

munological function are discussed. The question of whether the thymus affects other lymphoid tissue through a humoral control, or whether its primary function is to serve as a source for lymphoid cells for other tissues are treated in detail.

In both of these monographs the papers are well illustrated and well documented. Following each paper there is a transcript of the discussion by the participants in the symposium.

In addition to the obvious value of these monographs to workers in the subjects covered, this series should have an important role as a teaching tool for advanced undergraduates. The monographs will provide the students with related original sources describing current research. For use in conjunction with courses, it is a real advantage to have these papers in a single volume rather than for students to have to use papers scattered in a number of periodicals.

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**SEXUAL DEVIATION**, Anthony Storr, 139 pp., \$0.85, Penguin Books, New York, 1964.

A small paperback which attempts to inform the reader of various forms of sexual deviation in the classical meaning of the phrase. The author attempts to show that deviations can be looked at through the eyes of a biologist as well as that of the psychiatrist in arriving at calm and dispassionate views on the subject. The book is remarkably free from a great deal of technical language, but a high level is sustained throughout.

**PHYSIOLOGICAL PSYCHOLOGY**, Daniel P. Kimble, 184 pp., Addison-Wesley Publishing Company, Inc., Massachusetts, 1964.

A programmed book in a subject representing the new emphasis in psychology, and an emphasis of considerable interest to biologists. This book represents the real changes going on in psychology as the biology of nerve transmission, learning, and behavior, with all the new biochemical information, is gradually developed. It would pay the biology teacher to "take" this course to discover how much is new in this field.

The book is illustrated and the programming technique makes it valuable for the self-learner. Major emphases on neuron biochemistry, nerve transmission, EEG, patterns, reinforcement, biophysics of nerve transmission, etc. A stimulating and rewarding book.

#### Microbiology

**MICROBES: THEIR GROWTH, NUTRITION, AND INTERACTION**, Alfred S. Sussman, 124 pp., D. C. Heath and Company, Boston, 1964, and

*Teachers Supplement*, 92 pp.

One of the five BSCS Laboratory Blocks by a scientist skilled in his field of microbiology, experienced in teaching, and a capable author. This block provides an orientation into the taxonomy of the organisms, habitats, growth characteristics, nutritional requirements, ecology, and experimental procedures. The author carefully uses a variety of organisms rather than dwelling solely on bacteria. The illustrations are some of the best this reviewer has seen for the beginning student in the laboratory. Pages are provided for the recording of data. Appendices include an excellent bibliography, glossary, and formulae. The *Teacher's Supplement* provides detailed questions and quite important instructional material. All in all, this lives up to, and in some aspects surpasses, the quality of the previous blocks. A true "must" for all biology teachers.

**HANDBOOK OF BASIC MICROTECHNIQUE**, Peter Gray, 302 pp., \$7.95, McGraw-Hill Book Company, New York, 1964.

The title of this book is self-explanatory, for it is indeed a handbook, but it also may serve as a text in this field. The author has a previous publication which is more inclusive, so that this one represents his judgment as to the most important ideas and information to be grasped by the worker in biology. Microscopy, photomicrography, slide preparation with specific examples and exercises, techniques for certain tissues, and valuable appendices. It is a most valuable book for the biologist and student of biology.

**MICROBIOLOGY AND PATHOLOGY**, 8th Ed., Alice Lorraine Smith, 699 pp., \$8.50, C. V. Mosby Company, St. Louis, 1964.

This book has stood up well through its seven previous editions. The format, illustrations, and writing are just the ticket for the readership intended. It is unusual in that it combines microbiology and pathology which means that a little less than half the book is devoted to descriptions of pathological conditions which have little relationship to microbiology. However, both approaches are well integrated so that it is not really just two books bound together. It is aimed at medical technician and nursing classes and should prove very useful for these audiences.

**TOPLEY AND WILSON'S PRINCIPLES OF BACTERIOLOGY AND IMMUNITY**, 5th Ed., Graham S. Wilson and A. A. Miles, 2 vols. 2563 pp., \$35.00, Williams and Wilkins, Baltimore, Md., 1964.

This treatise is a storehouse of well written and well documented information about bacteriology with an emphasis on the relationships between microorganisms and man. Since it deals

with bacteriological principles, it is a useful reference for microbiologists whose primary concern lies outside medicine, as well as for those in medical fields.

Each volume is divided into two parts. The first part of volume one deals with general bacteriological principles—structure, physiology, growth, resistance, chemotherapy, immunity, variety, and the like. The second part of the first volume deals with systematic bacteriology. After two chapters on methods, there are chapters on different taxonomic groups and their characteristics. This section should be useful to students who want to supplement *Bergey's Manual*, but they must be prepared for the inevitable differences in taxonomic interpretations.

The first part of the second volume is devoted to the discussion of the principles of infection and resistance. The second part is entitled *The Application of Bacteriology to Medicine and Hygiene*. This part consists of a thousand pages. In it there is a discussion of a large number of bacteriological and viral diseases giving their epidemiology, diagnosis, treatment, and other pertinent information. There are also chapters dealing with bacteria in air, water, milk, etc.

There is an extensive index (not included in the total pagination) for *both* volumes at the end of *each* volume. This duplication of the index is an interesting device that should be helpful in handling these heavy volumes.

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CELL DIVISION, Daniel Mazia, 36 pp., Subscription \$4.00 yearly, D. A. Heath and Company, Boston 16, Massachusetts, 1964.

The author of this BSCS pamphlet has an unquestioned knowledge of the intricacies of this still misunderstood aspect of life. He skillfully weaves in modern knowledge concerning cell division, but one has the feeling that sometimes he leaves out a great many details which he has so well described in other articles, such as in *Scientific American*. While there are many diagrams, there are no elaborate ones to show precisely what happens to various parts of the cell during this process. Also, while there are some electron photomicrographs, there are some other amazing ones published elsewhere, which have not been used. For some reason, the author dwells quite a bit on aspects of microscopy, although certainly this is an important feature of any study of cell division. However, in this context, this does not seem to be appropriate for the space to which he devotes.

IMMUNOLOGY AND SEROLOGY, 2nd Ed., Philip Carpenter, 456 pp., \$8.50, W. B. Saunders Company, Philadelphia, 1965.

The first edition of this excellent introductory text for undergraduates was published in 1956. The format of the first edition has been retained in the new book and the content has been expanded evenly by about 35%. The number of useful (and recent) references at the end of each of the 14 chapters is likewise up by 35% and the number of instructive figures and tables by 52%. Unlike the first edition, each of the chapters in the new text has a concise summary; this feature is very helpful to the beginning student. Each edition contains a collection of approximately two dozen experiments in serology; new items in the second edition include instruction in electrophoresis and gel diffusion. The author states that, in the second edition, he has attempted to add recent developments, while maintaining the introductory character of the first edition. He has succeeded admirably in this endeavor.

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ESSENTIALS OF PRACTICAL MICROTECHNIQUE, Albert E. Galigher and Eugene N. Kozloff, 484 pp., \$10.00, Lea and Febiger, Philadelphia, 1964.

Essentially, this is a thorough revision of the original book by the late Mr. Galigher. The title tells the story, but it is more than an elementary text for students of microtechnique. It is really a handbook for those biologists involved in extensive microtechnique work. The first few chapters take care of the textbook function as they give a general view of the subject. The bulk of the book is devoted to informational material for the technician or the biologist involved in microtechnique. A most valuable laboratory volume.

SLIME MOLDS AND RESEARCH, BSCS Pamphlets, No. 13, C. J. Alexopoulos and James Koevenig, 36 pp., \$4.00 per year, D. C. Heath and Company, Boston, Massachusetts, 1964.

Throughout this BSCS pamphlet, the reader is constantly beset with the questions which still surround the subject of slime molds. There are some beautiful illustrations, both of taxonomic importance as well as helpful in the culturing of them. Also, throughout, there is an emphasis on student investigations. In short, the authors have written a pamphlet containing a great deal of information, but one which should stimulate students into further study.