readers, inspire the more enquiring, and even make a few future immunologists.

In this outstanding book it is difficult to pick on faults or give suggestions for improvement. But with an eye to the next edition, the section on cellular immunity might be expanded somewhat with advantage; the allusions to the immunological aspects of tuberculosis need certain changes of emphasis in the light of recent knowledge; the general definitions of allergy, etc. (on p. 287) could be tidied up. One wonders whether the commendable desire not to clutter up the book with references (restricted at present to a list of suggested further reading), merely giving names in the text in the manner of some encyclopaedias, has gone too far.

Although Humphrey and White have had medical students primarily in mind, there is no doubt that their book should have a much broader appeal; on the one hand to practising clinicians and on the other to biochemists, microbiologists, geneticists and general biologists. With the expansion and continual re-tooling of immunological research, the number of investigators requiring at least to know the language of this branch of science must be increasing.

P. D'ARCY HART

DIAGNOSIS OF PARASITES

Microscopic Diagnosis of the Parasites of Man

By Dr. Robert B. Burrows. Pp. xii + 328. (New Haven and London: Yale University Press, 1965.) 15 dollars; 105*s*. net.

THE author of *Microscopic Diagnosis of the Parasites of Man* is head of the Parasitology Section of the Wellcome Research Laboratories in Tuckahoe, New York, and the text of the book certainly demonstrates his wide experience of the difficulties of diagnosis of parasitic infections. The book has, he says, been written to help the inexperienced technician or the student to broaden his knowledge and it can be said at once that the text of the book will do this. Part 1 of the book deals with infections that are diagnosed by examination of the faeces, urine and sputum. It contains a valuable chapter on routine examinations and staining, and another on techniques for concentrating the eggs or larvae of helminths or the cysts or trophozoites of Protozoa, in such a manner that they are not altered by the treatments given to them. A useful chapter on the artificial cultivation of Protozoa precedes chapters on miscellaneous helminthological techniques, on the oral and genital flagellates, the oral and intestinal amoebae and other intestinal Protozoa. The intestinal helminths, Trematoda, Cestoda and Nematoda, are next dealt with, before Part 2 considers infections diagnosed by examination of blood and tissues and the techniques used to deal with these. An appendix deals with the parasites of dogs and cats and the book concludes with an author and a subject index. Each chapter concludes with a valuable bibliography, and these references to the literature will enable the reader to extend his knowledge still further.

While the text will be found invaluable, it cannot be said that the illustrations reach the high standard attained by other publications of this kind. The author rightly says that many technicians find it difficult to compare a line drawing with a specimen seen through the microscope and he has endeavoured to make this easier by using photographs of helminths throughout and elsewhere by using drawings. Unfortunately, in several examples, the material supplied by the author has not been clearly reproduced. Most of the figures bring out the very different sizes of the objects figured, and the magnifications of these are given. This is a valuable feature of the book, because it largely overcomes another difficulty that many students have—that of appreciating how big or, often, how very small are the objects they are looking for. Fig. 1, for example, assembles in one illustration the comparative sizes of the eggs, larvae and cysts of some representative parasites, and this figure is clearly reproduced. Some other figures, on the other hand, are not. Fig. 8, for example, shows only pale ghosts of the unstained trophozoites of such important species as *Entamoeba coli* and *Entamoeba histolytica* and other intestinal amoebae. Unsatisfactory also is the photograph of *Demodex canis* in Fig. 100. With these and a few other exceptions, the illustrations are effective and useful and the failure of those mentioned is clearly not the fault of the author, to whom the sympathy of the reader will surely be extended. In other respects the book is attractively produced. The author is to be congratulated on its text, which will make the book a useful addition to the library of any laboratory concerned with the diagnosis of parasitic infections of man.

G. LAPAGE

AN INTRODUCTION TO MOLECULAR GENETICS

Microbial and Molecular Genetics

By Prof. J. R. S. Fincham. (Modern Biology.) Pp. x + 149. (London: English Universities Press, 1965.) 15*s*. net.

DURING the past few decades many major advances have been made in the new science of molecular genetics, and the flood of original contributions in this field continues unabated. Apart from one or two advanced texts and symposia on this subject there is, to my knowledge, no introductory account. *Microbial and Molecular Genetics*, the most recent addition to the "Modern Biology" series, is intended to provide just such an introduction for biology students.

There are two obvious ways of treating the material dealt with in this book. The first takes as its starting point the physico-chemical structure of the genetic material (DNA) and from this develops the concept of the gene as a unit of structure, mutation and function. The second is the historic approach leading from genetic analysis to DNA. In choosing a path somewhere between these two, Prof. Fincham has had to sacrifice a certain degree of continuity in his text so that the student may find little to connect the material of one chapter with the next.

A short introduction which describes briefly the basic cellular processes of mitosis and meiosis is followed by a clear account of the structure and replication of DNA. It is perhaps just a little unfortunate that the manner of presentation does not lay greater emphasis on the evidence on which the identification of DNA as the genetic material rests, since historically the significance of genetic transformation with DNA was only slowly recognized, yet this and other evidence provide one of the cornerstones of molecular biology. In a chapter on mapping the genetic material, the methods of genetic analysis in a micro-organism with a sexual cycle are clearly explained and illustrated with data from Neurospora. The three principal mechanisms of genetic exchange between bacteria; conjugation, transduction and transformation are described and the way they can be used to construct genetic maps is explained. Finally, a brief and non-technical account is given of the genetics of bacteriophage. The chapter on mutation contains a good account of the molecular basis of chemical mutagenesis. In the chapters on gene action and its regulation, the principal concepts are clearly presented and here, as elsewhere, the author makes frequent and well-chosen use of experimental data from the literature to clarify each step in his argument. A final chapter is devoted to an account of present-day knowledge of episomes.

The text is written without reference to source material, but each chapter is provided with a carefully selected list