

Preface

Ten years have elapsed since the appearance of the first edition of this book, and since then a number of advances have been made in the field of diagnostic pathology. New and improved techniques have contributed to our diagnostic armamentarium and to our general understanding of various disease processes. In the field of neoplasia, immunohistochemistry has become a routine procedure in most departments of pathology. Flow cytometry has become an efficient technique for measuring ploidy, and molecular biological methods such as DNA and RNA hybridization and polymerase chain reaction (PCR) have made it possible to identify specific genetic markers for various hereditary, neoplastic, and infectious diseases. The importance of these innovations in pathology is duly recognized, but, at the same time, they have limitations, and traditional morphological studies still comprise the backbone of the pathologist's work. In this latter group of studies we include electron microscopy, which has continued to be used selectively in diagnostic workups of neoplastic, renal, neuromuscular, infectious, hereditary, and metabolic diseases. In our own experience, electron microscopy has been especially valuable in complementing immunohistochemistry or in superseding immunohistochemistry when the latter is equivocal or nonspecific.

Aside from the practical application to diagnostic work, electron microscopy has been a valuable tool for educating residents and staff. It reveals cells and tissues at very high magnification, making cell surfaces and interiors visible beyond the limits of light microscopy, a seemingly important experience in the study of normal and diseased states. The omission of this basic morphological step in the training and continuing education of pathologists would be, in our opinion, a serious deficiency.

In this second edition, we have retained the style and core components of the first edition but have updated the text and bibliography, added new topics, and replaced and supplemented photographs appropriately. The result has been a larger book and, we hope, one of broader applicability.

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