Genetics and mental illness: unlocking the code

A novel study to understand the role genetics can play in symptoms of psychiatric illness has commenced at The Alfred.

According to experts at the Monash Alfred Psychiatry Research Centre (MAPrc) the genetic makeup of emotional and psychosis-like symptoms passed from parent to child could be linked to them developing psychiatric illness later in life.

The study will involve an in-depth analysis of the symptoms across schizophrenia and bipolar disorder, which are thought to have genetic links. However, the various symptoms experienced by people with these illnesses mean that two people with the same diagnosis may not share the same symptom.

Research fellow and neuropsychologist at MAPrc, Dr Caroline Gurvich, said while in its early stages, the symptom based approach to psychiatric genetics shows promise as it relates genes to specific psychotic or emotional symptoms that are common within, and shared across, disorders.

“They can be considered a normal aspect of personality that is healthy, even beneficial. For example, those who display bursts of creativity and high academic achievement may have more of the gene associated with a specific behavioural trait.

"However, this variety of gene, when it interacts with other genetic and environmental factors, can progress to serious psychiatric illness.

“If a single gene or combination of genes were to be associated with a particular symptom regardless of diagnosis, then we would have powerful evidence of an association and this may, in time, influence how psychiatric symptoms are understood and treated.” Caroline said.

From front: Researchers Dr Caroline Gurvich, Professor Susan Rossell and Tamayn Van Rheenen.