The authors comment as follows:

Mr Dorling's suggestion that the indirect conjugate method using peroxidase should be no less sensitive than the antibody bridge method using PAP appears to be a logical deduction from the papers that he quotes. It is not, however, in accord with our finding that the indirect conjugate method (using peroxidase) was markedly less sensitive than the PAP sequence.

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References


In May 1976, the Canadian Hepatic Foundation brought together in Toronto a panel of experts for an interdisciplinary appraisal of the current knowledge of the action of alcohol on the liver. The 16 papers given, together with discussions and a general summary, are now published under the present title.

A major part of the symposium was dedicated to the biochemistry, pathology, and immunology of the hepatic events that are initiated by alcohol. These topics were, quite appropriately, put into perspective by an opening contribution on the epidemiology of cirrhosis of the liver and two concluding papers on the history and management of alcoholic liver disease.

The metabolism of alcohol and the effects of alcohol on hepatic metabolism are dealt with in seven parts. They are informative and readable but might have been more rewarding had the authors made up their minds between a review and a research paper. The topics were well chosen, although the readers of this journal will regret the absence of an account of the current thoughts on the clinical biochemistry of alcoholic liver disease. The general discussion raises some important questions connected directly or indirectly with the use of animal tissue preparations and models and the relevance of the results obtained to man. Lieber, Rubin, and Cederbaum give in two sections a comprehensive account of the alcohol-mediated functional derangements of hepatic organelles and the role these may play in the pathogenesis of liver diseases. Readers who are conversant with the literature on alcohol will recognise parts of these reviews and also note the lack of any distinct progress in this field in recent years. Maybe we should give the baboon model a bit more time. The sections on histopathology and immunology will be welcomed even by those without any specialist training in these fields. In the last two articles, attention is given to the history and management of alcoholic liver diseases as if to ensure that researchers do not lose sight of the real problem. They should be of general interest. The summary of the symposium by Hans Popper is excellent, and his remarks are thought-provoking.

The editors have succeeded admirably in their task and produced a well-balanced and useful book.

J. CHAKRABORTY


This book presents the 22 papers given at a symposium, held in Florida in April 1976, which followed from the series of symposia held in Geneva on quality control in clinical chemistry. It suffers from the lack of a central theme, and, despite the title, there is little on quality control. The subjects covered include the diagnostic uses of enzyme assays in myocardial infarction and vitamin B deficiency, evaluation of enzyme methods and coagulation tests, and the problems of defining reference intervals. Several of the papers are readable and informative, but most of the information is available elsewhere in the literature.

P. M. G. BROUGHTON


This is the second edition of an established textbook for students taking a short introductory course in biochemistry.

It is divided into five parts: the chemistry of biological material; dynamics and energetics of biological systems; energy production in biochemical systems; energy utilisation in biochemical systems; and metabolic control. It retains a traditional approach, emphasising metabolism rather than molecular biology. This is a well-proved way of teaching elementary biochemistry, but it results in occasional passages with a slightly old-fashioned air, perhaps made more noticeable by contrast with the excellent modern illustrations and diagrams.

Personal judgements differ on what should be included and omitted from an elementary textbook, but many would dissent from the author's decision to cover carbohydrate chemistry in such detail and would doubt the value of including items such as osazone formation in a book where prostaglandins have to be dealt with in one paragraph.
Book reviews

Considered as a whole, however, the book is a straightforward account written by an obviously experienced teacher, who explains the elements of biochemistry simply and clearly. It does well what it is intended to do: to put over the essentials of biochemistry in a concise but readily comprehensible way. It covers some plant biochemistry, for example, photosynthesis, and, like all biochemistry textbooks, has to rely for some of its evidence on microorganisms, but it is written in general terms with a leaning towards mammalian biochemistry.

It can be recommended as a readable account with few frills which would serve as a good basis for more specialist studies.

G. A. J. Pitt


This slim book is intended as a guide, primarily for medical students. It covers the field of clinical endocrinology, more space being devoted to the more common diseases than to the less common conditions. It is not laboratory orientated and must therefore be looked upon as an accompanying volume, in which the more clinical aspects of endocrinology are described, rather than a book of direct use to the laboratory worker.

In a book of this size much has of necessity been omitted, and some of the approaches to investigation are limited in scope—for example, the investigation of infertility and the investigation of fetal well-being throughout pregnancy. It is, however, logical in its approach to the subject and has an easily readable text. It will undoubtedly contribute to the student's understanding of endocrine disease.

G. W. Pennington


These two volumes are the first of a series which is aimed at keeping readers up to date with new concepts and technologies in the area of isoenzyme research. Since their first clear identification in the late 1950s and early 1960s, isoenzymes and other multiple forms of enzymes have come to occupy an increasingly important place in biochemistry and clinical medicine. Although the most obvious practical impact of isoenzymes on medicine has been in the extension of the value of diagnostic enzymology, important fundamental advances in the understanding of genetically determined disease have also resulted from isoenzyme characterisation. The constantly growing literature on isoenzymes has made it very difficult even for the specialist enzymologist to maintain a comprehensive view of the subject, while this becomes an impossibility for the practising clinician. Therefore, selective and authoritative reviews, such as those presented in the present volumes, are potentially capable of filling an important gap in the scientific and medical literature.

The relevance to clinical medicine of the reviews in volumes such as these is clearly likely to be variable. However, several of the chapters in volumes 1 and 2 of this series are of considerable clinical interest. A review of developmental changes in the electrophoretic patterns of enzymes and other human proteins by Y. H. Edwards and D. A. Hopkinson, of the Galton Laboratory at University College, London, is one such, and, like all contributions from that laboratory, it is amply documented with up-to-date references and lists of isoenzymes for which developmental changes have been reported. The isoenzyme complement of tests and spermatozoa is surveyed by E. Goldberg, and this provides a useful summary of what is often a neglected subject. Articles concerned with more fundamental aspects of isoenzymes deal with structural constraints on enzyme polymorphism (G. B. Johnson), intracellular turnover of isoenzymes (P. J. Fritz and P. R. Pruit), and evolution and regulation of carbonic anhydrase isoenzymes (R. E. Tashian). The development of knowledge of isoenzymes has been critically dependent on the availability of appropriate experimental techniques, and new advances in this area include the separation of isoenzymes using affinity electrophoresis (described by D. M. Swallow) and genetic and structural dissection of human isoenzymes and enzyme defects using somatic cell hybrids (T. B. Shows). The latter of these two chapters, in particular, brings together much information which otherwise is scattered throughout the scientific literature.

Although the papers in these two volumes will differ in their appeal to clinicians and others interested in isoenzymes, their standard is such as to encourage the hope that this series will provide a valuable source of up-to-date reviews in this still expanding field.

D. W. Moss


This volume is a review of the literature up to May 1977. Those familiar with the series will not expect any dramatic change in the long-established format and style.

The editors have repeated last year's experiment and started the volume with a quiz of 50 questions which can be answered from the abstracts. Then follows an editorial exhorting pathologists to accept greater clinical involvement and increasing subspecialisation as requirements for survival. The editors demonstrate these precepts by trebling the number of associate editors involved in the next 60 pages covering General Pathology and the 155 pages reviewing Systematic Pathology. The last section of 160 pages is devoted to the various subdivisions of Clinical Pathology.

Most of the articles abstracted are from American and British journals, with a small number from other European sources. The final product is the usual interesting potpourri, enlivened by editorial comments. The individual volume can hardly be considered a useful investment, being little more than a tempting glance at a variety of selected aspects of the specialty. It is, however, part of a series devoted to the continuing education of pathologists, and our libraries should be encouraged to continue their subscriptions despite yet another modest rise in price.

G. Birchall


It is not often that a textbook can be recommended without equivocation or hesitation but this is such a book. As the reviewer I have derived considerable pleasure from a book which is destined to become a 'must' for every scientific worker