Record Nr. UNINA9910309663603321 Targeted Therapy of Colorectal Cancer Subtypes [[electronic resource] **Titolo** /] / edited by Peter Jordan Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2018 **ISBN** 3-030-02771-6 Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (152 pages) Collana Advances in Experimental Medicine and Biology, , 0065-2598 ; ; 1110 Disciplina 616.99435061 Soggetti Cancer research Human genetics Molecular biology Biomedical engineering **Immunology** Cancer Research **Human Genetics** Molecular Medicine Biomedical Engineering/Biotechnology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Preface -- Colorectal Cancer Subtypes- the current portrait --Targeting colon cancers with mutated BRAF and microsatellite instability -- Targeting KRAS mutant CMS3 subtype by metabolic inhibitors -- Targeting the PI3K Signalling as a Therapeutic Strategy in Colorectal Cancer -- Targeting PTEN in colorectal cancers -- Wnt signalling-targeted therapy in the CMS2 tumour subtype: a new paradigm in CRC treatment?- Impact of the microenvironment on tumour budding in colorectal cancer -- Anti-EGFR Therapy to treat metastatic colorectal cancer: not for all -- miRNAs as modulators of EGFR therapy in colorectal cancer -- Index. Sommario/riassunto In this book, a group of researchers shares their expertise on the identification and characterization of genetic colorectal cancer subtypes. They describe solid pathobiological knowledge on the

distinct sporadic tumour subtypes, including the mutations found in

oncogenes and tumour suppressor genes, the types of genomic instability encountered, and the cellular signalling pathways activated. The book content indicates opportunities for the development of further pathway-specific therapeutic drugs or drug combinations, allowing to cope with the appearance of resistant tumours. The nine chapters of this book cover the main aspects underlying colorectal cancer development but also of its therapeutic options, which have been undergoing substantial changes by moving from the use of general cytotoxic agents that affect rapidly growing cells to more tumour-specific drugs. In the first case, all dividing cells in the patient' s body are affected and this causes severe and debilitating side effects. In the second case, the increasing knowledge about the molecular genetics of tumours has led to a new generation of drugs, which specifically interfere with the cell survival pathways that are activated in a given tumour. This allowed to identify groups of patients for targeted therapy that is much better tolerated. The book is thus an interesting update for health professionals on the current knowledge on heterogeneity in colorectal cancer. In addition, it should inspire the drug-developing scientific community by highlighting potential therapeutic Achilles heels of distinct subtypes of colorectal cancer.