

1. Record Nr.	UNINA9910983082803321
Autore	Sørli Therese
Titolo	A Guide to Breast Cancer Research : From Cellular Heterogeneity and Molecular Mechanisms to Therapy // edited by Therese Sørli, Robert B. Clarke
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	9783031708756 303170875X
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (926 pages)
Collana	Advances in Experimental Medicine and Biology, , 2214-8019 ; ; 1464
Altri autori (Persone)	ClarkeRobert B
Disciplina	571.978 616.994
Soggetti	Cancer Oncology Cancer - Treatment Metastasis Tumors - Immunological aspects Cancer Biology Cancer Therapy Tumour Immunology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part I: Development and cancer: basic concepts -- Chapter 1: Introductory chapter by Sorlie and Clarke -- Chapter 2: Embryonic mammary gland morphogenesis -- Chapter 3: Breast morphogenesis: from normal development to cancer -- Chapter 4: Single-Cell Analysis in the Mouse and Human Mammary Gland -- Part II: Development and cancer: model systems and approaches -- Chapter 5: Recording lineage history with cellular barcodes in the mammary epithelium and in breast cancer -- Chapter 6: Models for studying ductal carcinoma in situ progression -- Chapter 7: Patient-derived xenografts of breast cancer -- Chapter 8: Rat Models of Breast Cancer -- Part III: Development and cancer: cells of origin and heterogeneity -- Chapter 9: Cells of origin of breast cancer and intertumoral heterogeneity -- Chapter 10:

Mechanisms of regulation of cell fate in breast development and cancer -- Chapter 11: Classification of breast cancer through the perspective of cell identity models -- Part IV: Cellular and molecular basis -- Chapter 12: The Microenvironment in DCIS and its Role in Disease Progression -- Chapter 13: Molecular basis of breast tumor heterogeneity -- Chapter 14: E-cadherin-mediated cell-cell adhesion and invasive lobular breast cancer -- Part V: Signalling pathways -- Chapter 15: Hormone signaling in breast development and cancer -- Chapter 16: RANK/RANKL signaling pathway in breast development and cancer -- Chapter 17: Metabolic Reprogramming and Adaption in Breast Cancer Progression and Metastasis -- Part VI: Metastasis and immunity -- Chapter 18: Microenvironmental regulation of dormancy in breast cancer metastasis: "An ally that changes allegiances" -- Chapter 19: The Roles of Myeloid Cells in Breast Cancer Progression -- Chapter 20: Immune microenvironment in breast cancer metastasis -- Part VII: Subtypes, treatment and resistance -- Chapter 21: Clinical Implications of Breast Cancer Intrinsic Subtypes -- Chapter 22: Targeting Estrogen Receptor signalling in breast cancer therapy -- Chapter 23: CDK4/6 inhibitor resistance in ER+ breast cancer -- Chapter 24: HER2-positive breast cancer treatment and resistance.

Sommario/riassunto

The book presents key topics at the forefront in breast development and cancer research in chapters authored by leading scientists in the field. The chapters provide a basis for understanding major concepts, model systems, cells of origin and heterogeneity in human breast development and cancer. The book builds on this understanding to guide readers through the cellular and molecular basis of breast cancer and the most important signaling pathways. Finally, the book describes mechanisms of metastasis and cancer immunity, and treatment options and resistance to therapy. It is targeted at young scientists and early career researchers and provides an overview of current topics in breast cancer research. Each chapter includes key learning points, boxes and conclusions to highlight the most important information. This book will interest anyone who wants to learn about the main areas of breast cancer research and the most important recent advances.
