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Recent innovations in toxicology of nanomedicines with emphasis on RISUGadv

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Recently, nanomedicines have been developed for the effective prevention and treatment of common diseases. They are having several advantages over the existing drugs. The toxicity evaluation of these has been done by using conventional methods. There is an urgent need to innovate new methods for predictive toxicity of such medicines. RISUGadv (Reversible Inhibition and Sperm under Guidance advance) is a drug which was innovated by Prof. Sujoy K. Guha, IIT, Kharagpur in India. RISUGadv when injected into the vas deferens it exerts contraceptive and also have the potential for Prostate cancer prevention. Final nano drug is formed within the vas deferens deriving raw materials from the sperm breakdown and nano fragmentation of the Styrene maleic anhydride (SMA) component of RISUG. Finally nano drug is delivered to the Prostate with Spontaneous Mutation Inhibition properties. In collaboration with Prof. Guha, acute toxicity of RISUGadv was done in rats in which no adverse effect was observed. Thus, RISUGadv is a safe drug and these observations were correlated by molecular hematopoietic tests.

Biography

R K Singh is presently working as Senior Principal Scientist in the division of Toxicology, CSIR-Central Drug Research Institute, Lucknow, India. He is also working as guest faculty of environmental toxicology in Lucknow University for last 20 years. His area of research interests are Regulatory Drug Toxicity studies, Molecular Hematotoxicity Studies, Preparation of Herbal Plant Extract, Isolation of their phytoconstituents and screening of herbal extracts for their haemoprotective and anti-leukemic activities.

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