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Nota di contenuto	Preface; Contents; MicroRNAs and Other Non-Coding RNAs: Implications for Cancer Patients; 1 Introduction; 2 MiRNAs in Selected Malignancies; 2.1 Chronic Lymphocytic Leukemia; 2.2 Multiple Myeloma; 2.3 Cutaneous T-Cell Lymphoma; 2.4 Mantle Cell Lymphoma; 3 Soluble MiRNAs; 4 Other Non-coding RNAs; 4.1 MALAT-1; 4.2 HOTAIR; 4.3 H19; 4.4 XIST; 4.5 SnaiR Family Members; 4.6 Other Transcribed Ultraconserved Regions; 5 Implications for the Treatment of Cancer; References; Function of miRNAs in Tumor Cell Proliferation; 1 Introduction; 2 Aberrant miRNA Expression in Cancer 3 miRNA Regulation of Tumor Cell Division3.1 Cell Division Cycle; 3.2 miRNAs Inhibiting Tumor Cell Proliferation; 3.2.1 miR-15a and miR-16-1; 3.2.2 miR-17/20; 3.2.3 miR-221/222; 3.2.4 Let-7; 3.2.5 miR-29; 3.2.6 miR-34, miR-192 and miR-215; 3.3 miRNAs Enhancing Tumor Cell Proliferation; 3.3.1 miR-21; 3.3.2 miR-27a; 3.3.3 miR-155; 4 miRNA Regulation of Cancer Stem Cells; 5 miRNA Regulation of Tumor Microenvironment and Cancer Metastasis; 6 Therapeutic Application of miRNA in Cancer; 6.1 Restoring the Expression of Tumor Suppressor miRNAs; 6.2 Blocking the Function of Oncogenic miRNAs ReferencesMicroRNAs in Cancer Stem Cells; 1 The Cancer Stem Cell Hypothesis; 2 Links between EMT and the CSC phenotype; 3 microRNAs in CSCs; 4 The cell of origin for Cancer Stem Cells; 5 microRNAs in Normal Stem Cells and Development; 6 Regulation of CSC-Associated microRNAs; 7 Conclusions; References; MicroRNAs in the Pathogenesis

of Viral Infections and Cancer; 1 Introduction; 2 Viral miRNAs; 3 Viral miRNAs Targeting Viral Messages; 4 Viral miRNAs that Regulate Host Genes; 5 Cancer and miRNAs; 6 Conclusions; References; Oncogenic microRNAs in Cancer; 1 Introduction  
2 Role of Oncogenic microRNAs in Normal Cellular Processes  
3 Oncogenic microRNAs vs Tumor Suppressive microRNAs; 4 Oncogenic microRNA-Mediated Tumor Growth; 5 Oncogenic microRNA-Mediated Invasion and Metastasis; 6 Cell Type Specific Effect of microRNAs; 7 Oncogenic microRNA-Mediated Resistance to Chemotherapy and Radiation Therapy; 8 Oncogenic microRNAs as a Biomarker for Cancer Diagnosis and Prognosis, and as Therapeutic Targets; 9 Summary; References; Regulation of Metastasis by miRNAs; 1 MiRNAs: The Basics; 1.1 Discovery; 1.2 Biogenesis; 1.3 Mechanism of miRNA Gene Regulation  
2 MicroRNAs and Metastasis  
2.1 Function of Specific miRNAs in EMT; 2.2 miRNAs Drive the Cancer Metastasis; 2.2.1 miR-21; 2.2.2 miR-10b; 2.2.3 miR-182, miR-183, miR-380-5p and miR-211; 2.2.4 Others (miR-1, miR-126, let-7, miR-29c and miR-214); 2.3 miRNAs Suppress Tumor Metastasis; 2.3.1 miR-335, miR-206 and miR-126; 2.3.2 miR-31; 2.3.3 miR-146a and miR-146b; 2.3.4 miR-205; 2.3.5 Others (miR-29b, miR-198, miR-34a, let-7f); 3 Conclusion and Future Perspective; References; MicroRNA in Leukemias; 1 Introduction; 1.1 MicroRNAs in ALL; 1.1.1 MicroRNA Expression Profiling ; 1.1.2 MiRNA Regulation, Cellular Function and Prognostic Significance

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Sommario/riassunto

The field of microRNA biology is really emerging in the last couple of years. Several investigators highlighted the importance of miRNAs in cancer. Although there is so much literature on microRNAs exist, a comprehensive book is still not available. Thus this book will be a great use to the scientists in the field of cancer biology. In addition, this book will be a good source of information for undergraduate, graduate students who want to develop their research careers in cancer biology.

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