along the whole length of the small intestine, and is an active energy-dependent process which is only partially dependent upon aerobic metabolism.

A reduction in T:M gradients of ^{65}Zn by a factor of approximately 4, in comparison with controls, was shown in jejunal biopsies obtained from 3 patients with AE. These findings suggest that there is a specific defect of mucosal zinc uptake in AE and that

this abnormality may be the primary cause of the zinc deficiency underlying the clinical manifestations of the disease.

Reference

- Crane, R. K., and Mandelstam, P. (1960). The active transport of sugars by various preparations of hamster intestine. *Biochimica et Biophysica Acta*, **45**, 460–476.

Book reviews

Immunodeficiency. Current Topics in Immunology, No. 6. By ANTHONY R. HAYWARD. (Pp. 125; illustrated+tables. £5.50.) Arnold: London. 1976.

Anthony Hayward's book is a short but comprehensive guide to the important subject of immunodeficiency. Because it is a short book its style is concise and at times terse, but the text throughout is lucid, though here and there one wishes there might be more space for a more discursive approach.

The book is designed in a sequence of six themes, spread through 12 chapters. The themes are introduction and immunological mechanisms, classification and description of primary immunodeficiency, secondary immunodeficiencies, laboratory tests relevant to diagnosis, and treatment. Developmental aspects of immunology which have a bearing on childhood immunodeficiency are not extensively brought out, but are adequately dealt with. Particularly interesting are the sections dealing with complement and phagocytosis, for this section includes references to work not widely known. Like many immunological texts, this book does not deal at length with leucopenias, information about which one must seek in haematological reviews. There is a generous bibliography which adds much to the text and makes it possible for the reader to amplify Hayward's thoughts and views by reference to original articles.

One can confidently recommend this book for all medical and technical staff who are interested in immunodeficiency. While some questions will have to be answered by reference to larger works dealing with some matters in greater depth, Hayward's book is an excellent introduction and a useful source of references.

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The Physiology of the Newborn Infant. 4th edition. Edited by CLEMENT A. SMITH and NICHOLAS M. NELSON. (Pp. 771; illustrated+tables. £33.80. US \$52.00.) Thomas: Springfield, Illinois. 1976.

The expansion of interest and learning in the physiology of the newborn, which led to the first editions of this celebrated and valuable book, has continued in the 'sixties and 'seventies. Indeed, the extensive advances have made it necessary for Dr. Clement Smith to secure the services of a co-editor, Dr. Nelson, and change to a book of multiple authorship. The editors have chosen well, for the team of authors has carried on the tradition of excellence, but of course the chapters are longer, the book bigger, and the style of writing varies from chapter to chapter. The subjects covered are similar to previous editions (energy, metabolism, respiration, circulation, blood, bilirubin, temperature control, kidney, digestive tract, nutrition, and endocrines) but the coverage is in much greater detail and the bibliography is very extensive indeed. Textbooks, especially those with multiple authorship, are notoriously slow in coming to fruition so that though the bibliography covers references in the important decade of the sixties, there are only a few as recent as 1973. The content is of course excellent, and the figures are on the whole very clear and useful. The editors are to be congratulated on producing yet another edition of this fine book, essential to all interested in the field of what is now called perinatology. Just how difficult was the task can be read between the lines of the last two paragraphs of Dr. Smith's introduction.

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