There are, therefore, grounds for questioning some of the conclusions reached in the monographs. Nevertheless, in the wake of the Health and Safety at Work Act in this country and similar legislation in the United States and elsewhere, this collection of monographs is extremely useful in pointing the finger at carcinogenically hazardous and suspect chemicals and in providing summaries of available relevant information.

F. J. C. ROE

Chromatographic and Electrophoretic Techniques. Volume 1. **Paper and Thin Layer Chromatography**, 4th edition. Edited by Ivor Smith and J. W. T. Seakins. (Pp. ix + 465; illustrated; £9·00.) London: Heinemann Medical Books. 1976.

The fourth edition of this wellknown book, now co-edited by Drs Smith and Seakins and with a number of new contributors, has been entirely rewritten. Although only half the size of the previous volume, nothing of value has been lost and the clear presentations of technique now make it a very valuable laboratory manual. The introduction includes a section on the early history of chromatography and this enables one to set in perspective the modern techniques which are used in areas such as screening for inborn errors of metabolism and toxicological analyses. Most of the applications described are taken from clinical biochemistry and toxicology but the very explicit practical information given will allow the application of these techniques across the field of biological sciences. I feel this book must be considered essential in all clinical chemistry laboratories.

BRENDA M. SLAVIN

Molecular and Cellular Mechanisms in Disease. Parts 1 and 2 (not available separately). By Julien L. van Lancker (Pp. 1168; illustrated; US $148·50) Berlin: Heidelberg: New York: Springer-Verlag. 1976.

This attractively presented two-volume textbook of pathology is a mammoth undertaking for a single author. It is well illustrated by electron micrographs and black-and-white tissue photographs collected over a 20-year period; there is also good use of figures and diagrams to illustrate the pathological basis of disease.

In 16 chapters, starting with 'Cellular Sources of Energy' and ending with 'Cancer', the author covers a wide range of pathology which is presented as a mixture of biochemistry, molecular biology, and tissue pathology. This provides a vast amount of information, which is often given a short historical perspective, but it is difficult to read except as a reference textbook.

Inevitably a text of this scale suffers the lack of depth of the single-author approach, and postgraduates will prefer shorter, more specialised texts or similar textbooks of multi-author origin. Nor is the text or price appropriate for the undergraduate.

J. STUART

British Medical Bulletin, Volume 32, No. 3, September 1976, **Haemoglobin: Structure, Function and Synthesis.** Edited by D. J. Weatherall (Pp. 193-292; illustrated; £3·00, $9·00) London: The British Council Medical Department. 1976.

This number of the Bulletin is devoted to selected aspects of current haemoglobin research in the United Kingdom. The 14 papers include such aspects as molecular structure, oxygen binding and altered affinity, measurement of globin gene number, control mechanisms of globin synthesis, globin messenger RNA, erythroid cell differentiation, and intrauterine synthesis of haemoglobin. There are also the obligatory sections on thalassaemia, sickle-cell disease and unstable haemoglobins. It offers good value and essential reading for the specialist with a major laboratory or clinical interest in the evolving saga of the haemoglobin molecule.

J. STUART

Dermatological Photobiology. By I. A. Magnus. (Pp. xii + 292; illustrated; £9·75.) Oxford: Blackwell Scientific Publications. 1976.

Photobiology impinges on a sizable part of dermatological practice; it also relates to topics in general medicine, such as porphyria and vitamin D synthesis, and it even involves the general practitioner who has to arbitrate on the dinner-party chit-chat about supersonic cancers. The timing of Professor Magnus' book is therefore excellent; so, in general, is the book. It gives a mostly clear, practical, and theoretical account of the subject with a good bibliography for further reading. Professor Magnus has himself worked in the field for many years and his views are based on a deep understanding born of a close contact with the subject. Inevitably the book does suffer from the drawback of accounts written by those who have themselves contributed to the story, and that is a tendency to unbalance it. Thus the stunning new findings on ultraviolet radiation and DNA repair are dismissed in just over twice the space spent on the history, mostly nomenclatural of polymorphic light eruption (which, after a scathing attack on the pseudoclassical ancestry of clinical scientific jargon, is surprisingly called PLE in deference to a barren contemporary firstletterese); the prostaglandin story is likewise brief. In these rapidly moving fields the account is a little dated (and so occasionally is the writing, with its academic baroque—'the author of this book . . .', '. . . . the present author'—academic olympian—'skin responses that seem to be photosensitive may, one supposes, be of various origin (a) . . .', or academic popular—the charming Boy's Annual account on page 33 of how to demonstrate phosphorescence). But these whims of the personal approach are not important; in fact my main disappointment was that we do not have enough of Professor Magnus' own views: for me there was a lack of personal synthesis. From Professor Magnus' great expertise in the field I had hoped for more resolution of problems on the one hand and more controversy on the other. For example, with few notable exceptions, the monochromator in (diagnostic) practice is a disappointment. Why? I have my own personal explanations but I was hoping to find a more critical discussion. Again, to take a few points at random, I would have liked a much sharper discussion of β-carotene therapy, lysosomes, screening tests, and the Tyndall effect. Professor Magnus has shown in other sections of the book that he is able to give such a critical review and I hope that he will extend this in the next edition, which I am quite sure will be called for.

S. SHUSTER

Microbiological Methods, 4th edition. By C. H. Collins and Patricia M. Lyne. (Pp. 521; illustrated; £9·50.) London: Butterworths. 1976.

This book had three editions within six years of its original publication, but a further six were to elapse before the appearance of the present edition. It was

therefore inevitable that the book would have to undergo extensive revision. It is now confined largely to the technical aspects of the subject and has been improved by considerable reorganisation. There are three more contributors, and many chapters have been fundamentally rewritten.

Although the book covers clinical microbiology, it is in fact heavily biased towards public health work and microbiology in the food industry and veterinary medicine, which inevitably results in the inclusion of many methods and species of little interest to the hospital microbiologist. A lack of clinical experience is also sometimes apparent, for example, *Proteus vulgaris* and not *Proteus mirabilis* is said to be a frequent cause of urinary tract infections, and the increasingly common infection of this site by micrococci as distinct from *Staphylococcus epidermidis* is not mentioned. At £9·50 the book is expensive, and clinical microbiologists may be reluctant to pay this for a book containing so much which does not concern them, but it will be a useful addition to the bookshelf of any laboratory, particularly those concerned with public health.

PAMELA WATERWORTH

Heparin. Chemistry and Clinical Usage. Edited by V. V. Kakkar and D. P. Thomas. (Pp. xv + 376; illustrated; £9·50.) London: Academic Press. 1976.

In his foreword, Professor Sol Sherry states that this monograph represents the edited proceedings of an international heparin symposium held in London in July 1975. The volume is more than a group of related research papers. It is an organised collection of comprehensive and up-to-date reviews together with a reasonable sprinkling of carefully selected original papers. The book is printed in off-set style with hard covers and has been published in a relatively short period of time. Needless to say the 50 or so contributors are recognised experts in their fields. The first section is on the chemistry of heparin and contains chapters on its chemical and crystalline structure, different molecular forms, and an important chapter on standardisation. The next section on heparin and coagulation contains a notable review on the biochemistry of prothrombin activation as well as contributions on the action of heparin, heparin and platelets, and lipoprotein lipase and heparin. A useful chapter on streptokinase, a little out of context, is also included. Finally, there are two substantial sections on the clinical use of heparin and clinical trials. These sections contain much of interest, including chapters on the control of therapy, treatment of venous thrombosis and pulmonary embolus, and the use of heparin in disseminated intravascular coagulation and renal disease as well, of course, as on the low-dose regime in surgical prophylaxis. The editors are to be congratulated on their excellent choice and the contributors for producing what is in effect a textbook on heparin. Although expensive, by present-day standards it represents very good value for money.

A. L. BLOOM

Mechanisms in Bacterial Toxinology. Edited by Alan W. Bernheimer. (Pp. xi + 263; illustrated; $19·00.) New York: London: Sydney: Toronto: John Wiley. 1976.

Dr Bernheimer concedes that it may not be possible to transform a large number of disconnected facts and hypotheses into a small number of far-reaching principles. He adds to the complexity by embracing a wide assortment in his term 'toxinology', but he gives us a stimulating selection of growing points. These range from authoritative discussions on diphtheria toxin, cholera enterotoxin, and other enterotoxins to a careful review of microbial phospholipases and thoughtful considerations of the actions of bacterial products at cell membranes and in the skin. The limulus test for endotoxin is evaluated, and the antitumour activity of certain streptococci is speculatively and provocatively discussed.

J. G. COLLEE

Practical Immunology. Edited by Leslie Hudson and Frank C. Hay. (Pp. xvi + 298; £6·50.) Oxford: Blackwell Scientific Publications. 1976.

This book will be of value to students and supervisors engaged in elementary courses in immunological techniques; it is unlikely to have a much wider appeal. In covering such a vast field the authors had to be selective. However, the technology they chose for detailed description is clearly presented. Many sections are introduced with well-explained theoretical considerations. The text deals largely with the mouse as the experimental prototype but it would have been helpful if the modifications for use with human tissue had been included. Thus clinicians will find this book of little value since it gives only passing reference to immune deficiency, hypersensitivity states, recognition of organ-specific antibodies, the monitoring of immunosuppression, and tissue typing. These considerations were probably not the authors' intent, nevertheless the title (Practical Immunology) is a little deceptive; possibly 'Elementary Immunological Techniques' would have been more appropriate.

A. B. KAY

Rheology of Blood in Diagnostic and Preventive Medicine. An Introduction to Clinical Haemorheology. By Leopold Dintenfass. (Pp. xiv + 396; illustrated; £13·50.) London: Butterworth. 1976.

Dr Dintenfass believes that rheological phenomena should be understood by those who are interested in the diagnosis and prevention of both cardiovascular and malignant disease. He describes the blood viscosity changes in these conditions in very great detail and relates viscosity to blood groups. There are also short sections on haematological disorders with descriptions of sickle-cell anaemia and macroglobulinaemia. A useful appendix on instrumentation is included.

This book will be of particular interest to research workers since it includes numerous graphs and tables of results. The author raises many points which rheologists will debate and his monograph will serve as a useful stimulus.

J. M. ENGLAND

Color Atlas and Textbook of Tissue and Cellular Pathology. 5th English edition. By Walter Sandritter. (Pp. xviii + 301; illustrated; £19·50.) London: Lloyd-Luke (Medical Books). 1976.

This collection of light and electron microphotographs has been compiled for medical students and those beginning a career in pathology. The photographs are, with few exceptions, good, and it is pleasant to browse through such a collection. However, in the rather full accompanying text there is little functional correlation, and the approach is excessively morphological, which is a poor beginning for junior pathologists. The book is expensive, reflecting the high