



Flavio Kapczinski, MD, MSc, PhD, FRCPC



HEALTH SCIENCES
Psychiatry & Behavioural
Neurosciences

Research Work

Dr. Kapczinski is a psychiatrist and leading researcher in the area of mood disorders. He has published over 470 peer reviewed articles. In 2016 he joined McMaster University as Professor and currently as Director of the Neuroscience Graduate Program. Dr. Kapczinski and colleagues were pioneers in assessing and linking blood biomarkers to mood states and illness progression in bipolar disorder. With his team he has developed the concept of neuroprogression, the pathological rewiring of the brain during severe mental disorder, and staging systems. This concept has changed health care practices by shifting the focus from managing mood symptoms to the management of illness trajectories in bipolar disorders. His research focuses on the pathophysiology of bipolar disorder, with a particular interest in the role of the inflammation and immune system response in the progression and chronicity of this mood disorder.

Current Research Projects Include:

- Systemic toxicity and neuroprogression in bipolar disorder
- Assessment of inflammation and immune markers in the blood of bipolar and depressed patients
- The role of neural-derived extracellular vesicles found in periphery as non-invasive markers of clinical utility for mental disorders
- Incorporation of big data approaches to integrate clinical and biological data into predictive signatures and risk calculators in mood disorders

Engagement Opportunities

Introductory Level

- Literature search and systematic reviews
- Learn how to develop a research project

Intermediate Level

- Systematic Reviews
- Training in lab work with techniques involving immunoassays and gene expression analysis
- Training in study subjects recruitment

Advanced Level

- Conduct wet lab experiments
- Perform data analysis
- Write articles

If you are interested in learning more, please leave your contact information with the Research Office and/or contact Dr. Kapczinski at kapzinf@mcmaster.ca