LYSOSOMES

IN BIOLOGY AND PATHOLOGY

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Preface

This volume, seventh in the series 'Lysosomes in Biology and Pathology', celebrates the major advances which have been made recently concerning the biosynthesis and intracellular transport of lysosomal enzymes. This is covered with reference to all the relatively well understood cell types in five chapters, each by major contributors to the field. Some other substantial developments in our understanding of lysosomes at a molecular level have also occurred, particularly with the realisation that lysosomal acidity is maintained not only by a Donnan equilibrium but also by active proton pumping. This development is succinctly and clearly reviewed by Reeves. New work on sugar and other carriers in the lysosomal membrane is also given extensive coverage in the book.

As in previous volumes there are sections of the book devoted to physiological and pathological effects of lysosomes. Here again some major advances, in the understanding of receptor-ligand interaction, endocytosis, recycling of receptors and membranes, and entry of endocytosed viruses and toxins into the cytosol, have occurred, and are amply covered. Finally, a diverse set of pathological aspects of lysosomes are covered ranging from storage disease in man and animals, to cystic fibrosis and cystinosis, by way of ageing and the eye.

As always the volume is a testament to the importance of the lysosome in many biological processes, and to the devoted application of its students.

JOHN T. DINGLE
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