

Book reviews

Handbook of Sensory Physiology. Vol. 9. Development of Sensory Systems. Ed. Marcus Jacobson. Pp. 469. DM230. Springer-Verlag: Berlin. 1978.

Marcus Jacobson asserts in his preface to this volume that 'we have a plethora of facts but a dearth of hypotheses' about the development of sensory systems. This is surely true for neurobiology and biology in general. For the ophthalmologist 2 chapters in this handbook are of direct interest: 'Visual behaviour development in non-mammalian vertebrates' by D. Ingle, and 'Functional modification of the developing visual system' by H. V. B. Hirsch and A. G. Leventhal. The latter chapter is a well-written summary by 2 workers in this exponentially growing field. It covers the organisation of the W, X, and Y systems, and concludes that the W and X systems are invariant, while the Y cell projections are modifiable by the environment. Even if this viewpoint is shown to be oversimplified (and recent work has shown that X-cell properties can be modified by experimental amblyopia), it is pleasing to see the W, X, Y categorisation used to interpret this complex and controversial research area.

A. L. HOLDEN

Modern Problems in Ophthalmology. Vol 19. Colour Vision Deficiencies IV. Ed. E. B. STREIFF. Pp. 348. DM198. Karger: Basel. 1978.

Dr G. Verriest, the enthusiastic and indefatigable convener of meetings and editor of symposia, has done it again. The proceedings of Parma '77 of the International Group on Colour Vision Deficiencies have appeared with commendable speed, beautifully produced. The topics covered include neurophysiological aspects, colour vision under reduced illumination, practical (that is, economic and professional) aspects of colour deficiencies, methods of examination, etc. The contributions vary in quality, and the high price (£50) will limit its market.

ROBERT WEALE

External Ocular Tumors. By KNUD BECH and OVE ASKEL JENSEN. Pp. 64. £14.00. Holt-Saunders: Eastbourne. 1978.

This is an attractively produced short textbook and atlas recording the clinical, surgical, and radiotherapeutic experience at the Rigshospital and at the Eye Pathology Institute, Copenhagen, which has long had a special interest in the pathology and treatment of ocular tumours. It is based on follow-up of 300 consecutive cases of benign and malignant tumours and of simulating lesions of the external eye as found by inspection of the conjunctiva and eyelids (anterior segment intraocular tumours are by definition excluded).

The various diseases are carefully defined as to their clinical and histological features, which are well shown by juxtaposition of clinical photographs and the corresponding microscopical appearance. The text includes analysis of the history and clinical features and a com-

parison between the initial clinical diagnosis and the histological diagnosis, pointing out a high error rate in regard to lid papilloma, too often thought to be simple but frequently harbouring a carcinoma, as is often the case with the atypical chalazion. The authors advocate total excision of lesions appearing benign clinically, but for all others where malignancy is suspected a generous biopsy including the margin of the lesion and adjacent skin is done, followed by irradiation. With pigmented lesions of the lids total excision is attempted, followed by major plastic surgery if malignant melanoma is found.

This study emphasises the important principle of careful follow-up of patients with malignant disease, which has been long established in other branches of medicine but is equally important in ophthalmology and clearly justifies the emergence of multidisciplinary ocular oncology clinics. The quality of the black-and-white clinical photographs and microscopical illustrations is excellent and together with the helpful glossary of clinical and histological terms should make this book useful to postgraduate students as well as to those particularly interested in this field.

P. A. MACFAUL

Physiology of the Eye. An Introduction to the Vegetative Functions. By IRVING FATT. Pp. 232. £11.10. Butterworths: London. 1978.

This book is apparently designed for optometry students and is intended as an introduction to the purely vegetative physiology of the eye. This restriction being granted, the book is of curiously uneven quality in its approach to the subject, and, while it reflects the author's personal (and extremely valuable) contribution to biophysical problems encountered in the eye, it should not be regarded as an adequate introductory text. The unevenness is nowhere better displayed than in comparing chapters 5 and 6 on lens and cornea; the lens occupies a mere 8 pages as compared with 96 on the cornea. It is difficult to imagine a student who is capable of following the account of corneal oxygen supply under contact lenses (pp. 134-160) and at the same time needs to be informed that 'opacity of the lens, called a *cataract*, is one of the leading causes of loss of vision in the aged' (p. 90). A similar criticism could be made of chapter 8, which devotes the whole of 10 pages to the retina, and even if the author is deliberately refraining from discussing the purely visual functions of that tissue the reader will wish to know something of its vascular supply.

However, let us make the most of what is presented. Chapters 1 and 2 are not inadequate, but chapter 3 seems to give undue prominence to tonographic methods, especially since the reader is told (p. 67) that the 'optometrist never does tonography and the ophthalmologist rarely makes the measurement'. The chapter on cornea (chapter 6) is too detailed for the average student, and after being promised (p. 12) that 'the innervation of the cornea and sclera will be treated in detail in chapters 6 and 7' it is disappointing to find no discussion, either here or in chapter 9 (Tears and Lids), of the nerve pathways involved in the blink and lacrimation reflexes. The present reviewer would also have included the pupillary and accommodation reflexes in the ambit of

'vegetative physiology'. Chapter 6 contains a useful account of the author's own work on the cornea and is an excellent guide to current thinking on the biophysical properties of this tissue, though one would have expected some mention of the techniques of specular microscopy.

To summarise: while this book provides a number of valuable insights, its emphasis is biophysical rather than physiological, and it is insufficiently comprehensive to be regarded as an adequate students' text. D. F. COLE

Genetics and Ophthalmology. GREGORY KEITH. Pp. 116. £9.00. Churchill Livingstone: Edinburgh. 1978.

This concise, accurate, and easily readable book should be welcomed by ophthalmologists, particularly those in training, who will find it a useful guide to the many genetically determined disorders affecting the eye. The short descriptions of the various abnormalities and their modes of inheritance are supplemented by useful references and suggestions for further reading at the end of each chapter. The reader is assumed to have a basic knowledge of human genetics, and few of the many disorders are illustrated. This book must therefore be used in conjunction with a large textbook of ophthalmology or with original papers. But it is none the less an extremely useful addition to the residents' library.

BARRIE JAY

Alles über grünen Star. Fragen und Antworten für Kranke mit Glaukom. By WOLFGANG LEYDHECKER. Pp. 55. DM9.80. Georg Thieme Verlag: Stuttgart. 1978.

Professor Leydhecker has produced a useful handbook which answers various questions on glaucoma. The text is designed to be read by junior medical staff and patients alike and is well illustrated with diagrams and photographs. It is the sort of book that makes easy reading and is informative without oversimplification. If British patients begin to show the same interest in their disease as their counterparts in the United States this book may well perform a useful service in the management of this complicated disease.

T. J. FFYTCH

Do You Really Need Eye Surgery? 2nd edn. By WILLIAM H. HAVENER. Pp. 88. \$4.50. Charles C Thomas: Springfield, Illinois. 1977.

This booklet is designed to answer the layman's questions and fears about eye problems and in particular about proposed eye surgery. Such books are difficult to write—to be comprehensive without being corny, to be neither dull nor dramatic and, most of all, to give balanced advice, when the subject is beset with dotty folklore and misconceptions furthered by commercial interests or by excessively lauded and often damaging 'new' techniques. In fact the presentation is impeccable. The risks and costs of fancy new methods are set in their true perspective; the counsel is wise throughout. The patient who is intelligent enough to have recourse to this book will have the reward he deserves, while the others will go on

relying on cocktail chat, fashion, and journalistic forays until the damage is done.

P. D. TREVOR-ROPER

Symposium on Strabismus. Transactions of the New Orleans Academy of Ophthalmology. By E. M. HELVESTON, A. JAMPOLSKY, P. KNAPP, K. W. MCNEER, M. M. PARKS, R. D. REINECKE, W. E. SCOTT, AND G. K. VON NOORDEN. Pp. 608. £38.25. Mosby: St. Louis. 1978.

This symposium is up to the usual high standard that we expect from the New Orleans Academy of Ophthalmology. In addition to reviews of current concepts in amblyopia there are useful contributions on sensory testing, which has always been the non-dominant side of American strabismology. The more usual emphasis on surgical techniques is well represented here, with particular reference to mechanical and cicatricial causes of strabismus and their treatment. Basic surgical methods are discussed and also the newer procedures of adjustable sutures, and the 'Fadenoperation' is considered. Although most chapters are of less than 20 pages, Dr Jampolsky gains an increasing share of the total with articles of 8, 25, 29, and finally 134 pages. However, his last chapter, an interesting comparison of unequal visual inputs in animals treated as for strabismus in man, is thought-provoking, though discursive, and while not to be accepted uncritically, well worth reading.

The final 100 pages are devoted to round-table discussions and questions presented in their colloquial entirety. If ruthless but responsible editing is regarded as omitted, then I would urge that in future this section be omitted completely and cassettes of the tape-recorded discussion provided for those who insist on this form of verbose instruction.

PETER FELS

Advances in Ophthalmology. Vol. 37. Ophthalmic Microsurgery. Ed. M. J. ROPER-HALL, H. SAUTTER, and E. B. STREIFF. Pp. 228. DM118. S. Karger: Basel. 1978.

This book is a collection of papers presented at a microsurgical workshop held in Singapore by the Royal Australasian College of Surgeons. Many specialities were represented, but by far the greatest contribution was from ophthalmologists.

The first part of the book will be of great use to a beginner in microsurgery. It has chapters and detailed discussions on the selection of a microscope and the various attachments that are now available (there is a notable lack of this information in the ophthalmic literature). The chapters span the use of simple microscopes for underdeveloped countries to the stereovideo microscope. There are chapters on instruments for microsurgery, the care of these instruments, and their uses, though sometimes one has to read the discussions to get the authors' views about ideal modifications to the microscope such as working distances. One section is devoted to ophthalmological microsurgery, which is fairly comprehensively covered, though vitreous surgery is not given much space. There are small chapters on the Kloti and Girard instruments and a useful chapter on