Record Nr.	UNINA9910822003903321
Titolo Pubbl/distr/stampa	Pizzo and Poplack's pediatric oncology [[electronic resource] /] / editors, Susan M. Blaney, MD, Professor, Hematology-Oncology Section, Baylor College of Medicine, Deputy Director, Texas Children's Cancer Center and Hematology Centers, Texas Children's Hospital, Houston, Texas, Peter C. Adamson, MD, Professor of Pediatrics and Pharmacology, Perelman School of Medicine, The University of Pennsylvania, Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, Lee J. Helman, MD, Professor, Pediatrics and Medicine, Keck School of Medicine, University of Southern California, Head, Basic and Translational Research, Cancer and Blood Disease Institute, Children's Hospital Los Angeles, Los Angeles, California
ISBN	1-9751-2481-2
Edizione	[8th ed ]
Descrizione fisica	1 online resource (3044 pages)
Altri autori (Persone)	BlaneySusan M AdamsonPeter C HelmanL (Lee)
Disciplina	618.92/994
Soggetti	Tumors in children Neoplasms Child Infant
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Revised edition of: Principles and practice of pediatric oncology. Seventh edition. [2016].
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Title Page Copyright Page Section 1 Biological Basis of Childhood

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Molecular and Genetic Basis of Childhood Cancer -- General Nature of Cancer-Associated Genetic Aberrations -- Comprehensive Analysis of the Cancer Genome -- Germline Mutations -- Somatically Acquired Chromosomal Aberrations and Mutation -- Gross Chromosomal Rearrangements -- Oncogenic Consequences of Gross Chromosomal Rearrangements-General Themes -- Chromosomal Translocations Lead to Activation of Proto-Oncogenes and Generation of Oncogenic Fusion Genes -- Chromosomal Deletion Leads to Inactivation of Tumor Suppressor Genes -- Gene Amplification -- Point Mutations Leading to Gene Activation or Inactivation -- Comprehensive Genomic Studies of Pediatric Tumors -- Mechanisms of Malignant Cell Transformation, Growth, and Clonal Expansion -- Outlook for Molecularly Targeted Therapies -- Summary -- 4 Biology of Childhood Cancer -- Gene Regulation -- Protein Regulation -- Signal Transduction -- Cell Proliferation -- Programmed Cell Death -- Cancer Metabolism --Metastasis and the Tumor Microenvironment -- 5 Tumor Immunology of Childhood Cancer -- Overview of the Immune System -- Modern Concepts of Immune Surveillance -- T-Cell Recognition of Cancer --Innate Immune Cells and the Tumor Microenvironment -- Immune Function in Cancer Patients -- Immunotherapy of Cancer -- Summary and Future Directions.

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Sommario/riassunto	"This authoritative reference is a comprehensive resource on the biology and genetics of childhood cancer as well as its diagnosis, multimodal treatment, as well as long-term management of young patients with cancer. Also addressed are a broad array of topics on the supportive and psychosocial aspects of care of children and families. Covering virtually every aspect of the breadth and depth of childhood cancer, this reference provides expert guidance on state-of-the-art, multidisciplinary care for children and families"