Innovations in pharmaceutical sciences, nanotechnology, stem cells and natural products

Pharmaceutical Industry has made phenomenal progress with safety efficacy of drugs and pharmaceuticals. Innovation has made significant contribution to patient care with high level of success. Though withdrawal of 60 new drugs over a period of about 50 years due to inadequacy on safety front, has mad new drug introduction with a couscous approach. Several innovations have restored confidence in capability of industry. Resistance developed by microbes to several antibiotics has retarded introduction of newer drugs to combat resistant microbes. It is a war situation between microbes and mankind. Use of bio-enhancers of natural origin has significantly contributed to counter resistant strains. Beside this, increased solubility and permeability has also contributed to practicability to reduce the effective dose of antibiotics there by reducing the adverse drug reactions. Nanotechnology has revolutionized the drug delivery systems in nanoparticle size improving solubility and permeability of drug to facilitate therapeutic efficacy in large number of drug therapy. This technology has opened up large vistas of new drug delivery systems, newer approach to patient care, diagnostics, lab on a chip to bring superior patient care at a door step with use of IT. Regenerative medicines with special reference to stem cells (Stemceuticals) have significantly improved life span of patients in last one and half decades. Their availability in human body has generated expertise in combating some of the terminal cases with newer vision in therapy. Innovations in Pharmaceutical Sciences have made it mandatory to adopt multidisciplinary approach in drug development and patient care. It has contributed from Mega to Terabyte pace approach. Like in any innovative technology, risk and responsibility also demand attention of professionals. The address will cover some of the important contribution of innovations.

Biography

P G Shrotriya has worked for over four decades in every facet of Pharma industry in India and overseas and was responsible for achieving international quality compliance and approvals for number of organizations. He has worked for number of WHO standards for drugs and pharmaceuticals. He was the Chairman for Parenteral Preparation in Indian Pharmacopoeia, Government of India and delivered several lectures at national and international levels. He is working with academic institutes and training students and professionals from industry and regulatory agencies for international regulatory compliance.

P.G.Shoetriya@nmims.edu