B and T cells in immune recognition

Edited by G. E. ROELANTS and F. LOOR. 1977. Chichester: John Wiley and Sons, Ltd. Pp. xviii and 504. £18-50.

This book consists of a miscellany of reviews on a range of topics in immunology. It covers the development of the lymphoid system, the heterogeneity of T and B cells, the migration and life span of lymphocytes, the regulatory role of macrophages and the mechanism of cell-mediated cytotoxicity. Some of the chapters are particularly good, especially Bretscher's lucid exposition of his theory on the role of cell collaboration as part of a self-non-self discriminatory system. There is an article with mathematical statistics on diseases associated with particular histocompatibility antigens and a detailed technical article on the factors that affect in-vitro antibody production. Loor has contributed an excellent summary on the chemistry and structure of the lymphocyte membrane.

Klaus puts forward the detailed arguments that memory cells differ from virgin cells in the density rather than the affinity of their receptors. The book is dated 1977 and contains many references up to 1975 and a few up to 1976. Its review style makes it somewhat difficult reading and it is more suitable for the research worker than for the general reader seeking an introduction to the mechanisms of immune recognition.

G. L. ASHERSON

General microbiology. The student's textbook

By P. HUNTER. 1977. St Louis: C. V. Mosby Company. Pp. ix and 366. £8-05.

This is a very comprehensive book about microbiology in general, and includes periodic self-evaluation questions. Unfortunately, its very comprehensiveness makes for shallowness. For example, viruses are dealt with in five pages and their growth in three, which is good going these days! Some of the sizes given for viruses need a little updating, e.g., 12 nm for poliovirus (p. 47) in a diagram showing a distinctly icosahedral mumps particle. Nevertheless, the book contains a great deal of information and a lot of clear pictures. It ranges over all aspects of the life of micro-organisms, including growth, morphology and biochemistry. It needs to be used in conjunction with a course and, while it is good value at the price, and to be recommended to students, it is nevertheless somewhat patchy and uneven in its coverage.

A. P. WATERSON

Immunology. A programmed text

By J. W. STREILIN and J. D. HUGHES. 1977. Boston, Mass.: Little, Brown and Co. Pp. xi and 337. US\$15.70.

This text is presented in a format which, although now accepted in some areas of scientific and medical teaching, is somewhat unusual in immunology. Basic immunology is covered in the form of self-instructional frames conveying 671 "informational quantals", ranging from the molecular and cellular basis of the immune response to the biosynthesis of antibody molecules and their interaction with antigen and complement. The in-vivo aspects of immunology are covered in sections on the anatomical basis of the immune response, immediate hypersensitivity, cell-mediated immunity and tolerance.

The factual content of the book is well balanced for basic, but not clinical, immunology, and, except for slight differences in terminology and definitions, is compatible with immunology teaching within the UK.

Although the format of the book is well able to convey the facts and phenomena of immunology, it does not lend itself to the development of concepts and strategies. It is analogous to visiting the 2000 rooms of Versailles without being shown that they, with the roof, comprise a splendid building. Accordingly, this book is likely to be a useful adjunct to the formal teaching of immunology, but cannot be considered to be a viable alternative. The potential use of such a book for revision and reinforcement is lessened by the poor definition in the contents list of any but the broadest areas of immunology; immunogenetics, for example, could not be found except by a manual search of the frames.

Unlike more conventional text-books, the real value of this book can be assessed only in the context of learning, and not of teaching.

L. HUDSON