

Preface

Glioblastoma is the most malignant brain tumor that even now remains incurable. It is such a deadly disease that patients in most cases do not survive more than a few months after the diagnosis. Our understanding of the cellular and molecular mechanisms of the formation of glioblastoma is rapidly advancing so as to provide us clues for devising rational therapeutic strategies for the treatment of this malignancy. It is important that we continue to increase our knowledge about the aberrant molecular markers for pathogenesis of this devastating disease and thereby explore new areas ultimately to find successful therapeutic strategies.

This book has a collection of chapters that include the latest understandings of histopathology, molecular genetics, aberrant signaling pathways, cytoskeleton dynamics, epigenetics, and role of stem cells in gliomagenesis, and also promising treatment strategies with the contributions from the prominent basic scientists and clinicians, who persistently work hard to make a difference and give fresh hope to the glioblastoma patients to survive longer. Various approaches such as sophisticated imaging techniques, improved surgical procedures, and new strategies for radiation therapy, combination chemotherapy, immunotherapy, chemoimmunotherapy, dietary therapy, and nanobiotherapy are being explored for the treatment of glioblastoma.

All the contributors to this book have explicated their earnest desire to make use of the latest knowledge about the pathogenesis of glioblastoma to indicate the novel targets and innovative therapeutic strategies. It is keenly contemplated that this book will be an important source of information on glioblastoma to the graduate students, postdoctoral fellows, principal investigators, and clinicians, who are interested and engaged in finding a cure for glioblastoma.

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Therapeutic Strategies

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