MOL2NET, International Conference Series on Multidisciplinary Sciences
http://sciforum.net/conference/mol2net-03

Multimodal Perspectives of Nanotechnology and Nanoparticles in Drug Delivery

Baishakhi Dey (baishakhidey123@gmail.com) [a], Anubhav Nagal (anubhav.nagal@gmail.com) [b], Rajeev K. Singla (rajeevsingla26@gmail.com)[c*]

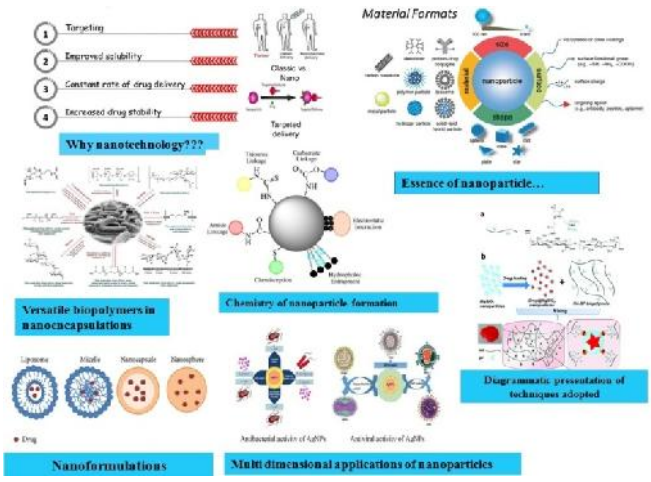
[a] *SSS Indira College of Pharmacy, Nanded, Maharashtra*

[b] *Lupin Pharmaceuticals, Mumbai, Maharashtra, India*

[c] *Division of Biological Sciences and Engineering, Netaji Subhas Institute of Technology, Sec-3, Dwarka, New Delhi-110078, India*

* Address for correspondence

Graphical Abstract



Abstract

The aim of drug delivery is primarily focused on the optimum bioavailability at the targeted site of action over a defined period of time. Nanoparticle plays significant role in the drug delivery as it can be designed as target based, with improved stability, increased drug stability as well as can offer constant rate in the drug delivery. Nanoparticles can be created via carbamate, thiourea and amide linkage as well as via electrostatic interaction, hydrophobic entrapment and chemisorptions. Literature also supported the profound antibacterial and antiviral activity of silver nanoparticles. On the basis of methodology adopted for the preparation, nanoparticles, nanospheres or nanocapsules can be prepared. For the nanoparticles, methods like dispersion of preformed polymers, polymerization of monomers and ionic gelation/ coecervation of hydrophilic polymer technology were usually adopted.

References

[1] Nagal, A.; Singla, R.K. Nanoparticles in different delivery systems: a brief review. Indo Global J. Pharm. Sci., 2013; 3(2): 96-106.

[2] Mitra, A.; Dey, B. Chitosan microspheres in novel drug delivery systems. Indian J. Pharm. Sci., 2011; 73(4): 355-366.