Title: White matter network circuitry in first episode schizophrenia: Identification of neural correlates and preliminary prediction of persistent negative symptoms

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Abstract: Persistent negative symptoms (PNS) in schizophrenia include social withdrawal, diminished affect, and decreased motivation. PNS are a defining feature of the illness for some patients, and are strongly related to a profound inability to function in daily life. However, there is a range of these symptoms, whereby some patients experience PNS, while others do not. There are currently no effective treatments for PNS. Therefore, identifying the biomarker(s) of PNS is important, as a better understanding of what PNS looks like in the brain can advance our capacity to design targeted treatments. I will analyze data from a neuroimaging study that collects brain imaging data (using magnetic resonance imaging, i.e. MRI) from patients who present in our clinic with first episode schizophrenia (FES). I will characterize differences in the brain circuitry between those who develop PNS and those who do not, and attempt to design an algorithm that can accurately predict which patients will go on to develop PNS. If successful, this work will help us better plan services for people who are likely to suffer from poorer outcome forms of schizophrenia, and accelerate discovery of new treatments for PNS that can also improve outcome.

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