



### Poster Presentation

#### Are There Anxious Genes?

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**Published: 23- 24 November, 2016**

#### **Abstract**

Anxiety comprises many clinical descriptions and phenotypes. A genetic predisposition to anxiety is undoubted; however, the nature and extent of that contribution is still unclear. Extensive genetic studies of the serotonin (5-hydroxytryptamine, 5-HT) transporter (5-HTT) gene have revealed how variation in gene expression can be correlated with anxiety phenotypes. Complete genome-wide linkage scans for panic disorder (PD) susceptibility genes have suggested a locus on chromosome arm 7p, and association studies have highlighted many candidate genes. A genetic contribution to psychological traits and psychiatric disorders is not in doubt, but the nature and extent of that contribution is still unclear. Genetic epidemiology has assembled convincing evidence that anxiety and related disorders are influenced by genetic factors and that the genetic component is highly complex. While studies of the patterns of inheritance of personality indicate that various dimensions are likely to be influenced by many genes and quantitative traits, it also documents the significance of environmental factors. As the modes of inheritance of anxiety disorders are complex, it has been concluded that multiple genes of small effect, in interaction with each other and with nongenetic neurodevelopmental events, produce vulnerability to the disorder. The interest for gene– environment interactions in the study of anxiety is still in its infancy on the background of the Nature/Nurture debate. Both human and animal studies thus far support the genetic complexity of anxiety. Clinical manifestations of these diseases are likely to be related to multiple genes, of which some may modify or influence the expression of the disease. In order to solve the complex problem of anxiety, the full array of genetic strategies will be needed. We conclude that anxiety is a complex behaviour, underlined not only by genetic or environmental factors but also by multiple interactions between these two factors.

**Keywords:** Anxious genes, Environment, Clinical

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