the modern clinical laboratory has become increasingly important to patient care. Some would argue that it has even become too important, and that modern physicians are unduly preoccupied with laboratory data, with resultant loss of their basic clinical skills of taking a history and performing a physical examination. Most would agree that the burgeoning use of clinical laboratories has been a factor in the astronomical rise in health care costs over the past decade. If our own drive to become better physicians is not sufficient incentive for us to use the laboratory more efficiently, the pressures of new health care cost-containment measures make it a necessity.

Many guides to use of the laboratory exist. Unfortunately, almost all are unreadable. This volume is a welcome exception. It is a guide designed with the clinician in mind. Chapters are organized around clinical specialties. They are written by clinicians for other physicians who do not have specialized knowledge of the particular field. Each chapter is supplemented by useful tables and graphs summarizing the diagnostic schema suggested. Particularly outstanding are the chapter on hematology by Peter McPheidran and the chapter on blood gases and acid-base disturbances written by Harvey Mandell and Margaret Bia.

Having used this guide daily for the past three months, I can recommend it without reservation. House staff and practitioners of all medical specialties will find this a useful reference that they will want to consult often.

Stephen L. Sigal
Intern in Internal Medicine
Yale–New Haven Hospital

Recent Advances in Histopathology 12. Edited by Peter P. Anthony and Roderick N.M. MacSween. New York, Churchill Livingstone, Inc., 1984. 293 pp. $33.00. Paperbound.

The reader seeking a basic pathology book has started reading the wrong review. Anthony and MacSween's Recent Advances in Histopathology does not pretend to fulfill the needs of those seeking to master the basics of histopathology. Instead, the editors have compiled a selective collection of reviews on a number of specific topics in histopathology, areas they feel have only recently been elucidated.

The topics discussed range from apoptosis, a form of necrosis, to cell proliferation, from lymphoproliferative disorders of skin, to non-missile head injuries. Twelve different areas are presented; the discussions are interesting, clear, and concise. To comment that some of the reviews are too detailed in their histopathology for anyone but a specialist in the field or a specialist-to-be shows not so much that one is perceptive as that one is reading the wrong book.

Although the quality remains high throughout this volume, the sections on liver disease and gastrointestinal pathology are truly outstanding. These sections are divided into expert discussions of sclerosing cholangitis, angiodysplasia, gastrointestinal polyps, pancreatitis, and the relationship between hepatitis and liver carcinoma. One is hard pressed to find a crisper, more concise, or more interesting presentation. All the reviews in this volume have extensive references, useful to the reader who finds the review format insufficient.
Finally, the pictures warrant comment since an excellent book on histopathology without excellent pictures is a contradiction in terms. In an ideal world all microscopic pictures would be in color. In this world, all the pictures in this volume are black and white. However, the pictures have clearly been well selected for their quality, which is quite good, and they more than adequately complement the text. In fact, they should satisfy all realists, and quite a few idealists, too.

ANDREW COSTIN  
Medical Student  
Yale University School of Medicine

CELLULAR AND MOLECULAR BIOLOGY OF NEOPLASIA. Edited by Tak W. Mak and Ian Tannock. New York, Alan R. Liss, 1984. 214 pp. $58.00.

Although we have a number of model systems for studying the causation of cancer, the factors which lead to human malignancy are not clear. As one paper in this volume explains, "the pathogenesis of neoplastic transformation is an intriguing subject, long on phenomenological detail, but short on mechanistic understanding" (Paterson et al., p. 45). Epidemiological investigations have shown that certain tumors seem to occur in familial clusters, suggesting that inherited traits may cause tumor susceptibility. Studies of well-defined large pedigrees have implicated genetic factors in breast, colon, and prostate cancer among others.

Unquestionably, environmental factors influence the incidence of malignancy as well. For instance, the presence of aflatoxins in the diet has been associated with the development of hepatic tumors. The elucidation of these associations gives hope that many cases of cancer may in fact be avoidable.

Whether a tumor is caused by a genetic factor or an environmental factor, or, more likely, a combination of the two, the ultimate insult must be at the cellular level. Investigations of the cancer cell have concentrated on the nucleus, where alterations in DNA repair and metabolism, malformations of chromosomes, and mutations in the DNA sequence have all been implicated. Furthermore, any change in DNA must be manifested at the protein level before the malignant phenotype is evident. Thus, alterations in nucleotide binding proteins, tyrosine kinases, and other critical enzymes have all come under scrutiny.

Cancer research is so fascinating, aside from its potential benefits to humankind, because it encompasses such a wide range of investigations: from molecules to populations. All of this is in the hope of better understanding the fundamental properties of growth and differentiation. The proceedings of a symposium on the cellular and molecular biology of neoplasia held in the fall of 1983 were published as a supplement of the Journal of Cellular Physiology. The present volume is a handsomely prepared bound version of that collection.

The 21 papers which comprise the book cover all of the above-mentioned topics and more. That this book covers so much breadth with little depth is an advantage rather than a shortcoming. Individual papers rapidly become eclipsed by new studies; the present collection, however, by virtue of the diverse areas it presents, seems to remind one of the fascination of this field. Cancer research has become too broad for a scientist to keep track of current findings in all areas. This volume provides an excellent panorama of current work, not as an encyclopedic review, but rather as a brief survey of the numerous approaches being used to understand the workings of the cell.