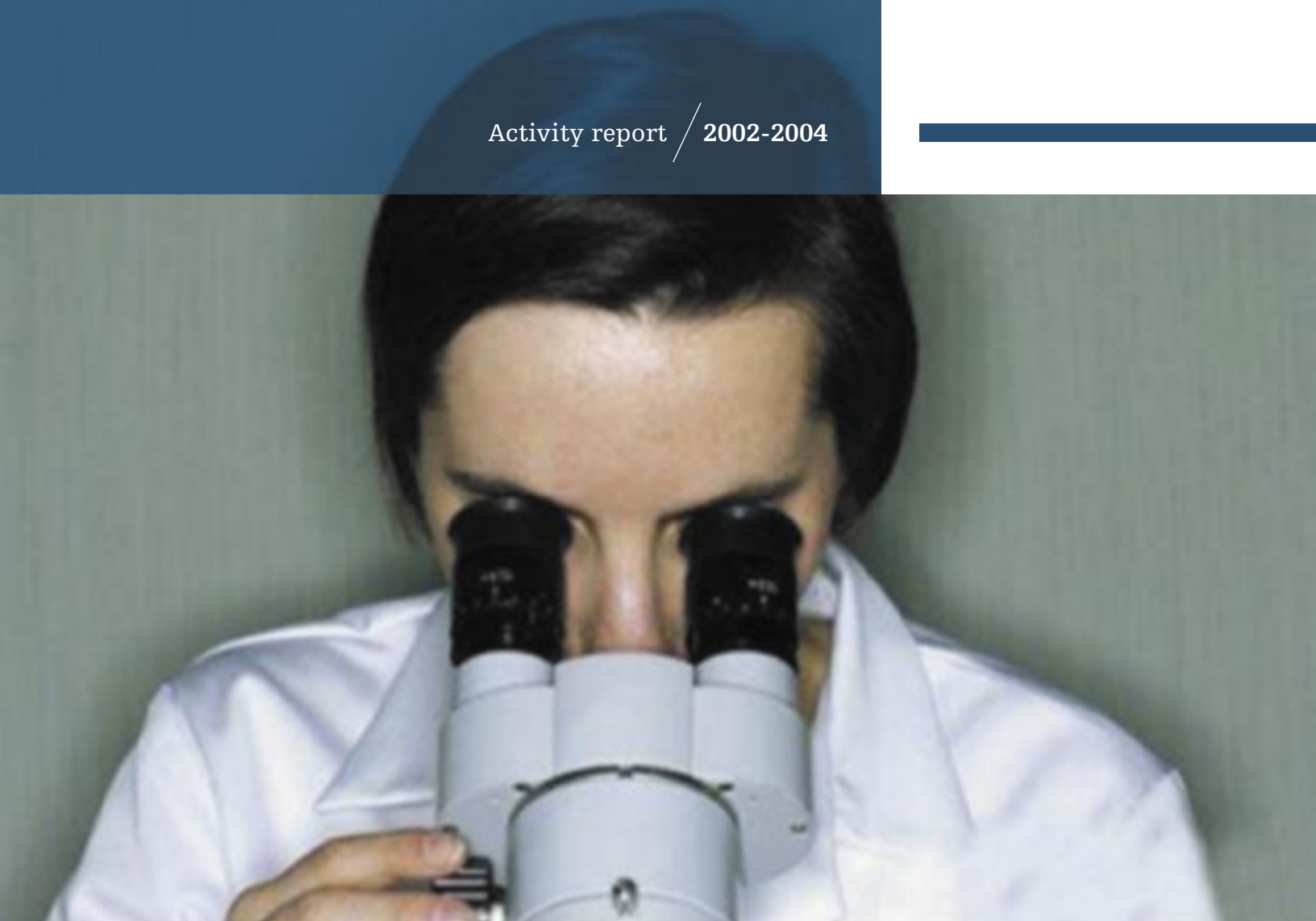


CENTRE DE RECHERCHE  
FERNAND-SEGUIN  
DE L'HÔPITAL LOUIS-H. LAFONTAINE

Activity report / 2002-2004

In partnership with :

- Hôpital Rivière-des-Prairies
- Institut Philippe Pinel  
de Montréal



## A WORD FROM THE DIRECTOR OF RESEARCH



**Pierre-Paul Rompré**

As you may have noticed, the past few years have been marked by many events which have had a major impact on the development of the Centre de recherche Fernand-Seguin (CRFS) of the Hôpital Louis-H. Lafontaine, though some have had a greater impact than others – at least, in the longer term. Among them is the research partnership agreement signed between the Hôpital Louis-H. Lafontaine (HLHL)

and the Hôpital Rivière-des-Prairies (HRDP), which has allowed us to expand our field of expertise into the clinical and epidemiological research of child and adolescent mental health. There is also the Development Plan 2003-2007, ratified by the Fonds de la recherche en santé du Québec's (FRSQ) board of directors, which paved the way towards the formation of a new partnership with the Institut Philippe Pinel de Montréal (IPPM) and the creation of a new axis of research in forensic psychiatry.

These partnerships reflect the leadership exhibited by the researchers themselves in developing a research network. Also, a “networking spirit” has materialised within the CRFS, where the highest number of mental health researchers from the Université de Montréal (medicine,

AXES	SUBJECTS	COORDINATORS
<b>BASIC NEUROSCIENCE</b>	<ul style="list-style-type: none"> <li>• Animal models of psychiatric disorders</li> <li>• Neurochemistry</li> <li>• In vitro and in vivo neuroelectrophysiology</li> <li>• Molecular pharmacology</li> </ul>	Dr. Richard Warren
<b>HUMAN NEUROSCIENCE</b>	<ul style="list-style-type: none"> <li>• Brain imaging (fMRI)</li> <li>• Neuropsychology</li> <li>• Neuroelectrophysiology (EEG, evoked potential - sleep)</li> <li>• Clinical psychopharmacology</li> </ul>	Dr. François Guillem
<b>PSYCHOLOGICAL TREATMENT</b>	<ul style="list-style-type: none"> <li>• Developing cognitive and/or behavioural therapies for anxiety disorders and post-traumatic stress disorders</li> <li>• Preventing anxiety disorders in children and adults</li> <li>• Experimental psychophysiology</li> </ul>	Dr. Kieron O'Connor
<b>SOCIAL PSYCHIATRY</b>	<ul style="list-style-type: none"> <li>• Evaluative support in the development of psychiatric services</li> <li>• Suicide</li> <li>• Epidemiology of mental disorders: from childhood to old age</li> </ul>	Dr. Richard Boyer
<b>FORENSIC PSYCHIATRY</b>	<ul style="list-style-type: none"> <li>• Brain imaging (fMRI)</li> <li>• Basic and clinical neuropharmacology</li> <li>• Evaluative support in the development of psychiatric services</li> <li>• Suicide</li> <li>• Epidemiology of behavioural disorders</li> </ul>	Dr. Gilles Côté

## RESEARCHERS

Dr. Jacinthe Baribeau  
 Dr. Lise Bergeron  
 Dr. Jean-Jacques Breton  
 Dr. Sandra Boye  
 Dr. Richard Boyer  
 Dr. Jacob Ari Burack  
 Dr. Elisabeth Campos  
 Dr. Christiane Cardinal  
 Dr. Guy Chouinard  
 Dr. Kim Cornish  
 Dr. Gilles Côté  
 Dr. Marc Daigle  
 Dr. Guy Debonnel  
 Dr. Henri Dorvil  
 Dr. Robert Élie  
 Dr. Gabriella Gobbi  
 Dr. Roger Godbout  
 Dr. François Guillem  
 Dr. Stéphane Guay  
 Dr. Boutheina Jemel  
 Dr. Natacha Joubert  
 Dr. Christian Joyal  
 Dr. Sylvia Kairouz  
 Dr. Denis Lafortune  
 Dr. Pierre Landry  
 Dr. Marc Lavoie  
 Dr. Alain Lesage  
 Dr. André Marchand  
 Dr. Jacques Marleau  
 Dr. Adrianna Mendrek  
 Dr. Laurent Mottron  
 Dr. Kieron O'Connor  
 Dr. Graciela Piñeyro  
 Dr. Jean Proulx  
 Dr. Patrice Renaud  
 Dr. Pierre-Paul Rompré  
 Dr. Nicole Ricard  
 Dr. Monique Séguin  
 Dr. Ron Sullivan  
 Dr. Nicole Smolla  
 Dr. Emmanuel Stip  
 Dr. Ariel Stravynski  
 Dr. Jean Toupin  
 Dr. Michel Tousignant  
 Dr. Lyse Turgeon  
 Dr. Louis-Éric Trudeau  
 Dr. Gilles Trudel  
 Dr. Jean-Pierre Valla  
 Dr. Richard Warren

## ASSOCIATED RESEARCHERS

Dr. Linda Beauclair  
Dr. Marc-André Bédard  
Dr. François Borgeat  
Dr. Stéphane Bouchard  
Dr. Odette Bernazzani  
Dr. Hugues Cormier  
Dr. Gilles Dupuis  
Dr. Marc Freeston  
Dr. Sheila Hodgins  
Dr. Pierre Lalonde  
Dr. Gilles Lavigne  
Dr. Réal Labelle  
Dr. Sylvie Lauzon  
Dr. Claude Leclerc  
Dr. Olivier Lipp  
Dr. Nicole Mainguy  
Dr. Toré Nielson  
Dr. Michel Prévile  
Dr. Constant Rainville  
Dr. Robert Roth  
Dr. Paul Sidoun  
Dr. Christo Todorov  
Dr. Valérie Tourjman  
Dr. Gustavo Turecki  
Dr. Luc Turnier

arts and sciences, nursing) and other universities (McGill, Laval, UQÀM, UQO, UQTR and Sherbrooke) are found. With researchers from a wide variety of university departments, we are able to establish an exceptional environment for training the next generation of scientists, due to the involvement of students from masters and doctorate programs in psychology, neuroscience, psychoeducation, biomedical science, nursing science, pharmacology and sociology. Our institution, therefore, maintains a unique position at the core of mental health research centres in Quebec.

The mission of the Hôpital Louis-H. Lafontaine and its research partners, the Hôpital Rivière-des-Prairies and Institut Philippe Pinel de Montréal, is to provide the highest quality mental health services and care in order to improve and sustain the well-being of individuals, families, communities and society. As hospital centres affiliated with the Université de Montréal, all must contribute to developing care and services, training the next generation and maintaining the skills of mental health practitioners via research activities incorporated with teaching and ongoing training: from the laboratory to the community. As such, our activities concern significant mental health problems, which are entirely relevant to the hospitals' mission. They entail the etiology, prevention, treatment and prevalence of mental health problems, such as schizophrenia, pervasive developmental disorders, suicide, anxiety disorders, substance abuse, behavioural disorders, aggression and violence. These activities are also aimed at developing assessment tools and treatment methods for the intended clientele. The aforementioned problems are studied by researchers from a range of disciplines and specialties currently divided into five main axes of research: basic neuroscience, human neuroscience (including complementary areas such as neuroelectrophysiology, psychopharmacology and psychiatric neuropsychology), psychological treatment, forensic psychiatry and social psychiatry.

The agreement between the three hospitals, as mentioned above, had a major impact on the development of our centre. For instance, the number of researchers has increased from 35 in 2001-2002 to 49 in 2003-2004. The total amount of grants and bursaries received from recognised organisations has reached nearly \$3.8 million annually. Our researchers have published over 330 articles and 80 book chapters in 2003 and 2004, in addition to having supervised more than 200 graduate and postgraduate students. These are the sorts of indicators that demonstrate how our centre has become one of the leading francophone mental health research facilities in the entire country.

The objective of our development plan is to reinforce the current axes by broadening expertise in complementary fields. As such, many new researchers were recruited

over the past few years: Sandra Boye (Basic Neuroscience Axis), Kim Cornish, Adrianna Mendrek, Boutheina Jemel (Human Neuroscience Axis), Stéphane Guay (Psychological Treatment Axis), Christian Joyal and Jacques Marleau (Forensic Psychiatry Axis) and Sylvia Kairouz (Social Psychiatry Axis).

Our researchers have distinguished themselves in the FRSQ and Fonds québécois de recherche sur la société et la culture (FQRSC) scholarship competitions. Christian Joyal, Elisabeth Campos, Gabriella Gobbi and Jacques Marleau earned a Junior 1 bursary; Louis-Éric Trudeau, François Guillem and Ron Sullivan reached the Junior 2 level; Laurent Mottron received a Senior bursary and Stéphane Guay and Sandra Boye obtained a Junior 1 bursary as part of our development program supported by the MSSS.

Ron Sullivan and Graciela Piñeyro received a \$454,804 grant from the New Opportunities Fund of the Canada Foundation for Innovation. As a result, space was made available at the research centre to create a new neurobiology laboratory for the study of anxiety and affective disorders.

Many of our researchers and students have won awards of excellence: Laurent Mottron, Guy Chouinard, Louis-Éric Trudeau; and, among the students, Cherine Fahim, Nicolas Audet and Nadine Larivière.

Doctor Emmanuel Stip was appointed Eli Lilly Canada Chair in schizophrenia research for the Université de Montréal, an award established in 2003. His dynamic style and networking spirit have aided CRFS researchers and clinicians to forge new relationships with those from the Hôpital du Sacré-Cœur de Montréal (HSCM). In addition, it is important to note that the HLHL and HSCM foundations contributed significantly to accomplishing this project.

The researchers were also involved in coordinating major scientific events. Emmanuel Stip (Human Neuroscience Axis), Louis-Éric Trudeau and I (Basic Neuroscience Axis) organised the 25th neuroscience symposium for the Université de Montréal, in 2003. This significant event examined major mental disorders and assembled 17 national and international speakers, whose presentations were featured in two special issues of the Journal of Psychiatry and Neuroscience, published in 2004. In October 2004, Richard Boyer, Aline Drapeau and Raymond Tempier (Social Psychiatry Axis) organised the annual scientific symposium, in Montreal, for the Canadian Academy of Psychiatric Epidemiology. This symposium served as an excellent occasion for the exchange of ideas among researchers and representatives

from the clinical and political arenas – having gathered over 80 participants from five provinces across Canada. The resulting scientific discourse will be published in a special issue of the Canadian Journal of Psychiatry. Finally, under the direction of Richard Boyer, the HLHL hosted the Université de Montréal (UdeM) Department of Psychiatry’s journée scientifique, in 2004. During the event, the Monique-Gaumond Award, bestowed annually for the best scientific presentation relating to the subject of affective illness, was presented to Mr. Boubacar Pasto Wann, who works under the supervision of Roger Godbout at the Hôpital du Sacré-Cœur de Montréal.

I feel it is particularly important to highlight the ongoing efforts of the Fondation Louis-H. Lafontaine’s administration and the members of its board of directors in raising funds for supporting research, as well as the needs and activities of users. From 2002 to 2004, the Fondation has allocated over \$300,000 for research – an amount that has helped to support our researchers from the beginning of their careers through the development of innovative

new projects. On December 9, 2004, the Centre de Recherche Fernand-Seguin and the administration of the Hôpital Louis-H. Lafontaine and the Fondation Louis-H. Lafontaine organised an evening to underscore the exceptional contribution of the Fondation Norman Fortier, which, for the past five years, has donated an annual sum of \$150,000 for mental health research.

The last few years have been important with regards to both development and consolidation. The outstanding abilities exhibited by our researchers and students, as well as the dedication of all our research personnel, has contributed to creating a mental health centre of excellence. This achievement must also be attributed to the unwavering support of our institution’s administration and board of directors and the administration and board of directors of our research partners, the Fondation HLHL, the Université de Montréal and the FRSQ. With their support, we will pursue our objective of developing into one of Canada’s finest and most recognised “university institutes.”

## A WORD FROM THE HEAD OF THE DEPARTMENT OF RESEARCH AT THE HÔPITAL RIVIÈRE-DES-PRAIRIES



**Roger Godbout**

The Hôpital Rivière-des-Prairies (HRDP) is affiliated with the Université de Montréal and provides specialised and highly-specialised psychiatric services. Its clientele consists of children and adolescents with psychiatric pathologies or serious adaptive problems; they may be suffering from intellectual disabilities, pervasive developmental disorders, other serious neurodevelopmental disorders or rare illnesses. The HRDP’s Department of Research is comprised of nine research scientists and numerous clinical researchers divided into two units: social and preventive pedopsychiatry and cognitive and behavioural neuroscience. The researchers in the social and preventive pedopsychiatry unit work in the fields of psychometrics, populational epidemiology, clinical

epidemiology and research ethics, and are all a part of the Social Psychiatry Axis at the Centre de recherche Fernand-Seguin (CRFS). The researchers in the cognitive and behavioural neuroscience unit focus on basic and applied neuroscience research in pervasive developmental disorders (PDD) and other neurodevelopmental disorders; all of these researchers are a part of the Human Neuroscience Axis at the CRFS. Axis meetings are held in both hospitals.

The research alliance between the Hôpital Rivière-des-Prairies and Hôpital Louis-H. Lafontaine was solidified by an agreement signed in 2001. This partnership has generated a great deal of productive joint ventures in a variety of ways. For instance, the CRFS’ development budget contributed to the establishment of an evoked potential laboratory of one of our department’s young recruits. Members of this laboratory now work directly in association with the researchers who practice in the same field at Hôpital Louis-H. Lafontaine, transferring knowledge, sharing technological platforms etc. Both institutions also have sleep laboratories, which have encouraged the co-development of research projects and the joint supervision of students. As a result, researchers from the

### MANAGEMENT COMMITTEE

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Director of Research -  
President

**Dr. Pierre Landry**  
Assistant Director of Clinical  
Research

**MS. Colette Fortin**  
Assistant to the Director  
of Research

**Dr. Gilles Côté**  
Director of the Centre de  
recherche de l’Institut Philippe  
Pinel de Montréal and  
Coordinator of the Forensic  
Psychiatry Axis

**Dr. Roger Godbout**  
Head of the Department  
of Research at the Hôpital  
Rivière-des-Prairies

**Dr. Richard Boyer**  
Coordinator of the Social  
Psychiatry Axis

**Dr. François Guillem**  
Coordinator of the Human  
Neuroscience Axis

**Dr. Kieron O’Connor**  
Coordinator of the  
Psychological Treatment Axis

**Dr. Richard Warren**  
Coordinator of the Basic  
Neuroscience Axis

## RESEARCH ETHICS COMMITTEE

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Attorney

**Fr. Cornélius Boekema**  
Chaplain

**Dr. Doris Clerc**  
MD, Director of Professional Services, Ex Officio

**Ms. Chantal Cloutier**  
Psychiatric Occupational Therapist

**Dr. Robert Élie**  
MD, Ph.D., Pharmacology - President

**Ms. Françoise Fournier**  
member of the Société québécoise de la schizophrénie and community representative

**Ms. Pierrette Lépine**  
community representative

**Ms. Christiane Lessard**  
Pharmacist

**Dr. Raymond Morissette**  
Psychiatrist

**Ms. Lorraine Paradis**  
Psychiatric Nurse

**Ms. Michelle Pimont-Beaulieu**  
MD, Ethics Expert

**Dr. Valérie Tourjman**  
Psychiatrist

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Ph.D., Population Health - President

**Dr. Stéphane Guay**  
Ph.D., Psychology

**Dr. Robert Élie**  
MD, Ph.D., Pharmacology

**Dr. Christine Grou**  
Ph.D., Neuropsychology

**Dr. François Guillem**  
Ph.D., Cognitive Science

**Dr. Marc Lavoie**  
Ph.D., Biomedical Science

**Dr. Valérie Tourjman**  
MD, Psychiatrist

**Dr. Nicole Smolla**  
Ph.D., Psychology

Human Neuroscience and Psychological Treatment Axes co-supervise many students who are interested in the sleep-EEG-neuropsychology interface for sleep disorders, anxiety disorders, attention disorders, schizophrenia and autism. The same type of interhospital synergy is found among

social psychiatry researchers in the form of shared grants, joint supervision of students and scientific activities and co-authorship of publications. Lastly, the Research Ethics Committees of both hospitals have exchanged members in order to form a related community.

## A WORD FROM THE DIRECTOR OF THE CENTRE DE RECHERCHE DE L'INSTITUT PHILIPPE PINEL DE MONTRÉAL



**Gilles Côté**

The Institut Philippe Pinel de Montréal (IPPM) is a supraregional psychiatric university hospital that specialises in forensic psychiatry. Its mission is to prevent violence and assess and treat individuals suffering from mental disorders, which manifest, or can potentially manifest, in violent behaviour. To achieve this objective, the IPPM must develop its clinical services, conduct research in areas related to its mission and clientele and contribute to teaching.

In terms of research, the areas to be developed are found within a specialised niche. Though it may be specialised, this research must examine the various aspects connected to, for example, violent behaviour and factors ranging from genetics to the social organisation of systems in

charge of individuals suffering from mental disorders and exhibiting violent or antisocial behaviours. The highly-specialised nature of relevant areas renders it difficult to assemble a critical mass of researchers, considering the number of disciplines that can potentially shed light on the problems being studied. This predicament is particularly evident when recruiting researchers in the field of neuroscience. For instance, would finding a sufficient number of magnetic resonance imaging researchers even be feasible? Therefore, the integration of researchers from the Forensic Psychiatry Axis into the Centre de recherche Fernand-Seguin (CRFS) helps to encourage an inter-communicative environment for all Forensic Psychiatry Axis researchers. Not only do the exchanges revitalise research, integration into the CRFS also facilitates the recruiting of researchers who are highly-specialised in the area of violence in individuals suffering from serious mental disorders.

The ensuing collaboration has favoured the development of the Forensic Psychiatry Axis. Without this collaboration, it is likely the integration of neurosciences involving the study of impulsivity and the potentially aggressive behaviours associated with it, would not have been developed, or, perhaps, even been initiated at all.

## A WORD FROM THE ASSISTANT DIRECTOR OF CLINICAL RESEARCH



**PIERRE  
LANDRY**

The development of clinical research in mental health is a constant concern among the researchers and administration of the Centre de Recherche Fernand-Seguin (CRFS) of the Hôpital Louis-H. Lafontaine. In conjunction with its partners, the Institut Philippe Pinel (IPPM) and the Hôpital Rivière-des-Prairies (HRDP), in particular, the research centre has facilitated the inception of interdisciplinary research teams in response to the numerous challenges facing clinical research in mental health.

The social, evaluative and epidemiological research team has distinguished itself on a national and international level due to the quality of its work related to suicide and psychiatric epidemiology and its numerous published articles illustrating the effectiveness of treatment approaches and services offered to the psychiatric population. The researchers in human neuroscience and psychological treatment aim to clarify the underlying physiological and psychological mechanisms of mental illness in order to develop innovative and effective therapeutic systems. Schizophrenia, panic disorders, obsessive-compulsive disorders, post-traumatic stress disorders, pervasive developmental disorders, Tourette's syndrome and major depression are all among the psychopathologies serving as the object of the studies. The most noted experimental and technical approaches developed and employed at the research centre are: psychopharmacology, the cognitive-behavioural approach, psychological treatment by video conferencing, neuropsychology, brain imaging and electroencephalograph of the brain by evoked potential. This reinforces the complementarity of work conducted by the Hôpital Louis-H. Lafontaine researchers along with their counterparts at the Institut Philippe Pinel, who have developed expertise in the medico-legal field concerning individuals suffering from mental illness; while researchers at the Hôpital Rivière-des-Prairies specialise in the neurodevelopmental and sleep aspects of patients with pervasive developmental disorders, such as autism.

Throughout the year, we effected significant changes to record-keeping involving patients participating in research, by simplifying the process of opening files for non-physician researchers and by adding a research section to medical records. These measures were intended to improve the participants' accessibility to their own research files, facilitate the transfer of information to clinical teams that continue to follow the patients after studies and simplify patient recruitment and assist the ethics committee in fulfilling its mandate of identifying study participants.

Among the changes set to be introduced at the Hôpital Louis-H. Lafontaine is the implementation, over the course of a year, of a psychiatric care reorganisation plan proposing to regroup clientele by specific program. This new system of care provides an opportunity to develop clinical research by promoting the integration of researchers into various programs.

As within many other areas of medicine, the past few years have been marked by a decline in the involvement of physicians in clinical research. In part, this situation can be attributed to the shortage of medical staff in psychiatry, which is a major challenge to overcome. Also, budget cuts, as much within the organisations providing the subsidies as within the universities, make it that much more difficult to ensure a future generation of mental health researchers.

The progress in advancing mental health knowledge could not have been achieved without the cooperation of research project patients. It is not always easy for them to participate in studies that require a great deal of their time and, often, some displacement – so, we thank them as well. This is one of the reason why researchers always conduct themselves with a work ethic that is above reproach. As such, the main purpose of developing clinical research within a hospital centre is to provide researchers with a better understanding of patients' concerns, yet, also, to facilitate interaction between researchers and clinical teams in order to ease the transfer of knowledge and ensure the continuity of patient care.

We hope the future will be as productive as the years 2002-2003-2004 and that the Centre de recherche Fernand-Seguin will continue to be recognised as a leader in the development of knowledge and treatment for individuals with mental health problems in Quebec.

### INSTITUTIONAL ANIMAL CARE COMMITTEE

**Ms. Colette Fortin**  
institutional non-user  
of animals

**Mr. Nicolas Audet**  
student community  
representative

**Ms. Stéphanie Benoit**  
community representative

**Ms. Janick Boissonneault**  
technical staff representative

**Dr. Sandra Boye**  
scientific animal user

**Dr. Richard Warren**  
scientific animal user -  
President

**Dr. Jean-Paul Descôteaux**  
veterinarian

## AXES OF RESEARCH

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**THE BASIC NEUROSCIENCE AXIS** consists of six full-time researchers, nine graduate and postgraduate students, two postdoctoral interns and five technicians. Over the past two years, the axis' researchers have received \$1.9 million in bursaries and grants from organisations with peer review committees, published 25 scientific articles and delivered 36 presentations at national and international conferences. The researchers' expertise has enabled the study of the brain, from the tiniest molecule to the entire organism, to be undertaken. The objective of each member's research is to enhance the understanding of how the brain's structures work in terms of causing serious mental disorders, such as psychoses and major depression, as well as other behavioural disorders, including anxiety and substance abuse (cocaine, heroin, nicotine).

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**SANDRA BOYE, Ph.D., Psychology**, is a research assistant professor in the Department of Psychiatry of the Université de Montréal (UdeM). She works with animal models of substance abuse and has a specific interest in the effects of nicotine and the brain mechanisms that are responsible for its addictive potential.

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**GRACIELA PIÑEYRO, MD, Ph.D., Neuroscience**, is a Fonds de la recherche en santé du Québec (FRSQ) Junior 1 fellow and a research assistant professor in the Department of Psychiatry of the UdeM. She applies neuronal cell culture techniques to the study of functional changes resulting from short and medium-term treatment with antidepressant medication. She is also interested in the effects of opiates (morphine, heroin) and cannabinoids (active agents in marijuana) on neuronal cell function.

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**PIERRE-PAUL ROMPRÉ, Ph.D., Psychology**, is a full professor in the Department of Psychiatry of the UdeM. He works with animal models of psychiatric illness and his specific interests are the mechanisms of action of antipsychotic medications and drugs such as morphine, amphetamines and cocaine. He also employs electrophysiological techniques to study the cellular communication mechanisms in those areas of the brain that are affected in psychotic disorders and are disrupted by substance abuse.

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**RON SULLIVAN, Ph.D., Neuroscience**, is a FRSQ Junior 1 fellow and a research assistant professor in the Department of Psychiatry of the UdeM. He works with animal models of anxiety disorders to learn more about the psychological effects of early-life stress and the role of the mother-child relationship in the response to stress as an adult. He also studies how certain areas of the brain, such as the front, left and right cortices, regulate the response to stress and anxiety.

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## AXES OF RESEARCH

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**LOUIS-ÉRIC TRUDEAU, Ph.D., Neuroscience**, is a FRSQ Junior 2 fellow and a research associate professor in the Department of Pharmacology of the UdeM. He uses neuronal cell cultures to study 1) mechanisms that regulate their normal functioning and 2) the effects of antipsychotic medications on these mechanisms.



**RICHARD A. WARREN, Ph.D., Neurophysiology**, is a FRSQ Senior fellow and a research associate professor in the Department of Psychiatry of the UdeM. He also coordinates the Axis' research activities. He employs electrophysiological and neuroanatomical techniques to study the relationship between the shape of nerve cells, their interconnections and the electrical and chemical signals which spread from one to the other. In particular, he studies areas of the brain that are affected by psychotic disorders and substance abuse.



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**THE HUMAN NEUROSCIENCE AXIS** consists of 13 researchers, five associate researchers, 33 graduate and postgraduate students, three postdoctoral interns and eight skilled professionals, divided among two locations: the Hôpital Louis-H. Lafontaine (HLHL) and the Hôpital Rivière-des-Prairies (HRDP). Over the past two years, the Axis' researchers have obtained nearly \$1.38 million in bursaries and grants from organisations with peer review committees. They have published 63 scientific articles and delivered 84 presentations at national and international conferences. Their research interests cover a broad spectrum of mental health: schizophrenia and psychosis; anxiety disorders (obsessive-compulsive disorders, Tourette's syndrome); mood disorders (depression and bipolar disorders); substance abuse, psychiatric comorbidity and pervasive developmental disorders (such as autism); intellectual disability and rare genetic illnesses (such as Fragile X Syndrome). The recent affiliation with the Institut Philippe Pinel de Montréal also allows for new developments to be undertaken in the fields of violence and personality disorders. Research is organised among five units or technical platforms:

- Neuropsychology
- Cognitive psychophysiology (evoked potential)
- Sleep
- Brain imaging (fMRI)
- Psychopharmacology

The foremost principles guiding the Axis are the complementarity of approaches and interdisciplinary collaboration. For example, sleep laboratory researchers collaborate with members of the Psychological Treatment Axis and hospital clinicians. The neuropsychology researchers work closely with clinicians to analyse performance and the possibility of cognitive remediation in patients with various mental disorders. The psychopharmacology researchers assess the impact of new medications, not only on a clinical level, but on cognitive function as well. Another example illustrating the broad scope of the Human Neuroscience Axis' expertise is its maintenance of five researchers based at the HRDP, whose specific interests are in child and adolescent mental health.



## AXES OF RESEARCH

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**JACINTHE BARIBEAU, Ph.D., Psychology**, a full professor at the École de psychologie de l'Université Laval (U Laval), has developed extensive expertise in the use of cognitive neuroelectrophysiology to study altered states of consciousness associated with various pathologies, whether organic (head trauma and coma) or psychiatric (psychotic episode).

**JACOB BURACK, Ph.D., Psychology**, full professor in the Department of Educational and Counselling Psychology of McGill University (U McGill), is a specialist in the study of the relationship between development and neurodevelopmental pathologies. His interests lie primarily in cognitive disorders (neuropsychology) associated with intellectual impairment in children. By carrying out work that is equally theoretical and lab-oriented, he attempts to uncover the specific characteristics of intellectual impairment found within certain conditions, such as Fragile X syndrome, Down syndrome and autism. His research activities allow him to collaborate closely with school boards. He is also interested in mental health among First Nations youth.



**GUY CHOUINARD, MD, M.Sc., Pharmacology, F.R.C.P.(C), F.A.P.A.**, full professor in the Department of Psychiatry of the Université de Montréal (UdeM) and a professor at McGill University, is a pillar of psychopharmacological research in Canada. His work, whether concerning methods (developing a symptom assessment scale, treatment combination strategies) or the assessment of new psychotropic drugs, has contributed to the introduction of innovative treatments for various pathologies, such as schizophrenia, depression, panic disorders and obsessive-compulsive disorders. This work has been a determining factor for the integration of clinical specialists into research.

**KIM CORNISH, Ph.D., Neuropsychology**, an associate professor in the Department of Educational and Counselling Psychology of McGill University, is a Canada Research Chair in Neuropsychology and Education. She received a grant from the Canada Foundation for Innovation (CFI) to establish her laboratories at HRDP. Her work concerns learning disorders associated with genetic illnesses with psychiatric effects such as Fragile X Syndrome or Cri du chat Syndrome, as well as more common syndromes including attention-deficit/hyperactivity disorder.



**ROBERT ELIE, MD, Ph.D., Pharmacology**, a full professor in the Department of Pharmacology of the UdeM, has long-standing experience in psychopharmacology. He has developed expertise specifically in methodological and biostatic analyses and, therefore, is approached regularly by the centre's researchers and students. His expertise also encompasses the ethical and legal aspects of research.

## AXES OF RESEARCH

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**FRANÇOIS GUILLEM, Ph.D., Cognitive Science**, Fonds de la recherche en santé du Québec (FRSQ) Junior 2 fellow, a research assistant professor in the Department of Psychiatry of the UdeM and Axis coordinator. His research is aimed at characterising the relationships between brain (evoked potential) and cognitive (neuropsychology) activities and symptoms of schizophrenia. In addition to maintaining research connections with many clinicians at the HLHL, he also works closely with Emmanuel Stip conducting research pertaining to improvement in neurophysiological markers of cognitive performance as a consequence of treatment. Additionally, he collaborates with Marc Lavoie and Kieron O'Connor (Psychological Treatment Axis) analysing neurocognitive disorders associated with obsessive-compulsive disorders. Lastly, he shares with Roger Godbout an interest in the influence of sleep on memory.



**ROGER GODBOUT, Ph.D., Psychology**, a full professor in the Department of Psychiatry of the UdeM and Head of the Department of Research at the HRDP, conducts his research from three locations: CRFS-HLHL, CRFS-HRDP (research involving humans) and at the Centre de Recherche de l'Hôpital du Sacré-Coeur de Montréal (research involving animals). His research interests are: the electrophysiology and neuropharmacology of alertness in animals and humans, the role of neurotransmitters in controlling the sleep-wake cycle and the effect of sleep on diurnal performance. He collaborates closely with François Guillem and Marc Lavoie in studies of the impact of sleep on cognition, with Emmanuel Stip in studies of changes in sleep patterns in schizophrenia and with Laurent Mottron in studies concerning autism.

**BOUTHEINA JEMEL, Ph.D., Cognitive Neuroscience**, a research assistant professor in the Department of Psychiatry of the UdeM, studies the mechanisms of face recognition both from the perspective of their perception as well as the manner in which they are stored in memory. To this end, she employs cognitive electrophysiological methods (evoked potential). In conjunction with Laurent Mottron, this fundamental research is also used to study autism. In addition to her primary area of interest, and in collaboration with researchers at the HLHL, she is particularly involved in the study of markers of attentional processes and their manifestations in other mental health disorders, such as schizophrenia.

**PIERRE LANDRY, MD, F.R.C.P.(C), Ph.D., Neurophysiology**, an assistant professor in the Department of Psychiatry of the UdeM, is Assistant Director of Clinical Research. His research interests involve clinical psychopharmacology (schizophrenia, panic disorders), polypharmacy, drug interactions and side effects from medication (benzodiazepines and antipsychotics). He is also interested in the role of the immune system in psychiatric disorders.



**MARC LAVOIE, Ph.D., Biomedical Science**, Junior 1 fellow, a research assistant professor in the Department of Psychiatry of the UdeM, studies the link between cognitive processes and brain activity (evoked potential) in anxiety disorders: obsessive-compulsive, Tourette's syndrome and hyperactivity disorders in adults. He is also interested in the effect of emotion on memory. In addition to working in close association with Kieron O'Connor regarding neurophysiological markers of Tourette's syndrome, he also collaborates with Roger Godbout and François Guillem concerning the effects of sleep deprivation on the brain.



## AXES OF RESEARCH

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**ADRIANNA MENDREK, Ph.D., Neuroscience**, a research assistant professor in the Department of Psychiatry of the UdeM, developed expertise in brain imaging at the University of British Columbia (UBC) and the University of California, Los Angeles (UCLA). Her work involves the neurobiological aspects of behavioural disorders associated with the use of abused substances (nicotine). In collaboration with Emmanuel Stip, her interest is more specifically related to tobacco addiction and cholinergic neurotransmission in schizophrenia.

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**LAURENT MOTTRON, MD, Ph.D., Linguistics**, an associate professor in the Department of Psychiatry of the UdeM and a FRSQ Senior fellow, is in charge – at the HRDP – of the only specialised clinic dedicated to the study of autism without intellectual disabilities in Canada. Specifically, he focuses his research on the study of the condition's deficient and hyper-functioning faculties (neuropsychology). He collaborates primarily with other researchers at the HRDP. His leadership, over the last four years, has enabled the Axis to develop research expertise in pedopsychiatry and, more specifically, in the area of pervasive developmental disorders.



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**EMMANUEL STIP, MD, M.Sc., Neuroscience, C.S.P.Q.**, FRSQ Junior 2 fellow, an associate professor in the Department of Psychiatry of the UdeM, Eli Lilly Canada Chair in Schizophrenia research at the UdeM, has been interested for many years in the effects of antipsychotics on cognition (neuropsychology) in schizophrenia. In collaboration with Adrianna Mendrek and Lahcen Ait Bentaleb, he also uses brain imaging techniques (fMRI) to study brain correlates of such cognitive variables.

## AXES OF RESEARCH

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**THE PSYCHOLOGICAL TREATMENT AXIS** consists of five researchers, eight associate researchers, 43 graduate and postgraduate students and 19 research professionals. Throughout the past two years, the Axis' researchers have received nearly \$0.8 million in bursaries and grants from organisations with peer review committees. They have published 53 scientific articles and delivered 47 presentations at national and international conferences.

The objective of the Axis is to improve the psychological assessment and treatment of clinical populations. Its projects can be divided into four main areas of research:

- The clinical research area: primarily focused on assessing the effectiveness of cognitive-behavioural therapies in adult psychopathology.
- The experimental area: focused on assessing behavioural and physiological responses under experimental conditions that simulate pathological states.
- The developmental area: focused on identifying the antecedents of psychopathology in adulthood and assessing psychological treatment programs intended to prevent or reduce anxiety among children.
- The psychosocial area: focused on assessing the impact of interpersonal and social factors and community conditions on the effectiveness of treatment. The psychosocial area also deals with assessing the economic and social cost-effectiveness of psychological treatment.

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**STÉPHANE GUAY, Ph.D., Psychology**, joined the Axis in 2003 as a researcher, he is a research assistant professor in the Department of Psychiatry of the Université de Montréal (UdeM). He specialises in the treatment of individuals with post-traumatic stress disorder (PTSD). His research is aimed at developing and assessing the effectiveness of psychoeducational and cognitive-behavioural treatment.



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**ANDRÉ MARCHAND, Ph.D., Psychology**, is a clinical researcher in the cognitive-behavioural therapy clinic at the Hôpital Louis-H. Lafontaine (HLHL) and is a full professor in the Department of Psychology of the Université du Québec à Montréal (UQÀM). He works on the cognitive-behavioural assessment and treatment of anxiety disorders, primarily panic disorders, PTSD and generalised anxiety disorders. He is also interested in the phenomenon of comorbidity in anxiety disorders. He established and supervises a research group on PTSD at UQÀM, the Laboratoire d'études du trauma (LET), and a research group on panic and agoraphobia, Groupe de recherche sur la panique et l'agoraphobie (GRPA), in order to facilitate epidemiological, etiological and treatment studies, as well as to develop conceptual models.



## AXES OF RESEARCH

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**KIERON O'CONNOR, Ph.D., Psychology**, is a research associate professor in the Department of Psychiatry of the UdeM. He also coordinates the Axis' research activities. His work focuses on implementing and improving the effectiveness of psychological treatments for patients with obsessive-compulsive spectrum disorders. At the Centre de Recherche Fernand-Seguin (CRFS), he established three research teams that examine Tourette's syndrome, delusional disorders and obsessive compulsive disorders. His approach is particularly innovative in the sense that it combines clinical and psychophysiological methodologies.



**ARIEL STRAVYNSKI, Ph.D., Psychology**, is a full professor in the Department of Psychology of the UdeM. He specialises in the treatment of social phobias, anxieties and avoidant personality disorders. His approach focuses on the development and clinical validation of new behavioural and interpersonal treatment methods, as well as the assessment of conceptual models via experimental methods.



**LYSE TURGEON, Ph.D., Psychology**, is a FRSQ Junior 2 fellow and an associate professor at the École de psychoéducation de l'UdeM. Her research concerns the assessment, prevention and treatment of anxiety disorders among children and adolescents, as well as the identification of risk factors associated with these disorders. She has developed a prevention and treatment program for anxiety disorders among school-aged children and has also developed a prevention program for anxiety disorders among pre-school-aged children.

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**THE SOCIAL PSYCHIATRY AXIS** consists of a multidisciplinary team featuring 14 researchers and five associate researchers (psychiatry, psychology, nursing science, psychosociology, sociology, epidemiology and population health), of whom four work primarily in pedopsychiatry in the Department of Research at the Hôpital Rivière-des-Prairies (HRDP). The team is completed by three postdoctoral interns, 32 graduate and postgraduate students and five research assistants or coordinators. Three of the team's members affiliated with the hospital's various services, Daniel Gélinas, Jocelyn Bisson and Janique Beauchamp, are also members of the Axis' evaluative support unit and coordinate many projects within the hospital. Throughout the past two years, the Axis' researchers have received \$1.6 million in grants from organisations with peer review committees. They have published 63 scientific articles and delivered 84 presentations at national and international conferences.

The members' objective is to:

- Foster a better understanding of the social environment's role in the manifestation and course of mental disorders and suicidal behaviours

The researchers' involvement in the evaluative support unit is conducive towards improvement of the quality of offered services and the conditions of individuals suffering from mental disorders.

## AXES OF RESEARCH

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**LISE BERGERON, Ph.D., Biomedical Science**, is a researcher in the Department of Research at the HRDP and a research assistant professor in the Department of Psychiatry of the Université de Montréal (UdeM). Her expertise concerns the validation of measurement tools for child and adolescent mental disorders and the epidemiological study of mental disorders within these populations. Her work also helps to promote early detection of mental disorders in school-aged children.

**RICHARD BOYER, Ph.D., Population Health**, is a Fonds de la recherche en santé du Québec (FRSQ) Senior fellow and a research associate professor in the Department of Psychiatry of the UdeM. He also coordinates the Axis' research activities. His research program is dedicated to the epidemiological study of mental illness in order to determine the rate of mental illness in Québec's population and to study the existing links between mental illness and suicide.

**JEAN-JACQUES BRETON, MD, M.Sc., Social and Preventive Medicine, C.S.P.Q., F.R.C.P.(C)**, is a pedopsychiatrist in the Department of Research at the HRDP and an associate clinical professor in the Department of Psychiatry of the UdeM. His research involves the epidemiology of mental disorders, the study of suicidal behaviour among youth and the development of programs. His recent work has resulted in the conception of a decision support tool, which serves as a practical guide for planning, implementing and evaluating mental health programs.

**HENRI DORVIL, Ph.D., Sociology**, is a full professor at the École de Travail Social de l'Université du Québec à Montréal (UQÀM). His research interests are related to social determinants of health and prevention.

**NATACHA JOUBERT, Ph.D., Psychology**, is a principal policy analyst, consultant and researcher for the Population and Public Health Branch of Health Canada. Her work specifically involves the development of policies and national and international strategies for encouraging mental health. She is also dedicated to research that promotes mental health and prevention of psychological distress and suicide.

**SYLVIA KAIROUZ, Ph.D., Psychology**, is a research assistant professor in the Department of Psychiatry of the UdeM. Her projects fall within the framework of the new social epidemiology and endeavour to examine, based on population surveys, the role of social context on gambling patterns and its comorbidity with behaviours linked to the use and abuse of substances, behaviours relating to the consumption of alcohol among young Canadian university students and the relationship between gender and alcohol with an international comparative perspective.



## AXES OF RESEARCH

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**ALAIN LESAGE, MD, F.R.C.P.(C), M.Phil.**, is a FRSQ national fellow and a researcher in the Department of Psychiatry of the UdeM. His research involves the assessment of procedures for measuring care and service needs of individuals suffering from severe mental disorders or individuals suffering from mental disorders within the general population.

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**NICOLE RICARD, Ph.D., Nursing Science**, is a full professor and Associate Dean of Graduate Studies and Research in the Faculty of Nursing Science at the UdeM. She conducts innovative research regarding the development of care coordination models and monitoring of individuals suffering from severe mental disorders within the community. She is also interested in the health and burdens of families with members who have mental health problems. Her work has had immediate effects on improving the nursing care and service at the hospital.

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**MONIQUE SÉGUIN, Ph.D., Psychology**, is a professor in the Department of Psychology and Psychoeducation of the Université du Québec en Outaouais (UQO). Her work involves the study of suicide via psychological autopsy and reconstruction of life events. She is also interested in the assessment of group therapy treatment of patients who have attempted suicide on multiple occasions.

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**NICOLE SMOLLA, Ph.D., Psychology**, is an associate professor in the Department of Psychology at UQÀM and a researcher in the Department of Research at the HRDP, where she is also responsible for the clinical needs of pre-school-aged children. In terms of research, her interest is in factors (e.g., poverty and single parenthood) associated with mental disorders among children and adolescents, as well as maladaptive behaviours of causal attributes among the parents of children monitored in pedopsychiatric clinics. Furthermore, she participates in projects validating pictographic methods for mental health in children and adolescents.

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**MICHEL TOUSIGNANT, Ph.D., Psychology**, is a professor in the Department of Psychology at UQÀM. His research work is related to the role of life events preceding suicide in adolescents, adult males, the elderly and Aboriginal people. He is also conducting a study on the phenomenon of suicide contagion within small communities. Moreover, he is a researcher at the Centre for Research and Intervention on Suicide and Euthanasia (CRISE) at UQÀM.

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**GILLES TRUDEL, Ph.D., Psychology**, is a professor in the Department of Psychology at UQÀM and a clinical psychologist in the hospital's cognitive-behavioural therapy clinic. For many years, he has been pursuing research on sexuality, couple relationships and sexual dysfunction. One of his current projects focuses on the conjugal and sexual facets of life among retired people, while another concerns the relationship between compulsive gambling and conjugal functioning.

## AXES OF RESEARCH

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**JEAN-PIERRE VALLA, MD, M.Sc.**, is a pedopsychiatrist in the Research Department of the HRDP and an assistant clinical professor in the Department of Psychiatry of the UdeM. His research program is intended to develop and validate measurement tools for mental disorders in children and adolescents. He also works to develop a mental health service model based on the early detection of mental disorders in schools and on an intersectoral approach to preventive treatment.

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**THE FORENSIC PSYCHIATRY AXIS** consists of 12 researchers, one associate researcher, 73 graduate and postgraduate students, five postdoctoral interns and 15 employees and research assistants working mainly at the Institut Philippe Pinel de Montréal (IPPM). Over the past two years, the Axis' researchers have received nearly \$1.8 million in bursaries and grants from organisations with peer review committees. They have published 69 scientific articles and delivered 42 presentations at national and international conferences.

The researchers are divided on a multidisciplinary basis; their interests are in environmental, psychosocial, clinical and neurobiological factors of violent behaviours. More specifically, the research projects involve:

- Refining assessment tools and methodologies
- Psychosocial factors associated with mental disorders and violent behaviours
- Assessing needs, services and treatment
- Neurochemical, neurobiological, neuropsychological, psychopharmacological and psychophysiological factors associated with violent behaviours

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**ÉLISABETH CAMPOS, Ph.D., Law (Criminology)**, is a Fonds québécois de recherche sur la société et la culture (FQRSC) research fellow. After her studies in penal science and criminology, she continued on to a Ph.D. in law and then completed a postdoctoral internship at the Centre International de Criminologie Comparée (CICC). She is especially interested in new minority religious groups. By specifically analysing their methods of operation and the manner in which their powers are exercised, she hopes to ascertain the types of situations presenting the greatest risk of conflict and violence in order to determine the factors most frequently associated with them.



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**CHRISTIANE CARDINAL, Ph.D., Sociology**, is a FQRSC research fellow. Her particular interest is in innovative collaboration between law enforcement and mental health sectors. These partnerships engender alternative solutions to judicature, incarceration or unnecessary hospitalisation of individuals suffering from mental disorders who come into contact with the justice system.





## AXES OF RESEARCH

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**GILLES CÔTÉ, Ph.D., Psychology**, is the Axis coordinator. He is Director of the Centre de Recherche de l'Institut Philippe Pinel de Montréal and is a full professor in the Department of Psychology of the Université du Québec à Trois-Rivières (UQTR). His work is related to the factors associated with violent behaviours in individuals suffering from severe mental disorders. To this end, he validated the French version of the HCR-20, an instrument used for the assessment and risk management of violent behaviours. He is also interested in psychopathy.

**MARC DAIGLE, Ph.D., Psychology**, is a full professor in the Department of Psychology of the UQTR and a member of the Centre for Research and Intervention on Suicide and Euthanasia (CRISE). His particular interests are in prison suicide, assessment of programs and prison violence.

**GUY DEBONNEL, MD**, is a full professor in the Department of Psychiatry of McGill University (U McGill) and a researcher at the McGill University Health Centre (MUHC). He devotes a small portion of his research time to the Forensic Psychiatry Axis; however, he is extremely active in assisting in the development and recruitment of researchers interested in the neurobiological aspects of violent behaviours. The majority of his research is related to depression. He works in close collaboration with Gabriella Gobbi on serotonin markers and to the study of the molecules used in the treatment of violent schizophrenics, especially quetiapine.



**GABRIELLA GOBBI, MD, Ph.D., Neuroscience**, is a Fonds de la recherche en santé du Québec (FRSQ) Junior 1 fellow. The goal of her research program is to understand the underlying molecular mechanisms of specific mental illnesses, such as schizophrenia and major depression. At the IPPM, her particular interest is in aggressive and violent behaviours in patients suffering from schizophrenia. She studies the role of serotonin and neurosteroids in aggression and she recently submitted a grant application, with several colleagues, on the subject of sadistic sexual aggressors and associated neurobiological markers. With regards to depression, her interest is in the mechanisms of action of substance P antagonists.



**CHRISTIAN JOYAL, Ph.D., Neuropsychology**, is a FRSQ Junior 1 fellow. His postdoctoral internships allowed him to become involved in functional and structural magnetic resonance imaging. In association with the Chair in schizophrenia, he currently analyses magnetic resonance imaging data collected from violent individuals with schizophrenia in Finland, Germany and Canada.

## AXES OF RESEARCH

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**DENIS LAFORTUNE, Ph.D., Psychology**, is an associate professor at the École de Criminologie de l'Université de Montréal (UdeM). His interest is in adults under judicial control who suffer from mental disorders; in particular, those factors associated with reintegration. An innovative component of his research projects concerns the social aspects surrounding the use of psychotropic medications in the treatment of adolescents placed in rehabilitation centres.



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**JACQUES D. MARLEAU, Ph.D., Biomedical Science**, is an anthropologist, demographer and FQRSC research fellow. The objective of his research program is to compare the different types of intrafamilial homicides in order to comprehend the specifics of each manifestation in terms of associated variables, from both a macro-social (societal variables) and micro-social (individual variables) perspective.



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**JEAN PROULX, Ph.D., Psychology**, is a full professor at the École de Criminologie de l'Université de Montréal and a researcher at the CICC. A specialist in the study of sex offenders, he is specifically interested in the typology of sexual aggressors, the assessment of treatment programs and factors associated with abandoning treatment.



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**PATRICE RENAUD, Ph.D., Psychology**, is a professor in the Department of Psychology and Psychoeducation of the Université du Québec en Outaouais (UQO). His interest is in cyberpsychology. With the help of video-oculography, he is currently working to develop a new method for assessing sexual preferences in sexual aggressors. It is a method that would support voluntary control in reactions to deviant sexual stimuli. Video-oculography could eventually be adapted to study the emotions of psychopaths.



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**JEAN TOUPIN, Ph.D., Community Health – Option in Services Administration**, is a full professor in the Department of Specialised Education of the Université de Sherbrooke (UdeS). Currently, his research interests relate to behavioural disorders in adolescents, including attention-deficit/hyperactivity and persistent problems, as well as services instituted for responding to the needs of adolescents. As part of these ventures, he has a specific interest in the etiology of manifestations of adolescent psychopathy; this psychopathy is assessed with the aid of the PCL:YV (Hare Psychopathy Checklist: Youth Version).



**INVITED SPEAKERS  
2003-2004**

**Tod Kippin**

Ph. D., Université de Toronto  
« Environmental regulation  
of neural stem cells  
in animal models of psychi-  
atric disorders »

**Nasser Haddjeri**

Ph. D., Université Claude  
Bernard - Lyon 1, France  
« Changements adaptatifs  
induits par les traitements à long  
terme ayant recours aux antidép-  
resseurs mettant l'accent sur  
les récepteurs 5HT1A et 5HT7 »

**Raymond Mongeau**

Ph. D., California Institute of  
Technology « Neural corre-  
lates of an anxiety-mediated  
switch in defense behaviors »

**Adam S. Radomsky**

Ph. D., Université Concordia  
« Memory deficits in obsessive  
compulsive disorder? »

**Marco Leyton**

Ph. D., Université McGill  
« Alcohol, Nicotine,  
Amphetamine and Cocaine : PET  
/[<sup>11</sup>C] Raclopride and Dopamine  
Depletion Studies in Humans »

**David A. Clark**

Ph. D., Université du Nouveau-  
Brunswick « Thought control  
in obsessions »

**Anne Germain**

Ph. D., University of Pittsburgh  
School of Medicine  
« Difficultés de sommeil et  
trouble de stress post-trauma-  
tique : implications cliniques et  
hypothèses neurobiologiques  
fonctionnelles »

**Kim Quand Do**

Ph. D., Université de Lausanne  
« Le déficit en glutathion, facteur  
de vulnérabilité pour les troubles  
de la connectivité neuronale  
dans la schizophrénie »

**Angel Alonso**

Ph. D., Institut neurologique de  
Montréal « Mnemonic neurons »

**Steven Taylor**

Ph. D., Université de Colombie-  
Britannique « Post traumatic  
stress disorder : a cognitive  
behavioral and behavioral  
genetic approach »

**Patricia Boksa**

Ph. D., Université McGill  
« Animal models of obstetric  
complications in relation to  
schizophrenia »

## HIGHER LEARNING

The diversity of research projects, multidisciplinary environment and the numerous academic affiliations of our researchers have enabled our centre to offer training in a wide range of fields related to mental health. In 2003-2004, 190 students pursued their graduate and postgraduate training at the CRFS in the following disciplines: criminology (16), specialised education (5), pharmacology (7), psychoeducation (20), psychology (63), nursing science (7), medical sciences: psychiatry (67), sociology (5). Thirteen (13) postdoctoral interns received highly-specialised training.

### POSTDOCTORAL INTERNS

INTERNS	DEPARTMENT	UNIVERSITY	SUPERVISOR	CO-SUPERVISOR	START	END
<b>BEAULIEU, ALAIN</b>	Social Sciences and Humanities	UQÀM	Dorvil, H.		Jan-01	Jan-06
<b>BENOÎT, SYLVAIN</b>	Psychology	UQO	Renaud, P.		Sept-03	Aug-05
<b>BOULAY, LUC</b>	Medicine	UdeM	Stip, E.	Mendrek, A.	Apr-03	Apr-05
<b>CHAMPAGNE, MAUD</b>	Cognitive Science	UdeM	Joanette, Y.	Stip, E.	June-02	June-05
<b>DRAPEAU, ALINE</b>	Epidemiology	UdeM	Lesage, A.	Boyer, R.	Sept-03	Feb-05
<b>GUILLAUME, FABRICE</b>	Neuropsychology	UdeM	Guillem, F.		Sept-03	Aug-04
<b>LIGORIO, MICHAEL</b>	Neuroanatomy	UdeM	Warren, R.		Feb-03	Feb-06
<b>LUCAS, GUILLAUME</b>	Psychiatry	U McGill	Debonnel, G.		Mar-00	Dec-04
<b>MARLEAU, JACQUES</b>	Criminology	UdeSherbrooke		Toupin, J.	Sept-99	Mar-02
<b>URBAIN, NADIA</b>	Psychiatry	U McGill	Debonnel, G		Sept-02	Aug-04
<b>VASILIDIS, HELEN-MARIA</b>	Services	UdeM	Lesage, A.	Lamarche, P.	Sept-03	Sept-06
<b>YABAR, YANELIA</b>	Psychology	Outside Quebec		Renaud, P.	Sept-03	Aug-05
<b>YANG, SHOUWLEI</b>	Neurophysiology	UdeM	Warren, R.		Sept-01	Apr-06

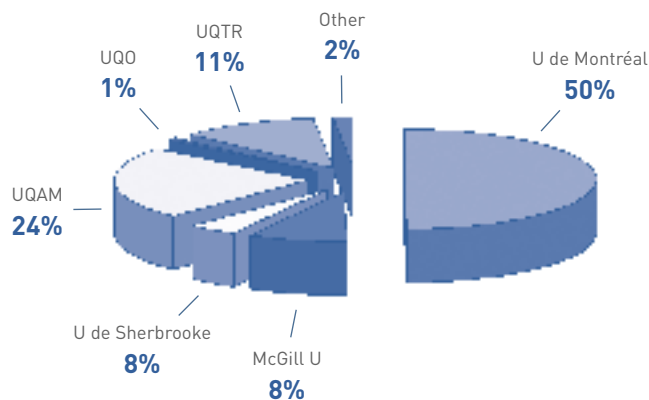
### STUDENTS

Masters	64
Doctorate	126
Post-doctorate	13
<b>TOTAL</b>	<b>203</b>

# HIGHER LEARNING

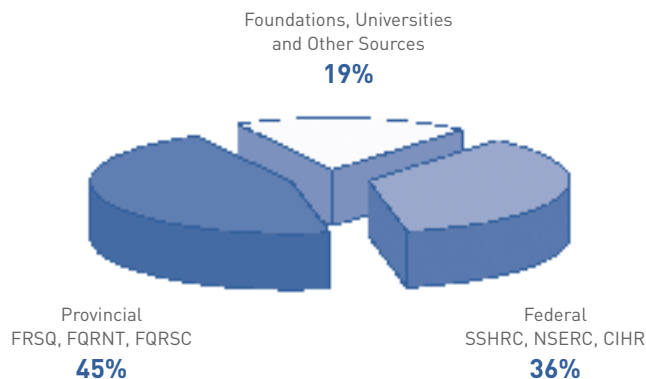
## DIVISION OF STUDENTS BY UNIVERSITY

U DE MONTRÉAL	50%
MCGILL U	8%
U DE SHERBROOKE	4%
UQAM	24%
UQO	1%
UQTR	11%
OTHER	2%



## CENTRE DE RECHERCHE 2002-2004 GRANTS

<b>FRSQ</b>	Fonds de la recherche en santé du Québec
<b>FQRNT</b>	Fonds québécois de la recherche sur la nature et les technologies
<b>FQRSC</b>	Fonds québécois de la recherche sur la société et la culture
<b>SSHRC</b>	Social Sciences and Humanities Research Council of Canada
<b>NSERC</b>	Natural Sciences and Engineering Research Council of Canada
<b>CIHR</b>	Canadian Institutes of Health Research



## FUNDING SOURCES

REVENUE FROM ALL SOURCES	TOTAL 2002-2004	ANNUAL AVERAGE
Grants and bursaries with peer review committees	\$7,562,907	\$3,781,453
FRSQ-Centre de recherche grant	\$1,650,000	\$825,000
Fondation Louis-H. Lafontaine	\$297,750	\$148,875
Industry	\$894,660	\$447,330
Other sources (foundations, universities, CFI, etc.)	\$918,082	\$459,041
<b>TOTAL</b>	<b>\$11,323,399</b>	<b>\$5,661,699</b>

## INVITED SPEAKERS

**Kenneth Campbell**  
Ph. D., Université d'Ottawa  
« Perte de la conscience des entrées auditives lors de la période d'endormissement : études de potentiels évoqués »

**Daniel Lévesque**  
Ph. D., Université Laval  
« Réduction des symptômes extrapyramidaux par les agonistes rétinoides : une nouvelle approche pour améliorer l'efficacité des neuroleptiques conventionnels »

**Gabriella Gobbi**  
M.D., Ph. D., Université McGill  
« New targets for new antidepressant drugs »

**Daniel Zullino**  
Université de Lausanne  
« Réactivité psychophysiological dans l'anxiété généralisée »

**M. Stankovic**  
Université de Lausanne  
« Comparaison de deux interventions TCC dans la phobie sociale »

**Yves De Roten et Jean-Nicolas Despland**  
Université de Lausanne  
« Recherche sur l'alliance thérapeutique »

**Paul Lespérance**  
M.D., M. Sc. Université de Montréal  
« Stimulation magnétique transcrânienne : bases théoriques et application clinique »

**Guy Tiberghien**  
M.D., Institut des sciences cognitives, Bron, France  
« Reconnaître sans familiarité ou la mémoire du schizophrène »

**Farid Hassainia**  
Ph. D., Digimed Systems Inc.  
« Système multidisciplinaire de gestion et de traitement des données cliniques et recherches »

**Gail Steketee**  
Ph. D., Université de Boston, International expert on the treatment of obsessive compulsive disorders  
« Atelier sur le traitement cognitivo-comportemental des troubles obsessionnels-compulsifs »

**Ron Rapee**

Ph. D., Université Macquarie, Australie « Using bibliotherapy to increase access to cognitive behavior therapy for anxious children and adults »

**Florin Amzai**

Ph. D., Université Laval « Nouveaux mécanismes neurophysiologiques de l'électroencéphalogramme : l'implication des cellules gliales et du flux sanguin »

**Françoise Facy**

M.D., INSERM, France, Jean-Luc Pilet, psychologue, Centre Ozanam, France et collaborateurs français et québécois. Journée scientifique France-Québec. « Conduites suicidaires et prévention en milieu scolaire au Québec et en France »

**John G. Gunderson**

M.D., psychiatre, Université Harvard, Boston :

« Diagnostic : psychoéducation, étiologie et évolution longitudinale »

« Case management : suicide et comportements parasuicidaires, automutilation, limites et cadre, médication »

« Psychothérapie : types, alliance, support empirique, traitement partagé »

« Traitement intégré et conclusion »

**Evens Villeneuve, M.D., psychiatre, Université Laval :**

« Illustration fonctionnelle et dynamique des troubles sévères de la personnalité »

« Compréhension pratique de l'étiologie, du développement et du fonctionnement des personnes présentant un trouble sévère de personnalité basée sur les connaissances acquises à ce jour »

« Attitudes des intervenants, conditions thérapeutiques et éléments essentiels au traitement efficace des troubles sévères de la personnalité »

## NATIONAL AND INTERNATIONAL RECOGNITION

### MANY OF OUR RESEARCHERS AND STUDENTS HAVE EARNED PRESTIGIOUS AWARDS:

- Laurent Mottron was awarded the 2003 Lucille Teasdale Medal from the Faculté de Médecine de l'Université de Montréal; this award is presented annually to the doctor of the year who most personifies the humanitarian qualities of medicine.
- Guy Chouinard was awarded the Heinz Lehmann Award from the Canadian College of Neuropsychopharmacology; this prize recognises excellence in Canadian neuropsychopharmacology researchers. It is also granted for research work conducted mostly in Canada by Canadian scientists. Moreover, Mr. Chouinard received the Distinguished Achievement Award from the Canadian Society for Clinical Pharmacology.
- Louis-Éric Trudeau was awarded the Young Investigator Award from the Canadian College of Neuropsychopharmacology. This prize recognises outstanding contributions from young Canadian researchers (basic or clinical research) in the field of neuropsychopharmacology.
- Cherine Fahim, a postgraduate student in neurological science, received the award presented by the Department of Psychiatry of the Université de Montréal on their Journée Annuelle de Recherche. She also received an award of excellence at the Université de Montréal's 26e Congrès des Sciences Neurologiques. Her work, supervised by Emmanuel Stip, involves the neurobiology of flat affect in patients with schizophrenia.
- Nicolas Audet, a postgraduate student in pharmacology, received a bursary from the Fondation des Maladies Mentales du Québec at the Journée Annuelle de la Recherche held by the Université de Montréal's Department of Psychiatry. His work is supervised by Graciela Piñeyro and concerns the functional mechanisms of opioid receptors in relation to their antidepressant capacity.
- Nadine Larivière, O.T.(C), M.Sc., an occupational therapist at the Hôpital Louis-H. Lafontaine and a postgraduate student in clinical science at the Université de Sherbrooke, received a doctoral scholarship grant from the Canadian Occupational Therapy Foundation. Her research work, co-supervised by Richard Boyer, consists of assessing the clinical, functional and economic impacts on psychiatric day hospitals for adults and the elderly.