

Fifth edition

**Pinkus' Guide to
Dermatohistopathology**

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*This volume is dedicated to the memory
of Drs. Felix and Hermann Pinkus. Their
contributions to the progress of dermatology
spanned nearly a century.*



PREFACE

In the past decade we have witnessed great progress in dermatologic research. Enzyme histochemistry and immunopathology independent of or together with electron microscopy have provided avenues for further investigation of inflammatory skin diseases and reclassification of lymphoproliferative neoplasms and disorders of keratinization. Immunologic markers, applicable to fresh-frozen and formalin-fixed, paraffin-embedded tissue sections have given clues to cell differentiation and pathogenesis of various cutaneous tumors and have proved essential in differential diagnosis of some skin neoplasms. In this edition, a number of newly defined dermatologic entities have been included and all chapters have been

updated with the information from over 800 recent publications. Outdated material has been eliminated in order to keep this edition as handy as previous ones. In keeping with the teaching of Pinkus, we have continued to place in each chapter those diseases that show a similar pattern of tissue reaction or tumors that resemble each other and must be differentiated under the microscope. We are offering the fifth edition as a complete textbook of dermatohistopathology, as well as a guide for further individual study.

**Amir H. Mehregan
Ken Hashimoto**

PREFACE



Felix Pinkus, self portrait (left). Elastic fibers in normal skin (right).

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SECTION

FUNDAMENTALS AND TECHNIQUES

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own concepts. We hope that our specific aim in this book of showing students how to analyze their sections will be helpful for that purpose. Since this book is the fourth edition a number of books covering various fields in normal pathology have been published. A new edition of Lever and Soberg's *Textbook of Pathology* appeared in 1989 and a new edition of the *Atlas of the Skin* was edited by Dr. Fisher and Hodge in 1991. The annual *Journal of Cutaneous Medicine and Surgery* and *Journal of Cutaneous Medicine and Surgery* are also published.

In this edition we have revised the text by including over 800 new pictures and illustrations. Omission of many excellent illustrations was regretful, but the whole is meant to inform and teach. Not to give balanced credits to published work. A good number of new references concern the recent developments in immunopathology and application of various assays specific markers in different diseases of skin diseases and cutaneous neoplasms.

INTRODUCTION AND AIMS

This book aims to be a guide to the interpretation of cutaneous biopsy sections and therefore is arranged according to histopathologic similarities and differences rather than in conformity with any clinical system of skin diseases.

It has been our experience that dermatologic residents need a guide beyond the information offered in textbooks. They have to be shown how to look at a section, how to analyze it, and how to tell important pathologic changes from insignificant and coincidental abnormalities. Even before that, they have to be taught normal skin structure and how it appears in haphazard and not always ideally prepared sections. They have to learn to recognize the pitfalls of technical artifacts. Histologic diagnosis of skin diseases usually does not result from looking for individual features and adding them up mechanically. Students must realize that they see one fleeting moment in the pathologic process fixed and that each stained section is a random, two-dimensional sample of a three-dimensional organ and may not be representative of all the changes present in the biopsy specimen. They must examine multiple sections and learn to interpret what they see in the three dimensions of space and the fourth dimension of time.

Some very good pathologists frown on too much interpretation: "Describe and diagnose on the basis of objective data" is the motto of many. All histopathologic examination includes interpretation,

however, or we would be restricted to describing blue and red blotches rather than calling them epidermal cells, smooth muscle, or eosinophilic leukocytes. It is impossible to draw a distinct line between just enough and too much interpretation. What is called for is constant awareness of the distinction between observation and interpretation. One should not apply time-honored and worn expressions to histologic pictures but interpret them anew, when necessary, on the basis of lessons learned in many different fields: anatomy, experimental embryology, hematology, experimental pathology, biochemistry, and many others. The most profitable course is to observe first, then *consciously* to inject interpretation, and to point out to students as well as to readers of published articles why the interpretation is considered justified. Only then will we stimulate independent thinking and avoid being trapped in dogmatic statements.

All authors have personal opinions based on their education and training and the trend of their mental processes. This book, we feel sure, will be an outstanding example of such bias. We do not apologize, because all statements and interpretations are aimed at helping the student to make diagnoses by understanding what is going on in the tissue—or at least, what might be a reasonable explanation of the pathologic data in biologic terms.

We advise readers to consult other available texts frequently and to be elective in forming their

own concepts. We hope that our specific aim in this book of showing students how to analyze their sections will be helpful for that purpose. Since publication of the fourth edition a number of books covering various fields in dermal pathology have been published.¹⁻⁶ A new edition of Lever and Schaumburg-Lever⁷ appeared in 1989 and a new textbook, *Pathology of the Skin*, was edited by Drs. Farmer and Hood in 1991.⁸ The annual *Year Book of Dermatology* provides abstracts of and comments on current publications.⁹

In this edition, we have revised the bibliography by including over 800 new articles and omitting others. Omission of many excellent publications was painful, but the *guide* is meant to inform and teach, not to give balanced credit to published work. A good number of new references concern the recent developments in immunopathology and application of various tissue specific markers in differential diagnosis of skin diseases and cutaneous neoplasms.

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