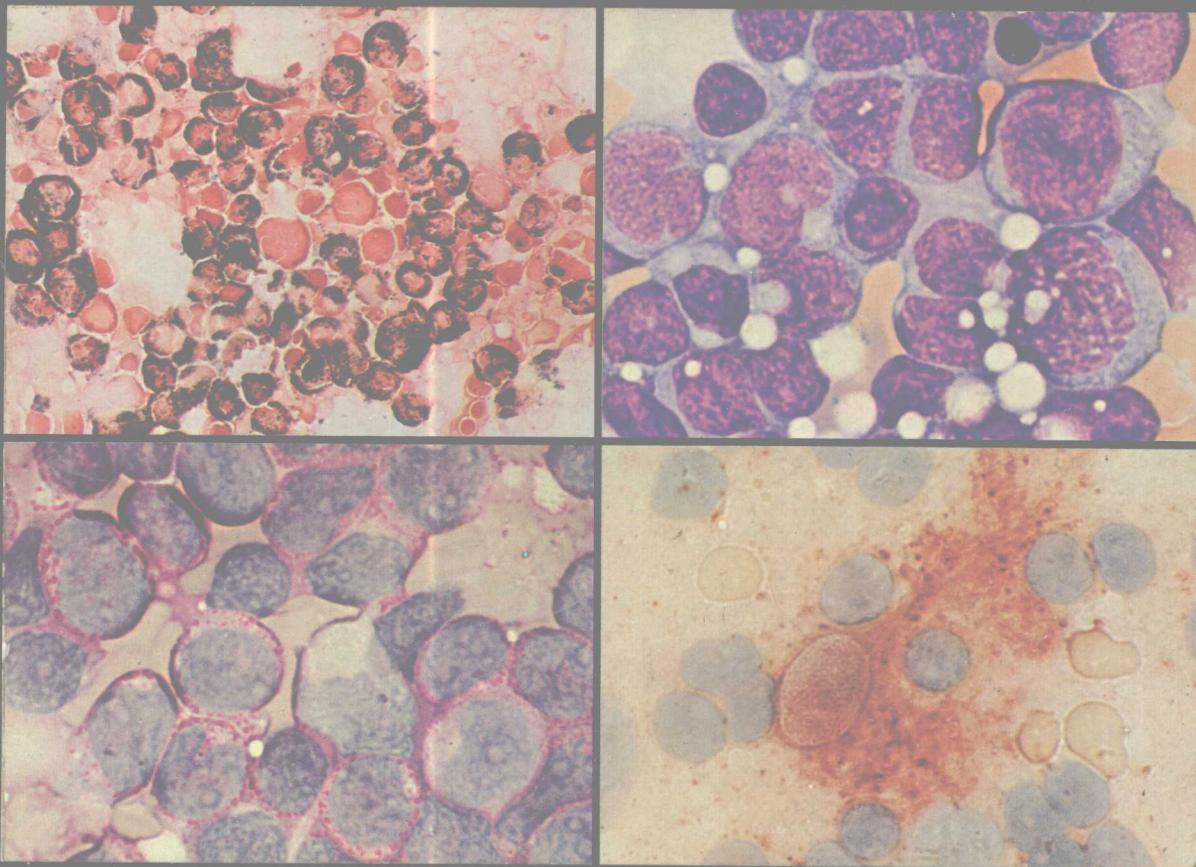


H.Begemann · J.Rastetter

# Atlas of Clinical Hematology

Initiated by  
L.Heilmeyer and H.Begemann

Third Edition



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H. Begemann J. Rastetter

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# Atlas of Clinical Hematology

Initiated by L. Heilmeyer and H. Begemann

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With Contributions on the Ultrastructure of Blood Cells  
and their Precursors by D. Huhn and  
on Tropical Diseases by W. Mohr

Translated by H. J. Hirsch

Third Completely Revised Edition

With 194 Figures in Color and  
34 in Black and White

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## Preface to the Third German Edition

Hematologic diagnosis is still founded on morphology. True, in the last decade our knowledge of the dynamics of cell regeneration and destruction, details of its function, its kinetic behavior, its immunologic purpose, its significance for coagulation, and much more has vastly increased. Nonetheless: hematologic diagnosis without clear morphologic support is impossible even now. Smear cytology, legitimate child of hematology, has proved resistant and viable for nearly a century. Its diagnostic value has not been curtailed even by a refined and technically perfected bone marrow histology.

The decision of the Springer-Verlag, to produce the third edition of this book by the offset technique and no longer by traditional printing methods, faced the authors with the necessity to provide new illustrations, at least of the photomicrographs. This gave us the opportunity to arrange the atlas according to present-day viewpoints. But we adhered to one fundamental concept: good watercolor reproductions which, despite all improvements of photomicrography — didactically better than color photographs — are meant to introduce the cytologically little experienced reader to morphologic hematology. In addition, typical syndromes with their variable morphology are shown in clear photomicrographs. Most of the illustrations painted for the first edition by HANS and THEA DETTELBACHER still proved to be a sound base for this Atlas. However, some tables had to be contracted, recast, or supplemented. Several changes became necessary in other chapters also. Among others, those sections were expanded and rearranged which deal with the cytology of lymphatic organs, especially the so-called nonHodgkin lymphomas, where we added a comparison of currently used nomenclatures to facilitate familiarization. More than hitherto, the diagnostically most important cytochemical methods have been discussed, which meant a not inconsiderable increase of color photomicrographs. The text of the whole book was concentrated but left so that the reader starting from smear cytology can pursue clinical diagnosis purposefully. The electron microscopic chapter was enlarged and more systematized, selected to impart basic knowledge of the ultrastructure of blood cells to the interested reader and thus better understanding of light microscopic findings. Additional clinical references also complete the chapter on tropical disease, so that the Atlas becomes even more a workbook for daily routine in this respect.

The third edition would not have materialized without the cooperation and the advice of many colleagues and coworkers. In the first instance, our thanks are due to our colleagues DIETER HUHN and WERNER MOHR, who

contributed considerably to the success of this book and conformed to our wishes without complaint. For supplying photomicrographs or preparations we thank our colleagues HEIMPEL — Ulm, HUHN — Munich, KAISERLING — Kiel, LOPEZ CARDOZO — Leiden, MÜLLER-HERMELINK — Kiel, and SEPP — Munich. Among our close fellow workers who helped us in the selection of preparations, but also by constant suggestions and criticism, we mention: ULRICH FINK, WERNER KABOTH, HARALD THEML and FRIEDHELM WOITINAS. JÖRG KÜHN, Heidelberg, proved a talented and sensitive artist who complemented the painted plates and where necessary, corrected them. We are obliged to all of them.

Dr. (Mrs) GUDULA WERNEKKE also deserves thanks here. She compiled the — in our opinion — exemplary index.

We owe grateful obligation to the management and staff of the Springer-Verlag. The management who did not shy from the economic risk of a new edition of so expensive a book and left us, the authors, a free hand as to the contents; the staff to whose taste and expertise the book owes its form. Pars pro toto, we list Dr. H. GÖTZE and Mr. W. BERGSTEDT, Mrs. Th. DEIGMÖLLER and Mr. E. ERFLING. Here, the personnel of the reproduction institute G. DREHER in Stuttgart and the University printers H. STÜRTZ in Würzburg must not be forgotten, by naming Messrs SÖLL and WEINGÄRTNER. They made it obvious again that high quality print can be achieved if good will, patience, understanding and technical know-how concur. The teamwork with all of them was always pleasant and not spoiled by any tension whatever.

The first two editions of this book met worldwide goodwill and appreciation, as documented by reviews and successful sales. That the third edition be accepted by our prospective readers in the same spirit is our wish today.

Munich, July 1979

HERBERT BEGEMANN · JOHANN RASTETTER

## Preface to the First German Edition

Medical practice has only to a modest degree accepted the diagnostic progress of smear cytology. Basically this is due to the available pictorial material being too stereotyped to enable the beginner to familiarize himself with this field. One of the main objects of this book is to eliminate this defect. We have therefore attempted to demonstrate the vast morphological range of individual cells pertaining to different diseases, both in the introductory figures and by numerous synoptical illustrations whilst discussing individual syndromes. Paintings were intentionally chosen by us as a basis for reproduction: the frequently praised photographic objectivity of colour photographs being extremely doubtful, chemigraphic reproduction would minimize it to a still greater extent. A further more important reason is that in the photomicrograph virtually only one plane is in focus. Furthermore the microscopist habitually alters the fine adjustment, thus scanning several planes in order to create for himself a tridimensional picture of a cell. By drawings it is however feasible to simultaneously obtain different cellular planes, thus being superior to photography in approximating to relations of subjective observation. We deliberately avoided reproducing cells in black and white; for the justifiable demands of histologists to guide the novice away from colour and towards structure are only rarely accomplished by smear cytology. The staining methods employed in haematology serve as colour foundation for the entire smear cytology to date. That is why the great majority of our figures is reproduced in the today almost universally adopted panoptic staining method of Pappenheim, but where necessary supplemented by special stains. For labelling individual cells line drawings are added in illustrations showing many different cells; in cytologically more uniform pictures certain cells are indicated by arrows, in conformity with a clock dial. E.g. "cell 6 o'cl." refers to an arrow pointing to 6 on the dial.

In the event of differences arising between the German text and foreign translations, the German text only is applicable.

To produce the colour plates we were most fortunate in obtaining the services of the University artist, Mr. HANS DETTELBACHER, Freiburg, who combines scientific gift of observation, technical precision and artistic empathy in truly genial fashion. Our foremost thanks is extended to him and to his no less gifted daughter Thea, who considerably assisted her father in his task. Without the cooperation of these two the present Atlas would probably never have been accomplished. We must further thank a number of our acquaintances and friends among investigators for scientific collaboration and provid-

ing preparations. Above all to mention Prof. Dr. HENNING and Dr. WITTE at Erlangen, Dozent Dr. LANGREDER, Mainz, Prof. Dr. MOHR of the Tropen-institut Hamburg, Priv.-Doz. Dr. MOESCHLIN in Zürich, Dr. UNDRITZ in Basle and Doz. Dr. KÜHN of our Freiburg clinic. We also thank our translators, namely Dr. HENRY WILDE of our Freiburg clinic for the English text, Dr. RENÉ PRÉVOT, Mulhouse, for the French text and Dr. EVA FELNER-KRAUS, Santiago de Chile, for the Spanish text. We must not omit to refer to the assistance of the scientific and technical collaborators of our haematological laboratory, among whom we should like to name pars pro toto mesdames HILDEGARD TRAPPE and WALTRAUD WOLF-LÖFFLER. Finally we wish to express our appreciation to the Springer-Verlag who initially encouraged production of this book, the technical perfection of which was assured by their famed generosity.

Freiburg, Spring 1955

LUDWIG HEILMEYER · HERBERT BEGEMANN

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