Record Nr. UNINA9910554211503321 Medical physics: models and technologies in cancer research / / edited **Titolo** by Anna Bajek and Bartosz Tylkowski Pubbl/distr/stampa Berlin, Germany;; Boston, Massachusetts:,: Walter de Gruyter GmbH, , [2021] ©2021 **ISBN** 3-11-066230-2 Descrizione fisica 1 online resource (264 pages) Collana De Gruyter STEM XC 3800 Classificazione 610.153 Disciplina Soggetti Medical physics Cancer - Research - Technological innovations Cancer - Research Lingua di pubblicazione Inalese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Frontmatter -- Preface -- Contents -- List of contributing authors -- 1 Personalized and targeted therapies -- 2 Advancements in cancer chemotherapy -- 3 Principles of radiation therapy -- 4 Advanced cell culture techniques for cancer research -- 5 Natural substances in cancer—do they work? -- 6 The application of the natural killer cells, macrophages and dendritic cells in treating various types of cancer --7 Non-radioactive imaging strategies for in vivo immune cell tracking -- 8 Present trends in the encapsulation of anticancer drugs -- 9 3D tumor model – a platform for anticancer drug development -- Index Sommario/riassunto Modern cancer research is a high-tech undertaking, overlapping with many fields in the physical sciences. These include nanotechnology, engineering, immunology, and bioinformatics. This book focuses on the science and technology underlying the diagnosis and treatement of

cancer. The authors offer insights into technologies including

radiotherapy, modelling, and drug encapsulation.