Brain Tumors (Contemporary Cancer Research)
Exciting new developments and discoveries of the last two decades are beginning to shed light on the complex biology of brain tumors and are advancing our understanding of the cellular and molecular processes involved in their initiation, progression, and clinical and biological behavior. The disease process in brain tumors is quite complex and the resulting tumors are characterized by a high degree of biological and clinical diversity. Thus, despite the advances of the last two decades, prognosis for patients with malignant brain tumors remains abysmal. Significant progress in the diagnosis, treatment and, ultimately, prevention of these tumors will require both the timely harnessing of the advances in basic and clinical brain tumor research, and a continuing concerted effort at increasing our understanding of brain tumor biology, in particular, the molecular genetic changes and perturbations of cellular pathways involved in brain oncogenesis and which drive the biological and clinical behavior of the tumors. Brain tumor diagnosis and prognosis, which is still largely based on histopathology and other clinical criteria, will, in the future, acquire a significant molecular component, with the incorporation of knowledge of genes that are mutated, over-expressed, deleted, silenced, or functionally altered in the tumors. Treatment strategies for brain tumors, rather than being empirical, will be rationally developed based on an understanding of the cellular and molecular mechanisms and targets that have been activated, suppressed, or otherwise altered.

**Book Information**

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This multiauthored textbook compiles recent scientific advances in brain-tumor biology. In the past 10 to 15 years, there has been an explosion of information regarding the genesis and pathological classification of and new treatments for brain tumors. The main focus of this book is the gliomas, but it also deals with other primary brain tumors, such as meningiomas, as well as brain metastases.

The editor has called on a notable group of authors who are widely recognized as experts and investigators of the fundamental abnormalities that characterize malignant brain tumors. The book has three sections. The first focuses on epidemiology, biology, genetics, and pathology; the second describes mechanisms and genetic pathways involved in oncogenesis; and the final section reviews new therapeutics. There is considerable overlap of information, particularly between the first two sections, in describing the critical pathways that are disrupted in glioma. For example, the molecular characteristics that distinguish a primary from a secondary glioblastoma are discussed many times. Nevertheless, this repetition enables each chapter to stand alone, freeing the reader from having to refer to prior material to follow an author’s line of thought. This book contains a welcome compilation of the known genetic abnormalities in malignant gliomas and is an excellent reference with a good description of each abnormality. Furthermore, many authors discuss the interaction of multiple abnormalities and how the interaction affects the survival of malignant cells. The book also takes up the full spectrum of brain-tumor biology. Thus, there are chapters describing overall immune regulation, how it works in the brain, and how it could be harnessed for the treatment of brain tumors. A chapter on mouse models is insightful in discussing the molecular requirements for gliomagenesis.

I found the book difficult to read -- literally. The type is dense and hard on the eyes, and the layout is visually monotonous, making it a challenge to maintain concentration. Many figures are of poor quality, and some diagrams and histologic reproductions would have benefited from the use of color. Some authors must have submitted their figures in color because figure legends refer to colors not present in the book. In addition, the book could have used closer editorial scrutiny. There are numerous examples of missing words in sentences, poor sentence construction, and words that run together without a space between them. These errors are sometimes confusing and interrupt the reader’s train of thought. Each chapter is extensively referenced -- a wonderful resource for the reader. However, most chapters have references only as recent as 2000, with the occasional reference from 2001 or 2002. This is unfortunate, given the scientific focus of this work and the rapidly evolving world of molecular biology in brain tumors.

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"This is an important book for the shelves of neuroscience, neurology, neurosurgery, and oncology departments. It’s well worth the price." - Doody’s Health Sciences Book Review Journal "This book contains a welcome compilation of the known genetic reference with a good description of each abnormality." - The New England Journal of Medicine "...this book is simply indispensable and should be a significant component for all individuals associated with either biology or treatment of gliomas...a thoroughly comprehensive, up-to-date, and timely review... ." - J. Neurosurg

This book is one I will keep until I am in remission for a very long time. It is more to the technical side, but very informative. For me to purchase my next book specific to Glia Cells and the greater function they have than neurons! Good book for you shelf of self inquiry! I wish anyone going through brain cancer or any cancer would read the books and know how very far we are away from understanding things like the brain!

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