



## Multifunctional Theranostic Nanomedicines in Cancer

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## Chapter 3 - Multifunctional micellar nanomedicine for cancer therapy

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### Abstract

Polymeric micelles are self-assembling nanostructures with a hydrophilic shell and a hydrophobic core with a moderate size range of 10–100 nm. Multifunctional micellar nanomedicines are a strategy for advanced cancer chemotherapy. Multifunctional strategies permit passive/receptor-mediated micelle targeting of the cancer site, allow the release of incorporated drugs/biologics in response to various stimuli, enable adequate drug bioavailability, and provide theragnostic monitoring abilities. This chapter reports the potential applications of multifunctional micellar nanomedicines in cancer chemotherapy.

[Previous](#)[Next](#)

### Keywords

Micelles; nanomedicine; cancer; theranostics; micellar nanoparticle; polymer; multifunctional; theragnostics

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