



Rosemary C. Bagot, PhD



Dr Bagot is an Assistant Professor in Behavioural Neuroscience in the Department of Psychology at McGill University. She is also a Principal Investigator at the Ludmer Centre for Neuroinformatics & Mental Health, a William Dawson Scholar and an Associate member of the Department of Psychiatry at McGill.

An internationally recognized expert in behavioural neurogenomics and animal models of depression, Dr Bagot ranks among the most promising young neuroscientists in Canada. Her main research focus is depression, specifically using animal models to identify the mechanisms behind altered brain circuit functioning: the mechanics of how stress across the lifespan shapes brain and behaviour. While epidemiological studies highlight the importance of stress in the etiology of depression, not all people who experience stress become depressed. Uncovering brain circuit changes and behavioural characteristics associated with increased stress susceptibility is vital to understanding the differences in both resilience and susceptibility to depression.

Dr Bagot joined McGill in 2016 where she established a multidisciplinary, cutting-edge neuroscience facility that is pioneering research in stress and depression: the **Behavioural Neurogenomics Laboratory**. With start-up funding from the Canadian and Quebec governments, the lab is uniquely positioned to combine molecular, cellular and behavioural technologies, such as, in-vitro electrophysiology, in-vivo optogenetics, in-vivo calcium imaging, and next-generation sequencing in robust mouse behavioural models.

Through her diverse research experiences, Dr Bagot has developed a unique multi-layered research approach that integrates transdisciplinary technical expertise spanning molecular biology, bioinformatics, electrophysiology, in-vivo calcium imaging, and behavioural models. Her multi-disciplinary approach is elucidating the brain circuit changes that drive maladaptive behaviours and the underlying gene expression networks that mediate altered circuit function.

A highly cited researcher with a Thomson Reuters H-index of 21, Dr Bagot has over 36 published papers in top-tier journals including *Neuron*, *Nature Communications*, *Proceedings of the National Academy of Sciences*, and *Biological Psychiatry* that have garnered over 1800 citations. In 2015, she received the prestigious Brain & Behavior Research Foundation's NARSAD Young Investigator Award.

Dr Bagot obtained a Bachelor of Science in Psychology, earning First Class Honours and winning the University Medal, at the University of New South Wales, Australia and a Doctor of Philosophy in the Integrated Program in Neuroscience at McGill University, Canada. Before joining McGill, Dr Bagot was a Postdoctoral Fellow in Dr Eric Nestler's laboratory at Icahn School of Medicine at Mount Sinai, New York, USA.



The Ludmer Centre is a transdisciplinary, multicentre, big-data approach to innovative research in normal brain development and disorders - research encompassing neurological disorders, from Alzheimer's to Parkinson's, and mental illnesses, from anxiety disorders and depression to schizophrenia.