
Book Reviews

Lysosomes in Biology and Pathology, Volume 4

J. T. DINGLE and R. T. DEAN (Editors)

North-Holland/American Elsevier, Amsterdam, 1975, pp. 614, \$74.95

It is sometimes hard to believe that only 20 years have elapsed since de Duve tentatively proposed the name 'lysosome' for the new class of subcellular organelles he had discovered, and not much more than a decade since a Ciba Symposium placed lysosomes firmly on the map. And here is a fourth volume of the definitive work on lysosomes, only 2 years after the appearance of Volume 3, giving the series a total of well over 2000 pages to date.

The book contains solid and useful chapters on lysosomes of particular mammalian cells and tissues: platelets (J. L. Gordon), arterial wall (T. J. Peters), skeletal muscle (J. W. C. Bird), skin (G. S. Lazarus & V. B. Hatcher) and heart muscle (K. Wildenthal). For many years almost all that was known about lysosomes related to rat liver, and these chapters illustrate the recent effort to correct that distorted emphasis. They also demonstrate the involvement of lysosomes in the characteristic pathology of each tissue. In two chapters the book ventures far from the Mammalia, with a treatment of lysosomes in *Tetrahymena* (J. J. Blum & T. L. Rothstein) and a fascinating account of the mechanisms of carnivory in plants (Y. Heslop-Harrison). A good deal of scattered information is valuably brought together in chapters on lysosomal heterogeneity (M. Davies) and multiple forms of lysosomal enzymes (R. T. Dean). Other articles review lysosomal involvement in radiation injury (D. K. Watkins), nucleo-cytoplasmic communication (C. M. Szego) and the action of some hormones (L. J. Ignarro). There are two chapters on proteinases, the first on a histochemical method (R. M. Van Frank), the second a survey of proteinases in blood cells (R. J. Haschen), and G. Gregoriadis writes on the catabolism of glycoproteins, a subject that embraces lysosomal function but even more the associated phenomenon of selective pinocytosis. The shortest article (8 pages) is on the role of lysosomes in intracellular protein turnover; H. L. Segal economically sets the scene for what I believe will be a major growth area over the next few years.

The book is of high quality in every way. It is copiously illustrated and a pleasure to handle and read. The editors are to be congratulated on a most valuable addition to the series.

J. B. LLOYD

The Endocrine Function of the Human Ovary

V. H. T. JAMES, M. SERIO and G. GIUSTI (Editors)

Academic Press, London, 1976, pp. 519, £11.50

This book contains the proceedings of a symposium held during 1975 at the Postgraduate School of Endocrinology, Florence, Italy. The original lectures are included in the book as reviews covering most aspects of the physiology and biochemistry of ovarian function.

It is inevitable in a book of this type that there is a considerable overlap in the subject matter covered by the 40 chapters. Nevertheless they provide a fairly balanced coverage

Biology4Kids.com! This tutorial introduces lysosomes. Other sections include plants, animal systems, invertebrates, vertebrates, and microorganisms. Lysosomes - Little Enzyme Packages. You will find organelles called lysosomes in nearly every animal-like eukaryotic cell. Lysosomes hold enzymes that were created by the cell. The purpose of the lysosome is to digest things.