

### A landmark year for Canadian neuroscience

### Annual Report 2011





### Table of Contents

Brain Canada 2155 Guy Street, Suite 900 Montreal, Quebec, Canada H3H 2R9 Tel: 514.989.2989 info@braincanada.ca

#### Brain Canada

The case for increased investment in brain research	1
Message from the Chair and President	2
Canada Brain Research Fund	3
Launch of the Canada Brain Research Fund	4
The Brain Repair Program	6
Partnerships	8
Thanks to our supporters across the country	10
Board of Directors	12
Brain Canada organizational structure	13
Science Advisory Council	14
International Science Advisory Council	15
Partnership and Foundation Financial Report	16



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The Brain Canada Foundation (referred to throughout as "Brain Canada") is a national, charitable organization with the goal of funding research aimed at unlocking the mystery of the brain, and developing diagnostics, treatments and ultimately cures for brain disorders.



The brain is the most critical organ in the body but the least understood. Ninety percent of what we know about the brain was discovered in the past 20 years.

One in three Canadians, over 11 million people, will face a psychiatric disease, a neurological disorder or injury at some point in their lives. Collectively, the diseases of the brain are the major health challenge of the 21st century. They represent 38% of the global burden of disease, which is greater than cancer and cardiovascular disease combined. Brain disorders are the leading cause of disability and can create a lifelong burden of care, impacting not only the life of the individual affected, but also their family and **society.** These disorders affect all aspects of life learning, communication, socialization and mobility. They affect young people as well as old. Fetal alcohol syndrome, autism, schizophrenia, attention deficit disorder, dyslexia, epilepsy, addictions, depression and neurological birth defects, among others, rob young people of the promise of a lifetime. The incidence of diseases such as Alzheimer's, Multiple Sclerosis, Parkinson's and stroke will increase with the aging population. For some diseases, we may be facing a global epidemic.

While some brain diseases respond to treatment, there are no cures at the present time. In addition, while we have made advances at the micro level, we do not as yet have a theory for how the brain works at a macro level—as one system. There are common mechanisms across the range of brain disorders, such as cell loss, abnormal functioning of nerve cells, and chemical and molecular imbalances in the brain. Looking at the brain as one system can lead to breakthroughs that will impact multiple conditions.

#### Brain Canada

Brain Canada is a national non-profit organization and a pre-eminent voice for neuroscience research in Canada. Over the past decade, Brain Canada has rallied the research community, private donors, voluntary health organizations and governments to fund excellent and innovative brain research. By supporting our very best researchers and ideas and nurturing the next generation in the field, we will keep Canada at the forefront of the global quest to understand brain function and brain diseases.

#### The Canada Brain Research Fund

The Canada Brain Research Fund is a public-private partnership between the Government of Canada and Brain Canada that will increase investment in Canadian brain research.

Brain Canada will raise \$100 million from private donors and non-governmental organizations, which will be matched by government on a 1:1 basis. Additional leverage will be provided through partnerships. The combined investment will support the very best Canadian neuroscience, fostering collaborative research and accelerating the pace of discovery, in order to improve the health and quality of life of Canadians who suffer from brain disorders.

The Canada Brain Research Fund will support three types of grants:

- Transformative multi-investigator grants
- Training awards for the next generation of researchers
- Development of national neuroscience technology platforms (operating support training and personnel)

The purpose of the research funding program is to:

- Strengthen the neuroscience research community by increasing collaborations among multidisciplinary researchers and decision-makers:
- Support the next generation of brain researchers doctoral/post-doctoral trainees;
- Increase knowledge and understanding about brain disorders:
- Accelerate the development of new technologies to enable transformative research:
- Accelerate the development of new treatments for brain disorders;
- Increase the use/implementation of new and/or existing technologies for transformative research and new treatments for brain disorders; and
- Inform changes to health care system policies and/or practices.

For more information about Brain Canada's activities, please visit our website: www.braincanada.ca.

## Message from the Chair and President



2011 was a landmark year for Canadian neuroscience with the federal government's announcement of a \$100-million matched funding program with Brain Canada, the Canada Brain Research Fund. This fund will support Canada's best and most promising brain researchers and ensure that we continue to play a lead role in the global quest to understand the brain and brain disease. Brain Canada is most grateful to the Government of Canada for the confidence that they have placed in our organization's vision and our governance, and the substantial increase in research expenditures this represents.

For more than 10 years Brain Canada (formerly Neuro-Science Canada) has made the case for the brain as a single, complex system, with commonalities across the range of neurological and psychiatric disorders. In looking at the brain as one system, we can begin to understand the true burden of brain disease and injury on individuals, families, the economy and society. The current estimate is that one in three Canadians will be directly impacted. But beyond these numbers are the real stories we hear everywhere and every day—the stigma associated with mental illness and addictions; the long-term effects of traumatic brain injury; hope in the possibility of a new treatment for Multiple Sclerosis; the "rising tide" of an aging population which will mean an increased incidence and prevalence of dementias and age-related brain illness.

The one system "brain" vision has also enabled Brain Canada to connect the dots—bringing together different fields and disciplines of science, business leadership, disease-focused voluntary health organizations, patients, families and governments—creating a strong voice for the brain and a collective commitment to addressing the challenge that brain disorders present to the well-being of all Canadians, and to the prosperity of a knowledge-based economy.

In June 2012, the House of Commons' Standing Committee on Health tabled a report entitled "Focussing on the Brain: An Examination of Neurological Diseases in Canada". The report summarizes a study initiated by the Subcommittee on Neurological Diseases in 2010, which included testimony from a series of hearings. Brain Canada took part in two of these hearings, and we have been heartened to see our "one system" vision for the brain reflected and validated in the report:

Both the Committee and Subcommittee were told that funding and supports should be directed towards brain diseases as a whole, rather than towards specific neurological diseases, as one witness stressed:

While it is important to make distinctions between conditions for a host of reasons...it's also very important to think collectively in what is called a non-categorical way, about these conditions and what they have in common. The idea that has been argued for many years, with evidence to support it, is that these conditions have a lot in common. And the way we think about them and deal with them should recognize that reality.

Witnesses appearing before the Subcommittee further pointed out that supporting neurological research as a whole rather than disease-specific research was necessary because breakthroughs in treatments for one condition may arise out of discoveries in other areas of research.

With the establishment of the Canada Brain Research Fund, we now have the unprecedented opportunity to put in place a major research program that will focus on the brain as a whole. The Fund will complement existing research investments, and will allow us to expand Brain Canada's signature initiative, the Brain Repair Program (now the "Multi-Investigator Research Initiative"-MIRI)—supporting multidisciplinary teams of researchers pursuing novel ideas that have the potential to advance our understanding of a range of brain disorders. We will also be able to increase the number of studentships and fellowships available to the most promising young researchers, and encourage them to pursue their careers in neuroscience in Canada. Finally, the Fund will provide operating and training support for technology platforms which will serve the broader neuroscience community.

Brain Canada has benefitted from the dedicated leadership of an outstanding Board of Directors from the business, academic and research communities, a distinguished science advisory council, as well as partners and funders from across Canada. We thank all of these supporters. We wish to recognize in particular the Canadian Association for Neuroscience, which worked closely with Brain Canada to develop the Canada Brain Research Fund research program, and the thousands of researchers at institutions across Canada who have made this country one of the global leaders in brain research. Similarly many voluntary health organizations in the areas of mental health and neurological conditions have provided valuable support. We also wish to express our gratitude to our staff, long-standing and recently arrived, for their passion and commitment to Brain Canada's success. Finally, we thank all of those who have come forward to share their deeply personal stories about living with a brain disorder. These stories, heartbreaking, inspiring and hopeful, keep us focused on our mission and remind us why research is so important.



Rupert Duchesne Chair, Brain Canada



Inez Jabalpurwala President and CEO, Brain Canada

## Canada Brain Research Fund

A Public-Private Partnership to Support Canada's World-Class Brain Research

#### \$100 million raised by Brain Canada

\$100 million in matched federal funding

Added leverage through partnerships

Governance assured by the Board of Brain Canada

#### **Open Research Competition**

- Transformative multi-investigator grants, modeled after the Brain Repair Program
- Training awards for the next generation of researchers
- Development of national neuroscience technology platforms (operating support - training and personnel)



National/International Peer Review



**Outcomes that Benefit Patients** and their Families

"The announcement by the Government of Canada that it is investing \$100 million in Brain Canada to spearhead the country's first ever public/private partnership in neuroscience opens a new era in neuroscientific research aimed squarely at securing new treatments and even cures for brain diseases and injuries."

Rill Wilkerson

Co-Founder of the Global Business and Economic Roundtable on Addiction and Mental Health

"I know that I speak for our entire membership when I say that the Fund represents an important vote of confidence by the Government of Canada in the Canadian brain research community."

Yves De Koninck, Past-President of the Canadian Association for Neuroscience and co-Chair of Brain Canada's Science Advisory Council (SAC)



On June 6th, 2011, the Government of Canada announced a commitment of \$100 million to establish the Canada Brain Research Fund, the largest single investment in brain research ever made in Canada. On May 3rd, 2012, Brain Canada's Board of Directors and staff, and a packed audience of supporters from the business, research and voluntary sectors, joined the Honourable Leona Aglukkaq, Minister of Health, for the Government of Canada and Brain Canada announcement of the Canada Brain Research Fund

"The creation of the Canada Brain Research Fund will allow us to implement Brain Canada's approach on a larger scale, and increase our investment in Canada's excellent, innovative brain research."

#### - Michael H. Wilson. Honourary Chair, Brain Canada Foundation

The launch took place at the MaRS Centre in Toronto. Minister Aglukkaq outlined the details of the partnership with Brain Canada and highlighted the goal of this historic investment into neuroscience research.

"Based on its track record, we are confident that Brain Canada will be able to raise funds across the country from individuals and organizations that share our passion to alleviate the suffering associated with brain diseases," said Minister Aglukkaq. "This funding and the research it will support are central to our Government's commitment to help Canadians to maintain and improve their health."

The Canada Brain Research Fund will provide up to \$100 million to the Brain Canada Foundation over six years, which will then work to find donors and partners to match this amount. The \$200-million Fund will be the largest single investment in brain research ever made in Canada. Brain Canada will raise the matching dollars through charitable contributions and partnerships. The funding will support research aimed at advancing our understanding of brain function and brain diseases.

The Fund builds on a model developed by Brain Canada that produced important advances in diagnosing, treating and curing a range of brain disorders. Applying that experience, the Fund will support teams of researchers from different disciplines pursuing linkages across disorders that can lead to new treatments for conditions including Multiple Sclerosis, stroke, Alzheimer's, psychiatric disorders and addictions, concussions and spinal cord injuries. In addition to team grants, the Fund will provide training awards to help attract and retain the next generation of researchers, as well as support technology platforms to enhance scientific collaboration.

"I am confident that, in the future, people will look to the Canada Brain Research Fund as a model for engaging both the public and private sectors in supporting research that will benefit all Canadians."

> Rupert Duchesne, Chair, Brain Canada

This visionary commitment by the federal government will ensure that Canada continues to be among the leaders in the global challenge to understand brain function and brain diseases.

"Brain Canada will be a uniting force; it will bring together scientists from many disciplines to identify the causes of brain disorders and then use that knowledge to develop treatments for many different diseases of the brain and nervous system."

> - The Honourable Leona Aglukkag, Minister of Health

## May 3<sup>rd</sup>, 2012 Launch of the Canada Brain Research Fund



From left to right: Judith Sale, Mark Krembil, Franco Vaccarino, Astrid Eberhart, Allan R. Taylor, David Kaplan, Barbara Turnbull, the Honourable Leona Aglukkaq, Rupert Duchesne, Inez Jabalpurwala, Michael H. Wilson



From left to right: David Bogart, Jeffrey Coull, Donald Stuss, the Honourable Leona Aglukkaq, Rupert Duchesne, Inez Jabalpurwala



From left to right: Charles Tator, Kent Bassett-Spiers, the Honourable Leona Aglukkaq, Rupert Duchesne, Inez Jabalpurwala



The Honourable Leona Aglukkaq





Michael H. Wilson



The Honourable Leona Aglukkaq



From left to right: The Honourable Leona Aglukkaq, Inez Jabalpurwala, Yves De Koninck, David Kaplan.



The Canada Brain Research Fund is based on the success of the Brain Repair Program, which was aimed at accelerating collaborative, multidisciplinary, multi-institutional brain repair research. This program enabled world-class Canadian researchers across the country to form highly focused teams, and to make a number of important breakthroughs.

Each team of researchers received \$1.5 million over three years, plus an additional maximum of \$20,000 per year for networking activities. The grants provided vital support to our best and most promising scientists, allowing them to maximize the investments in infrastructure and salaries that have already been made by governments and private donors.

In total, five teams were funded and are listed below. Through the first competition launched in 2003, three teams were funded and they completed their threeyear grants in 2007. The second Brain Repair Program competition was launched in 2006 and two additional teams were selected for funding in 2007. They completed their three-year grants in 2009 and 2010.

#### Novel Approaches to Central Nervous System White Matter Repair

Dr. Freda Miller (The Hospital for Sick Children, University of Toronto)

Dr. David Kaplan (University of Toronto)

Dr. William Tetzlaff (University of British Columbia)

Dr. Samuel Weiss (University of Calgary)

#### Transforming Research on Chronic Pain in Canada

Dr. Michael Salter (The Hospital for Sick Children, University of Toronto)

Dr. Karen Davis (University of Toronto)

Dr. Yves de Koninck (Université Laval)

Dr. leffrey Mogil (McGill University)

Dr. Min Zhuo (University of Toronto)

#### Novel Therapeutic Strategies to Repair Brain Abnormalities in Psychiatric Disorders

Dr. Yu Tian Wang (University of British Columbia)

Dr. Stephen Ferguson (University of Western Ontario)

Dr. Alaa El-Husseini (University of British Columbia) (deceased 2007)

Dr. Ridha Joober (McGill University)

Dr. Anthony G. Phillips (University of British Columbia)

#### Harnessing Beneficial Aspects of Neuroinflammation for Regenerating the Central Nervous System

Dr. V. Wee Yong (University of Calgary)

Dr. Fiona Costello (University of Calgary)

Dr. Luanne Metz (University of Calgary)

Dr. Christopher Power (University of Alberta)

Dr. Serge Rivest (Université Laval)

Dr. Peter Stys (University of Calgary)

#### Mitochondrial Dysfunction and Neuronal Demise: Insights Provided by Parkinson's Disease Genes

Dr. Louis-Éric Trudeau (Université de Montréal)

Dr. Ted Fon (McGill University)

Dr. Heidi McBride (Ottawa Heart Research Institute)

Dr. David Park (University of Ottawa)

Dr. Yong Rao (McGill University)

Dr. Michael Schlossmacher (Ottawa Hospital Research Institute)

Thanks to the support of The Krembil Foundation and the Government of Canada, members of one of the teams from the second competition will continue to receive funding for the next three years. Details on their project follows.

#### Uncovering the causes of Parkinson's Disease

Dr. David Park University of Ottawa Dr. Ruth Slack University of Ottawa

Dr. Louis-Eric Trudeau Université de Montréal

Parkinson's disease (PD) is a common neurodegenerative disease, appearing usually in those over 50 years of age, with disabling symptoms of tremor and rigidity that make movement difficult. It has long been known that in PD there is a selective loss of neurons that make a chemical called dopamine, a chemical messenger released from neurons and used to communicate with other neurons. Dr. Park and his colleagues want to know what makes these neurons die. Certain types of PD run in families, and are associated with mutations in specific genes. The team will try to understand how dysfunction in three genes associated with PD (Pink1, Parkin, DJ-1) leads to this familial type of PD. While dysfunction of these genes is found in only a small proportion of all cases of PD, discovering how they function will help us understand what goes wrong in PD generally.

One promising lead is that these three genes seem to be involved in the function of the mitochondria, the cell's energy powerhouses. Maintaining the ability of mitochondria to produce energy is critical to the health of cells. In addition, proper mitochondrial function is essential for the release of dopamine. This work will likely reveal new drug candidates for treating PD. These must be tested first in an animal model that is as close as possible to human PD, and the team is developing an improved model.

This work deals with fundamental cellular mechanisms that are also disrupted in other devastating brain diseases such as Alzheimer's. Drs. Park, Slack and Trudeau expect that their discoveries will also help to identify new treatments for some of these other neurodegenerative brain diseases.







Dr. Ruth Slack



Dr. Louis-Eric Trudeau

## Multi-Investigator Research Initiative (MIRI)

In May of 2012, Brain Canada launched the Multi-Investigator Research Initiative (MIRI), the first of the Canada Brain Research Fund's research programs. The purpose of MIRI grants is to support multidisciplinary teams and to accelerate novel and transformative research that will fundamentally change our understanding of nervous system function and dysfunction and their impact on health. The ultimate goal is to reduce the social and economic burden of neurological and mental health problems by prevention, early diagnosis, and treatment.

Brain Canada and its partners will fund multidisciplinary teams that propose original, promising and transformative projects for discovering commonalities between nervous system diseases and conditions, which can be exploited to develop new strategies for prevention, diagnosis and treatment.

It is expected that, in the first competition, five to eight teams will be funded, for three years, in the range of \$500,000 per year. After review of progress in the third year, especially productive and high-impact teams may be eligible for a further one, or two years of funding. The deadline for the Letters of Intent is July 13th, 2012 and the awarding of the grants is expected to be in the spring of 2013.

More details on the MIRI grants and other funding opportunities can be found on the Brain Canada website: www.braincanada.ca



Public-private partnerships are a central component of the Canada Brain Research Fund. Brain Canada welcomes funding partners with interests across the entire range of neurological diseases and injuries and mental illnesses and addictions. The combined investment will support the very best Canadian neuroscience, fostering collaborative research and accelerating the pace of discovery, in order to improve the health and quality of life of Canadians who suffer from brain disorders. Brain Canada is committed to the efficient use of resources and will employ innovation and flexibility to configure partnerships tailored to maximize the potential of the Canada Brain Research Fund while addressing the needs and special interests of the partners.

Brain Canada will work with a variety of stakeholders to form a cohesive partnership portfolio and research effort, building on the following longstanding collaborations and joint funding initiatives:

#### Barbara Turnbull Award for Spinal Cord Research

2011 marked the 10th anniversary of the Barbara Turnbull Award for Spinal Cord Research. This award, in support of Canadian research on spinal cord injury, is funded by the Institute of Neurosciences, Mental Health and Addiction (INMHA) of the Canadian Institutes of Health Research (CIHR) in partnership with Brain Canada and the Barbara Turnbull Foundation, and is valued at \$50,000. The award recipient is judged, from among the CIHR-funded investigators each year, to be conducting the most promising and exciting research in this area.



Gary Goldberg (left) of the Barbara Turnbull Foundation, and Barbara Turnbull (second from right) join the Honourable Leona Aglukkaq, Rupert Duchesne and Inez Jabalpurwala at the Brain Canada launch on May 3rd.

#### The 2011 award recipient was Simon Gosgnach of the University of Alberta.

Dr. Gosgnach's research looks at neural networks that are located entirely within the spinal cord and are responsible for generating much of the timing and pattern of muscle activity during walking.

The 2011 award announcement took place during the Charles H. Tator – Barbara Turnbull Lectureship Series in Spinal Cord Injury in Toronto and previous recipients were invited to attend. Eight previous award winners attended the event and provided informative updates about the work they were able to conduct thanks to the additional funding.

"Financial support from the CIHR, Brain Canada and the Barbara Turnbull Foundation will support the investigation of the "dI6" interneurons identified as central pattern generators (CSGs). Preliminary work in my laboratory has shown that these cells are active during walking and have intrinsic properties of cells that are responsible for initiating locomotor activity in the spinal cord. Over the next several years we plan to identify their specific function during walking as well as the manner in which they are interconnected with other components on the locomotor CPG. These studies will mark an essential step in understanding how the basic locomotor rhythm is generated, and may help to drive the development of therapies aimed at enhancing the functional recovery of movement after spinal cord injury."

- Dr. Simon Gosgnach



Barbara Turnbull (front) is joined by (from left to right) 2011 award recipient Simon Gosgnach, Nathalie Gendron, Michael Fehlings, Doug Munoz and David Kaplan

#### Dr. Hubert van Tol Travel Fellowship

The neuroscience community lost a brilliant scientist when Dr. Hubert van Tol died suddenly in a bicycle accident on April 20, 2006. Dr. van Tol was an internationally recognized and respected neuroscientist who received numerous awards and greatly advanced the entire field of molecular neurobiology. To honour him, his family set up the Dr. Hubert van Tol Fund at Brain Canada, through which the Dr. Hubert van Tol Travel Fellowship was established. The fund has received more than \$30,000 in donations since it was established. The fellowship enables PhD students and postdoctoral fellows performing research as part of a Brain Repair Program team to attend major international conferences, symposia or training courses outside of Canada. This is consistent with Dr. van Tol's belief in the importance of international experiences.

#### The 2011 award recipient was Michael Hildebrand, PhD. a Post-Doctoral Research Fellow at the University of Toronto/Hospital for Sick Children.

Dr. Hildebrand is working in the lab of Brain Repair Program team leader Dr. Michael Salter. He attended the British Pain Society and Canadian Pain Society joint 2011 Annual Scientific Meeting, held at the Edinburgh International Conference Centre, June 21-24, 2011 in Edinburgh, Scotland. This conference provided Dr. Hildebrand with the opportunity to present his research to both basic scientists and clinicians with world renowned expertise in pain research, learn the newest techniques and concepts that are emerging in pain research, and obtain critical feedback on his own research. Dr. Hildebrand was presented with his award at a special ceremony on June 13th, 2011 in Toronto. The ceremony was attended by Brain Canada's Board of Directors and members of the van Tol and Seger families: Monica Seger-van Tol; Luke and Helena van Tol; Marianne Seger and Elizabeth Seger.

#### In 2012, the recipient of the award was Dr. Jean-François Trempe, a Post-Doctoral Research Fellow at McGill University.

Dr. Trempe is working in the lab of Brain Repair Program team member Dr. Ted Fon. His main area of research is on the human gene parkin, whose mutations are known to cause a familial form of Parkinson's disease.



Monica Seger-van Tol and Marianne Seger, are joined by guests at the May 15th dinner where the recipient of the 2012 Dr. Hubert van Tol Travel Fellowship was announced. From left to right, standing: Karen Davis, Max Cynader, Ivy Lim-Carter; sitting: Sharon Colle, Monica Seger-van Tol, Marianne Seger, Jacqueline Scott, Michele Noble

The award enabled Dr. Trempe to attend the Keystone symposium on Ubiquitin Signaling, held in Whistler on March 18-23, 2012. By attending this conference, Dr. Trempe was made aware of several unpublished studies that will help further his own research and also received useful feedback on his work that will guide the direction of his future experiments. The 2012 van Tol award was announced at a special dinner in Toronto on May 15th, 2012. Members of the Seger-van Tol family were present at the event for the announcement.

Brain Canada is honoured to be associated with the Dr. Hubert van Tol Travel Fellowship, through which we are recognizing Dr. van Tol's continued legacy. The family and supporters of this fellowship would like to ensure that a total of ten annual awards are given, each valued at up to \$5,000.

## Cognitive Impairment in Aging

Brain Canada is a member of the Cognitive Impairment in Aging (CIA) Partnership. The CIA Partnership is a consortium of private, non-governmental, voluntary and government organizations established to work together to further research in cognitive impairment in aging and the application of that research to improve the quality of life of older individuals living with cognitive impairment. There are currently 19 members of this consortium, and since its inception, the CIA Partnership has invested over \$32.2 million in targeted areas.

More detail can be found on their website: http://www.cihr-irsc.gc.ca/e/26988.html



To carry out our mission, Brain Canada depends on the generosity of individuals, corporations and foundations. We raise funds for our research programs, other activities to support research, and our operational needs. 90 percent of every dollar is disbursed directly to Canadian researchers.

With the launch of the Canada Brain Research Fund public-private partnership, Brain Canada has embarked on a \$100-million, national fundraising campaign. All funds raised from non-governmental sources over six years will be matched by Government on a 1:1 basis. Brain Canada will focus our efforts on major donors and partnerships.

We will encourage all organizations raising funds for brain research to either contribute directly to the fund and have their donor dollars matched, or to partner on research programs to further leverage the publicprivate match.

The Canada Brain Research Fund campaign was officially launched on May 3rd, 2012, with the Government of Canada's announcement of its \$100-million commitment to provide matching funding to Brain Canada donors. The quiet phase of our fundraising began with the commitment made in the March and June 2011 Budget.

We would like to gratefully acknowledge the following individuals, foundations and corporations who were early supporters.

#### Individuals and private foundations Lead donors

A private family Foundation that wishes to remain anonymous The Krembil Foundation

#### \$100,000 - \$249,000

The Jim Pattison Foundation The Rotman Family Foundation The Lawrence and ludith Tanenbaum Family Foundation The Max Bell Foundation

\$50,000 - \$99,999 Michael H. Wilson

#### \$25,000 - \$49,999

Rupert Duchesne Marianne Seger Allan R. and Shirley Taylor

#### \$10,000 - \$24,999

The Ira Gluskin & Maxine Granovsky Gluskin Charitable Foundation

#### Corporations

#### \$500,000

Bell Canada CIBC

#### \$200,000

National Bank

#### \$100,000

Power Corporation of Canada

Over the coming year, Brain Canada will be organizing a series of intimate parlour meeting dinners to raise awareness about our work and to promote Canadian brain research. These events are possible thanks to a generous contribution from the RBC Foundation. The first dinner was held in Toronto on May 15th, 2012 and featured presentations by Drs. Michael Salter, Louis-Eric Trudeau and Ruth Slack, all members of research teams funded by Brain Canada. Future dinners will be held in Calgary, Montreal and Vancouver.

The RBC Foundation also provided funding to support media/communications training for researchers who will be giving presentations at the parlour meetings and in other venues. The training will focus on making complex science concepts accessible to broader audiences outside of the research community.

The RBC Foundation was the lead corporate donor to our last campaign and Brain Canada thanks them sincerely for this additional support.

### May 15<sup>th,</sup> 2012 Parlour dinner



Jamie Anderson (Deputy Chairman, RBC Capital Markets)

This event was possible thanks to the generous support of RBC



**RBC Foundation RBC** Fondation



From left to right: Louis-Eric Trudeau, Mark Krembil, Franco Vaccarino



Jamie Anderson, Mary Deacon



From left to right, standing: Donald Stuss, Rosemary McCarney, Antoine Hakim; sitting: Lili de Grandpré, Dini Petty, Barbara Turnbull, Iris Collins



From left to right: Senator W. David Angus, Vincent Castellucci, Michael H. Wilson



From left to right, standing: Michael H. Wilson, Ruth Slack; sitting: Jamie Anderson, Joseph Rotman, Farhana Mather, Senator W. David Angus, Inez Jabalpurwala



From left to right, standing: Mark Krembil, Stacey Krembil, Louis-Eric Trudeau; sitting: Catherine Zahn, Judy Hills, Vincent Castellucci, Judith Sale, Kelly Meighen

### Board of Directors

In June 2011, Ms. Lili de Grandpré was elected a Director. Ms. de Grandpré is the Managing Director of CenCEO Consulting in Montreal. In May 2012, Senator W. David Angus was elected a Director.

#### **PATRON**

#### (NeuroScience Canada Partnership)

His Excellency the Right Honourable David Johnston C.C., C.M.M., C.O.M., C.D. Governor General of Canada

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#### Michael H. Wilson, P.C., C.C., LL.D (Hon.)

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#### Chair

#### Rupert Duchesne

Group Chief Executive AIMIA Inc. (Montreal)

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#### Barbara Turnbull

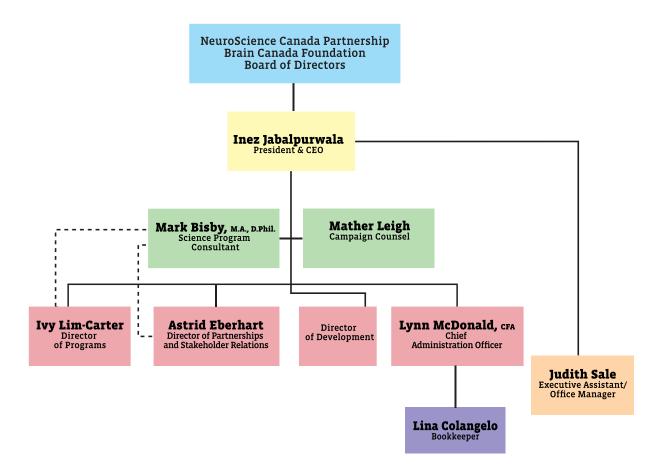
President

The Barbara Turnbull Foundation (Toronto)

#### Dave Williams, M.D.

Canadian Astronaut President and CEO Southlake Regional Health Centre (Newmarket)

# Brain Canada organizational structure



With the establishment of the Canada Brain Research Fund, 2011 into 2012 was a period during which Brain Canada focused on building the appropriate infrastructure to deliver on our expanded fundraising and research programs. Our priority has been to retain our long-standing and dedicated staff, while recruiting additional talent, and we are proud of the team that we have put in place. They represent the best in their areas of expertise and will drive our future success.

The Board of Directors provides oversight and governance, collectively, and through the following committees: Governance, Nominating and Ethics; Audit, Finance and Investment; Public Policy and Communications. During the period of ramp up, two additional committees were established, with a fixedterm mandate: Operational Oversight and Science Oversight.

## Science Advisory Council

In early 2012, the Science Advisory Council was reconstituted to include a balanced representation of active, leading researchers who have knowledge about the current research needs, latest advances, and areas of future promise, as well as access to networks that will be important to engage and keep informed.

#### David Kaplan, Ph.D - Co-Chair

Senior Scientist, Cell Biology Program The Hospital for Sick Children

#### Yves De Koninck, Ph.D - Co-Chair

Past-President, Canadian Association for Neuroscience Professor of Psychiatry & Neuroscience, Laval University Director, Div. of Cellular & Molecular Neuroscience. Quebec Mental Health Institute

#### Paul Albert, Ph.D

Senior Scientist Associate Director Neuroscience Program Ottawa Hospital Research Institute

#### Jaideep Bains, Ph.D

Professor, Dept. of Physiology and Pharmacology Faculty of Medicine University of Calgary

#### Phil Barker, Ph.D

Professor, James McGill Scholar and FRSQ Chercheur National Montreal Neurological Institute and Hospital McGill University

#### Robert M. Brownstone, M.D., Ph.D

Assistant Dean, Research - Clinical Departments, Faculty of Medicine Dalhousie University

#### Kathleen Cullen, Ph.D

Professor Department of Physiology McGill University

#### Sam David, Ph.D

President, Canadian Association for Neuroscience Centre for Research in Neuroscience McGill University Health Centre

#### Karen Davis, Ph.D

Division of Brain, Imaging & Behaviour Systems Toronto Western Research Institute (TWRI) Toronto Western Hospital

#### Pierre Drapeau, Ph.D

Director Department of Pathology and Cell Biology Université de Montréal

#### Melvyn A. Goodale, Ph.D

Canada Research Chair in Visual Neuroscience Director, The Brain and Mind Institute Department of Psychology Western University

#### John Kalaska, Ph.D

Professor of Physiology Faculty of Medicine Université de Montréal

#### Marco Leyton, Ph.D

President Canadian College of Psychopharmacology William Dawson Chair Department of Psychiatry McGill University

#### André Longtin, Ph.D

Director, Center for Neural Dynamics Physics Department University of Ottawa

#### Brian MacVicar, Ph.D

Brain Research Centre Department of Psychiatry University of British Columbia

#### Freda Miller, Ph.D

Senior Scientist Developmental & Stem Cell Biology The Hospital for Sick Children

#### Doug Munoz, Ph.D

Director, Centre for Neuroscience Studies Queen's University

#### Lynn A. Raymond, M.D.

Professor. Department of Psychiatry Director, MD/PhD Program Kinsmen Laboratory of Neurological Research University of British Columbia

#### Michael Salter, M.D., Ph.D

Head and Senior Scientist Neurosciences & Mental Health The Hospital for Sick Children

## International Science Advisory Council

This council provides a global and multidisciplinary perspective on scientific trends and developments relevant to the neurosciences.

#### Albert J. Aguayo, O.C., M.D., F.R.S.C.

Professor, Neurology & Neurosurgery Founder and Former Director Centre for Research in Neuroscience McGill University Montreal General Hospital Research Institute. (Montreal, Quebec)

#### Larry Benowitz, Ph.D

Director Laboratories for Neuroscience Research in Neurosurgery Children's Hospital Boston (Boston, Massachussetts)

#### Gary E. Landreth, Ph.D

Professor of Neurosciences and Neurology Director, Alzheimer Research Laboratory Case Western Reserve University School of Medicine (Cleveland, Ohio)

#### Lorne M. Mendell, Ph.D

Distinguished Professor Department of Neurobiology and Behavior State University of New York at Stony Brook (Stony Brook, New York)

#### Alain Privat, M.D., Ph.D

Director, Spinal Cord Team Institut National de la Santé et de la Recherche Médicale (INSERM) (Montpellier, France)

#### Peter R. Rapp, Ph.D

Senior Investigator Chief, Laboratory of Experimental Gerontology National Institute on Aging (Baltimore, Maryland)

#### Scott R. Whittemore, Ph.D

Professor and Vice-Chair for Research Department of Neurological Surgery Henry D. Garretson Endowed Chair in Spinal Cord Injury Research Scientific Director Kentucky Spinal Cord Injury Research Center University of Louisville School of Medicine. (Louisville, Kentucky)

# Partnership and Foundation Financial Report

#### NeuroScience Canada Partnership **Brain Canada Foundation**

Combined Financial Statements

At December 31	2011	2010
	\$	\$
ASSETS		
Current Assets		
Cash and cash equivalents	99 923	171 802
Term deposits	290 000	45 000
Sundry receivables	19 871	14 219
Prepaids and deposits	48 554	23 674
	458,348	254 695
Capital assets	1 858	1 240
Investments	128 571	187 911
	588 777	443 846
LIABILITIES		
Current liabilities		
Accounts payable and		
accrued liabilities	22 449	24 203
Program commitments	330 225	27 780
	352 674	51 983
NET ASSETS		
Unrestricted net asset	236 103	391 863
	588 777	443 846

For the year ended December 31	<b>2011</b> \$	2010
REVENUES		
Contributions	688 005	607 964
(Less deferred amount)	,	
add amount recognized	(302 445)	250 604
	385 560	858 568
Other contributions	24 370	-
	409 930	858 568
Interest and investment income	863	146
Gain on sale of Allon Therapeutics Inc Sha	ares –	56 672
	410 793	915 386
EXPENDITURES		
Grants and awards	78 513	424 135
Operating expenses	427 994	357 189
Amortization	706	327
	507 213	781,651
Excess of (expenditures over		
revenues) revenues over expenditures for the year	(96 420)	133 735
emperiareares for the year	(30 7=0)	-33 /33

The financial statements of NCP - NeuroScience Canada Partnership and BCF - Brain Canada Foundation are audited by KPMG LLP and are available upon request.