International Journal of Pure and Applied Researches http://ijopaar.com; 2019, Vol. 3(1); pp. 01-12, ISSN: 2455-474X

INVESTIGATION OF HEAVY METAL INDUCED CELL DEATH THROUGH OXIDATIVE STRESS MEDIATED DNA DAMAGE

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Abstract

Most of the researcher says about soil that contaminated with heavy metals through the water due to the unregulated discharge of industrial wastewater, the release of metallic mines, application of pesticides that contain heavy metals, and many other anthropogenic activities. Agriculture fields and rivers near the industrial areas are usually contaminated with heavy metals such as Magnesium (Mg), lead (Pb), zinc (Zn), and copper (Cu). Those metals cause toxic effects on human health upon entering into the food chain. Acute intake of heavy metals that can produce harmful effects on human health and that can easily disrupt the normal cellular processes of the human body. However, we investigate the heavy metal that having the property of oxidative stress-induced DNA damage via the ability to scavenge free radicals, cell-killing property, induction of oxidative stress, Mutagenicity nature, and ability to damage the DNA. Finally, these findings provide scope for future studies on heavy metal-based drug development for the treatment of various diseases.

Keywords: heavy metal, oxidative stress, soil contamination, human health, DNA damage, Mutagenicity nature.

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