Science and Research

Environmental Pollutants and Epigenetic Studies

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Pollution is one of the biggest problems that environment faces and with the growth of the global population, the amount of toxic compounds entering the ecosystem also increases. Environmental pollutants are derived from several sources, and the recognition of the sources of these pollutants and their toxic effects is a way to prevent damages that threaten the health of humans and other living organisms. More than 13 million deaths are reported annually because of environmental pollutants, and about 24% of the diseases are due to exposure to these pollutants. The genotoxicity that arises from pollutants causes mutation in somatic and sex cells and has destructive effects on the epigenetic patterns. In this article, it has been tried to investigate the destructive effects of some of the most important environmental pollutants that humans deal every day which can cause problems in epigenetic regulation and some diseases such as pulmonary diseases, hormonal disorders, cancers and etc. At the end of article, the bioremediation of these pollutants is discussed that may help the environment and consequently human health.

Keywords: Environmental Pollutants, Biological Consequences, Epigenetic, DNA Methylation, Bioremediation

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