

# BOOK REVIEW AC L MADER

## HARPER'S BIOCHEMISTRY 22nd edition

by Murray, R. K., et. al.

720 pages

Appleton and Lange, Prentice Hall International, Inc.  
c 1990

P375.00

HARPER'S BIOCHEMISTRY is designed to provide medical and other health sciences students a concise and comprehensive overview of up-to-date biochemical knowledge for an understanding of the maintenance of health and of the cause and effective treatment of disease. The book's success in achieving its purpose is attested by its wide use as a textbook in medical biochemistry courses.

The contents are organized into a preface, six main sections, and an appendix. The preface includes a discussion of the importance of biochemistry to medicine, the methods used to study biochemical systems, and the properties of water and its role in health and disease. The separate chapter on water and pH stresses the role of water in health and disease. Five sections give a comprehensive treatment of the following areas: protein structure and function; metabolism of carbohydrates and lipids; metabolism of proteins and amino acids; gene expression; and hormone systems. Each section is further divided into chapters. Each chapter opens with an introduction and a discussion of the bio-medical importance of the topic. Inasmuch as the book aims to be concise, a summary or a problem set is not provided. However, a list of references for further reading is given. The last section covers various topics including several new additions such as water-soluble vitamins; fat-soluble vitamins, nutrition, xenobiotics, and diseases viewed from a biochemical perspective. The appendix which gives an interpretation of laboratory tests and their diagnostic applications is a useful reference in clinical situations.

The 22nd edition incorporates changes that make it more user-friendly than the previous editions. Discussions of relatively minor pathways are more concise, many illustrations are clearer, and informative declarative statements are used to introduce paragraphs that discuss a particular topic. For example, "The Intermediate Value for the Free Energy of Hydrolysis of ATP Compared to other Organophosphates has Important Bioenergetic Significance". In the previous edition this statement read, "The Free Energy of Hydrolysis of ATP and other Organophosphates". Clearly, the first statement is more effective in facilitating comprehension of the ideas presented in the paragraphs that follow:

HARPER'S BIOCHEMISTRY is a proven excellent textbook for a medical biochemistry course. For biochemists, workers in related fields and students who have had general biochemistry this book is suitable for a comprehensive review of current biochemical knowledge.

## BIOCHEMISTRY

by J. David Rawn

1105 pages

Neil Patterson Publishers, Carolina Biological  
Supply

c 1989

\$49.95

BIOCHEMISTRY is the product of David Rawn's vision of a top-quality, full color, introductory text on the subject. This book contains a wealth of beautiful illustrations, electron micrographs, computer graphics and photographs of molecular models. With the aid of a stereo viewer that comes with the book, many of the photographs can be viewed as a three-dimensional object in dark space. Understanding biochemistry requires a vivid imagination to create dynamic mental models of the biomolecules. The superb illustrations and photographs in BIOCHEMISTRY certainly facilitates this process.

With the vast current knowledge in biochemistry, Rawn's introductory text on the subject includes a wide range of topics organized into six major parts. The introductory part gives a brief presentation of the structure of viruses, procaryotic and eucaryotic cells and pauses with a "Welcome to biochemistry". A discussion of the properties of water and its role in biochemical systems is also given before an encounter with the biomolecules commences. Four areas of biochemistry are discussed substantially and constitutes four major parts of the book. These areas are: protein structure and function; metabolic pathways that generate energy; biosynthetic pathways; and gene expression. The book culminates in special topics on cell structure and function such as membrane transport; signal transmission and transduction; contractile proteins; and the cytoskeleton.

The organization and presentation of the contents makes BIOCHEMISTRY very user-friendly. The main text occupies only two-thirds of the width of each page leaving enough room for the reader's notes. Each major part is divided into chapters and further into manageable sections or subsections which present specific principles. Each chapter begins with an introduction and concludes with a summary, a set of problems and a list of references for further reading. Additional information of certain topics are given and are separated from the main text in boxes. Also noteworthy are the quotations from literature and references to history that add human drama to the play of biomolecules. "Energy is eternal delight", William Blake adds to a discussion of ATP.

Rawn's BIOCHEMISTRY is intended for use in an introductory course on the subject. In the Philippines, however, this book cannot be recommended for use as a textbook for general biochemistry courses because of its high cost and very limited availability. However, it is commendable addition to a college library's reference collection so that many students can enjoy its benefits.