ranges and quality control in a general section on the assessment of results.

The material presented is of a high standard and will be of particular value to postgraduates studying for higher specialist qualifications in chemical pathology, particularly those who do not have access to formal courses of instruction of this type. No doubt other more senior colleagues will wish to refresh their memory when reviewing the existing methodology in their laboratories or undertaking work in new fields.

There is no doubt that this volume does represent good value for money as the material presented is not easily found within one cover. Nevertheless one would prefer not to have replication of some subjects such as quality control under different headings. It is hoped that this book will be bought for all libraries in hospitals that train biochemists and senior registrars in chemical pathology.

M. G. RINSLER

Handbook on Hospital-associated Infections. Volume 1. 'Occurrence, Diagnosis, and Sources of Hospital-Associated Infections.' Edited by Willson J. Fahlberg and Dieter Groschel. (Pp. x + 138; Sfr 45.00.) New York and Basel: Marcel Dekker. 1978.

The press release accompanying the review copy of this book explains that it is the first of a 10-volume series that will deal with various aspects of hospital-associated infection. The next three volumes, already in preparation, will be *The Mode of Spread of Hospital-associated Infections*, *Problems in the General Hospital Population and Specific Measures of Control*, and *Hospital-associated Infections in the Compromised Host*. The International Advisory Board for the series comprises three members, including the series editor, from the USA and one each from Chile, Japan, Sweden, UK, and USSR. This first volume is intended to be '... useful to students and professionals in all phases of health care, including individuals in service departments (such as central services, housekeeping, dietary, and laundry), undergraduate and graduate nurses, medical students and residents, members of the medical staff, laboratory staff, and hospital administrators and board members—a formidable task.

The first chapter is a brief but excellent review of hospital infection from ancient times to the present; but Semmelweis is mentioned only incidentally and Colebrook not at all. The other four

chapters, too, are first class but their contents do not correspond very closely with their titles: thus, chapter 2 (clinical recognition) includes much discussion of incidence, causes, control, and treatment; in chapter 3 (laboratory diagnosis) the series editor sticks to his brief, but chapter 4 (therapy) includes material on predisposing conditions and diagnosis, while the author of chapter 5 (sources) also discusses incidence and control. The misplaced material is excellent in itself but will not be easily located by the enquirer because much of it is not indexed.

In the chapter on laboratory diagnosis, the importance of quality control is rightly stressed. There are six tables indicating the tests that should be available for different types of clinical work; they are more likely to be useful to the general pathologist than to the one-subject specialist. Many if not most bacteriologists would not agree with the indication that, for the investigation of wound infections, anaerobic culture is 'desirable' rather than 'essential'. In the discussion on the prophylactic use of antibiotics two possibly valid examples are given, but the mandatory use of penicillin to prevent gas gangrene after operations on the thigh is not mentioned; and there is no mention of the treatment of anaerobic infections with metronidazole.

Of the 83 references to other literature, all but three are to American sources; it is to be hoped that the international advisory panel will encourage a more international content in the later volumes of the series.

R. BLOWERS

Renal Pathology in Biopsy. By H. U. Zollinger and M. J. Mihatsch. (Pp. xiii + 684; illustrated; \$85.00.) Berlin, Heidelberg, New York: Springer-Verlag. 1978. This is an English edition of a Swiss-German work, and E. Castagnoli is to be congratulated on the elegant translation. The book represents a detailed personal record of 20 years' experience in examination of renal biopsies combined with an exhaustive critical review of the literature up to 1978. The first 12 chapters deal with technique and with the general pathological changes that may occur in different parts of the nephron. The remaining 18 chapters are concerned with a detailed description of specific renal diseases, including neoplastic, metabolic, and vascular disorders as well as the various forms of glomerulonephritis. Immunopathological and ultrastructural features

are recorded in detail, and the illustrations are of exceptionally high quality. Considerable attention is paid to pathogenesis and clinicopathological correlation. The authors have produced a magnificent piece of scholarship which will prove a valuable reference volume for all interested in renal disease.

M. S. DUNNILL

Automated Immunoanalysis. Part 1. Volume 7. 'Clinical and Biochemical Analysis'. Edited by R. F. Ritchie. (Pp. xii + 333; illustrated; \$34.50.) New York and Basel: Marcel Dekker. 1978.

This book is the first of two volumes devoted to the application of automation to the immunochemical measurement of antigens. Nephelometry alone is covered in this volume, the second volume considering radioimmunoassay and haemagglutination.

The first chapter describes the optical and mathematical background to light scattering in detail and with clarity. The application of instrumentation to light scattering measurement is discussed though we must await the next volume for a detailed consideration of the new generation of discrete nephelometers. Dr. Ritchie then goes on to describe, with his usual attention to detail, the automated precipitin analysis he has pioneered over the last few years. The effects of polymers on enhancing immunochemical reactions are well described in an important chapter containing a wealth of very useful information for workers using immuno-precipitin methodology. Chapters cover the kinetics of the immunoprecipitin reaction, a comparison of the various immunochemical methods currently in use, and the important topic of reference materials for protein analysis. A number of proteins are then singled out for particular attention: albumin with a discussion of clinical value and analytical problems, immunoglobulins with an excessively detailed description of measurement by automated immuno-precipitation, IgA with the emphasis on screening for genetic deficiency, and IgM with a useful highlighting of the particular problems in analysing this protein. Transferrin is covered in more detail than may be merited by a protein of relatively little clinical interest. Low-density lipoprotein measurement and the investigation of fibrinogen degradation products are discussed. These topics are of importance as they represent attempts to monitor more complex protein systems. The possibilities

for the measurement of low molecular weight haptens such as drugs, by inhibition of immunoprecipitation, are put forward in the last chapter.

In general, this is a readable and useful book, particularly for workers using nephelometry whether for routine clinical assays or for research. It provides an important insight into the history and background of what must surely become one of the most important techniques in protein quantitation.

J. T. WHICHER

Immunologic Monitoring of the Transplant Patient. Edited by C. R. Stiller, J. B. Dossetor, N. R. StC. Sinclair, and F. T. Rapaport. (Pp. xix + 364; illustrated; £25.00.) New York, San Francisco, London: Grune and Stratton. 1978.

This book is the hard-cover edition of the *Proceedings of the First International Symposium on Immunologic Monitoring of the Transplant Patient* held in London, Ontario in 1977. The editors are to be congratulated on the way in which they organised all the material—the contributions of more than 200 authors. The papers cover three major topics. Under the heading 'Mechanism of alloresponsiveness' are also grouped papers on the genetics of HLA, the mechanism of immunoregulation, the immune response to transplantation antigens, and the factors affecting the outcome of the graft in kidney transplantation. The section on 'The methods for the measurement of pretransplant sensitization' is divided into cell-mediated responses, antidonor antibody responses, and tests of immunologic competence. In a summing up at the end of this section it is pointed out that a positive complement dependent cytotoxicity (CDC) test for donor T lymphocytes is a contraindication to kidney transplantation and that a positive lymphocyte-mediated cytotoxicity test is a relative contraindication. The role of B cell antibodies remains to be elucidated but a positive CDC for donor B lymphocytes is not a contraindication to renal transplantation. The section on 'The monitoring of the post transplant immune responses' deals again with the cell-mediated antibody-mediated aspects and with the measurement of immunosuppression. In the summary of this section, it is pointed out that immunologic monitoring is now an established part of the management of renal allograft recipients. In a concluding paper on

'Perspectives in patient monitoring', it is admitted that prediction of graft rejection will not by itself lead to better survival but that understanding the pathology of a process has often proved an essential step along the path towards its prevention. The book can be recommended to clinical pathologists for browsing.

SYLVIA D. LAWLER

Recent Advances in Cancer Research: Cell Biology, Molecular Biology, and Tumor Virology. Edited by Robert C. Gallo. Volume I (Pp. 263; illustrated; £51.75.) Volume II (Pp. 227; illustrated; £46.50.) Florida: CRC Press. 1978.

The full title of these two volumes indicates their scope and also the viewpoint of their editor. In a foreword he regrets the absence of chapters on cell-hybridisation experiments, cytogenetic studies in human neoplasia, clonal aspects of neoplasia, the biochemistry of the cell cycle, and growth-promoting factors. Nevertheless most of the recent fundamental work that has led to a better understanding of oncogenesis is here with a major emphasis on tumour virology. That is justified by the intricacies and implications of cell-virus interactions, by knowledge of proviruses, oncogenes and the inter-species transmission of tumour viruses; all of these are well described, and the different strands of evidence for viral involvement in human tumours are analysed. Perhaps the best summary is from the foreword, which refers to a 'complex picture which suggests that if the viral-related information is etiologically relevant there is no one 'human cancer virus' or human leukaemia virus. Rather, by integrating into the host DNA, a variety of RNA tumour viruses alter control of cellular genes important to growth and differentiation'.

But it is not all concerned with virology. Volume 1 also contains excellent introductory chapters on other aspects of carcinogenesis, on Regulation of Leukocyte Differentiation and Leukaemia as a Disorder of Differentiation (Moore), and on Conformational Control of Cell and Tumour Growth (Folkmann). The price is high, but these volumes are valuable sources of knowledge to those seeking to understand the nature of cancer.

H. E. M. KAY

Current Topics in Immunology Series No. 9. HLA and H-2 Basic Immunogenetics. Biology and Clinical Relevance. By Hilliard Festenstein and Peter Démant. (Pp. xii + 212; illustrated; £9.00.) London: Edward Arnold. 1978.

British Medical Bulletin. Volume 34, No. 3. September 1978. **The HLA System** (Pp. xvii + 111; £2.00.) London: H. K. Lewis. 1978.

The HLA antigens and the associated products of the adjacent genes—probably hundreds of genes in about one-thousandth of the whole genome—form a system of great complexity and exceptional biological importance. This has been reflected in a spate of publications on the subject.

The HLA System—Vol. 34, No. 3, 1978 of the *British Medical Bulletin*—brings up to date the inventory and mapping of its components, methods of typing, matching for transplantation, and the association of HLA-types with different diseases. The issue is edited by W. F. Bodmer, who also contributes, with J. C. Bodmer, an admirably clear section on the evolution and function of the HLA system.

A similar clarity is achieved by Festenstein and Démant through a good introduction on transplantation immunity and by describing also the analogous H-2 system of the mouse.

Both these publications can be recommended to those who wish to keep up to date with this fast-moving topic. For the general pathologist the shorter and cheaper BMB issue should be adequate: those who need to know the basis of immunology in greater detail—research-workers, transplanters, geneticists, etc—may prefer 'HLA and H-2'.

H. E. M. KAY