Record Nr. UNINA9910298334303321 Hypoxia and Cancer [[electronic resource]]: Biological Implications and **Titolo** Therapeutic Opportunities / / edited by Giovanni Melillo Pubbl/distr/stampa New York, NY:,: Springer New York:,: Imprint: Humana,, 2014 **ISBN** 1-4614-9167-3 Edizione [1st ed. 2014.] 1 online resource (362 p.) Descrizione fisica Collana Cancer Drug Discovery and Development, , 2196-9906 Disciplina 614.5999 Soggetti Cancer research Molecular biology Pharmacology Stem cells Cancer Research Molecular Medicine Pharmacology/Toxicology Stem Cells 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 -- Hypoxia and breast cancer metastasis -- Hypoxia and the DNA damage response -- Hypoxia and non-coding RNAs -- Hypoxia and ROS -- Hypoxia and gene expression -- Carbonic anhydrase IX: from biology to therapy -- Imaging the hypoxic tumor microenvironment in preclinical models -- Clinical imaging of hypoxia -- Hypoxia, antiangiogenic therapy and metastasis -- UPR and therapeutic opportunities -- Targeting the hypoxic phenotype --Marianne Nordsmark: Hypoxia and Radiation therapy --Pharmacological strategies targeting hypoxia -- Targeting the hypoxic tumor microenvironment -- Clinical exploitation of hypoxia -- Index. Sommario/riassunto The tremendous progress in our understanding of the molecular mechanisms underlying tumor hypoxias has generated a great deal of enthusiasm and provides new opportunities to better understand and target the tumor microenvironment. This book emphasizes how

> changes in oxygen levels in the tumor microenvironment impact cancer cell biology and provide new opportunities for cancer therapy and the

contribution of world renowned experts in tumor hypoxia makes this text an invaluable tool for understanding how hypoxia impacts the biology, imaging and therapy of human cancers. Basic and translational scientists alike will find this book to be a source of updated information and an opportunity to further strategic thinking in order to better understand and target the complexity of the hypoxic tumor microenvironment. This book is a reference tool for students, scientists and clinicians who are interested in the role of hypoxia in cancer biology and therapy.