

## **EPIGENETICS: CLOSING IN ON THE MOLECULAR BASIS OF PARKINSON'S DISEASE**

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Neurodegenerative disorders, such as Parkinson's disease (PD), are highly complex conditions that affect a growing number of patients worldwide. These disorders are strongly associated with aging and have a multifactorial origin, depending not only on genetic but also on environmental factors. Several genetic risk factors have already been associated with PD but the precise mechanisms through which the environment contributes to neurodegeneration is still unclear. Recently, epigenetic mechanisms, such as DNA methylation, chromatin remodelling or miRNAs, which may induce alterations in gene expression, have been implicated in PD and other neurodegenerative conditions. Given that epigenetic modulation is present from pre-natal stages and throughout life, and that it depends on lifestyle conditions and environmental factors, it might provide new insights into the molecular basis of PD, opening novel avenues for therapeutic intervention.