and in the same place are a rarity. Generation of antibody diversity is updated to include knowledge of gene-splicing events as current in 1980.

As in any text, there are omissions. For example, the Jerne network theory is only briefly explained, with no diagram at all. It is also surprising that in a volume of this size the logistics of monoclonal antibody production and the hybridoma technique are given less than a page. Similarly the paragraph on the thermodynamics of antigen--antibody complex formation would not satisfy readers with a background in protein interactions.

One feels that there is some repetition between the nine chapters of the immunopathology section and the relevant chapters on types of immune response; this is not entirely a bad point, as each of the two sections can be read independently. The glossary of terms is perhaps less than essential; this space could usefully be filled with an expanded index, the latter having about 2200 entries.

A welcome section is a comprehensive list of all abbreviations used in the text; these are peculiarly prolific in modern immunological jargon and are a stumbling block to those fresh to the field.

Priced at £52.00 this book is beyond the pocket of the individual student. However, it will undoubtedly find a place in the departmental reference collection level, where it will surely not collect dust on a top shelf.

PHILIP J. WARD

Nutrition for Medical Students

ARNOLD E. BENDER and DAVID A. BENDER
John Wiley and Sons, New York, 1982, pp. 379, £16.00

Loud complaints are sometimes heard about the low level of the nutrition content of the medical course, and the vigour of these complaints is usually inversely related to experience in teaching medical students. Nutrition is a feature of medical training of necessity, but it is rare to find it considered as such. The biochemist, physiologist, physician and surgeon all teach nutrition as an essential part of their course towards medical qualification, and because it is fragmented like this it is useful to have a book which brings all these aspects together.

Though this book is written by father and son biochemists, it is a reasonably well balanced approach to the subject. The early parts of the book are rather dull to read, as they contain numerous tables containing information which is of reference value only. There is also, in later parts, a tendency to give the reader the detailed formulae of vitamins etc., which students would not reasonably be expected to know.

The later chapters are much more readable and give very balanced accounts of topics in nutrition which are only too often subject to emotional judgement. For example, the section on obesity is a model in its coverage of the problems of aetiology and treatment, as is the coverage of vitamins and minerals.

As to be expected in a first edition, there are minor points that any reviewer will pick up, such as no mention of the frequently used Brocas index of obesity or the striking recent fall in the incidence of coronary artery disease in the U.S.A. and Australia, and many will disagree that fructose is 170% sweeter than sucrose or that mannitol is completely usable.

This is a book that most medical students will not feel is worthwhile purchasing, because of its price and because it is in competition with a slightly cheaper soft-covered book that already has an established place in medicine. However, in view of the usefulness of this book it surely must be in every library which caters for medical (and dental) students, if only for its reference data.

I. MACDONALD

Human Nutrition: Clinical and Biochemical Aspects

P. J. GARRY (Editor)
American Association for Clinical Chemistry, Washington DC, 1981, pp. 422

This is an account of the proceedings of a meeting in which clinical chemists were up-dated in human nutrition. The contributors were all U.S. experts in their particular area, and all presented the latest advances in the field that could be relevant in the clinical context. As in any book with several authors, some parts are clearer and make more pleasant reading than others, and also minor contradictions are present, largely in the realms of speculation. The authors, as was right and proper, bearing in mind the audience, emphasized the chemical aspects of their findings.

Overall it is a good book containing, in essence, resumés of the latest, largely American, work, and the style of most presentations is good. Appropriate references and points made in discussion are included.

This book will not only be useful for clinical chemists, but also for others who may wish to get up-to-date in human (chemical) nutrition in an easy way, and yet not lacking in depth.

I. MACDONALD

Electron Microscopy of Proteins

JAMES R. HARRIS (Editor)
Academic Press, London, Volume 1, 1981, pp. 352, £35.00/$72.00, Volume 2, 1982, pp. 316, £30.00/$61.50

These two volumes form part of a new series which seeks to provide detailed reviews of the extensive contributions made by electron microscopy to our knowledge of the structure of individual soluble, fibrous or membrane-associated proteins and of protein-based systems such as ribosomes, nuclear pore complexes and cilia. As such they are each amply illustrated with several hundred electron micrographs, but are far more than mere collections of pretty pictures, since the micrographs are accompanied by a substantial and well-referenced text in which the authors have gone to pains wherever possible to integrate the structural studies with functional analyses and biochemical data on the same systems.

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