Childhood Leukemias

Third Edition
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Edited by

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Preface

In the five years since publication of the second edition of *Childhood Leukemias*, new insights into the molecular and cellular biology of cancers in general, and of the leukemias in particular, have catalyzed exciting advances in diagnostic methods, strategies of risk assessment, and the development of targeted and other novel forms of treatment. Encouraged by this progress, and the enthusiastic responses of readers of the previous edition, I willingly accepted the invitation to develop a third edition of this successful book.

The rapid growth in our understanding of the biology of childhood leukemias and the accelerating pace of innovations in diagnostic and therapeutic approaches presented a considerable challenge during revision of the second edition. As you will notice, each chapter has been extensively modified or rewritten to accommodate the most recent information and references. Although structured to emphasize emerging themes in leukemia pathobiology and treatment, the reworked book still seeks to maintain a balance between fundamental pathophysiology and practical approaches to patient management, a standard that was central to the success of our earlier editions. Three chapters are entirely new. One deals with the epigenetics of leukemia, a topic that has moved rapidly to the fore of leukemia research. The discovery that aberrant epigenetic changes often cooperate with DNA sequence alterations in the initiation and progression of cancer, and that such changes are potentially reversible, has already led to clinical trials of therapies based on key epigenetic findings. Another addition focuses on leukemias in children with Down syndrome, calling attention to the pathobiology that underlies the increased incidence and complications of this problematic disease presentation. Finally, there is a new chapter on the treatment of adolescents and young adults with acute lymphoblastic leukemia – a group that historically has had a much worse prognosis than younger patients.

If the authors and I have done our tasks well, this new edition should not only meet the needs of experienced oncologists and researchers but should also appeal to fellows and junior faculty who are just entering the field. To attract as diverse a readership as possible, I asked all contributors to blend scholarly with practical approaches to their topics, and to take particular care in preparing tables and illustrations that would adroitly highlight their major points of emphasis. Indeed, I am grateful to each of the authors for complying with my editorial suggestions and sometimes difficult deadlines to enable the timely production of this revised text. Despite the best efforts of our editing and production teams, there will undoubtedly be inconsistencies in terminology and gaps in topic coverage. I apologize in advance for any oversights in presentation, while reminding readers that consistency tends to suffer in the face of a rapidly evolving research area, as exemplified by the childhood leukemias.

The pediatric oncology community suffered a tragic loss with the untimely death of Dr. James Nachman in June of 2011. Affectionately known as “Doc Nach,” Jim has made numerous groundbreaking contributions to the improved cure rates for children, adolescents, and young adults with acute lymphoblastic leukemia. He cared deeply for his patients, their families, and his trainees, and unselfishly shared his knowledge, ideas, experiences, jokes, and joys with his colleagues and friends. I will miss him very much.

Publication of the third edition of *Childhood Leukemias* would not have been possible without the generous support of St. Jude Children’s Research Hospital, the American Lebanese Associated Charities (ALSAC), and the National Cancer Institute (Cancer Center Core grant CA-21765). This book is dedicated to all the world’s children who are afflicted with leukemia or have become survivors of this once catastrophic disease, especially those I have had the privilege to care for.