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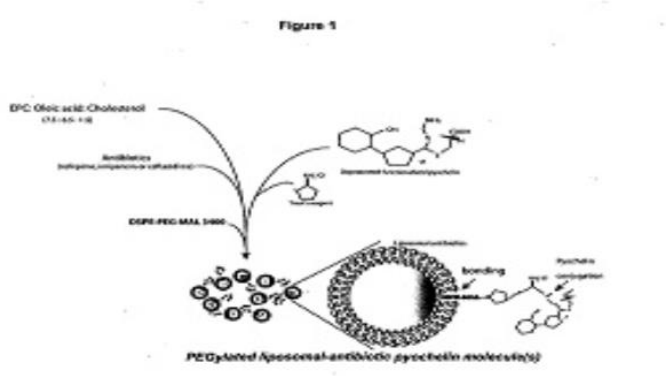
(57) Abstract :
The use of nanomaterials in bioengineering needs controlled bio macromolecular interactions for reduced cytotoxicity, enhanced stability and effective antibiotic delivery. In order to achieve these properties, appropriate functionalization of nanomaterial with different ligands such as polymers, surfactants etc., has been developed for various biomedical applications. Liposomes are used in combating bacterial infections by encapsulating the antibiotics can deliver them the site of infections. The engineering of several nanoparticles to target the bacteria makes them a powerful candidate to encapsulated drugs for rapid wound healing process. Nano fibers tailored with carbapenem classes of antibiotic conjugates tagged by selective siderophores is the first ever nanoengineered scaffold that offers the dual advantage of combating drug resistant pathogen and promotes cost effective industrially viable technology for effective wound management.



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