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Sommario/riassunto

This book will give an up-to-date and thorough exposition of the state of the art of concepts, design, and recent advances in nanobiotechnology-based strategies for cancer Immunotherapy, and their current and clinical status. Nanobiotechnology-based Targeted therapies and Immunotherapy have been added to the effective oncologic treatment and have become increasingly popular in oncology. It is intended to enable the researchers to prepare a variety of Nanobiotechnology-based strategies, investigate their properties, and discover their uses and applications in cancer immunotherapy. The novelty of the approach is to address an existing need to understand exhaustively the potential of the nanotechnology-based approaches, including targeted and smartly designed therapies, that deliver loaded immunoreactive (s) into the body at predefined sites. The book will also discuss the patents related to cancer immunotherapy. Because of the versatility and wide range of properties, nanobiotechnology-based systems are extensively used in cancer immunotherapy. The task of obtaining a versatile candidate in immune component(s) delivery seems to be intricated, as it has to surpass several vigorous clinical barriers. As a result, many scientists rely on nanobiotechnology-based approaches, which have already been approved and well-established. Over the years, extensive research has been undertaken on the delivery of immunoreactive(s) using nanotechnology-based delivery systems. With advancements in nanobiotechnology, more needs are realized to develop nanoengineered/smart delivery systems with even more convoluted properties. Currently, research is mainly focused on nanoengineered systems, which can perform one or more of the desired functions. The proposed book summarizes the basic principles and research supporting cancer immunotherapy clinical translation contains nanobiotechnology-based treatment strategies for all immunotherapy classes and agents, including cell-based therapies, monoclonal antibodies, cytokine therapies, checkpoint inhibitors, oncolytic viruses, adjuvant approaches, treatment combinations Includes information on all FDA-approved immunotherapies, for individual cancer types, including melanoma and other skin cancers, lung cancers, gastrointestinal cancers, hematologic cancers, genitourinary cancers, head and neck cancers, sarcomas, brain cancers, and breast cancer etc. Also explains the regulatory aspects behind the development and approval of immunotherapy drugs.