Nanoparticulate drug delivery systems for modified tissue distribution and better cancer chemotherapy

A new insight of diseases and pharmacokinetic information have made drug deliver totally different. It is no more just delivery of drugs, as objectives are totally different. Present approaches of design of delivery systems are more challenging and expectations are much higher. Nonselective distribution of drugs from conventional deliver systems makes dose requirement high and lead to severe side effects or toxic effects, especially in cancer chemotherapy and CNS treatment. Application of nanotechnology in drug delivery, can make modified/selective distribution, decreased dose, lesser or no side effects and better therapy. Recent studies indicated selective or modified distribution, enhanced pharmacokinetic properties and better therapeutic efficacy for nanoparticulate delivery systems of selected anticancer drugs. In vivo study of liver carcinoma therapy in animal indicated highly encouraging efficacy with enhanced overall survival when treated with nanoparticulate systems.

Biography

R N Saha is Shri B K Birla & Shrimati Sarala Birla Chair Professor, BITS Pilani, Dubai Campus, UAE. In 2011 he has been awarded Shri B K Birla and Shrimati Sarala Birla Chair Professorship at BITS Pilani for contributions in teaching and research. He has vast experience in the field of Pharmacy especially in Pharmaceutics, novel drug delivery systems and Pharmacokinetics. He received "Pharmacy Professional of the Year 2013" Award given by Indian Association of Pharmaceutical Scientists and Technologists. He is also recipient of "The Best Pharmacy Teacher Award" for the year 2005, awarded by Association of Pharmaceuticals Teachers if India (APTI), in recognition of his contribution in teaching and research in the field of Pharmacy. He is also member of many scientific associations and societies like Association of Pharmaceutical Teachers of India (APTI); Indian Pharmaceutical Association (IPA); Indian Society of Technical Education (ISTE); Controlled Release Society Inc., USA; American Association of Pharmaceutical Scientists (AAPS), USA; American Chemical Society, USA; Controlled Release Society, Indian Chapter.