



Institut de recherche
sur le cerveau
Brain and Mind
Research Institute



The Ottawa
Hospital | L'Hôpital
d'Ottawa

PRC | Year-in-Review



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A Message from our Co-Directors

In the last year, the Parkinson Research Consortium has continued to build momentum and its success is largely due to the synergistic interactions between scientists, clinicians, trainees, patients, families and the community.

By building such strong links, we are able to promote awareness for Parkinson's disease at local and national levels and create opportunities for funding of innovative projects in PD research. These unique opportunities allows us to expand the PRC's scope by attracting and recruiting the best scientists from various domains within our community.

Exciting projects include:

- CLINT (Canadian LRRK2 in INflammation Team). CLINT Investigators represent now 10 investigators from 6 Canadian universities that study a gene (LRRK2), linked to Parkinson's Chrohn's disease and leprosy. It has been supported by a CIHR Team Grant (2014-2019, \$2.4 Million CAD). The team most recently met to discuss strategy in January 2019.
- Established an advanced therapy program at The Ottawa Hospital which includes both Deep Brain Stimulation and Duodopa infusion therapies. These provide life changing therapy options to patients in Ottawa.
- Launched the Integrated Parkinson Care Network (IPCN) to provide improved, integrated care for patients.

We look forward to sharing the PRC highlights of the past year and want to recognize and thank the many 'team' players. This includes our scientific members, PRC Advisory Board, volunteer community and administrative core that work together to make the PRC the success it is today.

- Dr. David Grimes & Dr. Michael Schlossmacher, Co-Directors of the PRC





Parkinson's Research IN THE NEWS!



The PRC was awarded the The Ottawa Hospital's Research Excellence Team Award. This award recognizes a team who has made a significant contribution to the research mandate of the hospital.

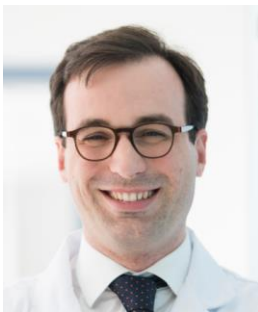
Since 2004, the **Parkinson Research Consortium** has cultivated a world-class research program by promoting and encouraging synergistic interactions between scientists, clinicians, patients, families and the community. They have supported 35 trainees, including graduate students, fellows and research associates.

They have also helped recruit leading scientists working on Parkinson's disease including, Dr. Adam Sachs from Stanford University, Dr. Tiago Mestre from the University of Toronto, and most recently Dr. Maxime Rousseaux from the University of Baylor in Texas. This collaborative effort has also dramatically improved patient care by establishing the **Deep Brain Stimulation program at The Ottawa Hospital**, launching the **Integrated Parkinson Care Network** and expanding clinical trial options for patients.

The Parkinson Research Consortium has also worked very closely with The Ottawa Hospital Foundation and the University of Ottawa Brain and Mind Research Institute to organize annual educational and awareness events. Most importantly, they truly work together as a highly motivated, collaborative and dedicated team.

Advisory Board of Directors: David Cork, Tom Belton, Rob Gibson, David Grimes, Shelby Hayter, David Hogg, Nick Kaethler, Debra Lynkowski, Tiago Mestre, Michael Schlossmacher, Ian Toth, Natasha Hollywood.

Scientific Community: David Grimes, Michael Schlossmacher, Tiago Mestre, Paul Albert, Steffany Bennett, Tuan Bui, Dennis Bulman, Antonio Colavita, Patrick Davidson, Marc Ekker, Derrick Gibbings, Shawn Hayley, Matthew Holahan, Diane Lagace, Lori Malva Della, Julie Nantel, Johnny Ngsee, Robin Parks, Maxime Rousseaux, Adam Sachs, Ruth Slack, Hongyu Sun, Mario Tiberi, François Tremblay, Vance Trudeau, Lisa Walker, John Woulfe.



A personalized approach for Parkinson's care pioneered in Ottawa will soon be tested in Europe, thanks to a prestigious \$2.2M grant. This approach, called the **Integrated Parkinson's Care Network**, was developed by Drs. **Tiago Mestre** and **David Grimes**. People living with Parkinson's identify their care goals with the help of an expert nurse, who provides self management tools and helps link individuals with resources in the community. This approach has the potential to improve quality of life with little cost to the health-care system. The researchers also plan to develop digital health technology to empower patients and make care available independent of geographic location. Already **piloted in Ottawa** with 100 participants, the international project will implement the

program in Parkinson's care centres in six European countries. Researchers will study how the program can be developed and how it performs in different social and cultural contexts and health-care systems.

Drs. **Adam Sachs** and **Justin Sutherland** were interviewed by the **Ottawa Citizen** and the Kingston Whig Standard about a **medical 3-D virtual reality system** that could be the first of its kind in the world to be used for deep brain stimulation surgery



From uOttawa Media: Neurodegenerative disorders, such as Parkinson's disease and amyotrophic lateral sclerosis (ALS), impose a devastating medical, emotional and economic burden on Canadians. **Dr. Rousseaux's** research will help the medical community and patients with these debilitating diseases by defining the functional significance of genetic variants that are currently not well understood.

Celebrating Our Young Scientists



Parkinson Research Consortium | 2018 Fellowship Awardees

Crabtree Family Fellowships

Awarded to: Richard Harris (post-doctoral fellow)

Title: Targeting Mitochondrial Dysfunction to Rescue Neural Stem Cell Depletion in Parkinson's Disease | **Mentor:** Dr. Ruth Slack

and

Awarded to: Maria Bilen (graduate student)

Title: Reverting Mitochondrial Dysfunction in an Attempt to Rescue Neural Stem Cells

Depletion and Promote Neurogenesis in Parkinson's disease

Mentor: Dr. Ruth Slack

Toth Family Fellowship

Awarded to: Michael Min Wah Leung (graduate student)

Title: Neurophysiological Correlates of Countermanding Saccade Deficits in Parkinson's Disease **Mentor:** Dr. Adam Sachs

Audrey Grant Parkinson's Research Fellowship

Awarded to: Olanta Negeri (graduate student)

Title: Investigating The Role of the RNA-Binding Protein Hur in an Inflammation Model of Parkinson's Disease **Mentor:** Dr. Derrick Gibbings

Bonnie & Don Poole Parkinson's Research Fellowship

Awarded to: Haley Geertsma (graduate student)

Title: Characterization of a Novel Model of Parkinson's Disease: the Alpha-synuclein-NLS Mouse **Mentor:** Dr. Maxime Rousseaux

2-year Fellowships (year 1 of 2)

Shelby Hayter Fellowship

Awarded to: Christopher Rousso (graduate student)

Title: Bridging the Gap Between Parkinson's Disease and the Immune System: Characterizing the Role of Alpha-synuclein in Innate Defenses

Mentor: Dr. Michael Schlossmacher

Larry Haffner Fellowship

Awarded to: Michaela Lunn (graduate student)

Title: Elucidating the Role of LRRK2 kinase Activity in the Innate Immune System **Mentors:** Drs. Shawn Haley and Michael Schlossmacher

Special Thanks to our Research Fellowship contributors!

The Crabtree Family
The Toth Family
Ms. Audrey Grant
The Poole Family
The Hayter Family
The Haffner Family

Working WITH our Community FOR our Community

<p>2012 Paul Marcogliese Title: Functional Analysis of LRRK2: Focus on Autophagy Mentor: Dr. David Park</p> 	<p>2013 Chao Chang Title: Inhibition of RASAB as a Novel Approach to Enhance Dopaminergic Function in Parkinson's disease Mentor: Dr. Paul Albert</p> 	<p>2014 Megan Fitzpatrick Title: Analysis of the Novel Preclinical "SYNeGY" Model of Parkinson's disease Mentors: Drs. Diane Lagace & Michael Schlossmacher</p> 
<p>2015 Jacqueline Tokarew Title: Investigating the Role of Parkin in Oxidative Stress Mitigation and Dopamine Metabolism Mentor: Dr. Michael Schlossmacher</p> 	<p>Thank you Audrey! As a result of your generosity and commitment to Parkinson's research over the past 10 years, \$105,000 has been raised to date and has been awarded annually to a Masters or PhD research student in honor of the named.... Audrey Grant Parkinson's Research Fellowship (since 2012)</p> 	<p>2016 Mark Akins Title: Filling gaps in Alpha-synuclein Related Dementias: Identifying Critical Biomarkers of Cognitive Conversion in the Spingolipidome Mentor: Dr. Steffany Bennett</p> 
<p>2017 Daniel El Kodsi Title: Parkin Protein: From its Function in the Brain to a New Model and its Characterization Mentor: Dr. Michael Schlossmacher</p> 	<p> Institut de recherche sur le cerveau Brain and Mind Research Institute</p> <p> The Ottawa Hospital</p> <p> L'Hôpital d'Ottawa</p>	<p>2018 Olanta Negeri Title: Investigating The Role of the RNA-Binding Protein Hnr in an Inflammation Model of Parkinson's disease Mentor: Dr. Derrick Gibbins</p> 

Audrey Grant Better Bridge Event 10th Year!

For 10 years, Audrey Grant has travelled to Ottawa and hosted the Audrey Grant Better Bridge Event for Parkinson's. She helped raise close to \$150K of which \$105K has gone to the named **Audrey Grant**

Parkinson's Research Fellowship. We are forever grateful!

The next event will take place April 21, 2020.



6-10PM | SUNDAY, OCTOBER 21, 2018
GREENFIELD'S GASTRO PUBLIC HOUSE

\$15

Featuring:
"THE BACK BEAT"

Door prizes, Silent
Auction & Raffles

Together we've raised over \$47,000!

Benefit Concert for the Parkinson Research Consortium 7th Year!

Dave and Jill Hogg host the annual Benefit Concert for the PRC. Initially this event was to recognize and thank Shelby Hayter for her contributions to the Pass the Baton program that helped raise \$90K in itself. After the success of the first year, the Hogg's decided to continue hosting the event and over 7 years have raised close to \$60K to sell out crowds.

Thank you Dave & Jill Hogg for going above and beyond!

The next event will take place October 20, 2019

Lap the Gats + THE RIDE | September 8, 2019

The Parkinson's Lap THE RIDE team is honoured to ride in support of neuroscience research and care at The Ottawa Hospital. For the past 15 years, members of our Parkinson's community have had a great impact on the Ottawa Parkinson's community through research advancements, fundraising and educational efforts.

As always, we're dedicated to supporting world-class patient care, cutting-edge research and training young scientists in our Parkinson's community and beyond. That's why we're excited to join this once-in-a-lifetime opportunity of transforming research and care in Ottawa by partnering with The Ottawa Hospital.



Join us on our next journey by registering as a team rider or volunteer or donating to our Parkinson's Lap THE RIDE page [here](#).

"The development of a state-of-the-art research facility has the potential to define Ottawa as a leader in neuroscience research. This is an invaluable opportunity for the city, the province and the country. The PRC is honoured to play a role in transforming Parkinson's research and care in our community and beyond."

Dr. Michael Schlossmacher & Dr. David Grimes, Co-Directors of the PRC

PRC Advisory Board Acknowledgements

We are very grateful for the support of our esteemed
Advisory Board of Directors:

Chair: David Cork, Tom Belton, Rob Gibson, David Grimes, MD, Shelby Hayter, David Hogg,
Nick Kaethler, Debra Lynkowski, Tiago Mestre, MD, Michael Schlossmacher, MD, PhD, Ian Toth

Program Manager: Natasha Hollywood

Special Thanks to former Co-Director David Park
and former members Bea Robertson and John Hannaford



*In Memory of Mr. **John Hamilton**, PRC Advisory Board Member,
forever in our thoughts.*

*For more information, or to make a donation,
please visit our website at www.ohri.ca/prc or contact our Office:*

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