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Experience : 4 years

Specialization : Nanobiotechnology, Drug delivery

Publications : 14

Research Interests

Nanoparticles mediated gene delivery has attracted the attention of researchers both in academia and industry.

Nanoparticles owing to their small size easily traverse across the cellular membrane. For enhancing the bioavailability of the entrapped molecules and also to achieve the desired therapeutic response of the molecules, the nanoparticulate size of the matrix is desired. Nanoparticulate systems are attractive methods of delivery owing to the versatility, ease of preparation, and protection conferred to encapsulated gene of interest or drug.

These carrier systems provide protection to the entrapped drug or gene during transit in the systemic circulation. Nanoparticles usually have a high

surface area to volume ratio and thus, are able to efficiently encapsulate nucleic acids or drugs efficiently.

These particles can be made to reach a target site by attaching cell-specific ligands, thereby making these vectors reach specific tissues and cells in the body.