

Genes involved in the pathogenesis of anxiety disorders including obsessive-compulsive disorder

Anxiety disorders are the most common mental illness in the US, affecting 18% of the population. Obsessive compulsive disorder (OCD), in particular, is one of the most disabling with a diminished quality of life. Only 50% of patients respond to existing treatments. The global anxiety market is valued at \$4.5 billion and the development of novel therapeutics could greatly enhance this value. Researchers at Duke University have developed a mouse model that can be used in the study of OCD and other anxiety disorders. This model can be utilized to screen for novel pharmacological agents that may be useful in treating these disorders. The Technology: - The SAPAP3 knockout mouse is the first mouse model of an anxiety disorder - SAPAP3 deficient mice exhibit increased anxiety and compulsive behaviors associated with OCD due to defects in neurotransmission - The anxiety-like behavior of these mice is alleviated by administration of Prozac, a common OCD treatment - Mice could be used as a model to study OCD, as well as other OC-spectrum disorders including Tourette's syndrome, trichotillomania, and body dysmorphic disorder - Mice or cells lacking SAPAP3 would provide a system to screen for novel therapeutic compounds and assess their effects

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