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A Project Report on

APPLICATION OF NANOPARTICLES IN DRUG DELIVERY SYSTEM

Submitted By

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(Jan - 2023 to Mar - 2023)

I. AIM OF THE PROJECT

To develop a more efficient and effective method of delivering drugs to specific targeted areas(cells or tissues) and reduce the risk of side effects.

II. METHODOLOGY ADOPTED

1. Targeted drug delivery : Targeting specific cancer cells by minimizing the impact on healthy cells using ligands or antibodies.
2. Payload : The drug delivery system should be able to carry a sufficient amount of drug to the cancer cells.
3. Stability of the nanoparticles : The drug delivery system should be stable in the body and not breakdown before it reaches the target.
4. Controlled drug release : Release of drug at target site in controlled manner using pH-sensitive polymers or temperature-sensitive liposomes.

III. RESULTS OBTAINED

In conclusion the use of nanoparticles in drug delivery systems shows great promise for improving the efficiency and safety of many drugs. By selectively targeting specific tissues or cells enhancing solubility , providing sustained therapeutic effects, and protecting unstable drugs from degradation ,nanoparticles can potentially overcome many of the limitations associated with traditional drug delivery systems.