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## Use of Nanotechnology in Treatment of Neurological Disorders

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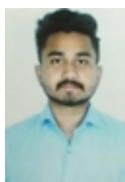
### Abstract

Nanotechnology may be defined as the science of research and innovation involving design, synthesis, characterization, and application of this technology at the scale of atoms and molecules (nanometre). Various nanoforms can be derived from various materials such as: dendrimers, liposomes, nanoshells, nanotubes, emulsions and quantum dots etc. The nanotechnology plays its role in both, drug delivery as well as detection and diagnosis of many health related aspects such as cancer, more specifically. The neurological disorders are one of the major concern of the health of people worldwide. The current available treatments of neurological disorders are found inadequate because of poor drug delivery mechanism of these available systems such that many pharmaceutically active compounds are unable to reach their target sites. The use of nanoscale based drug delivery system can provide a much advantageous alternative to such problems. These nanoscaled drug carriers shows many advantages over other conventional drug delivery methods such as: more drug loading capacity, their action is targeted, decreased toxicity, and increased therapeutic effect. The examples of nanoparticles that have been developed to improve drug delivery efficiency include inorganic, magnetic, polymeric and carbonic nanoparticles. One of the most favourable biomaterials is the lipid-based nanomaterials, because they are more stable and nontoxic. Among which, the most well-reported lipid-based nanomaterials are liposomes. The use of nanotech based nanomaterials can play a major role in the treatment of many neurological disorders. The present article describes use of liposome for delivering drugs to brain for the treatment of various neural disorders.

**Keywords:** Nanotechnology; Dendrimers; Nanoparticles; Neurological disorders

### Biography

Piyush kumar has completed his graduation in microbiology honours at the age of 20 years from CCS University and now he is pursuing Masters in microbiology from Jaypee Institute of information technology.



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