1. Record Nr. UNINA9910437992603321

Titolo	Advances in DNA repair in cancer therapy / / Lawrence Panasci, Raquel Aloyz, Moulay Alaoui-Jamali, editors
Pubbl/distr/stampa	New York, : Springer, 2013
ISBN	1-283-93366-7 1-4614-4741-0
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (316 p.)
Collana	Cancer drug discovery and development
Altri autori (Persone)	PanasciLawrence AloyzRaquel Alaoui-JamaliMoulay
Disciplina	616.99 616.99/4061 616.99406
Soggetti	Cancer - Treatment - Genetic aspects DNA repair
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- Repair of DNA Interstrand Cross-links Produced by Cancer Chemotherapeutic Drugs -- DNA-PK, a pharmacological target in cancer chemotherapy and radiotherapy? -- Growth factor receptor signaling, DNA damage response, and cancer cell susceptibility to chemotherapy and relapses -- The relationship between DNA-repair genes, cellular radiosensitivity and the response of tumors and normal tissues to radiotherapy -- Important Roles of ERCC1 in DNA Repair and Targeted Therapy -- The role of BRCA1 and BRCA2 in anticancer drug therapy -- DNA-PK in CLL Chemotherapy -- Poly(ADP) ribose polymerase at the interface of DNA damage signalling and DNA repair -- Cellular protection against the antitumor drug bleomycin -- ATR as a Therapeutic Target -- Telomeres, Telomerase and DNA Damage Response in Cancer Therapy -- RAD51 is a key protein of DNA repair and homologous recombination in humans -- Index.
Sommario/riassunto	This book deals with the emerging role of various DNA repair proteins and the regulatory elements which are implicated in cancer therapy such as DNA cross-linking agents, radiotherapy and bleomycin. The

DNA repair genes discussed include those involved in BRCA/Rad51-related homologous recombinational repair, DNA-PK related nonhomologous endjoining and the nucleotide excision repair gene, ERCC1. Moreover, the role of regulatory genes such as PARP, ATR, telomerase, growth factor receptors and downstream kinase signalling is examined.