

What can genetics teach us about human memory?

A. Papassotiropoulos

Molecular Neurosciences, University of Basel, Switzerland

Memory is a polygenic behavioral trait with substantial heritability estimates. Despite its complexity, recent empirical evidence supports the notion that behavioral genetic studies of specific memory subtypes might successfully identify trait-associated molecules and pathways. The development of high-throughput genotyping methods, of elaborated statistical analyses and of phenotypic assessment methods at the neural systems level has already facilitated the reliable identification of novel memory-related genes. Importantly, a necessary crosstalk between behavioral genetic studies and investigation of causality by molecular genetic studies will ultimately pave the way towards the identification of biologically important, and hopefully druggable, genes and molecular pathways related to human memory.