Book reviews

Ultrastructure of Haemic Cells By J. C. Cawley and F. G. J. Hayhoe. (Pp. 288; illustrated. £5.50.) London, Philadelphia, Toronto: W. B. Saunders Co. 1973.

Transmission electron microscopy is rapidly becoming a widely used technique in modern haematology. Many papers appearing in haematological journals include electron micrographs of various types of blood cell abnormality in bewildering profusion. Any volume which can throw light on the electron microscopical appearances of normal blood cells is therefore welcome to those unfortunate haematologists who do not have access to an electron microscope. The question of whether any significant new information is produced by electron microscopy in blood disorders is, of course, another matter.

Professor Hayhoe has already produced one of the most realistic colour atlases of blood cells and their precursors. The volume under review maintains the same high standards. The whole book is printed on high quality paper and the electron micrographs are of an excellent standard and well reproduced.

Initially, there is a section on the technical methods used in the preparation of specimens for microscopy. This is clear and to the point, apart from a few rather annoying abbreviations, eg, 'h' for 'hour'. One is then led gently and systematically through the ultrastructure of the various cells in normal human blood. Each section is presented uniformly: first, a brief introduction giving a general description of the electron microscopical appearances of the particular cell; secondly, a series of electron micrographs depicting the cell in detail with an appropriate text on the facing page. After peripheral blood, the ultrastructure of blood cell precursors in normal bone marrow is described. Then follow chapters on abnormal cells in the acute leukaemias, erythraemic myelosis, the chronic leukaemias, and myelomatosis. The book ends with a comprehensive bibliography.

This volume must inevitably be compared with the atlas of Huhn and Stich on 'Fine structure of blood and bone marrow' published in 1969. The electron micrographs are probably fractionally of higher quality in Huhn and Stich's book, but their atlas suffers from the drawbacks

of translation, contains much material from the rat, makes no attempt to cover abnormal blood cells, and is considerably more expensive. There is no doubt that the atlas of Dr Cawley and Professor Hayhoe represents far better value for money and can be thoroughly recommended.

One major criticism remains: although magnifications are given for each illustration, no scale is marked on the actual micrograph. This makes any assessment of the size of the structures described very tedious. It is now general practice for a scale to be given and it is hoped that, if this book reaches a second edition, as it deserves, the authors will rectify this fault. A minor criticism: at least half of the black backing to the title of the book has come off on the reviewer's hands. Publishers, please note!

A. J. SALSBUURY

The Child with Leukemia By Carl Pochedly. (Pp. ix + 297; illustrated. \$11.75.) Springfield, Illinois: Charles C. Thomas. 1973.

A succinct account of the clinical and laboratory aspects of diagnosis and management of childhood leukaemia has been achieved in a small and readable book. Some good points are made in the text, eg, in defence of combination chemotherapy: 'Ehrlich said 80 years ago, several drugs are better than one when none is totally effective'. Great emphasis has rightly been placed upon the pathogenesis, prophylaxis, and treatment of meningeal leukaemia. Regarding drugs that might cross the blood-brain barrier the cogent point is made that 'Attempts to control central nervous system leukemia by increasing drug distribution into the brain are irrelevant because central nervous system leukemia is primarily an arachnoid disorder, not a disorder of the brain parenchyma'.

There is even coverage of all aspects of the subject with good discussion of the problem of infections and precise accounts of metabolic supportive therapy. A useful description is given of the rare chronic myeloid leukaemias of childhood and also of congenital forms of leukaemia, the latter topic being one which Dr Pochedly has recently reviewed elsewhere.

Although the different cytological types of acute leukaemia are fully described in the early sections of the book there is no discussion of the drug therapy for myeloblastic or myelomonocytic forms of the

disease. Although far less common than the lymphoblastic forms they nevertheless occur in childhood in significant numbers. The suggested therapeutic schedule for 'childhood acute leukaemia' is one based upon the work of Pinkel's group at St Jude Children's Research Hospital and is clearly designed for the common lymphoblastic cases.

The usual plea is made, and rightly so, for treatment of these diseases in specialist centres or in hospitals associated with such centres. A phrase I liked was 'only who manages childhood leukemia truly has a "tiger by the tail".'

M. L. N. WILLOUGHBY

Leukemia in Childhood By André Descamps. Foreword by Donald Pinkel. (Pp. xiii + 486; illustrated. \$16.75.) Springfield, Illinois: Charles C. Thomas. 1973.

This is a unique book of inestimable value to anyone responsible for the care and management of children with leukaemia. Every facet of both clinical and laboratory aspects is discussed with the wisdom that comes from wide experience of the disease. The bibliography is extensive throughout and virtually every statement in the text which could possibly need substantiation is duly documented. This will make the book a valuable source of references (some in 1973) to those working in this field for some years to come.

Topics include discussion of the aetiology of leukaemia, clinical and other features at diagnosis, morphological diagnosis and varieties of the disease in childhood, preleukaemia, and diseases which may mimic leukaemia in children. Outstandingly useful chapters deal with problems of fever, infection, and metabolic derangements associated with the disease and its therapy, including practical guidance of their management. Leukaemia of the central nervous system is given appropriate emphasis both with respect to treatment and prophylaxis. Sections of chemotherapy give drug schedules both for ALL and other types including AGL, as well as discussion of the factors affecting prolonged survival. Pharmacology and side effects of the drugs are brought together in a single chapter, and the book ends with some useful words of wisdom concerning the problems of emotional and psychological support that can be offered to the child and its parents throughout the course of the disease.

It seems churlish to mention one minor imperfection. For some reason the photographs throughout the text are greatly inferior to those on the front of the dust cover.

M. L. N. WILLOUGHBY

Major Problems in Childhood Cancer Edited by Carl Pochedly and Thomas F. Necheles. (Pp. xii + 379; illustrated. \$14.75.) Springfield, Illinois: Charles C. Thomas. 1973.

In the United States, the paediatrician often fulfils the function of the British general practitioner. This book has been written to explain the current situation in childhood cancer to this type of doctor. Its title is misleading. It is a general review of the subject and not a very good one. The standard is uneven: the approach is not consistent. The book starts badly with a trite chapter on leukaemia: there are only three references after 1970 and no hint of the remarkable improvement in survival which is now being achieved. Another author suggests that Gitlow's screening test for catecholamines could be adopted as an 'office procedure'; but children with cancer are best treated in centres. More up-to-date information about cancer in children can be found in other books, and I do not think that readers of this Journal will find the book helpful.

D. I. K. EVANS

Intermediary Metabolism of the Liver Edited by Henry Brown and David F. Hardwick. (Pp. xiii + 187; illustrated. \$12.75.) Springfield, Illinois: Charles C. Thomas. 1973.

The need for more specific and sensitive tests for the assessment of liver function is well known and it was with this object in mind that the symposium reported in this monograph was called. The seven essays do not indicate how this goal can be achieved but provide, for the general reader, well presented reviews on various aspects of intermediary metabolism in the liver, both in the experimental animal and in patients with hepatic failure. Dr Monro gives an up-to-date account of protein metabolism with special reference to the role of the polysome. Dr Reckneger and Dr Glende indicate how studies of lipid peroxidation in carbon tetrachloride poisoning may provide a fruitful approach

to the investigation of acute toxic liver injury. Dr Hardwick suggests that ATP deficiency may be a precipitating factor in hepatic failure while Dr Brown discusses the possible role of ammonia and the rationale for treatment of encephalopathy with lactulose. Dr Arky reviews our current concepts regarding the regulation of carbohydrate metabolism by the liver and the significance of hypoglycaemia in the clinical situation. An evaluation of such 'heroic methods' as exchange transfusion, *ex vivo* liver perfusion, cross circulation and auxiliary liver transplantation is provided by Dr Slapak and Dr Trey. There is also an exciting report by Dr Starzl on marker studies with serum haptoglobin and group specific component of α -globulin following orthoptic liver transplantation which demonstrate that liver homografts retain their metabolic specificity after transfer to a new host. This opens up the possibility that liver-based metabolic disorders could be treated by transplantation and indeed this has been done for Wilson's disease and phenylketonuria.

BARBARA H. BILLING

Endocrine and Non-endocrine Hormone Producing Tumors (Pp. viii + 430; illustrated. £9.50.) Chicago: Year Book Medical Publishers Inc. Distributed in UK and Europe by Lloyd-Luke (Medical Books) Ltd, London. 1973.

An impressive range of papers, presented at the 16th Annual Clinical Conference on Cancer in 1971, comprise this book. The topics are related to the clinical, diagnostic, therapeutic, and pathological aspects of endocrine tumours in general and of some 'inappropriate' hormone-producing tumours and their related syndromes.

The articles are succinct, sometimes overconcise, well illustrated, and are often accompanied by appropriate case histories. Some of the chapters, such as the one dealing with hypercalcaemia and malignant disease, are excellent and those devoted to the radiology and photostaining of endocrine tumours are most interesting and of great value alongside their other clinical and laboratory aspects. It is unfortunate in a review volume of this nature that some of the authors have limited their presentations to personal experience and recollections only and that there is not a section devoted to the fundamental biomedical aspects of ectopic hormone production.

In all, however, this is a valuable book which will serve as a good introduction to the subject for those with an initial interest in the many facets of endocrinology.

A. MUNRO NEVILLE

Methods for the Analysis of Human Chromosome Aberrations Edited by K. E. Buckton and H. J. Evans. (Pp. 44; illustrated. £1.50.) World Health Organization, 1973. Obtainable from HMSO, London.

In 1966 the World Health Organization initiated a study of the use of chromosomal aberrations in monitoring for the effects of radiation and other environmental mutagens in man. Methods were standardized and comparisons made between laboratories. Experts congregated in Greece in November 1971 and drafted a monograph which was made available for revision to participating laboratories. The resulting manual is commendably brief, accurate, readable, and well illustrated. The techniques of lymphocyte culture are discussed and the aberrations to be scored clearly described. The data from several laboratories have been pooled and graphs prepared of the dicentric and ring aberrations as a function of radiation dose. The monograph is essential for anyone who is embarking on dose estimations of radiation by the lymphocyte culture technique.

SYLVIA D. LAWLER

Urinary Tract Infection Edited by William Brumfitt and A. W. Asscher. (Pp. xiv + 258; illustrated. £5.00.) London, New York, Toronto: Oxford University Press (Oxford Medical Publications). 1973.

This is the report of the proceedings of the 2nd National Symposium on Urinary Tract Infections held in April 1972, four years after the first symposium on the subject. The chairman, Professor Paul B. Beeson, and many of the organizing committee were involved in arranging both symposia and the change in emphasis given to various aspects of the subject in this report indicates the progress that has been made during the intervening years.

The first sections deal with screening for bacteriuria and the natural history of infection in various populations. The number of different screening methods described illustrates that none is foolproof and in assessing their results some workers