

*The Enzymes of
Biological Membranes*

Volume 4

*Electron Transport Systems
and Receptors*

THE ENZYMES OF BIOLOGICAL MEMBRANES

Volume 1: Physical and Chemical Techniques

Volume 2: Biosynthesis of Cell Components

Volume 3: Membrane Transport

Volume 4: Electron Transport Systems and Receptors

The Enzymes of Biological Membranes

Volume 4 Electron Transport Systems and Receptors

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Preface

For a long time membrane biochemistry was almost synonymous with the biochemistry of electron transport and oxidative phosphorylation. Although the successful analysis of hormone receptors, active transport, and other membrane-linked metabolic systems displaced mitochondria from the focus of interest, the field continued to grow and its contributions to other areas of membrane biochemistry played a major role in their dramatic development. The eight chapters in this volume dealing with electron transport provide a concise, critical, and up-to-date picture of the problems and accomplishments of the field.

In the remainder of the volume a brief summary of selected receptor functions is presented. The relative novelty of this field naturally limits the factual scope of developments and encourages speculation. Nevertheless these reviews accurately reflect both accomplishments and deficiencies and provide objective guidance for future development. Several receptor functions omitted from these discussions will form one of the later volumes currently in preparation.

I have a deep sense of gratitude for the help provided by many in the preparation of these volumes. My thanks are due first to the authors not only for their contributions but also for their patient cooperation in the preparation of subject and author indices, which permitted early publication. The highly competent staff of Plenum Publishing Corporation, particularly Mr. Seymour Weingarten and Mr. Ralph Cutler, made the editorship an unexpectedly smooth and pleasant experience. Miss Helen Hartzog, Mrs. Lolita Quires, and my children, Mary Ann, Anthony, and Margaret cheerfully and diligently helped to cope with the seemingly unending stream of manuscripts and proofs. But most of all I wish to thank my wife whose help made all this in a very real sense possible.

St. Louis, Missouri
March, 1976

ANTHONY N. MARTONOSI

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