

JOINT EVENT ON

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**Amelioration of mutagenic effects of ethyl methanesulfonate by diterpenoid (14, 15-dihydroajugapitin):
Histopathological and molecular approach****Hilal Ahmad Ganaie**

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Our studies investigated the antimutagenic and anti-apoptotic properties of 14, 15-dihydroajugapitin isolated from methanolic extract of *Ajuga bracteosa* by transmission electron microscopic studies against ethyl methane sulphonate (EMS) induced mutagenicity in mice. The antimutagenic property was confirmed by direct sequencing of p53 gene of EMS treated mice. The ultra-structural details of various organs revealed the signs of apoptosis, necrosis, chromatin loss and damage to various organelles. However, mice treated with 100 mg/kgbw of 14, 15-dihydroajugapitin depicted the signs of recovery. Present studies revealed that EMS caused three transition mutations in p53 gene: one T to C transition at nucleotide position 32 of exon 5, two G to A transitions at position 63 and 126 of exon 7. However, interestingly we found that one mutation got reversed in group of mice treated with 100 mg/kgbw of 14, 15-dihydroajugapitin. Hence the isolated compound could be a source of new drugs that could save the lives of the patients suffering from various cancers.