

1. Record Nr.	UNINA9910337499403321
Titolo	Estrogen Receptor and Breast Cancer : Celebrating the 60th Anniversary of the Discovery of ER // edited by Xiaoting Zhang
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Humana, , 2019
ISBN	3-319-99350-X
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (417 pages) : illustrations
Collana	Cancer Drug Discovery and Development, , 2196-9906
Disciplina	616.99449061
Soggetti	Cancer research Molecular biology Cancer Research Molecular Medicine
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Introduction: On the discovery of Estrogen Receptor -- 2. Physiological and Pathological Roles of Estrogen Receptor -- 3. Estrogen Receptor Cofactors -- 4. ER-Mediated Gene Transcription -- 5. ER Transcriptome -- 6. Estrogen Receptor Regulation of Non-Coding RNAs in Breast Cancer -- 7. First Targeted Therapy --- History of Tamoxifen -- 8. Selective Estrogen Receptor Modulators (SERMs) -- 9. New Estrogen Receptor Drugs -- 10. Endocrine Therapy in Clinical Practice -- 11. Structural Insights into ER and Anti-Estrogen Therapies -- 12. Molecular Mechanisms of Endocrine Resistance -- 13. Estrogen Receptor Mutants in Breast Cancer -- 14. Estrogen Receptor Beta and Isoforms in Breast Cancer -- 15. Xenoestrogens, Phytoestrogens and Breast Cancer -- 16. Emerging Approaches to Overcome Endocrine Resistance.
Sommario/riassunto	The discovery of ER by Dr. Elwood Jensen exactly 60 years ago has not only led to the birth of a whole new vital nuclear receptor research field but also made a rapid, direct and lasting impact on the treatment and prevention of breast cancer. Since that landmark discovery, tremendous progress has been made in our understanding of the molecular functions of ER and development of targeted therapies against ER pathways for breast cancer treatment. However, there is currently no

book available addressing these discoveries and recent advancement in a historical and systematic fashion. This book is intended to provide comprehensive, most up-to-date information on the history and recent advancement of ER and breast cancer by world renowned leaders in the field. These chapters include the history of the discovery of ER; physiological and pathological roles of ER; recent discovery of ER cistrome, transcriptome and its regulation of noncoding RNAs such as microRNAs and enhancer RNAs in breast cancer; development and clinical practices of the first targeted therapy Tamoxifen and other antiestrogens for breast cancer treatment; structural basis of ER and antiestrogen actions; molecular insights into endocrine resistance; the role of ER mutants, ER-beta and environmental estrogens in breast cancer; and emerging state-of-the-art therapeutic approaches currently in development to overcome treatment resistance and future perspectives. The book will provide undergraduate and graduate students, basic scientists and clinical cancer researchers, residents, fellows, as well as clinicians, oncology educators and the general public a thorough and authoritative review of these exciting topics.

---