Preface

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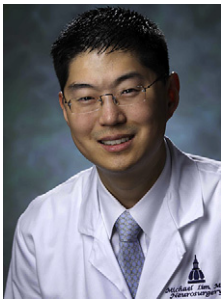

Michael Lim, MD

Guest Editors

Malignant brain tumors are the most common and deadly primary brain tumor. Average survival from a malignant brain tumor is approximately 1 year, and, despite modern advancements with current therapies, survival has only minimally improved over the past two decades. Novel therapies need to be developed and investigated to advance the efficacy of brain tumor treatment. An important principle of developing new therapies is to maximize the antitumor effects while minimizing damage to normal brain tissue. Immunotherapy offers the anticancer precision of directed tumor-specific toxicity. In addition, immunotherapy offers the possibility of surveillance and durability. This therapeutic potential has made immunotherapy as a potential brain tumor treatment modality a rapidly expanding and investigated field.

Much work has been accomplished in the laboratory and in early clinical trials establishing the feasibility and potential efficacy of malignant brain tumor immunotherapy. Although most of the data for brain tumor immunotherapy and vaccines are from animal studies, current clinical trials are investigating the immune response, feasibility, and safety of brain tumor immunotherapy. Data thus far obtained from the clinical trials suggest that the therapies are efficacious and side effects of immunotherapy are mild. Hence, brain tumor immunotherapy holds promise not only as an effective anticancer effect through specific tailored and individualized therapies against malignant brain tumors but also for the real and tangible possibility of improved survival and quality of life.

This edition of *Neurosurgery Clinics of North America* represents an organized and thorough survey with critical analysis of the scientific and clinical studies focused on brain tumor immunotherapy from an assembly of leading researchers and expert clinicians. We hope this critical analysis of brain tumor immunotherapy and vaccines will provide clinicians and research scientists with a comprehensive and systematic overview of modern brain tumor immunotherapy to act as a resource and to stimulate future studies and investigations in this highly promising and exciting field.

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