Book reviews

HEREDITARY DISORDERS OF ERYTHROCYTE METABOLISM

Edited by E. Beutler. (Pp. xii + 343; illustrated. \$9.00) New York and London: Grune & Stratton. 1968.

The present volume consists of 19 chapters, each being a paper given at a symposium held in February 1967 at the City of Hope Medical Center, Duarte, California. It was attended by 85 participants, all but eight being from the United States. Each paper was presented by an expert or group of experts and together they dealt with almost all of the rapidly expanding number of genetically determined disorders of red-cell metabolism which had been recognized at the time of the symposium. Practically all the work described had been carried out within the last decade. Knowledge of red-cell metabolism is advancing extremely rapidly, and, reading the lengthy and interesting discussions at the end of each chapter, the reader becomes aware that he is being presented with a record of the very edge of expanding knowledge. Most of the disorders described are rare, some very rare. Nevertheless, once again it is obvious that the study of rare freaks of nature has provided new information on normal physiology. Each paper is provided with a valuable summary and an extensive bibliography, and is well illustrated.

As well as describing the clinical and laboratory results of red-cell enzyme deficiencies, much information is given on genetic variation of the enzymes themselves. Thus Harry Harris and his co-workers deal with polymorphism of acid phosphatase, phosphoglucomutase and adenylate kinase, S. Takahara and H. Aebi and co-workers with catalase in Japan and Switzerland, respectively, E. Beutler and C. K. Mathai with galactose-1-phosphate uridyl transferase and F. M. Huennekens and co-workers with methaemoglobin reductase. There are, too, three chapters on the genetics and variants of G-6-PD. Glutathione deficiency and glutathione reductase deficiency are also described in separate chapters. Of particular interest to clinical haematologists is the chapter by J. H. Jandl on hereditary spherocytosis, the molecular basis of which still eludes definition, and that on pyruvate-kinase deficiency by K. R. Tanaka and W. N. Valentine.

An interesting feature of the inherited disorders of red-cell metabolism is that the genetic defect seems in most instances to be confined apparently to the red cells. In pyruvate-kinase deficiency, this can be explained by the red-cell enzyme being an isozyme distinctly different from the leucocyte enzyme with respect to genetic control and physicochemical, antigenic and kinetic characteristics. Triosephosphate isomerase deficiency is, on the other hand, a 'multi-system' disease, with the chronic non-spherocytic haemolytic anaemia being only a minor component of a syndrome the major component of which is progressive neuromuscular dysfunction.

The pros and cons of publishing papers and dis-

cussions given at symposia can be debated, but in the present instance, although it is true that much of the information contained within can be found in medical journals or will no doubt be published elsewhere, the bringing together of so much scattered information in such a new field seems ample justification for publishing this book. Most haematologists would look upon it as a welcome addition to their bookshelf, although for a full appreciation of its contents a good deal of biochemical and genetical knowledge is required.

J. V. DACIE

THE BALKAN NEPHROPATHY Ciba Foundation Study Group No. 30. (Pp. 123; 29 figures. 15s.) London: J. and A. Churchill Ltd. 1967.

It is unusual to have an opportunity to focus the tools of modern science on what appears to be a completely new common disease. For the last decade or more numbers of cases of chronic renal failure of a distinctive clinical pattern have appeared in some Balkan countries. This little book reports the findings of numerous investigations into the pathology and pathogenesis of this condition. The papers presented at the Ciba Foundation Study Group covered epidemiological studies in Rumania, Bulgaria, and Yugoslavia, studies of urinary proteins, possible nephrotoxic agents, and the structural changes in the kidneys and related organs. A full account of the discussion by the speakers and distinguished guests makes very interesting reading.

M. G. RINSLER

INSULIN, MEMBRANES AND METABOLISM By Peter Rieser. (Pp. xii + 156; illustrated. 77s. 6d.) Edinburgh: E. and S. Livingstone Ltd. 1967.

This book could equally well—and perhaps more descriptively—have been subtitled the 'Continuing biography of insulin'. The author has succeeded in his objective, which appears to have been to attempt to update Krahl's classic monograph on the 'Action of insulin on cells', by bringing together in book form the enormous mass of information about insulin that has appeared in the world literature in the past five years.

The book is at its best in those parts which impinge most heavily on the author's own sphere of interest, which is the mechanism and mode of action of insulin at the cellular level. Other parts of the book, which deal with the biology and chemistry of insulin, provide a thorough and readable, if not exhaustive, review of the literature. The clinical aspects of insulin, on the other hand, are dealt with perfunctorily and somewhat superficially. Consequently this little book, though invaluable to the research worker in endocrinology and metabolism both as a manual and source of references, has little to offer the practising clinical pathologist, except as an example of the enormous amount of information that