Bare outlines of medicine

Molecular and Cellular Mechanisms in Disease. Vol. 1: Pp. xv+1-604+xxvi. Vol. 2: Pp. ix+605-1116+xxvi. By Julian L. Van Lancker. (Springer: Berlin and New York, 1976.) DM362, \$148.50.

AFTER some random reading here and there in the two volumes which make up this enormous monograph, I began to experience an extraordinary sensation of *déjà vu*. It was easy to trace this sensation to my memory of an earlier, equally enormous monograph on cellular pathology. The relationship between the two may be likened to that between the very 'with it' grandson of a highly respectable grandfather, with the grandson remaining very much a pillar of the family firm. Every generation of pathologists seems to produce one who cannot resist the temptation of trying to put down in one tome all knowledge that could possibly pertain to the subject, presumably in the hope of making it more comprehensible. This is in the tradition of Virchow and Cohnheim. In their day one man could still know enough facts in all the very different facets of pathology with sufficient accuracy to think about their interrelationship fruitfully. That has long since become impossible.

This book, therefore, demonstrates the case against a multi-topic textbook written by a single person. An almost unbelievable erudition is incapable of preventing errors of fact and distortions in interpretation, usually as a result of oversimplifications, which are serious enough to vitiate any supposed advantage arising from the unity of one man's outlook. In the arts a wide-ranging survey by one percipient mind may be singularly stimulating; thus, the *Outline of History* by H. G. Wells is for many an unforgettable intellectual experience. That this is still possible in the natural sciences is shown by such books as Jacques Monod's *Chance and Necessity* or Richard Dawkin's *The Selfish Gene*. But these are books of ideas, not compendia of information; and therein lies the difference between monographic success and failure.

In the preface the author says: "The book cannot be comprehensive because too little is known about the mechanisms of disease, and no-one could hope to master all available knowledge." So the puzzle is why the attempt was made to do just that. The comprehensiveness of the attempt is shown by the chapter headings: cellular sources of energy; determination of cellular specificity; inborn errors of metabolism; malnutrition; calcium and phos-

phorus metabolism; iron and bile pigment metabolism; blood coagulation; hormones; alterations of body fluids and electrolyte metabolism; cellular death and degeneration; blood lipids in arteriosclerosis and hyperlipidemia; radiation; inflammation; immunopathology; regeneration, hypertrophy, and wound healing; cancer.

The only way in which someone with much else to do can assess such a book is by reading carefully sections in which his own knowledge is as accurate as possible. Thus, the chapters on blood coagulation, hormones, blood lipids in arteriosclerosis and hyperlipidemia, and inflammation contain much useful, standard information, but any serious student would have to be provided with accurate, up-to-date reviews to correct impressions produced by the book. For example, many of the statements on page 410 are erroneous in fact or interpretation; on page 767 consideration of increased capillary permeability is entirely morphological and non-quantitative, and ignores all physiological and quantitative descriptions; on page 771 there are still discussions of "leukotaxine" and "exudine" which might have been assumed to have been buried long ago;

and on page 775 and beyond, the account of the prostaglandins is necessarily already out of date. Indeed, such a book is bound to be out of date by the time it appeared. The references seem to be mainly to the 1960s although some reach as close to the present as 1973 and 1974; and there are references to truly historical papers. There is no harm in that—on the contrary, students nowadays know much too little of the history of their subjects—as long as it does not result in underemphasis of modern developments.

According to the preface, the book is addressed to students of disease whether they are clinicians or researchers. "Hopefully, it will contribute to making medicine more of a science, guide the investigator in unexplored territory, and help the practitioner respond to the request of Macbeth, '... find her disease/And purge it to a sound pristining health'." It seems sad to have to conclude that this book will not achieve what the author hopes of it.

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Contemporary immunology

Manual of Clinical Immunology. Edited by N. R. Rose and H. Friedman. Pp. xxv+932. (American Society for Microbiology: Washington, August 1976.) Hardback \$20; paperback \$16.

THE burgeoning of immunology in the past twenty years has caused alarm to granting bodies and to its increasingly confused protagonists. The grass roots of this monster growth are to be found in methods of vaccination, blood group typing and the various serodiagnostic and classificatory methods of microbiology. Since the last war the successive discoveries of cell-mediated immunity, immunological tolerance, the recirculation of the lymphocyte, a function for the thymus and the fine structure of immunoglobulin molecules have effectively nourished the somewhat desiccated root disciplines and led to the rather top-heavy state of contemporary immunology.

The present volume is a blend of applications of the new immunology with up-to-date versions of some of the older approaches. It is sad that relatively little space is given to epidemiological studies, to vaccination technology and strategy, to the special problems of immunological

staging of cancer patients, to the quantitation of lymphocytes by reference to their origins and to parasitic diseases. It may be, however, that some of these topics are already well covered in other large books. The emphasis of the book is avowedly practical, and as a manual it is remarkably useful even if not comprehensive.

The book is split into eleven major sections covering fields such as "Transplantation immunology", "Immunoadassays", "Autoimmune diseases" and "Humoral immunity". There is a welcome section on the organisation and development of clinical immunological facilities. Each section consists of a number of papers by specialists in the field. It is claimed that enough information is given about techniques for an experienced technologist to carry out a procedure which was new to him (or her) without further search of the literature. As far as I can judge the chapters are clearly and concisely written with snags and deficiencies exposed to view.

It would be nice to see a book like this with the pages detachable on metal rings and with a visible index if it is really intended as a laboratory manual. The book is, however, good value.

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