This book takes account of the most recent findings in laboratory research and clinical trials to provide a comprehensive and up-to-date reference on the pathophysiology, epidemiology, diagnosis and treatment of acquired and inherited aplastic anemia.

As well as a comprehensive and detailed overview of the pathophysiology of the disease, the international team of authors covers all aspects of management, including the well established approaches of bone marrow transplantation and immunosuppressive treatment, new approaches such as the use of hematopoietic growth factors and escalated immunosuppression, and controversial issues such as stem cell transplantation. The final section concentrates on the inherited syndrome Fanconi's anemia. Much of the recent work in this area has been coordinated by the European Group for Blood and Marrow Transplantation (EBMT). Included here is an important international consensus document with guidelines on treatment of aplastic anemia which combines the results and views of the EBMT with those of the international experts from America and Japan.

Detailed treatment guidelines are given, making this the definitive resource for hematologists and clinicians from other disciplines involved in the management and supportive care of patients with aplastic anemia. Scientists interested in mechanisms of bone marrow failure will also find this an invaluable reference.

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APLASTIC ANEMIA

Pathophysiology and treatment

Edited by

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Recently important progress has been made to improve our understanding of the pathophysiology of aplastic anemia and the clinical management of this rare disease.

For a long time the pathophysiology of aplastic anemia remained a mystery, until a series of new studies provided new insight into this matter. The new information includes demonstration of a defect in bone marrow in those with aplastic anemia at the level of long-term culture-initiating cells; further evidence for the pathophysiological relevance of inhibitory cytokines; the assessment of cytokine action in vitro on bone marrow in aplastic anemia, and the analysis of cytokine expression in aplastic anemia; new results on autoreactive T-cells in aplastic anemia; evidence of roles for Fas-antigen and apoptosis in the pathophysiology of aplastic anemia; the elucidation of the relationship between aplastic anemia and paroxysmal nocturnal hemoglobinuria at the molecular level; and new data on the issue of clonality in bone marrow failure.

The main treatment options for aplastic anemia are bone marrow transplantation and immunosuppressive treatment. Progress in bone marrow transplantation for aplastic anemia includes new conditioning regimens and increasing the number of transplants in aplastic anemia from alternative donors.

Efforts were also focused to analyze late effects of all treatment modalities. Thus, there is a substantial, recently established body of information on the pathophysiology and treatment of aplastic anemia. This book tries to summarize the established knowledge and the most recent progress in the subject of aplastic anemia.

The idea for this book was generated within the Aplastic Anemia Working Party of the European Group for Blood and Marrow Transplantation (EBMT). However, we tried to avoid restriction to an ‘EBMT-view’ of the disease and we were fortunate in persuading distinguished experts from many countries to contribute to this volume.
The editors would like to express their appreciation for support of the work of members of the EBMT Aplastic Anemia Working Party by a grant from the European Commission (Biomed-2 programme, contract no. BMH4-CT96-1031).

We are sincerely grateful to all contributors for their excellent work; our thanks to all of them. We hope that this book will be a source of helpful, up-to-date information for students, clinicians, scientists and patients.

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