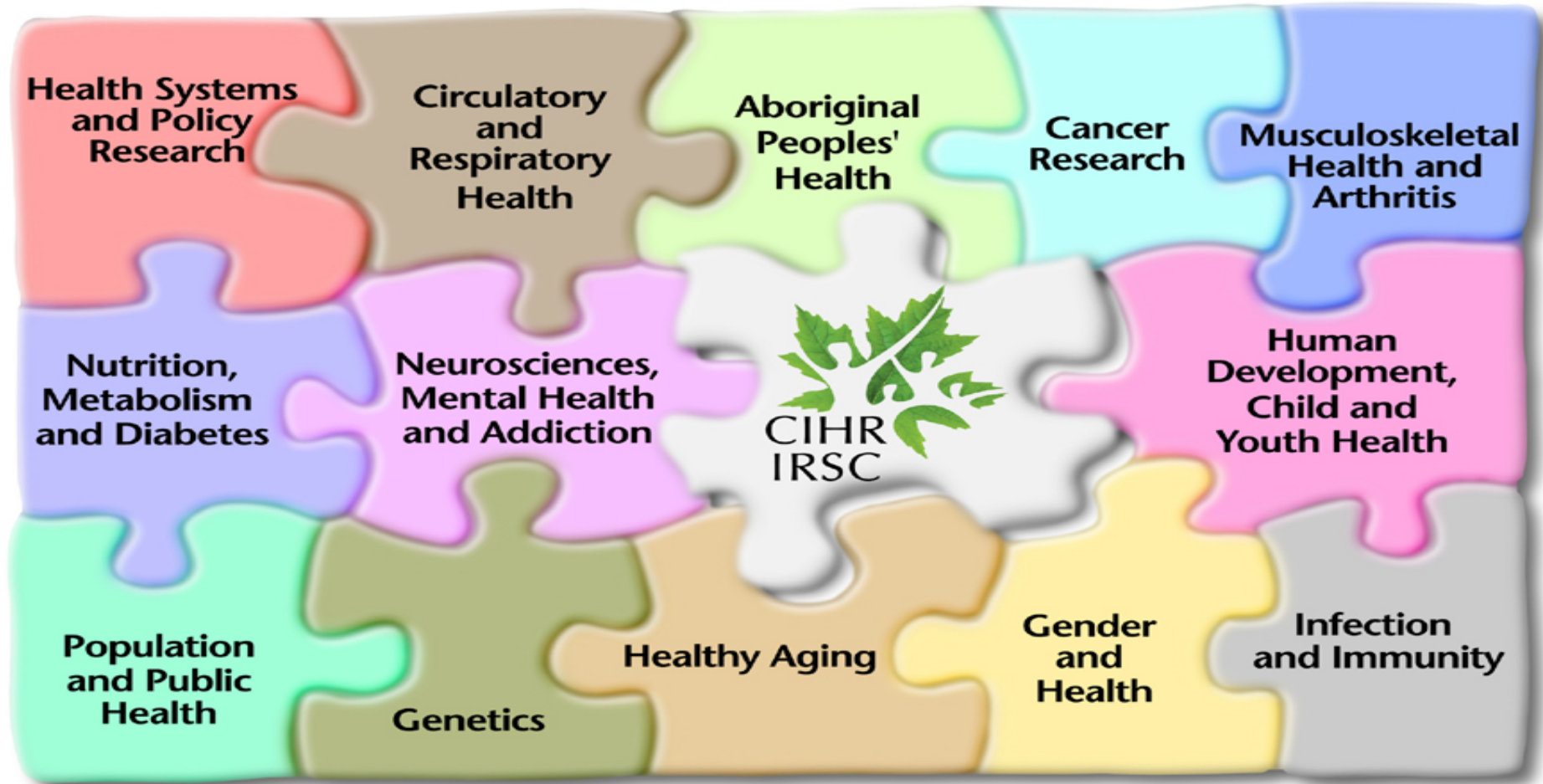
Organized by INMHA and Ontario
Problem Gambling Research Centre

17 priorities were determined

Next steps

- Launch of a large RFA in December 2004 in collaboration with the CCSA, CTCRI, Ontario Problem Gambling Research Centre and Health Canada, etc.
- Research Topics
 - Tobacco, Gambling, Alcohol and Illicit Drugs and Multiple Addictions
- Recruitment of partners
 - other CIHR Institutes, other federal agencies, provincial agencies, non governmental organizations, private foundations
- Tools : Team Grants, Pilot Projects

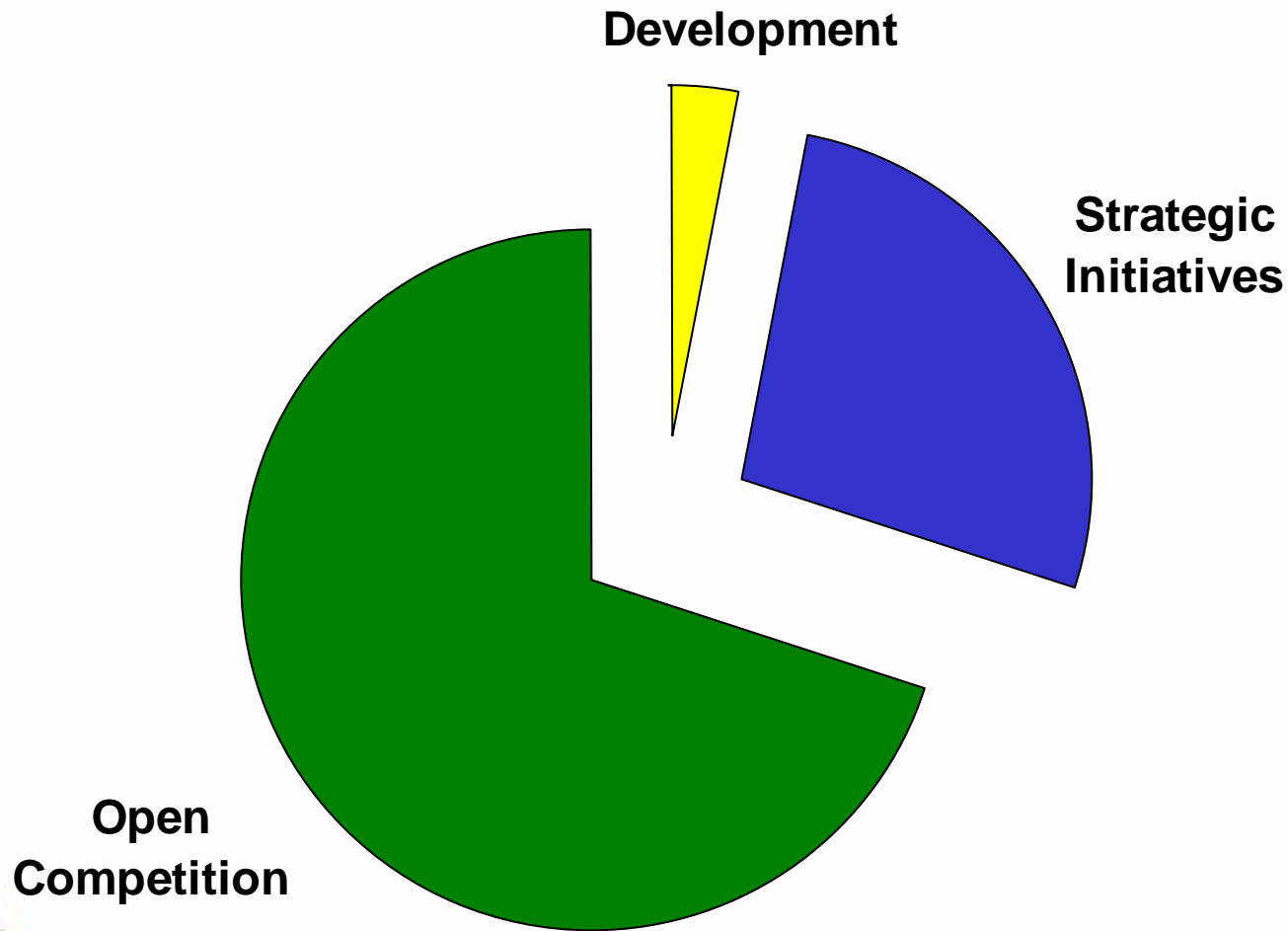
CIHR's 13 Institutes



Four Research Pillars of CIHR

- Biomedical
- Clinical
- Health services and health systems
- Health of populations, societal and cultural dimensions of health, and environmental influences on health

CHIR Budget



Canadian Institutes of Health Research

Institute of Neurosciences, Mental Health and Addiction

INMHA Mandate

The CIHR Institute of Neurosciences, Mental Health and Addiction will support 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.

Strategic Training Initiative in Health Research

First Competition 2001-2002

- **Cameron** (Waterloo) Tobacco Research
- **De Koninck** (Laval) Neurophysics: Setting new frontiers in neurosciences with material sciences and photonics
- **Fenster** (UWO) Vascular and cerebrovascular transdisciplinary training program
- **Houry** (Toronto) Protein folding. Principles and diseases
- **McGrath** (Dalhousie) Pain in child health
- **Reithmeier** (Toronto) Structural biology of membrane proteins linked to disease
- **Salter** (Toronto) Pain research. From molecules to community
- **Vincent** (UBC) Neurobiology and behaviour

Strategic Training Initiative in Health Research

Second Competition 2001-2002

- **Antel** (McGill) Integrated Training Program in basic and clinical aspects of neuroinflammation
- **Chaudhuri** (McGill) McGill integrative neurobehavioral training program: focus on regenerative medicine and early life events
- **Fombonne** (McGill) Training program in autism research
- **Goldner** (UBC) Building capacity in mental health and addiction services and policy research
- **Holden** (Queen's) Transdisciplinary inter-institute training program in autism spectrum disorders
- **Kirmayer** (McGill) Culture and mental health services
- **Meaney** (McGill) Genes, environment and health training program
- **Mishara** (UQAM) Formation interdisciplinaire en recherche sur le suicide et sa prévention
- **Selby** (Toronto) Tobacco use in special populations
- **Wilson** (York) CIHR strategic training program in vision research

NET Neurodevelopment and early life events

Brien (Queen's)

Fetal alcohol syndrome, oxidative stress and innovative therapies

Honer (UBC)

Interactions of development, early life experience, and genetic predisposition in schizophrenia

Paus (McGill)

Long-term consequences prenatal exposure to maternal cigarette smoking on brain structure, function and mental health in adolescence: Role of genes and environment in brain development

Robaey (Montréal)

Inattention, impulsiveness and restlessness in childhood: Heritability, genetics, neuropsychology and psychophysiology (KIDNET)

NET Computational neurosciences and artificial intelligence

Kalaska (Montréal) Learning task decomposition in large-scale biological and artificial neural networks

McIntosh
(Rotman Inst.) Development of integrative computational neuroscience program to understand human mental function

NET Post traumatic stress disorder

Asmundon (Regina)

Understanding Risks Factors,
Co-morbidity, and Global
Health Issues in PTSD

Coupland (Alberta)

« STRESS » Stress, Trauma
and Recovery: Early Stage
Studies

NET Understanding the Placebo Effect

Lavigne (Montréal)

Comprendre l'effet placebo à partir d'études expérimentales et cliniques sur le sommeil et la douleur impliquant des états de vigilance altérés

NET Regenerative Medicine - Neuroscience

Weaver

(Robarts Research Institute)

In partnership with
Ontario Neurotrauma Foundation

Spinal Cord Injury:
Discovery and
development of rescue
and repair strategies.

NET Neuroethics

J. Downie (Dalhousie University)

Neuroimaging Ethics: From Theory to Practice

To be relaunched in December 2004

NET Suicide

Results of the first competition to be announced soon

RFA to be relaunched in December 2004

Major Strategic Initiatives

- Regenerative Medicine

- stem cells, nanomedicine, gene therapy, tissue engineering, rehabilitation

- Brain and spinal cord repair

- IHRT on Gene therapy (Karpati et al.)

- Vision and hearing losses

- Partners CIHR: INMHA, IG, ICR, ICRH, III, IMHA

- Canadian Genetic Diseases Network, Canadian Stroke Network, Juvenile Diabetes Research Foundation International, Heart and Stroke Foundation, NSERC, NRC, Neuroscience Canada, Stem Cell Network, Canadian Space Agency,

- Nanomedicine Workshop, Feb. 2003

- Annual Meeting - Nanomedicine, Feb. 2004

- RFA in June 2003 and re-launch in June 2004

- More on www.regenerativemedicine.ca or www.cihr-irsc.gc.ca/e/22842.html

Major Strategic Initiatives

- First episodes in neurological and mental illnesses, and in addictions
 - Steering Committee, Halifax, October 2002
 - Workshop, Montréal, February 9-10, 2004
 - Report on the Web, Spring 2004
 - RFA planned for December 2004

Major Strategic Initiatives

- Co-occurrence of brain disorders with other health problems
 - NET Program May 2002
 - Workshop likely in 2005

| Upcoming events

Booth 919, Society for Neuroscience Meeting,
San Diego, October 23-27, 2004

3rd INMHA Annual Meeting

Mariott Hotel, Ottawa, November 22-27, 2004

- Vision
- Schizophrenia
- Epilepsy

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www.cihr-irsc.gc.ca

and read the Brain Brief, INMHA newsletter

www.thebrain.mcgill.ca

and read about the brain from top to bottom