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Nota di contenuto	Preface -- Section 1 Hereditary Breast and Ovarian Cancer Syndrome -- Chapter 1 Introductory Chapter: The Influence of BRCA1/2 Genes Mutations on Hereditary Breast and Ovarian Cancer Syndrome - Is it in your Genes? by Mani T. Valarmathi Section 2 BRCA Discovery -- Chapter 2 Discovery of BRCA Mutations: Historical Perspective of Its Scientific, Clinical and Social Impact by Natalia B. Burachik, Ana Laura Ortiz and Edith C. Kordon Section 3 BRCA Structure and Function -- Chapter 3 BRCA Biological Functions by Divya Bhargavi Pulukuri, Vijaya Babu Penke, Divya Jyothi Palati, Prudvi Raj Pulla, Shanker Kalakotla and Siddhartha Lolla -- Chapter 4 The Fundamental Role of BARD1 Mutations and Their Applications as a Prognostic Biomarker for Cancer Treatment by Yousef M. Hawsawi and Anwar Shams -- Section 4 BRCA-Associated Cancers -- Chapter 5 BRCA Gene Mutations and Prostate Cancer by Gvantsa Kharaishvili, Mariam Kacheishvili and Giorgi Akhvlediani -- Chapter 6 Genomic Consequences of Ovarian Cancer with Respect to DNA Damage and Repair Mechanism by Sonali Verma, Gresh Chander, Ruchi Shah and Rakesh Kumar -- Section 5 BRCA Genetic Testing and Counselling -- Chapter 7 Implications of BRCA1 and BRCA2 Mutations in Mexico by Carlos Arturo Gonzalez Nunez, Paula Anel Cabrera Galeana, Sandy Ruiz Cruz and Alexandra Garcilazo Reyes -- Chapter 8 Quality of Life is Essential: Implications for Diagnosis and Treatment for BRCA1/2 Germline Mutations by Yuliana Sanchez Contreras, Brigney Isvettia Aceves Poveda, David Neri Acosta

Gutierrez and Rosa Maria Alvarez Gomez.

Sommario/riassunto

Mutations in the BRCA1/2 genes are the most common cause of hereditary breast and ovarian cancer (HBOC), and HBOC is an autosomal dominant cancer predisposition syndrome. Individuals with HBOC have a high risk for breast and ovarian cancers and a moderate risk for other cancers, such as prostate, pancreatic, melanoma, and fallopian tube cancers. The goal of screening individuals at high risk of familial cancer is either prevention (such as a change in lifestyle or diet) or early detection of cancer. The identification of BRCA mutation carriers is important, since increased surveillance, drug therapy, and prophylactic surgery can reduce cancer-related morbidity and mortality. In recent years, there has been substantial development in BRCA-associated hereditary breast and/or breast-ovarian cancer research and its clinical applications. In this context, this book consolidates the recent advances in BRCA-related cancer biology and therapeutics, covering a wide spectrum of interrelated topics. Chapters cover a wide range of topics, such as BRCA discovery, BRCA structure and function, BRCA-associated cancers, BRCA genetic testing and counselling, and more. This book is a valuable resource not only for medical and allied health students but also for researchers, clinical and nurse geneticists, genetic counselors, and physician assistants.