Book reviews

Uremia: An International Conference on Pathogenesis, Diagnosis and Therapy Edited by Reinhold Kluthe, Geoffrey Berlyne, and Benjamin Burton. (Pp. xiii + 314; illustrated. £8·00.) Stuttgart: Georg Thieme Publishers. London. Churchill Livingstone. 1972.

In June 1971 a three-day conference on the pathogenesis, diagnosis, and therapy of uraemia was held in Freiburg, Germany. It was attended by one hundred experts, mostly from Germany but with a small sprinkling from the USA and UK. For them I am sure it was most interesting and profitable. This unfortunately is more than can be said of the Proceedings which have now been published under the somewhat misleading title of 'Uremia'. The book consists in effect of 44 original papers of differing length and quality, a small proportion of which would warrant publication in the regular scientific periodical literature where they would be more appropriate. The book is arranged in eight sections each of which contains from four to nine papers dealing with related topics such as uraemic toxins, organic system involvement, amino acid metabolism, and the practice of low-protein diets. At the end of each section there is a short verbatim report of the discussion.

It is difficult to know for whom this volume is intended. Few of the papers are sufficiently detailed for the expert nephrologist and most are too specific for the non-specialist. Presumably for as long as it is profitable to publish the proceedings of international meetings regardless of their suitability books such as this will continue to appear. To this reviewer this is insufficient reason for recommending their purchase.

VINCENT MARKS

Microbial Differentiation Symposium 23 of the Society for General Microbiology. Edited by J. M. Ashworth and J. E. Smith (Pp. x + 450; illustrated. £7·00.) London: Cambridge University Press. 1973.

In this symposium 'microbial differentiation' refers to the changes that occur either intracellularly in relation to cell growth and development or intercellularly in relation to the formation of certain specialized multicellular structures. The study of cell differentiation in complex higher organisms presents many difficulties. One of the purposes of this symposium is to point out that differentiation also occurs in simple, even in unicellular, microorganisms which as well as being of intrinsic interest may serve as 'model systems' for the study of this subject.

There are 15 papers in this symposium. Four of these refer to differentiation in bacteria, the remainder to fungi and protozoa. With regard to bacteria, the connexion between DNA replication and cell division is discussed, also the intracellular changes, chiefly enzymatic, that accompany the initiation of bacterial sporogenesis. What is known of the process of activation, germination, and outgrowth of bacterial endospores, leading to vegetative cells, is described, including the biochemical intracellular changes accompanying these processes. Intercellular bacterial reactions are described as they occur in the formation of 'fruiting bodies' by myxobacteria.

Other papers discuss differentiation between substrate and aerial spore-forming mycelium in actinomycetes, specialized cells (akinetes and heterocysts) in blue-green algae, ascospore formation in yeasts, the special properties of hyphal tips leading to apical growth of fungal hyphae, the sequence of changes involving sexual reproduction in *Mucorales* and vegetative growth and asexual reproduction in *Aspergillus*, changes occurring during the life cycle of trypanosomes, and differentiation during the life cycles of myxomycetes and cellular slime moulds. In each case morphological and associated intracellular biochemical changes are described. This review of current progress should prove of much interest to workers in this field.

W. J. RYAN

Basic Clinical Bacteriology by J. D. Jarvis (Pp. viii + 159; illustrated. £1·95.) London: The Butterworth Group. 1973.

This monograph is in two parts, the first of which is devoted to 'The specimen' and has appeared before in the Laboratory Aid Series. This section will be of great value to nurses and clinicians and to laboratory workers whose early training is more academic than it was formerly. One feels that it is written by a worker who has met every snag in the business of clinical bacteriology. It describes what specimens should be taken, when they should be taken, and how they should be sent. Reasons are given for the advice and there is a brief note on the species which may be isolated from each type of specimen.

The second section is devoted to bacteriological techniques and the chapters are necessarily very brief. Some knowledge of basic bacterial chemistry and immunology is therefore necessary if the reader is to appreciate the reasons behind the various tests.

Chapter headings are rather misleading. 'Cultural characteristics', for instance, consists of an account of the basic media used in clinical bacteriology but media for the isolation of *Mycobacteria* sp are not included.

The technique for performing the primary biochemical tests for species identification is described and there are four tables to illustrate the use of these tests. The serological section has some useful tips for making dilution series. There are brief sections on antibiotic testing, animal inoculation, and quality control of media.

The advice given throughout this small book is sound and practical. The wisdom of carrying out sugar estimations on the supernatant fluid of CSFs rather than insisting on a fluoride specimen is one of the few points with which the reviewer would disagree.

This is a paperback with clear type and good illustrations. References to important papers are at the end of the text and the book is excellent value at £1·95.

M. P. JEVONS

Fixation in Histochemistry Edited by P. J. Stoward. Foreword by A. G. E. Pearse. (Pp. xiii + 201; illustrated. £5·00.) London: Chapman and Hall. 1973.

This volume represents a collection of papers given at a symposium entitled 'Improvements in fixation and tissue preservation' which was held in Oxford in April 1972. Much of the material has already been published in the *Histochemical Journal*. It is essentially a book for the specialist but the collection of these communications into one volume will provide a valuable addition to the pathology library. As Professor Pearse