Book reviews


This study was designed to assess the relative importance of the cellular and humoral factors in the genesis of experimental encephalomyelitis. The results on a series of 50 rabbits, making use of fluorescein-labelled antibodies, indicate that they are complementary. The earliest changes were noted after five days, the longest after 45 days. The severity increased with time but the sites of predilection could not be determined. The inflammatory response (which included neutrophils only rarely) was around blood vessels and in the subarachnoid space.

W. H. MCMENEMEY


This is an electronmicroscopic study on circulating leucocytes in myelogenous leukaemia induced in mice by the Graffi virus. The number of cytoplasmic myeloid granules in a unit area of cell can be related to the stage of maturation, and the investigations generally suggest a useful application to the study of granule anomalies of human granulocytes. There is an extensive bibliography.

W. H. MCMENEMEY


This book contains much that is elementary and is intended for beginners in haematology. It sets out, for example, all the available methods of haemoglobin estimation with the advantages and disadvantages of each technique, coming down finally in favour of a haemoglobinometer not often seen in this country. Similarly most of the references to apparatus and chemicals are to American firms. Cell counting is described from the most elementary to the sophisticated. The technical section occupies 100 or so pages. The main part of the book describes the anaemias, haemoglobinopathies, and other red cell abnormalities, followed by chapters on coagulation and its disorders, with a description of a coagulation analyser and a tabulated routine for examination of patients with haemolytic diseases. The section on leucocytes includes leucocytosis and such abnormalities as leukemoid reactions, infectious mononucleosis, leukaemia, and myelofibrotic syndromes. The final chapter is an odd mixture of EM studies and chromosome analysis.

The book, if intended for technologists, is patchy in its clinical presentation being too detailed in some areas and sketchy in others. In spite of the author's preface, the colour photographs are not good because of the remarkable variation in the background colours which vary from light brown through green to a variety of blues, giving the student a poor picture of what he should produce. The author uses Wright's stain and either this is not controlled or the photographs were taken without constant testing of film and light source.

A. G. SIGNY


This book is an English edition of a collection of electron micrographs, already published in Russian, which illustrates some of the spore types produced by the actinomycetes. The 10 contributors work mostly in the State Institute of Hygiene in Warsaw or the Institute of New Antibiotics in Moscow, but the book does include a collection of scanning electron micrographs taken in the Hartley Botanical Laboratory, University of Liverpool. The very short introduction and legends to the photographs have suffered when translated into English and the meaning is often obscure.

The authors justify the publication of this collection of photographs by reminding readers that 95% of the antibiotics used in medicine are produced by the actinomycetes. Spore morphology of species belonging to the genus Streptomyces is now used as an important character for their identification and they hope to extend this use of spore morphology to other genera. Coverage of the genus Streptomyces is therefore quite extensive and 79 photographs show the hairy spores of nine species, spiny spores of 16 species, warty spores of three species, and the smooth spores of seven species. A useful appendix lists the observed spore morphology of 214 species.

The majority are spore silhouettes photographed using the transmission electron microscope; a few species have also been studied using the carbon replica technique. Four species have been selected to illustrate the fine structure of the spores and supporting hyphae. The spores of eight other actinomycete genera are shown in silhouette and by sections.

There is very little new information in this book. Most of the photographs have already been published in various journals and the definition in many of the plates leaves a lot to be desired. The nomenclature of species, genera, and families is in a terrible muddle. It is well known that there is a lack of agreement between Russian and western classifications and nomenclature: this book emphasizes these errors and misleading statements in the titles and legends accompanying the photographs and in the tables which cannot be dismissed as translation difficulties. For example, the sections of Actinomycetales and Chromogena strain 2900 show chains of spores enclosed within a common sheath, and this exposition is confirmed in the legend. Earlier electron micrographs of the aerial mycelium in silhouette and the original description of this species specify only single spores.

The volume is a unique collection of spore photographs, but the idea of gathering together this series unfortunately coincided with a world-wide interest in actinomycete spore structure and development. Within the last three years several papers have described and illustrated the detailed structure of spores belonging to various genera, some of which are not even considered in this book. This is a danger faced by most authors or editors, in this case it has resulted in the book becoming largely out of date even before it becomes available to its readers.

T. CROSS