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Editorial

Editorial on Pharmacy, Drug Development and Technology, Novel Drug Delivery

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The American College of Clinical Pharmacy (ACCP) is a specialised pharmacy association based in Lenexa, Kansas which describes clinical pharmacy as "a health science specialty that incorporates the application of scientific principles of pharmacology, pharmacokinetics, therapeutics and toxicology to the care of patients, by the pharmacists [1]. The more meticulous definitions of clinical pharmacy, both curtailed and un-curtailed, were lodged by the ACCP to serve as the rudiments for the fundamental adroitness of clinical pharmacists. In curtailed form, clinical pharmacy pertain to the area of pharmacy concerned with the science and practice of rational medicines [2], while the un-curtailed version describes clinical pharmacy as a health science discipline according to which pharmacists provide patient care that augments medicinal therapy and promotes well-being, health, and disease prevention. The significance of practising clinical pharmacy is to endorse the logical use of drugs that results in health, well-being and disease prevention that eventually, improve the quality of life, of the patient. As the principal attention of clinical pharmacy is patient care, there is a close correlation between clinical pharmacy and the proposition of pharmaceutical care [1].

Development of drug is the process of introducing an innovative pharmaceutical drug to the marketplace, when the prime compound has been accredited during the process of drug invention. It includes pre-clinical study on microorganisms and animals and clinical trials on humans and may include the step of acquiring regulatory approv, to market the drug [3].

Enhancements in technology such as new drugs or diagnostic equipment can improve health sequels and the complete implementation of a health care system. But novelties also present confronts because their introduction modifies the balance between resources that sometimes increases the cost of care. In the past few decades, world-shattering developments in medicine and technology have transformed the roles of hospitals, primary and community health care facilities [4].

In current decades, noteworthy developments in drug delivery systems have assisted more efficient drug administration. To deliver drugs to specific organs, a range of organic systems (e.g. liposomes, polymeric nanoparticles and micelles) has been proposed. These systems undergo restrictions, including prompt eradication by the immune system and poor chemical and thermal firmness. Conversely, silica particles are found to be stable, biocompatible and surreptitious substitutes. Bioactive molecules can be easily encapsulated within silica particles, with either spray drying or emulsion chemistry, by combining sol gel polymerization. Spray drying experiences various challenges, including low yield, surface closeting and size limitations. On the other hand, sol gel emulsions enable the production of nanoparticles with harmonized drug distribution, and permit favoured temperature processing. Earliest in vivo experiments uncover superior blood stability of the nanoparticles, which, paired with persistent release of anti- tumor agents, show good probability for cancer treatment [5].

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