

Genetics of psychiatric disease: From statistical p-values to biological function.

Although most psychiatric disorders are highly heritable, their genetic component is complex and influenced by multiple genes as well as the environment. Genome-wide approaches, including association studies and studies of rare variants are now slowly starting to unravel this complexity. However, all too often, the story ends with a statistical p-value, and we do not understand the biology behind the effects we observe.

In this presentation, I will discuss approaches towards gene-finding and a better understanding of the mechanisms underlying the heritability of psychiatric disorders. In particular, I show a number of examples of how bioinformatics analyses, brain imaging genetics and related endophenotype approaches in combination with improved statistical methods can be used to improve our ability to learn from genetic studies, not only about psychiatric malfunction, but also about normal cognition.