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Message from the Executive Editor
Cigarette smoking and urinary bladder cancer: The danger alarm is screaming!

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The cancer of urinary bladder is a very common cause of cancer related mortality all over the world and approximately more than half patients suffering from bladder cancer had been smokers. In addition to this, in such patients the cancer is more intense, higher in grade and stage and does not respond well to chemotherapy (Jin *et al.*, 2017).

Cigarette smoking is a major risk factor for respiratory and extra respiratory cancers in human body. While the oral and lung cancer result on account of direct contact with the tobacco products, the urinary bladder mucus membrane is exposed to a number of metabolites of tobacco products and if this exposure is sustained for a longer duration, a deadly cancer results (Omare *et al.*, 2022).

Over 7000 chemical compounds have been found in tobacco smoke and more than 50 of these have been a labelled as carcinogenic. When tobacco burns, it releases carbon monoxide, benzene, formaldehyde and polycyclic aromatic hydrocarbons (PAH), hydrogen, cyanide, nitrosamine, etc. Recent studies have shown that the bladder cancer patients who have been smoker have been found to have altered metabolanomics of urinary bladder epithelium in variety of ways. Firstly, some metabolites of tobacco create hyper methylation while many types of nitrosamines and nicotine metabolites create genotoxicity resulting in DNA damage, DNA adducts, mutations and ultimately carcinogenesis (Jin *et al.*, 2017; Fuller *et al.*, 2028; Suzuki *et al.*, 2020).

Some years ago, an impression was created that if one uses electronic cigarettes, the incidence of urinary bladder cancer can be lowered, but recent studies have refuted that (Fuller *et al.*, 2028). Although tobacco industry is exploring to create less toxic types of tobacco, but the danger of high grade, urinary bladder cancer is still looming large on humanity (Stephen and Hatsukami, 2022) and therefore, one must respond to this alarm. The temptation to adopt smoking is increasing in younger population in developing countries and therefore not only a greater emphasis on laboratory and clinical research is needed but also a wide spread campaign on social media to warn people about the association of cigarette smoking and bladder cancer are the need of hour.

Tobacco addiction in various forms is not confined to a particular group, strata, or gender. Every year, 'World No Tobacco Day" is celebrated on May 31st to draw attention to the adverse effects of tobacco consumption. Despite being labeled as a potent carcinogen and the health risks associated with it, people find it difficult to get out of tobacco addiction. Similarly, there are numerous other toxic substances used daily that are directly linked to health issues like allergies, infertility, birth defects, learning disabilities, different types of cancers, and several more. Across the world, extensive research is being conducted on Environmental Health Toxicology to assess the adverse effects of various chemicals on human health.

Journal of Environmental Biology publishes research on different aspects of Environmental Sciences, Biological Sciences and Toxicology, however, to expand our horizon we now provide a forum for Medical and Pharmaceutical researchers to

showcase their research pertinent to Toxicants and their impact on human and animal health. *ournal of Environmental Biology* is of interest to toxicologist, pharmacologist, zoologist, botanist, ecologist, environmental scientist, industry R&D organizations and others engaged in environmental research and consultation.

We welcome new submissions (Original Research Articles, Research Reviews & Case Studies) from researchers working in the areas of Environmental Health Toxicology and also encourage scientists to curate Theme-based Special Issues.

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