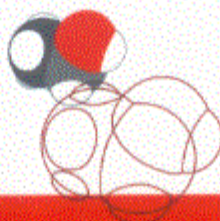


The Processes of Life

AN INTRODUCTION TO MOLECULAR BIOLOGY



LAWRENCE E. HUNTER



Recent research in molecular biology has produced a remarkably detailed understanding of how living things operate. Becoming conversant with the intricacies of molecular biology and its extensive technical vocabulary can be a challenge, though, as introductory materials often seem more like a barrier than an invitation to the study of life. This text offers a concise and accessible introduction to molecular biology, requiring no previous background in science, aimed at students and professionals in fields ranging from engineering to journalism—anyone who wants to get a foothold in this rapidly expanding field. It will be particularly useful for computer scientists exploring computational biology. A reader who has mastered the information in *The Processes of Life* is ready to move on to more complex material in almost any area of contemporary biology.

The Processes of Life covers the basics in all aspects of molecular biology, from biochemistry and evolution to molecular medicine and biotechnology. After introducing the culture of biology and the diversity of living things throughout history, the book describes evolution; “just enough chemistry”; universal processes of life and the underlying molecular structures; details of how proteins and nucleic acids carry out the processes of life; structures and processes in eukaryotes; the complexities of multicellular organisms; the anatomy and physiology of animals; fundamentals of human disease and its treatment; contemporary biotechnology, including genetic engineering; and bioethics and the implications for society of molecular biology’s discoveries.

LAWRENCE E. HUNTER, A FOUNDER OF THE INTERNATIONAL SOCIETY FOR COMPUTATIONAL BIOLOGY, IS DIRECTOR OF THE COMPUTATIONAL BIOSCIENCE PROGRAM AND OF THE CENTER FOR COMPUTATIONAL PHARMACOLOGY AT THE UNIVERSITY OF COLORADO SCHOOL OF MEDICINE.

“This is a must-read for any educated person who wants a clear and highly readable introduction to molecular biology.”

Elizabeth Hoffman, Professor of History and Economics, Iowa State University

“Larry Hunter has once again taken a complicated field and reduced it to a set of key principles and associated examples. His writing style mirrors his personality—enthusiastic, frank, and to the point. This book is a great way for those with a technical background to get up to speed on modern biology and the wealth of challenges it provides.”

Russ B. Altman, Professor of Bioengineering, Genetics, and Medicine,
Chairman, Department of Bioengineering, and Director, Biomedical Informatics
Training Program, Stanford University

