

Inside This Issue :

PAGE 2

Celebrating Advances in Parkinson's Research

PAGE 2

2013-2014 Research Fellowship Awardees

PAGE 3

Our Community at Work

PAGE 4

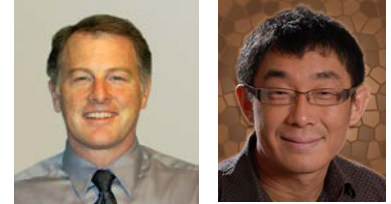
Lap the Gats

Hello from the Co-Directors of the PRC...

Over the past few months many volunteers have generously given of their time to help raise awareness and funds that go directly to the advancement of innovative, leading-edge research into the causes and possible treatments for Parkinson's disease.

In this issue, we recognize the tremendous support of our very generous donors and volunteers through community based events including our new fundraising cycling challenge, Lap the Gats! We are also excited to report substantial progress on what began as seed funding from our yearly fellowship program. Read on for all the details!

We also want to take this opportunity to wish everyone in the PRC family Happy Holidays and all the best in the New Year!



Drs. David Grimes and David Park

Seed Research Funding Develops into a Major Team Grant

Although the exact cause of Parkinson's disease is unknown, scientific evidence strongly suggests that both environmental and genetic risk factors are to blame. One of the most common genetic risk factors, or 'susceptibility genes' linked to Parkinson's is known as LRRK2. While nearly 70% of people carrying a defect might never get the disease, approximately 30% will develop Parkinson's disease. Dr. Michael Schlossmacher's team is working to understand the function of LRRK2 and why these mutations can sometimes lead to Parkinson's disease.

Most research surrounding the role of LRRK2 in Parkinson's has focused on what it might be doing in the central nervous system. Unfortunately, these studies have not provided clear evidence of the actual function of the LRRK2 protein. However, recent findings suggest that LRRK2 might play an important role outside the brain, particularly in the immune system. This clue might provide important insights into Parkinson's disease and the role of LRRK2 in susceptibility to at least two other diseases including Crohn's disease.

With funding from the Parkinson's Research Consortium, Dr. Schlossmacher and graduate student Mansoureh Hakimi, initiated a project to find out more about the role of LRRK2 in the immune system. After showing that LRRK2 was highly expressed in certain white blood cells, they looked to see if LRRK2 played a role in regulating immune function. In collaboration with Drs. Earl Brown and Subash Sad at the University of Ottawa, they asked how exposure to common environmental pathogens (for example, viruses and bacteria) could affect mice that do not express LRRK2 compared to mice with normal LRRK2 protein. The early results are intriguing. Mansoureh found that mice without LRRK2 appear to be more susceptible to certain infections compared to normal mice.

These findings support a model in which a 'second hit,' in this case exposure to an immune-trigger, could be necessary to drive the development of Parkinson's disease. If this is true, and a 'second hit' is required, then this work could help explain why individuals with LRRK2 mutations are susceptible to Parkinson's (and Crohn's disease), but do not necessarily develop the disease.

The idea led to a collaboration between Dr. E. Brown (University of Ottawa), Dr. D. Philpott (University of Toronto), Dr. J. Tomlinson (OHRI) and Dr. Schlossmacher that is funded for two years by the Michael J. Fox Foundation.

These findings have also led to the development of a major team grant involving internationally recognized experts in the field, including four PRC researchers; Drs. Schlossmacher, Park, Gibbings and Hayley. Together, the scientists plan to expand on these findings and take a closer look at the link between LRRK2 and other chronic inflammatory diseases. A role for LRRK2 in the immune system will have important implications for the management of these conditions, and could lead to unique therapeutic strategies for treating Parkinson's disease.



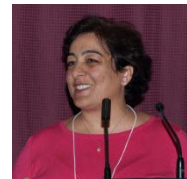
Mansoureh Hakimi received the Crabtree Fellowship in 2011, and went on to receive the Larry Haffner Fellowship for 2012-2013

Celebrating the Exciting Advances in Parkinson's Research

On October 7th, 2013 the Parkinson Research Consortium along with the Ottawa Hospital Foundation and the University of Ottawa's Faculty of Medicine hosted its annual celebratory event. This year we had the pleasure of welcoming Dr. Ronit Sharon, Head, Department of Biochemistry and Molecular Biology Institute of Medical Research Israel-Canada as keynote speaker. Her presentation was titled α -Synuclein - mechanisms of toxicity.

The master of ceremonies was Terry Marcotte from CTV News Ottawa and the event was very well attended by clinicians, researchers, students, donors and patients from across the Ottawa area. The Partners Investing in Parkinson's Research, the Parkinson Society Eastern Ontario were also on hand to give their support.

The event was an opportunity to recognize and award the next generation of Parkinson's researchers. The annual research fellowship program awards were announced and we would like to congratulate the following recipients and thank our generous fellowship donors!



Very special thanks to our community volunteers, donors and patients!

2013-2014 Research Fellowship Awardees

Toth Family Fellowship

Awarded to: Rafael Godoy

Title: Neuroregenerative capacity of DA neurons in the adult in the zebrafish brain

Mentor: Dr. Marc Ekker

Audrey Grant Parkinson's Research Fellowship

Awarded to: Chao Chang

Title: Inhibition of RASA3 as a novel approach to enhance dopaminergic function in Parkinson's disease

Mentor: Dr. Paul Albert

Crabtree Family Fellowship

Awarded to: Kwang-Soo Kim

Title: LRRK2 Function in Parkinson's disease

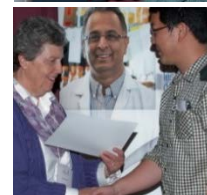
Mentor: Dr. David Park

UCB Fellowship

Awarded to: En Huang

Title: The role of Pink1-mediated Letm1 phosphorylation in Parkinson's disease model

Mentor: Dr. David Park



Special Mention: Shelby Hayter and Larry Haffner Fellowships (two year awards)

Awarded to:

Shelby Hayter awarded to **Mireille Khacho** (Mentor: Dr. Ruth Slack)

Larry Haffner awarded to **Mansoureh Hakimi** (Mentor: Dr. Michael Schlossmacher)

(currently in their 2nd year off funding)

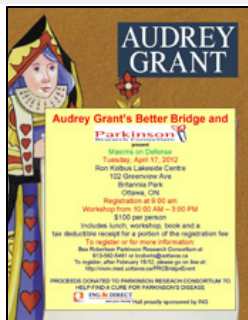


Our Community at Work, Having Fun While Raising Awareness!

Throughout the year, the PRC benefits from the tremendous work, time and energy of many in the community who want to help find a cure and a treatment to prevent the progression of this devastating disease and improve the quality of life of those suffering.

In the past year the following community events were organized and successfully raised funds for the PRC!

We give thanks!



April 16, 2013: **4th Annual Audrey Grant's Better Bridge Event** for Parkinson's raised \$13,031.93!

SPECIAL THANKS to Audrey Grant, Bea Robertson and all who volunteered!

SAVE THE DATE: 5th Annual Audrey Grant's Better Bridge Event is scheduled for April 15, 2014



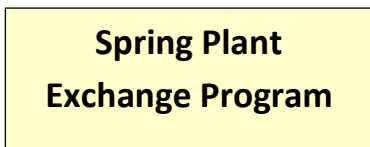
May 25-26, 2013: **Partners Investing in Parkinson Research (PIPR)** team participated in the Tamarack Ottawa Race Weekend Run for a Reason to raise funds for the Parkinson's Research Consortium. \$106,940 was raised beating the goal of \$100,000!

SPECIAL THANKS to the PIPR team and all who volunteered!



May 2013: The 2012-2013 **Parkinson's "Pass the Baton" Campaign** raised \$10,879.14 in the 2012-2013 school year! Since Shelby started the program, she has visited 65 schools, talked to 34,000 students and raised over \$81,000 for the PRC.

SPECIAL THANKS to Shelby Hayter and all her volunteers!



May 2013: Margaret Caughey and volunteers raised \$2,000 in the **Spring Plant Exchange Program**: Since she began the program in 2010, Margaret raised close to \$7,000!

SPECIAL THANKS to Margaret Caughey and all her volunteers!



October 27, 2013, Dave and Jill Hogg hosted the **2nd Annual Parkinson's Benefit Concert** at Greenfield's Pub in honor of Shelby Hayter's "Pass the Baton" Program. Dave and Jill kindly offered to provide the stage and pub area free of charge, where two local bands played while a silent auction and raffle took place. Over \$5,000 was raised with all proceeds going to the PRC.

SPECIAL THANKS to Dave and Jill Hogg and all who contributed to the event!

SAVE THE DATE: 3RD Annual Benefit Concert is scheduled for October 26, 2014



Lap the Gats for Parkinson's

Your opportunity to help us raise awareness and much needed funds for the PRC, plus get fit and have some fun!

Together we can Lap the Gats to find a cure!

On May 31, 2014 a new and unique fundraising event is coming to Ottawa!

Lap the Gats for Parkinson's will be taking place along a 21 km panoramic loop within Gatineau Park. The loop consists of challenging hills and thrilling descents along smooth parkways untouched by salt and hard winter conditions. This loop is renowned to cyclists in the Ottawa-Gatineau Region.

This event has a "Tour de France" flavour awarding a yellow jersey to the rider who can complete the highest number of loops in the shortest time, and the coveted red polka dot jersey to the fastest rider on a timed uphill sprint. For those wanting to ride with friends can do so by signing up for the Champion System's Team or Relay team category. This event has something to offer to all calibers of riders.

For those riding in the Champion System's Team category **we challenge you** to ride against our Parkinson Research Consortium (PRC) cycling team made up of cyclists from the Parkinson's community called the **PRC Team Challenge!** For those of you who want to prepare for the event and gain the health benefits from cycling, you can simply join our PRC team on-line with our weekly training schedule as they train for this exciting event.

Help us spread the word by telling your friends; join us on Twitter and Facebook and register to participate.

Registration is NOW OPEN!

For all information about Lap the Gats go to our NEW website at:
www.lapthegats.org

