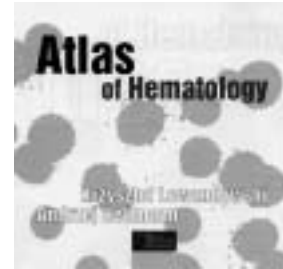


Lewandowski K, Hellmann A. Atlas of Hematology. Gdansk: Medyczne Wydawnictwo Multimediale[®], 2001. CD-ROM; price: US\$ 40.00



Field of medicine: Hematology.

Format: CD-ROM.

Audience: Hematologists and many other professionals in the biomedical field, such as clinical immunologists, allergists, oncologists, internists, pediatricians, biomedical researchers, as well as medical students.

Purpose: To provide a comprehensive review of the normal and abnormal hematopoietic cell morphology. The atlas was prepared by K. Lewandowski, MD, and A. Hellmann, MD, Professors of Hematology at the Department of Hematology, Medical University of Gdańsk, Poland. Probably due their teaching experience, the atlas is very suitable for undergraduate and graduate students to acquire the basic knowledge about the hematopoietic system. Also, the morphologic features and specific comments related to hematopoietic cells in the blood and bone marrow, collected within this atlas, can serve as a useful source of information for different professionals in the field of biomedicine.

Specification: The Atlas is provided on a compact disc. The program is very easy to use and has moderate hardware requirements: at least 32 MB of RAM, Microsoft Windows-based operative system (Windows 95, 98 or 2000, Windows Me or Windows NT), and CD-ROM 32x.

Content: Complete CD-ROM version of the Atlas contains about 700 microscopic high-quality images. The material is divided into two parts. The first one presents microscopic slides and description of blood and bone marrow cells, with images of various cytochemical staining methods. The second part describes blood and marrow cell characteristics in hematological diseases. The first part of the Atlas, containing of about 200 images, is dedicated to the morphology of normal and atypical cells of blood and bone marrow. The content is divided into several lineage categories: erythropoiesis, granulopoiesis, monocytic series, lymphopoiesis, and thrombopoiesis. Each category contains a short description and, typically, two microscopic images of each lineage maturation stage (e.g., proerythroblasts, basophilic normoblast, polychromatic normoblast, pycnotic normoblast, reticulocytes, and normocytes). For most lineages, there are images of abnormal smears (anisocytosis, polychromasia, and hypochromia) or features

(microcytes, macrocytes, megalocytes, elliptocytes, sickle cells, Howell-Jolly bodies, Cabot rings, and Pappenheimer bodies), accompanied by a detailed description and comments. The characteristics of normal cells are described, such as their size, shape, color of the cytoplasm, shape of the nucleus, granularity, type of chromatin, nuclear/cytoplasmic ratio, nucleoli, occurrence in blood and bone marrow, staining, and magnification. Images of abnormal cells are usually provided with a comment and definition, and data on occurrence, staining, magnification, and size. If appropriate, all cells within the given field are labeled with numbers and the feature of interest is marked by an arrow, which allows their prompt and exact identification. This part also includes a series of various cytochemical stains (peroxidase reaction, sudan black B reaction, PAS reaction, AS-D-chloroacetate esterase reaction, butyrate esterase reaction, toluidin blue stain, and Perls' stain). For each method, there are several images containing a comment and description of reaction product, occurrence, staining method, and magnification. Also, each window within the first part of the Atlas offers links to related images, contents, and find or help menu.

Individual hematological disorders are shown in the second part of the Atlas and are categorized into anemias, myelodysplastic syndromes, acute leukemias, myeloproliferative and lymphoproliferative syndromes, and metastases to the bone marrow. Each of the main sections is further divided into subsections depending on the disease described, e.g., myeloproliferative syndromes are divided into chronic myeloid leukemia, polycythemia vera, essential thrombocythemia, myelofibrosis, and eosinophilic leukemia. For each subsection (specific type of the disease), blood and bone marrow smears, as well as additional cytochemical stains, are described. All important terms in the descriptions, such as anisopoikilocytosis, micromegakaryocytes, disturbance in granulation, left shift, hypercellularity, blast crisis, cells hypoplasia, and hypoploidy of nuclei, are interactively linked to the relevant microscopic images accompanied with appropriate comments. For the last section, ie, metastases to the bone marrow, two images of bone marrow smears of adenocarcinoma of prostate, liver cancer, adenocarcinoma of the pancreas, planoepithelial lung cancer, small cell lung cancer, neuroblastoma, malignant melanoma, gastric cancer,

nasopharyngeal carcinoma, and metastatic cell of unknown origin, are given in addition to the description of blood and bone marrow smears.

Highlights: The content of the Atlas is very well organized, covering the major fields of hematopoietic system in health and diseases. Therefore, it is suitable for students to acquire the basic knowledge as well as for hematologists and other professionals as an easy-to-search remainder of some specific topic. This pocket-size Atlas on CD-ROM contains the similar amount of information as any hardcopy atlas of hematology, but is far easier to carry around. Also, it is clearly designed and easy to use, even for persons not skillful with computers.

Limitations: The Atlas is generally a valuable source of information, but there are some minor drawbacks. The first part of the Atlas is supposed to be dedicated to the morphology of *normal* blood and bone marrow, but for the most sections the abnormal

smears and features are also presented. Even more important is the fact that, for these abnormalities, comments do not offer the information on the specific condition in which particular atypical cells can be found. Although it is not a limitation by itself, some professionals would probably find it more convenient to search the hardcopy atlas of hematology instead of the electronic version.

Related material: In addition to the Atlas on CD-ROM, the Internet Atlas of Hematology (www.multimedia.pl) is available in English and Polish. The Internet version gives the access to about 200 images presenting the morphology of blood and bone marrow cells and, since recently, provides description of several clinical cases. Nevertheless, the complete version of the Atlas of Hematology, Medyczne Wydawnictwo Multimedialne[®] is published exclusively on CD-ROM.

Danka Grčević

Mason D, Simmons D, editors. Leukocyte Typing VII. Oxford: Oxford University Press; 2002. 945 pages; ISBN 0-19-263252-3; price: GBP 245.00

Field: Biomedical sciences.

Format: Hardcover book.

Audience: Researchers in the fields of biological and medical sciences, especially immunologists, hematologists, oncologists, cell and molecular biologists, as well as clinicians and pathologists interested in identification of white blood cells.

Purpose: The book comprises the proceedings of the 7th Workshop and Conference on Human Leukocyte Differentiation Antigens (HLDA) held in Harrogate, UK, June 19-23, 2000.

Content: This book presents the collaborative effort of more than 500 laboratories worldwide, which evaluated 1,000 monoclonal antibodies and their respective antigenic entities. The book is divided into seventeen sections. Thirteen sections, corresponding to the Workshop sections, deal with adhesion structures, B cells, carbohydrate and lectin, cytokine/chemokine receptors, dendritic cells, endothelial cells, myeloid cells, natural killer cells, non-lineage antigens, platelets, red cells, stem/progenitor cells, and T cells. Each of the sections starts with a report that briefly summarizes the Workshop process and results of the studies of the participating laboratories, followed by chapters dealing with studies of existing CD molecules, new CD antigens, and miscellaneous studies.

Four sections of the book cover important topics relevant to apoptosis and cell fate, clinical aspects of leukocyte molecules, new technologies, and struc-

tural/functional aspects of leukocyte molecules. At the end of the book, there is a list of Workshop antibodies, CD guide, and Index.

In their introductory remarks, Prof. Mason and colleagues highlight the tradition of HLDA Workshops, which dates back to early 1980s, when first HLDA Workshop was held in Paris. The process of classifying leukocyte antigens started with an international collaborative study of monoclonal antibodies recognizing white cell antigens that ended up with a list of fifteen agreed molecular entities. The Paris meeting created an internationally accepted basis for the classification and nomenclature of white cell antigens, the so-called CD-scheme. This book comprises the proceedings of the last (7th) meeting. It is also pointed out that the 7th HLDA Workshop adopted a different approach in categorizing monoclonal antibodies and their respective antigenic entities: instead of using "blind" antibody screening (ie, screening of coded panels of monoclonal antibodies), the antibodies were first selected on the basis of existence of at least some molecular data. In this way it was possible to avoid characterization of "new" antibodies that later proved to be of known specificity. In other words, the rule of establishing a new CD specificity on the basis of two independent antibodies of the same antigenic specificity has been changed: a new CD may be established for a molecule with a cloned gene and at least one antibody being studied in the Workshop.

The summary of the 7th Workshop introduced four new sections – dendritic cells, stem/progenitor cells, erythroid cells, and carbohydrate structures – and the collaborative work resulted in a total of more than 80 new CD entities identified (previous average was less than 30 new CD specificities per Workshop).

Highlights: The book is the standard reference source for all those working with antibodies recognizing marker molecules on the white blood cells. At a more practical level, identification and enumeration of white blood cells is of immense importance in various clinical settings.

The book is well organized and presented, which allows selective and flexible browsing of the topics. Numerous schemes, figures, and tables greatly contribute to the clarity of the text. All Workshop antibodies are listed by antibody (name), donor, alternative names, corresponding section, CD specificity, and Workshop codes, which facilitates orientation and

prevents the reader from getting lost. At the end of the book, there is a very useful CD guide, which summarizes key features of each antigen in numerical order. These features include molecular characteristic of the respective antigen, main cellular expression, function, list of ligands, specific clones (of monoclonal antibodies), selected references, and addresses of the websites for further information of each CD molecule.

Limitation: It is not likely that anyone will read the book from cover to cover, so the CD guide should be the best part of the book. Unfortunately, it is not complete because updated summaries for some CD antigens were not available at the time when the book was going to press, a fact that decreases the value of this section as a reference. Beside this minor notion, it is a tool that should be available to many medical professionals.

Klara Dubravčić and Drago Batinić

Weinstein RS, Alibek K. Biological and Chemical Terrorism. A Guide for Healthcare Providers and First Responders. New York: Thieme; 2003. 192 pages; ISBN 1-58890-186-6; price: US\$ 29.95

Field: Primary care, emergency, internal, and general medicine and infectious diseases.

Format: Softcover book.

Audience: Emergency and primary care physicians, general practitioners, specialists in the field of primary care, emergency medicine, internal medicine, general medicine, and infectious diseases as well as nurses or other firstline healthcare providers.

Purpose: To provide the latest and most up-to-date information and guidelines for identification and treatment of 43 biological and chemical weapons.

Content: The book starts with four very practical, quick-reference tear-out charts for bio- and chemical terrorism, and two tear-out sheets with internet resources and Centers' for Disease and Control and Prevention (CDC) telephone numbers. These are followed by six sections covering topics in bio- and chemical terrorism. Section 1 "Basic Bioterrorism" defines and categorizes biological weapons and explains the reasoning behind the production and/or use of such weapons. It also outlines the basic principles of identification of a suspected attack, and standard, accepted patient isolation precautions. Section 2 and 3 contain information on precautions that need to be followed for specific weapons used. Section 2 contains syndromic charts, covering such syndromes/symptoms as fever with arthralgias, petechiae, neurologic, acute GI or respiratory syndromes. Section 3

contains detailed individual biological weapon references in and alphabetical order, giving an overview of an agent, its incubation period and spread, its symptoms and clinical course, as well as its diagnosis, exposure prophylaxis, treatment, and possible isolation precautions. Section 4 "Basic Chemical Terrorism", and following Sections 5 and 6 give the same overview as Sections 1 through 3, but for chemical weapons. The book ends with a detailed Glossary for non-medical/non-healthcare first responders and an Index.

Highlights: Easily accessible cross-reference/tear-out charts, comprehensive descriptions of known biological and chemical weapons and the symptoms and clinical course after exposure, guide to identifying the agent, with practical point-by-point treatment steps.

Limitations: The only limitations are the constant and incessant advances in the approaches to any topic in medicine, as well as devising of newer and newer biological and chemical weapons.

Related reading: All symptoms, clinical courses, diagnoses, and treatments are referenced in detail, thus enabling a more in-depth study at a later time, ie, once the emergency is over.

Antea Topić