Preface

When the first edition of Gene Therapy of Cancer as part of the series Methods in Molecular Medicine series was released in 1999/2000, this research field was still filled with euphoric moments and great expectations for almost unlimited success. Due to decisive drawbacks in clinical use of gene therapy, the voices of those demanding gene therapy go back to the benches became more intense. In fact, during the last decade many important issues for gene therapy, including cancer gene therapy, have been investigated with great efforts to ameliorate vector safety, transfer efficiency, improve vector targeting, find more effective and specific therapeutic genes, etc. In parallel, numerous gene regulatory issues have evolved and been enhanced for the benefit of patients treated with gene therapy. Because gene therapy of cancer is still the field of greatest efforts, representing more than 60% of all gene therapy trials, this field has accumulated a tremendous amount of preclinical, and, more importantly, of clinical data. Such increment in gene therapeutic experience did promote and will further accelerate the development of cancer gene therapy into a safe and clinically applicable treatment option.

This second edition was facing the difficulty of potentially being just one more of those countless books aiming at some coverage of cancer gene therapy. However, the editors felt the responsibility to create something slightly different. Therefore, contributions were selected that cover both experimental and clinical approaches to cancer gene therapy. These were carefully chosen with special emphasis on presentation of established and, more importantly, novel protocols to at least in part reflect all of the efforts made for the improvement of cancer gene therapy. Furthermore, this edition provides state-of-the-art overviews of new concepts and strategies in cancer gene therapy.

Because regulatory and ethical issues are of pivotal importance for clinical gene therapy, these topics are acknowledged for their impact in the field as separate chapters in this new edition. Furthermore, the inclusion of chapters that cover the developments, problems, and possible limitations of design and production of gene therapeutics for the clinic broaden the insights into the very complex field of cancer gene therapy, also comprising such translational issues.

Taken together, this second edition has been developed with the intent of providing more than merely a remake of the first edition of the book. This edition has been made for those who are working in the field and are strongly interested in receiving an interesting, spotlighted overview of nonviral, viral, experimental, and clinical cancer gene therapy. In parallel, this edition certainly also addresses those who are interested in the field and are willing to dig into this exciting research area.

The editors thank all contributors for their valuable chapters, which will further stimulate the interest of the readers in the field of cancer gene therapy.

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