

Epigenetic study of Environmental Risk Factors for Mental Disorders

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Major mental disorders typically have a complex aetiology where both genetic and environmental risk factors have been suggested to interact in disease development. While large genetic studies have begun to unravel the genetic architecture of several of these disorders, molecular effects of the interaction with environmental risk factors are still unclear. Gene expression may be regulated by epigenetic mechanisms, such as DNA methylation. DNA methylation may be modulated by both genetic as well as environmental variations, hence is an important level of regulation to study to increase our understanding of disease development. We are currently exploring the effect a few of the known environmental risk factors for mental disorders has on DNA methylation. We are specifically interested in how epigenetic modifications can be relevant for the onset of mental disorders and for their treatment.