

# Diagnostic and Therapeutic Advances in Hematologic Malignancies

# Cancer Treatment and Research

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# Diagnostic and Therapeutic Advances in Hematologic Malignancies

*edited by*

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and

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**KLUWER ACADEMIC PUBLISHERS**  
BOSTON/DORDRECHT/LONDON



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**Distributors for North, Central and South America:**

Kluwer Academic Publishers  
101 Philip Drive  
Assinippi Park  
Norwell, Massachusetts 02061 USA

**Distributors for all other countries:**

Kluwer Academic Publishers Group  
Distribution Centre  
Post Office Box 322  
3300 AH Dordrecht, THE NETHERLANDS

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**Library of Congress Cataloging-in-Publication Data**

Diagnostic and therapeutic advances in hematologic malignancies / edited  
by Martin S. Tallman and Leo I. Gordon.

p. cm. — (Cancer treatment and research; v. 99)

Includes bibliographical references and index.

ISBN 0-7923-8206-4 (alk. paper)

1. Lymphoproliferative disorders. 2. Lymphoproliferative disorders  
— Molecular aspects. I. Tallman, Martin S. II. Gordon, Leo  
I. III. Series.

[DNLM: 1. Hematologic Neoplasms — diagnosis. 2. Hematologic  
Neoplasms — therapy.

W1CA693 v.99 1999]

RC646.2.D53 1999

616.99'418 — dc21

DNLM/DLC

for Library of Congress

98-26890

CIP

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*Printed on acid-free paper.*

PRINTED IN THE UNITED STATES OF AMERICA

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## Preface

There is no field of medicine in which advances in therapy have been so closely linked to a better understanding of molecular medicine than in the area of hematologic malignancies. For example, recent insights into the understanding of Epstein–Barr virus have led to new treatment options for patients with posttransplant lymphoproliferative disorders, as discussed in the chapter by Dr. Richard Ambinder et al. Similarly, Drs. Slack and Gallagher discuss the explosion of recent information regarding the molecular pathogenesis of acute promyelocytic leukemia. This particular morphologic subtype of acute myeloid leukemia warrants separate discussion because of our increased understanding of the pathogenesis of leukemia, as well as the dramatic advances in outcome that have occurred with differentiation therapy provided by the vitamin A derivative all-*trans* retinoic acid, as discussed in the chapter by Drs. Frankel and Powell. New approaches in the therapy of diffuse aggressive lymphomas in relationship to prognostic factors are discussed by Drs. Koc and Schenkein. Novel approaches to cutaneous T-cell lymphomas are discussed by Drs. Foss and Kuzel. Drs. Fonseca and Greipp discuss prognostic factors in myeloma, which are potentially important since they may serve to identify patients who may benefit from aggressive therapy such as bone marrow transplantation, which is discussed in the chapter by Dr. David Vesole.

State-of-the-art reviews are provided in the chapters on AIDS-related non-Hodgkin's lymphoma by Drs. Volm and Von Roenn, adult acute lymphoblastic leukemia by Drs. O'Connor and Weiss, and myelodysplastic syndromes by Drs. Kouides and Bennett, and a new pathologic classification of non-Hodgkin's lymphomas is discussed by Drs. Finn and Kroft. Patients with AIDS-related lymphomas, acute lymphoblastic leukemia, and myelodysplastic syndromes are often particularly difficult to treat, and therapeutic strategies are constantly evolving.

Biologic approaches may be applicable to a variety of hematologic malignancies. These are thoroughly discussed in the chapters by Drs. Dutcher and Wiernik and by Drs. Sernas, Weeks, and Kwak, where updates on anti-idiotypic therapy are found.

Considerable controversy in the therapy of patients with hematologic malignancies remains. The use of hematopoietic growth factors in acute myeloid

leukemia is comprehensively addressed in the chapter by Drs. Rowe and Liesveld. Although some studies have shown an improvement in the time to neutrophil recovery and a decrease in the incidence of infection, the addition of hematopoietic growth factors has not yet been formally translated into an improved survival.

We hope that this compendium will provide both the practicing hematologist–oncologist and the academic clinician with a better understanding and a sense of excitement about evolving concepts in hematologic malignancies.

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