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Book reviews

Leucocytes: Separation, Collection and Transfusion. Edited by J. M. Goldman and R. M. Lowenthal. (Pp. xxxvi + 602; illustrated; £13-80) New York: Academic Press. 1975.

More and more centres are acquiring cell separators and are debating the relative advantages of continuous flow (IBM and AMINCO), intermittent flow (Haemonetics), or filtration leucapheresis (Leukopak) methods. For those engaged in or contemplating such work the collected papers of this International Symposium held in London in September 1974 will be a unique compendium of source material and discussion. Early chapters describe fundamental research leading to the development of the continuous flow centrifuge, and this is an eye-opener to those who have become blasé to these superficially simple machines. The use of steroids and agents such as hydroxyethyl starch to enhance granulocyte yield, and granulocyte function after the various methods of collection are next described. Donor response to leucapheresis by continuous and filtration methods is specifically dealt with.

The prime clinical application of cell separators is granulocyte transfusion in neutropenic, infected patients, usually leukaemic. Over a dozen papers are devoted to this aspect. Other applications, each the subject of a number of papers, include the place of leucapheresis in the treatment of chronic leukaemias, the collection of leukaemic blast cells for purposes of immunotherapy, the collection of colony-forming cells in canine experimental systems, the relevance of HL-A typing to the efficacy of granulocyte and platelet transfusions, the varied use of plasmapheresis in a variety of medical conditions, and the paediatric applications of cell separators.

Virtually all those workers concerned with the development and current clinical applications of cell separators took part in this symposium, which was dedicated to the memory of Bob Eisel who contributed so much to the field.

M. L. N. WILLOUGHBY

Blood Vessels. By W. J. Cliff. (Pp. ix + 214; illustrated; £10-00) London: Cambridge University Press. 1976.

This book is an account of vascular

anatomy and its relation to physiology and pathology. The lumen, endothelium, extraendothelial cells, extracellular components, and ancillary structures are treated individually, and each section follows a logical sequence of gross anatomy, light microscopy, and ultra-structure. The morphology is presented in great detail and related to function wherever possible, and a satisfying proportion of the text is devoted to pathological changes and, in particular, to atherosclerosis. The illustrations are adequate and the bibliography appears comprehensive although it is surprising to find only one reference later than 1972. The author has succeeded in presenting a large amount of information in about 150 pages without making the book difficult to read. The inclusion of references within the text is sometimes irritating, as when short sentences are divided up by several consecutive lines of names and dates. There are occasional statements which pathologists may regard as outdated, such as thoracic aneurysms usually being due to syphilis, but occasional inaccuracies must be almost inevitable where a single author attempts to survey many aspects of an important and much studied subject. These minor criticisms should not detract from the overall value of a small, readable, and instructive book which can be confidently recommended to anyone interested in vascular function or pathology.

ARIELA POMERANCE

Basic Medical Laboratory Technology. By C. J. C. Kirk, R. N. Peel, K. R. James, and Y. Kershaw. (Pp. vii + 327; illustrated; £8-00) Tunbridge Wells: Pitman Medical Publishing Co. 1976.

The aim of this book has been to provide a working knowledge of the basic techniques used in each of the major branches of pathology. It contains a minimum of theory and is intended to supplement the practical training of technicians in the laboratory, theoretical knowledge being acquired from the Technical College courses for the Ordinary National Certificate. The book begins with excellent sections on laboratory safety, plastic and glassware, general equipment, and the microscope, which should be very useful to anyone starting work in the laboratory. The fact that microbiology (including mycology, parasitology, serology, and sterilization), histology, haematology,

blood group serology, and clinical chemistry are covered in 276 further pages indicates the brevity with which each subject is dealt. Nevertheless the concise presentation of such a large amount of generally accurate information in one book must make it a very attractive volume to those working for the Ordinary National Certificate in medical laboratory sciences. The book is beautifully produced with excellent line drawings and clear photographs of apparatus.

PAMELA M. WATERWORTH

Rational Diagnosis and Treatment. By H. R. Wulff. (Pp. x + 182; illustrated; £3.75.) Oxford: Blackwell. 1976.

This book is written so that those who enjoy caring for patients may increase their enjoyment in exercising clinical skill and so become more effective. The text describes the foundation of clinical decisions, the recording of symptoms and signs, the quantitative handling of medical data, the concept of disease, the application of mathematics to diagnosis, the present therapeutic legacy, and controlled therapeutic trials; there is an appendix on statistics.

In a relatively short text the author covers a wide range of issues and presents his arguments clearly; a number of mathematical concepts, though presented in a relatively simple way, are likely to be heavy going for the general reader. The section on quality of data collection is interesting but does not cover in an exhaustive fashion all the literature on sources of error. The author seems rather keen on non-parametric statistical methods, he is disparaging about the application of 'computer diagnosis' and ignores some working applications, and is also rather critical of the value of clinico-pathological conferences.

The book is short and easily read and I would recommend it for an evening's relaxation (or stimulation) rather than for use as a regular source of reference.

M. R. ALDERSON

HBs Antigen Subtypes. Edited by A. M. Couroucé, P. V. Holland, J. Y. Muller, and J. P. Soulier. (Pp. viii + 158; illustrated; SFr/DM 75.) Basel: S. Karger. 1976.

The first half of this book consists of reviews of different aspects of antigenic

variation in HBsAg. Much of the material is difficult to find elsewhere and will be of great use to everyone interested in hepatitis. The remaining 70 pages give the results of comparative tests performed during the workshop with sera provided by the participants. Elaborate statistical techniques were needed to assign the antigen into 10 provisional groups, and there were many anomalous specimens. Unfortunately, there is no discussion of the fundamental question of the highest number of antigen subdeterminants which could be coded by a virus as small as hepatitis B. It is clear that the technical problems are far from solved, and the publication of these results should stimulate further international collaboration in this field.

YVONNE COSSART

Electronic Biology and Cancer: a New Theory of Cancer. By A. Szent-Györgyi. (Pp. 128; illustrated; SFr 48.) New York and Basel: Marcel Dekker. 1976.

Old Nobel prizewinners seldom fade away. Pauling, who previously worked on other chemicals, is now the champion of ascorbic acid, whereas Szent-Györgyi, who formerly did distinguished work on ascorbic acid, has now embraced cancer research.

The theory of cancer presented in this booklet is a slightly updated version of Warburg's theory. Early forms of life are thought to have developed under reducing conditions, what Szent-Györgyi terms the α -state. Later oxygen and oxidative metabolism was superimposed to give the β -state. The cancer cell is supposed to be stuck in the β -state or somewhere between the two basic states, α and β . This theory disregards much work showing that minimum deviation tumours have no demonstrable impairment of oxidative metabolism. The growth-promoting and growth-inhibiting tissue extracts, 'promine' and 'retine', are not taken seriously outside Szent-Györgyi's laboratory.

Szent-Györgyi reasserts his belief in charge-transfer as important in carcinogenesis, whereas the real advances in understanding have come from knowledge of the subsequent changes in high-energy bands that convert polybenzenoid hydrocarbons into agents able to react with important macromolecules.

The mass of work on regulatory systems carried out during the past decade is ignored by Szent-Györgyi. Although the

old master makes some thought-provoking statements, there is no escaping the conclusion that he has been sadly overtaken by events.

A. C. ALLISON

Pathology of the Fetus and the Infant, 3rd edition. By Edith L. Potter and John M. Craig. (Pp. xiv + 697; illustrated; £39.00.) London: Lloyd Luke (Medical Books). 1976.

For a quarter of a century Edith Potter's book on the *Pathology of the Fetus and Newborn* has been the most popular English book on the subject, largely due to its excellent photographs, its clear simple texts, and absence of jargon. It progressively became out of date and a new edition in 1961 was disappointing. It now reappears with the co-authorship of John Craig, of the Children's Hospital in Boston, and has regained its original vigour.

This was always the book for the clinician rather than the pathologist, and it remains so. It gives just that amount of knowledge that the paediatrician requires without the 'ifs' and 'buts' and deserves the wide use that it will achieve. It is an American book with a large bias towards American literature and appears to be directed towards the American paediatrician who is a primary care family practitioner.

In some ways the book is old-fashioned, being one of almost pure anatomical pathology, and has little of the more dynamic and clinically orientated approach that exists in paediatric pathology in this country.

This book is well written and beautifully illustrated. Such books are rare, and it rightly deserves to regain the popularity of the 1952 edition. I will hand it to students, housemen, and paediatricians to inform them and stimulate their interest in the pathology of the fetus and newborn but will not ask my registrars to use it as a 'textbook' in isolation.

J. L. EMERY

The Epidemiology of Human Mycotic Diseases. Edited by Yousef Al-Doory. (Pp. xv + 346; illustrated; \$26.50.) Springfield, Illinois: Charles C. Thomas. 1975.

During the last 30 years there has been an increasing interest in the mycological