1. Record Nr. UNINA9910426053703321

Autore	Ganai Shabir Ahmad
Titolo	Histone deacetylase inhibitors in combinatorial anticancer therapy / / Shabir Ahmad Ganai
Pubbl/distr/stampa	Gateway East, Singapore : , : Springer, , [2020] Â©2020
ISBN	981-15-8179-7
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XVII, 258 p. 27 illus., 13 illus. in color.)
Disciplina	572.865
Soggetti	Gene expression Medical genetics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1_Epigenetic modifying enzymes. -Chapter 2_Epigenetic modifying enzymes implicated in cancer. -Chapter 3_Classification of histone deacetylases (HDACs). -Chapter 4_Implications of 18 HDAC isoforms in therapeutically monotonous cancers. –Chapter 5_Possible Mechanisms of HDACs in Cancer development -- Chapter 6_Different strategies employed for circumventing cancer resistance (chemo and radio) and mitigating toxicity. -Chapter 7_Limitations of conventional therapeutic regimens in treating cancer. -Chapter 8_Overview of epidrugs with special emphasis on HDAC inhibitors (HDACi) -- Chapter 9_HDAC inhibitors as promising epidrugs for treating cancer. -Chapter 10_ HDAC inhibitors in anticancer monotherapy. -Chapter 11_Distinct groups of histone deacetylase inhibitors (HDACi) based on the structural distinction, HDACs targeted. -Chapter 12_Limited efficacy of HDAC inhibitor-based monotherapy. -Chapter 13_Resistance mechanisms generated by cancer cells against HDACi based monotherapy. -Chapter 14_ Toxicity issue of HDAC inhibitor based monotherapy. -Chapter 15_Combinatorial therapeutic strategies of HDACi. -Chapter 16_Designing Selective HDACi using computational and medicinal chemistry approach. -Chapter 17. Current therapeutic challenges and future directions. .
Sommario/riassunto	This book reviews the latest developments in the design, synthesis, and molecular mechanism of action of Histone Deacetylase (HDAC)

inhibitors in the context of potential cancer therapy. HDAC inhibitors are emerging as promising anticancer drug molecules that promote growth arrest, differentiation and apoptosis of cancer cells with tumor selective toxicity. The book begins with an overview of various epigenetic modifying enzymes that are involved in cancer transition and progression; before exploring the potential of HDACs in cancer treatment. It provides a classification of HDAC inhibitors based on their structural attributes, and addresses HDAC-induced cytotoxicity.. Lastly, it discusses and assesses the rationale behind therapies that combine HDAC inhibitors with other anticancer agents to treat solid tumors. Given its scope, it offers a valuable resource for all researchers, clinicians, and students working in formulation, drug discovery, oncology, and personalized medicine.