Book Reviews

Histology for the Student

Human Histology. By Bruce Cruikshank, M.D., Ph.D., M.R.C.P., M.C.Path., T. C. Dodds, F.I.M.L.T., F.I.B.P., F.R.P.S., and Dugald L. Gardner, M.A., M.D., Ph.D., F.R.C.P.Ed. (Pp. 267 + vii ; illustrated. 70s.) Edinburgh and London : E. & S. Livingstone Ltd. 1964.

Chief among the many merits of this little book on human histology are its pithy descriptions and its many beautiful colour photographs. The latter are about as faithful a reproduction of the microscopic preparations from which they emanate as I have come across, which means that the book, actually more of an atlas than a formal introduction to the principles of histology, mirrors the class slides and reduces the instructor's contribution to skilful commentary and the application of his own experience. I have long been convinced that medical students respond most satisfactorily to such an approach, especially when they realize how the subject adds to their understanding of the engineering of the body. Even more so is this the case in the training of young pathologists and, indeed, of clinicians, who make every effort to pinpoint and trace the finer details of the diseases they study.

With so many excellent features it may seem ungracious to record several deficiencies, but these are offered as suggestions for improving the next edition of the book. I would strongly urge the authors to add a few lines about the functions of the various tissues and their components. This they have done in a sort of way in a few instances, but not to the extent that is necessary to bridge the gap between gross organ structure and over-all function. I would like to see more simple diagrams bringing out the pattern underlying the architecture of lymph nodes, spleen, thymus in particular, especially mapping the pathways to and from these important organs. The authors have given us drawings of parts of lymph nodes and spleen, but these call for as much imagination in the reconstruction of the organ as the actual preparation itself. The ideal solution, of course, is a three-dimensional model like that of compact bone on page 215 ; perhaps the modern teacher of histology, like his colleague in embryology, goes in for such aids on a far greater scale than I experienced in my student days. I note, with regret, the mediocre electron-micrographs in which the one set of organelles, the mitochondria, about which we know so much, come off very badly. Another surprise is no mention of the nerve supply and its distribution in such structures as liver, pancreas, the large extra-hepatic bile ducts and gall-bladder, and, even more strange, the heart and elastic blood-vessels. About the time the medical student is engaged with histology he commences his life-long exploration of the origin and significance of pain, and this alone demands an understanding of the sites of origin and the terminal regions of the peripheral nervous system.

Finally, a word of praise to the authors for skilfully avoiding the pitfall of excessive, clumsy terminology. But I could not help wondering as I recalled my own introduction to histology by an enthusiastic teacher, whether the time had come for a drastic overhaul in this direction. Why on earth a "molecular layer of nerve fibres" or a "granular layer" of nerve cells ? Think of the horrors perpetuated in haematology, wherein, alas, the injunction of not letting the right hand know what the left hand is up to is piously observed. High commendation, too, for the authors in providing a truly excellent account of artifacts and to the publishers for the high level they have maintained in reproducing so many minor works of art and the fine quality of printing. There is an excellent index, but no bibliography.

ROY CAMERON.

Rheumatic Diseases

Textbook of the Rheumatic Diseases. Edited by W. S. C. Copeman, O.B.E., T.D., M.D., F.R.C.P. 3rd edition. (Pp. 829 + x ; illustrated. £6 10s.) Edinburgh and London : E. & S. Livingstone. 1964.

This book lives up to its name by giving a full account of all the diseases commonly referred to as rheumatic and is a splendid achievement in writing, editing, and book production. It deals with the anatomy, physiology, and pathology of the joints and affected tissues and discusses the bearing of the most recent work on auto-immunity and genetics on the rheumatic diseases. There are beautifully illustrated chapters on common conditions such as acute rheumatism, rheumatoid arthritis, and osteoarthritis, and for the collector there is a fascinating chapter by Lord Cohen and Barbara M. Ansell on the rarer arthritic syndromes. Treatment, clinical trials, technique of clinical examination, and specific serological tests are fully dealt with, though I did not see any section on biopsy. The chapters on pain and on the psychiatric aspects of the rheumatic diseases suggest that there is opportunity for much more clinical research work in these fields. The historical chapter provokes one to think what a textbook of the rheumatic diseases will look like in 20 years' time. It will probably not include rheumatic fever, which in Russia even to-day tends to be grouped with heart disease. In fact the term rheumatism is now something of an anachronism for diseases of the musculoskeletal system. It will be disappointing if an effective therapy has not by then been discovered for rheumatoid arthritis and the collagen diseases. On the other hand the degenerative diseases, osteoarthritis, osteoporosis, and Paget's disease, will probably still be with us.

This book, then, not only informs but stimulates. It can be regarded as the standard British textbook on rheumatic diseases. Its main drawback is its weight, which makes it hard to read except at a table. It would be useful to have a list of abbreviations, for the ordinary reader can hardly be expected to know the meaning of RA, RF, AICF, and similar short forms in this specialized context.

L. J. WITTS.

Fine Structure of the Eye

Ocular Fine Structure. By Marie A. Jakus, Ph.D. Retina Foundation Institute of Biological and Medical Sciences. Monographs and Conferences : Vol. 1. (Pp. 204 ; illustrated. £5 7s. 6d.) London : J. & A. Churchill Ltd. 1964.

The electron microscope is opening up a new and exciting chapter in biology and transforming anatomy so that the boundaries between it and its sister discipline, physiology, are rapidly disappearing. Dr. Jakus was among the first to take up the study of the fine structure of the eye, and for the last 10 years has been a pioneer in work in which she has obviously taken a delight. Starting from the front of the globe, she has reached the edge of the cornea and has begun to explore the lens, and her experiences in what we hope is only the first stage of her journey to the optic nerve are recorded in this volume, the beauty and interest of which can hardly be over-emphasized. In 91 plates the structure of the normal cornea, its embryogenesis, the abnormalities appearing in normal scars, in keratoconus and cornea guttata, are illustrated together with the ultra-anatomy of the outer layers of the lens, particularly its capsule and the zonule. The recurrent theme is the changes in collagen, its fine structure and organization, its development in the transparent cornea and the opaque sclera, and its changes in disease. There are many more tissues in the eye and they are affected by many more diseases ; we only hope that Dr. Jakus will continue with her journey and bring more beauty into ocular anatomy and pathology and more delight to the many who will admire her pictures.

STEWART DUKE-ELDER.

Research on the Prostate

Biology of the Prostate and Related Tissues. National Cancer Institute Monograph 12. (Pp. 446 + xii ; illustrated. $4.00.) Bethesda, Maryland, U.S.A. : U.S. Department of Health, Education, and Welfare. 1963.

This is the report of a symposium held in October 1962 to discuss the present state of knowledge of the prostate gland. Some 60 well-known experts on all aspects of the subject were gathered together and reported the results of their latest researches. The 36 papers given divide naturally into four