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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- The Genetics of Colorectal Cancer -- Molecular Mechanisms of Colorectal Carcinogenesis -- The association between inflammation and colorectal cancer -- Importance of the niche: Wnt signalling and Stem cell plasticity in intestinal homeostasis and disease -- Mutational activation of KRAS and BRAF in colorectal cancer -- The PI3K pathway in Colorectal Cancers -- TGF-ß signaling pathway and colorectal cancer -- The Clinical Significance of Mutations in Colorectal Cancer -- Colorectal Cancer Genome and Its Implications -- Copy-Number Alterations in the Colorectal Cancer Genome -- Genome-wide association studies in colorectal cancer -- Future prospects for leveraging molecular information in the fight against colorectal cancer -- Index.

Sommario/riassunto

For more than two decades, colorectal cancer has served as the paradigm for the cooperative activity of oncogenes and tumor suppressor genes in cancer initiation and progression. The depth of molecular characterization for this disease is unparalleled, with specific mutations correlated to each histologic stage of progression from normal colon to malignant colorectal cancer. We are now entering a time when molecular classification, rather than histologic classification, of cancer subtypes is driving the development of clinical trials with emerging targeted therapies. This book explores the past, present, and future of colorectal cancer genetics, with particular emphasis on how knowledge of the molecular pathogenesis of the disease leads to the development of novel therapeutic strategies. Individual chapters discuss general topics, such as genomic instability and inflammation, or else specific pathways, for example RAS, PI3K, and TGF-b, that play a role in colorectal cancer progression.