

Special Issue: NCNN-2014

(National Conference on Nanoscience and Nanotechnology - 2014)

Novel Approches of Transdermal Route of Application: Nanoparticles

Urvashi Mankar*, Chandrakanta Parkar, Harish Sharma

*Shri Shankaracharya Group of Institutions, Faculty of Pharmaceutical Sciences, Bhilai, Chhattisgarh,
India, Tel: 8959682516; E-mail: Urvashimankar18@gmail.com*www.peertechz.com

Nanotechnology has evolved to be an integral part of the 21st century. Nanotechnology enabled products find applicability in almost everything, such as medicine, pharmaceuticals, chemicals, biologics and information technology. They can penetrate cell and tissues gaps to arrive at the target organs like lungs, liver, spleen, bone, brain, spinal cord and lymph etc. Transdermal delivery involves applications of a pharmacologically active compound on the skin to achieve therapeutic blood level in order to treat diseases remote from the site of application. Transdermal drug delivery system has been accepted as potential non-invasive route of drug administration with advantages of prolonged therapeutic effect, reduced side effects, improved bioavailability, better patient compliance and easy termination of drug therapy. Transdermal delivery is particularly advantageous for those drugs gastrointestinal tract. They are able to show controlled release properties due to their biodegradability, pH, ion and temperature sensibility. The major goals in designing nanoparticles have been widely used to delivery systems are to control particle size, surface properties and release of pharmacologically active agents in order to achieve the site specific action at the therapeutically optimal rate & dose regimen. Nanoparticles base drug delivery systems may offer plenty of advantages over conventional dosage forms, which include improved efficacy, reduced toxicity enhanced, biodistribution and improved patient compliance. This review describes enhancement such as physical & chemical penetration enhancers in trans drug delivery.