Partners Investing in Parkinson's Research (PIPR)

APRIL 2025 IMPACT REPORT

The Ottawa Hospital is leading the way when it comes to Parkinson's diagnosis, treatment, and research. From the philanthropic support generated through our Parkinson's Research Consortium to the care delivered at our Parkinson's Disease and Movement Disorders Clinic, and from delivering the latest medication options to improving care models to offering cutting-edge treatments like deep brain stimulation – our experts are bringing hope to Parkinson's patients every day.

The research we're doing at The Ottawa Hospital will shape the future of Parkinson's diagnosis and treatment in the years to come. When you support The Ottawa Hospital Foundation, you support the work that is improving patients' quality of life today and their hope for tomorrow.

Parkinson's research at The Ottawa Hospital

The Ottawa Hospital is an internationally recognized centre of excellence for neuroscience research and care. We have more than 400 scientists, clinician investigators, trainees, and staff conducting ground-breaking research to understand how the brain works and to develop better ways to treat diseases like stroke, Parkinson's disease, multiple sclerosis, and neurodevelopmental disorders. This essential research would not be possible without your support. We – and the 110,000+ Canadians living with Parkinson's disease, including 8,000 here in Ottawa – are grateful for the support of people like you, which helps ensure this vital work continues.

What does loss of smell say about Parkinson's disease? Groundbreaking research continues with US$6 million ASAP grant

An international team lead by Dr. Michael Schlossmacher received a US$6 million grant from the Aligning Science Across Parkinson's (ASAP) initiative in partnership with The Michael J. Fox Foundation for Parkinson's Research to continue their work on reduced sense of smell in Parkinson's disease.

Team Schlossmacher will continue this work as part of ASAP's Collaborative Research Network, an international, multidisciplinary, and multi-institutional network of collaborating investigators who are working to accelerate the pace of discovery for Parkinson's disease and drive new ideas into the R&D pipeline. The funded work will build on exciting leads generated through an initial US$9 million ASAP Collaborative Research Network grant in 2021.

For example, Ottawa team members found clumps of the Parkinson's-associated protein alpha-synuclein in nerve cells that process scents in the nose. The team is looking at what causes these clumps and whether they're linked to subsequent Parkinson's symptoms.

Team members in Germany and Texas found using MRI that a part of the brain involved in smell processing called the pirifirom cortex is smaller in people with Parkinson's. They are studying how this area changes over time and whether it could be used to diagnose the disease or measure its progression.

Team members in Ottawa also created and tested a new five-minute scratch-and-sniff test that works just as well as the currently used 40-item test. They hope the shorter test will be used in efforts to catch Parkinson's early, as 80% of patients have a reduced sense of smell starting many years before motor symptoms arise.

"Understanding the loss in sense of smell in Parkinson's is having its moment right now. Our interdisciplinary team is on the leading edge of this topic making discoveries that could one day impact diagnosis, prevention, and possibly, patient care."

DR. MICHAEL SCHLOSSMACHER

Trial tests different ways to reduce depression in Parkinson's disease

Interpersonal psychotherapy may be better than other types of psychotherapy for treating depression in Parkinson's disease, according to the first clinical trial of its kind. People with Parkinson's often experience depression, but there's been little research to show what type of psychotherapy works best.

Dr. David Grimes led a clinical trial published in Movement Disorders that compared interpersonal psychotherapy, which focuses on adjusting to changing roles and relationships, with a more general form of psychotherapy called nondirective supportive therapy.

The Ottawa Hospital recruited 63 people with Parkinson's and depression who were then randomly assigned to one of the two types of psychotherapy for 12 sessions. Both groups had fewer depression symptoms after the last session, but the interpersonal psychotherapy group had significantly lower depression scores.

"Psychotherapy is an important option for treating depression in Parkinson's. Healthcare providers should consider recommending it alone or in combination with antidepressants."

DR. DAVID GRIMES
DIRECTOR, PARKINSON'S DISEASE AND MOVEMENT DISORDERS CLINIC

Integrated Parkinson's Care Network (iCARE-PD)
Funded by PIPR

A challenge for people living with Parkinson's disease (PwP), along with the symptoms, is knowing what to expect and cope with the many facets of Parkinson's. There is often the need to seek the support of a wide range of professionals, both in the hospital and the community; care delivery in our healthcare is often not well coordinated.

With this challenge in mind, Drs. Tiago Mestre and David Grimes have developed the Integrated Parkinson's Care Network (iCARE-PD) project.

In iCARE-PD, we are shifting Parkinson's care to the community. We have created a virtual care network of resources, provide a health coach program that supports self-care and streamlines navigation in the healthcare system, all coordinated by a Parkinson's nurse.

Since the last report, we have completed a large multinational study of six European countries that showed feasibility and transferability of iCARE-PD to a diversity of healthcare settings, with positive impacts in care satisfaction and health. Currently, we are testing iCARE-PD in two Canadian centres (Calgary and Hamilton) comparing for the first time standard of care with iCARE-PD in a Canadian Institute Health Research-sponsored trial.

iCARE-PD also means technology-enabled care. With our solution, an online technology called eCARE-PD, PwP can create care plans, self-monitor care issues, receive education about living with Parkinson's, and locate care resources in the community. A recent Parkinson Canada grant has allowed to understand how to build a more engaging and interactive solution with integration of wearables and, in the future, AI-based tools. We are poised to formally test its impact in the lives of patients.

We started the iCARE-PD clinical program to share our learnings in the form of better care for our patient community, and we continue to incubate novel care ideas.

We envision these successes helping to deliver the concept of system-wide care networks for Parkinson's that integrate different layers of our healthcare system for better care in Parkinson's and related disorders.

"The eCARE-PD initiative aims to serve as a supportive companion for individuals living with Parkinson's disease across Canada, enhancing their life journey and offering hope to those facing this progressive, incurable condition."

DR. TIAGO MESTRE

PREDIGT

Funded by PIPR

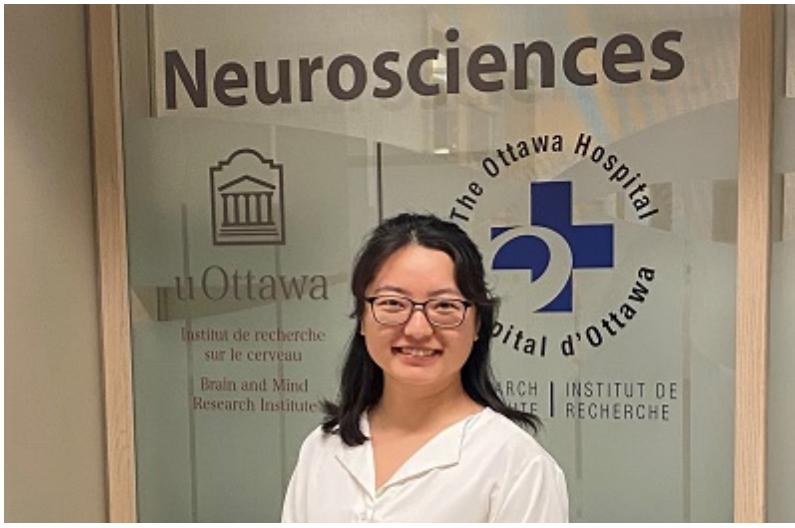
Prolonged wait times to visit a movement disorder specialist continue to be a major obstacle for patients with Parkinson's to receive proper diagnosis and treatment. For many medical conditions, formula-based prediction tools have assisted decision making by practitioners.

That's why Drs. Michael Schlossmacher and Juan Li have created the PREDIGT Score as a prediction tool for Parkinson's with their team. This is a two-step screening toolkit which takes into account exposure, genetic risk, initial changes in brain function, gender, and age. The first step is to complete a questionnaire comprised of 12 questions. The second step is a short smell test with eight scents called the NeuroScent Card, which was developed in Ottawa and is manufactured by Sensonics Inc.

The validation efforts and pilot trials for the PREDIGT program have been successful, showing great accuracy in distinguishing people with Parkinson's from healthy controls as well as those with other neurological conditions in several study cohorts. The questionnaire has now been made available online so that patients can easily complete it at home or in the clinic setting. Next steps in this project are to perform larger clinical trials, comparing the predicted risk score with the actual diagnosis at the time of formal assessment by a neurologist.

Trials will include participants with other neurological conditions to see how accurate PREDIGT is at distinguishing specifically Parkinson's. In addition, the team is working with the Ottawa Methods Centre to create an app for ease of data entry and production of automated reports.

Overall, the goal of this project is to produce a tool that family doctors will use in their practices to the referring doctors or nurses in the future, which will accelerate diagnosis and faster care for these patients.



"The aim of this project is to develop a tool for family doctors to use in their practices, enabling them to provide diagnoses and issue prescriptions, thereby facilitating the initiation of symptomatic treatment and enhancing both diagnosis and patient care."

DR. JUAN LI
PREDIGT PROJECT LEAD

Hunting for biomarkers – MRI imaging for Parkinson's disease and Lewy body dementia

Funded by PIPR

Lewy body dementia (LBD) and Parkinson's share the same underlying biology, and the onset and progression of the diseases are similar. However, currently there remains a lack of known biological markers, which could help to predict onset and progression of Parkinson's and LBD. This is a major barrier to advances in early diagnosis and to finding treatments which could slow or stop these diseases.

Dr. Gabriel Amorelli and his research group are taking on the challenge of finding novel biomarkers by using brain imaging. Specifically, this team is using diffusion tensor imaging (DTI) which is a type of magnetic resonance imaging (MRI) that measures how water molecules move in tissues. They are focusing on one area of the brain that could potentially present with connectivity impairment at the very onset of the disease. It is believed that this impairment may be more pronounced in LBD than other neurological conditions including Parkinson's. To study this, the team has initiated a pilot program, enrolling patients Parkinson's and LBD as well as controls to undergo DTI MRIs over time to assess changes in the brain.

"The goal of this project is to enhance patient outcome measures for disease progression in clinical trials involving patients with Parkinson's disease dementia and Lewy body dementia."

DR. GABRIEL AMORELLI
NEUROLOGIST, THE OTTAWA HOSPITAL,
CLINICIAN INVESTIGATOR, OTTAWA HOSPITAL
RESEARCH INSTITUTE

"The Parkinson's Research Consortium has provided me the opportunity to further both my research and career thanks to the Shelby Hayter Fellowship. This award will allow me to continue my research on the originations of Parkinson's disease and help me to create a new model for the neurodegenerative disorder to allow for better exploration of the pre-motor symptoms that occur. With the ongoing support that this fellowship offers me, I will be able to expand on the current work I have been conducting, along with my knowledge within the field. Over time, this work will aid in the finding potential earlier diagnostic tools for Parkinson's. I want to thank Shelby Hayter for the opportunity to have this award. Her continued efforts in educating and furthering the research of Parkinson's disease is tremendous and I'm thankful for the opportunity her award has given me."

EMMA GREEN
RECIPIENT OF THE TWO-YEAR SHELBY HAYTER RESEARCH FELLOWSHIP IN PARKINSON'S

"I'm proud of the impact the Shelby Hayter Research Fellowship for Parkinson's is making in supporting the next generation of Parkinson's researchers. It helps spark new ideas and fosters opportunities for innovative research that might not otherwise be possible. As someone living with Parkinson's, I remain hopeful that the next generation will continue to lead the way toward a cure."

SHELBY HAYTER
PARKINSON RESEARCH CONSORTIUM ADVISORY BOARD, BOARD MEMBER

"My name is Jessica McNeill and I am a PhD candidate in the neuroscience department at Carleton University under the supervision of Dr. Natalina Salmaso. I am fortunate to be a recipient of the Parkinson Research Consortium (PRC) fellowships for the past two years. These fellowships have been instrumental in furthering my studies and research on Parkinson's disease. In both cases, the funding covered my tuition and many of my expenses, enabling me to focus exclusively on my research and take on larger and more cutting-edge projects. Furthermore, since becoming part of the wonderful PRC network, I have had opportunities to meet and collaborate with other local researchers as well as opportunities to volunteer at community-driven fundraising events for Parkinson's patients and their families. This year, the PRC fellowship funding will also enable me to attend a top neuroscience conference where I will share and discuss my Parkinson's research.

I would like to extend my deepest gratitude and thanks to the Francis Matthew Memorial Fellowship and the Michael Bell and Family Foundation Fellowship for their generous donations and fellowships of which I was a fortunate recipient of in 2023 and 2024, respectively. Their kind contributions have greatly eased the financial burden of graduate school, and allowed me to focus on my research. Their generosity has truly helped to reduce my stress, while allowing me to continue pursuing my passion of Parkinson's research. I am so thankful and grateful for all their support."

JESSICA MCNEILL
RECIPIENT OF THE MICHAEL BELL AND FAMILY FOUNDATION FELLOWSHIP 2024
AND FRANCIS MATHEW MEMORIAL FELLOWSHIP 2023

Kicking back: Chantal Theriault's journey with Parkinson's

When Chantal Theriault was diagnosed with early-onset Parkinson's disease at age 37, two names came to mind — Mohammed Ali and Michael J. Fox. Despite the shocking news, she faced it head-on, relying on expert care at our hospital and immersing herself in leading-edge clinical trials to help others just like her.

Read more of her story here.

LIKE FATHER, LIKE SON: MEET NEUROLOGIST, DR. DAVID GRIMES

He never planned to follow in his father's footsteps, but now, Dr. Grimes leads the very clinic his dad founded — the Parkinson's Disease and Movement Disorders Clinic.

READ THE Q&A

A CLOSER LOOK AT PARKINSON'S

From ancient texts to VR-guided surgeries, Parkinson's has a long, complex history. Learn what causes it, how it's treated, and how research brings new hope.

LEARN MORE

Celebrating extraordinary philanthropy

In 2009, a group of investment advisors from Ottawa's financial community came together to create Partners Investing in Parkinson Research (PIPR). Their initial goal was to raise $500,000 to fund research aimed at better understanding and diagnosing Parkinson's disease. Since then, PIPR has grown to include countless individuals and families impacted by Parkinson's, all united in their commitment to advancing research. To date, PIPR has successfully raised $1.8 million.

PIPR has provided important funding to researchers, allowing them to leverage further grants and make incredible medical advancements. PIPR has not only helped to fund research for the treatment and cure of Parkinson's disease, but it has also encouraged the community to support the cause that previously received little attention. Above all, the PIPR team has given hope to those who live with this persistent disease.

Taking research to new heights

The Ottawa Hospital remains a hub for clinical research in Parkinson's disease. Beyond the studies mentioned above, patients here have access to trials involving brain-protective medications, talk therapy for depression, innovative dopamine treatments, and digital tools for symptom tracking. If you're interested in being part of a study, please speak with your care team.

Neuroscience research at new hospital campus will have the potential to be among the best in the world.

It will bring basic neuroscientists, neurologists, neurosurgeons, and other experts together to accelerate how quickly research gets from the lab to the bedside of patients.

Your generosity makes this future possible.

Thank you PIPR Team!

The Ottawa Hospital Foundation | L'Hôpital d'Ottawa Fondation

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