

JOINT EVENT

5th World Conference on

&

16th Annual Meeting onOctober 04-06, 2018
London, UK**Agricultural pesticide induced bone marrow aplastic anaemia and the hedgehog signaling scenario**

Multiple health hazards and fatalities from the widespread use of pesticides have been reported by the WHO. Developing countries primarily dependent on agriculture for their economies such as India, Bangladesh and Maldives are especially reliant on these chemicals. Consequentially, public health has been on a decline and there is a lacuna of knowledge about the effect of pesticide exposure on bone marrow haematopoietic system. The non-rodent scenario was mimicked in murine model to explore the consequences of chronic pesticide exposure. In the present work, we have developed an agricultural pesticide formulation (fungicide, organophosphate and pyrethroid) induced bone marrow aplasia mouse model to recapitulate the human aplastic anemia like condition in the laboratory to study the aplastic hematopoietic microenvironment in the light of Hh-GLI signaling pathway. Our study has unfolded the fact that chronic pesticide exposure caused downregulation of intrasignaling feedback of PATCH1 and GLI1 by inhibiting the SMO internalization and umulgratham