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Autore	Chen Wansong
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Sommario/riassunto	<p>The great success of nanotechnology promotes a tremendous revolution in the biomedical field. Functional nanomaterials have been widely applied for the treatment of various diseases, such as cancer, bacterial infection, diabetes, inflammation, and neurodegenerative disorders. Various therapeutic nanoplateforms have been developed with therapeutic functions and intelligent properties. However, the development of nanomedicine suffers from several challenges prior to their clinical applications. For instance, disease detection in an early stage is a critical challenge for nanomedicine. It is difficult to detect disease markers (e.g., proteins, genes, or cancer circulating cells), so nanoprobe with high sensitivity and selectivity are required. Moreover, to overcome drug resistance, it is highly desirable to develop functional nanomedicines with the combination of multiple therapeutic modalities, such as chemotherapy, photothermal therapy, photodynamic therapy, chemodynamic therapy, radiotherapy, starving therapy, and immunotherapy. Additionally, the stability and degradability of most nanomedicines in biofluids should be carefully evaluated before their administration to humans. This book provides researchers with the latest investigations and findings in this field.</p>