

Autism, bipolar disorder share similar genetic risk factors

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Complex neurological disorders, such as autism, schizophrenia, and bipolar disorder (BD) are the likely result of the influence of both common and rare susceptibility genes. While common variation has been widely studied over the past several years, rare variant elucidation has only recently become possible through the use next-generation sequencing techniques.

Now, research from scientists at the University of Iowa (UI) Carver College of Medicine, Johns Hopkins School of Medicine, Cold Spring Harbor Laboratory, and other institutions suggests that there may be genetic susceptibility across major psychiatric disorders—this being the first study to suggest a genetic overlap between bipolar disorder and autism.

Genomic studies in the past decade have helped uncover several common genetic variants, but none of them alone has shown a large effect. However, massively parallel sequencing technology has now provided investigators an opportunity to find rare variations that might individually have a large effect.

For this study, the scientists devised a two-tiered strategy, combining a case–control approach with family-based exome sequencing to maximize their chances of identifying rare variants that contribute to BD. Their thinking was that if a genetic variant is found more often in the group of individuals who have the disease compared to a control group of people without the condition, then the gene variation might be associated with increasing susceptibility to the disease.

Read full, original post: [Autism and Bipolar Disorder Share Common Genetic Roots](#)