

## **Internal Seminar**

### **Neurobiology of psychiatric disorders**

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Psychiatry deals with disorders of thought, mood, cognition, perception and judgment. Bipolar disorder is a major psychiatric illness characterised by its relapsing and remitting course, with the phenotype ranging between two poles - depression and mania. Substance abuse and bipolar disorder often co-occur and have a reciprocal relationship. I will present findings from my dissertation studying the efficacy of a mood stabilizer and atypical antipsychotic drugs in patients with manic phase of bipolar disorder. Bipolar disorder is thought to be produced due to an imbalance of serotonin (depression) and dopamine (mania) and the atypical antipsychotics have been hypothesised to act by differential changes at synaptic receptors, specifically Dopamine 1, 2, 3 receptors & 5-HT 2A (serotonin) receptors. However concrete evidence of precise changes of synaptic neurotransmitter receptors is lacking. I will briefly present proposed research using mouse models of mania to test these hypotheses. I will conclude with my experience testing a relatively new treatment modality - Deep transcranial magnetic stimulation, in multiple conditions and the potential to understand changes brought about in the brain.

***Thursday, Sep 21<sup>st</sup> 2023***

***02:30 PM***

***Venue: Seminar Hall***