Record Nr. UNINA9910647770203321 Handbook of Animal Models and its Uses in Cancer Research / / edited **Titolo** by Surajit Pathak, Antara Banerjee, Atil Bisgin Pubbl/distr/stampa Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2023 **ISBN** 981-19-3824-5 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (1158 pages) Disciplina 616.027 Cancer—Animal models Soggetti Tumors—Classification Tumors—Immunological aspects **Cancer Models** Cancer Staging **Tumour Immunology** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Module 1\_Animal Models in Cancer Research -- Animal Models in Cancer Research -- Module 2\_ Therapeutic Cancer Research and Animal Models-Module 3 Alternative approaches for models of cancer research. Sommario/riassunto This reference book compiles together different animal models in cancer research. It provides knowledge and a better understanding of the advancement of the molecular and cellular mechanisms associated with the progression, formation, and clinical results of various types of cancer from the evidence collected from animal models utilized for cancer research. It discusses animal models for screening anti-cancer drugs and exploration of gene therapy. It presents different methods used to construct cancer animal models and the progress of each animal model in tumor research. The book also highlights the applications of genetic engineering, including CRISP/Cas9, in designing and developing animal models for cancer research. Further, it discusses strategies for modeling animals for investigating growth, metastasis,

tumor-associated inflammation and microenvironment, cancer stem cells, tumor heterogeneity, and therapeutic resistance. This book is a

valuable resource for basic and translational cancer researchers, clinicians, and health care.