

PARKINSON SOCIETY CANADA

NATIONAL
RESEARCH
PROGRAM



PHOTO: DAVE ROELS



Parkinson Society Canada
Soci t  Parkinson Canada

Leading the way in Parkinson's research

Research holds the key to unlock the mysteries of Parkinson's disease. Scientific excellence and the courage to test new ideas are vital in the global search for better treatments and a cure for the disease.

Since 1981, Parkinson Society Canada's National Research Program has funded:

- high-quality, innovative Canadian research by established and promising investigators.
- discovery stage research where investigators test new theories and pursue promising new leads.
- researchers at the beginning of their careers in order to foster the next generation of Parkinson's scientists.
- novel research to build greater capacity, promote creativity and engage more researchers.
- more than 400 awards, fellowships, and grants that teach us more about preventing, diagnosing and treating Parkinson's disease.

Financial support from individuals, corporations and foundations makes the National Research Program possible.

Dr. Gail Eskes and team at Dalhousie University test drive a game-like task for attention





Research that makes a difference

FINDING BETTER TREATMENTS to learn more about the causes, progression, and complications of Parkinson's.

IMPROVING QUALITY OF LIFE for people with Parkinson's and their families so they can live their lives to the fullest, despite the challenges of this disease. This area of research spans a variety of health disciplines such as nursing, occupational therapy, speech language pathology and social work.

BUILDING CAPACITY among the next generation of Canadian researchers. We also fund specialized training for doctors in the diagnosis and management of the disease and other movement disorders so there will be more Parkinson's specialists to provide high quality care.

CONTRIBUTING ON AN INTERNATIONAL SCALE to the collective understanding of this complex disease and to the global search for a cure. Continued investments in research will produce more life-changing discoveries and bring us closer to a world without Parkinson's disease.

Research Policy Committee Members



DR. PIERRE J. BLANCHET
Chair, Research Policy Committee

The Research Policy Committee (RPC) and Scientific Advisory Board (SAB) are two separate volunteer committees. The chair of the SAB also sits on the RPC to ensure continuity.

Dr. Pierre J. Blanchet, Chair,
Neurologist, André-Barbeau Movement Disorders Unit, Hôpital Notre-Dame du CHUM, Montreal

Dr. Edward Fon, *Director, McGill Parkinson Program, a National Parkinson Foundation Center of Excellence, Montreal Neurological Institute*

Dr. Mark Guttman, *Director, Markham Professional Centre, Movement Disorders Clinic*

Dr. Philip Hébert, *Professor Emeritus, Family Medicine, University of Toronto; Chair, Sunnybrook Research Ethics Board*

Dr. Douglas Hobson,
Co-Director, Deer Lodge, Movement Disorder Clinic, Winnipeg

Dr. Wendy Horbay,
Independent Health Related Strategic Planning Consultant

Dr. Anne-Louise Lafontaine,
Director, McGill Movement Disorder Clinic; Assistant Professor, Department of Neurology and Neurosurgery, McGill University

Dr. Daniel Levesque,
Professor, Faculté de Pharmacie, Université de Montréal

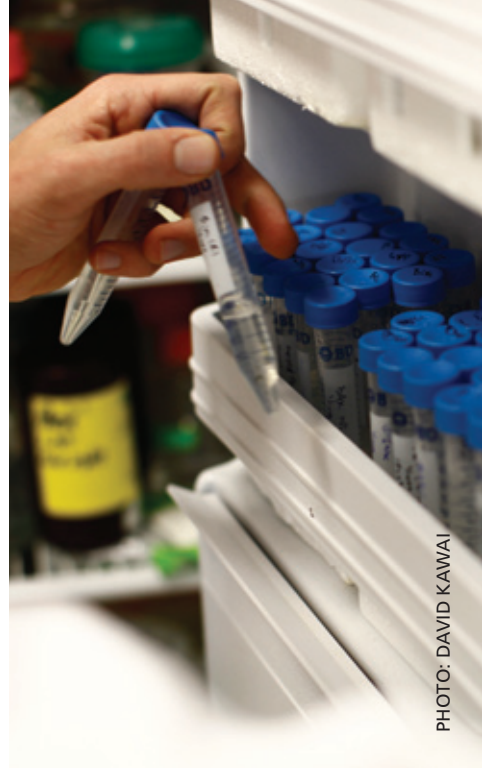
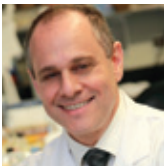


PHOTO: DAVID KAWAI

Scientific Advisory Board Members



DR. EDWARD FON
*Chair, Scientific
Advisory Board*

A volunteer panel of experts reviews funding applications to determine scientific excellence and relevance to Parkinson's disease, providing the highest quality of objective adjudication.

Dr. Edward Fon, Chair, Director, McGill Parkinson Program, a National Parkinson Foundation Center of Excellence, Montreal Neurological Institute; *Associate Professor, McGill University*

Dr. Richard Camicioli, Professor, Division of Neurology, Glenrose Rehabilitation Hospital, University of Alberta, Edmonton

Dr. Matt Farrer, Professor/Director, Department of Medical Genetics, Brain Research Centre, University of British Columbia

Dr. Bin Hu, Professor, Departments of Clinical Neurosciences/Cell Biology & Anatomy, University of Calgary

Dr. Zelma Kiss, Associate Professor of Neurosurgery, University of Calgary

Dr. Martin McKeown, Associate Professor of Neurology, University of British Columbia, University Hospital

Dr. Janis M. Miyasaki, *Associate Clinical Director, Deputy Physician-in-Chief,* Movement Disorders Centre, University Health Network's Toronto Western Hospital

Dr. David Park, Researcher, Neurosciences, Ottawa Health Research Institute

Dr. Ron Postuma, Associate Professor of Neurology and Neurosurgery, Faculty of Medicine, McGill University; *staff neurologist,*

Montreal General Hospital, *Researcher* at the Research Institute of the McGill University Health Centre (MUHC) and at Sacré Coeur Hospital

Dr. Harold Robertson, *Professor of Medicine (Neurology)* Department of Pharmacology, Dalhousie University

Dr. Anurag Tandon, *Researcher,* Centre for Research in Neurodegenerative Diseases, University of Toronto

Dr. Louis-Eric Trudeau, Professor, Department of Pharmacology, Faculty of Medicine, University of Montreal

How the **FUNDING** Process Works

STEP

1

CALL FOR PROPOSALS

To Canada-based researchers, health care professionals, and graduate students.



STEP

2

PEER REVIEW**

Scientific Advisory Board (SAB) reviews, scores and ranks each application using Canadian Institutes of Health Research standards.



STEP

3

FUNDING RECOMMENDATIONS

Research Policy Committee receives SAB rankings and recommends that the PSC Board of Directors funds those applications with the highest ratings for scientific excellence, innovation and relevance to Parkinson's.



STEP

4

FUNDING APPROVED

PSC Board of Directors approves funding and applicants receive awards. Research and clinical fellowships begin.



STEP

5

KNOWLEDGE SHARED

Grant recipients provide progress reports and financial accounting yearly and upon completion.

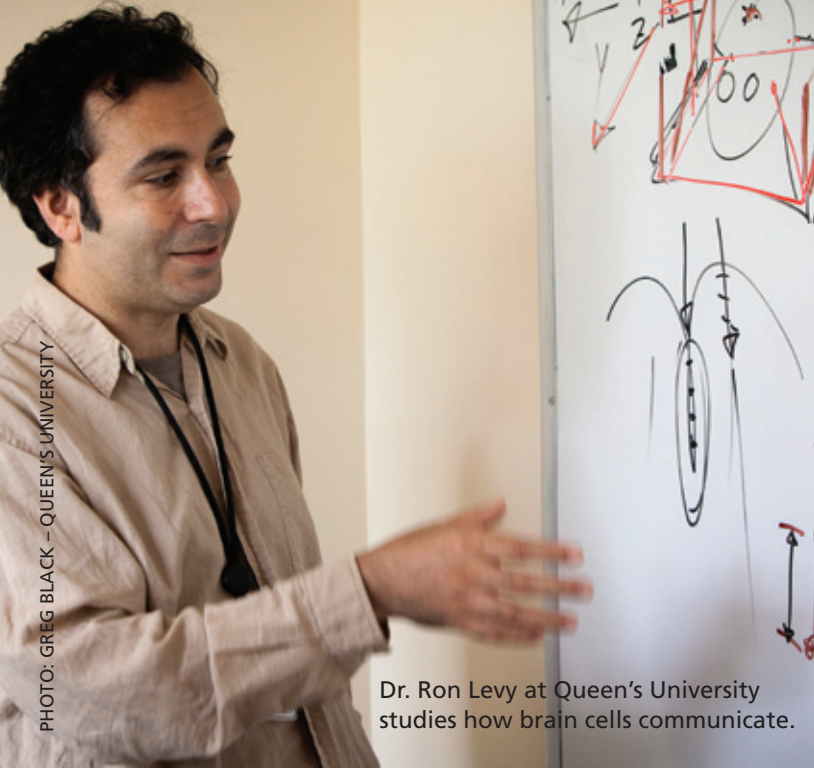
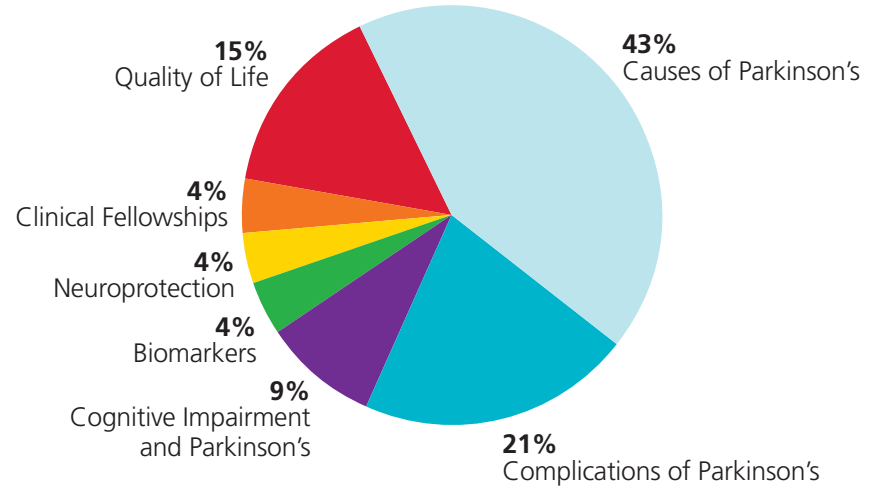


PHOTO: GREG BLACK – QUEEN'S UNIVERSITY

Dr. Ron Levy at Queen's University studies how brain cells communicate.

NATIONAL RESEARCH PROGRAM GRANTS BY AREA OF FOCUS* (2012-2014)



*Based on number of grants/fellowships funded

CAUSES OF PARKINSON'S

Movement is controlled partly by a chemical called dopamine, which carries signals between nerve cells in the brain. Parkinson's motor symptoms appear when a significant proportion of dopamine-producing cells have died.

We fund research into the chemical or genetic triggers that start the cell death process in dopamine neurons. Understanding this sequence of events will enable scientists to develop treatments to stop or prevent the loss of dopamine-producing cells. This could lead to a cure for the disease.

COMPLICATIONS OF PARKINSON'S

The familiar symptoms of Parkinson's disease are tremors, loss of balance, and slowness of movement. But non-motor complications of Parkinson's can also impact quality of life. These include

depression, anxiety, trouble sleeping, difficulty swallowing, low blood pressure, urinary incontinence, sexual problems or cognitive changes. The nature, severity and impact of symptoms vary with each person. Investigating motor and non-motor complications associated with Parkinson's could lead to improved treatments and better quality of life.

COGNITIVE IMPAIRMENT AND PARKINSON'S

Many people with Parkinson's experience cognitive changes as part of the disease progression including difficulty paying attention, problems finding words, slowness in thinking, difficulty retrieving information, and problems with planning, anticipating consequences and making decisions. Exploring and understanding how these cognitive deficits affect the Parkinson brain can lead to specialized treatments for managing and preventing these symptoms.

BIOMARKERS

Identifying biomarkers to detect the early stages of Parkinson's allows people to start treatments before significant nerve cell loss occurs and motor symptoms, such as resting tremors, appear. Biomarkers could also identify people at risk of developing Parkinson's, improve diagnosis, measure disease progression and determine which treatment will work best. This is a vital promising area of research.

NEUROPROTECTION

Resting tremors and muscle rigidity appear after many dopamine-producing cells in the brain have died. Scientists are searching for neuroprotective compounds that can prevent the brain cells from degenerating. Several substances such as caffeine, nicotine, and turmeric may have neuroprotective qualities. Further research could lead to the development of drug therapies that slow,

stop and even prevent Parkinson's disease. These could be given to people with early clinical signs of Parkinson's or those known to be at genetic risk.

QUALITY OF LIFE RESEARCH

Researchers from health professions such as nursing, physiotherapy, occupational therapy, speech language pathology and social work are exploring the quality of life for people with Parkinson's and their care partners. Their findings can lead to better treatments, improved support services, and advocacy strategies that help policy makers better understand the particular challenges of Parkinson's disease. Quality of life research can empower people with Parkinson's and their families to live their lives to the fullest, despite the limitations of this disease.

Categories of Grants and Awards

Description	Duration	Funding
PILOT PROJECT GRANT PROGRAM encourages established Canadian researchers to test original theories, which may not have been investigated otherwise. The possibility that a new idea could lead to a significant finding makes pilot project grants vital.	1 year	Maximum \$45,000
NEW INVESTIGATOR AWARD PROGRAM encourages emerging scientists to develop the ability to initiate and conduct novel, independent research related to Parkinson's disease. Awarded based on excellence, innovation and impact, these grants enable more young Canadians to contribute to the global advancement of knowledge of Parkinson's disease.	2 years	\$45,000/year
CLINICAL RESEARCH FELLOWSHIP PROGRAM awards encourage more Canadian medical specialists, such as neurosurgeons and neurologists, who provide care to also conduct Parkinson's research. This fosters the continued growth of research into more effective Parkinson's treatments and a cure. Currently, Canada has a shortage of clinician scientists – valued members of the Parkinson's scientific community because they understand both the implications of research and its impact on patients. This program encourages more Canadian medical specialists, such as neurosurgeons and neurologists, to also conduct Parkinson's research.	2 years	\$50,000/year
CLINICAL MOVEMENT DISORDERS FELLOWSHIP PROGRAM , After medical school, new doctors choose different areas in which to specialize. One subspecialty is Movement Disorders, which includes many diseases with movement issues. The fellowship program gives new doctors the opportunity to receive training specifically in the diagnosis and management of Parkinson's disease. This ensures more medical specialists in Canada can provide high quality care to people with Parkinson's.	1 year	\$50,000

Description	Duration	Funding
<p>BASIC RESEARCH FELLOWSHIP PROGRAM By providing salary support, promising young scientists can explore biomedical research in Parkinson's disease. Investing in their research training ensures more talented young investigators specialize in Parkinson's research. This builds the foundation for a strong Canadian research community in the years ahead.</p>	2 years	Up to \$40,000 - \$50,000/year
<p>GRADUATE STUDENT AWARD PROGRAM By providing salary support, this program encourages talented master's and doctoral students to specialize in Parkinson's research during the early stages of their training. This fosters more high quality Parkinson's research in Canada.</p> <p>* Additional \$5,000/year is contributed by the student's supervisor for a total award amount of \$20,000 per annum.</p>	2 years	\$15,000/year*
<p>PSYCHOSOCIAL RESEARCH GRANTS In partnership with the Canadian Institutes of Health Research, Institute of Neurosciences, Mental Health & Addiction, this grant encourages researchers from a variety of health disciplines (nursing, occupational therapy, speech language pathology and social work) to explore caregiving, behavioural or cognitive changes, treatments for non-motor and motor symptoms, and economic impacts on families.</p>	2 years	Maximum: \$50,000/year
<p>DOCTORAL AWARD In partnership with the Canadian Institutes of Health Research, Institute of Neurosciences, Mental Health & Addiction, this award provides salary support to a doctoral student. The award encourages PhD students to specialize in Parkinson's research.</p>	Up to 3 years	\$30,000 + \$5,000 travel allowance/year

Parkinson Society Canada and its partners proudly support the National Research Program

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We invite you to learn more about PSC-funded research projects and how you can invest in Parkinson's research in Canada. Please visit the Research section online at www.parkinson.ca or call 1-800-565-3000 to obtain a copy of Research Highlights.