Book reviews

Advances in Ophthalmology, vol 31, Treatment of Retinoblastomata. Edited by E. B. STREIFF, M. SAUTTER, and M. J. ROPER-HALL. 1975. Pp. 240, 93 figs, 17 tables, refs. Karger, Basel (DM132)

This volume is the latest in a continuing series on contemporary ophthalmic subjects. Four chapters are concerned with retinoblastoma, the morphology of the corneal endothelium, the non-visual control of ocular movements, and the reaction of the retina to intensive light.

The discussion on retinoblastoma by Bedford reviews current ideas on the natural history and management of these tumours, and the author concludes with a summary of his recommended therapeutic regime for different types of presentation.

The remaining three articles are in German, one sadly without an English summary. Schierhölter and Honegger present some of their work on corneal endothelium under physiological conditions and after mechanical damage, and the morphological changes occurring in regenerating endothelial cells are described in detail with excellent illustrations. The physiology of the non-visual control of eye movements is discussed by Korner with a presentation of experimental data on saccadic movements in human subjects and optokinetic responses in animals. Finally, Wallow and his co-workers describe the effects of intense light from argon and helium lasers and the xenon arc photocoagulator on the retinæ of experimental animals. The ophthalmoscopic and histological threshold doses are correlated, and an attempt is made to relate tissue damage to loss of function. Using this information certain safety thresholds are suggested for man for intense light in the visible spectrum.

The four articles are fully representative of the high standards set by the editors in this series of volumes. But once again this policy of multilingual presentations that characterizes *Advances in Ophthalmology* must be criticized. The average English ophthalmologist does not have a working knowledge of technical German and therefore only one of the four articles in this volume will be informative, and at a cost of over £20 that is a high price to pay even in these inflationary times.

T. J. FFYTCH

Color in Business, Science and Industry, 3rd ed. By D. B. JUDD and G. WYSZECKI. 1975. Pp. 553, figs, tables, refs. Wiley, Chichester (£15)

When the late Deane Judd first published this book 23 years ago it was something of a landmark. Dr G. Wyszecki became his partner for the second edition, and has now had to shepherd the third through the press on his own, and is looking to the need for a fourth 'in about 10 years' time'.

The material has been brought up to date in a competent and relaxed manner, the latter being particularly

commendable in a topic frequently as dry as colorimetry. There are many new and helpful illustrations, but some of the older ones were old even in the first edition, and Chapter 1 could do with a new look. This edition more than the earlier ones, attempts to come to grips with fundamentals and offers much useful information on relatively new fields, such as colour television. The reader will find that the approach is very much that of a physicist; for instance it overlooks that if an older person is exposed to Standard Illuminant C the visual effect may be the same as that of Standard Illuminant B on a younger person: the conclusion that extraocular standards are of limited value remains to be drawn. Apart from such small details the new edition enhances the authority of the earlier ones as a standard work in this abstruse field, and can be recommended without reservation both as a text and as a source book.

R. A. WEALE

Diabetic Microangiopathy: Its Development Based on New Knowledge on Capillary Tissue Oxygen Delivery and its Possible Prophylaxis. Edited by J. DITZEL and J. E. POULSEN. 1975. Pp. 83, figs, tables, refs. (Supplement to *Acta med. scand.*) (£4.50)

This book is a collection of papers given at a symposium in Aalborg, Denmark, commemorating the 100th anniversary of the birth of August Krogh. Krogh, the 1920 Nobel prizewinner in medicine and physiology for his work on the physiology of capillaries, became acquainted with Best's and Banting's researches on insulin during his visit to Toronto in 1922, and on his return to Denmark, he pioneered the development and production of the hormone.

Of the eight papers contained in the book the last three, by Jörn Ditzel and Eberhard Standl on problems of tissue oxygenation in diabetes, live up to the outstanding tradition of their compatriot. They lead the reader through the intricate cytological and enzymatic complexities of diabetic microangiopathy with unswerving lucidity. The problems of blood flow volume, viscosity, erythrocyte oxygen binding capacity, haemoglobin variations, and changes in glycolytic processes in the retina which depend on the phosphate levels in the blood, are just a few problems considered and beautifully explained. Ditzel's 'three in one' hypothesis on the mechanisms of diabetic retinopathy revolves round the role of phosphorus ions in production of 2-3 diphospho glycerate by the erythrocyte which in turn regulates the affiliation of oxygen to haemoglobin. The increase of 2-3 diphospho glycerate enhances the oxygen availability to the hypoxic diabetic retina. If giving phosphate dietary supplement to young diabetics will prevent or influence development of retinopathy has yet to be proved, the exposition in bringing forward a fascinating array of information marshalled in such a way that is bound to stimulate ophthalmologists con-