

## Book reviews

**The Structure and Biochemistry of Cartilage.** By A. SERAFINI-FRACASSINI and J. W. SMITH, 1974. Pp. 236, illustrated. Churchill Livingstone, Edinburgh (£8.00)

This book is concerned to a large extent with the morphology of different types of cartilage. As far as possible morphology is related to biochemistry and function. The book is well worth having for its excellent description of various kinds of cartilage, including elastic and fibrocartilages which are often neglected. It includes detailed accounts of the changes that take place during development and calcification by one of the most accomplished electron microscopists in the field. It is beautifully and liberally illustrated, and the style is clear and direct which makes the book particularly pleasant to read, as the grandiose verbosity that afflicts most scientific writings is absent.

The staining methods used for light and electron microscopy and their interpretation are critically appraised and the general ultrastructure of cartilage reviewed. Almost one-third of the book is devoted to an account of the sequence of events, as shown by microscopy and autoradiography, that take place in epiphyseal cartilage. Articular cartilage receives much less attention, but this does not matter too much because a thorough account of epiphyseal cartilage is needed and Freeman's much larger book devoted entirely to articular cartilage has been published in the last 12 months (*Adult Articular Cartilage*, ed. by M. A. R. Freeman, Pitman, London).

The main adverse criticism of this book is that the account of the biochemistry of cartilage is unbalanced and some important recent developments in the chemistry of collagen and proteoglycans are either ignored or treated in a fashion that ignores their significance.

The book begins with a detailed account of the chemistry of elastin, which although excellent in its own right, distorts the balance in a short book devoted to cartilage as a whole, since elastic cartilage is confined to certain specialized tissues. This is followed by a long chapter dealing in great detail with the structure of a type of collagen that does not occur in cartilage, while the type of collagen that is exclusive to cartilage is treated cursorily. To some extent this has been forced on the author, because all the basic knowledge of collagen chemistry has been obtained from studies of the collagen of skin tendon and bone and not of cartilage collagen. Nevertheless, the essential differences between these collagens is not emphasized sufficiently, and a reader unfamiliar with collagen biochemistry might assume that the differences are of little significance.

The review of the structure of glycosaminoglycans is comprehensive and includes useful tables on the composition and physicochemical parameters of the constituent glycosaminoglycans of cartilage. However, the part dealing with proteoglycans barely touches on proteoglycan aggregation which appears to be exclusive to cartilage proteoglycans and which is probably the most important recent development.

There is an extensive bibliography after each chapter

but there are only a few references as recent as 1972. The book provides quite a good introduction and is a useful reference book to the literature other than that of the last 18 months or so.

HELEN MUIR

**Lupus Erythematosus. A Review of the Current Status of Discoid and Systemic Lupus Erythematosus and their Variants.** Edited by EDMUND L. DUBOIS. 2nd ed., 1974. Pp. 798, illustrated. University of Southern California Press, Los Angeles (U.S. \$36.00)

The second edition of *Lupus Erythematosus* is published eight years after the appearance of the first. Advances in knowledge and understanding of the disease are reflected by an additional 300 pages and a doubling of the references to nearly 3000. The scope of this multi-author book is comprehensive, ranging from historical aspects of the disease to a discussion of NZB and hybrid mice as experimental models, but the largest section, written by Dubois, concerns itself with clinical aspects and management of the disease.

The style of the second edition is distinctive. Apart from a few chapters that have been rewritten, the original chapters have been retained unchanged, supplements being inserted to cover more recent advances. In certain sections, particularly those dealing with the immunological aspects of lupus, this occasionally gives rise to paradoxes when statements made in the original chapter are corrected in the supplement which follows. The technique is claimed to reduce production time and has allowed the second edition to remain reasonably current in the face of a voluminous literature; the bibliography contains references to papers published up to August 1973.

The long section on general pathology by Cruickshank is well illustrated with photomicrographs and in the rewritten chapter on renal pathology by Pollak and Pirani the relationship of light microscopy to prognosis is clearly made, though the significance of positive immunofluorescence still remains uncertain. The clinical picture of SLE, written by Dubois, is well annotated with numerous case reports from his own series of 520 patients. Criteria for the diagnosis of SLE remain a thorny problem. Dubois critically discusses the A.R.A. criteria and concludes, 'the author believes the criteria only a fair guide. At the time of initial examination, when therapeutic decisions are needed, probably at least one-third of the patients do not fulfil the criteria'. The role of cytotoxic drugs in the management of SLE is discussed, though no clear policy emerges. The futility of using cytotoxics in patients with advanced renal failure is made, but Dubois does not believe that azathioprine is of value in SLE except in the treatment of chronic hepatitis. The answer to the problem can only emerge with a prospective survey.

The book is a valuable library addition and an essential work of reference for anyone studying the field of connective tissue disorders.

IAN GRIFFITHS