leukaemia and with those which are attributable to therapy.

Very occasional typographical errors and minor disagreement with some statements do not detract significantly from its value. While the standard of the black and white illustrations is very high, colour would have been advantageous. However, the cost of the latter in such a lavishly illustrated volume may have completely precluded its publication, and this would have been a pity. The book should be available to all pathologists interested in leukaemia, while there is much of interest to the clinical haematologist.

E. K. BLACKBURN

PERSPECTIVES IN LEUKEMIA Edited by William Dameshek and Ray M. Dutcher. (Pp. vi + 302; illustrated. \$12.50.) New York and London: Grune and Stratton. 1968.

This volume represents the first of a series of symposia organized by the Leukemia Society of America and held in December 1966. The object of the symposium, namely, to present a picture of the whole gamut of leukaemia ranging from incidence and aetiology to physiopathology and therapy, has been achieved by a variety of distinguished authors. Welcoming remarks and summary are provided by Dameshek in his inimitably stimulating manner.

Clemmesen, reviewing the epidemiological situation on the basis of experimental, clinical, and statistical evidence, also makes valuable suggestions for future work. Dutcher's review of viruses as aetiological factors is followed by Dmochowski's account of ultrastructural studies using the electron microscope. The observations on a murine sarcoma-leukaemia virus complex by O'Connor deal with possible methods by which viruses might act at cellular and molecular levels to induce leukaemia. Sachs further discusses the mechanism of leukemogenesis, while Huebner's work suggests that secondary viruses may be necessary to help the primary virus to develop leukaemia. His presentation, together with that of Bryan, underline the complexity of the situation. Cytogenetic considerations of Hirschhorn are followed by an intriguing immunological presentation by Armstrong and his colleagues. The kinetics of leukaemic cell proliferation are ably presented by Cronkite, and succeeded by Skipper's work on 'curability' of experimental leukaemias. Then follow chapters on progress in the treatment of leukaemia, immunotherapy, and curability of lymphoblastic leukaemia by Holland, Southam, and Mathé and his colleagues respectively. Last, but by no means least are Hilleman's thoughts on the prophylactic approach. Useful references and discussion follow the main presentations.

This book should be on the shelves of all those interested in research into leukaemia. Even at its relatively high price, it is good value for money.

E. K. BLACKBURN

THE PERIPHERAL BLOOD FILM By Trevor A. Harper. (Pp. 127. 28s.) London: Butterworths. 1968.

This small pocket book is very elementary in its approach. It sets out the normal blood cells which are so well known

and then shows some abnormalities. It is always irritating to see pictures of red cells with such enormous variation in magnification, even on the same page. This makes it difficult for the beginner, for whom this book is presumably written, to comprehend the difference between macrocytes shown under a low magnification (Fig. 18) and microcytes under a higher magnification (Fig. 10), as the relative sizes are reversed!

The later chapters are potted haematology which are not recommended for pathologists although there is quite a lot of baldly stated information gathered into them.

A. GORDON SIGNY

HORMONES IN BLOOD 2nd ed., vol. 2. Edited by C. H. Gray and A. L. Bacharach. (Pp. xvii + 686; illustrated. 150s.) London and New York: Academic Press. 1967.

The growth of endocrinology since 1960 has led to this second edition becoming two volumes. As before, each chapter, by a different author, deals with a different hormone. This volume corresponds to chapter 11 onwards of the first edition (and so is mainly steroids) with six additional chapters—three on methods, the others on aldosterone, renin and angiotensin, parathyroid hormone and calcitonin. All but one chapter (oestrogens) are by new authors so this is virtually a new book.

The chapters on spectrometry, GLC, and TLC concentrate upon the advantage and limitations of these methods and include enough about instrumentation technique to serve as an introduction to practical manuals or to the original literature.

An extensive background is given to each hormone chemistry, biosynthesis and catabolism, control mechanisms, and in some cases detailed discussion of the dynamic aspects of the plasma concentration. Further, some of the authors have interpreted the measurement of blood concentrations in a very liberal manner: cortisol and aldosterone secretion rates slip in as 'indirect methods'. In short, the theme of hormones in blood has been used as a peg on which to hang some good reviews of contemporary problems in steroid endocrinology and the result, either by design or happy accident, is a textbook which admirably complements other recent publications in the steroid field. Separate bibliographies for each chapter are extensive, but do not give titles. They are, however, remarkably up to date for such a large volume.

Multiple authorship brings hazards which this book does not entirely avoid. Inevitably each chapter is dealt with in isolation. Yet there are many problems of endocrine physiology in which lessons from one hormone can be applied to others. Thus the book would be improved by a general account of the relationship of blood analyses to other methods. Two characteristics of hormone are important to the clinical pathologist: the concentration at the tissue receptors and the production rate. Concentration in blood and the rate of excretion of urinary metabolite are, respectively, approximations to these.

This consideration makes it important to define 'endocrine function' when one sets up blood analyses as 'better' than urine analyses.