



Dr. Maxime Rousseaux

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Canada Research Chair Tier II in
Personalized Genomics of
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PIPR.ca

Thanks to PIPR and donor support, Dr. Rousseaux's research is bringing understanding of Parkinson's disease closer to finding better treatments.

Over the last 10 years, the Partners Investing in Parkinson's research (PIPR) team has raised over \$1.3 million to support Parkinson's research at The Ottawa Hospital. This year, PIPR's fundraising efforts will support the innovative work of Dr. Maxime Rousseaux.

Parkinson's disease poses a devastating medical, emotional and economic burden to Canadians. Affecting over 100,000 Canadians, it is the most common movement neurodegenerative disorder. While many strides have been made in determining the root of the disease, Parkinson's disease treatments have been limited by the development of good animal models and an incomplete understanding of disease biology.

Dr. Rousseaux studies the interaction between alpha-synuclein (α -Syn) and Synaptotagmin1 (Synj1), two proteins that contribute to Parkinson's disease. Work from Dr. Rousseaux's lab identified that α -syn and Synj1 form a complex in cells and that disruption of this complex leads to the pathological accumulation of α -syn, which is a hallmark symptom of Parkinson's disease. Dr. Rousseaux is interested in exploring this interaction to make better animal models to ultimately develop better therapeutic avenues for Parkinson's disease.

Dr. Rousseaux's lab has also generated new mouse models using genome engineering to better understand how α -Syn progressively causes toxicity. Working with these mouse models, Dr. Rousseaux's team will exploit cutting-edge technologies to identify the key targets that impact neurodegeneration with the ultimate goal of identifying novel compounds for the treatment for this disease.



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