

P77. EPIGENETIC CHANGES IN HEAVY METAL CARCINOGENESIS

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Heavy metals are harmful to humans include arsenic, cadmium, chromium, lead, mercury, and nickel. Metals can cause significant epigenetic modifications. Epigenetic modifications in chromatin are DNA methylation, covalent modification of cytosine, and post- translational modification of histones, including acetylation, glycosylation, phosphorylation, sumoylation, ubiquitination, microRNAs (miRNA), methylation, and adenosine diphosphate ribosylation. Recent research demonstrates that metal exposure causes modifications in epigenetic marks, which can lead to relation between heritable changes in gene expression and disease.