
This textbook brings together the collective expertise of distinguished laboratorians in a comprehensive volume on hematology for students of laboratory sciences. Its organization is particularly well suited for promoting active learning. Each chapter begins with a list of learning objectives, a case study to be considered, and concludes with a list of important teaching points and several review questions. Answers to review questions and a brief case discussion are featured in the Appendix.

In addition to covering topics traditionally included under the broad umbrella of hematology (including hematopoiesis, disorders of red blood cells, white blood cells, and platelets, as well as sections on hemostasis and thrombosis), the textbook considers important, but often neglected, topics such as laboratory safety, practical guides to specimen collection, and quality control, as well as quality assurance. Also noteworthy is a discussion on laboratory management and related issues, to which technologists often have limited exposure. This section offers an introduction to important concepts such as laboratory organization, staffing and scheduling, developing human resources, financial planning, purchasing and inventory control, and analysis of service operations.

Other practical features of this textbook include overviews of routine laboratory evaluation of blood cells, hematology and coagulation instrumentation, and body-fluid analysis. A section on special studies is particularly notable for its discussion of molecular diagnostic techniques in the clinical laboratory. Another practical feature of this textbook is the easily accessible guide to reference intervals on the inside front and back covers.

Throughout the text, material is presented in a clear and simple manner, targeted at a level of complexity appropriate for the beginning student of hematology. Illustrations and diagrams are particularly well done and clarify as well as complement textual information. The chapters on hemoglobinopathies and thalassemias are sufficiently detailed and comprehensive to serve as a guide for the identification and classification of abnormal hemoglobins in specialty laboratories. The section on erythrocyte disorders is notable for a subsection entitled laboratory diagnosis, which serves to integrate clinical laboratory evaluation with relevant pathophysiology.

Sections on hemostasis and thrombosis provide a broad overview of complex processes and pathways, simplified by the use of figures and tables. An introduction to therapeutic strategies is provided, but often the mechanisms of action are not sufficiently detailed for the beginning student. Moreover, some sections on the evaluation of platelet function are not as up to date as corresponding sections on qualitative platelet disorders. However, advanced methods for identification and diagnosis are extremely thorough and well described.

Chapters on leukocytes cover non-malignant alterations, as well as the major neoplasms, in a cogent manner. Accompanying photomicrographs are of very high quality. Particular attention is given to chromosomal abnormalities associated with different hematologic malignancies.

Overall, Hematology: Clinical Principles and Applications succeeds in providing a comprehensive yet user-friendly approach to laboratory hematology. The integration of basic and practical information will foster the development of effective laboratory consultants.

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