

Book Reviews

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GENETICS

GENE FUNCTION: *E. COLI* AND ITS HERITABLE ELEMENTS

by Robert E. Glass. 1982. University of California Press (2223 Fulton Street, Berkeley, CA 94720). 487 p. \$40 hardback, \$20 softback.

The field of molecular genetics is expanding so rapidly that even the most up-to-date book is quickly behind the times. So it is with *Gene Function*. Nevertheless, this reference book will be a useful addition to personal and school libraries. Glass presents a thorough picture of *E. coli* genetic mechanism in four major parts. The material is well organized and easy to follow. Part I is an introduction to terminology and general bacterial systems. Part II explores the mechanism of gene expression. Part III describes the genetic transfer systems such as by plasmids and bacteriophage, as well as some of the techniques used in contemporary research. Part IV is a discussion of the control mechanisms or gene regulation.

A liberal use of photographs, line drawings, data tables, and other visuals make the text material more un-

derstandable. In fact, the visuals are unusually clear and easy to follow.

The book will serve well as a reference or resource for students of high school through college. The lengthy bibliographies for each section are thorough and as up-to-date as a textbook can be. This book could be used in a course such as microbial genetics. It should be noted, for those who like a chronologic approach, that Glass chose not to deal with the historical development of the field.

David H. Ost
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DISCOVERING DNA

by N.A. Tiley. 1983. Van Nostrand Reinhold Company, Inc. (135 W. 50th Street, New York, NY 10020). 288 p. \$16.95 hardback.

The author has written a truly fascinating and unique book on genetics. It can serve as an excellent supplemental text for a first semester high school or college course in genetics or as the primary text in second semester or graduate level courses. However, this book would not be as useful as a primary textbook in a first semester course in genetics because of the amount of genetic terminology. Though there is a glossary, the text refers to many additional terms and definitions which may not be familiar to high school or first-year college students. But, once the terminology has been mastered one will readily see the author has done an excellent job of presenting the past, present, and future of genetic research.

Discovering DNA is written in three sections beginning with a brief history of genetics, followed by an excellent review of present-day genetic research, and finally closing with many controversies the new genetic research is generating at the molecular and species levels. Tiley sets the tone for the book in the introduction where she discusses the relationship between medical myths and modern medicine which is a result of the many advances in scientific research. In the three sections of the book Tiley has done an excellent job of presenting the reader with many sides of historical (Greek mythology) to present-day (recombinant DNA technology) issues in genetics.

This text book is clearly written, attractively presented and will readily hold the attention of the reader. In short, *Discovering DNA* should be rec-

ommended reading for instructors, students, and anyone concerned about the implications of the new genetic technology.

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MICROBIOLOGY

SCHNEIERSON'S ATLAS OF DIAGNOSTIC MICROBIOLOGY

by Edward J. Bottone, Roland Girolami, and John M. Stamm (eds.) 8th ed. 1982. Abbott Laboratories (Abbott Park, North Chicago, IL 60064). 80 p. \$2.75 softback.

Since its introduction in 1966, this atlas has been accepted as a reliable visual guide of pathogenic microorganisms by both students of microbiology and medicine and senior microbiologists. This latest edition should prove to be even more helpful as it has been enlarged in order to accommodate a section on selected rapid methods used in diagnostic microbiology and also includes new text material and photographs that describe a total of 66 different genera of bacteria, fungi, and parasites. The illustrations of parasites and fungi are particularly valuable since morphologic characteristics of these organisms are so important in identification. Thus, the atlas frequently can be used as a reference source. It cannot be considered a definitive reference, however, since the descriptive information given is minimal and incomplete for most species listed. With the exception of viruses, the atlas should be considered appropriate for those persons who require either an introduction or a review of the major human pathogenic microorganisms. If one considers the low cost of this atlas, coupled with the outstanding color illustrations and accompanying descriptive text, it is highly recommended for purchase.

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SOURCEBOOK OF EXPERIMENTS FOR THE TEACHING OF MICROBIOLOGY

by S.B. Primrose and A.C. Wardlaw (eds.). 1982. Academic Press (111 Fifth Ave., New York, NY 10003) for the Society for General Microbiology. 778 p. \$53.50.