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Chapter 22 - Encapsulation for general cancer treatment

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Abstract

Cancer is an abnormal condition in the body where some cells grow out of control and spread away from the initial organs to other body parts. Cancer is categorized by the type of fluid or tissue that develops in which it first occurs in the body. Furthermore, some tumors are mixed. Despite the development of several approaches to tumor therapy, cancer remains the foremost cause of morbidity and mortality. Within the recent past, encapsulated nanovehicles (ENVs) have substituted conventional cancer therapy methods and denoted insightful advances in revolutionizing cancer treatment. ENVs, including liposomes, inorganic nanoparticles, nanosponges, dendrimers, quantum dots, polymer NPs, carbon nanotubes, and natural materials, serve as carriers for anticancerdrug delivery. This chapter describes recent advances in ENV across various cancer subcategories.

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Keywords

Cancer systems biology; Tumor; Drug delivery system; Pharmaceutical therapy; Cancer research; Anticancer therapy; Nanomedicine; Encapsulated nanoparticles